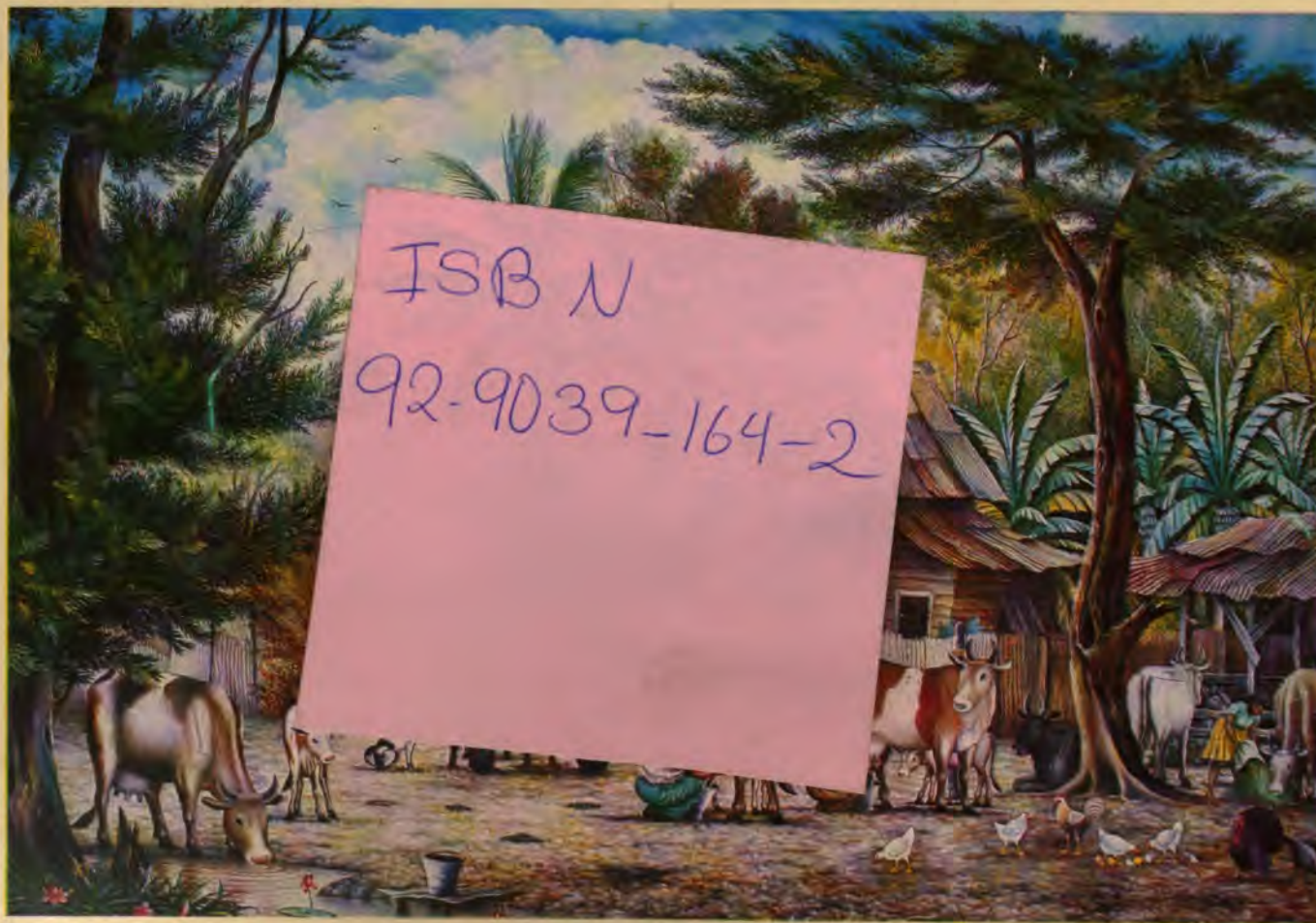


# ANNUAL REPORT 1989



ISBN  
92-9039-164-2

INTER-AMERICAN INSTITUTE FOR COOPERATION ON AGRICULTURE

11512 - 10

Centro Interamericano de  
Documentación e  
Información Agrícola  
U. N. A. S. 1991  
**IICA — CIDA**

1. ...  
2. ...  
3. ...

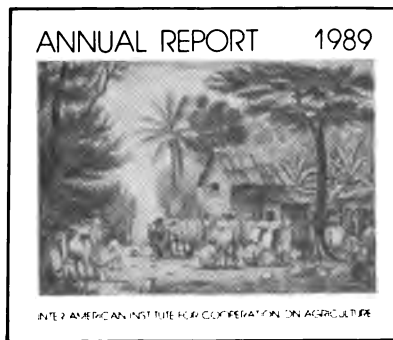


# ANNUAL REPORT 1989

INTER-AMERICAN INSTITUTE FOR COOPERATION ON AGRICULTURE

00001264

**COVER:** Detail of an oil painting titled "Milking in a country farmyard" by Leon Goring (Guyana), one of the country-level selections in the 1989 IICA Award for Painting, co-sponsored by the Commission of the Quincentennial of



the Discovery of America: Encounter of Two Worlds. Artists from all the countries where an IICA Office is located participated in the contest, the jury of which will make its final decisions after the printing of this Annual Report.

The cover reflects aspects of rural development and the small-farm economy, one of the central elements of the Plan of Joint Action for Agricultural Reactivation in Latin America and the Caribbean (PLANLAC).

IICA  
E14

Inter-American Institute for Cooperation on Agriculture, San Jose (Costa Rica)  
Annual report 1989 – San Jose, Costa Rica : IICA, 1990.  
284 p.

ISBN 92-9039-164-2

1. IICA – Annual Report. I. Title.

AGRIS  
E14

DEWEY  
630

## Foreword

*I am pleased to present the 1989 Annual Report, in compliance with the rules of the Inter-american Board of Agriculture (IABA) and the Executive Committee of the Institute. The Report provides an up-to-date view of the different facets of the Institute's activity, and reflects the broad mandate received by its General Directorate.*

*Within this context, 1989 was a year of intense work, highlighted by the approval of the Plan of Joint Action for Agricultural Reactivation in Latin America and the Caribbean (PLANLAC) by the ministers of agriculture of the region.*

*The PLANLAC should be seen as the culmination of a dynamic, participatory process of discussion and agreement among the Member States and other international agencies, and arose as the result of agreements reached during the Ninth Inter-American Conference of Ministers of Agriculture (ICMA), held in Canada in 1987.*

*The countries' unanimous support for the new Plan is clearly reflected in the Communiqué of San Isidro de Coronado, which calls for priority to be given to the preparation of subregional proposals that strengthen the integration process currently under way, through the solution of common problems.*

*As a result of the new mandate, IICA made certain organizational and functional changes in order to equip it to effectively implement the PLANLAC. More emphasis has been placed on the promotion, design and execution of projects and the securing of external resources, to be carried out in conjunction with the countries of the different subregions (represented by the corresponding institutional fora) and specialized institutions which have shown an interest in participating in the Plan. The key to the Plan's success lies in this concept of shared responsibility.*

*During the process to design and implement the Plan, the Institute evolved a new institutional profile that emphasizes the implementation of multinational actions designed to boost the efforts undertaken by the governments, with support from the IICA Offices in their countries. Equally important is the emphasis given to developing topics of strategic importance for the modernization of the agricultural sector. In this sense, intersectoral relations, the conservation of natural resources and the environment, training and institutional development, to mention just a few, take on new importance.*

*Further conceptual analysis of these topics must take into account the extraordinary changes occurring in international economic and political relations. Changes in eastern Europe, the unification of the European Economic Community in 1992, Japan's consolidation as an industrial and financial power, and the end of the East-West conflict have set the scene for a new international role for Latin America and the Caribbean, full of challenges and opportunities.*

*It is our belief that a modern, diversified agricultural sector must be given an important role to play in new development models for Latin America and the Caribbean and, at the same time, agriculture must establish its place on the world scene. In this way, agriculture can make a substantial contribution to strengthening the democratic systems of the region.*

*This Report summarizes the principal activities carried out by IICA during the period under review.*

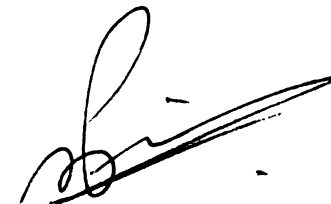
*Chapter 1 outlines the strategic guidelines of the PLANLAC at both the hemispheric and subregional levels.*

*Chapter 2 describes the multinational actions carried out by each of IICA'S five Programs.*

*Chapter 3 outlines the technical cooperation activities carried out by the Institute in its four geographic areas of operation and indicates how they fit in with the 1987-1991 Medium Term Plan.*

*Chapter 4 discusses external relations developed with a view to securing extra-quota resources for executing programs and projects identified as priorities by the countries.*

*Chapter 5 details IICA's management structure and provides information on the Institute's human resources and its financial standing.*



*Martin E. Piñeiro*  
*Director General*



# Chapter 1

***Conservation of the environment, its rational exploitation and support for renewable natural resource projects are some of the priority areas for joint action of the PLANLAC.***



# Plan of Joint Action for Agricultural Reactivation in Latin America and the Caribbean (PLANLAC)

## Background

### *The Mandate of the Fifth Regular Meeting of the Inter-American Board of Agriculture (IABA)*

IICA's 31 member countries approved the Plan of Joint Action for Agricultural Reactivation in Latin America and the Caribbean (PLANLAC) during the Fifth Regular Meeting of the Inter-American Board of Agriculture (IABA), held in Costa Rica from October 9-12, 1989. This meeting was the culmination of a long process of consultation and a search for consensus which began in 1987 in Canada with the issuance of the Ottawa Declaration during the Ninth Inter-American Conference of Ministers of Agriculture (ICMA).

The political decision regarding the role agriculture could play in economic reactivation, as well as the importance of regional integration in a new strategy for development, demanded a proposal for action. The PLANLAC was the mechanism chosen.

Pursuant to the Ottawa Declaration, and with support from a broad group of international organizations, headed by representatives of the governments of Latin America and the Caribbean, a hemisphere-wide dialogue was initiated which led to the generation of ideas and proposals for action, culminating in the approval of the PLANLAC and the decision to implement same.

Prior to the Fifth IABA, the final contents of the Plan were approved by IICA's Executive Committee at its Ninth Regular Meeting. From June 12-15, 1989, representatives of Argentina, Barbados, Colombia, Costa Rica

*The Plan of Joint Action for Agricultural Reactivation in Latin America and the Caribbean (PLANLAC) is a proposal designed to turn into concrete actions the political consensus achieved on the important role agricultural modernization can play in reactivating the economies of Latin America and the Caribbean. This initiative came about at a time when the prevalent development models in the region were proving to be inadequate, and the economic crisis demanded new strategies. Actions to be carried out under the Plan of Joint Action will take place at the hemispheric and subregional levels. It calls for a new cooperation strategy to support national efforts aimed at defining and executing agricultural policies conducive to economic and social recovery. The PLANLAC was approved by the 31 Member States of the Institute during the Fifth Regular Meeting of the Inter-American Board of Agriculture (IABA) in October 1989, and was endorsed by the Nineteenth General Assembly of the Organization of American States (OAS) in November 1989.*

Dominican Republic, Ecuador, El Salvador, Grenada, Mexico, Paraguay, Trinidad and Tobago, and the United States of America gathered to study the work the Institute had done on preparing the PLANLAC, in light of the mandate of Ottawa.

It was stipulated that the execution of the programs and projects already approved would be the responsibility of the member countries and of technical cooperation and financial organizations willing to participate. Once authorization has been granted, the Member States and international organizations may recommend new programs and projects and update the contents of the PLANLAC.

As part of this participatory process, the strategies for the four Areas – Central, Caribbean, Andean and Southern – were discussed and approved within the respective subregional fora: the Council of Ministers of the Regional Council for Agricultural Cooperation in Central America, Mexico, Panama and the Dominican Republic (CORECA); the Agricultural Council of the Andean Pact and the Commission of the Cartagena Agreement; the ad-hoc meetings of the ministers of agriculture of the Southern Area; and the special meeting of the Standing Committee of Ministers Responsible for Agriculture (SCMA) of the Caribbean Community (CARICOM).

The implementation of the PLANLAC will be overseen at the hemispheric, subregional and national levels. Overall follow-up will be provided by the Inter-American Conference of Ministers of Agriculture (ICMA), the IABA and IICA's Executive Committee. The Institute must submit appropriate reports and provide coordination in following up on the Plan.

The Fifth IABA also agreed on the need to promote the voluntary and "extra-quota" financing of the PLANLAC and the agricultural sector in general through different actions. In this regard, a process has been undertaken to work more closely with IICA's observer countries and other developed countries, and with international technical cooperation organizations, in order to obtain support for the process of agricultural reactivation and resources that will facilitate the execution of projects agreed upon in the Plan.

The technical cooperation and funding organizations that contributed to the preparation of the Plan are being asked to continue to provide assistance during its implementation, by allocating resources to projects under their responsibility and to other tasks the different fora may ask them to become involved in.



For their part, the government delegates pledged to seek more public and private funding for the agricultural sector in general, and to seek counterpart resources for the Plan's programs and projects.

The ministers of agriculture also charged the Director General with organizing general or subregional meetings with donors during the first half of 1990. These meetings should focus on the subregions which find it particularly difficult to secure external resources, the Caribbean, for example.

They also stated that special attention should be given to existing mechanisms such as the Inter-American Development Bank (IDB), and asked the Bank to consider redistributing its resources in such a way that the agricultural sector and the Caribbean Basin Initiative would be given higher priority. Furthermore, the countries charged the Director General of IICA and the subregional fora with disseminating the contents of the PLANLAC.

During the Fifth Regular Meeting of the IABA, the ministers expressed great enthusiasm for the PLANLAC. Upon its approval, the Plan became an important mandate and an instrument for change and improvement at IICA itself. The approval of the PLANLAC also had an effect on the technical cooperation IICA provides, and created a new institutional profile in terms of the emphasis given to strategic thinking vis a vis the traditional view on short-term technical cooperation.

In late 1989, and in response to the mandate of the IABA, the Institute made certain changes in its organization and operations with a view to implementing the Plan. These included establishing new priorities for action as of 1990 and redefining the role of the IICA Offices in the member countries, including new responsibilities for certain units. Strategies are being designed for disseminating the ideas, programs and projects of the PLANLAC, as are others aimed at securing external resources, with support from the countries and in conjunction with subregional integration fora.

The PLANLAC was endorsed by the Nineteenth General Assembly of the OAS, held in Washington, D.C. from November 13-18, 1989. During the Assembly, the call to meeting was issued for the Tenth ICMA in Spain, which will be held simultaneously with the Sixth IABA, in response to a generous offer from the government of that country. The meeting will provide the Institute with a valuable opportunity to evaluate progress being made in implementing the PLANLAC and to define new initiatives for the development of agriculture in the region. It will also enable ministers from the Americas and their European counterparts to discuss important topics such as the opening of the European Common Market in 1992 and the changes taking place in eastern Europe.

### *Characteristics of the Plan of Joint Action for Agricultural Reactivation in Latin America and the Caribbean (PLANLAC)*

The PLANLAC, as its name implies, is a plan of action designed to revitalize and modernize agriculture in the region and which includes specific recommendations, programs and projects. The analysis was based on existing studies, such as the FAO document "Potentials for Agriculture and Rural Development in Latin America and the Caribbean," the principal background document used in drawing up the Plan.

The preparation of the Plan was a participatory process to generate ideas and proposals for action aimed at giving agriculture a new role in economic development strategies. Member States, technical cooperation and funding organizations, specialists and distinguished international experts took part in the process. Existing fora and mechanisms were strengthened and new ones were proposed, all of which will serve as technical and political units that will provide support throughout the implementation of the Plan.

The goal of the PLANLAC is to respond to specific problems through regional and subregional joint actions

among countries. It focuses on issues and problems shared by the countries that must be dealt with through joint action. Proposals for joint action consistent with the Plan's strategies are identified.

There is no quantification of goals or other approaches normally followed in a planning exercise, as this would not be realistic in this case. However, once implementation has begun, aspects such as objectives and expected results will be considered in greater detail.

The PLANLAC is divided into two geographic scopes of action: regional and subregional –pursuant to one of the recommendations of the Ninth ICMA– which makes it possible to reconcile analytical and operational problems. This facilitates the identification of concrete actions for specific needs. Although there are problems shared by the countries of Latin America and the Caribbean as a whole, there are also marked differences among the subregions.

The Plan of Joint Action implies a new strategy for cooperation in support of national efforts to define and execute agricultural policies that contribute to economic and social recovery. This new approach to cooperation recognizes that the region has both the maturity to identify its priorities and the political determination to engage in joint efforts, which makes it possible to define and take maximum advantage of available human and institutional resources.

Under this new scheme of cooperation, the region should also make the most of possibilities for cooperation with industrialized nations, especially Canada and the United States of America. Both are signatories of the Ottawa Declaration and have worked with the countries of Latin America and the Caribbean in developing the ideas and proposals of the PLANLAC.

This relationship should contribute to coordinating efforts to remove the external barriers to financing and trade that seriously hinder agriculture from achieving a new role in development. The community of interests achieved in recent GATT negotiations, the replenishment of capital by the Inter-American Development Bank (IDB), and the

support for special trade agreements for the subregions indicate that consensus is being achieved on these two important issues. With regard to technical cooperation, there is great potential for joint efforts in the area of technology, the training of human resources, agricultural health and others.

In summary, the PLANLAC aims to foster regional integration, while recognizing the possibility of establishing truly hemispheric strategies on technical cooperation, investment and trade negotiations with third parties.

The Plan proposes bringing together a broad range of technical and financial cooperation organizations, with a view to facilitating an organized channelling of external aid to agricultural reactivation and development in the region. This should contribute to coordinating the joint actions agreed to by the countries of Latin America and the Caribbean, supported by external cooperation for the region. With this in mind, an effort was made during the drafting of the Plan to strengthen or create mechanisms to coordinate efforts both among the countries and also between the countries and the various multilateral organizations. This can be viewed as a step forward in improving the coordination of external aid for agriculture in the region. A key element in the execution of the Plan will be to continue to strengthen and improve these mechanisms.

## The Major Challenges

### *The Conceptual Framework*

The economic difficulties faced by the countries of Latin America and the Caribbean today are the result of many different factors. Beginning in 1980, several unfavorable external circumstances affected the region, the most important of which were the rise in interest rates, the sudden reversal in traditional patterns of financial flows between LAC and the rest of the world, and the reduction in volumes and prices in external trade, associated with the contraction of the world economy and the continued protectionist practices of the industrialized countries.

The negative turn in the external situation clearly exposed the limitations of the policies prevailing during the three preceding decades, during which considerable economic growth had been achieved. These deficiencies, which several countries of the region had been trying to correct before the crisis became evident, led the countries to disregard opportunities for increasing exports, preventing them from taking full advantage of their production potential, and aggravated structural problems, such as the problem of poverty, despite the sustained economic and social development experienced by Latin America and the Caribbean as a whole during those years.

As the ministers of agriculture pointed out at Ottawa: "... To deal with this crisis, we have to make profound changes in the traditional concepts concerning economics and development that have prevailed in our countries for many years."

A new proposal should provide a solution for erroneous assumptions held in the past, such as those pitting agriculture against agroindustry, production for the domestic market against that for export, and economic development against social progress. It is essential that the countries develop a new outlook that will enable them to take on the challenges of the near future with optimism.

Within this context, agricultural modernization with equity, aimed at taking full advantage of the region's potential as regards natural, institutional and human resources, and which ensures the sustainability of the systems, should become a fundamental element of a new strategy for agriculture.

The revitalization of agriculture as the focal point for the development of the rural areas and as the basis for a process of competitive reindustrialization -through agroindustrial development- will thus play a central role in a strategy that will enable the countries to profit from the lessons learned in the past and, above all, those resulting from the difficult experience that began in 1982.

The viability of a new development strategy will depend to a great extent on the evolution of current plans to alleviate the external debt situation and the steps already taken to liberalize international trade in agricultural products, since no regional action can in and of itself resolve the problems posed by external constraints on financing and trade. However, it must be recognized that in order to successfully deal with these extremely difficult external and internal situations, the LAC countries must make an effort of their own.

The key areas in which changes must be made concern economic policy and investment, international economic relations, modernization of the public agricultural sector, technological development strategies, the promotion of agroindustrial development and the role of the small-farm economy. This will involve internal effort, which to a large extent will be the result of decisions taken at the national level, and which must be strengthened through integration and joint action at the regional and subregional levels.

In brief, the thoughts of the ministers of agriculture, as expressed in the Ottawa Declaration, guided and inspired the preparation of the PLANLAC. Its proposals are based not on some "utopian optimism," but rather on a thorough analysis of a situation undergoing profound changes, and the conviction that a favorable impact can be made on this situation.

### *Hemispheric Programs and Projects*

Bearing in mind some of the central elements of agricultural revitalization identified in the preceding sections, and the possibilities for joint action, the PLANLAC includes several hemisphere-wide programs. The terms "hemisphere-wide" or "hemispheric" should be understood, in contrast with the term "subregional," as proposals that involve all or a significant number of countries from the different subregions.

The first of the hemispheric programs proposes the creation of an IICA/IDB technical unit to support the

countries in the preparation of agricultural sector programs, which, in turn, will serve as the basis for loan requests. The Unit would operate within the structure of IICA, its financing being shared by IDB and IICA.

Also proposed is a program to strengthen institutions and develop human resources, the objective of which is to promote the development of public institutions involved in the formulation, execution and evaluation of policies, programs and projects aimed at agricultural reactivation and development. It will also involve direct technical cooperation actions, training, exchanges and studies. The IDB will participate in the first stage of its execution.

A hemispheric program of institutional strengthening for international trade negotiations and for the promotion of exports seeks to develop information systems and negotiating skills within the countries' agricultural sectors, and to enhance their capacity for coordinating their efforts, in order to allow for a smoother flow of trade in agricultural and agroindustrial products and facilitate the drawing up of joint strategies whereby the region's bargaining position can be used to gain access to international trade.

Another of the hemispheric programs will seek to promote reciprocal cooperation, international relations, institutional modernization and the strengthening of research and technology transfer. Its objective will be to strengthen, modernize and integrate the research and agricultural transfer capabilities of the countries and the region, in order to enable them to meet the demands of agricultural reactivation. National research and technology transfer organizations, international agricultural research centers, regional research and development centers, and donor organizations will participate in the program.

The objectives of a hemispheric program of joint action for the development and utilization of agrobiotechnology are to develop and disseminate theoretical and methodological bases for the formulation and execution of policies, strategies and programs to upgrade biotechnology capabilities; to create the legal and operational basis for cooperation and regional integration

actions in the field of technology; and to create horizontal cooperation mechanisms.

The gathering, conservation and utilization of genetic resources is the concern of yet another program, the goal of which is to contribute to achieving sustained agricultural growth, without harming the environment, by providing support to efforts to coordinate the search for and collection, characterization, conservation and utilization of genetic resources of use to agricultural research programs.

Another hemispheric program of joint action for the financing of technological innovations in agriculture promotes innovations in inputs and in the processing of agricultural products. It also seeks funding to support joint technological development by public and private agricultural research agencies and provides a forum for promoting the discussion of advantages offered by and methods followed in cooperation efforts between official agricultural research and private sector agencies.

The goals of a multinational project on institutional policies and systems for rural development are to strengthen and update public administration systems responsible for rural development actions, according to criteria of decentralization and participation of small-farmer organizations and non-governmental organizations (NGOs).

Another of the programs deals with the modernization of plant protection and animal health systems to increase productivity and facilitate agricultural trade. Its objectives include the creation of exchange mechanisms at the hemispheric level, in order to enable the countries to become familiar with and adopt the latest technological advances in the diagnosis, prevention and control of diseases and pests, and the timely dissemination of information to facilitate international trade in agricultural products.

The final program focuses on rural agroindustrial development. Its goals are to organize, encourage and strengthen rural agroindustry in the countries of Latin

America and the Caribbean, and to improve the effectiveness of development policies and programs in this subsector. Specific objectives are to strengthen and improve existing food-related agroindustry; to promote new rural agroindustries, as means of improving the living conditions of small-scale farmers; and to strengthen the institutional systems dealing with rural agroindustry, with a view to harmonizing and encouraging its development.

## The Subregions and their Specific Needs

The agricultural reactivation strategy and the identification of actions to be carried out jointly rely heavily on the options offered by integration processes and subregional political fora.

These processes and fora reflect specific geopolitical situations and evidence a willingness to act jointly in a wide variety of fields, above and beyond mere technical cooperation. In this regard, they offer an opportunity for undertaking programs in the field of agriculture that fit in with circumstances, objectives and agreements in the broader context of economic and social progress.

The exercise of drawing up subregional strategies for agriculture brought to light the diversity of LAC agriculture much more clearly, and avoided reliance on generalizations.

The most important criteria used for grouping the countries together were their participation in subregional integration processes and political fora and their geographic proximity. These criteria are especially appropriate when it comes to generating commitments, in terms of agreement and execution, for joint action. That is why they were used instead of others such as similarities in economic structure or relative economic development.

The subregional approach allows for other considerations, among them the fact that plans should take into account the differences that exist between individual



*Agricultural reactivation will mean a brighter social and economic future for all LAC countries.*

countries within a given subregion; and that since some cooperation schemes are not restricted to a specific subregion, agreements between subregions can be made.

The subregional divisions used in PLANLAC are as follows: the Central subregion, which includes the countries of the Central American isthmus, the Dominican Republic and Mexico; the Caribbean subregion, which includes Antigua and Barbuda, Barbados, Dominica, Grenada, Guyana, Haiti, Jamaica, Saint Lucia, Saint Vincent and the Grenadines, Suriname, Trinidad and Tobago; the Andean subregion, which includes Bolivia, Colombia, Ecuador, Peru and Venezuela; and the Southern subregion, which includes the countries of Argentina, Brazil, Chile, Paraguay and Uruguay.

The PLANLAC was studied in the following fora: the Board of the Cartagena Agreement (JUNTA), in the case of the Andean Area; the Caribbean Community (CARICOM), for the Caribbean Area; the Permanent Secretariat of the General Treaty on Central America Economic Integration (SIECA) and the Regional Council for Agricultural Cooperation in Central America, Mexico, Panama and the Dominican Republic (CORECA), for the Central Area. An ad hoc consultative mechanism was established at the vice-ministerial level for the Southern Area.

The strategies for each of the four subregions were drawn up following an analysis of the problems and potentials of each. These guidelines reflect a certain view about the role which the sector might play in economic development over the next few years, but do not represent a commitment to consensus in national policies which go beyond other integration agreements currently in force in some of the subregions.

In light of the strategies outlined above, the subregional fora identified areas in which multilateral support would be useful for national efforts. These are areas in which analysis and agreements can be reached on certain policies, in particular those pertaining to integration processes, horizontal cooperation and exchange of information and experiences, joint negotiations vis-a-vis third parties, and technical and financial cooperation.

On the basis of the analysis of the preceding two points, concrete proposals were made which include programs and projects; financial mechanisms to implement programs and projects; and institutional mechanisms to identify, formulate, execute and follow up on new projects, as well as readjust the PLANLAC to emerging needs in each subregion.

## Andean Subregion

The preliminary version of the Plan of Joint Action for Agricultural Reactivation in the Countries of the Andean Subregion was approved by IICA's Executive Committee during its Ninth Regular Meeting, and the final version of same was approved in September 1989, in Decision 251 of the Commission of the Cartagena Agreement.

Its objectives are to consolidate the integration of the agricultural and agroindustrial sectors in the Andean subregion; increase production at low cost per unit, while preserving natural resources and the environment; expand demand for products from the subregion; replace imports and increase exports; develop the small-farm economy, enhancing its production capacity and guaranteeing it greater access to the benefits of development; and promote the consumption of foodstuffs from the subregion by the most vulnerable segments of society.

Eight basic areas were identified as the bases for a new strategy for the Andean area. The first five are geared towards increasing the supply of agricultural and agroindustrial products and marketing. The other three deal with aspects related to demand, in terms of food assistance and the development of the small-farm economy, and to institutions, e.g., modernization of the public sector.

Regarding agricultural and agroindustrial supply and marketing, consideration was given to macroeconomic and sectoral incentives to agricultural production, in order to correct the distortions that have prevented agriculture from developing fully, which generates fiscal deficits; the need to



develop technology, in order to increase the long-term food supply, with full attention being given to the management and conservation of natural resources; the needs of the small-farm economy and the possibilities for making use of international research networks.

Another important aspect of the strategy concerns the linkages between agriculture and industry, with special emphasis on employment, rural development and the participation of the rural population. It also focuses on natural resources and the environment, with emphasis on the wealth and potential of resources for fisheries, and the Andean highland and humid tropics systems.

Regarding foreign trade, recommendations were made to efficiently substitute imports and to increase agricultural and agroindustrial exports, bearing in mind the negotiations being carried out under the General Agreement on Trade and Tariffs (GATT) and with the Latin American Integration Association (ALADI).

The Plan for the Andean subregion provides for cooperation or joint action in areas which include more than one aspect of the strategy, such as institutional strengthening in agricultural policy; agricultural trade and integration; generation and transfer of agricultural technology; agroindustrial development in the rural environment; natural resources and the environment; plant protection and animal health; promotion of small-scale farming and rural development; and direct food assistance.

The mechanisms for executing the PLANLAC in the Andean subregion include securing additional funding, to supplement regular resources available.

To obtain additional funds, and as part of the Rural Development Program –one of the eight included in the strategy– the creation of an Andean Rural Development Fund (FONADER) was recommended and approved by the presidents of the subregion at a summit meeting held on the Ecuadorian island of Galapagos in December 1989. The resources initially assigned to the Andean Rural

Development Fund will serve as seed capital, since the basic idea is to establish a mechanism for obtaining public and private resources from national and international sources.

Furthermore, Decision 251 of the Commission of the Board of the Cartagena Agreement, approved in Lima, Peru on September 12, 1989, charged the JUNTA and other international and regional agencies with negotiating resources for the implementation of the specific projects called for in the programs of joint action.

Regarding institutional mechanisms for following up on the Plan, the Cartagena Agreement offers a general framework for harmonizing economic and social policies in areas of integration agreed upon by member countries. The aforementioned Decision 251 stipulates that the Board of the Cartagena Agreement will keep up to date on progress made in implementing the Plan of Joint Action, and that it will publish periodic reports and submit them to the Agricultural Council and the ministers of agriculture. The Board will also cooperate with and support IICA and other international organizations in the formulation and implementation of specific projects designed to ensure the success of the programs of joint action in the Andean Subregion.

## Caribbean Subregion and Haiti

In the case of the Caribbean, the PLANLAC has adopted the proposals of CARICOM's Agricultural Sector Programme (ASP), approved by the Standing Committee of Ministers Responsible for Agriculture (SCMA).

Priority was given to the revitalization of agriculture through full utilization of integration mechanisms pertaining to production and trade in the Community and to the strengthening of institutions, in order to enable the public and private sectors to acquire and generate technology, investments, training and joint marketing.

The coordination, at the subregional level, of funding and technical assistance, particularly as regards non-traditional

donors, is another aspect of the strategy which is designed to encourage private investment in priority areas. Finally, efforts will focus on improving the coordination and execution of projects, in order to improve the application of the scarce resources available and facilitate the obtaining of additional funding.

Proposed subject areas, in addition to those included in CARICOM's Agricultural Sector Programme, are cooperation and trade with Latin America; intersectoral linkages of agriculture, stressing agroindustry and tourism; transfer of technology to producers; research and information on biotechnology and integrated pest control; and management of research, including an evaluation of the impact of research.

Also proposed for action are management and conservation of natural resources; improvement of services pertaining to the supply of machinery, irrigation equipment, pesticides, fertilizers, spare parts and credit; and research on habits and attitudes of producers, training of producers and strengthening of their organizations.

Although programs of joint action were not identified, since these have already been agreed upon in the ASP, the strategy for the Caribbean includes a package of 14 initial projects which IICA will execute. One of these will provide support for the Caribbean Agricultural Research and Development Institute (CARDI).

The mechanisms that will be used for executing the PLANLAC in the Caribbean subregion include obtaining additional funding and follow-up activities. In order to improve the flow of financial and technological resources to priority areas, the CARICOM Agricultural Sector Programme proposes identifying and making contact with non-traditional donors, and analyzing new mechanisms for financing subregional projects.

Also called for is a donors' conference, which would be presided over by the SCMA, and the configuration of missions to identify donor institutions, to be headed by a ministerial subcommittee.

With the support of the CARICOM secretariat, the ministerial subcommittee will provide coordination. Furthermore, in order to facilitate its work and achieve effective coordination and decision-making between meetings of the SCMA, a proposal was made to create a Regional Agricultural Coordination Committee bringing together the ministerial subcommittee, the directors of agencies in the area in charge of specific projects, the secretariat of the Organization of Eastern Caribbean States, the Caribbean Association for Industry and Commerce, IICA and FAO to provide technical support for a significant number of projects. Donor and other agencies may be invited to its meetings.

Regarding follow-up of the Plan, the SCMA has requested that all projects and activities concerning agriculture carried out by the Organization of Eastern Caribbean States (OECS), IICA and FAO be brought together under the CARICOM Regional Programme for the Agricultural Sector. Consequently, the institutional mechanisms proposed for the Programme are the same as those proposed for the PLANLAC.

### *Haiti: A Special Case*

The strategy for agricultural reactivation and development in Haiti reflects the socioeconomic conditions of this Caribbean nation, one of the poorest and most underdeveloped in the world. A considerable amount of resources will be needed to reactivate its agriculture, and only modest results can be expected in the short and medium terms.

The strategy for Haiti aims to recast the role of the small farmer –and the rural population in general– in society, at both the national and regional levels, and includes six components. The first involves designing a policy that will allocate more funds for investment in agriculture, along with an economic policy which emphasizes the creation of services for agriculture, to be provided by the rural population itself, and a human resources development

policy whose objective would be to create specialized associations through "outreach" training programs, and to increase the number of independent workers.

Other components of the strategy include an information policy to disseminate scientific and technical advances; facilitate discussion among small farmers, and between small farmers and the power structure; and promote research, beginning with the construction of research infrastructure, currently nonexistent. Lastly, it calls for a regional cooperation policy to strengthen links between Haiti and other countries of the Americas, especially with Haitian communities abroad.

The PLANLAC projects in Haiti and those of the CARICOM Agricultural Sectoral Programme are initiatives which generate multiplier effects and are suited to coordinated joint action with other countries and institutions in the region. One of these projects concerns institutional strengthening and rural extension services and another will deal with technology generation and transfer for agricultural development.

## Central Subregion and Mexico

The strategy proposed for the Central and Caribbean Areas views agriculture as a central element in the economic growth of individual countries and of the subregion, and will take advantage of the potential of the small-farm sector as a production resource in the rural environment and as a source of domestic demand. It also gives agriculture a key role in exports and as a generator of rural employment in a rural development scheme that is not limited to primary production.

Other aspects to be promoted are efficient agroindustrial development, in order to generate employment and allow for access to the international markets; and food security for the entire population, taking advantage of the options for intraregional trade, in the context of efficient economic integration.

The strategy also seeks to improve linkages both in the processing of agricultural goods and in the production of inputs for agriculture. It will strive to avoid ecological degradation and the risks involved in the indiscriminate adoption of new technologies.

Also proposed is incorporating agriculture into the reactivation schemes of the countries belonging to the Central American Common Market, placing great importance on the identification of national policies and joint actions, as well as on improving national credit, technology generation and transfer, and marketing systems.

Other components of the strategy refer to increasing production efficiency and enforcing agricultural health regulations, in order to improve the countries' international competitiveness. The improvement of public systems for policy-making and implementation, and the establishment of systems that enlist the full participation of private enterprise and non-governmental organizations are also addressed.

The PLANLAC programs for the Central Subregion cover 13 subject areas previously identified by the countries of the area. Among these are food security; support to small-farmers and rural development; development and diversification of exports; natural resources, ecology and the environment; development of fisheries; harmonization of subregional policies and 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; and agricultural credit.

These subject areas reflect a number of activities generated by the Inter-institutional Group for the Agricultural Sector (GISA), created by the vice presidents of the Central American countries. A considerable portfolio of initial projects for joint action already exists.

Mechanisms for the execution of the PLANLAC in the Central Area include the United Nations Special Plan for

Economic Cooperation for Central America (PEC), the support of the European Community, and that of several agencies for international cooperation. The proposals set forth in PLANLAC will be submitted through CORECA to these bodies for funding.

The project on Technical Assistance for Agricultural Development in Central America (RUTA II) represents joint action on the part of the United Nations Development Programme (UNDP), the World Bank, the International Fund for Agricultural Development (IFAD) and IICA, designed to help the countries draw up national and subregional projects on modernization, exports and food production. It should provide a suitable mechanism for gaining access to external funding, provided primarily by the agencies financing the project.

The supervision of the PLANLAC, in the case of the Central Area, will be the responsibility of CORECA, which is the highest-level sectoral political forum in the area. It will set priorities and select projects, and follow up on the Plan, with support from international technical cooperation, financial agencies and specific mechanisms established in Central America.

In addition, there are in Central America several intersectoral coordination mechanisms of the highest political level, such as the Meeting of Vice Presidents and the joint meetings of ministers and vice ministers of agriculture, of the economy and of integration, through which PLANLAC can gain access to extra-sectoral support. The recently established Joint SIECA-IICA Unit will provide an important link with these fora.

### *Mexico: A Special Case*

The reactivation of the agricultural sector is a prerequisite for the strengthening of the Mexican economy, and calls for a rethinking of overall economic policy with a view to restoring its strategic position as a dynamic axis of development. The principal objectives of achieving food

independence and eradicating poverty make it necessary to rethink the role of agricultural development, the relative weight given to the sector in the overall economic system, and the nature of agriculture's ties with the other sectors.

The principal challenge is to deactivate the mechanisms which work, in this two-tiered agriculture, to increase concentration, while at the same time to create the socioeconomic conditions needed to bring the large sectors of small farmers, who so far have been seriously neglected, into the mainstream of rural development.

The international context gives momentum to the strategy for the reactivation of the agricultural sector. Traditionally, agricultural and rural development plans and programs have been viewed from a purely domestic standpoint, without regard for the influences exerted by external variables.

Two areas appear to be especially important from the international standpoint: external agricultural trade and scientific-technical cooperation, both of which offer great potential for cooperation.

There are three basic areas for programs of joint action between Mexico, Central America and the Caribbean. They are: participation in cooperative agricultural research programs; participation in cooperative programs concerning biotechnology; and the program to develop agricultural trade between Mexico and the rest of LAC.

Other possible areas for joint action between Mexico and the region are the cooperative programs on plant protection, livestock research, animal health and the forestry sector.

The Agreement of San Jose, signed in 1980 by Mexico, Venezuela and the countries of the subregion, and operated through an agreement with the Central American Bank for Economic Integration (CABEI), is a suitable mechanism which should be fine-tuned to allow for its use in connection with joint projects in the agricultural and the agroindustrial sectors.

## Southern Subregion

Strategy guidelines for agricultural reactivation in the Southern Area emphasize the need to increase the share of agricultural products in world exports, through increased efficiency and diversification of production, and improved negotiating power aimed at gaining access to the markets.

They also seek to increase overall and seasonal supply within the subregion, based on national redistribution guidelines, price stabilization objectives and anti-inflationary programs. For agriculture to assume a new role, it will be necessary to design national policies to combat rural poverty, which could be facilitated with a successful strategy to modernize export agriculture; formulate suitable macroeconomic policies and strengthen sectoral participation in the formulation of such policies at the national level. Greater compatibility of such policies at the subregional level will be encouraged.

The objectives of these subjects of joint action are, among others, to strengthen the role of the agricultural sector in reactivating and developing the economies of the countries, and strengthen their common production capabilities, both through joint actions and through policies that support national efforts and increase the subregion's capability and importance on world markets.

Two other objectives are: to enhance the efficiency of agricultural and agroindustrial production by introducing economies of scale both through integration measures and through alliances for dealings with third parties, and to increase the bargaining capacity and relative power of the Southern area countries on world markets, through permanent alliances built around the development of the agricultural sector.

Another is to contribute to solving structural problems in the economies of the agricultural sectors of countries, by gradually harmonizing policies related to incentives, technological development, agricultural marketing and institutional strengthening.

The preliminary subjects for joint action included in the PLANLAC for the Southern Area are: comprehensive management of shared natural resources; transfer of technology and research on common problems pertaining to the management and conservation of natural resources; training of human resources; strengthening and expansion of joint programs on research and transfer of technology; and consolidation of comprehensive technological packages, entailing coordinated subregional production, for the dual purpose of substituting imports and enhancing the competitiveness of the group as a whole on the international level.

Other areas for action concern strengthening joint programs on plant protection and animal health; programming subregional agroindustrial production, coordinating requirements as regards the quantity and quality of primary inputs; strengthening of alliances for negotiations in world fora; and harmonizing standards aimed at protecting consumers, in keeping with the requirements of the major world markets.

Also called for are plans to develop agroindustrial complexes that operate at the subregional level, in order to enhance international competitiveness and improve the quality of processed foods for domestic markets; establish joint ventures for the marketing of products aimed at new markets niches; and formulate anticyclical subregional policies through the harmonization of the supply of and demand for seasonal products (i.e., vegetables, fruits, dairy products, meat).

Joint action will also be taken to strengthen the ministries of agriculture in areas related to integration or subregional action, establish permanent working groups to follow up on agricultural policies in the Southern area countries, and strengthen other institutions in the public agricultural sector.

The PLANLAC includes an initial package of projects for the Southern Area, and establishes mechanisms for their execution. Regarding the securing of funding, the vice

ministers of agriculture, meeting in Santiago, Chile in March 1989, studied the possibility of creating a mechanism to encourage investment in agricultural and agroindustrial projects.

To this end, it is proposed that the governments of the Southern area countries submit to the IDB a proposal for a non-reimbursable regional technical cooperation project to finance the first stage of the investment program, the objective of which is to identify investment projects and investors. The investors could be public or private enterprises, cooperatives or small-farmer agencies, either national or multinational, in addition to risk-capital investors from outside the area. Emphasis would be placed on projects which promote integration through agricultural and agroindustrial reactivation.

Execution of the program would be entrusted to IICA, which would receive support from an advisory commission made up of representatives of the Southern area governments. The experimental program would be closely linked to the private sector and to international investment and risk-capital sources, and would have a duration of four years.

*One of the highlights of the Fifth IABA was the unanimous approval of the PLANLAC and its implementation.*



*The Ministers of Agriculture or their representatives agreed that the PLANLAC will also engender important benefits for the small-scale farmer.*

## PLANLAC meetings held in 1989

- Subregional Technical Meeting to Identify Areas for Cooperation among the Agricultural Sectors of the Andean Group. Bogota, Colombia, February 7-9.
- Consultation meetings at the national level held in the five countries of the Andean group, together with JUNTA. February and March.
- Third Meeting of Vice Ministers of Agriculture of the Southern Area. Santiago, Chile, March 6-8.
- Inter-Agency Advisory Meeting. San Jose, Costa Rica. March 16-17.
- Meeting of CORECA Vice Ministers. Mexico, D.F., March 30-31.
- Twelfth Meeting of the Agricultural Council of the Andean Pact. Caracas, Venezuela, April 26-28.
- Meeting of the Council of Directors of PROCINDINO. Cartagena, Colombia, April 26-28.
- Ninth Regular Meeting of the CORECA Council of Ministers. San Jose, Costa Rica, April 27-28.
- Ninth Regular Meeting of the Executive Committee of IICA. San Jose, Costa Rica, June 12-16.
- Meeting of the Council of Directors of PROCISUR. Buenos Aires, Argentina, June 20.
- Thirteenth Meeting of the Agricultural Council of the Andean Pact, Lima, Peru, August 28-29.
- Fifty-fifth Special Session of the Commission of the Cartagena Agreement, Lima, Peru, September 11-12.
- Fifth Regular Meeting of the Inter-American Board of Agriculture (IABA). San Jose, Costa Rica, October 9-12.

*A special thanks for their contributions and comments goes to the members of the International Advisory Commission: Ralph Campbell, Fernando Homem de Melo, David Ibarra, Roberto Junguito, Alister McIntyre, Michel Petit, Edward Schuh, Lucio Reza and Miguel Urrutia.*



*The PLANLAC takes into account the increasing importance of tissue culture and other aspects of biotechnology in agriculture, as well as the efficient transfer of new technology to appropriate sectoral agencies.*



# IICA Multinational Action

## Program I: Agricultural Policy Analysis and Planning

The action of Program I, as described in the Medium Term Plan (MTP), has been one of the most effective means of contributing to the development of the Plan of Joint Action for Agricultural Reactivation in Latin America and the Caribbean (PLANLAC), which, in itself, is the most important area of the Institute's activity. Topical documents on macroeconomic policies and agriculture, on strategies for the mobilization of financial resources and investments, and on the role of the State have been produced through Program I.

Consistent with Program I strategy, two projects of hemispheric scope and three multinational projects for the Central, Caribbean and Andean areas were executed. Country-level projects, which generally involve institutional strengthening, have been conducted in all the Central American countries; in Colombia, Ecuador, Peru and Venezuela; and in Argentina and Chile.

Program I's hemispheric projects focused on the areas of agricultural strategies and policies. In both, IICA's efforts are aimed at strengthening those institutions which design and implement agricultural strategies and policies. The Program has increased its efforts in these areas through improved cooperation with international, regional and national agencies.

At the multinational level, new projects were agreed upon and implemented in collaboration with the Permanent Secretariat of the General Treaty on Central American Economic Integration (SIECA) and the Board of the Cartagena Agreement (JUNTA). These projects have focused on the role of agriculture in integration, and work toward harmonizing policies at the regional level.

*The five Programs established in the 1987-1991 Medium Term Plan are the principal instruments used by IICA for implementing its policy to concentrate development efforts and exercise technical leadership. As part of their activities, the Program Directorates also develop hemispheric and multinational projects, as well as networks for reciprocal cooperation and for the exchange of experiences. These approaches intensify the impact of the Programs' activities and improve IICA's contribution to solving problems the countries share.*

Public institutions, private organizations and universities participated in the activities of Program I's national, multinational and hemispheric projects. Efforts centered on institutional development, and IICA collaborated with other agencies in the execution of investment projects for institutional modernization.

Inasmuch as agricultural strategies and policies are designed not only within the sector itself, discussions and exchanges of information have been encouraged among professionals linked to the sector. IICA's Bibliographic Service on Research and Training in Agricultural Policy Analysis (ICAPPA) played an important role in this effort. ICAPPA disseminated information on 937 recently published papers on subjects such as agricultural sectoral and structural adjustment, sustained development, funding and investments, macroeconomic policies, intersectoral relations and agricultural planning.

To facilitate Program I's project development efforts, the Information System for Agricultural Policy Analysis in Latin America and the Caribbean (SIAPA) was implemented. It is a computer system that combines the design and management of a data base with the economic analysis of data and word processing. In 1989, SIAPA was installed in the IICA Offices in Argentina, Barbados, Colombia, Guatemala, Honduras and Mexico, and it is scheduled to be installed in all other IICA Offices in 1990. At present, the system contains annual information broken down into two major categories: macroeconomics and agriculture. This will be expanded to include more detailed information.

On the international level, Program I has increased the number of cooperation activities and the amount of funding from external sources, primarily the Economic Development Institute (EDI) of the World Bank, the IDB and the governments of Canada, France, Spain and Sweden.

As part of the Institute's activities to disseminate and exchange experiences, the Seventh Latin American Meeting on Agricultural Financing was held, co-sponsored by the Latin American Association of Development Finance Institutions (ALIDE), IICA and the Center for Latin American Monetary Studies (CEMLA). The event provided participants with the opportunity to share ideas being developed in the region with regard to the modernization of agriculture, new funding requirements and mechanisms for mobilizing the financial resources needed to achieve an equitable modernization of the agricultural-agroindustrial complex.

## I AGRICULTURAL POLICY ANALYSIS AND PLANNING

## II TECHNOLOGY GENERATION AND TRANSFER

## III ORGANIZATION AND MANAGEMENT FOR RURAL DEVELOPMENT

## IV MARKETING AND AGROINDUSTRY

## V ANIMAL HEALTH AND PLANT PROTECTION

## Hemispheric Projects

### *Agricultural and Rural Development Strategies (Component of the IICA/CIDA Project)*

CIDA	69 517
IICA	111 399
TOTAL	180 916

One of the key elements of the strategy of the Plan of Joint Action for Agricultural Reactivation in Latin America and the

Caribbean is a process of agricultural modernization which must be equitable, make maximum and efficient use of available natural, institutional and human resources, and ensure the sustainability of the systems. The increased agricultural productivity that such modernization would bring about and the widespread distribution of its benefits is an economic development option which would have a strong multiplier effect on the economy as a whole and directly help the rural poor.

The Canadian International Development Agency (CIDA) is lending its support to this project, which studies and evaluates models and strategies for the countries of Latin America and the Caribbean (LAC). The thrust of the project is to determine the factors that most significantly affect agricultural modernization. It calls for suitable coordination of macroeconomic and sectoral policies to enable modernization to reach farmers who have consistently been bypassed by technological change over the past decades. The project includes research and studies in selected countries, and the exchange of experiences on factors affecting modernization and their multiplier effects on the rest of the economy.

As part of this project, actions have also been carried out to assist institutions in upgrading the way they manage the information needed to analyze agricultural policy. The goal is to make professionals at IICA and in the countries more aware of statistical information requirements, so that they may better advise policymakers in the countries. One result of this activity was the implementation, at Headquarters, of an information system for agricultural policy analysis in

LAC, and its dissemination at the regional, subregional and national levels.

The project also worked with the Economic Research Service of the United States Department of Agriculture (ERS/USDA) to study and analyze policies that support national production, marketing and the international trade of strategic inputs for agricultural production and modernization. This joint effort reflected a concern over the lack of coordination that still exists between agricultural and industrial policies in the countries, and which specifically affects agricultural production.

The project's achievements for 1989 include: a) Methods for case studies on factors determining agricultural modernization in LAC, and completion of these studies. Final reports were written on grains in Argentina, fruits in Chile, dairy products in Costa Rica, vegetables in Mexico, poultry in Peru, soybeans in Brazil, flowers in Colombia and shrimp in Ecuador. A document containing these eight case studies was published. b) A methodology was developed for case studies on the multiplier effects of agricultural modernization in LAC, and a Canadian research institute (Econolynx) was selected to prepare a conceptual report on intersectoral linkages and the multiplier effects of agricultural modernization. c) Research was begun on the multiplier effects of agricultural modernization on grains in Argentina, fruits in Chile, dairy products in Costa Rica, vegetables in Mexico and shrimp in Ecuador. d) A seminar/workshop on agricultural modernization in LAC was held in San Jose, Costa Rica in July, and the proceedings were published.

### *Analysis and Consultation on Agricultural Policy*

EDI/WB	45 280
EDI/WB Grant	44 331
SAREC	1 490
IICA	118 019
TOTAL	209 120

This project's main objective is to upgrade analytical and advisory capabilities related to the design, implementation and adjustment of priority instruments of incentive policies and

agricultural investment programs among the technical personnel and directors of agricultural sector planning units (USPAs), policy analysis groups (GAPAs) and institutions involved in said process. In order to achieve this objective, research is being carried out on methods to design, implement and adjust macroeconomic and sectoral policies and to identify and select public investments in agriculture. Pertinent training was provided to technical personnel from the USPAs, GAPAs and related institutions in matters pertaining to the project's objectives, and similar information and experiences were disseminated.

Project results in 1989 were several. In response to an express request from the countries, two high-level courses were held on macroeconomic and sectoral policies, and agricultural development. The first was for countries in South America, and was attended by 22 technical personnel; the second, for the member countries of the Regional Council for Agricultural Cooperation in Central America, Mexico, Panama and the Dominican Republic (CORECA), was attended by 28 people. The goal of both courses was to assist the countries in upgrading analytical and advisory capacities in the design and management of priority instruments of economic incentive policies for agriculture.

One area deserving high-priority attention is agricultural protection, as, in general, there has been less protection for agriculture than for industry. Given the importance of this topic, case studies were carried out in Chile, Costa Rica, Ecuador, Honduras and Panama. These studies produced two major results: valuable information on the degree of protection for specific agricultural products, according to technological levels, and empirical information on the management of the instrument used for analysis. To make maximum use of the empirical information produced in these studies, a document will be produced describing the basic conceptual elements behind the studies and the empirical procedures required for assessing agricultural protection.

The seminar "Structural Adjustment: The Experience of Developing Countries" was held in response to Recommendation No. 2 issued by the member countries at the Ninth Inter-American Conference of Ministers of Agriculture (ICMA), held in Ottawa, Canada. This event provided the setting for fruitful discussions between IICA officials and French professionals from several institutions: the Center for International Cooperation in Agricultural Research for Development (CIRAD), the National Agricultural Research Institute (INRA), the Mediterranean Agronomic Institute (IAM), the French Institute of Scientific Research for Development in Cooperation (ORSTOM), and the Institute for the Study and Application of Development Methods (IRAM). They discussed the lessons to be learned from the implementation of adjustment programs in eight Latin American and six African countries. As a result, it was possible to determine the type of information the countries, international organizations and research institutes need to share in order to have a better understanding of the process of adjustment in a given country, and to evaluate the implications on measures that must be taken in neighboring countries, or in a subregion, or in countries that compete for the same products or engage in trade.

In addition, a document was drawn up on the conceptual and operating framework for elaboration of agricultural sector programs. Through these programs, IICA will support its member countries in defining a sectoral development strategy by performing a diagnosis of the sector; determining the key elements of the strategy, objectives and components in terms of needed investments and institutional and policy reforms; and providing mechanisms for international funding agencies to finance the programs through sectoral operations that combine rapid disbursement financing with investment funds.

Various technical cooperation missions were carried out in Brazil, Costa Rica, Guatemala, Nicaragua and Panama in support of national agricultural policy analysis projects.

## Multinational Projects

### *RUTA II Project: Technical Assistance for Agricultural Development in Central America*

IICA	34 827
TOTAL	34 827

RUTA II is a project of the United Nations Development Programme (UNDP), carried out under the U.N. Special

Program of Economic Cooperation for Central America (PEC), and executed by the World Bank. It began operations May 1989, with support from the International Fund for Agricultural Development (IFAD), the government of Japan and IICA.

The RUTA II project provides in-service training for the professionals of the National Training Units (NTUs). In addition, RUTA focuses its attention on coordinating technical assistance in three key areas related to agricultural reactivation in Central America: the study and design of sectoral policies; proposals for modernizing institutions of the agricultural public sector; and the design and funding of investment programs and projects.

The work of the Regional Unit for Technical Assistance (RUTA) includes technical assistance and training activities in support of priority programs and projects agreed upon by the participating governments for execution by the NTUs; the operations of the Latin American Division of the World Bank and the Latin American Bureau of IFAD in Central America; and agricultural projects of interest to the region under the PEC.

In Costa Rica and Honduras, considerable progress was made in modernizing the agricultural sector, with a view to securing World Bank funding. These programs are difficult to prepare in light of the considerable human and financial resources they require. The government of El Salvador adopted a strategy to seek solutions to the grave problems stifling the modernization of its agricultural sector. One result was a study on new policy options for the basic grains

sector. The government of Nicaragua carried out an extensive consolidation of State institutions dealing with the agricultural sector.

### *Harmonization of Agricultural Policy in the CORECA Countries*

SIDA	7 613
TOTAL	7 613

This project aims to strengthen the technical and negotiating capacities of national institutions such as ministries of agriculture, and of regional organizations such as SIECA, CORECA and the Central American Bank for Economic Integration (CABEI), by designing a conceptual and operating framework for the harmonization of the agricultural policies of the countries as a whole, and by applying same through the institutional mechanisms established by CORECA and SIECA. To achieve this, methods for investment policies and programs will be designed; an information system for the analysis of agricultural policies will be designed and installed; and there will be training in agricultural policies and investment programs, as well as the dissemination and exchange of experiences.

The project began operations in late 1989. In a short time, terms of reference were drawn up for studies on the experience of the European Economic Community (EEC) in harmonizing agricultural policies and their implications for Central America, and on a proposed conceptual and operating framework for the harmonization of agricultural policies in the CORECA countries. In Nicaragua, support was provided in purchasing a microcomputer to be used by the Ministry of Agricultural Development and Agrarian Reform (MIDINRA) in the studies it is conducting on the effects of macroeconomic policies on the agricultural sector, and in its work to develop an information system to analyze these policies.

A book containing socioeconomic statistics on Central America, with more than 300 tables, will be published in

1990, in coordination with the Latin American School of Social Sciences (FLACSO).

***Design of Strategies for Agricultural Policy Analysis and Planning in the Caribbean***

IICA	100 941
TOTAL	100 941

This project seeks to design and implement strategy options that consider agriculture's interplay with other

economic sectors. The following nine priority areas were selected for the Caribbean: a) macroeconomic and agricultural policies; b) trade and exchange rate policies, and their impact on the agricultural sector; c) agriculture-tourism linkages and agroindustrial development; d) food policies, food supply and food security; e) strategies to improve agricultural efficiency; f) intra-regional and extra-regional trade and the marketing of agricultural products; g) new technology to improve policy formulation and decision-making; and h) political economy and agriculture.

It aims to consolidate mechanisms set up to facilitate agreements among macroeconomic and agricultural policymakers. It also seeks to enhance the capabilities of government units in charge of the design, implementation and evaluation of agricultural policies.

The project includes research and studies, the exchange of experiences, technical cooperation, and training activities related to the design of strategies for agricultural policy analysis and planning in the Caribbean.

Project activities in 1989 included case studies in Barbados, Saint Lucia and Trinidad and Tobago on the impact of fiscal policies on incentives for agriculture. Proposals to harmonize incentives for agriculture were also prepared.

A review of literature related to the impact of macroeconomic policies on agriculture in the Caribbean was completed. There was close collaboration with the

agricultural sectors in Antigua and Barbuda, and in Saint Vincent and the Grenadines. In coordination with regional and international organizations, two training course were offered in an effort to increase the technical capacities of Caribbean professionals in diagnosing and identifying policy options in the areas of trade, incentive programs, investments and the development and planning of agriculture.

***Cooperation between IICA and the Permanent Secretariat of the General Treaty on Central American Economic Integration (SIECA)***

IICA	52 949
TOTAL	52 949

One of the integration mechanisms adopted by the countries in their efforts to achieve joint development is the

Permanent Secretariat of the General Treaty on Central American Economic Integration (SIECA), which addresses the political aspects of integration.

In Central America, technical coordination of regional agricultural sector actions has increased through the Inter-Institutional Group of the Agricultural Sector (GISA), which has provided international coordination of the reactivation strategy the countries established in the Plan of Joint Action in Support of Agricultural Reactivation and Development in the Countries of the Central American Isthmus and the Dominican Republic.

The goal of the IICA-SIECA agreement is to strengthen the technical and operating capabilities of SIECA in promoting the role of agriculture in integration, and to provide support to the Technical Secretariat of GISA. In 1989, attention focused on three major topics: agriculture and integration, training in macroeconomic policies, and the dissemination of information systems for policy analysis.

With regard to agriculture and integration, priority attention was given to SIECA in its role as technical secretariat of GISA, which was created by the ministers of

agriculture of CORECA as a technical body that supports regional initiatives in the sector.

As a result of GISA's activities, the regional fora have approved 17 projects (12 investment and 5 pre-investment projects) to be financed under the PEC, and whose execution would be the responsibility of different regional institutions working in the agricultural sector. In addition, GISA continued to work with CORECA in preparing a portfolio of regional projects for the sector which reflect the guidelines of the PLANLAC. At the present time, a portfolio of more than 60 projects is ready for discussion by the members of GISA, which will adapt same to guidelines and priorities set by the political fora.

GISA has become a forum where its member organizations can exchange information, reach agreement and carry out horizontal cooperation activities. It has complemented institutional actions, a positive step in reducing duplication of efforts among the organizations. The effectiveness of this group and the work it does has become apparent. As a result of this and of region-wide inter-institutional cooperation, agriculture has become a priority issue in the political fora of the region.

A second activity was to coordinate the objectives of the IICA- SIECA Unit with those of the IICA's Program I project at Headquarters on harmonization of policies. The project was approved for funding by the Swedish International Development Authority (SIDA), and the terms of reference were drafted for a study on the opening up of intraregional trade of basic grains, to be conducted by this Unit.

The major training activity on macroeconomic policies was the seminar/workshop held in Guatemala in October 1989 on macroeconomic and sectoral policies and agricultural development. The event was co-sponsored by the EDI/World Bank, SIECA and IICA, and received financial support from the Canadian International Development Agency (CIDA). The seminar was attended by senior officials from the agricultural and economic sectors of the CORECA member countries, and technical personnel from Program I working in Central America.

The Unit also participated in the regional seminar/workshop held in Panama in June on the definition, formulation and evaluation of agriculture-food policy, organized by the Action Committee in Support of Economic and Social Development in Central America and Panama (CADESCA), the Food Security Program (PSA) and the Commission of the European Community.

With regard to the dissemination of information, the Information System for Agricultural Policy Analysis in Latin America and the Caribbean (SIAPA), developed by Program I, was installed at SIECA. The system was adapted to the SIECA computers, and was demonstrated to key personnel.

### *Agricultural Policies in the Andean Countries*

IICA	89 090
TOTAL	89 090

This project, initiated in late 1989, is considered to be a necessary step in complying with the third objective of the

Institute's 1987-1991 Medium Term Plan (MTP): to provide support in strengthening the processes of integration. It is also one of the activities IICA is carrying out to implement the Plan of Joint Action for Agricultural Reactivation in the Countries of the Andean Subregion, which was approved by the ministers of agriculture in Decision 251 of the Cartagena Agreement.

As part of the joint efforts with the Agricultural Department of the Board of the Cartagena Agreement, the decision was made to contribute to harmonizing policies that affect development and the integration of agriculture and agroindustry. To achieve this, two specific objectives were identified: a) to promote national and subregional dialogue on the harmonization of policies and the integration of agriculture and agroindustry; and b) to strengthen the capacity for providing advisory services, with a view to ensuring effective decision-making in these fields.

This led to the selection of five socioeconomic research institutes, one in each of the five Andean countries, to work together as a network in analyzing and following up on policies which affect development and the integration of agriculture and agroindustry. These centers will present their findings in documents of national and subregional scope, which will reveal the impact of economic policies on development and the integration of agriculture and agroindustry, and will identify the factors impeding the successful harmonization of policies and those that could improve same.

These documents will be used as an input in the discussions that will be promoted in each Andean country. They will also be used for training activities aimed at improving analysis and advisory skills on these topics.

In mid-December, the first seminar/workshop was held with the five research centers of the Andean countries, in which the first stage of the work to be carried out was discussed.

At the individual country level, the project provided technical support to the agricultural studies mission of the Colombian government in systematizing the analysis of current policies and the studies conducted by some 13 socioeconomic research groups. The project also collaborated with a task force in analyzing the Ministerial-Level Agricultural Information System (SIMA) of the ministry of agriculture of Ecuador. Consultation was provided to a task force in Peru studying key factors in agricultural reactivation in that country.

The Board of the Cartagena Agreement received support in holding the Agricultural Council, where the Andean component of the PLANLAC was discussed. IICA helped organize the Congress of the Andean Agricultural Confederation (CONAGRO), and made a special contribution to the discussion on fostering agreement between the private and public sectors.



## **Program II: Technology Generation and Transfer**

During 1989, and pursuant to the guidelines established in the 1987-1991 Medium Term Plan, which stresses actions geared to promoting agricultural reactivation as the driving force behind economic growth, Program II continued its actions in support of the modernization of the agricultural sector, institutional strengthening and the regional and subregional integration processes. Of special importance within Program II's actions have been several important papers prepared by the Program, based on specialized studies promoted and developed in the region; also, mechanisms for reciprocal cooperation were promoted by and a broad range of activities were carried out through the different Program II projects.

During 1989, the Technology Generation and Transfer Program executed 13 multinational projects and 23 projects at the national level (in Argentina, Brazil, Colombia, Costa Rica, Ecuador, Guatemala, Honduras, Jamaica, Nicaragua and Uruguay).

Progress was been made in boosting cooperation between countries on research and technology transfer. The Cooperative Program for Agricultural Research in the Southern Cone (PROCISUR) is being institutionalized, and similar steps have been taken for the Cooperative Agricultural Research Program for the Andean Subregion (PROCIANDINO). In both cases, permanent structures are being set up for exchanging research findings, conducting joint research and strengthening national research and technology transfer institutions.

Another important achievement was the implementation of the Regional Network for Cacao Technology Generation and Transfer (PROCACAO). Its most important activities to date have led to the training of 500 technical experts and producers in the Central subregion, and the construction of research and training infrastructure at the Tropical Agriculture Research and Training Center (CATIE), and at

the Honduran Agricultural Research Foundation (FHIA). Regional tests to validate improved technology were also begun.

Throughout the year, the Cooperative Program for the Protection and Modernization of Coffee Cultivation in Mexico, Central America, Panama and the Dominican Republic (PROMECAFE), in operation for 11 years, sponsored numerous high-level scientific events at which specialized research findings were presented, as a result of the Program's efforts in research and technology transfer. The many training events and the publication and dissemination of specialized and technical materials are but a few of the activities developed for publicizing technology generated to control the most widespread coffee diseases, including coffee rust and coffee berry borer. Activities also covered the technology involved in agronomic crop management.

The Research Network on Animal Production Systems in Latin America (RISPAL) continued its activities to design methodologies for research on animal production. During the year, the agreement in effect with the International Development Research Centre (IDRC) was extended for three more years.

The component of the IICA/CIDA (Canadian International Development Agency) project on policies and strategies to support the development of agrobiotechnologies carried out activities of great importance this year. Some of its major achievements were the diagnosis of the status of biotechnology in Latin America and the Caribbean (LAC), and the formulation of a conceptual framework to guide the definition of policies and strategies to develop biotechnology. Seminars were held to discuss and study the opportunities for agrobiotechnologies, and several activities were held jointly with the Action Committee for Phylogenetic Resources (CARFIT) of the Latin American Economic System (SELA), in relation to regional studies to evaluate phylogenetic material.

Other achievements of importance for Central America and the Caribbean included actions to implement

horizontal cooperation instruments related to research and technology transfer. An agreement was signed with the European Economic Community (EEC) to implement a regional program to reinforce agronomic research on basic grains in Central America and Panama. An agreement was also signed with the Caribbean Agricultural Research and Development Institute (CARDI), under which IICA will contribute to the CARDI core budget, with a view to contributing to stabilizing and consolidating the operations of this institution, which is vital to technological development in the Caribbean countries. Similarly, important actions were taken to reformulate and reorient the IICA- TROPICOS project, which included a study and consultation mission to the eight participating countries of the South American tropics.

## Hemispheric Projects

### *Institutional Strengthening (FORTALIN)*

IICA	126 550
TOTAL	126 550

In 1989, the Project on Institutional Strengthening of National Technology Generation and Transfer Systems, created

in 1986, carried out its third year of activities to develop more efficient and effective national institutions in this field.

Project activities focused on strengthening policy- and organization-related aspects of national research and transfer systems by providing support to the member countries in defining policies and adapting the organization of technological systems to more accurately reflect the socioeconomic, political-administrative and scientific conditions in which they must operate. Within the project, special attention is given to developing biotechnology as the predominant scientific paradigm, the growing importance of the private sector in research and

development, and mechanisms to be used to link research and technology transfer.

In 1989, FORTALIN collaborated at different levels with national technology generation and transfer institutions in Argentina, Bolivia, Colombia, Costa Rica, Ecuador, Mexico, Paraguay, Uruguay and Venezuela. It also participated actively in developing national projects in Haiti and Panama, as well as regional projects, especially in Central America. Among these can be mentioned: a) support in organizing the execution of the program to reinforce agronomic research on basic grains in Central America and Panama, under the agreement with the countries of the Regional Council for Agricultural Cooperation in Central America, Mexico, Panama and the Dominican Republic (CORECA) and the European Economic Community (EEC); b) a project to formulate investment projects for seed production in the countries of Central America, which was approved by the ministers of agriculture of the subregion, and is currently under study for approval by the United Nations Development Programme (UNDP).

This project also served as the framework for the work to develop the technological component of the Plan of Joint Action for Agricultural Reactivation in Latin America and the Caribbean (PLANLAC), which led to the publication of a document on demand and marketing channels for new Latin American products of possible interest to the European market. It was involved in the preparation of proposals for action to strengthen horizontal technical cooperation at different levels, such as managing plant and animal genetic resources, developing biotechnology and creating mechanisms for funding technological innovation in agriculture.

Finally, in 1989 socioeconomic statistical studies on agricultural research in LAC were concluded and computer programs were designed for application to priority agricultural research models.

***Training in the Management of Agricultural Research in Latin America and the Caribbean (CAPACITACION)***

IICA	89 564
TOTAL	89 564

The purpose of this project is to develop and execute training activities related to the management and administration of national agricultural research systems of the region, and to develop teaching materials for these activities.

During 1989, the project focused its efforts on several training initiatives at the subregional level. Worthy of mention was the international seminar on the development and management of agricultural research, for directors and management personnel from agricultural research entities in Central America, the Dominican Republic and the smaller countries of South America, held in March together with the Tropical Agriculture Research and Training Center (CATIE) and the International Service for National Agricultural Research (ISNAR). A similar event was the regional course-workshop on the management of agricultural research and technology transfer, with an emphasis on strategic planning. It was held in April at the National Agricultural Research Institute (INIA) in Chile, and jointly organized by IICA, ISNAR and FAO. The course-workshop was attended by directors and management personnel from agricultural research institutions of the Andean and Southern Cone countries.

Documents and training materials were also developed for the project in 1989. Worthy of special mention were papers on research in the year 2000, the context of agricultural research, and the organization of agricultural research, all published as part of the IICA Miscellaneous Publications Series. Work was done on designing a training module on methods for establishing agricultural research priorities using computer programs. Another training

module is being prepared on projects and resource management.

***Establishment of the IICA Information System on Policies, Organization and Management of Agricultural Research (ORGAMIN)***

IICA	22 186
TOTAL	22 186

This project seeks to upgrade the capability of national agricultural technology generation and transfer systems to draw up policies and improve the organization and management of research by making relevant scientific and technical information more readily available to them. At present, the persons responsible for managing research or making decisions on research programs lack adequate information, or the information that does exist is scattered and relatively inaccessible. This hinders access to techniques, methods, concepts, and other findings that could increase the productivity of research efforts and the resources assigned to them.

This project, created in late 1987, continued its activities through the Bibliographic Information Service on the Organization and Management of Agricultural Research (ORADIA), in conjunction with the Inter-American Agricultural Documentation and Information Center (CIDIA). ORADIA is a quarterly publication of selected tables of contents from important journals. Other activities include the dissemination of materials of particular interest and photocopy or microfiche services for uncopyrighted materials.

As of 1989, ORADIA has been distributing these materials to approximately 300 directors and managers or research in the region and IICA technical personnel. The first evaluation of ORADIA by its users, which was very positive and provided valuable criteria for improvement, was made in 1989.

PROGRAM II 35

***Support to Latin American and Caribbean Scientific Associations Involved In Technology Generation and Transfer (ACLYC)***

IICA	21 203
TOTAL	21 203

In 1989, IICA continued to lend administrative, technical and financial support to several scientific associations involved

in agricultural research. Among these are: the Latin American Association of Animal Production, the Latin American Association of Advanced Agricultural Education, the Caribbean Food Crop Society, the Latin American Association of Agricultural Sciences, and the Central American Cooperative Program for Food Crop Improvement.

***Support to the Latin American and Caribbean Federation of Agricultural Research Systems for Development (IFARD-LAC)***

IICA	28 039
TOTAL	28 039

During 1989, IICA continued its assistance to the Latin America and Caribbean chapter of the International Federation of Agricultural Research Institutions for Development (IFARD), through logistic and administrative support for activities of the Office of the President and of the Executive Secretariat.

As part of the IFARD-LAC activities, a high-level international seminar was held in August in Cordoba, Argentina on the challenges facing agricultural research in Latin America and the Caribbean (LAC). Ninety-two representatives participated from national public and private agricultural research institutions, as well as from international agricultural research and development agencies. At that time, the dialogue which began at the regional level in Mexico (1984) and continued in Colombia in 1986, was taken up again, and actions to respond to the problems affecting agricultural research as a result of the

current crisis in the region were analyzed and initiated. The main topics examined were models for organizing and financing research, experiences with and the outlook for horizontal cooperation, and the applications of new biotechnology in LAC.

The seminar also studied the major technological challenges of the 1990s; the role of national programs within the international agricultural research system and the mechanisms for defining priorities at this level; farm research systems and the goals and prospects for sustainable production. The seminar was coordinated by the Executive Secretariat of IFARD-LAC, the National Institute of Agricultural Technology (INTA) of Argentina, IICA, the Inter- American Development Bank (IDB) and the Support Committee of the Representatives of the countries, and was funded by the IDB, IICA and INTA.

IFARD-LAC continued to formulate recommendations on policies and strategies, to be submitted to the consideration of the governments and national and international entities involved in agricultural development.

***Policies and Strategies for the Development of Agrobiotechnology (Component of the IICA/CIDA Project)***

CIDA	130 493
IICA	15 331
TOTAL	145 824

This hemisphere-wide project, financed by the Canadian International Development Agency (CIDA), began operations two years ago. Being a project on agricultural biotechnology, during the year it worked to design a general conceptual and analytical framework to be used in the formulation of policies and strategies on biotechnology in LAC. Specific results were, among others: a) the gathering of information on trends in the development of biotechnology worldwide, as well as on expected breakthroughs in scientific and technological progress; b) a theoretical framework to be used in the formulation of national and regional policies and strategies, including the

identification of key problems that must be solved in order to develop and use agrobiotechnologies; c) proposals for alternative methods to be used in analyzing the impact of biotechnology on agriculture; and d) the establishment of IICA as a reference center in the region for matters related to the planning and administration of agrobiotechnology.

Four technical events were held (in Colombia, Costa Rica, El Salvador and Guatemala, with a total of 134 participants) to discuss studies carried out within the framework of the project.

Diagnostic studies were concluded in Argentina, Paraguay and Peru and undertaken in 13 countries or groups of smaller countries in the region. A computerized data base of all the scientific materials published in the region on the subject of agrobiotechnology and related areas is being prepared.

In 1989, papers were presented at three high-level international meetings on technological change (Argentina), challenges for agricultural research and extension services in LAC (Argentina), and policies for agroindustrial development in LAC (Brazil).

Work was also done in the field of regulation and biosafety. A first draft of guidelines to govern the release into the environment of products generated through biotechnology and genetic engineering was prepared for consideration and study by the Inter-American Study Group of the New Biotechnology in Agriculture and Health, which is sponsored by IICA in conjunction with the Pan American Health Organization (PAHO), the Organization of American States (OAS) and the Inter-American Development Bank (IDB). In this same area, IICA was invited to participate in the meeting of the United Nations Inter-Agency Working Group on Biosafety -United Nations Industrial Development Organization (UNIDO), United Nations Environmental Programme (UNEP), United Nations Development Programme (UNDP), and the World Health Organization (WHO)- held in Vienna, Austria in December, where a study was presented on restraints to the effective application of biosafety rules and regulations in developing countries.

### ***Research Network on Animal Production Systems In Latin America (RISPAL)***

RISPAL	71 769
IICA	75 431
TOTAL	147 200

On November 1, 1989, RISPAL, created in 1986, entered its second phase under a new three-year agreement between IICA and the International Development Research Centre (IDRC). RISPAL was created to foster the exchange of technology and the development of research methods on animal production systems among the projects and institutions of the network. RISPAL brings together IICA, IDRC, Winrock International and the Center for Agricultural Studies and Development of Peru (member institutions). It is involved in projects on production systems for dairy cattle (Chile and Guyana), dual-purpose cattle (Dominican Republic, Guatemala, Guyana, Panama, and Venezuela), goats (Mexico and Peru), guinea pigs (Peru), native pigs (El Salvador), forestry-pasture systems (Costa Rica and Peru) and integrated systems (Colombia and Peru).

In 1989, RISPAL provided support in the identification of research priorities and in upgrading the technical aspects of projects in the Dominican Republic, El Salvador, Guatemala, Guyana, Peru (production system for guinea pigs and Andean systems in the Department of Puno), Mexico and Venezuela. In addition, cooperation was also provided in organizing and executing a workshop on guinea pig nutrition and a course on statistics in the Dominican Republic. The Network also collaborated in activities organized by other organizations, such as the First Central American and the Second National Congress on Milk (Guatemala); the Inter-institutional Seminar on the Appropriation of Technology (Venezuela); the International Seminar on the Establishment of the International Society of Professional and Scientific Associations (Canada); the Working Meeting to Identify Research Needs in the Amazon Region (Peru); and the Workshop on Research Methods and Data Analysis (Kenya).

The report on the Seventh General Meeting of RISPAL was published, as were four numbers of the RISPAL

bulletin, a book on social sciences and the agricultural systems approach, and a guide for updating methods to characterize agricultural production systems.

## Multinational Projects

### *Regional Cooperative Program for the Protection and Modernization of Coffee Cultivation in Mexico, Central America, Panama and the Dominican Republic (PROMECAFE)*

French Gov.	5 288
ROCAP-AID	835 446
PROMECAFE-Countries	112 427
AID-ROCAP Grant	18 004
IICA	122 956
TOTAL	1 094 161

The development of the different component of the project focused on bringing technology into line with the particular needs of the principal groups of coffee growers; developing more efficient instruments for the transfer of technology; generating efficient methods for the control of major diseases and pests; and generating greater scientific capabilities by upgrading personnel, research infrastructure, and the body of information available on the subject.

In connection with the biotechnology and coffee rust control component, 13 test plots were established, where coffee rust and coffee berry borer are subjected to integrated management techniques - four in El Salvador and nine in Honduras. In regard to the biology of coffee berry borer control, test plots were established for the integrated management of this pest, with emphasis on research, training, and testing of technology in El Salvador (4), Guatemala (4) and Honduras (17).

The Program carried out important activities on analysis and control of pesticide residues, working in close collaboration with the Central American Research and Industrial Technology Institute (ICITI), headquartered in

Guatemala; the Honduran Agricultural Research Foundation (FHIA); the Center for Studies and the Control of Contaminants in Honduras (CESCO); and the Coffee and Cocoa Research Institute (IRCC/IICC) of France.

During the Seventh Meeting on the Genetic Improvement of Coffee (Honduras), held as part of the activities related to the development and reproduction of rust-resistant varieties, 52 technical papers were presented by representatives from the member countries of PROMECAFE. Research has continued on methods for *in vitro* reproduction. Also in 1989, the Regional Bibliographic Information Network on Coffee (REDCAFE) was created, the goal of which is to increase coverage, facilitate the search for and availability of information, establish exchange mechanisms and strengthen national institutions in this area.

Further progress was made in developing the "Friendship and Work Groups" (GAT), which were set up for the generation, testing and transfer of technology to small- and medium-scale farmers. They are implemented by the coffee-grower institutions of El Salvador, Guatemala, Honduras and Nicaragua, which sponsored 15 events, including courses, workshops and seminars, held at the regional level, and 18 at the national level. Topics covered plant breeding, integrated management of pests and diseases, agronomic management, tissue culture, nematology, fertility and mineral nutrition, coffee processing, technology transfer and others.

The most important training activities included the seventh regional course on the fundamentals of modern coffee cultivation, held in Guatemala and attended by 23 technical experts from the area; and the twelfth symposium on Latin American coffee cultivation, in Honduras, where 39 research papers were presented.

A total of 700 technicians from national institutions in the countries participating in the project received training in 1989.

***Cooperative Agricultural Research Program for the Andean Subregion (PROCIANDINO)***

IDB/PROCIANDINO	606 309
IICA	75 297
TOTAL	681 606

The Cooperative Agricultural Research Program for the Andean Subregion, (PROCIANDINO), which includes

Bolivia, Colombia, Ecuador, Peru and Venezuela, is in its fourth year of operation.

In response to the desire for subregional integration as expressed by those five countries, the ministers of agriculture of the Board of the Cartagena Agreement recommended that the Program continue into the 1990s. Thus, the first stage of PROCIANDINO, which was to end in March 1990, will be extended until December of that year, at which time the current three-year plan of the agreement will conclude and programming for 1991-1995 will begin.

The second stage of this cooperative effort will cover, in addition to its current subprograms (edible grains, legumes, corn, potatoes and edible oilseeds), three new areas of work; soil management and conservation; dual-purpose livestock, including pasture management; and crops and livestock in the Andean highlands. A component for the organization and planning of research and technology transfer will be incorporated into the project.

In 1989, PROCIANDINO completed 107 events in which 139 professionals participated. This means that since 1987, when reciprocal technical cooperation among the countries began, 284 of the 308 events programmed have been completed, or 92% of the events called for in the three-year plan, in which 991 people were involved. Twenty specific research projects were also developed.

Since 1987, the International Potato Institute (CIP), the International Maize and Wheat Improvement Center (CIMMYT) and the International Tropical Agriculture Center (CIAT) have provided technical and logistic support to PROCIANDINO in its work with potato, corn and bean crops and production systems. Furthermore, the Program cooperated with national institutions and international

agencies outside the Andean subregion. Worthy of mention are links with the National Agricultural Technology Institute (INTA) of Argentina, the Brazilian Agricultural Research Agency (EMBRAPA) of Brazil, the National Agricultural Research Institute (INIA) of Chile, the National Institute of Forestry Research (INIFAP) of Mexico, and the International Center for Agricultural Research in Arid Areas (ICARDA) of Syria.

***Cooperative Agricultural Research Program for the Southern Cone (PROCISUR)***

IDB/PROCISUR	245 926
PROCISUR-	
Countries	310 817
IICA	232 145
TOTAL	788 888

PROCISUR brings together agricultural research centers in the countries of the Southern Cone in a network of reciprocal support, cooperative work and joint actions. The Program is

now in the fifth year of operations, its second stage having begun in October, 1989. It is funded by the Inter-American Development Bank (IDB), IICA and its member countries.

The Program engaged in several reciprocal technical activities during 1989, including one seminar and 134 exchanges of professionals: 48 national consultancies, 71 observer missions and participation in 15 congresses and other events. One long-term and six short-term consultants provided advisory services at the international level. PROCISUR helped channel the services of seven specialists from international centers: two for the subprogram on winter cereals, two for the subprogram on oilseeds, and three for the subprogram on cattle. A total of 36 training activities took place, including one short course, 22 in-service training sessions and 13 similar activities in other institutions.

In its August meeting, the PROCISUR Steering Committee resolved to draw up projects in 1990 for priority products on wheat, rice, soybeans and other oilseeds; to present projects on information and documentation; on the beef-pasture and milk-pasture relationships, socioeco-

nomics, communications, research administration and planning, and weeds. The Steering Committee also agreed to initiate the Forage Evaluation Network for the Southern Cone (REFCOSUR). Once approved by the Steering Committee, these projects, all funded by the countries themselves, will go into operation as of April 1990.

The Steering Committee has also classified the following projects in order of priority for external funding: 1) fruit and vegetable production, biotechnology, biological control and forage evaluation (REFCOSUR); 2) technology for small-scale farmers, soil management and conservation, seed technology and technology transfer; and 3) development of human resources, socioeconomics and production systems. It recommended the preparation of a project on barley, with possibilities of funding from the private sector.

A recent evaluation of the economic impact of PROCISUR revealed that the transfer of research findings has had a significant impact on corn, wheat and soybean production in member countries. Also, it was found that the actions of PROCISUR have made national research on these crops more productive. The calculation of the economic benefits of PROCISUR investments in corn, wheat and soybean programs revealed internal rates of return of approximately 191%, 110% and 179%, respectively.

The Plan of Joint Action for Agricultural Reactivation in Latin America and the Caribbean (PLANLAC) expressly includes PROCISUR in its component for the Southern Area. After nine years of operation, PROCISUR will begin a new stage of cooperation among the countries of the Southern Cone. The signing of a new agreement by the member countries ensures the continuity of PROCISUR's activities.

### ***Regional Network for Cacao Technology Generation and Transfer (PROCACAO)***

AID-ROCAP	211 503
AID-ROCAP/CATIE	85 553
AID-ROCAP/FHIA	153 794
IICA	32 336
TOTAL	483 186

This project, in its second year of operation, has as its goal to contribute to efforts being made in Central America, Panama and the Dominican Republic to improve access to

and the quality of agricultural research findings, through the establishment of a network for technology generation and transfer related to cacao. PROCACAO also proposes to increase cacao production and the incomes of small- and medium-scale farmers in member countries of the network.



*Improved varieties achieved through biotechnology are propagated and evaluated in the nursery.*



PROCACAO is a joint venture between IICA, which administers the project, the Tropical Agriculture Research and Training Center (CATIE) and the Honduran Agricultural Research Foundation (FHIA), which are in charge of the research component. It receives funding from the Regional Office for Central American Projects of the United States Agency for International Development (USAID-ROCAP).

This year, the Network increased its coverage to include Belize, and progress has been made toward incorporating the Dominican Republic in 1990. A technological inventory was made on cacao production in the subregion and two regional seminars were held, one on post-harvest technology and improved quality of cacao, and the other on high-yield cacao germplasm. Experts and researchers from Central America, the Caribbean, Brazil and the United States participated in the seminars, and preparation of diagnostic studies on cacao production in Belize, Costa Rica, Guatemala and Honduras were begun.

With regard to the institutional development of the network, four national advisory groups (NAGs) were established in Belize, Costa Rica, Guatemala and Honduras. These groups were designed with an eye to strengthening the capabilities of the member countries of PROCACAO in coordinating national activities, thus making it possible to accurately identify the difficulties facing cacao growers in each country.

A data base on cacao was set up by the Inter-American Agricultural Documentation and Information Center (CIDIA), with financial support from PROCACAO. The purpose of this data base is to compile bibliographic material on cacao published since 1970 and to make this information available in the Orton Library and other agricultural documentation centers. Two issues of the data base bulletin were published in 1989.

As far as the research component is concerned, significant progress was made in obtaining high-yield genetic materials resistant to economically important diseases in the countries of the subregion. Progress was also made in improving cropping practices. Eight experiments were set up in the countries of the Network to find improved high-yield germplasm, including one experiment with native trees. Seven tests were carried out on improved practices, six at FHIA (Honduras) and another in Guatemala, in conjunction with the Bulbuxyá Experimental Station of the University of San Carlos, Guatemala.

Financial and technical assistance was provided to Panama for the eradication of witches' broom disease. An educational audiovisual program was produced and 2 600 infected trees destroyed on 25 hectares, along with 2 700 non-native trees. Technical visits were also made to the affected zones.

## Program III: Organization and Management for Rural Development

In 1989, the Organization and Management for Rural Development Program continued consolidating the conceptual and methodological framework it will use as its basis for action in country-level technical cooperation projects, and the formulation of projects aimed at increasing the role of the small-farm economy in the reactivation of agriculture, within the context of the Plan of Joint Action for Agricultural Reactivation in Latin America and the Caribbean (PLANLAC).

In light of the above, Program III is currently implementing three hemispheric and three subregional multinational projects. It also provided technical cooperation to 27 rural development projects in the following countries: Argentina, Bolivia, Brazil, Colombia, Costa Rica, Dominican Republic, Ecuador, Guatemala, Haiti, Honduras, Jamaica, Mexico, Paraguay, Trinidad and Tobago, Uruguay and Venezuela.

Agreements were signed with various multilateral technical cooperation agencies, with a view to increasing existing technical capabilities and to promoting joint actions connected with technical cooperation, training and investment projects in different countries of LAC.

Program III's progress in developing its conceptual and methodological framework centered on strengthening the institutions responsible for rural development, through the formulation of differentiated policy options for rural development, proposals for modernizing the State apparatus, in accordance with the principles of decentralization and participation, and the creation of special funds to finance rural development programs and projects.

In addition, progress was made in defining IICA actions related to increasing the participation of rural women in the socioeconomic development of the region. Similarly, a conceptual-methodological document on involving rural

youth in development was completed. The proposals mentioned above were based on studies conducted in 1988 in 14 Latin American and Caribbean countries.

The body of knowledge generated during this process provided the basis for IICA actions to strengthen national institutions involved in rural development. This effort, in turn, will contribute to the formulation of policies to foster socially equitable economic growth in the LAC countries, pursuant to the basic principles of the PLANLAC.

In the same vein, the Program began to put into practice its strategy for achieving efficient, decentralized and participatory management of rural development policies, programs and projects. To this end, the Program signed agreements with the institutions of the Training and Study Program on Agrarian Reform and Rural Development for the Central American Isthmus and the Dominican Republic (PRACA), the Italy/FAO Program for Training in Agricultural and Rural Development Planning, Policies and Projects in Latin America and the Caribbean (PROCAPLAN), the United Nations Development Fund for Women (UNIFEM), and the United Nations Children's Fund (UNICEF). The Program, in conjunction with the Andean Parliament, the Board of the Cartagena Agreement (JUNTA), the Andean Development Corporation (CAF), and the central banks of the Andean nations, participated in the conception, formulation and founding of the Andean Rural Development Fund (FONADER).

The objective of the agreement signed with the PRACA member countries is to upgrade the institutions in those countries responsible for agrarian reform and rural development, in order to ensure the successful execution of an investment project aimed at strengthening rural settlements through the development of small businesses that will benefit some 50 000 families.

The objective of the agreement signed with PROCAPLAN is to strengthen the technical operating capacity of certain countries in the execution of training programs for rural development. This agreement will begin implementation in 1990 with several workshops on differentiated policies for

small farmers, administration of rural development policies, training for small farmers, and participatory administration and management of rural development projects. Technical and teaching materials prepared by Program III will be used at these events.

The agreement signed with UNIFEM made it possible to reinforce the work the Program has been doing with rural women. The result of this inter-agency cooperation will be a common frame of reference for both entities, which will also serve to orient joint actions at the subregional or country level.

Actions carried out with UNICEF led to the formulation of a project to strengthen the participation of rural women in the socioeconomic development of the Central American isthmus, resources for which are being negotiated with the government of Finland. This project, in addition to its training and research components, also proposes the establishment of a "Community Development Fund for Women" in each country. The resources assigned originally to the Fund will serve as seed capital and as a catalyst to finance production projects to be administered by women's organizations.

Lastly, negotiations undertaken by Program III with regional organizations culminated in December 1989 with the establishment of FONADER by the presidents of the five countries of the Andean subregion. The resources allocated to this fund, whose rules and regulations have already been approved, are to be used to fund projects conceived, designed and managed by small-farmer organizations. Among the production activities to be financed are agriculture and livestock, small-scale agroindustries, non-industrial fishing, community forestation, handicrafts and necessary infrastructure.

## Hemispheric Projects

### *Training for Technical Personnel in the Design and Application of Small-Farmer Training Methods*

IICA	21 163
TOTAL	21 163

By the end of 1989, the project's goals were met and a number of activities related to the training of small farmers had been carried out. The publication and dissemination of the book "Capacitación y participación campesina: Instrumentos metodológicos y medios" (Training and Participation of Small Farmers: Methods and Means) and the elaboration of a conceptual and operative document entitled "Capacitación de la mujer campesina con metodologías participativas" (Training Rural Women Using Participatory Methods) represent important contributions to training activities in rural areas.

Also in connection with rural women, Program III, in conjunction with the IICA Office in Mexico and the University of Chapingo, participated in offering a seminar on problems faced by rural women. As a result of this seminar, a project was drawn up for increasing the participation of women in rural development in Mexico.

An agreement was concluded with the Italy/FAO Program for Training in Agricultural and Rural Development Planning, Policies and Projects in Latin America and the Caribbean (PROCAPLAN), to hold two training workshops in 1990 for instructors of small farmers in the Central and Andean subregions.

In addition, technical personnel from Program III drew up project documents and began negotiations with the

Association for Cultural, Technical and Educational Cooperation (ACTEC) and the European Economic Community (EEC) to secure funding for the training of small farmers in the Central and Andean subregions. Finally, IICA elaborated the document for implementing the second phase of this project (1990-1993), which will be funded by the Canadian International Development Agency (CIDA).

***Training of Technical Personnel in the Administration and Management of Rural Development Programs and Projects***

IICA	58 414
TOTAL	58 414

In 1989, the principal activity of this project was the elaboration of a manual, by a multidisciplinary team of four consultants, concerning the concepts, methodologies and operative schemes of the rural development program and project cycle (identification, formulation, administration, management, follow-up and evaluation), adapted to the criteria of decentralization and participation. The manual discusses programs and projects which will benefit small farmers, and emphasizes training and organization for the development of agricultural and non-agricultural production activities aimed at increasing incomes and generating employment. This document is, in essence, an instructional aide, and will be used as the basic text book for the international workshops Program III will offer in 1990 to technical personnel from governmental and non-governmental organizations (NGOs) in the region.

Another success was the signing of an agreement with the Italy-FAO Program (PROCAPLAN) to hold two international workshops in 1990 on the administration and management of rural development programs and projects in the Southern Area: one in Argentina and the other in northeastern Brazil.

Finally, Program III drew up the project-document for the Andean Training Project (PAC), and negotiated with the

EEC and JUNTA to secure resources for its implementation.

***Strengthening of Public and Private Rural Development Institutions***

IICA	65 975
TOTAL	65 975

The goal of this action is the institutional strengthening of governmental and non-governmental organizations (NGOs), by analyzing and systematizing successful rural development efforts in selected countries. To this end, the Program's work in 1989 achieved two objectives. The first was the analysis and systematization of experience gained in the design and application of appropriate technology for small farmers, and in credit and marketing within the context of rural development projects in Colombia and Ecuador. The second was the comparison of these two experiences with the conceptual and operating framework for the design and application of the aforementioned instruments in the context of rural development projects.

***Strengthening of IICA's Programs within the Framework of the Medium Term Plan (Component of IICA/CIDA Project)***

CIDA	100 156
IICA	7 038
TOTAL	107 194

As part of the IICA/CIDA project to strengthen IICA Programs, final reports were prepared on studies to analyze and systematize experiences related to differentiated policies for rural development in Brazil, Colombia, Ecuador, Guatemala, Honduras, Mexico and Peru.

Program III also concluded the final reports on the analysis of experiences related to decentralization in Argentina, Bolivia, Brazil, Colombia, Guatemala, Mexico and Peru.

On the basis of the aforementioned studies, first drafts of two documents were drawn up: one on strategy and

differentiated policies for rural development in LAC and the other on decentralization and participation in the administration of rural development policies and programs.

***Strengthening IICA Actions Aimed at Increasing the Participation of Women In Rural Development***

UNIFEM	17 280
TOTAL	17 280

IICA signed an agreement with the United Nations Development Fund for Women (UNIFEM), which made it possible

for Program III to hire a specialist as of October 1989 to draw up a conceptual and methodological document for Institute actions related to the role of women in rural development strategies. This document will be based on the systematization and analysis of the experiences of programs and projects carried out in five countries and aimed at strengthening the participation of rural women.

The agreement also calls for studies and research to be used for formulating new projects at both the country and subregional levels.

Program III, in conjunction with the United Nations Children's Fund (UNICEF), prepared a multinational project for the Central American isthmus, designed to promote the training and organization of rural women, with a view to strengthening their participation in rural development programs and projects. Preliminary contacts were made with the government of Finland to secure funding for this project.

**Multinational Projects**

***Creation of Special Financial Mechanisms for Rural Development***

IICA	44 146
TOTAL	44 146

The principal objective of this action is the creation and practical application of special funds to finance rural development programs and projects. To this end, and as a result of initiatives undertaken by Program III, the founding of the Andean Rural Development Fund (FONADER) was approved by the different political and administrative bodies of the countries of the Andean Area.

In addition to this initiative, talks were begun with the Central American Bank for Economic Integration (CABEI) with a view to creating a Central American Rural Development Fund (FONCEDER).

Finally, a strategy document was drawn up on financial mechanisms needed for the creation of special funds to finance rural development programs and projects in the different subregions of LAC.

***Strengthening and Consolidation of Rural Settlements (PRACA)***

PRACA-Countries	25 411
IDB	22 433
IICA	4 684
TOTAL	52 528

In this area, Program III activities concentrated on evaluating the Training and Study Program on Agrarian Reform and Rural Development for the Central America Isthmus and the Dominican Republic (PRACA),

with a view to updating and reorienting its conceptual and operating framework to reflect two elements. One is the magnitude of the crisis currently affecting the Central American isthmus and the Dominican Republic, as well as the differentiated policies aimed at increasing the contribution of the small-farm economy to the agricultural reactivation of the countries of the subregion. The other, from an operative point of view, is the incorporation of PRACA actions into a



*Training of rural leaders and strengthening of development associations are an important facets of IICA's Program III.*

multinational investment project to increase employment, income, production and productivity levels of the small-farm population that has benefitted from agrarian reform.

Based on this, PROADER carried out several activities in 1989. One important achievement was the concluding of a new PRACA agreement for 1989-1992, which involves public agencies responsible for the agricultural sectors of the member countries of PRACA, and of the Regional Council for Agricultural Cooperation in Central America, Mexico, Panama and the Dominican Republic (CORECA).

Also of note was the formulation of the multinational project to strengthen and consolidate rural settlements in the Central American isthmus and the Dominican Republic, with the participation of all the agrarian reform agencies in signatory countries of the PRACA agreement. Of equal importance was the formulation and approval of the IICA technical cooperation project for PRACA in 1989.

#### *Participation of Rural Youth in Development (SIJR)*

IICA	69 543
TOTAL	69 543

One of the major achievements of this project was the formulation of a conceptual, methodological and operating

framework for actions with rural youth in the context of rural development programs and projects, and which will serve as the basis for setting priorities for IICA action in this field. Also, a multinational project was drawn up to organize and train rural youth to increase their participation in rural development programs and projects, which will serve as the basis for securing external resources.

Support was also given in revising the bylaws of the Ibero-American Rural Youth Advisory Council (CAIJR), which became a non-governmental organization with full legal standing at the international level.

## **Program IV: Marketing and Agroindustry**

New guidelines for the action of the Marketing and Agroindustry Program, reorganized in 1987, were drawn from IICA's 1987-1991 Medium Term Plan. In 1988, the first year of operation under the new guidelines, the Program concluded its earlier projects and followed up on those that had been established in response to specific requests from the governments.

In 1989, the Program consolidated its conceptual base and carried out three hemispheric, one subregional and eleven national projects, in fulfillment of its objectives. Fifteen technical personnel worked with the Program, four of whom are posted at IICA's Headquarters, and the other eleven in charge of executing projects in different member countries.

Program IV's work, at both the multinational and subregional levels, focused on improving access to international markets for the countries' products.

As part of its actions to strengthen institutions involved in trade negotiations and export promotion, the Program worked in the countries to improve information systems, negotiating skills and coordination among the different components of the agricultural sector, so as to expedite international trade. The Program documents and follows multilateral and intraregional trade negotiations, analyzes trade information on markets, marketing channels and access to existing data banks. More specifically, the Program is carrying out projects on trade information and studies on market niches and marketing channels (Canada, U.S.A.).

The other major focus of the Program is related to the Rural Agroindustry Development Program (PRODAR), which aims to strengthen rural agroindustries in Latin America and the Caribbean, especially those linked to the production of foodstuffs, in order to facilitate their penetration of international markets. Likewise, the

establishment of new rural agroindustries has been promoted as a means of improving the living conditions of small farmers. Concurrently, work is being carried out to strengthen institutions associated with agroindustry.

In dealing with these issues, Program IV has concentrated on developing a better understanding of the production and consumption systems, on the basis of which it can identify and promote agroindustrial development projects, provide and improve a system for the exchange of experiences, and expand the exchange of information on this subject. The PRODAR project, with its different components, is expected to cover these issues.

In 1989, Program IV participated in the preparation of several joint hemispheric programs and projects, the results of which are described below. For the Andean Area, the "Program on Institutional Strengthening for International Trade Negotiations and the Promotion of Exports" was prepared. The goal of this program is to support the countries by making more information available to them and by increasing their negotiating skills. Efforts will also be made to improve coordination for more efficient trade of agricultural and agroindustrial goods, and to support the formulation of joint strategies that take advantage of the negotiating power of the region and improve access to international markets.

In the areas of agricultural trade and integration, the Program focused on promoting intrasubregional trade (Quito Protocol) and increasing negotiating strength, with a view to opening up new external markets and expanding specific export subsectors. Emphasis was also given to improving the national food supply and marketing systems in both urban and rural areas, and to promoting export diversification.

In the Southern Area, marketing projects were carried out to strengthen alliances needed for engaging in joint negotiations in international fora. Important objectives include harmonization of the Codex Alimentarius; improving competitiveness on the international market through the creation of agroindustrial complexes; and

founding joint marketing ventures, to take advantage of, among other things, the opening of market niches.

In the Central Area, initiatives focused on agroindustrial development. To this end, efforts were directed at upgrading the technical and economic efficiency of the sector, and to increasing employment in rural areas. To achieve these objectives, two major areas will be dealt with. The first concerns conversion of agroindustries in all areas with marketing problems. Their uneven development requires that new products be developed and that the output and waste of these processes be used more fully and efficiently. The second concerns new options for processing goods to generate greater value added.

## Hemispheric Projects

### *Trade Information Service for Expanding the Intraregional and International Trade of Agricultural and Agroindustrial Products*

CASAR	7 876
TOTAL	7 876

This project was launched in 1989, and it is already linked electronically with the Foreign Trade Information Service

(SICE) of the OAS; in early 1990 it will be possible to access directly the Market News Service (MNS) of the International Trade Center of the UNCTAD/GATT. This will permit the project to offer a trade information service to national institutions and other IICA units and Offices. This service aims to streamline the trade of agricultural and agroindustrial products, and to facilitate joint trade negotiations among IICA member countries and gain greater access to international markets.

Four issues of the AGR-Y-COM bulletin were published in collaboration with the Inter-American Agricultural Documentation and Information Center (CIDIA). They contain

bibliographic references on foreign trade and on agricultural, marketing and agroindustrial projects.

### *Agricultural Diversification (Component of the IICA/CIDA project)*

CIDA	13 961
IICA	6 068
TOTAL	20 029

In 1989, preliminary results were obtained from the study conducted on potential markets for agroindustrial products, and the study of potential areas for investment was begun. Identification of quality, packing and other requirements imposed on these products by these markets was also undertaken.

### *Upgrading the Appropriate Food Technology Network for Rural Agroindustrial Development (RETADAR)*

IICA	17 669
TOTAL	17 669

The work carried out in 1989 in several LAC countries led to the establishment of a common body of interests and to the identification and analysis of projects that will be very useful in planning future actions related to the second stage of RETADAR.

One of the outstanding results of the first stage was the implementation of the Communications Network created as part of the cooperation agreement between the Food Technology Research Center (CITA) of the University of Costa Rica and IICA. This network has made it possible to organize the way in which the issues of rural agroindustry are dealt with. Another success was the RETADAR bulletin, which was published regularly throughout the year.

Training activities included six ERTEC (rural spheres of action for technologists) courses, attended by more than 150 technical personnel from Latin America and the Caribbean.





*The promotion of production and marketing in agriculture, especially in non-traditional crops, will help to reactivate the countries' economies.*

Also worthy of note was the creation of national networks for the promotion of rural agroindustry in the Dominican Republic (REDARDOM), Chile (Redar Chile) and Ecuador (Redar Ecuador). Several international institutions participated in this cooperative effort: French Technical Cooperation, the Latin American Rural Technology and Education Center (CELATER), the International Development Research Centre (IDRC) and the International Center for Tropical Agriculture (CIAT).

As concerns research, 11 case studies were carried out: three each in Costa Rica and Colombia, two each in Honduras and Ecuador and one in Bolivia.

As part of the RETADAR project, many documents were published, including papers presented at the workshop on strategies and methodologies, four booklets on rural agroindustry (rural agroindustry: its role and outlook in small-farm economies; Coopfruta; rural cheese-making in the Andes; fisheries project of the Central Ecuadoran Agricultural Services-SECA).

### ***Seminar on Agroindustrial Development In Latin America***

Bank of Brazil	15 028
BNDES	3 085
IDRC	4 506
CIDA	19 988
IICA	42 879
TOTAL	85 486

The seminar "Policies for Agroindustrial Development" was held in Brasilia, Brazil in April 1989. This event, attended by 87 officials (participants and observers), was co-sponsored by the Canadian International Development Agency (CIDA), the National Bank for Economic and Social Development (BNDES) and the Central Bank of Brazil. The seminar focused on six major topics which were: (I) "The Macroeconomic Environment for Agroindustrial Development in the Countries of Latin America and the Caribbean;" (II) "Access to and Penetration of Domestic and International Markets by Agroindustrial Products;" (III) "The Role of Technology and

the New Technologies in Agroindustrial Development;" (IV) "Agroindustrial Development in Latin America and the Caribbean: Current State and Outlook for the Future." Topics V and VI addressed the financing of agroindustrial development, and the role of the private sector and its organizations. The proceedings of this event were published and distributed widely.

## Multinational Projects

### *Support to Regional and Subregional Integration*

IICA	73 266
TOTAL	73 266

Priority activities included the analysis of marketing problems and the identification of solutions to problems affecting the

marketing of agricultural products. Technical personnel from national institutions received training in organization, structure and marketing. Progress was made in the processing of trade information, and the countries received support in their efforts to promote agroindustrial enterprises. Lastly, studies were carried out under this project on agricultural trade policies linked to the Uruguay Round of the General Agreement on Tariffs and Trade (GATT).

In 1989, technical cooperation on marketing issues was provided through joint actions at the regional level with organizations such as the Latin American Integration Association (ALADI), the Economic Commission for Latin America and the Caribbean (ECLAC), and the United Nations Food and Agriculture Organization (FAO), in an effort to boost regional trade of agricultural products by working to reduce related problems and promote trade potential. In addition, proposals to be carried out under the PLANLAC were developed; reciprocal technical cooperation was fostered among professionals and entrepreneurs from Argentina, Brazil, Chile and Uruguay on the topic of foreign agricultural trade; support was provided to study the successful fruit-growing experience in Chile, for dissemination to other countries in the region; and a multinational project was drawn up for strengthening the ministries of agriculture in the countries of the Southern Area in matters dealing with foreign trade and integration.

In relation to agroindustry, projects focused on developing and supporting small-scale and agroindustrial processing of agricultural products in rural areas, and on promoting the marketing of same. Another goal is to strengthen institutions by creating technical and trade information systems, and providing training and advisory services.

## **Program V: Animal Health and Plant Protection**

In 1989, the Animal Health and Plant Protection Program continued to offer its technical cooperation to officials of the ministries of agriculture of Latin America and the Caribbean through seven multinational projects, eight national animal health projects (Argentina, Brazil, Chile, Guyana, Haiti, Honduras, Mexico and Venezuela), and five national plant protection projects (Brazil, Chile, Mexico, Suriname and Uruguay). The Program also developed a technical-administrative plant protection action in Costa Rica in order to establish a training project on the appropriate use of pesticides.

The Program, with the support of its multinational and national specialists, provided support to several countries in preparing proposals for externally funded projects, among others, a project to strengthen the National Animal Health Service (SENASA) in Argentina, another to reinforce animal and plant health services at the Agriculture and Livestock Service (SAG), and one concerning animal health research, both in Chile. The Program also supported projects to strengthen plant protection structures in Costa Rica and El Salvador.

Program V continued to provide support to the Caribbean countries in controlling the African desert locust, and to Panama in controlling witches' broom of cacao. Other international and regional technical cooperation agencies collaborated extensively in these actions.

IICA continued to support the work of inter-American animal health and plant protection coordination groups, made up of representatives from regional and international agencies working in the countries of the region, through its participation in the annual meetings of these groups in Caracas, Venezuela and San Salvador, El Salvador.

In 1989, IICA also sponsored the work of the Inter-American Commission on Animal Health (COINSA), made up of animal health directors from the Americas, which held its third hemispheric meeting in Buenos Aires, Argentina, concurrently with a seminar on the administration and economics of animal health. The event was co-sponsored by the Economic Development Institute (EDI), of the World Bank, and the International Office of Epizootics (IOE).

IICA continued its support of the Plant Protection Technical Advisory Committee (CTC), which held two subregional meetings in the Central and Andean Areas. Plant protection directors and representatives from several agencies and institutions of the region participated in both meetings.

Also noteworthy was IICA's collaboration with several scientific associations of animal health and plant protection professionals, such as the Pan American Association of Veterinary Sciences, for which IICA continued to serve as Executive Secretariat.

Program V produced numerous publications during the year, including bibliographies on the African desert locust and economic losses in animals due to diseases and pests. It also published the proceedings of the workshop on health legislation and international agriculture trade, held in Costa Rica. This workshop was of paramount importance for outlining future support for the countries in harmonizing animal and plant health legislation that regulates the international trade of agricultural products.

During the year, 20 full- and part-time staff members, as well as 15 consultants working with Program V, responded to requests for cooperation from animal health and plant protection authorities and supported them in new projects and actions.

## Hemispheric Projects

### *Latin American Animal and Plant Health Information and Data Monitoring System*

USDA/APHIS	64 457
IICA	9 830
TOTAL	74 287

This project receives support from the United States Department of Agriculture (USDA), which provided a coordinator in charge of implementing the system.

A survey was conducted in 18 countries of Latin America to obtain the opinion of the authorities concerning the major animal and plant health problems, and to determine their interest in participating in the project.

With support from the Inter-American Agricultural Documentation and Information Center (CIDIA), a bibliography was prepared and distributed on economic losses caused by animal diseases and pests. A second bibliography, on losses caused by plant diseases and pests, is currently being developed. The first Latin American Animal and Plant Health Monitoring and Information Network (RIMSAL) Bulletin was published and will continue to be issued quarterly.

Finally, Program V collaborated in developing a system to be used in the countries for evaluating the impact of diseases and pests on animals. This system is being tested on farms in Costa Rica and is being adjusted with assistance from APHIS/NAHMS (National Animal Health Monitoring System). The approach to be used in conducting an economic evaluation of plant diseases and pests is currently under discussion.

## Multinational Projects

### *Strengthening the Technical Capabilities of Plant Protection Institutions In Order to Facilitate Regional Exchange of Agricultural Products and Inputs in the Central Area*

IICA	113 431
TOTAL	113 431

The most important results of this subregional action include a diagnostic study of the official plant protection services in Honduras, and project profiles -to be submitted for external funding- that aim to upgrade services in Costa Rica and Guatemala.

A seminar-workshop was held in Nicaragua to study the agricultural health situation, and the needs and priorities of official animal health and plant protection services. The training of rural teachers under the environmental education project on the prevention, proper handling and use of chemicals in agriculture in rural areas will begin in early 1990.

Joint activity continued between the Tropical Agriculture Research and Training Center (CATIE), IICA and the International Regional Organization for Agricultural Health (OIRSA) in support of Panama's analysis of the geographic distribution of witches' broom of cacao, a disease being controlled in Panama and which poses a threat to the Central American isthmus. IICA collaborated with Panama in the revision of its plant health regulations, with a view to updating the Plant Protection Law.

The Institute cooperated with the Dominican Republic in the preparation of a proposal for reorganizing the Plant

Protection Department of the Secretariat of State for Agriculture (SEA). The overall objective is to reduce the negative impact of pesticides and newly introduced pests on agricultural trade.

Together with OIRSA, IICA carried out courses on plant quarantine in Guatemala and Honduras. It also held a workshop in Veracruz, Mexico to identify training needs related to agricultural and forestry quarantine.

The Regional Technical Plant Protection Committee, made up of plant protection directors from the countries of the Central Area, met in Mexico, D.F., where it made significant advances in planning the execution of activities in the countries.

### ***Support to the Establishment of an Integrated Fruit Fly Management System In the Andean Area***

IICA	79 058
TOTAL	79 058

This project was designed to support the establishment of centralized national plant protection programs with an eye

to strengthening their management, planning and regulatory capabilities. This project also supported training and continuing education for personnel, and the establishment of a regional system to identify and set priorities among the problems caused by the fruit fly.

The Center for Investment Projects (CEPI) and the Program V Directorate prepared an advanced profile on the fruit fly project for the Andean Area, and began to provide related advisory services.

Thanks to bilateral cooperation, training was offered to approximately 150 technical experts in all the countries on the prevention, control and eradication of the fruit fly.

A meeting of the regional technical plant protection committee, made up of plant protection directors of the countries of the Andean Area, was held in Quito, Ecuador.

### ***Strengthening the Operating Capabilities of National Plant Protection Services in the Countries of the Southern Cone***

IICA	86 469
TOTAL	86 469

Logistic and organizational support was provided to the recently established Plant Protection Committee for the

Southern Area (COSAVE) for meetings of its Steering Committee, attended by national plant protection directors from the countries of the Southern Area. IICA serves as the Technical Secretariat for COSAVE.

With the support of the IICA Office in Chile and the United Nations Food and Agriculture Organization (FAO), a bibliography was compiled on the fruit fly, an insect of great economic and quarantine importance in the countries of the region.

As to the analysis of the situation and the solicitation of funding to strengthen plant protection services, progress was made in preparing subregional emergency and international agricultural quarantine projects, and in making an economic evaluation of the losses caused by plant diseases and pests. A project to strengthen the National Plant Protection Service (SDSV) in Brazil was begun, and in Paraguay discussion is under way to reach agreement on the PIDAP III project.

With regard to updating phytosanitary legislation, a study is being made in Brazil of new legislation on pesticides, and in Uruguay, the final touches are being put on a plant health bill.

### ***Strengthening of Animal Health Laboratory Services and Epidemiological Surveillance in the Central, Andean and Southern Areas***

IICA	325 101
TOTAL	325 101

In 1989, the subregional laboratory networks continued their work in the Central, Andean and Southern Areas. These

mechanisms are used by regional animal health specialists to

establish and develop technological exchanges related to epidemiological surveillance and animal health.

During the year, IICA continued to provide support to the Inter-American Network of Animal Health Laboratories (RILSA), which coordinates and establishes exchanges among subregional networks and among the countries. The RILSA Bulletin, published quarterly in Spanish and English, is an important vehicle for the exchange of information throughout the hemisphere.

The establishment or strengthening of national laboratory networks was promoted in all the countries through the organization of events and the execution of direct actions. In particular, emphasis was placed on activities which strengthen the financial and administrative structure of laboratory services and which promote the participation of farmers through associations and committees.

The evaluation of the laboratory system was completed for the Central and Southern Areas, and is almost concluded for the Andean Area. In this regard, a catalogue was published listing the laboratories in the Southern Area, and the services they provide.

Through this project, the Swine Fever Hemispheric Surveillance System -run by IICA with support from the Pan American Foot and Mouth Disease Center (PANAFTOSA)- has operated for two and a half years and has been received favorably by the countries.

IICA's Animal Health and Plant Protection Program carried out numerous training activities for laboratory professionals and technical personnel. In addition, three subregional projects were prepared to secure external resources needed to strengthen the operation of the laboratories.

Of note in the Southern Area was the Third Regional Course on Exotic Diseases, organized jointly by Argentina's National Agricultural Technology Institute (INTA) and the National Animal Service (SENASA), with support from the Animal and Plant Health Inspection Service of the United States Department of Agriculture (USDA/APHIS). Other important events in 1989 were the Regional Seminar-

Workshop on Clinical Pathology, held in Asuncion, Paraguay, with support from the German Agency for Technical Cooperation (GTZ) and the government of Israel; and the Regional Seminar-Workshop on Laboratory Management, held at the Pan American Zoonosis Center (CEPANZO) in Buenos Aires, Argentina.

In the Andean Area, five national seminars were held in the countries of the subregion with support from the Board of the Cartagena Agreement. The integration of national laboratory networks and the strengthening of the Andean network of laboratories were discussed at these seminars, which also resulted in the development of specific projects to reinforce veterinary services in the countries.

In the Central Area, training was provided in the diagnosis of leptospirosis in El Salvador, Honduras, Nicaragua and Panama; in diagnostic parasitology and bacteriology in the Dominican Republic; and in diagnostic parasitology in Panama. In addition, several diagnostic manuals were published to support laboratory services.

### *Surveillance and Monitoring of Animal and Plant Diseases and Pests to Facilitate Increased Production Efficiency in the Caribbean*

CIDA	99 654
IICA	110 364
TOTAL	210 018

One of the main achievements of this project in 1989 was the definition of a strategic plan to implement the Caribbean Animal and Plant Health Information Network (CARAPHIN). CARAPHIN came into being as a result of a workshop held in Port of Spain, Trinidad and Tobago, attended by animal health and plant protection directors from 13 Caribbean countries.

Two key components for the development of the project were identified at that time. The first concerns the development of a regional computerized information system on animal and plant diseases and pests which will improve the processing and dissemination of this type of data. The diseases and pests to be recorded are mainly

those that affect international trade. The information on these diseases is generated by the State-operated surveillance services in each of the Caribbean countries.

The second component is aimed at upgrading technical skills of the personnel who will work directly with CARAPHIN. Emphasis will be placed on improving research skills to ensure the collection of more complete information, and on techniques for processing and disseminating these data. This will be accomplished through annual courses, a periodic bulletin and advisory services. Likewise, support will be provided for the development of a limited number of model projects, initially two: one on animals and the other on plants, which will compile more thorough information on priority areas of concern.

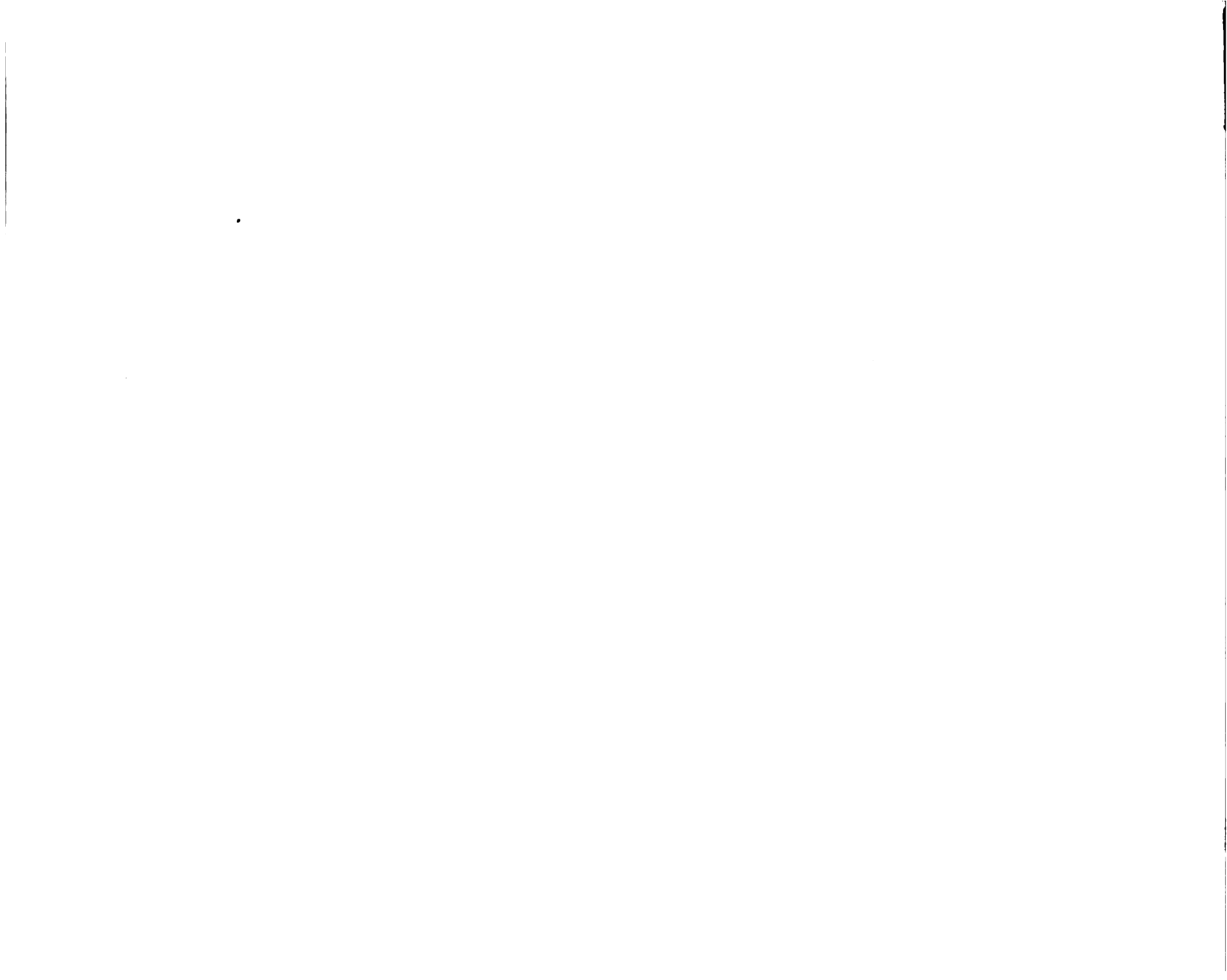
CARAPHIN headquarters is located at the IICA Office in Trinidad and Tobago, under the directorship of Dr. Barry Stemshorn. He is assisted by Dr. Theresa Bernardo, who was hired through an agreement with the Ministry of Agriculture of Canada (Agriculture Canada) and the University of Guelph.

The first regional course covering information on agricultural diseases and pests of the Caribbean was held at the University of the West Indies (UWI) in Trinidad and Tobago. This course was attended by 36 officials, including representatives from the Caribbean Area (except Haiti), as well as Belize, Monserrat and St. Kitts.

As a result of this course, staff was selected for the animal and plant health information units in the 13 Caribbean countries, which have begun to receive the computer programs that will be used in the system. CARAPHIN also made progress in talks related to the use of the Caribbean Plant Protection Data Base, developed by FAO and the Caribbean Plant Protection Commission (CPPC).

Of special importance was the active participation, in both the course and the development of CARAPHIN, of several agencies, such as the United Nations Food and Agriculture Organization (FAO), the Caribbean Agricultural Research and Development Institute (CARDI), the University of the West Indies (UWI), the Commonwealth Agricultural Bureaux International (CABI), the Pan American Health Organization (PAHO), the United States Department of Agriculture (USDA) and the Caribbean Community (CARICOM).

Also in 1989, CARAPHIN began the publication of its quarterly bulletin, which will serve as the main vehicle for dissemination of information from the Network. Furthermore, initial steps were taken to implement model projects: one on surveillance of fruit flies in Trinidad and Tobago, and the other on monitoring sanitary problems of dairy cattle in Guyana and Suriname, which interfaces with projects currently under way to develop the dairy industry in those countries.







## Chapter 3

*It is increasingly recognized that the role of women in agriculture is a key element in rural development.*

# IICA in the Countries

## IICA's Presence in the Countries

In its 1987-1991 Medium Term Plan, IICA's member countries established a new frame of reference for the action of the Institute, the key aspects of which involved focusing more attention on areas of priority to the region, and improving the efficiency and flexibility of IICA's operating units.

Pursuant to these guidelines, projects are seen as one of the cooperation instruments through which IICA carries out its strategy and plans its actions in the hemisphere. Technical cooperation projects are designed to closely reflect the development objectives of the participating country or countries. Emphasis is placed on the transfer of knowledge and experience, with a view to complementing local technical capacity.

This chapter on cooperation instruments provides an overview of agriculture's place in the economy of each Member State, makes reference to government policies designed to address shortcomings in the sector and to the strategy undertaken by IICA in response to these policies to support agricultural development in the country.

The tables describing the cooperation instruments show the real impact achieved in the member country where cooperation was provided. The information on the achievements of each project, short-term action or administrative support action shows very clearly what the Institute has done in each of its five Program areas (Agricultural Policy Analysis and Planning, Technology Generation and Transfer, Organization and Management for Rural Development, Marketing and Agroindustry, and Animal Health and Plant Protection).

*This chapter highlights the actions carried out by IICA in its member countries. The information is divided into four sections corresponding to the geographic areas in which the Institute operates.*

*Each section begins with a brief summary of the status of agriculture in the particular area, followed, when appropriate, by a description of multinational activities carried out under the respective Directorate of Area Operations.*

*Next, an overview is given of the situation of agriculture in each country, followed by tables listing technical cooperation actions under way. These summarize the objectives of the cooperation activities and offer a brief evaluation of the results available at the time of the publication of this report.*

## IICA's Offices in the Countries

IICA's Offices in the countries provide the institutional and administrative base needed for implementing the Institute's activities, and play a major role in: maintaining ties with government authorities; providing administrative and logistic support to the activities of IICA's five Programs; providing technical assistance to the countries faced with unanticipated problems; developing project identification, administration and implementation capabilities; and implementing projects that provide services in the countries.

The structure of the IICA Offices varies considerably from country to country. They are headed by a Representative, who is responsible for the management of the Office, and who reports to one of the Directors of Area Operations under the Office of the Assistant Deputy Director General for Operations, at Headquarters in Costa Rica.

The IICA Offices in Canada and the United States of America, because of the special role they play within the Institute, have been placed under the authority of the Director General, through the Director of External Relations.

## Central Area

The countries of the Central Area are Costa Rica, the Dominican Republic, El Salvador, Guatemala, Honduras, Mexico, Nicaragua and Panama. This subregion is host to numerous reciprocal cooperation efforts, and IICA itself administers several regional projects there.

It can be said that, with the exception of Mexico and perhaps the Dominican Republic, the remaining countries of this group share problems that can be addressed through similar strategies at the national level and through a common strategy at the regional level, which would include Mexico providing technical cooperation. This important task has been promoted by the Regional Council for Agricultural Cooperation in Central America, Mexico, Panama and the Dominican Republic (CORECA).

Certain countries and financial organizations from outside the region continued to fund joint development ventures in the Central Area. The Inter-Institutional Group of the Agricultural Sector (GISA) has played a key role in this effort by coordinating the many different initiatives. In the Central Area, the Plan of Joint Action for Agricultural Reactivation in Latin America and the Caribbean (PLANLAC) will benefit from the Special Program of Economic Cooperation for Central America (PEC), administered by the



United Nations Development Program (UNDP). This is coordinated through meetings of the ministers responsible for integration, which have become a political forum within the PEC. The PEC and the initiatives of the European Economic Community (EEC) will surely become the most important sources of funding for the Central American isthmus.

Foreign debt in the Area, rather than decreasing, increased in 1989. The population continued to grow at a rate exceeding the average for Latin America as a whole. Unemployment rose and agricultural production grew by a mere 0.5% for the year.

This situation, combined with macroeconomic changes worldwide, has produced an economic crisis unparalleled in the history of the subregion. These negative factors have led to a levelling-off of per capita income in the region, increased poverty for those with the lowest incomes, and produced more hunger and nutritional deficiencies.

Economic policymakers have had to rethink the role of agriculture in development, a role of vital importance at this moment in the history of each country and the subregion. In addition, consensus is growing on the need to promote closer ties between the countries of the Area, in view of the similarities of their economies. Both these points make the outlook for the Area more optimistic.

In 1989, there were many meetings that provided opportunities for the exchange of ideas and the reaching of agreements among administrative, economic and political authorities of the subregion, and in which participants sought joint solutions to problems –especially, economic ones– for the Area. IICA, through the PLANLAC, has facilitated the implementation of joint actions to solve specific problems in the agricultural sector.

In general, it is still felt that the agricultural sector can pull these countries out of the current crisis. Diversification of production, and increased exports through non-traditional products and more stable markets, were two of the major policy objectives followed in 1989.

Progress, however, will have to go hand in hand with profound and long-term changes in the sector, including improved land use, adoption of modern technology, new infrastructure for irrigation, improved access to credit and insurance, new marketing channels, promotion of agroindustry, training for small farmers and many others. All of these issues were addressed by the countries, to varying degrees, in 1989.

Below are descriptions of three subregional projects the Institute is executing in the Central Area.

***Support to the Secretariat of the Regional Council for Agricultural Cooperation in Central America, Mexico, Panama and the Dominican Republic (CORECA)***

Countries	79 754
CADESCA/EEC	310
IICA	133 177
Total	213 241

The actions carried out by the Secretariat of CORECA in 1989 concerned agreements and resolutions issued by the Council of Ministers at its

Ninth Regular and Fifth Special Meetings, and new responsibilities resulting from changes in the focus of international cooperation towards peace and development in the subregion.

The Secretariat participated in the changes affecting the institutional process in Central America to boost cooperation for development. In particular, it assisted in fulfilling the mandate of the United Nations General Assembly concerning the implementation of the Special Program of Economic Cooperation for Central America (PEC).

It also collaborated in implementing mechanisms to coordinate the activities of subregional and international agencies, such as the Inter-Institutional Group of the Agricultural Sector (GISA), which was founded to coordinate proposals for regional projects.

Its participation in designing the Plan of Joint Action in Support of Agricultural Reactivation and Development in the Countries of the Central American Isthmus and the Dominican Republic was significant, involving an intense process of consultation and dialogue among sectors in each country, and at multi-sector forums at the subregional level.

In their efforts to promote agricultural interests in the subregion, the CORECA Council of Ministers and IICA signed an agreement with the Commission of the European Community to fund a program to strengthen agronomic research in staple grains in Central America for 10.8 million ECUs (approximately US\$12 910 000).

In addition, the Council, through its Secretariat for Coordination, is still negotiating the funding of regional projects related to the priority areas identified in the Plan of Joint Action.

***Support for Starting Up the Trinational Commission, its Executive Secretariat and the Trinational Sectoral Commissions for the Trifinio Plan***

IICA	93 087
TOTAL	93 087

Activities related to the development of border areas are becoming increasingly important because they facilitate

integration and offer possibilities for joint actions on behalf of the inhabitants of these areas.

The Trifinio Plan is an ambitious effort at socioeconomic development in the border areas of Guatemala, Honduras and El Salvador (7 600 km<sup>2</sup> and 575 000 people), which resulted from an effective integration process undertaken by the three countries.

The Plan receives support from the Organization of American States (OAS) and IICA through a technical unit established under an agreement to execute a project promoting the integrated development of border areas in Central America. It was signed in November 1988 and is set

up to support this and other efforts to develop border regions. According to the terms of the agreement, the OAS and IICA each contribute US\$100 000 per year to this project.

The development of the Trifinio Plan by the OAS and IICA responds to a resolution issued by the vice presidents of Central America, at their meeting in San Jose, Costa Rica from September 12-13, 1988. In this resolution, they requested that a unit be created to support the development of border regions in the countries of the area, to identify and prepare projects promoting integrated development of border regions, and to collaborate with countries interested in executing such projects.

Studies began in 1987, and, to date, 31 sub-projects have been identified and their respective profiles prepared, all of which have been submitted to potential cooperation agencies for funding. Efforts to secure funding include the meetings held with the French-Guatemalan scientific mission to analyze profiles of archaeological projects, with a Spanish technical mission to formulate irrigation projects, and with technical personnel from IICA-Radio Netherlands and the government of the Kingdom of the Netherlands for a region-wide radio broadcasting project.

Progress was made in negotiating for resources from the Inter- American Development Bank (IDB) and the United Nations Development Programme (UNDP). IICA, the IDB, the OAS, the EEC and the Central American Bank for Economic Integration (CABEI) participated in a panel discussion of strategies for funding the Trifinio Plan's portfolio of projects.

Technical meetings were held to deal with the implementation of the Trifinio development strategy approved by the vice ministers, identify projects, prepare documentation for the Trinational Commission (made up of the vice presidents of the three countries), set agendas for the meetings and prepare the budget and plan of operation.

Activities were carried out in support of the Executive Secretariat of the Commission, and technical documents were prepared in close coordination with the Secretariat.

Under the OAS-IICA agreement, a conceptual framework was drawn up for development of border areas in the Central American isthmus. It was presented at a meeting of the Inter-Institutional Group of the Agricultural Sector (GISA) for inclusion in the portfolio of projects of the U.N. Special Program of Economic Cooperation for Central America (PEC). Another such activity was the juridical and technical study of border agreements between Costa Rica and Panama, conducted with a view to drafting a regional development plan for the border zone of the two countries.

Following specific guidelines established in the Trifinio Plan, collaboration was provided in designing, organizing and preparing a forestry development plan for Guatemala. During the Trifinio Fair, information was disseminated on the Trifinio Plan.

***Support for the Implementation and Operation of the Mexico-Guatemala Subcommission on Agriculture and Forestry***

IICA	8 774
TOTAL	8 774

The establishment of the Mexico-Guatemala Subcommission on Agriculture and Forestry began as an unanticipated short-term action in 1989 to upgrade institutional capabilities by strengthening binational actions involving the exchange of technology and professionals between the countries. This activity also served to provide support to IICA's activities to strengthen the Agricultural Sector Planning Unit (USPADA) of Guatemala in connection with policy analysis. In Mexico, it aided in improving communication with the General Directorate of International Affairs (DGAI) of the Secretariat for Agriculture and Water Resources (SARH), and led to Mexico providing support to Guatemala.

IICA provided logistic support and support in the execution of bilateral technical cooperation meetings. The Institute helped draw up a proposal to institutionalize a mechanism to provide ongoing support to the Technical Secretariat of the Subcommission, including the strengthening of the Subcommission on Fisheries and Aquaculture, recently established by the two countries. The Subcommission's contributions to the Binational Mexico-Guatemala Scientific and Technological Agreement were important.

Personnel from the DGAI-SARH, of Mexico, and the USPADA, of Guatemala, participated in this activity; direct beneficiaries were the public agricultural sectors and the cooperative programs being carried out by Mexico and Guatemala. These include programs to control the Africanized bee, the Mediterranean fruit fly, and the screwworm; the International Cooperation Center for Preinvestment (CIPREDA); and the agreement between the Agricultural Science and Technology Institute (ICTA) of Guatemala and the National Institute for Agricultural and Forestry Research (INIFAP) of Mexico.

## Costa Rica

An increase of 5% in the gross domestic product (GDP), combined with 11% inflation and 4% open unemployment, indicate how well the economy performed in 1989. There was a notable increase in exports to new markets and a 29% increase in non-traditional exports over 1988.

The agricultural sector of Costa Rica represents the economic base of the economy not only because of the contribution it makes to the GDP (19% in 1989), but also because of its role in generating jobs (28%) and foreign exchange (64% of total value of exports). It was responsible for more than 25% of the growth in the export of non-traditional products.

These positive trends resulted from policies implemented by the government to diversify agricultural production. Twenty-one national sectoral programs were implemented with a view to increasing exports. The generation and transfer of production technology and the existence of markets and credit for production and investment greatly contributed to the success.

In support of government efforts to diversify agricultural production, the IICA Office in Costa Rica collaborated with the national sectoral programs by organizing meetings, seminars and courses. It also facilitated training of Costa Rican technical personnel abroad, supported the process of decentralization and regionalization of the Ministry of Agriculture and Livestock (MAG), and participated in the National Agronomic Congress.

IICA also lent support to the organization of an agricultural commodities exchange, and administered financial resources for technical activities, projects and training events to benefit the sector. The Office offered technical cooperation, under the Institute's five areas of concentration, to public and private institutions associated with the agricultural sector.

Among the multinational activities carried out in Costa Rica related to animal health, IICA provided support for a meeting between Nicaragua and Costa Rica to define zoonosanitary policies. Several professionals from Costa Rica received specialized training in diagnostic bacteriology and veterinary virology. In connection with plant protection, an investment project profile to upgrade MAG's General Directorate of Plant Protection was concluded.



*Many kinds of support and incentives for the small farmer form part of IICA's action in the Central Area.*



## Costa Rica

■ Instrument	● Objectives	○ Achievements	Resources	
■ Strengthening Mechanisms for Implementation and Adjustment of Agricultural Sector Policy			Source	Amount
● To institutionalize mechanisms for implementing and adjusting agricultural sector policy, and for strengthening MAG's planning system.			IICA	57 977
			TOTAL	57 977
<ul style="list-style-type: none"> <li>○ Several documents were written on the analysis and adjustment of agricultural sector policy. More specifically, they addressed key aspects of the international scene affecting the performance of and outlook for Costa Rica's economy and agricultural sector; basic trends in the Costa Rican economy over the long term; and guidelines on major sectoral policy objectives and strategies, in the context of structural adjustment. An analysis was also made of the strategy for elaborating the sectoral diagnosis; of the socioeconomic aspects of agricultural sector diagnosis; and of the diagnosis of the cocoa subsector. A first version of a quantitative sectoral framework (sectoral statistics) was prepared.</li> <li>○ In the area of information systems for use in policy analysis, a data base was prepared covering many of the commodities targeted by the national sector programs and for use in disseminating reports on same. This data base contains information on several variables for cotton, rice, bananas, cocoa, coffee, shrimp, sugar cane, beef, coconut, beans, ginger, lobster, milk, macadamia, corn, pepper, pineapple, roots and tubers, sorghum, tobacco and cassava.</li> <li>○ A region-wide data base on rice, bananas, sugar cane, sugar, beans, corn, sorghum and tobacco was established.</li> <li>○ A data base on prices of agricultural inputs was put into operation, as was another on projects. A registry of agricultural sector projects, with information on 128 projects, as well as another on taxes, were established.</li> <li>○ The Executive Secretariat for Agricultural Sector Planning and Renewable Natural Resources (SEPSA) was assisted in preparing a document containing basic sectoral information.</li> <li>○ A method for determining production costs of perennial crops was developed, including financial analyses of oranges, coconut and sugar cane, as was one for annual crops: rice, corn, beans, sorghum and tiquisque (a tuber).</li> <li>○ Proposed guidelines were drawn up for establishing the central unit of the national agricultural information system.</li> <li>○ To strengthen MAG's planning system, user's manuals were written and published for the computerized system to follow up on and evaluate the annual plan of operation, and for the system itself.</li> </ul>				

■ Instrument	● Objectives	○ Achievements	Resources	
			Source	Amount
<b>■ Supporting the Executive Secretariat for Agricultural Sector Planning and Renewable Natural Resources (SEPSA)</b>	<ul style="list-style-type: none"> <li>● To manage the financial resources of the MAG-IICA Agreement, and to provide the administrative services SEPSA requires to carry out its duties in the sector.               <ul style="list-style-type: none"> <li>○ Funds administered, goods purchased and services contracted to enable SEPSA to carry out its duties in the sector.</li> </ul> </li> </ul>		MAG-SEPSA TOTAL	20 445 20 445
<b>■ Technical Cooperation Services for the Program to Increase Agricultural Productivity (PIPA)</b>	<ul style="list-style-type: none"> <li>● To strengthen entities which execute the program by hiring seven specialists to work on different areas of PIPA's subprograms on research, transfer and seed production.               <ul style="list-style-type: none"> <li>○ Preparation and presentation of the experts' final reports on: economic evaluation of research and technology transfer; production of forage seeds; planning and administration of research and technology transfer. They include six manuals on agronomical aspects of pasture seed production, industrial conversion, quality control, storage and conservation, marketing, and the administration of pasture seed production programs.</li> <li>○ Methodology instituted for determining which commodities merit research; the number was reduced from 88 to 36.</li> <li>○ Information delivered and MAG's national research programs begun.</li> <li>○ Agro-socioeconomic Studies Program (PREASE) designed and organized.</li> <li>○ System in operation for conducting economic evaluations of research and technology transfer.</li> </ul> </li> </ul>		PIPA TOTAL	30 289 30 289
<b>■ Research for Improving Feeding Technology for Dairy Livestock Using Mowed Forage</b>	<ul style="list-style-type: none"> <li>● To investigate the possibility of improving dairy livestock feeding with mowed forage.               <ul style="list-style-type: none"> <li>○ Five additional farms incorporated into the project, where six species of ground pasture and seven types of mowed forage are produced, and where the impact of using mowed forage for livestock is being evaluated from the economic and biological points of view.</li> <li>○ Mechanism designed for codifying information compiled, which will provide an overview of dairy activity in the country.</li> <li>○ Seventy-three surveys conducted in six high-altitude counties, and 61 in seven low-altitude counties, to characterize the prevailing dairy production system.</li> </ul> </li> </ul>		MAG-Forages TOTAL	23 117 23 117

■ Instrument	● Objectives	○ Achievements	Resources Source	Amount
	<ul style="list-style-type: none"> <li>○ Information collected for the characterization of technology transfer systems in nine of the 13 areas of the study.</li> <li>○ Preliminary identification made on ecological areas in which the results of the experiments can be applied.</li> <li>○ Analyses made of the yield of perennial forage species, and of the quality of dry material from such materials obtained and processed at the 13 farms of the study.</li> </ul>			
<b>■ Evaluation of Corn Technology Adopted in Costa Rica</b>			MAG-Evaluation	4 013
	<ul style="list-style-type: none"> <li>● To administer resources, hire consultants to carry out the project, and provide administrative services. <ul style="list-style-type: none"> <li>○ Consultants hired and resources administered under IDRC/MAG/IICA Agreement. Goods and services required by MAG and the consultants to carry out the study provided, under the technical guidance of MAG.</li> </ul> </li> </ul>		TOTAL	4 013
<b>■ Technical Cooperation in the Identification, Preparation and Execution of Rural Development Projects by Small-Farmer Organizations</b>			IICA	96 660
	<ul style="list-style-type: none"> <li>● To strengthen the technical teams of national institutions associated with rural development in the use of participatory methods for preparing projects with small-farmer organizations. <ul style="list-style-type: none"> <li>○ Eight rural development projects prepared for small-farmer organizations.</li> <li>○ Ten new teams formed, with technical personnel from MAG extension agencies in Guanacaste; training provided in participatory diagnosis.</li> <li>○ Fifteen small-farmer organizations selected, involving 450 families. Work begun with technical teams.</li> <li>○ Diagnoses prepared of six small-farmer organizations, as was a preliminary version of a document describing the program to consolidate small-farmer settlements.</li> <li>○ Twenty-three technicians from MAG, the Agricultural Development Institute (IDA) and the National Subterranean Water, Irrigation and Drainage Service (SENARA) trained in identifying, preparing and negotiating projects and in organizing farmers.</li> <li>○ Twenty-six technicians from MAG in Guanacaste trained in the preparation of participatory diagnoses, farm development and the use of computers to develop projects.</li> <li>○ Workshops held with selected groups in order to identify and find solutions to the major problems affecting production and organization.</li> </ul> </li> </ul>		TOTAL	96 660

■ Instrument	● Objectives	○ Achievements	Resources	
			Source	Amount
■ Creation of the Office for Control and Follow-up (OCS) of Agricultural Development and Social Welfare Programs	● To administer funds, hire consultants, purchase goods and contract the services needed for the efficient operation of OCS.	○ Funds administered, consultants hired, goods and services purchased and contracted, as needed for the proper operation of OCS.	AID/BCCR	93 789
			TOTAL	93 789
■ Preparation of a Proposal for a Rice-marketing Corporation	● To design a nation-wide rice-marketing corporation, and to present a proposal on the subject to national authorities.	○ Document published, presented and delivered to Minister of Agriculture and Livestock, along with a proposal for improving the system for marketing rice in Costa Rica.	IICA	9 678
			TOTAL	9 678
■ Environmental Education for the Appropriate Handling and Use of Agricultural Chemicals in Rural Areas	● To hire consultants to prepare two textbooks to be used by educators in the rural areas of Costa Rica, and to promote and use same for educational purposes; to administer the resources of the agreement.	○ Consultants hired and two textbooks prepared on the appropriate handling and use of agricultural chemicals in rural areas.	GIFAP	29 156
			TOTAL	29 156

## Dominican Republic

The situation of agriculture in the Dominican Republic varied little between 1988 and 1989. Increases were seen in some traditional commodities, especially those sold on the domestic market, and in the volume of exports of some non-traditional products. Imports of milk, edible fats, chicken, corn, beans and rice increased.

An excess demand for basic goods was attributed to generally higher incomes –especially in the working class, which found new jobs in construction, free trade zones and the tourist industry– and to country-to-city migration. As a result of this surge of new consumers, demand outstripped supply, and prices shot beyond the reach of the lower income groups.

The country continued its policy of funding public sector activities and agricultural development with domestic savings. Recently, the government approved and applied a major adjustment of the interest rate (12-18% to 30%) that the Agricultural Bank charges on loans for agricultural production.

Another important change in sectoral policy occurred within the National Price Stabilization Institute (INESPRE), which assumed its original role.

The most significant change taking place in agricultural policy was the decision to initiate sectoral modernization. IICA drew up a proposal for modernizing institutions and reactivating agriculture, which has been approved by the Secretariat of State for Agriculture (SEA). IICA also helped formulate projects and design mechanisms for securing the funding needed to implement it.

In the area of technology generation and transfer, the Office continued to collaborate with SEA, especially with its agricultural research department. In connection with rural development, there was little change with respect to last year. Emphasis was placed on the preparation of methodological documents, training professional personnel in computer

sciences, and training technical personnel and farmers. In addition, preparatory work was done on the 1989-1993 Training and Study Program on Agrarian Reform and Rural Development for the Central American Isthmus and the Dominican Republic (PRACA) Agreement. These activities involve the SEA, the Dominican Agrarian Institute (IAD), the National Institute of Water Resources (INDRHI) and other institutions outside the sector.

Activities related to marketing and agroindustry involved training and the development of methodologies for self-management of the Integrated Rural Service Centers (CENSERI) in Monte Plata y Yamasa.

All activities carried out by the Institute in the Dominican Republic placed emphasis on the participation of rural women and youth.

The Institute and the government worked together systematically on animal health and plant protection issues. Emphasis was given to training personnel locally, and through their participation in regional and hemispheric events. A joint activity with the University of Wisconsin to detect the presence of the blue tongue virus in the Dominican Republic was initiated, and a proposal was prepared and approved to improve phytosanitary services.

## Dominican Republic

- Instrument
- Objectives
- Achievements
- Technical Support for Reorganizing and Operating the Technology Generation and Transfer System
  - To cooperate in reorganizing and operating the research system and in training its personnel in modern administration and management practices.
    - Technology transfer units in operation at one research center and one experimental station.

Resources	
Source	Amount
IICA	66 938
TOTAL	66 938

■ Instrument	● Objectives	○ Achievements	Resources Source	Amount
		<ul style="list-style-type: none"> <li>○ Two analyses made of the impact of technology on rice cultivation by the International Service for National Agricultural Research (ISNAR) and IICA.</li> <li>○ Participation of the country in the Regional Network for Cacao Technology Generation and Transfer (PROCACAO) promoted.</li> <li>○ Methodological document prepared for early detection of pests and diseases in cocoa, approved by the SEA and awaiting allocation of resources.</li> <li>○ Working relationship promoted with the Agricultural Development Foundation.</li> <li>○ Cooperation missions completed in Costa Rica, Mexico and Uruguay.</li> <li>○ Close collaboration with SEA's agricultural research department, especially for training personnel in experimental techniques, the procedures participating effectively in PROCACAO, consolidating validation and transfer units at research centers, and developing methodologies for the National Cocoa Technology Development Center (CENDETECA).</li> </ul>		
■	<b>Establishing a Follow-Up and Evaluation Unit for the Project to Upgrade Small-Scale Food Production</b>		SEA TOTAL	163 788 163 788
	●	<ul style="list-style-type: none"> <li>To organize and implement a follow-up and evaluation unit, and to upgrade the system's efficiency. <ul style="list-style-type: none"> <li>○ Follow-up and evaluation unit set up and equipped.</li> <li>○ Reports prepared on the small-scale food producers (FIDA II) and coffee and cocoa development projects.</li> <li>○ Sixty-three technicians received computer training and training in the use of methods for evaluating and following up on project reports.</li> </ul> </li> </ul>		
■	<b>Strengthening the Capacity to Manage Rural Development Programs and Projects</b>		SEA SEA/PROPLAN/ CAMBRONAL IICA TOTAL	87 076  5 733 68 481 161 290
	●	<ul style="list-style-type: none"> <li>To contribute to upgrading the capacity to implement and adjust rural development policies. <ul style="list-style-type: none"> <li>○ Diagnosis made of and proposal drafted for agricultural modernization and reactivation, later approved by SEA; funding requests submitted to the IDB and World Bank.</li> </ul> </li> </ul>		

■ Instrument	● Objectives	○ Achievements	Resources Source	Amount
	<ul style="list-style-type: none"> <li>○ Alternatives prepared for the Plan to Consolidate Integrated Rural Service Centers, and three project profiles drawn up on small-farm enterprises, agroindustries and farmers' markets.</li> <li>○ Four participants toured agroindustries in Costa Rica.</li> <li>○ National plan prepared for technical assistance and support to production in rain-fed plains</li> <li>○ Information gathered and proposal prepared on agrarian settlements. Collaboration provided for establishing self-managed enterprises in agrarian reform settlements.</li> <li>○ Support given to the consolidation of settlements at Puerto Escondido and San Ramon.</li> <li>○ Terms of reference completed on the environmental project to rehabilitate the Constanza farming area.</li> </ul>			
■ Establishing a Follow-Up and Evaluation Unit for the Nizao-Valdesia Project			INDRHI no. 3	12 237
	<ul style="list-style-type: none"> <li>● To strengthen the Unit and expand its services. <ul style="list-style-type: none"> <li>○ Forty-one technicians received training in accounting practices and the use of computer programs and data bases.</li> <li>○ Project prepared on the project to involve women and youth in rural development activities in the Sabaneta Dam area.</li> <li>○ Foundations laid for horizontal cooperation between the Secretariat of Agriculture and Water Resources (SARH) of Mexico and the National Institute of Water Resources (INDHRI) of the Dominican Republic.</li> </ul> </li> </ul>		TOTAL	12 237

## El Salvador

The principal agricultural indicators show that this sector has deteriorated steadily over the past ten years. Between 1978 and 1988, the overall index of per capita agricultural production dropped by 29%. While overall food supply for that period fell by 21%, agricultural exports declined each

year by 31%. As a result, the net trade balance for the sector worsened between 1978 and 1985.

Among the causes of the economic crisis is the import-substitution model, which undermined agricultural activity and benefitted industry. Resources were transferred from

the traditional to the modern sector, making manufacturing more profitable than agriculture. The armed conflict (besetting primarily the rural areas), the continued drop in international prices, overvaluation of local currency, and a reduction in aggregate domestic demand further compounded the grave situation of agriculture. Efforts were made to improve State operation by increasing the financial and administrative management skills of personnel, and by streamlining policies on foreign trade and domestic supply.

Government policies adopted to promote agricultural development sought to turn around macroeconomic distortions that most seriously affect agricultural economy, i.e., overvalued exchange rate policies, trade policies providing economic protection for sectors and commodities, and tax policies. A policy offering equal tariff protection for goods and sectors, based on a moving average of



*Improvements in coffee cultivation, through biotechnology and the control of pests, continue to benefit the Central American countries.*

international prices and on the removal of import restrictions, is being called for. Also being proposed are: liberalizing interest rates; reorganizing agricultural banks and cooperatives for greater efficiency; privatizing and decentralizing coffee, sugar and cotton processing and trade; streamlining land sales and purchases and promoting more efficient land use. The government's plans also include developing a food subsidy program for target groups; strengthening the irrigation investment and management system; and redesigning the research and technical assistance system.

In 1989, IICA's Office in El Salvador considerably increased its cooperation in that country, especially under the Marketing and Agroindustry Program.

Several rural development activities were carried out with the Ministry of Agriculture and Livestock (MAG), for example the agricultural cooperatives of the reformed sector through a project to evaluate rural production enterprises for participatory self-management. Under the Agricultural Policy Analysis and Planning Program, an important project on institutional strengthening of MAG was begun, the goal of which is to upgrade the technical capacity of this ministry in connection with policy analysis, project formulation and management, and organization and operation.

In 1989, several activities were carried out under the Cooperative Program for the Protection and Modernization of Coffee Cultivation (PROMECAFE). Thirteen validation plots were established to study the integrated management of coffee rust and coffee berry borer, and an epidemiological study on coffee rust received support. A subproject was carried out to determine nozzle efficiency on hand-held equipment used in the control of coffee rust.

PROMECAFE published the proceedings of an international course offered on agrochemical application technology. Also, the findings of three years of a study to validate chemical control of coffee rust were presented at two seminars.



## El Salvador

■ Instrument	● Objectives	○ Achievements	Resources Source	Amount
<b>■ Institutional Strengthening of the Public Agricultural Service for the Rural Population</b>	● To contribute to upgrading MAG's technical capacity in policy analysis, project formulation and management, and organization and operation.	<ul style="list-style-type: none"> <li>○ Project document, initial report, project work plan and terms of reference for hiring of consultants completed.</li> <li>○ Assistance provided to water management project; document on irrigation policies concluded.</li> <li>○ Preliminary terms of reference defined for technical cooperation with the National Agricultural School (ENA); program designed for seminar on strategies for agricultural development in El Salvador.</li> </ul>	IICA TOTAL	77 975 77 975
<b>■ Training in the Social Organization of Production, to Promote the Development of Self- managed Enterprises in Agrarian Reform Cooperatives</b>	● To upgrade the administrative structure of reformed sector cooperatives, with a view to contributing to consolidating self-management skills.	<ul style="list-style-type: none"> <li>○ Sixty-five cooperatives declared capable of self-management. Two manuals on administration and cooperation prepared, reflecting the structure of the cooperatives.</li> </ul>	IICA TOTAL	36 494 36 494
<b>■ Planning, Integration and Evaluation of Rural Production Enterprises for Participatory Self-management</b>	● To contribute to developing participatory self-management skills in economic-entrepreneurial matters for El Salvador's agricultural production system, so as to improve the quality of life of rural families and boost socioeconomic development.	<ul style="list-style-type: none"> <li>○ Production plans at the plot and farm level prepared and carried out for coffee, cotton and other crops, to establish comparisons and determine level of profitability.</li> <li>○ Application of the SIMPLE system in planning the construction of 20 housing units at the Florencia Cooperative. Publication, by the Salvadoran Federation of Agrarian Reform Cooperatives (FESACORA), of 12 production modules for use in providing training on the elaboration of production projects for small businesses involving rural women and youth.</li> </ul>	IICA TOTAL	75 344 75 344

■ Instrument	● Objectives	○ Achievements	Resources Source	Amount
	<ul style="list-style-type: none"> <li>○ The SIMPLE System, applied to agroindustry, produced five production plans for managing large coffee processing plants.</li> <li>○ Technical materials developed for teaching the SIMPLE method, aimed at rural women and youth, for the development of small businesses.</li> <li>○ Associate manager/owners prepared as a result of training on effective self-management in the administration of agricultural enterprises.</li> <li>○ Many cooperatives drew up manuals, rules and procedures following management training received under the SIMPLE system.</li> </ul>			
■ Promotion of Small-Farmer Participation in Agroindustry and Marketing			FOSEP TOTAL	243 345 243 345
	<ul style="list-style-type: none"> <li>● To draw up 50 prefeasibility studies on marketing and agroindustry for agricultural cooperatives. <ul style="list-style-type: none"> <li>○ Seventeen prefeasibility studies prepared, equalling 34% of the goal.</li> <li>○ In-service training provided for two officials from the Salvadoran Institute for Agrarian Transformation (ISTA) and MAG in the formulation of investment projects for marketing and agroindustry.</li> <li>○ Technical writing course offered for 20 technicians and four typists, with a view to improving the quality of reports.</li> </ul> </li> </ul>			

## Guatemala

Despite a drop in its share of the GDP, the agricultural sector continues to be the most important in the economy of Guatemala. Agriculture employs 50% of the work force and accounts for 25% of the GDP.

Agricultural exports are responsible for most of Guatemala's foreign exchange earnings. However, economic

activity in the sector is still influenced by changing conditions in the markets for export products, and the drop in the prices explains in part the current stagnation of agriculture in the country.

With the exception of rice, the sector has not been able to produce sufficient basic grains. The principal restrictions

are inappropriate technology, funding shortages, inefficient marketing, and the absence of policies promoting agricultural production.

The technology problem is associated with the size of the farms used for production of these crops (two-thirds are smaller than 3.5 hectares). This restricts the farmers' access to technical assistance, credit and other services. In addition, on most of these farms production losses are caused by diseases and improper post-harvest handling. The country's difficulties in generating foreign exchange, as well as the need to import industrial inputs and consumer products, have led to stagnation of economic activity. As a result, area under cultivation, and thus production and productivity, have declined.

The Ministry of Agriculture, Livestock and Food (MAGA) must upgrade its capacity to interpret and foresee the impact of overall economic-financial policies on the sector. This would enable it to design a coherent sectoral policy reflecting both the problems and the potential of the agricultural sector.

Given the importance of the sector to the balance of payments situation and as a domestic food supplier and principal employer of the rural population, the MAGA outlined a strategy to guarantee an adequate food supply; promote diversified agriculture; produce most of the agricultural commodities now imported; support agroindustry; and ensure the rational and efficient use of renewable natural resources.

In 1989, the IICA Office in Guatemala provided technical cooperation to the public agricultural sector and to non-governmental agencies, in connection with agricultural policy analysis, dual-purpose cattle production, administrative support to public agricultural sector emergency

projects, the national agricultural extension service, the establishment of farmers' markets, and the program to honor the country's best farmers' and the best employees of the Ministry of Agriculture. Technical assistance was also provided to the animal health program.

At the subregional level, the Cooperative Program for the Protection and Modernization of Coffee Cultivation in Mexico, Central America, Panama and the Dominican Republic (PROMECAFE) strengthened agronomic research action and promoted the technification of coffee cultivation. In Guatemala, plots of land were used to study the control of coffee rust disease and coffee berry borer; analyses were conducted of pesticide residues; genetic materials were selected and tissue cultures developed. Several national courses and regional workshops were held on the subject.

The Office also provided support for studies on the integration of the agricultural sectors in Central America, and supported the integration process in the Trifinio Border Zone.

Under the agreement between IICA and the Permanent Secretariat of the General Treaty on Central American Economic Integration (SIECA), work has been done to identify topics relating agriculture and integration, to provide training related to macroeconomic policies and install at SIECA the data base of the Information System for Agricultural Policy Analysis in Latin America and the Caribbean (SIAPA).

In order to systematize and better support actions undertaken in the field of agriculture, the Office also contributed to preparing documents for the Inter-Institutional Group of the Agricultural Sector (GISA), and to organizing a regional seminar-workshop on macroeconomic and sectoral policies and rural development, co-sponsored by the EDI/World Bank, SIECA and IICA.

## Guatemala

■ Instrument	● Objectives	○ Achievements	Resources
			Source      Amount
<p>■ Supporting the Minister's Office and the Agricultural Sector Planning Unit (USPADA) in Upgrading Agricultural Policy Analysis Capabilities</p> <ul style="list-style-type: none"> <li>● To improve the capacity of advisory units of the Minister's Office in analyzing, defining and executing sectoral policies, and in analyzing macroeconomic policies.               <ul style="list-style-type: none"> <li>○ Studies conducted on inflation, foreign debt of the sector and other related topics, to determine the effects of macroeconomic policy on the sector.</li> <li>○ Project on harmonization of policies prepared. Terms of reference drawn up for a study on opening up the intraregional trade of staple grains. Five documents prepared on macroeconomics; three seminar-workshops held.</li> </ul> </li> </ul>			<p>IICA            76 716</p> <p><b>TOTAL        76 716</b></p>
<p>■ Improving Dual-Purpose Cattle Production Systems (Phase II)</p> <ul style="list-style-type: none"> <li>● To strengthen linkages between research and technology transfer in animal production. To develop, propose and validate technological innovations adaptable to conditions in Regions IV and VI.               <ul style="list-style-type: none"> <li>○ National counterpart institutions strengthened through the creation of the project's technical committee, made up of representatives from the Agricultural Science and Technology Institute (ICTA), the General Directorate of Livestock Services and the School of Veterinary Medicine and Zootechny of the University of San Carlos.</li> <li>○ National technical personnel trained in research-transfer methods, and in animal production.</li> <li>○ Selection of grass and oilseed germplasm completed for the southeastern and southern coast of the country. Selected varieties of mowed forage obtained. Alternative supplementary feeds for calves and cows during the dry season identified and evaluated.</li> </ul> </li> </ul>			<p>IDRC-Canada    91 451</p> <p><b>TOTAL            91 451</b></p>
<p>■ Support to Rural Development and Organization of Small Farmers</p> <ul style="list-style-type: none"> <li>● To provide support in defining rural development policies and programs, and in institutional strengthening.               <ul style="list-style-type: none"> <li>○ Diagnosis made of rural development programs; subsequent preparation of the short-term action on support for the public sector in institutional strengthening for rural development.</li> </ul> </li> </ul>			<p>IICA            37 962</p> <p><b>TOTAL        37 962</b></p>

■ Instrument	● Objectives	○ Achievements	Resources Source	Amount
■ Program to Design, Follow Up, Evaluate and Disseminate Emergency Projects in the Public Agricultural and Food Sector (PROESPADA)	<ul style="list-style-type: none"> <li>● To consolidate emergency projects under way and design and implement new projects. <ul style="list-style-type: none"> <li>○ MAGA strengthened in its capacity to manage program resources and to consolidate and expand activities to benefit small- and medium-scale farmers.</li> <li>○ Support provided to activities carried out by the executor unit, PROESPADA, in matters related to project identification, formulation, follow-up and evaluation.</li> </ul> </li> </ul>		MAGA- PROESPADA TOTAL	109 080 109 080
■ Training Program for the National Agricultural Extension System (PROCASNEA)	<ul style="list-style-type: none"> <li>● To train agricultural representatives in the different regions of the country to carry out activities related to agricultural development. <ul style="list-style-type: none"> <li>○ In the eight regions of the country, 3 800 MAGA agricultural representatives trained in 338 courses in support of mini-agricultural production projects. Technical evaluations conducted of PROCASNEA and the Agricultural Representatives' Program.</li> </ul> </li> </ul>		MAGA- PROCASNEA TOTAL	38 728 38 728
■ Mini-Farmers' Markets of the Food Distribution Network in Guatemala City	<ul style="list-style-type: none"> <li>● To provide MAGA with administrative support by establishing mechanisms to reduce the costs of staple products and improve transport for farmers and their produce from the countryside to the marketplace. <ul style="list-style-type: none"> <li>○ MAGA has been assisted in its farmers' markets program, to the benefit of many farmers.</li> </ul> </li> </ul>		MAGA- Markets Proj. TOTAL	2 508 2 508
■ Technical Cooperation for Institutional Strengthening of Animal Health Programs (PRODESA)	<ul style="list-style-type: none"> <li>● To strengthen MAGA through technical assistance related to animal health, specifically to the executor unit of PRODESA of the General Directorate of Livestock Services. <ul style="list-style-type: none"> <li>○ Preparation of the final project report; evaluation methods designed; technical cooperation evaluated; one course and one seminar offered.</li> <li>○ Personnel from the central and regional laboratories received training; laboratory manuals prepared; ectoparasites classified; positions and duties of laboratory personnel specified. Research conducted on virus cultures.</li> </ul> </li> </ul>		MAGA/IDB TOTAL	46 016 46 016

■ Instrument

● Objectives

○ Achievements

Resources  
Source Amount

- Technical assistance provided in setting up the administrative infrastructure needed to design diagnostic tests and conduct animal health and animal disease control campaigns.

## Honduras

In 1989, there was no noticeable improvement in short-term economic indicators in Honduras. This is attributable to economic as well as political and climatological factors.

The foreign debt continues to exert strong pressure on the Honduran economy. In 1989, service on the debt grew at a rate of almost 5%. This aggravated the situation, as the country lacks sufficient fresh capital for improving the domestic gross fixed capital formation rate, which would improve the economy.

Deterioration of the agricultural sector in 1989 was greater than in the preceding year, mostly because of a drop in coffee prices. Unemployment in the sector and the incomes of rural families are not expected to improve, at least in the short term. Declining standards of living, especially in the rural areas, has accelerated urbanization in Honduras, reflected in the rapid growth of the 16 cities considered to be focal points for development.

Two hurricanes did considerable damage to basic grain crops and major export crops, such as coffee and bananas, all of which caused deterioration of the country's terms of trade.

Prices received by farmers in 1989 fell, as did indexes of selected industrial products. Especially affected were textiles, sugar cane, pasteurized milk, fats and vegetable oils.

Falling food production was worsened by the inefficiency of the basic crop production systems, as a result of which the food subsector produces no marketable surpluses. Similarly, the limited use of agrochemicals and other materials and equipment prevents agriculture in Honduras from expanding beyond mere subsistence to the production of marketable surpluses. The prices of inputs have continued to rise because of a shortage of foreign exchange.

Agricultural exports continue to be represented by five major items: bananas, coffee, lumber, meat, and shrimp and lobster, which, in 1987, represented 79% of the total, and, in 1988, 76%. The value of coffee exports declined during the same period, with a negative effect on government revenues, of which coffee accounts for 25%.

Between 1987 and 1988, prices paid to farmers for agricultural products fell some 25 to 30%, in real terms. This

situation was aggravated by a negative rate of effective protection for the major staple grains consumed domestically: corn, rice, beans and sorghum. The combination of these two factors seriously discourages food production.

Within this general context, in 1989 IICA focused its cooperation actions on: promoting production, improving the capacity of the rural population to satisfy its basic needs, and strengthening rural development institutions. Important projects were implemented in each area as part of IICA's policy to provide the government of Honduras with

institutional strengthening related to the execution of its agricultural development plans.

The Cooperative Program for the Protection and Modernization of Coffee Cultivation in Mexico, Central America, Panama and the Dominican Republic (PROMECAFE) continued its successful efforts in Honduras, carrying out numerous activities related to coffee berry borer control, residue analysis, and the generation, adaptation and transfer of technology for small- and medium-scale coffee growers.

## Honduras

■ Instrument	● Objectives	○ Achievements	Resources	
			Source	Amount
■ Support to Policy Analysis and Planning Activities in the Agricultural and Forestry Sectors of Honduras	● To support the establishment of the agricultural planning subsystem of Honduras, and strengthen its development.	○ Agreement and rules and regulations governing the Agricultural Development Council (CODA) prepared.	IICA	67 380
			TOTAL	67 380
		○ Seminar held on economic adjustment in the agricultural sector.		
		○ First draft prepared of a study on production and export incentives and disincentives in Honduras, to support a request for a sectoral adjustment loan.		
		○ Project documents presented on the following subjects: feasibility study for the development of small-farm enterprises in the reformed sector; technical cooperation for public and private agricultural sector projects and studies in Honduras; institutional strengthening of BANADESA related to integrated delivery of services to farmers; and the modernization of fruit and vegetable production in Honduras.		
		○ Agricultural policy guidelines designed for new authorities; general diagnosis conducted of the sector.		
		○ Analysis of grain-related problems updated.		

■ Instrument	● Objectives	○ Achievements	Resources Source	Amount
■ Strengthening Public Institutions in their Capacity to Orient and Execute Investments in the Agricultural Sector	● To support public institutions involved in investments in agriculture.	○ Proposal drawn up for implementing a variable payment system or an automatic refinancing system, to be applied by BANADESA, with support from the Agricultural, Livestock and Poultry Development Guarantee and Promotion Fund (FIRA)/Bank of Mexico.	BANADESA	12 098
			TOTAL	12 098
■ Data Bank for Identifying Preinvestment and Sectoral Analysis Projects	● To develop and implement a data bank of economic and sectoral data to be used in formulating projects and conducting sectoral analyses.	○ Data bank established with 355 sectoral and macroeconomic variables; information generated by the Central Bank of Honduras interpreted.	IICA	2 844
			TOTAL	2 844
■ Technical Support for Reorganizing and Upgrading the Agricultural Research and Extension Program of the Secretariat of Natural Resources (SRN)	● To define a regulatory policy and establish a unified and effective model for the generation and transfer of agricultural technology.	○ Specific indicators developed, including protection and price elasticities.	PROFOGASA	285 658
			IICA	81 648
● To execute the technical cooperation of the Bovine Production and Animal Health Development Program (PROFOGASA).	○ An operating methodology developed for unifying research and extension activities related to animal feed crops and livestock.	○ Manual prepared for calculating nominal and effective protection rates.	TOTAL	367 306
			○ Survey of costs for non-traditional export crops carried out with the Central Bank of Honduras.	



■ Instrument	● Objectives	○ Achievements	Resources Source	Amount
--------------	--------------	----------------	------------------	--------

- Data base established on technology currently available through SRN.
- Policies designed and administrative-operating changes made in executor units of technology generation and transfer programs. Technical capacity of SRN personnel upgraded; organization and operating methodology of executor units improved.
- Law designed to govern the new Directorate of Agricultural Sciences and Technology (DICTA).
- Artificial insemination service restructured, and herd evaluation system established.
- Research projects established on livestock production systems.
- Rules and procedures drawn up for seed and grass production; manual written on the epidemiological information and surveillance system.
- Organization and implementation of a project for the control of ticks and torsalo (PCGT); training of personnel; reorganization of Livestock Promotion Department.

■ **Strengthening of Rural Development Management**

- To reinforce the country's institutional capacity in defining and implementing integrated rural development policies and strategies and in implementing the National Development Plan and the National Plan for Agricultural Policy Development (PLANAGRO).
  - Initial steps were taken to design policy guidelines with input from those involved in rural development: small farmers, ethnic groups, agricultural entrepreneurs, livestock ranchers, and planners and executors of public rural development programs.
  - Proposed policy and strategy guidelines for rural development in Honduras presented.
  - Preliminary proposal presented on institutional changes needed for carrying out rural development policies and strategies.
  - General guidelines approved by the project included as part of the new cabinet's program.

IICA	17 373
TOTAL	17 373

# Mexico

While the economy as a whole experienced positive growth, the agricultural sector grew less than the manufacturing industry. A drop of nearly 2% is expected in the gross agricultural product, due in part to adverse weather conditions.

The inflexibility of the budget affected food production and productivity. Reduced availability of resources hurt vitally important items such as water-related infrastructure, mechanization, agroindustry and strategic input production. The fact that resources for the sector were cut by 2% in real terms reveals the magnitude of the problem, especially in light of the considerable drop in real prices paid for corn, wheat, beans and sorghum since 1980. In the last 12 months, however, relative prices evolved favorably (25% growth in the primary sector, with 15% in livestock, 24% in fisheries and 28% in agriculture) as compared with those of the secondary sector (9%) and of the overall economy (18%), although not with the tertiary sector, which grew at 35%.

Regarding the external agricultural sector, the above described situation caused a reduction in exports and increased imports. With respect to foodstuffs, a deficit was expected in the agricultural trade balance at the close of 1989. The sector's share of the basic components of the trade balance, as compared with that of non-agricultural sectors, is relatively smaller.

Agrarian reform in Mexico currently focuses on the agrarian distribution process, standardizing land tenure practices and modernizing rural areas. Emphasis was given to organizing production associations and to providing technical training, the goal being for farmers themselves to determine the nature and structure of their organizations, how they will organize their work, and which production systems best suit their purposes. Agricultural training activities centered on revitalizing the organizations serving



*Improved management of renewable natural resources is one of the strategic guidelines of the PLANLAC; the encroachment of pastureland on tropical forests must be controlled.*

the ejidos (common lands and communities), with a view to ensuring rational use of natural, human and financial resources, without jeopardizing the ecological balance and social development.

Mexico continued its efforts to stabilize its forestry resources without destroying the forests, as well as to protect the ecological balance by implementing reforestation programs and increasing forest size. Also, measures were taken to establish and rehabilitate agroindustrial plants, with a view to producing and processing agricultural and forestry products, generating value added and promoting capital formation in rural areas.

In support of the production of basic foodstuffs and the generation of employment opportunities, policies were designed on water-related and agricultural infrastructure for constructing, rehabilitating and maintaining irrigation works, especially for areas with great agricultural potential, but insufficient water. Roads, bulking centers and drainage systems were built; and lands were cleared for agricultural purposes.

In this context, IICA focused its technical assistance on modernizing agricultural production and promoting rural development, by supporting the formulation of agricultural projects and strategies; strengthening research and the generation of agricultural technology; providing technical assistance and training to small farmers; upgrading marketing processes; strengthening animal health laboratory services and improving the operating capacity of plant protection services.

In 1989, efforts were made to maintain Mexico's self-sufficiency in rice and wheat, and to increase corn, bean and oilseed production. The 10 major crops and export crops received special attention, with technical assistance focusing on the transfer of technology. Plant protection actions were taken in the rural development districts and support centers to prevent, combat and control pests.

To increase livestock exports, support was given to programs dealing with animal health, genetic engineering, applied research and forage resources. Increased productivity was achieved through the validation and transfer of appropriate technology for farm management.

## México

- Instrument
- Objectives
- Achievements
- **Project to Formulate Agricultural and Rural Development Strategies and Policies Taking into Account Macroeconomic and Intersectoral Relations**
  - To prepare the corresponding project document and collaborate in carrying out the project.
    - First version of the project completed and delivered to the IICA Office and its national counterpart, the Center for Agricultural Planning Studies (CESPA) of the Secretariat of Agriculture and Water Resources (SARH), under the General Directorate of Sectoral Policy (DGPS).

Resources Source	Amount
IICA	70 672
TOTAL	70 672

■ Instrument	● Objectives	○ Achievements	Resources Source	Amount
	<ul style="list-style-type: none"> <li>○ In addition to working on the preparation of the document on required investments (to achieve the growth called for in the national development plan) for the Sectoral Program to Modernize Rural Areas, two related documents were drawn up on: estimated levels of overall agricultural investment; and on distribution of total investments during the programming stage.</li> </ul>			
<b>■ Strengthening the INIFAP Research and Technology Transfer Model</b>			<b>IICA</b>	<b>66 655</b>
	<ul style="list-style-type: none"> <li>● To upgrade activities of the National Institute for Agricultural Forestry Research (INIFAP) related to technology generation and transfer, and contribute to its modernization and development.</li> <li>● To support policy design and the research planning and management system, and to encourage reciprocal horizontal cooperation. <ul style="list-style-type: none"> <li>○ Workshop held to analyze INIFAP's research and institutional development policy, attended by 15 senior officials; specific needs identified for updating INIFAP's institutional model.</li> <li>○ Progress made in establishing coordination mechanisms for involving Mexico in PROCISUR, under initiatives proposed in the Plan of Joint Action for Agricultural Reactivation in Latin America and the Caribbean (PLANLAC).</li> <li>○ Methodology prepared for formulating the National Forestry and Agricultural Research Program (PRONIFAP), as well as for implementing it.</li> </ul> </li> </ul>		<b>TOTAL</b>	<b>66 655</b>
<b>■ Support for the Implementation of the Organization, Training, Technical and Research Assistance Project (PROCATI)</b>			<b>SARH-PROCATI</b>	<b>240 998</b>
	<ul style="list-style-type: none"> <li>● To assist in reaching PROCATI goals and, specifically, to strengthen its Central Unit and selected rural development districts, in both technical and operational aspects; technical cooperation would be fomented, technical personnel would be trained, and the appropriate documents prepared. <ul style="list-style-type: none"> <li>○ Progress made in implementing the project, especially as concerns the establishment of the Steering Committee of the SARH-IICA Agreement, the approval of the plan of action for 1989, and the drafting of documents.</li> <li>○ Program agreed upon with the General Directorate for Sectoral Information, Studies and Statistics (DGIEES) for obtaining basic equipment and personnel hired to begin the operation of PROCATI.</li> </ul> </li> </ul>		<b>IICA</b>	<b>13 727</b>
			<b>TOTAL</b>	<b>254 725</b>

■ Instrument	● Objectives	○ Achievements	Resources Source	Amount
	<ul style="list-style-type: none"> <li>○ Twenty-four people received scholarships to attend the project's in-service training program, which covered: methods for project follow-up and evaluation, information systems and integration of project reports.</li> <li>○ Proposals prepared for studies on possible outlets for commodities from the rural development districts and on alternative forms of technical assistance for small farmers, within the framework of PROCATI.</li> <li>○ Terms of reference prepared for project consultants.</li> </ul>			
■ Support to SARH's Directorate for International Affairs in Formulating and Executing International Agricultural Trade Policies			IICA TOTAL	83 748 83 748
	<ul style="list-style-type: none"> <li>● To collaborate with the Trade Relations Directorate in its program to promote agricultural and forestry exports. <ul style="list-style-type: none"> <li>○ Proposal drawn up for a program of reference and guaranteed prices for intraregional agricultural trade.</li> <li>○ Three scholarships granted for in-service training in market information. First stage completed in the design of a data base for the guaranteed price program.</li> </ul> </li> </ul>			
■ Identification and Formalization of the Program for Technical Cooperation in Marketing			IICA TOTAL	3 701 3 701
	<ul style="list-style-type: none"> <li>● To identify possible areas for technical cooperation in marketing, and to reach formal agreement with institutions involved in agricultural marketing concerning a four-year IICA technical cooperation program on marketing. <ul style="list-style-type: none"> <li>○ Five manuals prepared to support the identification and promotion of areas of cooperation. Likewise, proposals prepared for cooperation with SARH's General Directorate for Livestock Promotion and Protection and General Directorate of International Affairs (DGAI), and with the General Directorate of Planning and Computer Services of the Secretariat of Trade and Industrial Promotion (SECOFI).</li> <li>○ The following was carried out in support of counterpart agencies: a) a course-workshop designed for deputy directors and department heads from the Directorate for Inputs and Marketing; b) a marketing training program prepared for personnel from the Trade Development Office of the National Rural Credit Bank (BANARURAL); and c) a proposed conceptual framework drawn up for a guaranteed price program.</li> </ul> </li> </ul>			

■ Instrument                      ● Objectives                      ○ Achievements

■ Strengthening Animal Health Laboratory Service

- To strengthen Animal Health Directorate diagnostic laboratory services and services to test the quality of veterinary products.
  - Training provided to 274 veterinarians/zootechnicians through: a) refresher course on veterinary diagnostic bacteriology and mycology, held in cooperation with the Cuatitlán Department of Advanced Studies; b) international seminar on laboratory management and administration, with the National Animal Health Center (CENASA); c) refresher course on veterinary diagnosis; d) identification of ticks and tick-borne diseases, with the National Center for Animal Parasitology; and e) Latin American seminar on diagnostic pathology and veterinary zootechny, with the participation of the School of Veterinary Medicine and Zootechny of the National Autonomous University of Mexico (UNAM).
  - Support was provided for improving the infrastructure and resource base of the laboratory system in Mexico, which consists of the two national reference centers and 51 regional laboratories.
  - Livestock ranchers in 18 Mexican states indirectly benefitted from the project.
  - Participation in the meeting of the Mexican-American commission for the eradication of screwworm, held in Mexico City in August, 1989; and in the third meeting of the Inter-American Commission on Animal Health, held in Buenos Aires, Argentina in June, 1989.

Resources	
Source	Amount
SARH-Animal Health	24 038
GPE/SARH	14 064
CENAPA/SARH	15 192
IICA	43 596
<b>TOTAL</b>	<b>96 890</b>

■ Supporting SARH/Mexico in Improving Technical and Operating Skills for Plant Protection

- To improve the data gathering, management and processing capacity of executor units of the plant protection quarantine service so as to foster timely decision-making.
  - Problems obstructing the gathering and processing of phytosanitary information identified; computer programs on quarantine information, phytosanitary diagnosis and pesticides in use.
  - Mechanisms implemented for coordinating efforts among institutions to address quarantine problems related to lethal yellowing of coconut.
  - Technical personnel from the quarantine service trained in: computerized record-keeping, phytosanitary problems (e.g., lethal yellowing of coconut), phytosanitary legislation, and integrated pest management.
  - Support provided for the Third International Training Course on Fruit Flies; organization of the fourth course under way; sixth meeting of the Regional Technical Committee of Plant Protection Directorates (CTR-Central Area-IICA) organized and coordinated through IICA's Animal Health and Plant Protection Program.

IICA	22 125
<b>TOTAL</b>	<b>22 125</b>

■ Instrument	● Objectives	○ Achievements	Resources
			Source    Amount
	○ Project proposal approved for creating International Plant Quarantine Training Center.		
	○ Progress achieved in negotiations with the Mexican Association of Pesticide and Fertilizer Industries (AMIPFAC), on coordination mechanisms for technical cooperation on pesticides.		
	○ Preparation and approval of the first stage, at the local level, of the IICA-SARH/Plant Protection Technical Cooperation Agreement, which was designed to strengthen laboratory services related to the control of biologics and pesticides.		

## Nicaragua

Economic conditions in Nicaragua have a profound effect on its agricultural sector. Export activity has come practically to a standstill because of the breakdown of the economic fiber of the country, and the inputs and infrastructure needed to upgrade production capabilities are hard to come by.

The country's terms of trade have also deteriorated steadily, especially in relation to cotton and sugar exports. Prices for these exports have been depressed for the last eight years, and there is little hope for recovery.

In recent years, inflation has been so high that the purchasing power of wage earners has been seriously undermined, and certain types of production have become difficult to sustain. This situation has been further aggravated by the country's foreign debt, estimated at US\$7.5 billion in 1988. The principal external factors contributing to this situation are natural disasters, the international crisis, armed conflict and the economic

blockade. Internally, two major factors were causative: declining production and limited private sector investment in production.

The major objective of the stabilization and economic adjustment program, initiated by the government in February 1988 with monetary reforms, is to bring inflation under control, while providing incentives for increasing exports and guaranteeing food production.

With regard to pricing and marketing policies, a gradual liberalization of the basic grain market was observed during the last two years, especially in 1989. Initially, the prices farmers received for their products rose dramatically. However, spiralling inflation rates caused real prices to plummet later in the year.

One of the foundations for the changes occurring in agricultural production and trade in Nicaragua was that country's agrarian reform program. Concomitantly, there

has been increased interest in cooperatives, with considerable numbers of small farmers being organized into production, service and credit cooperatives. Despite problems related to the management and economic viability of cooperatives, they have gained much valuable experience. As a result, it will be possible to carry out a stabilization and economic adjustment program with fewer negative consequences for the small farmers.

In recent years, there has been a reduction in the total land area set aside for State-run production efforts. Increased preference has been given to cooperatives and small- and medium-scale private farmers.

During 1989, efforts were made to consolidate the General Directorate for Agricultural Technology. New technology transfer networks involving reference farms and small-farm development centers were approved.

Government agricultural policies took an important step forward with the formation, through national commissions, of a forum for discussion with private producers. These commissions, one for each commodity, consider funding, production and marketing problems faced by the private sector.

In 1989, IICA technical assistance focused on improving effectiveness in the formulation and adjustment of agricultural sector policies, and on increasing sectoral production and productivity. Emphasis was placed on strengthening research and technology transfer systems, particularly with the General Directorate for Agricultural Technology; managing the marketing system; and organizing small farmers to improve their standard of living and upgrade their contribution to production. In addition, support was provided in the identification and formulation of projects for associative enterprises involved in the marketing of non-traditional products.

## Nicaragua

■ Instrument	● Objectives	○ Achievements	Resources Source	Amount
■ Support for MIDINRA in Defining and Implementing Agricultural Policies			IICA	74 323
● To upgrade the capabilities of the General Planning Directorate (DGP) of the Ministry of Agricultural Development and Agrarian Reform (MIDINRA) and its regional counterparts in formulating short- and medium-term economic policies consistent with an integrated development plan for the sector.			TOTAL	74 323
○ Final report concluded on survey of production in Region IV, based on a systematic analysis of production costs for selected agricultural activities.				
○ Program proposed for gathering information on the profitability of selected agricultural activities; methodological document prepared; DGP technicians trained.				
○ Six DGP technicians trained in how to apply the method for researching production systems; preliminary versions of 10 case studies prepared by three GDP technicians.				



■ Instrument	● Objectives	○ Achievements	Resources Source	Amount
	<ul style="list-style-type: none"> <li>○ Work undertaken to design the Sectoral Decision Information System (SIDES) in connection with the DGP's work with the National Commissions, including the National Commission on coffee (CONCAFE) and on cotton and oilseeds (CONAL). CONCAFE and CONAL technicians trained in the use of the SIDES data base.</li> <li>○ First stage concluded to design a system for following up on and evaluating the impact of macroeconomic and sectoral policies on agriculture (SEMACRO).</li> <li>○ DGP technical personnel trained in the use of computer programs for processing and analyzing data obtained from research on production costs in Region IV. Training also provided in conceptual and methodological aspects of economic and financial calculations required for research related to production systems.</li> <li>○ Technical personnel from the DGP and the Secretariat for Planning and Budget (SPP) received training in conceptual and methodological aspects of the analysis of the impact of macroeconomic and sectoral policies on agriculture.</li> </ul>			
■ Support for the Introduction and Propagation of Vegetative Material from Selected Crops in the Humid Tropics			IICA TOTAL	14 848 14 848
	<ul style="list-style-type: none"> <li>● To introduce vegetative material appropriate for the humid tropics of Nicaragua and to train technical personnel in the handling of priority crops. <ul style="list-style-type: none"> <li>○ Vegetative material introduced for the humid tropics, including carambola, passion fruit, macadamia, annatto, peach palm and black pepper.</li> <li>○ Nicaraguan farmers and technical personnel trained in cultivation of annatto and other tropical crops.</li> <li>○ Agroecological evaluation for annatto cultivation conducted by NICARROZ. Thirty-five farmers and technical personnel attended lecture on annatto cultivation and marketing.</li> </ul> </li> </ul>			
■ Support to the Agricultural Information Network			IDRC TOTAL	16 344 16 344
	<ul style="list-style-type: none"> <li>● To improve MIDINRA agricultural research by improving the compilation and dissemination of agricultural and livestock information at the national and international levels.</li> <li>● To strengthen the National Agricultural Information and Documentation Center (CENIDA) in its capacity to maintain an updated and computerized bibliographical data base on the agricultural sector with duly trained personnel.</li> </ul>			

■ Instrument	● Objectives	○ Achievements	Resources Source	Amount
	<ul style="list-style-type: none"> <li>○ More national agricultural information made available to users, especially researchers, extension workers and students of agricultural science; 2 972 documents acquired and/or identified and 2 404 titles entered into the data base.</li> <li>○ Computer data processing system at CENIDA improved, to provide quicker and more efficient access to agricultural information. A total of 597 periodic publications identified and registered. Eighty-seven inter-library loans made.</li> <li>○ Thirty-four CENIDA personnel trained in different aspects of information management.</li> <li>○ National Agricultural Information and Documentation Network (RENIDA) strengthened.</li> </ul>			
<b>■ Technical Support for the Institutional Strengthening of the National Research and Technology Transfer System</b>			<b>IICA TOTAL</b>	<b>16 825 16 825</b>
	<ul style="list-style-type: none"> <li>● To strengthen the structure and technical capacity of MIDINRA's technology generation and transfer system in using available resources more efficiently. <ul style="list-style-type: none"> <li>○ Proposal drawn up for the creation of a practical system for operating MIDINRA's experimental stations.</li> <li>○ Document prepared on agricultural research priorities.</li> <li>○ Support provided for the reorganization of the General Directorate for Agricultural Technology (DGTA).</li> <li>○ Technical books donated to MIDINRA experimental stations reinforced.</li> </ul> </li> </ul>			
<b>■ Supporting MICOIN In Creating a National Training Program for the Domestic Trade Sector</b>			<b>IICA TOTAL</b>	<b>61 484 61 484</b>
	<ul style="list-style-type: none"> <li>● To implement the 1987-1990 domestic trade strategy. <ul style="list-style-type: none"> <li>○ Officials from the Ministry of Economy, Industry and Trade (MEIC) received training in marketing and annual planning strategies.</li> <li>○ MEIC's capacity for supplying price information improved. Twenty-five CORCOP technical personnel trained in sales techniques, price setting and sales strategies. Data base created containing basic information for price evaluation. Study concluded on retail supply channels in Managua.</li> <li>○ MEIC's capacity for supplying retailers and for warehouse administration upgraded. Twenty ENABAS officials trained in warehouse administration and operation; 20 others trained in methods to control pests in stored grains.</li> </ul> </li> </ul>			

# Panama

In 1989, the economic situation in Panama was aggravated by the country's continuing inability to collect revenues derived from the operation of the Canal, the oil pipeline and the vessels registered under its flag. Non-payment of taxes by major foreign companies, and the freezing of the country's assets overseas, have reduced revenues still further, drastically limiting foreign trade in goods and services.



*Many new cultivars obtained through innovative biotechnology are evaluated in clonal gardens; here, cocoa.*

By August 1989, total government revenues totalled nearly US\$291 million, while outlays for the same period amounted to almost US\$377 million. The deterioration of aggregate demand was reflected in a 17% drop in the GDP in real terms, affecting all economic sectors and reducing the per capita product by nearly 19%. Investment came to a virtual standstill, and open unemployment jumped from 12 to 16%.

In the midst of a general downturn in other sectors, the agricultural sector experienced an 8% decline in activity, less than the economy as a whole. The production decline that began in 1988 continued, principally affecting basic consumer goods.

Although the agricultural sector contributes only 10% to the GDP, it has a considerable impact on the rest of the economy because of inter-sectoral linkages. Furthermore, growth has always been dependent upon the performance of major exports, namely bananas, sugar and, to a lesser extent, coffee.

Foreign trade in these commodities was affected primarily by declining prices and the elimination of sugar quotas, a commodity long used as payment for agrochemicals. Despite efforts to regain production levels attained in the first half of 1987, commodities for the domestic market were so hard hit that it was necessary to import rice, one of the most important crops in the country.

Banana production regained some of the ground lost due to adverse climatological conditions in late 1988. Between January and August 1989, some 25 million boxes were exported, representing a slight increase over the same period in 1988.

Beef production is also on the rise. In the first eight months of the year, there was a 9% increase over the same period in 1988. Livestock ranchers, with support from the government, continue to export to Mexico and other countries.

The major constraints on the agricultural sector are reduced credit availability, distortions, shortages of inputs, and inefficient operation of production support services. The combination of all these factors causes a general insecurity among farmers, negatively affecting agricultural production.

In 1989, IICA focused its technical cooperation activities on agricultural policy analysis and planning and on strengthening public institutions involved in the marketing of agricultural commodities. IICA collaborated with the National Agricultural Research Institute (IDIAP) in establishing research priorities and in drafting the National Research Plan.

Special attention was given to eradicating and controlling witches' broom in cacao, through the Regional Network for

Cacao Technology Generation and Transfer (PROCACAO). During the year, in addition to detecting the specific locations of outbreaks, two new quarantine stations were established, and lectures were delivered to quarantine inspectors on the need to confiscate any plant material from infested areas of the country.

Other actions in the field of plant protection include the revision and updating of Law 20, which modernized the Plant Protection Directorate, and the support provided in the preparation of new regulations on the use and control of pesticides. The IICA Office in Panama collaborated in organizing a seminar-workshop on the use of pesticides, and completed the project on detection of coffee berry borer.

## Panamá

■ Instrument	● Objectives	○ Achievements	Resources	
			Source	Amount
<p>■ <b>Support for Agricultural Policy Analysis and Planning</b></p>	<p>● To strengthen the National Directorate for Sectoral Planning of the Ministry of Agricultural Development (MIDA) in its capacity to analyze and negotiate economic policy measures and instruments for the Ministry's sectoral planning system.</p>	<p>○ Collaboration provided in drawing up the final proposal for a strategy to reactivate the agricultural sector. Document completed on strategic and policy guidelines for the 1990-1991 agricultural year.</p> <p>○ Sectoral Decision Information System (SIDES) put into operation.</p> <p>○ Follow-up and evaluation stages of the sector's Annual Plan of Operation (POA) strengthened. Improvements made in defining indicators of results, linking the actions of the different farmer's services to their problems, in an attempt to identify which indicators directly relate production performance to the execution of the POA.</p> <p>○ Six training events held, totalling 171 hours, involving 181 officials from the sectoral planning system.</p>	<p>IICA</p> <p>TOTAL</p>	<p>74 332</p> <p>74 332</p>

■ Instrument	● Objectives	○ Achievements	Resources Source	Amount
<b>■ Support for Upgrading the National Technology Generation and Transfer System</b>			IICA	14 019
<ul style="list-style-type: none"> <li>● To strengthen the organizational structure and technical capacity of the Agricultural Research Institute (IDIAP) and the Ministry of Agricultural Development (MIDA) in designing and executing technology generation and transfer actions, and to use available national and international resources more effectively and efficiently. <ul style="list-style-type: none"> <li>○ Document completed on strategy for the organization and administration of agricultural technology transfer.</li> <li>○ Document prepared on research priorities and allocation of resources, which served as the basis for formulating IDIAP's annual plan of operations. To achieve this, working groups were formed to set research priorities and to allocate resources accordingly.</li> <li>○ Adjustments made in the IDIAP Charter, to bring it into line with the needs of the country.</li> <li>○ Advisory services provided for drawing up the national technology transfer program, to reorganize and assign duties to 76 extension agencies and upgrade the technical assistance provided to more than 10 000 users.</li> <li>○ The heads of 76 agencies received training in the management of the national technology transfer system and in extension techniques; 15 mid-level IDIAP officials received research management training.</li> <li>○ Six officials trained in radio production techniques; 267 radio spots produced for transferring agricultural technology; eight national seminars held on the topic.</li> <li>○ PROMECAFE provided training for 16 officials from the national coffee program, through seminars on the transfer of coffee-related technology. Logistic and technical support was given to experiments on rust-resistant varieties of coffee.</li> </ul> </li> </ul>			TOTAL	14 019
<b>■ Institutional Strengthening of MIDA Concerning the Agricultural Marketing Process</b>			IICA	82 251
<ul style="list-style-type: none"> <li>● To strengthen the technical capacity of MIDA and the Agricultural Development Bank (BDA) in formulating programs to improve marketing systems, including coordination between marketing and credit. <ul style="list-style-type: none"> <li>○ The BDA was given technical assistance in executing an innovative BDA-IMA marketing system for rice growers and in expanding the system to include corn and sorghum producers. The new system includes joint programming, follow-up and management reporting systems. For the first time, the BDA was able to recover almost 98% of its loans.</li> </ul> </li> </ul>			TOTAL	82 251

■ Instrument	● Objectives	○ Achievements	Resources Source	Amount
		<ul style="list-style-type: none"> <li>○ Study conducted of post-harvest losses in corn for small farmers in the Chitré region.</li> <li>○ Forty BDA-IMA technical personnel trained in rice marketing, and 35 credit analysts from the National Bank of Panama trained in marketing techniques and projects.</li> <li>○ The Corn and Sorghum Commission was advised on how to define price policies for farmers, and to adopt the new marketing system for rice.</li> <li>○ Support provided to Consultative Commission on Non-traditional Agricultural Products in executing the 1989/1990 Melon Export Program; Plans for Immediate Action (PAI) adopted by the Commission.</li> </ul>		

Antigua and Barbuda  
 Barbados  
 Dominica  
 Grenada  
 Guyana  
 Haiti  
 Jamaica  
 Saint Lucia  
 Saint Vincent and the Grenadines  
 Suriname  
 Trinidad and Tobago  
 Antigua and Barbados  
 Dominica  
 Grenada  
 Guyana  
 Haiti  
 Saint Lucia  
 Saint Vincent and the Grenadines  
 Suriname  
 Trinidad and Tobago  
 Antigua and Barbados  
 Dominica  
 Grenada  
 Guyana  
 Haiti

## Caribbean Area

Antigua and Barbuda, Dominica, Grenada, Saint Lucia, and Saint Vincent and the Grenadines make up the Organization of Eastern Caribbean States (OECS), and together with Barbados, Guyana, Jamaica, and Trinidad and Tobago form the Caribbean Community (CARICOM). All the Caribbean Community countries are English-speaking. IICA's Caribbean Area also includes Suriname, where Dutch is spoken.

The importance of agriculture in the economies of Caribbean countries varies significantly. Its contribution to the gross domestic product is less than 10% in Antigua and Barbuda, Barbados, Jamaica, Suriname and Trinidad and Tobago; between 10 and 20% in Saint Lucia and Saint Vincent and the Grenadines; and well over 20% in Dominica, Grenada and Guyana.

Despite their relatively recent entry into the IICA system, important strides have been made by the Institute to assist these countries in the development and diversification of the agricultural sector.

Traditionally, the countries have relied on a few export commodities such as sugar, cocoa and banana. However, due to factors that include a substantial decline in world market prices for primary commodities, uncertainties as regards the impact on preferential market treatment with the United Kingdom after the Unitary European Market comes into being in 1992, and their rapidly increasing food import bills, Caribbean countries are making a concerted effort to diversify their agricultural sectors and thus increase food self-sufficiency and provide a more varied base for the generation of foreign exchange.

During 1989, the economies of the Caribbean countries continued to suffer severe economic reversals. This was particularly evident in Guyana, Jamaica and Trinidad and Tobago. While the situation in the Eastern Caribbean States was less severe, hurricanes caused considerable agricultural losses in Antigua and Barbuda and Dominica. In spite of these negative factors, the governments of the countries continue to play particular attention to the revitalization of the agricultural sector. During 1989, both the Caribbean Community program for agricultural development and the OECS agricultural diversification plan were approved.

Within this context, IICA concentrated its cooperation on the development of a portfolio of projects for the reactivation of agriculture as part of the Plan of Joint Action for Agricultural Reactivation in Latin America and the Caribbean

## Barbados

(PLANLAC); on finalizing an agreement to provide financial support to the Caribbean Agricultural Research and Development Institute (CARDI); and on implementing a series of national and multinational projects in the subregion.

In addition, IICA created linkages between Caribbean and Latin American countries by continuing to offer the Junior Professional Programme, which facilitates the integration of Caribbean nationals into Institute activities. It also supported a visit to the Caribbean by a technical mission from the Brazilian Cooperation Agency (ABC) to identify joint agricultural development projects.

The Regional Project Unit for the Caribbean was established in 1987 in response to specific requests from Caribbean member countries. It made a preliminary assessment of the potential for crop irrigation in Grenada and in St. Vincent and the Grenadines. It also held a seminar on annual programming and monitoring in the Ministry of Food Production and Marine Exploitation in Trinidad, and coordinated the team that worked on this project. The Regional Project Unit provided support for the preparation of a Caribbean/Latin American cooperation project, within the framework of the PLANLAC. A final version of a data base on the Caribbean was completed, including new data on Barbados.

The decade of the 1990s will prove extremely challenging to the countries of the region. During their 1989 meeting, the Standing Committee of Ministers Responsible for Agriculture initiated important steps to reactivate the agricultural sector. The heads of government have committed themselves to intensifying their efforts on behalf of integration, thus strengthening the bases of CARICOM. These initiatives, among others, aim to facilitate the integration process and promote collaborative actions in the pursuit of economic development and improved well-being of the Caribbean peoples.

Since 1982, Barbados has achieved real growth in its gross domestic product (GDP), averaging approximately 3.5% per year. While real growth has taken place during this period, the average rate is still about one-half of that achieved in the 1976-1980 period. Growth was largely in the tourism and manufacturing sectors, responsible for over 60% of real growth in the economy. Inflation increased from 2.4% in 1987 to 4.8% in 1988, and continued to rise in 1989. Nevertheless, the unemployment rate has remained virtually unchanged at 18.6% over the last two years.

The agricultural sector employs a significant proportion of the labor force. It contributes approximately 7% of GDP and earns about US\$40 million in foreign exchange annually. However, the sector, which has experienced some serious difficulties in recent years, continued its downward trend during 1989, due in part to vagaries of the climate, inadequate labor supply and an overall decline in acreage under cultivation. It is estimated that as much as 25% of the area formerly under cultivation was idle during the last two years, and a significant portion has been subdivided and reallocated to urban and housing development.

The Government's concern about this issue was reflected in a recent address by the Minister of Agriculture, Food and Fisheries (MAFF) in which he stated that "every effort must be made to stop the spread of idle and under-utilized agricultural land and, more importantly, to bring such land back into production." Policy measures already adopted to address this problem include the removal of import and stamp duties on agricultural inputs, in an effort to reduce investment costs in the sector, and the provision of grant funds to assist farmers who return idle land to production.

The sugar industry, the dominant activity in agriculture for decades, has been steadily contracting, with output falling to a level at which the industry's ability to supply even its preferential markets has become questionable. The decline in sugar has also been accompanied by an



increased indebtedness of the industry, which rose from US\$0.8 million in 1980 to over US\$85 million in 1989.

Nevertheless, sugar still represents one of the most attractive crops for Barbados. The government's policy goals for the sugar industry are basically to restore financial viability by improving productivity and increasing efficiency of operations. Measures to achieve this include modernizing laws on land tenancy and plantation management, increased capital investment, improved organization of production and marketing operations, training of agricultural managers, and the provision of adequate incentives.

While continuing to rely on sugar as the primary crop, diversification has been a major theme of the government's agricultural policy. The diversification program seeks to expand the food supply, contribute to import substitution and maintain or develop export markets for selected agricultural products. Emphasis is placed on production of crops such as cotton, vegetables, fruits and ornamentals,

for which a domestic market and export market niches already exist, and on import substitutable commodities such as onions, peanuts, livestock products and fish.

IICA continues to support the government's diversification policy by encouraging fruit production, especially pawpaw and carambola. In addition, initiatives aimed at institutional strengthening in the areas of policy analysis and planning and in the development of data bases continue to be the Institute's main areas of focus in Barbados. The multinational project "Design of Strategies for Agricultural Policy Analysis and Planning in the Caribbean" concentrated its efforts in 1989 on evaluating public policy and the incentive structure for agriculture in Barbados.

The increased availability of locally-produced fruits was partly responsible for the expansion of the fruit processing capacity in the country and two new agro-processing facilities were constructed during 1989.

## Barbados

■ Instrument	● Objectives	○ Achievements	Resources	
			Source	Amount
■ Supporting the Generation and Transfer of Technology for Fruit Production in Barbados and Guyana	● Improve the technical capabilities of institutions (including farmers' organizations) involved in the fruit production system.	○ Sixteen training events carried out – including seminars, short courses, field visits and demonstrations – which benefitted more than 400 technical experts, farmers, field personnel and students, among others.	IICA	89 393
	● Implement mechanisms to ensure the dissemination and adaptation of appropriate technology for agricultural production, and assist the MAFF in strengthening research and extension services.	○ Farmers benefitted from more than 150 farm visits, receiving technical assistance in plant propagation, the management of nurseries, fruit production, harvest and post-harvest management. Overseas training tours were given for farmers and technicians.	TOTAL	89 393

■ Instrument	● Objectives	○ Achievements	Resources Source	Amount
		<ul style="list-style-type: none"> <li>○ Assistance provided to MAFF in establishing priorities for crops, and in reorganizing and strengthening its fruit crop program, in terms of assessing the demand for fruit trees, establishing propagation targets, training personnel in production techniques and in selecting clones.</li> <li>○ Farmers encouraged to plant priority fruit crops with the establishment of demonstration plots, field days and conferences.</li> <li>○ Export of non-traditional fruits increased over 500%, and fruit processing capacity expanded.</li> <li>○ Over 480 hours of intensive practical agricultural training provided to Polytechnical Institute students.</li> <li>○ Significant increase registered in the quality of plants produced by nurseries.</li> </ul>		

## Guyana

During 1989, the economy continued to experience difficulties associated with low levels of export production, scarcity of foreign exchange and an increasing external debt, estimated at about US\$1.8 billion. It was a year, nevertheless, of significant political changes as the government concluded an IMF Agreement, moved to readjust many of its policies, and affirmed its support for a free market economy.

In pursuing its new policies, the government embarked on a vigorous program of divestment of State enterprises. This program has affected every sector of the economy, with the most important areas being mining (bauxite and gold), agriculture (sugar and rice), and public utilities (electricity, telephone and transport). The new policies further encourage private foreign investments and joint ventures. Already a number of multinational corporations and investors have expressed interest or have made com-

mitments to invest in the country. The most significant response to the government's new political and economic policies have come from the Bookers Group of Companies and the mining companies of ALCAN and Reynolds, which have shown interest in reinvesting in Guyana.

The agricultural sector experienced another disappointing year, with low levels of production from the principal foreign exchange-earning commodities -sugar and rice. The major problems were much the same as in previous years: lack of production inputs, such as spare parts, machinery and chemicals. The increasing scarcity of labor and skilled workers is also emerging as a major constraint to production at all levels.

Toward the end of the year, there was some promise of change in the agricultural sector, as agreements were finalized with the British government for supplying machi-

nery and spare parts and with the Canadian International Development Agency (CIDA) for supplying fertilizers. These developments should have a positive impact on the agricultural sector and on IICA's technical cooperation program in the country, which for the past year concentrated its activities on research and transfer of technology, rural development and animal health, through the implementation of three projects and one short-term action.

The government's agricultural diversification program received support from IICA in two high-priority areas:

livestock production and fruit crop development. In the first case, emphasis was on improving dairy production systems for small- and medium-scale farmers through technology transfer, sowing of improved pasturage, and training for national technicians. Improved propagation techniques and in-service training was provided to technicians and nursery staff in support of fruit crop development. Finally, the Institute also cooperated in organizing and promoting socioeconomic development in isolated rural communities and contributed to upgrading veterinary services in Guyana.

## Guyana

■ Instrument	● Objectives	○ Achievements	Resources	
			Source	Amount
■ Supporting the Development of Tropical Fruits In the Caribbean	● To support agricultural diversification efforts in Guyana.	○ In-service and field-level training provided to nursery personnel (government and private), farmers and technicians of the National Agricultural Research Institute (NARI) and the Ministry of Regional Development (MORD). These activities covered pre-production, production of selected tropical fruit species, mainly carambola, passion fruit, West Indian cherry and citrus, especially sweet oranges, and West Indian limes.		
		○ Implementation of a surveillance system for monitoring fruit crop constraints was advanced in one region of the country through the gathering and processing of data for the fruit farmers' directory and the introduction of a farm visit reporting system.		
		○ The supply of high-quality nursery fruit plants from the Central Horticultural Station (CHS) was improved and the selection of local carambola clones was initiated.		
		○ The establishment of commercial fruit orchards was supported and acreage with passion fruit and West Indian cherries was increased. Technological packages for the pre-production and production of passion fruit and carambola were advanced.		
		○ The First International Carambola Workshop, organized by IICA and the Inter-American Society for Tropical Horticulture (ISTH) and hosted by the Ministry of Agriculture, was successful, providing the basis for launching a national program to reactivate the industry in Guyana.		
			CHC	9 792
			IICA	9 905
			TOTAL	19 697

■ Instrument	● Objectives	○ Achievements	Resources Source	Amount
■ <b>Supporting the Generation and Transfer of Technology for Fruit Production in Guyana and Barbados</b>			IICA TOTAL	26 216 26 216
	● To support the government of Guyana in increasing fruit crop production to meet local demand, using surplus for regional and extra-regional trade.	○ Progress made in the selection of fruit crops based on the study on fruit production and marketing in the country. MORD and NARI personnel trained in different production facets of selected fruit. Research conducted with the cooperation of NARI.		
■ <b>Supporting the Development of Livestock Production Systems in Guyana and Suriname</b>			IICA TOTAL	91 244 91 244
	● To support the governments of Guyana and Suriname in increasing livestock production in order to meet national demand.	○ The Ministry of Agriculture/IICA project was strengthened by the inclusion of two newly-established model farms under a CARDI/IDRC Dairy Production Systems Project for evaluation of milk production, progress made in reproduction performance, and economic efficiency.  ○ Farmers, students and technical personnel trained in improved dairy production practices as utilized on model farms.  ○ Increases reported by the National Dairy Development Program in acreage under improved pasturage, both communally and individually owned, and in milk production.		
■ <b>Integrated Rural Community Development – St. Francis Mission</b>			Gov. Guyana IICA TOTAL	12 033 6 165 18 198
	● To support the government of Guyana in organizing and promoting the socioeconomic development of isolated rural communities.	○ Community organization was strengthened with the mobilization and training of community groups.  ○ Relevant national agencies –Ministries of Agriculture, Health, Education, Regional Development and Cooperatives, National Agricultural Research Institute (NARI) and Women's Affairs Bureau (WAB)– were made more aware of the problems of rural development through meetings to support the coordinated delivery of services.  ○ Economic activities structured for community organizations, including training in small business organization and management, quality improvement of craft products and the development of appropriate farming systems using trial/demonstration plots.  ○ Compilation of project experiences and documents.		

■ Instrument	● Objectives	○ Achievements	Resources	Amount
<b>■ Preparation of the Project for Strengthening Veterinary Services in Guyana</b>			IICA	3 973
<ul style="list-style-type: none"> <li>● To support the request of the Ministry of Agriculture to prepare the project to upgrade animal health services in Guyana. <ul style="list-style-type: none"> <li>○ The project document "Strengthening of the Veterinary Services in Guyana," prepared on the basis of discussions with the relevant authorities, was submitted to the Ministry of Agriculture for final approval.</li> </ul> </li> </ul>			TOTAL	3 973

## Jamaica

In the wake of Hurricane Hugo, the Jamaican government's priorities in the agricultural sector were to commit available resources to strengthening traditional crops and markets; attract new local and overseas investments; and strengthen agricultural research and extension services in order to address the problems of small-scale hillside farmers. Special emphasis was placed on making loans available to small-scale farmers through the Self-Supporting Farmers Development Programme, to increase production of basic foods, for which a US\$1 550 000 provision was made in the 1989-1990 budget from funds provided by the Canadian International Development Agency (CIDA). Support was also channeled through the Hillside Farmers Support Project, to encourage coffee and cacao development, using part of the 1989-1990 budget and funds from the International Fund for Agricultural Development (IFAD).

Continued emphasis was placed on the Land Titling Project, which was allocated US\$1 240 000 in the budget; on the Export Crops Project, designed to increase production and promote the marketing of export crops, for which the International Bank for Reconstruction and Development (IBRD) and the Government of Jamaica have provided the



*Mashing plantains in a rural Caribbean home.*

US\$620 000 needed for funding; on the Hillside Agriculture Project, to improve the socioeconomic well-being of farmers in the watershed area of the Rio Cobre and Rio Minho rivers, funded jointly by the United States Agency for International Development (USAID) and the Government of Jamaica.

New policy initiatives of the government that assumed office in February 1989 include the establishment of a Rural Agriculture Development Authority, charged with the responsibility of providing an effective extension service. Also approved was the upgrading of the Agricultural Development Corporation to act as a holding company to bring together various government-funded entities such as Agro 21 and the National Agricultural Research Development Institute of Jamaica.

Domestic food crop production increased for many of the shorter-term crops, but declined for the longer duration root crops such as yams. Traditional export crop production, with the exception of bananas, also declined.

The performance of the economy up to the end of the second quarter suggested that a growth rate of 3.6% could

be attained for the calendar year. The economic outlook suggested a continued upward trend in inflation, which could conceivably attain a level of 19% by the end of 1989.

In support of the actions of the Government of Jamaica, IICA provided technical support to the Ministry of Agriculture (MINAG) in connection with project execution and technology generation and transfer, especially with a view to integrating the improved production technologies for corn, yams, cabbage and potato into their cropping systems and to developing a rotation for these particular crops to complement existing cultivations of tree crops, other root crops, sugar cane and rough pastures. IICA also cooperated in designing farm-level improved cropping systems (forestry) with soil conservation components that will contribute to improving incomes of small farmers.

In addition, the second stage of the SEDPRO project (Small Enterprise Development Project) went into operation. It focused primarily on upgrading the capacity of national institutions in assisting rural micro-entrepreneurs in business management skills.

## Jamaica

■ Instrument	● Objectives	○ Achievements	Resources	
			Source	Amount
■ Support for Generation and Transfer of Agricultural Technology	● To strengthen the capacity of national agencies to develop a better understanding of the issues and problems of the small-scale farming sector, and to define mechanisms for generating economically viable technologies acceptable to small-scale farmers.	○ In three ecologically different zones (Watermount and Guy's Hill and Hector's River) of the Cropping Systems Project, important progress was made in the evaluation of improved cropping systems.		
		○ Collaborating farmers, with Ministry of Agriculture (MINAG) assistance, started to integrate improved production technologies for corn, yams, cabbage and potatoes into their cropping systems and to develop a rotation system for these particular crops to complement their existing cultivation of tree crops, other root crops, sugar cane and pasturage.		
			IDRC	82 384
			Yam rehab.	67 640
			MAG/USAID	102 637
			IICA	92 465
			<b>TOTAL</b>	<b>345 126</b>

■ Instrument	● Objectives	○ Achievements	Resources Source	Amount
		<ul style="list-style-type: none"> <li>○ Some 72 small-scale farmers benefitted directly from this cooperative action, and another 198 indirectly, through training events and visits to collaborating farms in the project areas.</li> <li>○ A market analysis was completed for the Cropping Systems Project, and an agronomic and socioeconomic baseline survey was completed for the Hector's River-Grange Hill area.</li> <li>○ In the extension component of the Cropping Systems Project, 573 small-scale farmers benefitted directly through training received and hands-on experience of implementing the production systems on their farms. Another 103 small-scale farmers benefitted only from training received in mini-set yam nursery management, and an additional 46 farmers benefitted from cocoa rehabilitation actions in the Unity-Lawrence Tavern area.</li> <li>○ The Hillside Agriculture Project worked on the development of economically efficient tree crop-based farming systems. It involved strong elements of farmer participation, environmental conservation and socioeconomic analysis.</li> <li>○ A survey which involved 211 farms was completed, and 12 Farmers Action Committee Teams (FACT) were formed in different rural communities of the area covered by the subproject. The formation of the FACT brought project personnel into direct contact with 352 small-scale farmers.</li> <li>○ Rehabilitation trials were made for tree crops and fruit tree orchards were established with intercropping.</li> </ul>		
■ <b>Farm Management Training and Generation of information</b>			IICA	76 055
	● To strengthen the capability of public and private agricultural sector organizations in assisting small farmers in improving their farm management abilities.		TOTAL	76 055
		<ul style="list-style-type: none"> <li>○ Assistance was provided to MINAG in developing a methodology for collecting production cost data for annual crops, as well as on the major crops; and in strengthening the capability of MINAG extension personnel to help small-scale farmers improve their access to credit.</li> <li>○ Assistance was given in the processing and analysis of data obtained from a survey on production costs of major annual crops.</li> <li>○ Training was provided to 114 technicians and small farmers.</li> </ul>		

■ Instrument	● Objectives	○ Achievements	Resources Source	Amount
■ Micro-Enterprise Management Support for the Rural Development Process in Jamaica (Phase II)	● To strengthen national institutions responsible for assisting the rural micro-enterprise sector, by producing training materials and instructing trainers and farmers in business management.	○ National institutions strengthened through training of farmers. ○ Four national agencies received assistance in training 28 instructors and 190 farmers in business management, using materials prepared by the project.	IICA TOTAL	8 017 8 017

## The Organization of Eastern Caribbean States

The IICA member countries in the Organization of Eastern Caribbean States are Antigua and Barbuda in the Leeward Island chain and the four Windward Islands of Dominica, Grenada, St. Lucia and St. Vincent and the Grenadines. The islands are mostly mountainous, of volcanic origin and enjoy a subtropical climate with clearly marked dry and rainy seasons. The islands are exposed to periodic natural disasters such as hurricanes.

During 1989, Hurricane Hugo caused severe damage to the more northerly islands, including Antigua and Barbuda and Dominica. Not surprisingly, agricultural enterprises were the hardest hit.

For the Windward Islands, agriculture maintained its dominance of 30% of the gross domestic product (GDP) in Dominica, reached almost 20% in Grenada and St. Vincent and the Grenadines, while in St. Lucia it fell below 16%.

The dominant crop here is banana, marketed jointly as WINBAN fruit to the United Kingdom, where it enjoys preferential status. In 1988, it accounted for 14% of the value of exports in Grenada, 57% in St. Vincent and the Grenadines, 55% in St. Lucia and 67% in Dominica. The industry employs 13% of the labor force in the Windward Islands. Other agricultural exports include coconut products, root crops and fruit, as well as cocoa, nutmeg and other spices from Grenada.

Bracing against an uncertain future in 1992 when the United Kingdom will no longer be a protected market for WINBAN fruit, a concerted call has been made for improved banana quality and intensification of development of other commodities under an approved plan of the Heads of Government of member countries of the OECS for promotion of joint marketing ventures. Major constraints are low



outputs from small scattered production units, transport problems to metropolitan markets and fledgling agro-processing ventures.

In response to this situation, IICA continued to concentrate its cooperation efforts on research and technology transfer, rural development and plant protection. In 1989, within the context of the Agricultural Policy Analysis and Planning Program, an interdisciplinary team from IICA organized workshops in Antigua and Barbuda and Saint Vincent and the Grenadines to identify and set priorities for agricultural projects. These events were sponsored by the ministries of agriculture of the concerned countries, the Caribbean Agricultural Research and Development Institute (CARDI), the University of the West Indies (UWI), the Organization of American States (OAS) and representatives from farmers' organizations. In Saint Lucia, a macroeconomics data base was established and the country received support from the Regional Project Unit for a feasibility proposal for a coconut rehabilitation program.

## Antigua and Barbuda

The economy of Antigua and Barbuda advanced rapidly over the past few years on the strength of a buoyant tourist sector with related construction and services. Real GDP grew throughout the decade at an annual average of 7%.

The problems now facing the economy are: large foreign debt, small domestic markets, large number of employees in the public sector, inadequate water supply, labor shortages, declining productivity and resource migration out of agriculture.

The government recognizes the need to reactivate agriculture and to strengthen linkages with tourism and manufacturing in order to meet demand with local rather than imported products.

Antigua has 30 000 acres of agricultural land, of which only 5 000 can be cultivated without restrictions. Two thirds of farm land is currently underutilized as a result of a comparative lack of profitability and an insecure land tenure system.

Over the past decade, the government has tried to reverse the negative growth rate of the agricultural sector through the maintenance of a national price structure for farm products with a view to stimulating investment and production, developing a more secure land tenure system for publicly owned farm land and introducing national credit and labor policies in support of agricultural production.

In Antigua and Barbuda, government authorities made efforts to develop strategies to optimize the use of the water resources available to agriculture and to stimulate an appreciation among young people for agricultural endeavors as an alternative to other forms of employment and entrepreneurship. In order to promote the widest possible use of locally-produced agricultural products for domestic consumption and tourism, priority was given to the development of livestock, along with vegetable and fruit crops.

With a view to strengthening government agricultural policies, IICA continued to provide support in identifying and setting priorities. It also cooperated in organizing the research and technology transfer system, and cooperation was provided in upgrading farmers' organizations to improve production and marketing systems. As concerns plant protection, and in order to improve the production and marketing of non-traditional crops, support was given for training farmers in correct pesticide handling, and information was disseminated on the main pests affecting the subregion. Emergency assistance was provided for vegetable production through seed distribution and the monitoring of demonstration plots.

## Dominica

The island suffered a severe setback to its banana production in October 1989 due to Hurricane Hugo, which destroyed 65% of the crop. It is a policy objective of the government to expand Dominica's economic base. The public sector investment program includes infrastructure projects for hydroelectric power expansion, feeder and farm access roads, water supply and sewage requirements to expand agriculture, manufacturing and tourism.

The Ministry of Agriculture is responsible for maintaining food security, while simultaneously pursuing the goals of increased economic well-being for the farming community by promoting agricultural exports. Consequently, efforts at intensifying the agricultural diversification program are aimed principally at the commercial production of a wide variety of crops, including coffee, cocoa, avocados, mangoes and citrus fruits. More recently, initiatives were taken in non-traditional crops such as passion fruit, ginger and cut flowers. Agro-processing is also receiving attention and there is interest in small ruminant and swine production.

The two-year work program (1989-1990) of the Ministry of Agriculture highlights the interrelations between the activities being carried out by the Divisions of Agriculture, Lands and Surveys, Forestry and Fisheries.

The Ministry's policy objective demands that programs be identified and implemented which will ensure that crops best suited for particular areas be grown in the areas so identified. At the same time, it pursues an agroforestry program for the utilization of marginal lands. In all these programs, the Survey Division is a critical factor to ensure that land settlement programs are implemented with dispatch and maximum efficiency.

Important in all this is the role of the market agency, Dominica Export-Import Agency (DEXIA), which is already identifying new outlets for certain crops, in close collaboration with the Dominica Hucksters' Association and the Caribbean Agricultural Trading Corporation (CATCO).

Increasing efforts are being made to develop and exploit marine resources which show good potential for satisfying some of the population's protein needs and reduce the dependency on imported fish and meat products.

In 1989, IICA supported government efforts to strengthen the agricultural sector by collaborating with the Ministry of Agriculture in designing and executing technology development programs; implementing strategies for upgrading farmers' organizations; and improving plant protection structures and quarantine capabilities related to non-traditional crops. In addition, support was given to the Hucksters' Association and the Export-Import Agency (DEXIA) to improve post-harvest handling of export products, and training was provided to technicians on fruit and vegetable production.

The Institute also collaborated with matters related to small livestock species production, including work on improved sheep production systems; and with plant protection services, through in-service training of laboratory technicians and actions to control the *Amblyomma variegatum* tick.

## Grenada

In Grenada, real GDP grew by 6% in 1988, mainly due to the agriculture, tourism and construction sectors. A comprehensive value-added tax reform program was introduced, but the country continues to face cash flow problems.

The Public Sector Investment Program of US\$59 million, of which US\$47 million are external resources, is fully financed with balance of payments support of US\$44.8 million.

Grenada is enjoying higher prices for its nutmeg and spices, and a steady share of the banana market. At the same time, cocoa plantations are being rehabilitated. Selected fruit production is encouraged, but as yet Grenada has been unable to take advantage of its fruit fly-free status, which permits exports to the United States. The livestock subsector is best described as weak, in need of policy measures to boost production and farmer organization.

The model farm project to increase agricultural productivity received increased support, but its impact is yet to be felt. The infrastructural investment project for agricultural diversification and crop rehabilitation is being implemented.

With a view to strengthening agricultural sector government policy in Grenada, in 1989 IICA contributed to upgrading the operations of the national research and technology transfer systems, and to designing technology development plans. It also implemented a pawpaw project, and contributed to drafting a strategy for developing the livestock industry and related farmers' organizations.

The Institute sponsored workshops for plant protection and quarantine officials, customs officers and animal health technicians with a view to developing an effective quarantine system. IICA also cooperated in conducting surveys to determine the incidence of disease in hot peppers and provided support to a pawpaw development project in matters related to rehabilitating the germplasm bank and managing nurseries.

## Saint Lucia

Real GDP grew by 6.8% in 1988 in Saint Lucia due to agriculture, mainly bananas, as well as growth in the tourism and construction sectors. It should be noted that government services is the leading contributor to the GDP.

Development of infrastructure is the key area of the Public Sector Investment Programme which has seen the establishment of new government offices and other improvements to the town of Castries. Reconstruction of the West Coast Road has begun and there are plans to improve the main highway from Castries to Vieux Fort. Substantial improvements are also being made to the two airports. Geothermal explorations were successful in Soufriere, while construction of an additional electrical power plant has begun in the Cul de Sac area. Development plans involve dam construction on the Roseau River for domestic water supplies and irrigation purposes.

The Mabouya Valley Land Development Scheme will lead to agricultural diversification for which non-traditional exports of breadfruit, mango, plantain and hot peppers have already exceeded expectations. Initiatives have already begun for coconut and cocoa rehabilitation, pineapple and cashew production, as well as livestock development projects.

To complement the government's actions in the agricultural sector, IICA collaborated in organizing the national research and extension system, while also contributing to developing technology development plans. It assisted in establishing a macroeconomic data base for monitoring information related to the production and marketing of several important crops. A project is being drawn up in collaboration with the Caribbean Agricultural Research and Development Institute (CARDI) on hot pepper seeds, in response to the problem of mosaic virus. Saint Lucia participated in a technical training exchange for improving swine and small ruminant production. Small farmer organizations were strengthened through the implementation of development strategies for these groups.

In order to strengthen plant protection and quarantine capabilities, farmers and extension agents received courses in the correct use and handling of pesticides. Support was given to the Banana Growers Association for the storage of pesticides; research was conducted on mango disease, and on hot pepper virus. The Ministry of Agriculture was assisted in a diagnosis of the fruit fly.

## Saint Vincent and the Grenadines

Plagued by natural disasters in the past, Saint Vincent and the Grenadines was spared any major calamity during 1989. The economy of the country continued its 1980s growth trend, as real GDP increased at an average of 7.1% for the 1986-1988 period.

Agriculture is the dominant sector and increased exports have led to a shift in the balance of payments situation from a deficit of 1% of GDP to a surplus of 10%.

Bananas, coconuts and fruit crops continue to be the main focus of agricultural diversification within the government's comprehensive land reform program. Like Grenada, Saint Vincent and the Grenadines enjoys a fruit fly-free status, but has not yet been able to develop markets in the United States.

In support of policies designed by the government to strengthen and stimulate the agricultural sector, especially as pertains technology generation and transfer, IICA participated in a multidisciplinary workshop which endorsed ongoing projects and set priority to new ones. These will be strengthened or developed in collaboration with the technical personnel from the Planning Unit. Similarly, technicians received training in fruit and vegetable production and IICA co-sponsored their participation in an international workshop on carambola.

The Institute also helped consolidate small farmers' organizations to improve production and marketing services.

In collaboration with the United States Department of Agriculture (USDA) and the United Nations Food and Agriculture Organization (FAO), the project to boost plant protection and quarantine capabilities contributed to esta-



*Coconut farming and the resulting exportation of its subproducts is an important component of many Caribbean nations' economies.*

blishing uniform methods to be used in developing an effective quarantine system. Workshops were offered on the management of pest problems of tree crops and on small volume application. Information on sweet potato weevil was provided to the Ministry of Agriculture and a leaflet on pruning of mangoes was published.

## Organization of Eastern Caribbean States

■ Instrument	● Objectives	○ Achievements	Resources	
			Source	Amount
■ Support for the Organization and Management of Technology Generation and Transfer Systems in the Eastern Caribbean States			IICA	151 516
			TOTAL	151 516
	● To strengthen the organization and management of national agricultural research systems and promote subregional collaboration in technology identification, generation and transfer.			
		○ National research and extension systems are in operation. Technology transfer is under way in the subregion and the network system is being promoted.		
		○ Support was provided to the ministries of agriculture of Saint Lucia and Grenada for the formulation and implementation of technological development plans, programs and projects. Similar strategies were adopted for Antigua and Barbuda and Dominica, with advisory services from technical personnel.		
		○ In Antigua and Barbuda and Saint Vincent and the Grenadines, a multidisciplinary workshop was offered on identifying and setting priority to projects. National technical personnel participating in the workshop included specialists from the Planning Unit, CARDI, the Agricultural Research and Extension Project (AREP), the University of the West Indies (UWI) and technical missions. The workshop reports will be used to prepare Saint Vincent's national agricultural sector plan. In Antigua and Barbuda, they will be used to identify policy measures and projects for study and implementation.		
		○ In Saint Lucia, a macroeconomic data base was established to monitor information on the production and marketing of several crops. Field trips were made and studies on infrastructure completed for these systems. A workshop was carried out at the ministerial level to monitor progress and to make plans for 1990.		
		○ Also in Saint Lucia, a hot pepper seed project is being prepared to address problems associated with mosaic virus. In collaboration with CARDI and core project ministry staff, a proposal was agreed upon, to be funded by USAID/HIAMP and administered by CARDI. A similar project is being developed for Grenada. Also in preparation is a irrigation and water resource management project for Grenada. Information was gathered on propagation centers throughout the territory.		
		○ An OECS workshop on yam technology was held in Saint Lucia, with support from INRA, the French technical mission and CARDI. This workshop proposes the development of a Yam Development projects network. A regional vegetable development network was also proposed.		

■ Instrument	● Objectives	○ Achievements	Resources Source	Amount
	<ul style="list-style-type: none"> <li>○ Technical training exchanges were arranged for personnel from Grenada and Saint Vincent in Dominica and Saint Lucia concerning swine and small ruminant development. Saint Vincent hosted personnel from Antigua for fruit tree crop and vegetable production.</li> <li>○ In Grenada, a pawpaw development project was developed through HIAMP, the Progressive Farmers' Union and the ministry's technical personnel. Seedlings from various cultivars were introduced, developed and distributed and several training courses were offered. Similar activities were developed in Antigua, particularly for pawpaw production.</li> <li>○ Additional training courses in fruit and vegetable production were held for technical personnel from Antigua and Barbuda, Dominica and Saint Vincent and the Grenadines. IICA also sponsored participation at the international workshop on carambola, held in Guyana.</li> </ul>			
■ <b>Emergency Relief for Vegetable Production in Antigua and Barbuda</b>			IICA TOTAL	1 208 1 208
	<ul style="list-style-type: none"> <li>● To strengthen vegetable production, at the request of the government of Antigua, and due to the damage caused by Hurricane Hugo. <ul style="list-style-type: none"> <li>○ Vegetable seeds provided.</li> <li>○ Courses offered on vegetable production.</li> <li>○ Establishment and monitoring of demonstration plots.</li> </ul> </li> </ul>			
■ <b>Strengthening of Farmer Organizations in the Windward Islands and Antigua and Barbuda</b>			CCA TOTAL	48 782 48 782
	<ul style="list-style-type: none"> <li>● To improve the quality of production/marketing services reaching farmer organizations and their members in the Windward Islands and Antigua and Barbuda. <ul style="list-style-type: none"> <li>○ Inter-island steering committee of farmer organizations put into operation, with US\$100 000 provided by the Canadian International Development Agency (CIDA).</li> <li>○ Baseline information documents published on farmer organizations in OECS member countries.</li> <li>○ National strategies for strengthening farmer organizations were implemented with the collaboration of the organizations and the Ministries of Agriculture of Saint Lucia and Dominica. In Grenada, a strategy was designed to develop the livestock industry and related farmer organizations.</li> </ul> </li> </ul>			

■ Instrument	● Objectives	○ Achievements	Resources Source	Amount
		<ul style="list-style-type: none"> <li>○ The Inter-island Standing Committee of Farmer Organizations (ISCFO) held several meetings during 1989; a project was prepared to institutionalize the ISCFO. In Saint Lucia, the first national steering committee of farmer organizations was established.</li> <li>○ Inter-island marketing activities were promoted and approximately 20 shipments of fruits and vegetables were exported by farmer organizations of Dominica and Saint Lucia to supply produce to Antigua and Barbados. A regional information network was established, which facilitates communications among farmer organizations.</li> <li>○ Four projects were prepared to upgrade marketing infrastructure, and funding is currently under negotiation. A US\$86 500 grant was received to improve the services of the Dominica Hucksters' Association. Also in Dominica, a round table and a subregional workshop were organized on organic farming in order to develop this type of technology for sustainable agriculture. A trial shipment of grapefruit, produced organically, was sent from Dominica to the United States.</li> <li>○ Data bases were developed and implemented to monitor the production of eggs and young broilers, hogs and import substitute crops. The data bases will also be used to analyze information required for on-farm decision-making.</li> <li>○ More than 100 farmers, students of agriculture and extension officers received training in farm management, computer programs, word processing, production credit and data base preparation and management.</li> <li>○ Four issues of the FOCUS Bulletin on integrated development were published and distributed.</li> </ul>		
■ Strengthening Plant Protection and Quarantine Capabilities in the Windward Islands and Antigua and Barbuda for the Production and Marketing of Non-Traditional Crops			IICA TOTAL	95 969 95 969
	<ul style="list-style-type: none"> <li>● To develop technological packages for production and post-harvest handling of priority crops.</li> <li>● To support the establishment and maintenance of appropriate plant quarantine services. <ul style="list-style-type: none"> <li>○ In-service training offered to approximately 1 200 people who work in the field of plant protection in OECS member countries.</li> <li>○ Visits made to farms to diagnose problems caused by pests, and to provide advice on control measures.</li> <li>○ Informal on-site training sessions held, with collaboration of technical personnel from CARDI and the pertinent ministries of agriculture.</li> <li>○ Training workshops offered to farmers, extension officers, pesticide dealers and students on proper management and use of pesticides.</li> </ul> </li> </ul>			

■ Instrument	● Objectives	○ Achievements	Resources Source	Amount
		<ul style="list-style-type: none"> <li>○ The Pesticides Control Boards of the OECS, including representatives from St. Kitts and Nevis and Monserrat, held their second meeting in Dominica.</li> <li>○ In collaboration with the USDA and FAO, the project helped establish uniform methods for an effective quarantine system in the smaller states. Workshops were held in Antigua and Barbuda, Grenada and Saint Vincent and the Grenadines for plant protection and quarantine officials, customs officials and animal health personnel. A program to create public awareness on the matter of quarantine and to provide training of inspectors was also proposed.</li> <li>○ In Saint Lucia, articles were published and radio programs were broadcast on pesticide use; support was given to the Banana Growers Association on the proper storage of pesticides. Anthracnose in mango was investigated, as was the mango seed weevil problem and its association with premature fruit drop. Surveys to determine the incidence of virus disease in hot peppers (<i>Capsicum frutescens</i>) were undertaken in Grenada and Saint Lucia; technical assistance was provided to the ministries of agriculture of Saint Lucia and Dominica for their USAID-funded fruit fly surveys.</li> <li>○ In Grenada, assistance was given to the pawpaw (<i>Euscepes sp.</i>) development project, for rehabilitation of the germplasm bank and improvement of nursery management at the Mirabeau Station.</li> <li>○ In Dominica, assistance was provided to the Dominican Hucksters Association and the Dominica Export-Import Agency (DEXIA) in improving post-harvest practices of agricultural export products. A monthly radio program on the safe and effective use of pesticides was started, and a video on the same topic was prepared.</li> <li>○ In Saint Vincent and the Grenadines, workshops were held on small volume application and management of pest problems in fruit crops and the use of equipment for limited applications. Information on sweet potato weevil was provided to the Ministry of Agriculture and a leaflet on pruning mango trees was published.</li> </ul>		
■ Interim Management of Tropical Bont Tick <i>Amblyomma variegatum</i> in Dominica	● To eradicate <i>Amblyomma variegatum</i> .	<ul style="list-style-type: none"> <li>○ Acaricide applications were continued for livestock on a regular basis within the quarantine area, as well as routine searching for ticks and their subsequent identification.</li> <li>○ <i>Amblyomma variegatum</i> has not been seen in Dominica since August 1987, and quarantine measures have been stepped up to prevent its reintroduction.</li> </ul>	APHIS Grant TOTAL	14 973 14 973



# Suriname

As compared to 1988, 1989 was a year of persistent socioeconomic instability. Prevailing conditions compounded already chronic problems of high unemployment, trade imbalances, and a difficult and limited access to external development finance. While there was some debt rescheduling, there was no major debt relief during 1989. Government revenues increased somewhat during the last quarter as a result of payment of taxes on very high bauxite prices.

Except for bauxite and petroleum, production in most industries dropped sharply during the year, due to a lack of essential inputs, spare parts for machinery and raw materials. Some agroprocessing plants were temporarily closed down. Infrastructural problems continued to depress the agricultural sector, particularly flooding and poor drainage in Saramacca, Coronie and Nickerie.

On the other hand, the mining sector began to expand substantially. The bauxite industry opened two new mines, one in the east and one in the southern part of the country, while the State Oil Company began the first phase of a four-year US\$100 million expansion program which will increase output by 60%.

Other encouraging signs were the opening of the shrimp cultivation pilot project in April and the beginning of the first phase of the Kabalebo Hydroelectric Project in West Suriname.

High prices in the rice market continued in 1989 and yields remained satisfactory, although substantial acreage (more than 10%) remained uncultivated, due to the continued shortage of foreign exchange to purchase inputs, repair machinery and improve the drainage infrastructure.

With a view to boosting agricultural production and strengthening rural development plans in Suriname, in 1989 IICA focused on providing support to two projects of importance to the sector's recovery. Specifically, IICA collaborated in establishing pilot demonstration centers on pasture management and dairy production. In addition, the Institute lent its support to the execution of numerous training courses, workshops and seminars aimed at strengthening rural development planning capabilities.

## Suriname

- Instrument
  - Objectives
    - Achievements
- Support to Agricultural and Rural Development Planning in Suriname
  - To assist the government in developing systems for generating and analyzing policies for modernizing the agricultural sector and improving sectoral production.
    - A one month in-service course was successfully offered to 20 middle managers of the public agricultural sector investment process.
    - A two-day seminar was offered on the status of the Suriname agricultural sector at the Anton de Kom University of Suriname for 55 participants.

Resources	
Source	Amount
IICA	60 551
<b>TOTAL</b>	<b>60 551</b>

■ Instrument	● Objectives	○ Achievements	Resources Source	Amount
	<ul style="list-style-type: none"> <li>○ In a field workshop, four groups of Suriname technicians, in collaboration with students and staff members of the University of Vermont, produced four profiles for agricultural development projects.</li> <li>○ Twenty managers of parastatal companies were trained in project identification and design in a five-day seminar/workshop.</li> <li>○ Twenty participants from the University of Suriname School of Economics successfully completed the second phase of a course on sectoral planning.</li> </ul>			
■ Support for the Development of the Livestock Subsystem in Guyana and Suriname			IICA TOTAL	26 451 26 451
	<ul style="list-style-type: none"> <li>● To support the Ministry of Agriculture, Livestock and Fisheries of Suriname in its drive to increase the production and productivity of dairy farmers through a concentrated program of technology transfer. <ul style="list-style-type: none"> <li>○ IICA was assigned 20 ha. of land to be converted into a dairy demonstration farm.</li> <li>○ Two ministry technicians were assigned to the project to assist in training.</li> <li>○ Four farmers were selected and their farms are being set up as pilot demonstration farms to illustrate two viable systems of grass management.</li> <li>○ The Suriname Farmers Union, which was assisted in becoming a viable, legal cooperative, submitted with IICA sponsorship, a proposal to the IDB Small Projects Fund to finance a modern service infrastructure for small-scale dairy farming.</li> </ul> </li> </ul>			

## Trinidad and Tobago

In 1989, Trinidad and Tobago continued a vigorous program of economic adjustment geared mainly to reactivating the agricultural sector. Agricultural output increased, and important opportunities still exist to further increase production, reduce reliance on imported foodstuffs, and improve the marketing and export of agricultural products.

With regard to the marketing of agricultural commodities, following the reorganization of the former Central Marketing Agency into the National Agricultural Marketing Development Company (NAMDEVCO), plans are now being developed for initiatives to improve the flow of market information in Trinidad and Tobago and to collaborate in implementing an agroindustrial unit.

Trinidad and Tobago continued to serve as the headquarters for a regional project on animal and plant health monitoring in order to increase production efficiency and facilitate trade in the Caribbean. The Caribbean Animal and Plant Health Information Network (CARAPHIN) is being developed with support from the Canadian International Development Agency (CIDA) and the University of Guelph. CARAPHIN aims to strengthen research skills of regional resource personnel so as to better equip them to meet new and existing challenges in animal and plant health. This is being accomplished both through short courses and on-the-job training.

The first regional CARAPHIN course, co-hosted by IICA and the Ministry of Food Production and Marine Exploitation (MFPME) of Trinidad and Tobago, was held in September at the University of the West Indies. The 36 participants represented ministries and regional agencies concerned with agriculture in 13 countries. They underwent two weeks of intensive training in selected aspects of epidemiology, supplemented with hands-on computer sessions.

Other CARAPHIN activities were aimed at improving the flow of information generated in the region. Steps were taken to establish procedures for providing information on existing surveillance activities in the Caribbean, particularly to reveal the presence or absence of diseases and pests that may serve as the basis for non-tariff barriers.

Support was provided to the Plant Quarantine Division of the MFPME to develop a computer software program to manage data collected from a fruit fly survey. Publication of the network's newsletter, CARAPHIN News, improved the circulation of technical information on pests and diseases within the Caribbean.

The Institute supported the government's efforts to expand and diversify the agricultural sector by providing technical support to the design of methods for administering investments in agricultural research; developing a group of small-scale entrepreneurs; improving food product marketing systems and diminishing the impact of pests and diseases on agricultural trade and marketing.

## Trinidad and Tobago

■ Instrument	● Objectives	○ Achievements	Resources	
			Source	Amount
■ Development of an Annual Programming and Monitoring System in the Ministry of Food Production and Marine Exploitation in Trinidad and Tobago	● To develop a programming and monitoring system in the Ministry of Food Production and Marine Exploitation in Trinidad and Tobago (MFPME).	○ A seminar on a project planning and monitoring program was held at the MFPME in Port of Spain, Trinidad and Tobago.  ○ A technical mission visited the MFPME and prepared a report on the Ministry's annual programming and monitoring system. Progress was made in the formulation of the corresponding project.	IICA TOTAL	12 419 12 419

■ Instrument	● Objectives	○ Achievements	Resources Source	Amount
■ Development of a Methodology for Monitoring and Evaluating Investments in Agricultural Research	● To support the development of a method for monitoring investments in and resource allotment to agricultural research.	<ul style="list-style-type: none"> <li>○ Report published on the results of the project.</li> <li>○ A survey of farmers' organizations completed to ascertain extent of adoption of research results.</li> <li>○ Report presented on the role of extension officers in technology generation and transfer.</li> </ul>	IICA	26 543
			TOTAL	26 543
■ Small Business Management for the Rural Development Process in Trinidad and Tobago	● To assist the agricultural sector in Trinidad and Tobago in generating employment opportunities through the development of small business enterprises.	<ul style="list-style-type: none"> <li>○ A manual entitled "Starting and Financing a Small Business in Trinidad and Tobago: A Guide" was published and sold.</li> <li>○ One hundred and fifty-four participants attended seven seminars. Of these, at least 50 were extension officers or managers of cooperatives who are expected to train others in turn. A total of 250 persons are expected to receive training directly.</li> <li>○ Some 350 persons benefitted indirectly, either through the purchase of the manual or through participation in conferences on the preparation of feasibility studies.</li> <li>○ The training program was supplemented with the preparation of educational materials.</li> <li>○ A survey to identify small-scale agribusiness opportunities in Trinidad and Tobago was completed.</li> </ul>	CHC	5 831
			IICA	33 547
	● To provide training to a group of micro-entrepreneurs in the agroindustrial sector.		TOTAL	39 378
■ Technical Support to Improve Food Marketing Systems in Trinidad and Tobago	● To improve food marketing systems in Trinidad and Tobago.	<ul style="list-style-type: none"> <li>○ Preliminary proposals on marketing standards and grades were prepared for 11 commodities: banana, tomato, cabbage, sweet pepper, cucumber, cauliflower, hot pepper, okra, eggplant, papaya and pumpkin.</li> <li>○ The proceedings of a 1988 seminar on post-harvest handling of hot peppers were published and distributed, as were manuals on the post-harvest handling of sweet peppers, eggplant and cassava.</li> </ul>	IICA	113 582
			TOTAL	113 582

■ Instrument	● Objectives	○ Achievements	Resources	
			Source	Amount
	○ A seminar on post-harvest handling of rice was organized and co-sponsored, in cooperation with the Ministry of Food Production and Marine Exploitation, for 100 producers and technicians. During the seminar, the researchers and technicians visited farms and exchanged ideas with farmers, and recommendations were made to improve the quality of rice.			
	○ A paper on the rationale for region-wide marketing standards and grades was prepared and submitted to the Caribbean Community Standing Committee of Ministers Responsible for Agriculture.			

## Haiti\*

The per capita annual growth rate of the gross national product (GNP) declined 2.6% from 1980 to 1989. The agricultural sector, which has traditionally contributed nearly 50% of the gross domestic product (GDP), is decreasing, but remains a government priority. The major problem of agriculture in Haiti, in addition to the low level of agricultural technology, is poor soils. The country is almost totally deforested and erosion is carrying more than 400,000 tons of topsoil to the sea per year. To stop this process, the government must make a major effort in agricultural extension services to train small farmers in ecological conservation, and to improve agricultural and animal production technology.

In 1989, Haiti's three major export crops, coffee, sisal and sugar, generated a total of US\$84 million in exports.

---

\* Because of the unique characteristics of this country, for administrative purposes IICA has placed Haiti outside of the Caribbean Area and under the direct supervision of the Deputy Director General for Operations.

Within this context, IICA actions aimed at improving agricultural production. Efforts undertaken in 1988 related to technology generation and transfer, rural development and animal health were carried on. An interdisciplinary team of experts (agricultural research, coffee rust, technology transfer, credit, sociology and institutional strengthening) concluded a project document on the control of coffee rust in the southern part of Haiti. It is expected that this five-year, US\$8.3 million project will begin operations in early 1990.

A project was prepared in 1989 to strengthen institutions involved in the improvement of agricultural production and living conditions of small-scale Haitian farmers. The purpose of this project is to increase the participation of small-scale farmers in the economic activity of the country.

The swine repopulation project, which began in 1983, completed its third phase in September 1989, and continued to carry out its activities to train farmers in food production and animal health surveillance. Work also

continued in the development of swine production systems, using sugarcane juice and high-protein forage. A total of 22 experiments with 340 pigs in the growth and fattening stages were evaluated using different feeds. Results indicate the biological and economic feasibility of using low cost, readily accessible ingredients such as sugar cane juice and high-protein foliage from locally grown trees.

The IICA Office in Haiti initiated institutional strengthening actions with the Agricultural Research and Documentation Center (CRDA). It assisted CRDA in drawing up the national agricultural research plan, in providing training for human resources in agricultural station management skills, and in developing procedures for evaluating agricultural research.

## Haiti

■ Instrument	● Objectives	○ Achievements	Resources Source	Amount
■ Swine Repopulation and Animal Health Extension Project			USAID	829 646
● To produce and distribute improved breeding stock to Haitian farmers, and to support a nation-wide program of animal health.			TOTAL	829 646
○ Assistance provided to national small-farmer associations through the transfer of medicines to the National Confederation of Farmer Associations (UNAPEL); the creation of five regional veterinary pharmacies and the holding of training seminars for small-scale farmers.				
○ Workshops given to small farmers on alternative feed for hogs; team sent to UNAPEL to distribute mixed feeds; marketing of hogs initiated by UNAPEL.				
○ Preparation and publication of extension bulletins for training and as proceedings of the courses. More than 50 000 books were distributed to the participants of the project and to cooperating organizations. Radio extension program for training small farmers is under way.				

Bolivia  
Colombia  
Ecuador  
Peru  
Venezuela  
Bolivia  
Colombia  
Ecuador  
Peru  
Venezuela  
Bolivia  
Colombia  
Ecuador  
Peru  
Venezuela  
Bolivia  
Colombia  
Ecuador

## Andean Area

The agricultural sectors of the countries making up the Andean Area show marked differences in level of development, contribution to the national economies, and generation of surpluses and employment. Agriculture in these countries shows a clear dichotomy: modern farming with appropriate technology and strong ties with the rest of the economy, and the poor rural sector that has been practically bypassed by modernization. Despite the fact that strategies for development differ among the Andean countries, as do the thrust and effectiveness of national economic policies, they all share problems connected with rural and urban poverty, unemployment, inflation, slow economic growth and large deficits in public finances and in the balance of payments situation.

The effectiveness of adjustment policies adopted over the past five years varied among the countries, and some were able to alleviate macroeconomic imbalances. However, the economic crisis is still widespread and social conditions have yet to show substantial improvements. Instability has increased in the countryside over the past years and terrorism and drug trafficking have been on the rise.

Because of its importance as a generator of employment, income and foreign exchange, the agricultural sector can play a fundamental role in reactivating the economy and bolstering development in the countries of the area. The agricultural sector requires inputs, equipment and services, and provides raw materials for agroindustry and food for the urban population, thus establishing important linkages with the rest of the economy and producing favorable multiplier effects. This situation has not been fully taken advantage of, mainly because economic policies generally place greater importance on industrial activities and on reducing the real prices of basic foodstuffs. As a result, a relatively distorted price structure exists both within the sector and between agricultural and industrial products; allocation of resources is inefficient; and the subregional market of agricultural commodities limited, unstable, illegal and highly subject to intervention.

IICA, in collaboration with the Board of the Cartagena Agreement (JUNTA), provided support the countries and completed the Plan of Joint Action for Agricultural Reactivation in the Countries of the Andean Subregion, which is the section of the PLANLAC pertinent to the Andean Area.

In preparing this section of the PLANLAC, IICA and the JUNTA increased the level of consultation with the countries, using two mechanisms. The first involved presenting and exchanging opinions on preliminary versions of this document in the following meetings: the Twelfth and Thirteenth Meetings of the Agricultural Board of the Andean Pact; one subregional technical meeting to identify areas for cooperation among agricultural sectors of the Andean Group; and the interagency advisory meeting, called by IICA. Secondly, an ad hoc IICA/JUNTA team made a round of visits and interviewed authorities, officials and technical experts from the five countries in February and March of 1989, to solicit further comments and reactions.

The preliminary work and consultation process in the subregion culminated with a meeting of the presidents of Colombia, Ecuador, Peru and Venezuela, and the minister of foreign affairs of Bolivia, which was held in Cartagena de Indias on May 25 and 26, 1989 to celebrate the twentieth anniversary of the Cartagena Agreement. During the meeting, the Cartagena de Indias Manifesto was signed, wherein it was agreed: "To instruct the ministers of agriculture to implement the strategy to reactivate agriculture at the national level, the programs of joint action and the common policies that will enable the sector to participate fully in the subregional process."

The PLANLAC document for the subregion was submitted to the consideration of the ministers of agriculture of Bolivia, Colombia, Ecuador, Peru and Venezuela, who made up the Commission of the Cartagena Agreement during the fifty-fifth special meeting, held in Lima, Peru on September 11 and 12, 1989. Decision 251 of the Commission approved the Plan of Joint Action for Agricultural Reactivation in the Countries of the Andean Subregion, which was subsequently ratified by the Inter-American Board of Agriculture, in Resolution 154.

The objectives of the Plan for the Andean subregion are: 1) to strengthen and consolidate integration of the agricultural and agroindustrial sectors in the region; 2) to increase the supply of agricultural and agroindustrial goods at low unit cost, while maintaining the productive capacity

of natural resources and protecting the environment; 3) to boost demand by expanding the subregional market, substituting imports and increasing the exportation of agricultural and agroindustrial goods; 4) to ensure an accessible food supply for groups of society nutritionally at risk; and 5) to strengthen development of the small-farm economy, upgrade its production capacity and provide it with greater access to the benefits of development.

The Plan stipulates that, in order to meet these objectives, efforts to reactivate the agricultural sector should be carried out at the national level as well as through joint actions among the countries. At the national level, efforts should be made to: 1) adopt macroeconomic and sectoral policies not biased against agriculture, with a view to eliminating current distortions in relative domestic prices; 2) improve communication between the State and different groups of society, to increase policy efficiency and stability, and ensure they reflect fairly the different social and private interests; and 3) increase coordination among policy design and execution bodies.

Eight programs of joint action, to be implemented in 1990, were drawn up for the Andean region. They concern: institutional strengthening to improve agricultural and agroindustrial policies, agricultural and agroindustrial trade and integration, generation and transfer of agricultural technology, agroindustrial development, environment and natural resources, animal health and plant protection, rural development, and direct food assistance.

During 1989, IICA continued executing various regional projects in the Andean Area, one of which is the Cooperative Agricultural Research Program for the Andean Subregion (PROCIANDINO). It is headquartered in Quito, Ecuador, and has received funding from the Inter-American Development Bank (IDB), IICA and the five countries of the Area. Other regionwide actions include support for the establishment of an integrated fruit fly management system in the Andean and Southern Areas, headquartered in Lima, Peru, and the project to strengthen animal health laboratory and epidemiological surveillance services in the countries of the Andean Area, which is headquartered in Quito, Ecuador.



# Bolivia

The Bolivian economy remained stable during 1989, with a relatively low inflation rate of 15% at year's end. Foreign exchange earnings fell after the price of tin dropped to between US\$2.60 and US\$2.95 a pound in the final months of the year. Nevertheless, Bolivia received substantial external funding from various sources. An agreement was signed to reschedule the bilateral debt, including a provision of US\$220 million, repayment of which will begin in 1995. The International Monetary Fund (IMF) recommended extension of the three-year expanded facilities agreement, signed in 1988 for a total of US\$270 million. Furthermore, with disbursements and loans from the World Bank, the Inter-American Development Bank (IDB) and Japan, Bolivia was able to maintain a positive balance in the capital account of the balance of payments.

While the agricultural sector plays an important role in the national economy, with the agricultural GDP constituting approximately 20% of the national GDP, agriculture continues to be the sector with the greatest social needs. It employs 49% of the economically active population (EAP), a much larger percentage than any other sector, including mining, which employs 9% of total EAP. The rural GDP per capita is US\$243, compared to the urban per capita of US\$1 050. Agricultural yield is low compared to the average yields of developing countries. For example, sugar cane yield in Bolivia is 37 tons per hectare, whereas in Costa Rica it is 135 tons per hectare; Bolivia produces 700 kilograms of wheat per hectare compared to 1 800 in Argentina. In the livestock subsector, the average is 178 kilos of meat per head, compared to 193 kilos in the rest of Latin America. Coca cultivation and cocaine production greatly affect the development of agriculture, constituting US\$2.5 billion of the GDP, compared to the agricultural GDP of US\$747 million.

Although there is tremendous potential for economic growth in the sector, including exports, rural production and the income of farmers fell sharply. The main macroeconomic causes for this situation are considered to be, among others: a) an overvalued currency, which limits the competitiveness of domestic commodities in Bolivia and abroad, reduces demand, and has a negative effect on production; b) inappropriate and disadvantageous financial and administrative measures for the agricultural sector, such as the single tariff on imports that taxes inputs and machinery not available in the country, and income taxes that are proportionately higher for the agricultural sector; and c) inadequate agrarian infrastructure (lack of rural roads, sources of energy, means of communication, health and education services) that negatively affects production.

In spite of all these difficulties, the government believes that agriculture can play an active role in revitalizing the economy. The most important government policies for agriculture are geared to: increasing agricultural production, for both domestic consumption and export; distributing equitably the benefits of growth; supporting small-scale farmers through rural development programs; making agriculture profitable, particularly with respect to domestic consumption; promoting national control over the management of renewable natural resources and the environment; increasing production and productivity through improved technology generation and transfer to agriculture; and coordinating the efforts of the Ministry of Campesino and Agricultural Affairs (MACA) and decentralized public agencies with the departmental governments and institutions in charge of agricultural development.

With a view to reinforcing these government actions, IICA continued its support to Bolivia, mainly in relation to the analysis of agricultural policies and to boosting integrated

rural development. The Office participated in designing and implementing a permanent information and analysis system on the situation and outlook for agriculture in the country. It also continued to offer technical and training assistance related to the execution of integrated agricultural development projects.

More specifically, the Institute assisted in organizing the Department for the Prevention of Natural Disasters and establishing an agrometeorological infrastructure. It also collaborated in setting up cattle herd, health and production records.

As for marketing, IICA helped to establish a technical agency which will be responsible for administering agricul-

tural marketing policies, as well as providing support for reorganizing MACA's National Marketing Directorate.

Finally, at the multinational level, the Institute continued to support Bolivia in upgrading its animal health laboratory network, and installation of the Beni Veterinary Research and Diagnostic Center (CIDIVEB) was completed. This Center conducts educational programs and extension services, offers training for personnel and carries out research on principal animal diseases in Beni. Also, MACA's Directorate of Plant Protection received assistance in the fruit fly control project. IICA provided advisory services for the preparation of a profile on a national plant protection and an agricultural and forestry quarantine project.

## Bolivia

■ Instrument	● Objectives	○ Achievements	Resources Source	Amount
■ Support for the Identification and Preparation of Agricultural Development Projects	● To provide support to MACA, the Regional Development Corporation of Cochabamba (CORDECO) and the Bolivian Association of Red Holstein Cattle Ranchers (ACRHOBOL) in preparing a project on the development of pedigree Holstein herds.	○ Herd, health and production records established for ACRHOBOL cattle ranchers; establishments affiliated with this association assessed for animal health status. Selection and breeding systems improved.	IICA	68 334
	○ Assistance provided to 20 ACRHOBOL cattle ranchers in matters related to herd health, reproduction and management; an epidemiological survey carried out on parasitosis, brucellosis and mastitis; laboratory analysis conducted for 1 500 animals to detect diseases.	○ Project drawn up on the development of pedigree Holstein herds.	TOTAL	68 334
	○ ACRHOBOL technical council established; computer system set up for ACRHOBOL records.			
■ Support for the Implementation of the Integrated Rural Development Project in Bolivia	● To support MACA, regional development corporations and participating institutions in the execution of Integrated Agricultural Development Projects (PDAIs) in Bolivia.		IICA	116 369
			TOTAL	116 369

■ Instrument	● Objectives	○ Achievements	Resources Source	Amount
	<ul style="list-style-type: none"> <li>○ Technical cooperation offered for management of PDAs in Beni, Potosi and Pando, and progress made in institutionalizing the agricultural development model.</li> <li>○ Technical, administrative and resources management capabilities upgraded with a view to providing credit, technical assistance, services and training to small-scale farmers.</li> <li>○ Technical and administrative support provided to PDAs to equip them to coordinate actions aimed at small-scale farmers.</li> <li>○ Teams of trained, experienced technicians set up to replicate the multinational model in other areas.</li> <li>○ Nurseries set up in four communities; twenty-nine training events offered, benefitting approximately 1 000 technical experts and small-scale farmers directly.</li> </ul>			
■ <b>Technical Assistance and Training for the Agricultural Development Project on Northern Chuquisaca (CORDECH/IICA)</b>			CORDECH/ IFAD/ADC TOTAL	68 735 68 735
	<ul style="list-style-type: none"> <li>● To improve the executive capabilities of participating projects and institutions. <ul style="list-style-type: none"> <li>○ Several technical courses, workshops and seminars offered to more than 100 technicians and small-scale farmers involved in the project to establish fruit and tree nurseries; information generated on water run-off systems, soil formation and the construction of barriers, among others.</li> <li>○ Observation tours of technical procedures; consultants hired to make pertinent studies.</li> <li>○ Technical and administrative capabilities of project executor units improved; advisory services provided to reorganize project goals and expected results.</li> </ul> </li> </ul>			
■ <b>Technical Assistance and Training for the Cotagalta-San Juan del Oro Agricultural Development Project (CORDEPO/IICA)</b>			CORDEPO/ IFAD/ADC TOTAL	98 557 98 557
	<ul style="list-style-type: none"> <li>● To improve the executive capabilities of participating projects and institutions. <ul style="list-style-type: none"> <li>○ Several technical courses, workshops and seminars on market research methods offered to more than 100 technical experts and small-scale farmers involved in the project; small-scale agroindustries promoted; projects designed, supervised and evaluated at the farm level.</li> </ul> </li> </ul>			

■ Instrument	● Objectives	○ Achievements	Resources Source	Amount
	<ul style="list-style-type: none"> <li>○ Observation tours of technical procedures related to the objectives of the project; consultants hired to carry out studies on components that require specific technical assistance.</li> <li>○ Technical and administrative capabilities of project executor units; advisory services provided to reorganizing project goals and expected results; project components upgraded.</li> </ul>			
■ Design and Operation of Agricultural Marketing Systems			IICA	87 566
	<ul style="list-style-type: none"> <li>● To support MACA in developing bases for market and agricultural marketing policies, and for creating the technical- regulatory agency that will administer agricultural marketing policies. <ul style="list-style-type: none"> <li>○ Institutional strengthening of MACA, in connection with the design of agricultural marketing policies and instruments. To this end, IICA's proposal to reorganize MACA's National Marketing Directorate was used. Documents also prepared on institutional organization, and on norms and procedures for implementing marketing policies.</li> <li>○ Integrated production and marketing systems identified at the national and regional levels.</li> <li>○ Program of studies to analyze agricultural commodity prices completed. Six bulletins published on wholesale agricultural prices in principal cities.</li> <li>○ Training in marketing strategies provided for rural leaders and technicians from the public and private sectors.</li> <li>○ MACA project prepared on development of wholesale markets in La Paz and Santa Cruz.</li> <li>○ Studies concluded and published on markets and marketing of potatoes, wheat, barley, peaches, corn, wool, sheep and goats in Chuquisaca and Potosí; marketing strategies for small-scale farmers in Bolivia also covered.</li> <li>○ Proposal for milk marketing in Oruro delivered to the Oruro Development Corporation (CORDEOR).</li> </ul> </li> </ul>		TOTAL	87 566
■ Support to MACA in the Design of Emergency Plans for Adverse Weather Conditions			IICA	8 120
	<ul style="list-style-type: none"> <li>● To advise MACA in designing an agrometeorological information subsystem and in preparing the corresponding work plan.</li> </ul>		TOTAL	8 120

■ Instrument

● Objectives

○ Achievements

Resources

Source

Amount

- To support MACA in preparing a proposal on organizing the Department for the Prevention of National Disasters.
  - Support provided in the form of a proposal to the Directorate of Information Systems and Sectoral Statistics for creating the Department for the Prevention of Natural Disasters; agrometeorological data base set up; technical personnel of the Department received training; investment project drawn up to provide MACA with agrometeorological infrastructure.
  - Four MACA staff members received training; frame of reference completed for a drought emergency plan.

## Colombia

In 1989, Colombia's economic growth rate averaged 3.5%, as a result of a better-than-expected performance in the mining sector. Agriculture contributed approximately 7% to the GDP, in spite of a drop in coffee prices at year's end.

The consumer price index climbed to 26%, more than two points higher than anticipated, as a result of increases in agricultural products and services. The share of the cost of foodstuffs in the family shopping basket, while usually higher, came to 23%.

A 10% increase was observed in annual and permanent crops. Government policies contributed to boosting production, which was mainly reflected in an increase in the total area under cultivation, and, to a lesser degree, in productivity. Soybean was one of the best growth crops.

The livestock subsector's share in the gross domestic product (GDP) fell from 6% in 1988 to 5% in 1989. The

poultry subsector grew only slightly and hog processing fell. In 1989, the going price for cattle dropped between 15% and 19%, despite the fact that more cattle were slaughtered than in any earlier year.

Lower meat prices and the opening up of the milk market contributed to bringing about a 10% increase in milk production; consumer prices rose by between 23% and 30%. Surpluses resulted, and an equilibrium price is expected for this commodity.

The positive effect of the agricultural sector on the economy can be credited to the Selective Supply Plan (POS) implemented by the government during the second half of 1989 to boost its Social Economic Plan. The POS aims to create the necessary conditions for achieving sustained modernization and capitalization of agriculture. Most of the technical and financial resources of agricultural sector agencies have been concentrated on eight main

products (rice, soybeans, milk, meat, vegetables, corn, beans and cassava) with a view to increasing the supply of basic consumer foods, reducing dependence on imports, and reactivating small-scale farming over the short term. Support prices play an important role in the POS. Ceiling prices for such products were set above the inflation rate and above increases in costs of production inputs. Accordingly, farmers' incomes grew in real terms.

With the ratification of Decree 501, the ministry of agriculture initiated reorganization efforts to upgrade its institutional structure. This came about as a result of the government's decision to involve the agricultural sector more actively in the design and management of macroeconomic policies affecting agricultural development and, in this way, to strengthen sectoral policies.

As to specific programs to develop the small-farm economy, the Small-Farm Integrated Development Program (PDIC) complemented the actions of a decentralization program designed to strengthen the action of rural municipalities. It is carried out under the supervision of the Integrated Rural Development Fund, and conducted in conjunction with the National Rehabilitation Plan (PNR) in 270 municipalities located in socially depressed areas.

The IICA Office in Colombia lent further support to programs of the agricultural sector by assisting the ministry of agriculture in designing a new training project on planning, and in coordinating joint activities with the study mission, under the National Planning Department. An agreement was signed with the ministry of agriculture to launch the project in support of the National Agricultural Training Program (PNCA), which succeeds the National Training Program that concluded in December 1988.

IICA continued providing support to agencies of the sector, such as the Agricultural Sector Planning Office (OPSA), the National Renewable Natural Resources Institute (INDERENA) and the Colombian Agrarian Reform Institute (INCORA).

With regard to rural development, IICA placed the greatest emphasis on activities of the Integrated Rural

Development Fund (DRI), which increased the economic and human resources of the project to strengthen areas of priority to the Institute. Actions in support of INCORA and the final activities of the project on the use of mass media to transfer technology and promote food security complemented the work carried out in this field.

Short-term actions were carried out to assist the National Planning Department in defining an agroindustrial policy, and to support the National Federation of Coffee Growers in their efforts to diversify production.



*The cut-flower and ornamental plant agroindustry has experienced impressive growth, and is supported by several IICA projects dealing with non-traditional products.*

## Colombia

■ Instrument	● Objectives	○ Achievements	Resources Source	Amount
■ <b>Strengthening the Capacity of the Agricultural Sector Planning Office (OPSA) and Institutes of the Ministry of Agriculture to Analyze and Manage Priority Agricultural Programs and Projects</b>	● To improve the Ministry of Agriculture's capacity to analyze investment policies, and to improve mechanisms for programming and overseeing programs and projects.	○ In conjunction with INDERENA, support provided for reorganizing the Ministry; nine documents published on organizational structure; an institutional programming system set up.	MINAGRIC	9 832
			M.A.-Advisory S.	71 287
			M.A.- Coop.	47 753
			M.A.- Training 4	36 236
			IICA	76 449
			<b>TOTAL</b>	<b>241 557</b>
■ <b>Technical Cooperation for the National Agricultural Training Program (PNCA)</b>	● To train personnel of agricultural sector organizations through research, consultation, dissemination of information, and exchange of experiences.	○ Diagnostic workshop conducted on training projects; training needs and costs and benefits of same identified. Fifty-two training events conducted for 1 173 technicians and leaders of sponsoring entities.	PNCA	115 325
			IICA - Training	11 487
			IICA-Fruit crops	565
			IICA	34 590
			<b>TOTAL</b>	<b>161 967</b>
		○ Training activities carried out pursuant to agreements signed with the Colombian Agricultural Institute (ICA) and the Sugar Cane Research Center (CENICAÑA); course on agricultural marketing offered to 20 Ecuadoran technicians.		
		○ Seminars (attended by 70 officials from the sector) held on the formulation of training projects, planning and the environment, modernization of the agricultural sector, and involving small-scale farmers in development.		

■ Instrument	● Objectives	○ Achievements	Resources	Amount
<b>■ Support to the Ministry of Agriculture for Strengthening the Planning Information Network</b>			Country -M.A.	13 981
<ul style="list-style-type: none"> <li>● To install an agricultural information network for the exchange of information among organizations of the ministry of agriculture and related agencies. <ul style="list-style-type: none"> <li>○ Microcomputers and additional equipment installed in OPSA technical units.</li> </ul> </li> </ul>			TOTAL	13 981
<b>■ Providing Training on Sectoral Policy Design for Officials of the Agricultural Sector</b>			M.A.-	
<ul style="list-style-type: none"> <li>● To upgrade the skills of agricultural sector officials in dealing with sectoral policies. <ul style="list-style-type: none"> <li>○ Three regional training seminars on sectoral policies conducted for 120 officials from OPSA and the regional agricultural sector planning units.</li> <li>○ Compendium of sectoral policies prepared.</li> </ul> </li> </ul>			Policies 138-1	20 662
			TOTAL	20 662
<b>■ Using the Mass Media to Transfer Technology and Promote Food Security</b>			AID	50 068
<ul style="list-style-type: none"> <li>● To train personnel in nutrition education and to implement educational media applicable to communities located in the zone covered by the project. <ul style="list-style-type: none"> <li>○ Twenty-seven radio programs, 12 scripts for puppet shows with accompanying manual, two posters on nutrition and a manual on the use of project materials prepared. Two files on food, nutrition and health set up at the Family Welfare Institute in Tolima Region.</li> <li>○ Training activities provided for 250 officials and community leaders on nutrition, preparation and use of mass media for nutrition education, and supervisory techniques for the project to evaluate the output of 14 regional meetings.</li> <li>○ Two workshops held on selection and preparation of production. Four associative working groups set up, with respective funding.</li> <li>○ Three workshops held in coordination with the University of Nariño to teach housewives to breed and handle guinea pigs; 10 homemade biogas plants set up with financial collaboration from INCORA.</li> </ul> </li> </ul>			TOTAL	50 068
<b>■ Support to the Colombian Agricultural Institute for Technical- Scientific Brokerage and the Acquisition of Bibliographic Materials</b>			IBRD	259 333
<ul style="list-style-type: none"> <li>● To provide technical-scientific brokerage services, and to acquire bibliographic materials from abroad. <ul style="list-style-type: none"> <li>○ Consultants hired, and specialized bibliographic material acquired.</li> </ul> </li> </ul>			IBRD-BAC	60 889
			IICA	20 956
			TOTAL	341 178



■ Instrument	● Objectives	○ Achievements	Resources Source	Amount
■ Support to the National Sugar Cane Research Center's Institutional Model (CENICAÑA)	● To support sugar cane research through administrative actions related to the management of resources.	○ Laboratories equipped and materials purchased for field experiments.	CENICAÑA TOTAL	116 393 116 393
■ Support to the Hydrology, Meteorology and Land Improvement Institute (HIMAT) for Technical-Scientific Brokerage	● To provide technical-scientific brokerage services and specialized training for HIMAT personnel.	○ Plan of action prepared for irrigation extension services in HIMAT irrigation districts; analysis made of transfer of technology in said districts; consultants hired.	HIMAT/IBRD TOTAL	54 800 54 800
■ Strengthening DRI Fund Capacity to Manage the integrated Rural Development Program at National and Regional Levels.	● To design norms, procedures and methodological instruments for improved coordinataction in managing the Integrated Rural Development Program (DRI).	<ul style="list-style-type: none"> <li>○ DRI Fund External Credit Project formulated and approved by the IDB and IBRD; eight seminar-workshops held to discuss project strategy and components.</li> <li>○ Methodological instruments of the DRI Fund's short-term planning system reviewed, adjusted and included in the 1991 Project Planning and Programming Guide.</li> <li>○ Proposal for restructuring the DRI Fund designed and approved.</li> <li>○ Plan for institutional strengthening and support of municipal management reviewed, amended and improved.</li> <li>○ Five regional marketing projects designed as pilot projects to validate components of the DRI III Project.</li> <li>○ Manual prepared for identifying and formuling marketing projects; ready for on-site validation.</li> </ul>	DRI- Coop. IICA TOTAL	101 213 53 447 154 660

■ Instrument	● Objectives	○ Achievements	Resources Source	Amount
	<ul style="list-style-type: none"> <li>○ Regulations prepared for the selection and approval of investment projects and the provision of services by the DRI Fund; progress made on short-term proposal for control system; supervision and evaluation of DRI Fund projects.</li> <li>○ Officials of DRI Fund trained in use of recently developed and adjusted management methodologies for the new DRI III strategy of action; methodology approved for on-the-job and hands-on training.</li> </ul>			
■ <b>Strengthening INCORA's Technical Capacity to Support Small-farmer Enterprises of the Agrarian Reform</b>			M.A.- Coop. IICA TOTAL	1 199 77 528 78 727
	<ul style="list-style-type: none"> <li>● To help design the study to evaluate production and development programs sponsored by INCORA in agrarian reform settlements. <ul style="list-style-type: none"> <li>○ Method for providing assistance to rural enterprises approved, based on the evaluation of six INCORA settlements.</li> <li>○ Criteria defined for classifying settlements, living conditions, training needs, and production indicators; corresponding work plans drawn up.</li> <li>○ Technical experts received training in rural enterprise management to support small-farmer enterprises covered by the agrarian reform.</li> </ul> </li> </ul>			
■ <b>Technical Assistance Agreement with DRI Fund</b>			DRI-Advisory S. DRI-Admin. TOTAL	142 473 185 731 328 204
	<ul style="list-style-type: none"> <li>● To provide technical assistance to the DRI Fund in the development of its programs, with technical and support staff from IICA. <ul style="list-style-type: none"> <li>○ Local general services personnel and national consultants hired to execute DRI Fund programs.</li> </ul> </li> </ul>			
■ <b>Administrative Services Agreement with the Agrarian, Industrial and Mining Credit System</b>			Agrarian Syst./ IBRD TOTAL	137 085 137 085
	<ul style="list-style-type: none"> <li>● To assist the system in hiring support services for the different areas of specialization needed to execute the institutional strengthening project. <ul style="list-style-type: none"> <li>○ Compunetwork Systems hired to provide technical advisory services in planning, management, organization and control of the institutional strengthening project.</li> </ul> </li> </ul>			

# Ecuador

The National Economic and Social Development Plan of Ecuador described 1989 as a year of transition in which the efforts were made to come to terms with the crisis by working to stabilize the economy and reactivate production. Two essential goals were achieved in the quest for economic stability: the foreign reserve was built up and spiraling inflation was curbed, falling from 99% in March to 59% in November. It has continued to decline since. In addition, a US\$501 million trade balance surplus was registered for the January-October period. As a result of this favorable economic situation, Ecuador was able to eliminate import restrictions on capital goods, and implement other related measures.

The agricultural sector played an important role in stabilizing the economy. While total exports increased 4.5% compared to 1988, agricultural exports increased 15% during the same period. This represents a 3% increase in agriculture's share of exports over the previous year. Inflation was directly related to the cost of foodstuffs; grains (mainly rice) and their by-products suffered the brunt of inflation.

The structure of Ecuador's labor force shows that agriculture accounts for the greater part of production, with 36% of the economically active population (EAP) working in this sector. In 1989, agricultural production, with a 3% growth rate, accounted for approximately 18% of the total GDP.

In 1989, livestock production exceeded 1988 levels by 3%. Banana harvests continued to be good, and Ecuador ranked first in the world as producer and exporter of this crop. Rice production made a strong recovery, which was of special importance given its social impact and effect on food prices, and the fact that the winter harvest produced only 175 000 MT, while annual demand stands at 300 000 MT.

As to the reactivation of production, government officials earmarked 33% of the resources in the Investment Plan to promote production projects, under which the sector's share rose to 33%. This includes actions to promote rural

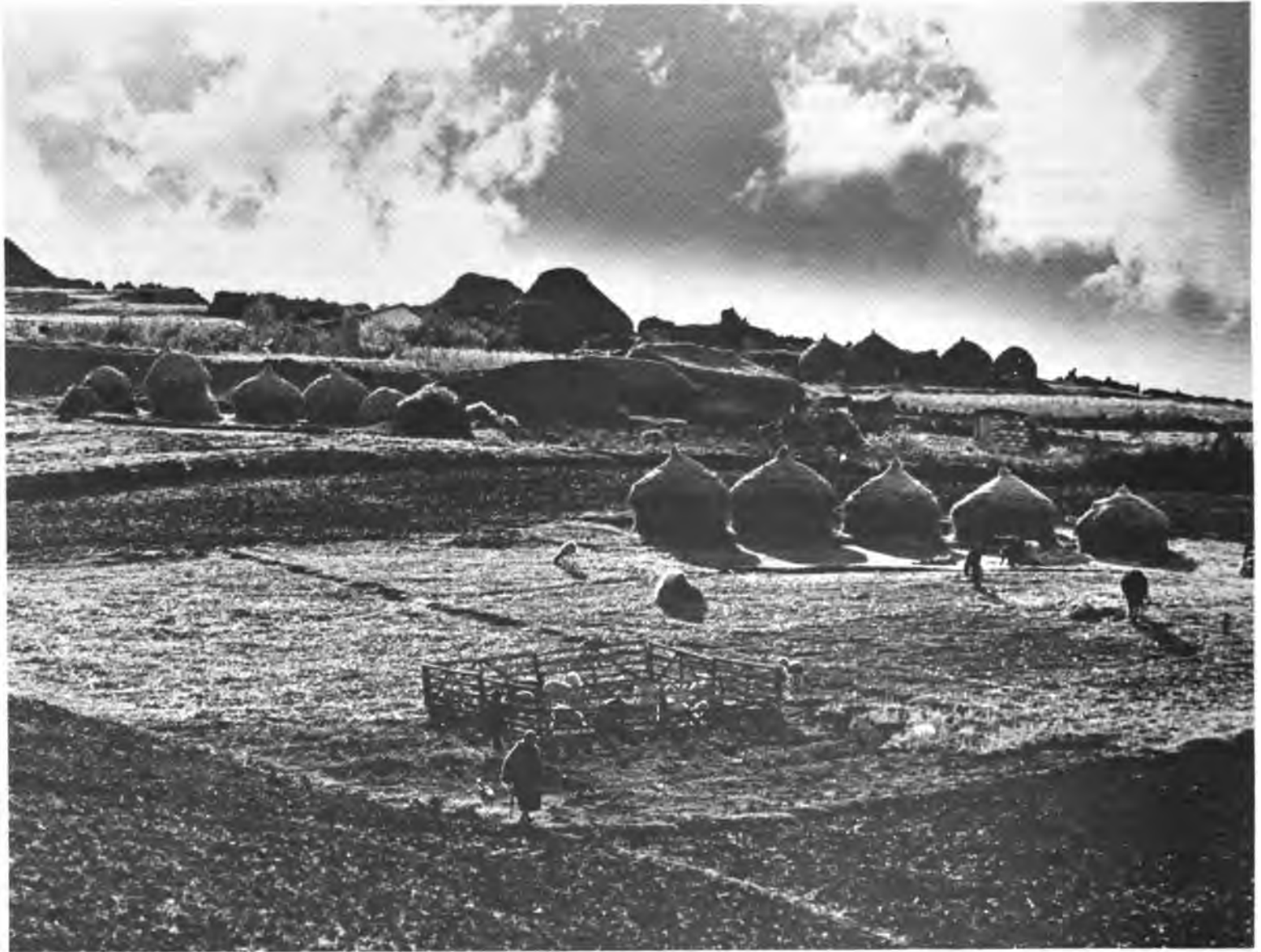
development, carried out under the Ministry of Social Welfare (MBS). In November, the Ministry of Agriculture and Livestock (MAG) presented a request to the Monetary Board to promote the production of eight priority crops, by channeling approximately US\$130 million in credit to small- and medium-scale farmers.

Ecuador's 1989-1992 National Economic and Social Development Plan emphasizes the production of mass consumption goods, particularly foodstuffs, as a way of solving many agricultural problems, improving living conditions in rural areas, making better use of land and boosting productivity. The Plan also seeks to maintain support prices for basic agricultural products and to strengthen cooperative organizations.

To further these policies, the State identified problem areas of the agricultural sector, which include the orientation of the production structure and its particular form of development; information and communications; discrimination against women; domestic scientific and technical capabilities; natural resources and the environment; the structure, tenure and use of land; and the participation of the rural population in the production process.

The IICA Office in Ecuador continued to work in support of the reactivation of agricultural production and the improvement of rural living conditions. It provided technical cooperation related to rural planning and development, and to technology generation and transfer, through administrative support activities. With a view to reactivating agriculture and trade, the Institute also collaborated in adjusting MAG policies. It drew up several projects related to the production of priority items and designed credit plans for carrying them out.

IICA also provided support to the MBS's rural development program, which seeks to significantly increase sources of employment and the real income of small-scale farmers, while promoting the democratic participation of the rural population in the development process.



*In-field storage of barley in a rural zone of Ecuador.*

# Ecuador

■ Instrument	● Objectives	○ Achievements	Resources Source	Amount
<b>■ Support to MAG in Improving its Analytical Capabilities for Programming and Overseeing Policies and Projects</b>			Gov. Ecuador	4 138
<ul style="list-style-type: none"> <li>● To provide institutional strengthening for the sectoral planning system, and the units of the system, in connection with policy planning and analysis.</li> <li>● To help improve the mechanisms, instruments and procedures used for policy planning and analysis, by providing training for personnel of the operating units of the system.               <ul style="list-style-type: none"> <li>○ A more functional operating structure, designed by IICA, was adopted by the General Directorate of Planning.</li> <li>○ Studies published on the information system for use in evaluating and supervising projects; on the effects of and relationship between macroeconomic and agricultural sectoral policies; and on coordination among agencies responsible for designing and executing same.</li> <li>○ MAG officials received training on the management of planning instruments, mechanisms and procedures.</li> </ul> </li> </ul>			IICA	56 464
			<b>TOTAL</b>	<b>60 602</b>
<b>■ Evaluation of Tropical Grasses</b>			IDRC	6 904
<ul style="list-style-type: none"> <li>● To provide administrative support to the National Agricultural Research Institute (INIAP) for implementing the Napo-Payamino Experimental Station project.               <ul style="list-style-type: none"> <li>○ Financial resources administered for establishment of experiments on improved pastures and regional tests.</li> </ul> </li> </ul>			<b>TOTAL</b>	<b>6 904</b>
<b>■ Technological Alternatives for Replacing Sugar Cane in the Yunguilla Valley</b>			CREA/IDRC	21 741
<ul style="list-style-type: none"> <li>● To find production alternatives for small-scale farmers who grow sugar cane for making low-grade rum, which will allow them to maintain and/or improve their current standard of living and use of labor by upgrading traditional technology for crops and small animals.               <ul style="list-style-type: none"> <li>○ Management capabilities and organization of executing unit of the Yunguilla Valley Project upgraded.</li> <li>○ Primary and secondary information on variables affecting the marketing of current and potential products from the Yunguilla Valley analyzed.</li> <li>○ Tests made on crops to replace sugar cane, and initial plots set up at the farm level.</li> <li>○ Work begun to optimize water services by improving drainage and small reservoirs.</li> </ul> </li> </ul>			IICA	16 563
			<b>TOTAL</b>	<b>38 304</b>

■ Instrument	● Objectives	○ Achievements	Resources	Amount
Source				
<b>■ Provision of Management Personnel and International Specialists as Institutional Support to PROTECA's Central Implementation Unit</b>	<ul style="list-style-type: none"> <li>● To strengthen the institutional organization of PROTECA's Central Implementation Unit from the management, technical, administrative and financial points of view. <ul style="list-style-type: none"> <li>○ Central Implementation Unit established with the selection and appointment of executive, technical, follow-up and evaluation, and financial-administrative directors.</li> <li>○ Consultants hired and advisory services being provided for technical and economic evaluation of agricultural technology; of follow-up, control and ex-post evaluation systems; and of financial organization and administration.</li> </ul> </li> </ul>		MAG- PROTECA/	119 146
			IDB	119 146
			TOTAL	119 146
<b>■ Technical Cooperation to the Integrated Rural Development Program (DRI)</b>	<ul style="list-style-type: none"> <li>● To improve production, productivity and marketing indexes of products generated by DRI projects, and to reduce poverty in project areas.</li> <li>● To collaborate in strengthening the structure and operations of the Undersecretariat of Rural Development (Ministry of Social Welfare). <ul style="list-style-type: none"> <li>○ National Rural Development Program (PRONADER) designed for 74 000 families covered by DRI projects, spanning an area of 1 200 000 hectares, and operating with a US\$140 million budget.</li> <li>○ Method for transferring technology to small-scale farmers designed and implemented; involves campesino participation through the PAC (Campesino Agricultural Outreach Program ) and the FOCOSA (Community Fund for Agricultural Services).</li> <li>○ Marketing training fund set up to provide small-scale farmer organizations with learn-by-doing experience.</li> <li>○ Management and administrative aspects of executor units of DRI projects for Puerto Ila-Chone, Guamote and Quininde upgraded.</li> </ul> </li> </ul>		MBS/IBRD	753 781
			MBS/CAF	56 217
			Gov. Ecuador	4 070
			IICA	60 489
			TOTAL	874 557
<b>■ Strengthening the Small-Scale Economy (Ministry of Agriculture and Livestock - MAG)</b>	<ul style="list-style-type: none"> <li>● To collaborate with the MAG in establishing the conceptual, methodological and operating bases of several projects aimed at reactivating the agricultural sector and improving the small-scale economy.</li> </ul>		IICA	34 579
			TOTAL	34 579

■ Instrument	● Objectives	○ Achievements	Resources	
			Source	Amount
		<ul style="list-style-type: none"> <li>○ Documents prepared on projects geared to small- and medium- scale farmers dealing with: production of 20 000 hectares of wheat in the Ecuadoran highlands; priority crops with respective credit plans; improvement and increase in cattle herds in the province of Manabí.</li> <li>○ Document prepared on information system of the ministry of agriculture and the communication systems for MAG and affiliated agencies.</li> </ul>		
■ Support to Administrative Activities for the Undersecretariat of Rural Development (Ministry of Social Welfare - MBS)			MBS/IBRD TOTAL	172 158 172 158
	● To support the Undersecretariat in the study and design of road and irrigation works for strengthening the operations of the National Rural Development Program (PRONADER)			
	<ul style="list-style-type: none"> <li>○ Consultant firms and technical proposals selected for conducting road studies for DRI projects.</li> <li>○ Progress made on irrigation studies for DRI projects.</li> <li>○ Technical support personnel hired for central unit of Undersecretariat of Rural Development.</li> </ul>			

## Peru

During 1989, the institutional framework of the agricultural sector in Peru continued to be unstable, diminishing the possibilities of coordinating policies to boost integrated rural development. The general lack of security in rural areas, the scarcity of credit, the limited supply of basic inputs, and poor prices for crops all caused continued rural-urban migration.

Recession and inflation worsened notably in Peru during the year. The GDP fell by 12%, the average inflation rate rose to 3 398%, and the consumer price index soared to

2 775%. Production in the manufacturing sector dropped a record 21%. The agricultural sector also decreased 3.6%, after a five-year recovery. The only sectors experiencing growth, staving off an even greater drop in the GDP, were the fishing and mining sectors, which grew by 4% and 5%, respectively.

Although the gross agricultural product for 1989 dropped 3.6%, the total percentage recorded in national accounts was 4.2% above the average for the 1984-1988 period. The major cause of the contraction of the agricultural sector was

a 14% drop in the livestock subsector; the farming subsector showed a moderate 1% increase.

The products suffering the sharpest fall were poultry and eggs, declining 31% and 19% respectively. Potato production fell 20%, amylaceous corn 15%, and rice 3%. This was set off by an increase in the volume of cotton production (14%), flint corn (22%), coffee (6%) and sugar cane (7%).

Given these circumstances, the situation and outlook for the sector takes on great importance, not only because of its effect on the Peruvian economy as a whole, but also because of its impact on the social fabric of the country. This issue must be handled effectively if a plan for economic reactivation and social and political stability is to work. IICA's proposal for technical cooperation in Peru, framed by IICA's action strategy for that country, was designed with these conditions in mind, and was agreed upon with officials from the sector. High-level national consultants were hired to strengthen the government's plans to reactivate agricultural development, and actions were programmed for multinational projects dealing with animal health, plant protection and the conservation of natural resources.

More specifically, IICA's technical cooperation focused on introducing methods for following up on and evaluating agricultural policies; strengthening the organization and administration of experimental stations; providing training to leaders of small-scale farmers' organizations; developing alternative agricultural marketing systems, and supporting agricultural reactivation programs. Documents were also drawn up on the linkages between agriculture and agroindustry, on macroeconomic and sectoral incentive policies for agricultural reactivation, and development policies for the agricultural sector.

One of IICA's final activities in 1989 was to bring together adherents of different political trends to encourage discussion and create an awareness of the need to reach agreement on basic issues related to integrated and equitable agricultural development. As a result, a strategy was planned for negotiating concerted action with new agricultural sector authorities.



*Traditional small-scale marketing of agricultural products is the focus of many rural development projects administered by IICA's Program III.*



# Perú

■ Instrument	● Objectives	○ Achievements	Resources Source	Amount
<b>■ Institutional Support to the Ministry of Agriculture in the Execution of Agricultural Sector Projects.</b>	<ul style="list-style-type: none"> <li>● To support the ministry of agriculture in the execution of priority projects, by selecting and hiring consultants for its agricultural reactivation and food security program.               <ul style="list-style-type: none"> <li>○ Eighty-two national, high-level technical consultants selected and hired to work in areas related to coordination, agricultural policy analysis, production statistics and administration, as well as in support of the General Directorate of the Ministry of Agriculture.</li> </ul> </li> </ul>		M. A. <b>TOTAL</b>	110 013 <b>110 013</b>
<b>■ Development and Use of a Selective System for Overseeing and Evaluating Agricultural and Rural Development Policies</b>	<ul style="list-style-type: none"> <li>● To establish an effective mechanism in the Agricultural Sector Planning Office (OSPA) for supervising and evaluating its programs and policies, with a view to determining needed adjustments.               <ul style="list-style-type: none"> <li>○ Methodology prepared in conjunction with OPSA for following up on agrarian policies through producer surveys.</li> <li>○ Three studies were conducted on: farmers' reactions to changes in agrarian policies, by age, educational background, farm structure and farm size; the existence of an informal market at the national level for agricultural lands; and the installation of an information system in OSPA for analyzing agricultural policies.</li> <li>○ Eight training activities held for 337 participants of 22 national institutions in Lima and Chachapoyas. Direct support provided to three sectoral institutions: Agrarian Policy Analysis Group (GAPA), the Agroecomics General Office (OGAE) and the Advanced Training Program of the Agricultural Planning and Institutional Development Project (PADI).</li> </ul> </li> </ul>		IICA <b>TOTAL</b>	27 983 <b>27 983</b>
<b>■ Support to the Agricultural Sector in the Preparation of Proposals for Agricultural Reactivation and Rural Development</b>	<ul style="list-style-type: none"> <li>● To aid in the identification of factors that contribute to or hinder rural development, and of the effects of political trends on agricultural reactivation and rural development.               <ul style="list-style-type: none"> <li>○ Technical documents prepared on: agricultural-industrial linkages; natural resources and technology; macroeconomic and sectoral policy incentives for agricultural reactivation; and agricultural development policies and overall development of the institutional system.</li> </ul> </li> </ul>		IICA <b>TOTAL</b>	27 976 <b>27 976</b>

■ Instrument	● Objectives	○ Achievements	Resources Source	Amount
■ Cooperating in the Development of INIAA's Experimental Station Network			IICA	104 156
			TOTAL	104 156
<ul style="list-style-type: none"> <li>● To strengthen the organization and management of the experimental stations, the ties among them, and the ties with the agricultural sector with a view to offering better products and research services, and to fostering technology transfer that is less dependent on government funding. <ul style="list-style-type: none"> <li>○ Eight documents prepared, aimed at upgrading INIAA experimental stations in matters related to organization and management, emphasizing a business-like approach.</li> <li>○ Four technical documents prepared in support of INIAA's information system, concerning the supervision of experimental stations, the single internal reporting system and the evaluation of scientific articles.</li> <li>○ Proposal drawn up in collaboration with the General Directorate of Forestry and Fauna Research concerning the administration of financial resources.</li> <li>○ Training provided to 89 INIAA professionals in Peru, Argentina and Chile, and to 20 professionals from other public and private agricultural entities, in such subjects as: accounting, research management and transfer of agricultural technology, organization and planning of experimental stations.</li> </ul> </li> </ul>				
■ Support for Managing Microregional Development in the Andean Trapezoid of Peru			IICA	70 887
			TOTAL	70 887
<ul style="list-style-type: none"> <li>● To improve the management of agricultural development at the microregional level, by providing support to institutions of the public agricultural sector, local government and small-farmer organizations. <ul style="list-style-type: none"> <li>○ Nine agricultural development programs prepared for Andean highland rural areas, in support of the Sierra Plan. They include: research, seed production and marketing; basic medicines for veterinary use; plant protection control; agroindustrial development; distribution and bulking centers.</li> <li>○ Plan prepared for immediate action in the Rio Blanco microbasin, in support of the Department VI Agrarian Unit in Lima.</li> <li>○ Seminar-workshop conducted to provide training to 15 government officials, three local authorities and 21 small-farm leaders; subject matter included: setting priorities, analyzing and finding solutions to problems related to the public agricultural service sector.</li> <li>○ Technical advice was provided to the Ministry of Agriculture's Rural Development Center in Santa Eulalia on the management of integrated programs for developing small-farmer communities.</li> </ul> </li> </ul>				

■ Instrument	● Objectives	○ Achievements	Resources Source	Amount
■ Support for Marketing Systems (Ministry of Agriculture)			CONAA	6 941
● To provide support to the ministry of agriculture in designing policy and agricultural marketing system options, and in carrying out studies and conducting training related to agricultural marketing.			IICA	108 218
			TOTAL	115 159
○ In support of the General Directorate for Agroindustry, a study was designed on agroindustrial policy, focusing on a strategy to promote rural processing of native Andean crops.				
○ Three studies prepared on plans of action for marketing, for the General Directorate of Agroindustry, the National Food Support Corporation (CONAA), Mercados del Pueblo (People's Markets), S.A. (MESA) and the Food Marketing Enterprises (ECASA).				
○ A technical cooperation program for agricultural and agroindustrial marketing was drawn up in collaboration with the Board of the Cartagena Agreement (JUNTA).				
○ Plan of operation prepared for the Piura and Lambayeque subsystems, in support of MESA; administrative procedures designed for the evaluation and diagnosis of accounting records of purchases, storage, distribution and sale of goods.				
○ In collaboration with the special farmers' markets project, three studies were concluded on bulking centers, area-specific agricultural markets, and regulations for organizing and operating community stores.				
○ Studies made on production and marketing costs of sweet potatoes and garlic; on marketing and industrialization of olives and olive by-products in Tacna; and on evaluating post-harvest losses on rice in the Peruvian coast.				

## Venezuela

In recent years, Venezuela's domestic sector was unstable with regard to fiscal, exchange and price matters, while, in the external sector, revenues from oil exports fell. Between 1984 and 1988, policies on prices, exchange rates, subsidies and aggregate domestic demand helped boost production. These higher production levels could not be maintained, however, due to macroeconomic imbalances in the domestic and foreign sectors.

In February 1989, new economic adjustments were made and new economic policies implemented to step up production efficiency. Included were measures designed to promote a more open economy with a view to increasing investments and competition, and laying the groundwork for non-inflationary growth in the economy.

Currently, the agricultural sector is relatively unprotected and the elimination of subsidized food products and

imported inputs has opened the way to recession. In 1989, inflationary trends, associated primarily with basic foodstuffs, exacerbated social and nutritional problems. As a result, production fell 12% and the output of the food industry fell 20%. The economy is expected to take a positive turn in 1990.

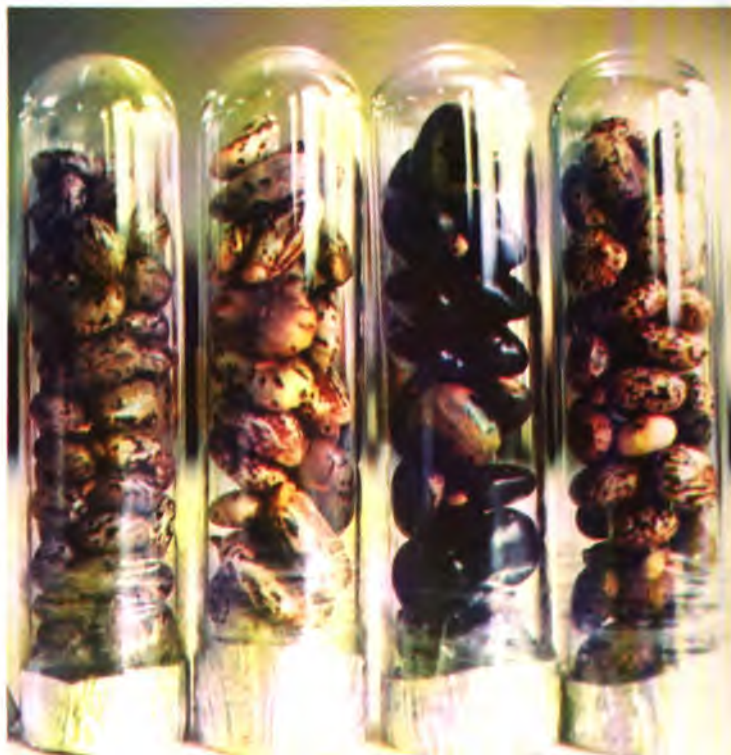
Due to the extensive links existing in the agricultural-food sector, it is estimated that the production fall will bring about a 4.3% reduction in the non-petroleum GDP, which may deepen the recession. In order to maintain its position as a dynamic force for growth, the agricultural sector will have to adopt incentives that are consistent with the guidelines established for economic adjustment.

In view of this situation, government policies have been geared to meeting the food needs of the country. They seek two basic objectives: a) to increase basic food production and keep up with demand, and b) to establish a diversified, competitive export subsector.

In support of these initiatives, the IICA Office continued its work to strengthen the Ministry of Agriculture and Livestock (MAC) through the design and implementation of mechanisms for decentralized planning and administration of priority agricultural policies. It continued to support the Ministry in expanding its National Technical Assistance System (SNAT), by drawing up regulations related to planning, supervision and information systems. The Institute also participated in formulating the plan to develop and diversify production in coffee-growing areas, and in transferring and adapting methods to other national projects.

IICA provided technical cooperation to CORDIPLAN's Directorate of Agricultural Planning in formulating strategic guidelines for the agricultural sector, as well as in identifying and setting priority to related investment

projects for Plan VIII. IICA also signed an agreement with the Central University of Venezuela (UCV) and the International Development Research Centre (IDRC) to provide support to livestock research.



*The strengthening of research and the transfer of improved technology for legumes and edible grains is one of the goals of PROCIANDINO, under IICA's Program II.*

The Institute assisted in reorganizing the Agricultural Credit Fund (FCA) with a view to making credit available on a more efficient and democratic basis. It signed a new agreement and two letters of understanding with FCA to provide support to agricultural credit and to launch a study

on comparative advantages in the agricultural sector. IICA continued to upgrade animal health activities in Venezuela through activities to broaden the operating capacity of regional diagnostic laboratories.

## Venezuela

■ Instrument	● Objectives	○ Achievements	Resources Source	Amount
<p>■ <b>Strengthening the Institutional Capabilities of MAC's General Sectoral Planning Directorate to Introduce and Operate Mechanisms to Decentralize the Execution of the Agricultural Adjustment and Growth Policy</b></p>	<p>● To strengthen MAC's capacity to introduce and operate mechanisms for planning and decision-making in priority areas of development as agreed upon by the public and private sectors.</p>	<p>○ The following instruments developed in Mesa de Guanipa for the Pilot Area Authority (AUA) of Guanare-Masparro, which was designated a pilot area for 1989: a basic plan for coordinating development management; a theoretical-analytical framework; policy guidelines for agricultural development in Guanare-Masparro; and contingency plans for each priority area.</p> <p>○ Eleven management officials from Guanare-Masparro received training in agricultural development planning and administration, for a total of 264 participant/days.</p> <p>○ Proposal formulated to create an agricultural investment unit, under the Office of the Minister.</p>	<p>IICA TOTAL</p>	<p>71 448 71 448</p>
<p>■ <b>Advisory Services to the Office of the Minister of Agriculture and Livestock</b></p>	<p>● To collaborate with MAC in preparing a preliminary analysis for the Office of the Minister as a basis for discussing and reaching agreement on agricultural policy with macroeconomic policymakers.</p>	<p>○ Analysis of monetary and fiscal policies and their impact on agriculture concluded; policy options discussed with the Office.</p> <p>○ Analysis of macroeconomic price policies and their impact on agriculture concluded; policy options discussed with the Office.</p>	<p>IICA TOTAL</p>	<p>13 596 13 596</p>

■ Instrument	● Objectives	○ Achievements	Resources Source	Amount
■ <b>Support to MAC's National Technical Assistance System (SNAT)</b>			IICA	74 278
			TOTAL	74 278
	<ul style="list-style-type: none"> <li>● To provide support in the implementation of MAC's National Technical Assistance System (SNAT) by providing training to mid-level personnel. <ul style="list-style-type: none"> <li>○ Documents prepared on the basic elements of a technical assistance policy for MAC; recommendations presented for the technology transfer system; new draft decree drawn up on creating the SNAT.</li> <li>○ On-the-job technical assistance training provided for 38 participants from Technical Units (UTODA) and the Technological Development Program (PRODETEC); 22 officials trained in rules and procedures for supervising the SNAT.</li> <li>○ Support provided in organizing a course on rural extension services and technical assistance offered to 30 participants by the Minister of State for Women's Affairs; collaboration with the short-term training course on technical assistance in the Sucre Priority Area Project, attended by 190 participants.</li> </ul> </li> </ul>			
■ <b>Support to the Formulation and Implementation of Rural Development Plans</b>			IICA	2 030
			TOTAL	2 030
	<ul style="list-style-type: none"> <li>● To upgrade mechanisms and procedures used to promote, plan and implement rural development. <ul style="list-style-type: none"> <li>○ National plan for the development and diversification of production in coffee-growing areas reformulated and presented for new funding.</li> <li>○ Methods designed for formulating plans of operation and for implementing the information system of the project in support of small-scale farmers in the state of Sucre.</li> <li>○ Methods formulated for evaluating Campesino Economic Organizations (OEC); 32 OECs evaluated.</li> <li>○ Five workshops on short-term planning and the OEC information and evaluation systems attended by 124 national technicians.</li> </ul> </li> </ul>			
■ <b>IICA-FCA Cooperation with the National Agricultural Credit System to Boost Sectoral Development</b>			FCA	32 283
			IICA	61 472
			TOTAL	93 755
	<ul style="list-style-type: none"> <li>● To help increase overall agricultural production by providing support to the National Agricultural Credit System and strengthening the capabilities of the Agricultural Credit Fund (FCA), with a view to preparing proposals for economic policy-setting institutions (CORDIPLAN, the Treasury and the Central Bank).</li> </ul>			

■ Instrument	● Objectives	○ Achievements	Resources Source	Amount
	<ul style="list-style-type: none"> <li>○ Proposal prepared requesting an additional US\$123 million for credit through the Executive Branch, to compensate for the deterioration in FCA's financial situation caused by economic adjustment measures; working documents drawn up for FCA on short-term planning and budget. Support also provided to change FCA's structure and operations to reflect the new economic context.</li> <li>○ Internal seminar held to analyze adjustment policies and their implications for the FCA: course offered to technical managerial staff on how to evaluate credit projects.</li> <li>○ Funding approved for specialized graduate-level training of 10 FCA technical experts.</li> <li>○ A US\$34 million project to generate employment and increase agricultural production in the short term presented to CORDIPLAN, under the Special Employment Plan.</li> <li>○ A feasibility study for a US\$80 million project on aquaculture, fisheries, oilseeds and fruit production prepared and submitted to the Venezuelan Investment Fund (FIV) for funding.</li> <li>○ Methodology designed for the study to identify investment opportunities for non-traditional agricultural exports.</li> <li>○ Proposal prepared for a study of comparative advantages in the agricultural sector; documents drawn up on methodologies and short-term planning for exploiting comparative advantages in the agricultural sector.</li> </ul>			
■ <b>Strengthening the Animal Health Program of MAC's General Directorate for Livestock Development</b>			MAC- Animal Health IICA TOTAL	106 989 67 042 174 031
	<ul style="list-style-type: none"> <li>● To upgrade the operating capacity of animal health laboratories and support activities to control bovine brucellosis and hog cholera. <ul style="list-style-type: none"> <li>○ Program approved to reactivate MAC's diagnostic laboratory network.</li> <li>○ Survey made of the epidemiological situation of bovine brucellosis in the states of Cojedes, Falcon, Trujillo, Portuguesa, Barinas, Anzoategui, Tachira, Merida, Monagas, Yaracuy, Carabobo and Zulia; and of bovine rabies in the states of Anzoategui, Monagas, Sucre, Tachira and Trujillo.</li> <li>○ Experience gained from pilot programs transferred to Yaracuy, Cojedes and Barinas; and from the Guarico model to the states of Apure, Portuguesa, Bolivar, Barinas and Cojedes.</li> </ul> </li> </ul>			

■ Instrument	● Objectives	○ Achievements	Resources Source	Amount
		<ul style="list-style-type: none"> <li>○ The Zulia regional program to eradicate bovine tuberculosis (Colon and Catatumbo Districts) approved and implemented, as was the pilot program on bovine rabies in the state of Guarico.</li> <li>○ Four hundred hog farms surveyed to determine the health of their populations; sampling design prepared.</li> <li>○ Meetings held with 250 officials from State Agricultural Development Units (UEDAs) to design strategies for the control of brucellosis (design and preparation of sampling program).</li> <li>○ Theoretical-practical courses conducted on systematization and control of vampire bats, for 33 participants; on meat hygiene and inspection, for 25 participants; and on the current situation of bovine tuberculosis, for 20 participants.</li> </ul>		



## Southern Area

The performance of the economies of this subregion was closely linked to inflationary trends in each country, government policies adopted to fight inflation, and heavy foreign debts. Greater production volumes and the return of prices of some primary products to earlier, higher levels spurred continued export growth, which will enable the countries to build up their trade surpluses. On the whole, however, distinctions can be found in the performance of each of the economies of the Southern Area countries in 1989.

In Argentina, rampant inflation, reaching an annual 3 600% in 1989, was the most important economic and social influence in the country during the first seven months of the year; by July consumer prices had risen 200%. Production and real wages plummeted despite a sizeable trade surplus. Adjustment policies were introduced during the last five months of the year in an effort to halt inflation.

In 1989, the Brazilian economy was marked by very high inflation, relatively stagnant domestic growth, but a dynamic external sector. The gross domestic product grew slightly despite fluctuations and differences in the performance of the goods and the services sectors. Exports became again an important stimulus to production, although they grew at a slower rate than in 1988.

Production growth was the outstanding feature of the Chilean economy during the year. The gross domestic product grew considerably, and as a result, the per capita product climbed above the highest level achieved before the 1982-1983 crisis. However, as it entered its sixth year of growth and recovery, there was excessive expansion in domestic demand. While inflation rose moderately but steadily, imports grew very rapidly.

The economy of Paraguay performed satisfactorily in 1989 thanks to moderate inflation, which, nevertheless, was considerably higher than in 1988. The country continued to export agricultural commodities under favorable conditions, which produced a positive balance of payments situation.

The economy of Uruguay was characterized in 1989 by stagnation of production, accelerated inflation and increased trade surplus. General instability in the subregion contributed to these conditions, which were further aggravated by a prolonged drought that undercut the whole of economic activity, especially as concerns the agricultural sector and the generation of electric power.

# Argentina

Important progress was made during the year to boost subregional activities among the Southern Area countries and to design joint actions to be carried out under the Plan of Joint Action for Agricultural Reactivation in Latin America and the Caribbean (PLANLAC), approved by the Fifth Inter-American Board of Agriculture in October 1989.

In November and December, the five countries of the area undertook to coordinate international negotiations on agricultural commodities, a first step in the execution of a project to upgrade their ministries of agriculture in matters related to foreign trade and integration. The objective of the project is to improve the capabilities of the ministries of agriculture in engaging in agricultural trade, and to involve them actively in key decisions affecting the foreign trade of agricultural and agroindustrial products. The project is scheduled to begin in January 1990.

In 1989, the financial support of the Inter-American Development Bank (IDB) for the Cooperative Program for Agricultural Research in the Southern Cone (PROCISUR) came to an end. The project's important horizontal cooperation actions and technology exchanges will continue with funding from the countries of the Southern Area, Bolivia and IICA.

In connection with agricultural health and protection, significant progress was made in establishing the Plant Protection Committee for the Southern Area (COSAVE). This coordination mechanism, created to address problems common to the countries, began operations with technical exchanges and consultation meetings. Also noteworthy was the work of the Network of Southern Area Laboratories (REDSUR), which promoted active cooperation and technological exchange among the countries related to diagnoses and the supply of veterinary biologics.

The two primary influences on the Argentine economy during 1989 were a period of hyperinflation running from February through July, and the presidential elections in May, which led to a change of government in July. From then on, the focus of economic policy was to control inflation and increase exports. Major features of this policy were the deregulation of economic activity, decreased State intervention in production and trade activities, the elimination of State-sponsored credits, the privatization of a series of activities, and the elimination of all subsidies.

With regard to the agricultural sector, in addition to fixing the exchange rate, the principal government measure was the imposition of an export tax. Although this step was justified from a fiscal point of view, the ultimate goal of the government is to eliminate all such taxes. However, these actions did not discourage export activity, both because the exchange rate was sufficiently high and because a gradual tax deduction schedule was established, which, in the case of agricultural products, will be eliminated in mid-1990. The December devaluation was accompanied by a tax increase, which improved the effective exchange rate for agricultural products.

Better weather in 1989 and the policy to raise the effective exchange rate is expected to contribute to a 50% recovery in grain production for the 1989-1990 period.

Beef is the second most important commodity of the agricultural sector, and conditions surrounding beef production varied greatly in 1989. During the first half of the year, prices rose on the international market, and domestic consumption of beef fell because of hyperinflation and the deterioration of real incomes. During the second semester, the situation was reversed. All in all, the beef subsector maintained a level similar to that of the preceding year, and

expansion is expected over the medium term as a result of new policies to boost exports. One of the major activities to be conducted shortly in the livestock subsector will be the execution of the plan to combat and eradicate foot-and-mouth disease.

A significant development for the future of the sector is the execution of the general agricultural credit program funded by IBRD, IDB and the National Bank of Argentina. IICA provided technical assistance in preparing this program, which has made US\$310 million available for investments in machinery, improvements, packing plants, storage facilities, land clearing and leveling, and irrigation.



*Wheat is a main crop in the temperate latitudes of South America.*

The situation of small-scale farmers and of regional production have been given high priority in the government's agricultural policy, which seeks to increase participation of farmers and regional and provincial governments and institutions. Argentina's general economic policy framework excludes the possibility of establishing subsidies. This lends greater weight to the rural development strategy pursued by the Institute, which focuses on training and organizing small farmers. Under this government strategy, an operating agreement was signed by IICA and the Secretariat of Agriculture, Livestock and Fisheries (SAGyP), which was assisted in negotiations on a credit program to be developed with the provincial governments and the ministry of economy, prior to the signing of an IFAD/IDB loan agreement.

The Institute continued to support the SAGyP in modernizing agriculture through institutional development of the public agricultural sector, especially with respect to policy design and to collaborating with investment projects under way or for which financial resources are being sought. The National Institute of Agricultural Technology (INTA) was assisted in upgrading its technology generation and transfer system and in putting into operation an information and documentation service (SIDINTA). Of equal importance was support provided to programs related to non-traditional products. Actions were taken to upgrade the National Grain Board (JNG) and the National Meat Board (JNC), with a view to modernizing the domestic and foreign marketing of agricultural and agroindustrial products.

The coordination of regional and social aspects of rural development was strengthened by improving the ties between the SAGyP and its provincial offices (SAG) in northeastern and northwestern Argentina. Attention focused on investment projects, credit programs and training for small farmers, especially rural women. In the area of animal health and plant protection, IICA continues to provide priority support to the National Animal Health Service.

# Argentina

■ Instrument	● Objectives	○ Achievements	Resources Source	Amount
<b>■ Cooperation for Modernizing Argentina's Agricultural Sector</b>			SAGyP/IBRD/	
<ul style="list-style-type: none"> <li>● To formulate proposals for the Secretariat of Agriculture, Livestock and Fisheries (SAGyP) in high-priority areas affecting agriculture's medium- and long-term development.               <ul style="list-style-type: none"> <li>○ Final changes introduced into the project to modernize grain marketing systems.</li> <li>○ Advisory services provided, and diagnoses, policy proposals and investment projects prepared.</li> </ul> </li> </ul>			UNDP	34 556
			TOTAL	34 556
<b>■ Consolidation of and Support to the Permanent Technical Unit for Agrarian and Agroindustrial Support at the Ministry of Agrarian Affairs (Province of Buenos Aires)</b>			IICA	14 435
<ul style="list-style-type: none"> <li>● To contribute to consolidating the Unit by establishing a decentralized system of technical units and coordinating efforts with the ministry and other institutions.               <ul style="list-style-type: none"> <li>○ The role of the municipal planning agent was institutionalized in 20 municipalities, as was their integration into the Technical Project Unit, also created under this project.</li> <li>○ Fifteen projects selected, of which two have received funding, three are being considered for funding, and the remaining ten are in the last stages of preparation.</li> </ul> </li> </ul>			TOTAL	14 435
<b>■ Support for Creating and Implementing the Project Follow-up and Evaluation Unit (USE) at the SAGyP</b>			SAGyP/IBRD/	
<ul style="list-style-type: none"> <li>● To support the SAGyP in creating and putting into operation the Follow-up and Evaluation Unit (USE), which will advise investment program and project authorities on decision-making and management.               <ul style="list-style-type: none"> <li>○ USE established; method for supervising general agricultural credit program designed and put into practice; methodology for evaluating said program developed.</li> <li>○ A total of 4 371 loans, valued at US\$173 million, issued by the general agricultural credit program; follow-up provided by the USE; resulting information used by the SAGyP and the National Bank of Argentina (BNA) as input for decisions regarding credit program operations.</li> <li>○ Two courses held for 45 BNA technical personnel on project formulation and evaluation; program initiated on the use of credit as a means of incorporating technology and increasing production.</li> </ul> </li> </ul>			USE	278 800
			TOTAL	278 800

■ Instrument	● Objectives	○ Achievements	Resources Source	Amount
	<ul style="list-style-type: none"> <li>○ Projects prepared by the USE on: a) promoting and diversifying agroindustry and b) fisheries, for submission to the IBRD and the IDB.</li> <li>○ Special studies conducted on credit to assist sectoral authorities in decision-making; sectoral frame of reference being prepared to enable the government to evaluate policy options and credit strategies.</li> </ul>			
■ Providing Support to the Analysis and Reorganization of Production in Tobacco-growing Areas	<ul style="list-style-type: none"> <li>● To provide administrative support to the SAGyP in conducting base studies for formulating and executing tobacco policy and diversifying production in tobacco-growing areas. <ul style="list-style-type: none"> <li>○ Base studies prepared on the current status of the tobacco production system in Argentina and of domestic and foreign marketing systems.</li> <li>○ Analysis conducted to identify ways to improve the tobacco system with extensive participation of the private and public sectors at the provincial and national levels.</li> <li>○ Analysis under way to formulate a tobacco and a product diversification policy, with a view to improving the incomes of producers and generating foreign exchange for the country.</li> </ul> </li> </ul>		Special Tobacco Fund TOTAL	355 658 355 658
■ Providing Support for Improving the Operations of the Fisheries Sector at the Port of Mar del Plata	<ul style="list-style-type: none"> <li>● To analyze the operation and administration of the services provided by the National Fish Market (MNCP) of the Port of Mar del Plata. To propose options for reorganizing the operations and administration of fishing activities. <ul style="list-style-type: none"> <li>○ Evaluation made of the MNCP's operating, legal and administrative elements.</li> <li>○ One proposal drawn up for improving the MNCP's efficiency and effectiveness; a legal-administrative proposal prepared for transferring the administration of the market to the private sector.</li> </ul> </li> </ul>		Mar del Plata TOTAL	18 487 18 487

■ Instrument	● Objectives	○ Achievements	Resources Source	Amount
<b>■ Technical Cooperation with INTA for Technology Generation and Transfer</b>			IDB	110 547
● To administer, execute and supervise the consultancy services called for in activities to strengthen agricultural research, extension and productivity.			INTA (Letter no. 6)	2 777
○ Consultants (22) identified, selected, hired and evaluated to work on plant production, soil fertility, plant protection, animal production, animal health and rural extension.			IICA	57 655
○ Technical reports (43) prepared by the international consultants analyzed and evaluated.			TOTAL	170 979
○ INTA's information and documentation system (SIDINTA) in operation and providing information and documentation services to INTA technical personnel.				
<b>■ Permanent Agriculture: Development and Dissemination of Conservation Technology</b>			INTA (Letter no. 3)	36 214
● To cooperate with and support the operating units responsible for executing Project INTA 3-005-1, which involves transferring conservation technology to some 8 000 farmers, and teaching them the benefits of soil conservation practices.			IICA	7 847
○ Conservation practices adopted by more than 40% of the farmers in the area, exceeding by far the goals set at the outset of the project.			TOTAL	44 061
○ Information campaign extended to other areas, including elementary schools.				
<b>■ Cooperation with INTA for Developing Technology Generation and Transfer Programs for Non-Traditional Agricultural Products</b>			IICA	7 847
● To formulate new technology generation and transfer programs for non-traditional agricultural export products of interest to the region, as well as the studies required for implementation.			TOTAL	7 847
○ Proposal drawn up for an information system designed to systematize, recover and transfer information on markets for non-traditional products, especially fruit and vegetables, fish and fish products, forestry and agroindustrial products.				
○ Strategy completed for designing technology generation and transfer programs geared to the demands of new markets for non-traditional products, with a view to revitalizing regional economies.				

■ Instrument	● Objectives	○ Achievements	Resources Source	Amount
■ Cooperation with INTA in the Formulation of Technology Generation and Transfer Programs for Regional Centers Outside the Pampas (Centros Regionales de las Zonas Extrapampeanas)	<ul style="list-style-type: none"> <li>● To assist the Institute of Economy and Rural Sociology (IESR) in securing information needed to prepare technology development programs at the regional level.               <ul style="list-style-type: none"> <li>○ Document completed on INTA's structure in 1983 and its structure in 1986, following reorganization; analyzes the operation and funding of the Regional Centers, which will reveal the main limitations of the INTA model.</li> </ul> </li> </ul>		IICA TOTAL	18 238 18 238
■ Cooperation and Support for the Research Program Conducted on Production Processes and Inhabitants of the Pampas (National Agricultural Census); INTA-INDEC Agreement	<ul style="list-style-type: none"> <li>● To systematize existing information and supply the National Statistics and Census Bureau (INDEC) with information needed for the 1988 national census.               <ul style="list-style-type: none"> <li>○ INTA assisted in hiring a technical team to prepare the technical reports on evolution of the size and ownership of farms in the Pampas; agricultural information; and national censuses.</li> <li>○ Technical team created and proposals made for an integrated agricultural information system.</li> </ul> </li> </ul>		INTA (Letter no. 7) TOTAL	4 682 4 682
■ Cooperation and Support for the Program to Analyze the Information Obtained from the 1988 National Agricultural Census, and Preparation of Proposals for the First Stage of the Integrated Agricultural Information System; INTA-INDEC Agreement	<ul style="list-style-type: none"> <li>● To analyze the variables and their interaction, using as a basis the survey conducted as part of the 1988 national agricultural census.</li> <li>● To design a national atlas, based on data obtained from the 1988 national agricultural census.               <ul style="list-style-type: none"> <li>○ Documents drawn up including one analyzing variables covered by the census (adoption and use of technology, description of production systems, analysis of sociological variables), and national atlas prepared (post-census cartographic unification).</li> </ul> </li> </ul>		INTA (Letter no. 10) TOTAL	16 561 16 561

■ Instrument	● Objectives	○ Achievements	Resources Source	Amount
<b>■ Cooperation and Support for Technology Generation and Transfer Projects on the Production Systems of Small-Scale Farmers in Northern Argentina, East Formosa Province and Cachi-Salta, and on Agroforestry Systems for Small Farmers in Misiones</b>	<ul style="list-style-type: none"> <li>● To improve the standard of living of small farmers using technologies designed to upgrade traditional production.</li> <li>● To improve marketing conditions by organizing small farmers into cooperatives and farmers' associations, bettering conditions for the purchase of production inputs and foodstuffs, and providing access to credit. <ul style="list-style-type: none"> <li>○ Administrative support given to INTA on 12 projects managed by 35 rural extension agencies; 4 652 small-farm families benefitted.</li> <li>○ Production conditions improved through joint efforts, especially those related to marketing; marketable volumes increased, better prices obtained, intermediaries eliminated.</li> <li>○ Production quality upgraded through the introduction of genetically superior varieties.</li> <li>○ Farmers better organized into cooperatives, pre-cooperatives and farmers' associations that will help boost economic and social benefits.</li> <li>○ Farmers trained in project formulation and participatory analysis, with a view to equipping them to reformulate their objectives.</li> </ul> </li> </ul>	INTA (Letter no. 2) IICA TOTAL	124 650 3 179 127 829	
<b>■ Support to SAGyP in Formulating and Implementing Rural Development Projects</b>	<ul style="list-style-type: none"> <li>● To define a strategy and mechanisms that will equip the SAGyP, in coordination with the Secretariats of Agriculture and Livestock in the provinces, to formulate and implement rural development programs. <ul style="list-style-type: none"> <li>○ Progress achieved in three aspects of the program in support of small farmers in northern Argentina: a) Regional Coordinating Council created for the northwest Argentina program, which receives technical assistance from IICA; b) SAGyP assisted in formulating and implementing 23 local projects, currently at different stages of development; and c) funding sought for the program from non-governmental organizations (NGOs) and multilateral and bilateral cooperation agencies.</li> <li>○ INTA assisted in consolidating a project unit for small-scale farmers, currently conducting 20 projects outside the pampas region.</li> </ul> </li> </ul>	IICA TOTAL	68 338 68 338	



■ Instrument	● Objectives	○ Achievements	Resources Source	Amount
■ Technical Assistance to the Coordination and Support Unit of the Llamcay Program (La Rioja Province)	● To support a program in the provinces for mini-production units through involvement in the formulation and implementation of four local projects.	○ Four local projects under way to support training for small- farmer associations and plan funding efforts.	IICA TOTAL	11 529 11 529
■ Support to Incorporate Women into the Credit and Technical Support Program for Small-Scale Farmers in Northeastern Argentina	● To strengthen the administrative capacity of SAGyP's Rural Development Unit, equipping it to train female technical personnel and rural women, with a view to incorporating rural women into the credit and technical support program for small-scale farmers in northeastern Argentina.	○ Female technical personnel in two provinces received training; training for rural women initiated in one province.	SAGyP/UNIFEM Addendum no.3 TOTAL	49 304 49 304
■ Support to Incorporate Women into the Program to Assist Small-Scale Farmers in Northwestern Argentina	● To strengthen the administrative capacity of SAGyP's Rural Development Unit, equipping it to train female technical personnel and rural women, with a view to incorporating rural women into the program to assist small-scale farmers in northwestern Argentina.	○ Training workshops offered, attended by 60 female technical personnel and rural women, analyzing problems of the rural population in northwestern Argentina, the current situation of women, and the relationship between the project on women and the larger project of which it is part.  ○ Six female technicians trained, who coordinate the project on women in each of the six provinces, and provide training to groups of rural women.	SAGyP/UNIFEM Addendum no.4 TOTAL	23 668 23 668
■ Support for the Rural Development Projects Unit of SAGyP's National Directorate of Rural Development for Intensive, Ongoing, On-the-Job Training for the Rural Women Component of the Cachi Project (Salta)	● To strengthen the administrative capacity of SAGyP's Rural Development Unit to train women of the Cachi Project.		SAGyP/UNIFEM Addendum no.5 TOTAL	6 756 6 756

■ Instrument	● Objectives	○ Achievements	Resources Source	Amount
	○ Training provided to 40 rural women. Topics covered: problem identification and solving, the nature of the program operating in the region, ways to participate in the Small Farmers' Association, and installation of a small rural agroindustry.			
■ Institutional Strengthening of the National Meat and Grain Boards' Information Systems			JNC	82 029
	● To establish a computerized system for organizing and systematizing information on meat and grain activities at the National Meat Board (JNC) and the National Grain Board (JNG), to improve decision-making of private and public entities involved in producing and marketing meat, grains and their by-products.		JNG	15 879
			TOTAL	97 908
	○ Design of JNC Economic-Livestock Information System concluded; computer equipment installed.			
	○ Training provided for technical personnel attached to the JNC and JNG on the use of the systems.			
	○ Both the JNC Economic-Livestock Information System and the JNG Economic Information System in operation.			
■ Strengthening Animal Health Services, with Emphasis on Laboratory Diagnostic, Epidemiological Information and Surveillance, Quarantine and Emergency Systems			SAGyP/SENASA	15 411
	● To strengthen the technical capacity of the National Animal Health Service (SENASA), INTA and provincial animal health services, with emphasis on diagnostic and quarantine information systems.		IICA	4 375
			TOTAL	19 786
	○ Project prepared on institutional strengthening of SENASA; analysis of same concluded by IBRD/IDB mission, for incorporation into project to promote and diversify agroindustry.			
	○ Groundwork laid for implementing the national laboratory network.			
	○ Epidemiological surveillance system designed under the project to strengthen SENASA.			
	○ The SENASA/INTA/IICA Advisory Committee on Diseases established and in operation.			
■ Dissemination of the Activities of the IICA Office in Argentina			IICA	10 800
	● To hold a regional meeting in northwestern Argentina to discuss the role of the small-scale farmer in the production revolution, and to produce a video presentation on IICA's strategy for rural development in Argentina.		TOTAL	10 800

■ Instrument

● Objectives

○ Achievements

Resources  
Source

Amount

- Meetings held in La Rioja, attended by 280 officials, legislators, technicians and representatives of international cooperation agencies, NGOs and farmers' associations.
- Thirty-minute video ("Working Together") produced, featuring male and female farmers from two projects. The video explains the importance of organization and training to rural development.
- Book concluded on grain marketing in Argentina, including the principal studies conducted under the project to modernize the the grain subsector, and diagnoses of the key aspects of grain marketing and mobilization in Argentina.
- Support to institutionalize and publish the Revista Rioplatense de Economia Agraria (River Plate Journal of Agricultural Economics), published by the Associations of Agricultural Economists of Uruguay and Argentina.

## Brazil

The stagnation of the economy, which began in 1982, continued in Brazil in 1989. Two outstanding political events marked the year: difficulties in enforcing the New Constitution, and the preparation by political parties for the first free presidential elections to be held in Brazil in three decades.

The most significant economic event occurred at the beginning of the year with the promulgation of the Summer Plan, which sought to control the drastic inflation rates of 1988. Important measures taken during this period were the issuing of a new currency (cruzado novo), the implementation of measures to de-index the economy, and the freezing of prices and wages.

In spite of efforts to control inflation, the annual accumulated index reached 1 700%, which indicates how

ineffective these measures were. GDP growth, estimated at a mere 3%, is considerably lower than the 8.5% registered during the 1970s.

Despite this recession, the agricultural sector showed some vigor as total agricultural production for 1989 established a new record, bolstering a trend that began three years ago. This resulted mainly from new technology adopted in the southern, southeastern and central eastern parts of the country, and, to a lesser degree, from an expansion of the agricultural frontier. Export products outperformed products grown for domestic consumption.

Sectoral policies were heavily influenced by economic instability and high interest rates, limiting access to credit. Research and technology transfer institutions, at both the national and state levels, suffered deep budget cutbacks.

IICA joined efforts with the government to alleviate the poverty of small-scale farmers, concentrating its technical cooperation on rural development in the northeastern area. Special mention should be made of the activities carried out under the agreement with the Superintendency of Development in the Northeast (SUDENE), to assist in developing the Small Farmers' Support Project (PAPP).

In connection with irrigated agriculture, cooperation focused on coordinating efforts of the different projects of the Ministry of Irrigation and Agriculture, its National Program for Irrigated Plains (PROVARZEAS), and decentralized agencies such as the San Francisco Valley Development Agency (CODEVASF) and the National Drought Control Department (DNOCS), all of which are engaged in developing irrigated areas. With regard to technology generation and transfer, activities were stepped up to strengthen the Brazilian Agricultural Research Agency (EMBRAPA).

The most important multinational action concerned the initiation of a consultation process to reformulate the IICA-Tropicos project, which will include eight countries of the Amazon region.



*The strengthening of rural agroindustry and cooperative agricultural research, as well as the evaluation of agricultural development potential, are some of the commitments for action contained in the PLANLAC.*

## Brazil

■ Instrument	● Objectives	○ Achievements	Resources Source	Amount
■ Technical Cooperation to Support the Agricultural Planning System (SUPLAN)				
	● To improve SUPLAN's capacity to design medium-term analyses with a view to creating support instruments for decision-making in the agricultural sector.		SUPLAN-SNPA	160 688
	○ Draft of the Agricultural Law drawn up by the Ministry of Agriculture.		TOTAL	160 688
	○ Support provided to SUPLAN in designing medium-term analyses and in reorganizing the National Agricultural Planning System.			
	○ Studies published on: human food and nutritional sufficiency in Brazil and its Federal units; the principal actions of the federal government in agriculture; the outlook for agricultural production and suggestions for government action during the 1989-1990 production year.			

■ Instrument	● Objectives	○ Achievements	Resources Source	Amount
■ <b>Technical Cooperation in Support of the Physical-Biological Research Program of the Executive Commission for Planning Cacao Cultivation (CEPLAC)</b>	● To improve CEPLAC's genetic research capabilities related to cocoa improvement, in order to produce highly productive and adaptable stock.	<ul style="list-style-type: none"> <li>○ Support continued to be provided to the Special Department of Amazonia for evaluating and programming genetic research to improve cocoa.</li> <li>○ Biological research activities upgraded.</li> <li>○ Rural development training actions begun.</li> </ul>	CEPLAC TOTAL	78 355 78 355
■ <b>Technical Cooperation to the Brazilian Agricultural Research Agency (EMBRAPA) for Implementing Agricultural Development and Technology Transfer Projects in South-Central Brazil (PROCENSUL II)</b>	● To contribute to upgrading agricultural research in south-central Brazil, by strengthening support activities for research that promote technological exchange and boost productivity of 13 agricultural products.	<ul style="list-style-type: none"> <li>○ Support provided to seven technicians receiving training in United States and European universities.</li> <li>○ Proposal presented for creating "EMBRAPA Consultora."</li> <li>○ Twenty-eight specialists in plant virology and pathology, cattle health, botany and forest virology hired as consultants.</li> <li>○ Study made on the development of EMBRAPA. IICA-EMBRAPA-PROCENSUL II reports and 20 reports by consultants published and distributed.</li> <li>○ Third EMBRAPA/Yale Seminar on the ex-post evaluation of agricultural research attended.</li> <li>○ Financial control procedures of PROCENSUL II computerized.</li> <li>○ Progress made on study on agricultural policies and their impact on agricultural research.</li> </ul>	EMBRAPA/ IDB IICA TOTAL	1 545 697 95 658 1 641 355
■ <b>Administrative Support to International Research Centers</b>	● To provide effective administrative support to international research centers.	<ul style="list-style-type: none"> <li>○ Administrative support continued to the International Center for Tropical Agriculture (CIAT)/Pastures project.</li> </ul>	CIAT Cornell TOTAL	270 901 19 221 290 122

■ Instrument	● Objectives	○ Achievements	Resources Source	Amount
	<ul style="list-style-type: none"> <li>○ Administrative support provided to the recently established CIAT/Cassava project, with the creation of a state-wide commission responsible for developing activities in this field. IICA provided technical support in connection with farmers' organizations, training and marketing.</li> </ul>			
■ Technical Cooperation for Developing a Support System for Agricultural Biotechnology	<ul style="list-style-type: none"> <li>● To study the semi-arid tropics and strengthen the research program. <ul style="list-style-type: none"> <li>○ Program of activities defined with the coordinator from the Ministry of Agriculture.</li> <li>○ Policies established for gaining access to international technology generation and transfer and to biotechnology.</li> <li>○ Administrative and legal mechanisms created for technology transfer.</li> <li>○ Integration boosted among institutions; assistance provided to the National Commission on Agricultural Biotechnology (COMBIAGRO)</li> <li>○ Implementation of national biotechnology plan undertaken.</li> </ul> </li> </ul>		M.A.- Biotechnology	27 272
			TOTAL	27 272
■ Support for SUDENE In Formulating and Executing Rural Development Plans, Programs and Projects In Northeastern Brazil	<ul style="list-style-type: none"> <li>● To support the planning and management system of the Small Farmers' Support Project (PAPP). <ul style="list-style-type: none"> <li>○ Cooperation agreements on agrometeorology, small dams and marketing under negotiation.</li> <li>○ Support provided in planning and administering PAPP; advisory services provided to PAPP directors; cooperation provided to training teams at regional and state levels; participation in supervision and follow-up missions to the states.</li> <li>○ Assistance given to technical units and to executor bodies of the state of Rio Grande do Norte; organizational guidelines drawn up for small farmers.</li> <li>○ Methods prepared for designing, implementing, supervising and evaluating rural development projects.</li> <li>○ Final document prepared on models to be used in preparing public irrigation projects. Computer programs developed for planning and evaluating irrigation projects.</li> <li>○ Methods proposed for developing seed production in nine states of the northeastern region; region-wide course offered on seed production and marketing.</li> </ul> </li> </ul>		SUDENE IICA	1 216 225 222 922
			TOTAL	1 439 147

■ Instrument	● Objectives	○ Achievements	Resources Source	Amount
	<ul style="list-style-type: none"> <li>○ Technical teams organized in Maranhão, Rio Grande do Norte, Ceará, Bahia, Paraíba, Piauí and Pernambuco; activities planned and under way.</li> <li>○ Advice given for the revision and execution of the marketing-supply-credit (CAC) components; support provided for the "farm action" component; credit proposal formulated and in operation.</li> <li>○ Water resources component implemented in six states of the northeastern region; institutional coordination improved at the regional and state levels.</li> </ul>			
■ SUDENE - Natural Resources: Small-Scale Irrigation and Agrometeorology	<ul style="list-style-type: none"> <li>● To offer effective administrative support to SUDENE in connection with small-scale irrigation and agrometeorology. <ul style="list-style-type: none"> <li>○ Support provided to SUDENE administration to upgrade activities related to small-scale irrigation and agrometeorology.</li> </ul> </li> </ul>		SUDENE/N.R./ Irrigation 109 208 SUDENE/N.R./ Agrometeorol. 42 352 TOTAL 151 560	
■ Technical Cooperation for the Preparation, Implementation, Supervision and Evaluation of Rural Development Programs and Projects in the State of Bahia	<ul style="list-style-type: none"> <li>● To strengthen the technical and operating capacity of the Regional Development and Action Company (CAR) by training technicians in the use of methods for preparing and implementing projects related to rural development, small- and medium-scale irrigation, and natural resources surveys and assessment. <ul style="list-style-type: none"> <li>○ Studies carried out on rural development possibilities in Vale Verde and Paraguaçu; soil maps and evaluation of irrigation systems for small farmer settlements completed.</li> <li>○ Training offered on irrigation systems, natural resources surveys and assessment.</li> <li>○ Guidelines drawn up for marketing and agroindustry plan.</li> </ul> </li> </ul>		SEPLANTEC- CAR 139 809 TOTAL 139 809	
■ Cooperation with Technical Team of the Special Ministry for Irrigation Affairs (MEAI-PRONI)	<ul style="list-style-type: none"> <li>● To collaborate in defining strategies and in executing the Irrigation Program for the Northeast (PROINE), and in designing and executing the national irrigation program for the southern, south-eastern, central-eastern and northern regions. <ul style="list-style-type: none"> <li>○ Studies under way on strategy options for public (federal and state) and private irrigation systems; computerized project management model implemented with World Bank funds; sectoral settlement study drawn up and reviewed; irrigation specialists and users received training at CODEVASF, DNOCS and DNOS.</li> </ul> </li> </ul>		MEAI-PRONI 1 348 794 TOTAL 1 348 794	

■ Instrument	● Objectives	○ Achievements	Resources Source	Amount
	<ul style="list-style-type: none"> <li>○ Advice given on implementation of research and technology transfer projects; agricultural export models set up in irrigated areas; proposal drawn up on technical assistance for irrigated areas.</li> <li>○ Northeast I Project prepared for funding by the World Bank.</li> <li>○ Agricultural models designed and simulated in selected areas; map library set up for coordinating use of water resources; marketing study undertaken as a basis for preparing shrimp larvae production project.</li> </ul>			
■ Technical Cooperation with the San Francisco Valley Development Agency (CODEVASF) for Developing Irrigated Agriculture	<ul style="list-style-type: none"> <li>● To strengthen CODEVASF capabilities for developing production systems and administering and maintaining irrigation districts with a view to boosting productivity and reducing the cost of irrigated agriculture, through improved technical, economic and social management. <ul style="list-style-type: none"> <li>○ Technical and socioeconomic reports written for several projects.</li> <li>○ Technology transfer planned and direct support given for upgrading irrigated agriculture.</li> <li>○ Activities undertaken to organize farmers.</li> <li>○ Economic development of farmers' organizations in irrigated districts evaluated; changes incorporated into operating manuals and regulations.</li> <li>○ Technical support provided for technical-administrative evaluation and control systems; training offered on the management and operation of irrigated districts; diagnostic study conducted of operating problems.</li> <li>○ Computerized data bank installed; diagnosis made of rehabilitation needs; corresponding project prepared; rules drawn up for formulating and evaluating projects (irrigation and technical cooperation) to improve small farms.</li> </ul> </li> </ul>		CODEVASF TOTAL	675 054 675 054
■ Technical Cooperation to the National Department of Drought Control (DNOCS) In Operating and Maintaining Irrigation Districts.	<ul style="list-style-type: none"> <li>● To improve DNOC's technical and operating capacity by establishing an operating and maintenance system for irrigated districts; to train middle- and senior-level technical personnel. <ul style="list-style-type: none"> <li>○ Annual plan of operation prepared in Caldeirão and San Gonçalo.</li> </ul> </li> </ul>		DNOCS TOTAL	125 369 125 369



■ Instrument	● Objectives	○ Achievements	Resources Source	Amount
		<ul style="list-style-type: none"> <li>○ Technical assistance given for evaluating the organization of the districts and water billing methods; technical support in recovering irrigated districts; training provided for 35 irrigation administrators.</li> </ul>		
■ <b>Technical Cooperation to the Ministry of Agriculture's National Program for Irrigated Plains (PROVARZEAS) in Connection with its Irrigated Agriculture Programs</b>			PROVARZEAS TOTAL	149 179 149 179
	<ul style="list-style-type: none"> <li>● To support activities undertaken to upgrade the irrigation and drainage program for small- and medium-scale farmers, through demonstration projects. <ul style="list-style-type: none"> <li>○ Demonstration project prepared and ditch irrigation system evaluated; diagnostic study made of mechanization and training centers evaluated.</li> <li>○ Guide for preparing irrigation, drainage and agricultural health projects published and distributed.</li> <li>○ Support for coordination of the irrigated agriculture program.</li> </ul> </li> </ul>			
■ <b>Cooperation with the Secretariat of Education of the State of Piauí in Implementing the Rural Education Program</b>			Sec. Piauí TOTAL	48 943 48 943
	<ul style="list-style-type: none"> <li>● To implement operating guidelines for rural education; to promote gradual improvements in the structure of the rural educational system, at the municipal and central levels.</li> <li>● To provide educational and administrative assistance to staff of the municipal education system.</li> <li>● To promote inter-institutional activities in support of formal and non-formal education in rural communities. <ul style="list-style-type: none"> <li>○ Action strategies for rural education identified; first diagnostic study made of state agriculture schools; adult education course offered in irrigated districts.</li> <li>○ Inter-institutional coordination promoted between the Technical Assistance and Rural Extension Agency (EMATER), the Foundation for Basic Education of Youth and Adults (EDUCAR) and the Planning Secretariat of the Ministry of Agriculture (SEPLAN).</li> <li>○ Final project report delivered; document published on participatory educational planning.</li> </ul> </li> </ul>			

■ Instrument	● Objectives	○ Achievements	Resources Source	Amount
■ <b>Cooperation with the Ministry of Education in Defining Strategies and Implementing Formal and Non-Formal Education Policies in Rural Areas</b>	<ul style="list-style-type: none"> <li>● To upgrade the capabilities of the technical teams of the Ministry of Education (MEC) in providing advice to the states and in drafting documents. <ul style="list-style-type: none"> <li>○ Five-year basic education plan prepared for the northeastern region; technical cooperation provided to teams working on the Northeast project.</li> <li>○ In-service training provided for 45 state technicians and nine technicians from the central team.</li> <li>○ Training activities programmed and coordinated.</li> <li>○ Organization and assistance provided for IICA-Brazil education activities; educational activities begun in irrigated districts.</li> </ul> </li> </ul>		MEC TOTAL	293 963 293 963
■ <b>Institutional Strengthening for Planning and Implementing the Rural Development Project in Northeastern Brazil</b>	<ul style="list-style-type: none"> <li>● To upgrade the technical capabilities of state planning bodies and, in particular, to strengthen the National Bank for Economic and Social Development (BNDES) in the identification, formulation, evaluation, execution and supervision of rural development projects for small farmers and rural settlements in northeastern Brazil, funded by the Bank. <ul style="list-style-type: none"> <li>○ Progress made in short-term institutional strengthening activities for improving the planning and execution of rural development projects in northeastern Brazil.</li> <li>○ Assistance given to technical groups for formulating BNDES projects.</li> <li>○ Educational materials prepared for course on project design.</li> <li>○ Base studies begun on marketing and agroindustry.</li> </ul> </li> </ul>		BNDES IICA TOTAL	498 69 139 69 637
■ <b>Cooperation with the Ministry of Agriculture's Agroenergy Program</b>	<ul style="list-style-type: none"> <li>● To promote an efficient increase in the use of energy technology in Brazilian agriculture and boost the supply of biomass available to other sectors of the economy.</li> <li>● To assist the Program in increasing the energy sources available to farms and in encouraging the appropriate use of mechanization.</li> <li>● To support the joint PMCA/IICA project in establishing an agroenergy data bank.</li> </ul>		SUPLAN- Agroenergy TOTAL	208 150 208 150

■ Instrument	● Objectives	○ Achievements	Resources Source	Amount
	<ul style="list-style-type: none"> <li>○ Agroenergy data bank set up through joint action with the Ministry of Agriculture's National Agroenergy Program.</li> <li>○ Technical assistance provided for implementing and operating the integrated oil palm microdistillery system.</li> <li>○ Technical assistance and supervision provided to the energy, forests and agricultural residues program, which aims to find substitutes for diesel fuel.</li> <li>○ Studies conducted on the cost of installing small hydroelectric plants.</li> <li>○ Support provided for the senior policy seminar on agroindustrial development (IICA's Program IV: Marketing and Agroindustry).</li> <li>○ Technical assistance provided to agroenergy projects in connection with the transfer of appropriate technology and rural housing.</li> </ul>			
■ Technical Cooperation in Animal Health	<ul style="list-style-type: none"> <li>● To help upgrade the veterinary diagnostic laboratory network as it pertains to priority areas of animal health.</li> <li>● To support the development of animal health information and epidemiological surveillance services. <ul style="list-style-type: none"> <li>○ Diagnosis of regional animal health services and records on veterinary products updated.</li> <li>○ Proposal prepared for basic courses in animal health; bibliography and information selected and distributed.</li> <li>○ Actions taken to modernize hog pests and zoonosis surveillance systems.</li> <li>○ Participation in the following events: international seminar on endemic foot-and-mouth disease areas; sixteenth meeting of the South American commission to combat foot-and-mouth disease; third seminar and simulation exercise on exotic diseases; international symposium on the control and prevention of agricultural pests.</li> </ul> </li> </ul>		SNAD- LANARA IICA TOTAL	21 717 90 755 112 472
■ Integrated Plant Protection Management System	<ul style="list-style-type: none"> <li>● To strengthen the technical and organizational structure of the Secretariat of Plant Protection (SDSV) with a view to introducing and efficiently implementing integrated plant protection management systems.</li> </ul>		ANDEF SDSV (M.A.) IICA TOTAL	128 882 435 7 859 137 176

■ Instrument	● Objectives	○ Achievements	Resources Source	Amount
	● To support the strengthening of quarantine and emergency services for exotic diseases.	<ul style="list-style-type: none"> <li>○ Proposed plant protection project reviewed.</li> <li>○ Participation in international symposium on control and prevention of agricultural pests.</li> <li>○ Regional coordinators selected to draw up the project.</li> <li>○ Participation in Regional Plant Protection Committee for the Southern Area (COSAVE).</li> <li>○ Follow-up in Congress on progress being made with new law on agrochemicals.</li> </ul>		

## Chile

The Chilean economy has made steady progress since 1984, which is reflected in the development of the main economic indicators, such as the gross domestic product (GDP), employment indexes, the trade balance, balance of payments and external debt situations, and gross capital formation. In 1988 and the first half of 1989, the Chilean economy performed favorably, according to reports on Latin American economies published by the Economic Commission for Latin America and the Caribbean (ECLAC).

The gross domestic product was some 5% higher than the previous year and as a result, the per capita product reached the highest level since before the 1982-1983 crisis. There was considerable expansion in fishing, trade, transportation and the manufacturing industry. Mining and construction activities also saw substantial growth during this period.

Increased economic activity produced higher employment levels, with unemployment falling from 10.2% in 1988

to 7.5% in 1989. Excessive domestic demand followed suit, and with it, inflation and increased import activity. The resurgence of inflation cut into advances made in real wages, which, in 1988, had grown by approximately 7%, compared to only 2% in 1989.

The negative impact of increased imports on the trade surplus was offset by a 17% increase in the value of exports. This increase was due to sustained expansion of the volume of foreign sales of industrial goods and high copper prices.

The agricultural sector continued to develop along the same lines as in previous years. The most dynamic areas were fruit and vegetable production, marketing and export, although fruit exports suffered a serious setback when some US\$200 million were lost due to problems connected with exporting to the North American market.

IICA's support to the Ministry of Agriculture focused on the same areas as in the previous year. At the institutional level, IICA collaborated in reorganizing the Agricultural Planning Office (ODEPA), which ceased to operate as a ministerial agency and became the Division of Studies and Budget of the Undersecretariat of Agriculture, where it carries out the same functions. The IICA Office continued to boost agricultural research activities through the implementation of a project to strengthen the Agricultural Research Institute, with funds from the IDB.

IICA also lent support to the marketing of several basic commodities, to the issue of purchasing power, and of price bands (wheat, beets, oilseeds). With regard to plant protection and animal health, IICA's actions focused on projects dealing with the Mediterranean fruit fly, the pine shoot moth, tuberculosis, brucellosis and others.

IICA's activities in Chile reflect the priorities set up by the government to promote national development. Technical

cooperation agreements were signed to develop interdisciplinary work and hire consultants for the following areas: agricultural planning, technology transfer, rural development, agricultural marketing, and animal health and plant protection.



*In some South American countries, agricultural terraces built by pre-Columbian peoples are today used as test plots; here, corn and other indigenous grain crops.*

## Chile

■ Instrument	● Objectives	○ Achievements	Resources Source	Amount
■ <b>Technical Cooperation to Strengthen the Agricultural Planning Process (Ministry of Agriculture)</b>	● To support the creation, operation and management of a national agricultural project system and improve the capabilities of the Undersecretariat of Agriculture for conducting sectoral analyses and designing agricultural policies.	<ul style="list-style-type: none"> <li>○ Efforts begun to computerize the national agricultural projects; system designed.</li> <li>○ Training activities expanded to include the regions.</li> <li>○ Investment projects formulated and significant progress made on consolidating committees to study the ties between the system and the sectoral analysis process with ministry services, the Regional Ministerial Secretariats (SEREMI), the Budgeting Bureau and the National Planning Office.</li> <li>○ Studies conducted on the modernization of fruit crop cultivation; technical coefficients of the subsector expanded.</li> </ul>	Trust Fund ODEPA IICA TOTAL	27 313 13 026 4 599 44 938
■ <b>Technical Cooperation to Strengthen the Principal National Technology Generation and Transfer Agencies</b>	● To contribute to upgrading the technology generation and transfer program of the National Agricultural Research Institute (INIA) and support the activities of the Cooperative Program for Agricultural Research in the Southern Cone (PROCISUR).	<ul style="list-style-type: none"> <li>● To advise the Ministry on programs of regional scope for small- and medium-scale farmers. <ul style="list-style-type: none"> <li>○ Efficiency of the Community Agricultural Development Program (PRODAC) of the Regional Ministerial Secretariat of Agriculture for Region IX (SEREMI) improved to expand its coverage; training and advisory services provided to directors and technicians.</li> <li>○ INIA technology generation and transfer program improved at the national and regional levels; training provided for farmers and administrators; support provided for PROCISUR activities.</li> </ul> </li> </ul>	IICA TOTAL	78 342 78 342
■ <b>Support to the Agricultural Development Institute (INDAP) in Relation to Institutional Administration, Credit Assistance and Technology Transfer for Small-Scale Farmers</b>	● To implement a Project and Study Unit in the Credit Sub-division.		IICA TOTAL	19 129 19 129

■ Instrument	● Objectives	○ Achievements	Resources Source	Amount
	<ul style="list-style-type: none"> <li>● To provide INDAP with a follow-up and evaluation system for more efficient technology transfer extension.               <ul style="list-style-type: none"> <li>○ Document completed on INDAP's structure, responsibilities and credit activities, at the central, regional and area levels.</li> <li>○ Two courses given on methods of communication; training provided to 50 professionals in charge of technology transfer and technical support consultants.</li> <li>○ Course offered on project preparation and evaluation for 19 INDAP professionals working with the credit program.</li> <li>○ National and international bibliography prepared on appropriate technology for small-scale farmers and made available to INDAP extension agents.</li> </ul> </li> </ul>			
■ Technical Cooperation to Improve Domestic Trade and Increase the Export of Non-Traditional Products			IICA TOTAL	13 835 13 835
	<ul style="list-style-type: none"> <li>● To strengthen, through the Ministry of Agriculture and its Agricultural Planning Office (ODEPA), the public sector's capacity to identify, design and implement measures to improve the efficiency of the marketing system, in order to stimulate domestic production, contribute to import substitution and boost agricultural exports.               <ul style="list-style-type: none"> <li>○ Support provided for conducting analyses, developing information systems and following up on the marketing of principal agricultural products.</li> <li>○ Technical personnel trained in policy design, marketing strategy and technologies for domestic and external markets.</li> <li>○ Reciprocal technical exchange promoted with other countries through training and observation visits.</li> </ul> </li> </ul>			
■ Cooperation to Overcome the National Emergency Caused by the Crisis Related to the Exportation of Contaminated Chilean Fruit			IICA TOTAL	19 167 19 167
	<ul style="list-style-type: none"> <li>● To help upgrade the laboratories of the the Agriculture and Livestock Service (SAG) with a view to improving their control of contaminants, and to improve their computerized agricultural protection systems.               <ul style="list-style-type: none"> <li>○ Two stereomicroscopes and a spectrophotometer, with respective accessories, delivered to SAG.</li> </ul> </li> </ul>			

■ Instrument	● Objectives	○ Achievements	Resources Source	Amount
		○ Advisory services provided by the University of Concepcion to implement a computerized system for processing plant health information under the agricultural protection project.		
■ Technical Cooperation to Strengthen National Plant Protection Programs			IICA	79 353
	● To help SAG solve high-priority agricultural and forestry plant protection problems.		TOTAL	79 353
	○ SAG technicians trained in fruit fly sterilization techniques, plant quarantine practices, plant protection warning and alarm systems, and forestry quarantine procedures.			
	○ National technical personnel assisted in attending international meetings on phytopathology and agricultural nematology.			
	○ Technical advisory services provided on forestry protection; support provided to 1989-1990 campaign to control pine shoot moth.			
	○ First national symposium held on phytosanitary problems in Chilean forests.			
	○ Progress made in preparation of two plant protection manuals on laboratory methods to diagnose and identify forest pests subject to quarantine.			
	○ Links established with the MOSCAMED Program of Guatemala to purchase sterile insects to be freed in northern Chile.			
■ Technical Cooperation to Strengthen Livestock Protection Programs in Chile, with Special Emphasis on Classic Swine Fever, Bovine Brucellosis, Tuberculosis and Leucosis			IICA	6 813
	● To strengthen the operations and organization of SAG's Livestock Protection Subprogram for eradicating classic swine fever and certifying farms free of bovine brucellosis, tuberculosis and leucosis.		TOTAL	6 813
	○ Courses conducted on the epidemiology, control and eradication of bovine brucellosis, and the epidemiology and control of tuberculosis; training provided to 25 veterinarians; SAG provided with related technical assistance.			
	○ SAG technical personnel trained in managing bovine brucellosis-free holdings, conducting serological and bacteriological diagnoses of bovine brucellosis, as well as in matters related to the diagnosis, epidemiology and pathology of exotic diseases.			



■ Instrument	● Objectives	○ Achievements	Resources Source	Amount
■	Support for the Agriculture and Livestock Service (SAG) in Preparing a Feasibility Study to Strengthen its Forestry-Agricultural Health Surveillance and Diagnosis System		SAG TOTAL	25 494 25 494
	● To assist SAG in preparing a study to be presented for external funding, and in designing the technical instruments needed to implement the project.			
	○ Study completed and approved by Ministry of Agriculture authorities; other complementary studies completed.			
■	Preinvestment for the 1990-1991 Biennium		IICA TOTAL	14 757 14 757
	● To draw up agricultural project profiles that reflect the priorities for the 1990-94 period.			
	○ Four agricultural project profiles completed.			

## Paraguay

In May 1989, the new government was installed, and an economic policy emphasizing the "social market economy" was established. One of the key strategies behind the model is to strengthen the export base in order to generate resources to be used for developing all the sectors and subsectors of the domestic economy. The agricultural sector brings in the greatest amount of foreign exchange and constitutes the base of the balance of payments, contributing more than 97% of the total value of exports.

The principal problems faced by Paraguay can best be described as structural in nature. The most pressing need is to channel resources to where they can be most efficiently used for development and growth. Other serious limitations include the public external debt, which limits domestic investments, and an inefficient tax system that does not

adequately tax the wealthy. Finally, two indicators of concern in 1989 were an 11-12% unemployment rate and inflation that hovered around 40%.

The agricultural sector is the hub of the economy and produces the bulk of the country's wealth. It generates foreign exchange, supplies the domestic market and provides raw materials for agroindustrial development. It serves as a source of employment for a large portion of the economically active population and helps curb rural-urban migration.

General policies designed for the sector include measures to let the dollar float, which stimulated production for export; increased credits from the Central Bank for investments in and special credit for the agricultural

sector, especially for soybeans, cotton and wheat; and creating favorable conditions for foreign investors particularly interested in developing agroindustries. The executive and legislative branches introduced measures for land redistribution and focused on institutional strengthening for integrated rural development. Finally, integration mechanisms were promoted with neighboring countries through bilateral cooperation and trade agreements, and steps were taken to include Paraguay in the Latin American Integration Association (ALADI).

With a view to strengthening these government actions, the IICA Office in Paraguay collaborated directly with the Ministry of Agriculture and Livestock (MAG) in drawing up the basic sectoral programs of the short-term development

plan. It also worked with the Institute for Rural Welfare (IBR) in setting up the National Coordination Board for Rural Development (CONCODER), the main objective of which is to generate and implement differentiated policies for small-scale farmers, with an emphasis on rural development and agrarian reform. IICA's efforts to include Paraguay in the Plan of Joint Action for Agricultural Reactivation in the Southern Area were considerable. Paraguay also received support from IICA's Animal Health and Plant Protection Program through multinational actions to upgrade the corresponding subsectors. The Cooperative Program for Agricultural Research in the Southern Cone (PROCISUR) provided invaluable cooperation in preparing a sectoral plan to be developed by IICA through its five Programs.

## Paraguay

■ Instrument	● Objectives	○ Achievements	Resources Source	Amount
<b>■ Strengthening the National Technology Generation and Transfer System</b>			IICA	74 757
<ul style="list-style-type: none"> <li>● To provide support to the principal agencies of the public technology generation and transfer system in establishing efficient institutional, program and operating mechanisms, through close coordination with agricultural planning and other agencies of the sector, with a view to generating appropriate agricultural technology and services. <ul style="list-style-type: none"> <li>○ Medium-term plan on technology generation and transfer delivered to national agricultural planning and research authorities.</li> <li>○ Proposal for reorganization currently under study by the Office for Agricultural and Forestry Extension and Research (DIEAF), aiming to improve coordination as called for in the cooperation agreement.</li> </ul> </li> </ul>			TOTAL	74 757
<b>■ Institutional Support for the Integrated Rural Development Projects Coordination Office (ONCPDR)</b>			IBRD/	
			Caazapa	25 304
			Canadian Emb.	15 360
			IICA	81 212
<ul style="list-style-type: none"> <li>● To establish a clearly defined organization with a solid administrative structure that will efficiently coordinate the management of integrated rural development projects, and effectively manage the programming, supervision, follow-up, control and evaluation of activities to strengthen farmers' organizations.</li> </ul>			TOTAL	121 876

■ Instrument	● Objectives	○ Achievements	Resources Source	Amount
	<ul style="list-style-type: none"> <li>○ Small-farmer organization unit established within the Agricultural and Livestock Extension Service (SEAG).</li> <li>○ National Coordination Board for Rural Development (CONCODER) created together with the Institute for Rural Welfare (IBR). The Board designs policies and coordinates the implementation of the rural development and agrarian reform program.</li> <li>○ Support provided to CONCODER in setting up a specialized institution in charge of rural development and agrarian reform in Paraguay.</li> </ul>			
■ <b>Strengthening the Institutions of the Agricultural Marketing Subsystem</b>			IICA TOTAL	73 358 73 358
	<ul style="list-style-type: none"> <li>● To help establish program guidelines and operating procedures so as to equip the agricultural marketing subsector to participate effectively in reaching the goals and objectives of the National Development Plan. <ul style="list-style-type: none"> <li>○ Cooperation provided for strengthening the organization and operations of the Production Appraisal and Forecasting Service (SEPP) of the Directorate of Marketing and Agricultural Economics (DCEA).</li> <li>○ Farmers' Market Information Service (SIMA) in operation, providing information daily by radio, television and the written press on market behavior and the prices of 32 basic commodities. SIMA also publishes a bi-weekly information bulletin (1 500 copies) on the market situation of the major products sold on the domestic market. The bulletin analyzes production, supply and demand in the external markets for products exported by Paraguay (soybeans, wheat, coffee, sugar, cotton, meat, mint, petit-grain, as well as edible oils, industrial oils, flours, oilseeds and cotton fiber).</li> <li>○ Support services of the Marketing Extension Service (SEM) upgraded for the small farmers' marketing committees; experience gained disseminated to different departments of the country.</li> <li>○ Support provided to MAG and the Technical Planning Secretariat (STP) in preparing the Short-Term Plan (Sectoral Part), which established the guidelines for policies on domestic marketing, external agricultural trade, and the framework of the National Agroindustrial Program.</li> <li>○ Groundwork laid for establishing the Central Agricultural Market Research and Information Unit (UCIMA), under MAG/DCEA.</li> </ul> </li> </ul>			

# Uruguay

During 1989, Uruguay's agricultural sector had to face new constraints. Budgetary restrictions, for example, cut public spending and prevented greater inflation. As a result, services provided by the public sector to the agricultural sector were curtailed.



*The development of germplasm can involve tissue culture and greenhouse trials. Improved germplasm is conserved in special banks and distributed as part of IICA's technology transfer efforts.*

A prolonged drought killed a large portion of the livestock in Uruguay, and, because it will be necessary to rebuild the

productive herd, the outlook for the livestock sector is less than optimistic. In spite of this situation, exports increased steadily, producing a positive balance for the first time in five years. Winter crops also produced satisfactorily.

At the institutional level, the National Agricultural Research Institute (INIA) and the National Wine Institute (INAVI) were established in an effort to streamline priority areas of action at the Ministry of Livestock, Agriculture, and Fisheries (MGAP).

With regard to the granja (small farm) sector, MGAP worked to: upgrade the Granja Agroindustrial Project Support Unit (UAPAG); formalize support for German cooperation through GTZ; install and inaugurate a biotechnology laboratory at the Las Brujas Experimental Station, for work on vegetable and fruit crops and funded by the government of Japan; and coordinate activities with the local government authorities in order to identify agroindustrial investment projects for granja organizations.

Agricultural policy measures were taken to protect different types of producers from the effects of the drought, through credit, liberalization of cattle exports, and reduction of taxes on inputs and cattle feed.

With regard to basic agricultural health protection and inspection services, the Ministry provided more resources to the Directorates of Animal Health and Plant Protection with a view to improving export conditions. These resources were used for the new installations of the Miguel C. Rubino Veterinary Research Center. Furthermore, the staff of the Directorate of Plant Protection (DSV) received training to improve their technical and practical skills.

As concerns external funding and strategic investments, Paraguay obtained a loan from the World Bank for its Agricultural Plan, for an investment program on reforestation and for promoting non-traditional exports in the granja sector. Preliminary requirements were fulfilled with the Inter-American Development Bank (IDB) for the disbursement of loans to eradicate foot-and-mouth disease and to upgrade the technology generation and transfer system.

The government determined that studies on the fishing, agricultural and mining sectors, among others, were of priority in its strategy to obtain external funding. These studies will focus on policy review and analysis, the modernization of related institutional mechanisms, and investment priorities.

In support of these government initiatives, IICA provided technical assistance in designing the conceptual framework and terms of reference for studies to be carried out prior to the formulation of the Agricultural Sectoral Program (ASP) and the Fisheries Sectoral Program (FSP). It also contributed to formalizing instruments to strengthen the technology generation and transfer system, provided institutional strengthening for the granja sector and, in coordination with MGAP, supported the consolidation of region-wide farmers' groups and organizations.

Uruguay continues to participate actively in the Cooperative Program for Agricultural Research in the Southern Cone (PROCISUR) and in regional animal health and plant protection projects.

## Uruguay

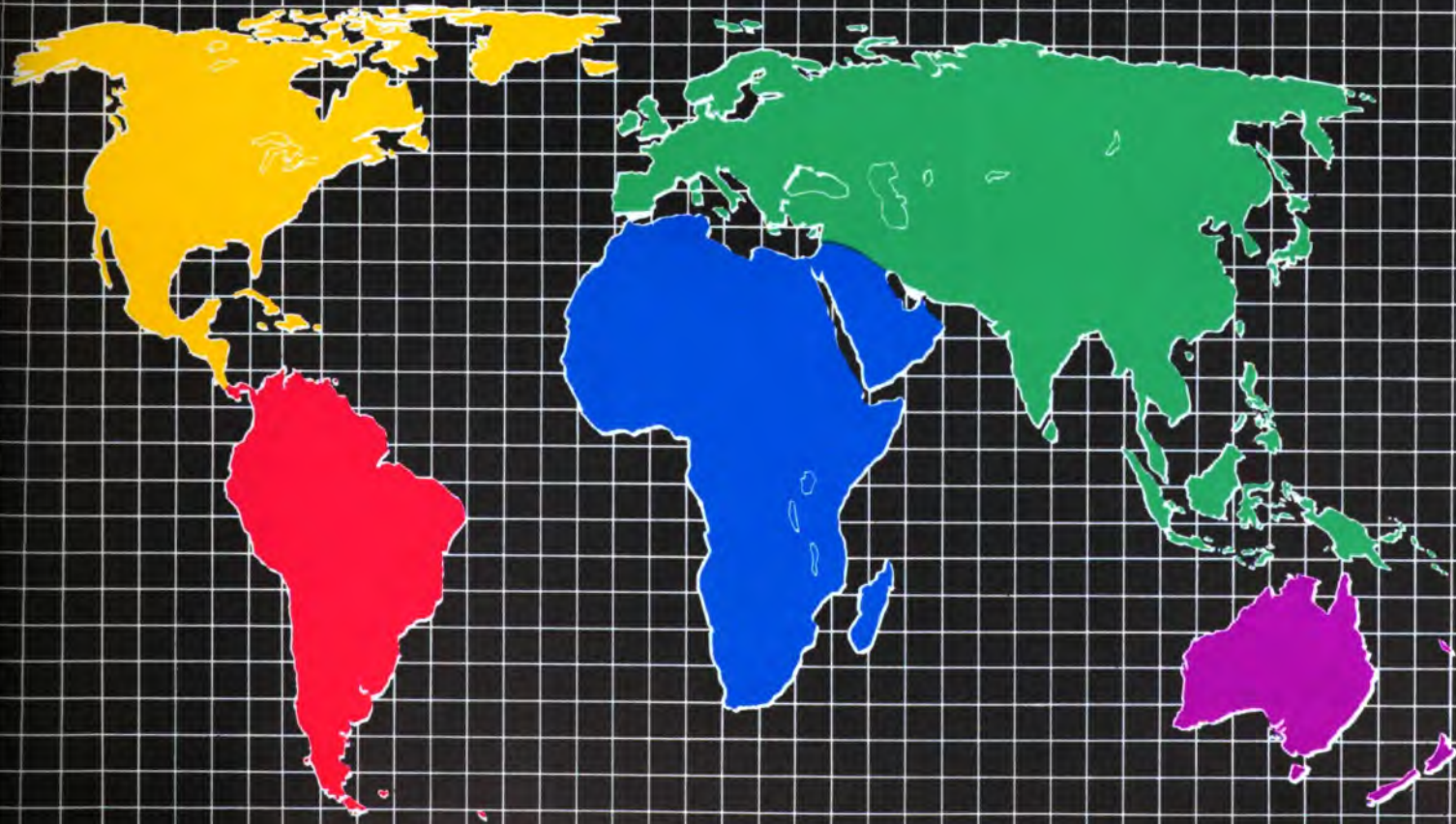
■ Instrument	● Objectives	○ Achievements	Resources Source	Amount
<b>■ Support in Preparing Base Studies for a Sectoral Investment Program</b>			IICA	22 033
<ul style="list-style-type: none"> <li>● To prepare a conceptual document on investment priorities, institutional reforms, and policy analysis and review, so as to define a proposal for an agricultural sector program. <ul style="list-style-type: none"> <li>○ Description of the general framework of agricultural development concluded.</li> <li>○ Objectives and general description drafted for an agricultural sector program (ASP) in Uruguay; components designed for a sectoral program covering policy review, institutional modernization and investment priorities.</li> <li>○ Terms of reference drawn up for preparing studies of the agricultural and fisheries sectors; guidelines established for carrying out base studies.</li> </ul> </li> </ul>			TOTAL	22 033
<b>■ Coordination of Cooperation to Strengthen Technology Generation and Transfer Institutions</b>			MGAP-	
<ul style="list-style-type: none"> <li>● To coordinate IICA activities in Uruguay in support of the technology generation and transfer system.</li> </ul>			CIAAB	13 219
			TOTAL	13 219

■ Instrument	● Objectives	○ Achievements	Resources Source	Amount
	<ul style="list-style-type: none"> <li>○ Agreement reached and technical cooperation designed for the Alberto Boerger Agricultural Research Center (CIAAB), for administering the consultant component of the MGAP/CIAAB/IDB project to strengthen technology generation and transfer.</li> <li>○ Initial stage concluded of advisory services provided to Uruguay by IICA's Program II (Technology Generation and Transfer) for establishing a plan of action for agrobiotechnology.</li> <li>○ Preparatory stage for implementing the technology transfer system, prepared in collaboration with Program II, concluded; approved by CIAAB.</li> <li>○ Logistic support and follow-up provided for two Uruguayan researchers studying at U.S. universities.</li> </ul>			
■ Support in Managing Funds for Implementing the Coordinating Unit of the Technology Generation and Transfer Project	<ul style="list-style-type: none"> <li>● To manage funds earmarked for the creation and implementation of an executor unit in the technology generation and transfer project, funded by the IDB. <ul style="list-style-type: none"> <li>○ Professional and technical services contracted to implement the project funded by the IDB, with a view to strengthening the infrastructure and technical teams of the Alberto Boerger Agricultural Research Center (CIAAB).</li> </ul> </li> </ul>		MGAP/ CIAAB TOTAL	47 011 47 011
■ Support for Disseminating information on the integration of the Schools of Agronomy of Argentina and Uruguay	<ul style="list-style-type: none"> <li>● To support discussions on topics related to subregional problems and to integration among the countries of the River Plate area. <ul style="list-style-type: none"> <li>○ In coordination with the IICA Office in Argentina, two issues of the journal on agricultural economics (<i>Revista Rioplatense de Economía Agraria</i>) published, together with the Agricultural Economists' Society of Uruguay and the Argentine Association of Agricultural Economists.</li> </ul> </li> </ul>		IICA TOTAL	2 936 2 936
■ Institutional Support to the Granja Sector	<ul style="list-style-type: none"> <li>● To support MGAP and small-farmer organizations in improving their capacity to identify, prepare and implement agroindustrial projects in the granja sector.</li> </ul>		MGAP IICA TOTAL	31 920 142 994 174 914

■ Instrument	● Objectives	○ Achievements	Resources Source	Amount
		<ul style="list-style-type: none"> <li>○ New non-traditional export products with agroindustrial components identified: seafood products from continental waters, vegetables, fruits, small farm animals for hide and yarn production; 10 technical-economic profiles prepared.</li> <li>○ Projects and specific studies prepared on priority areas of interest for MGAP. In Salto: development of post-harvest services; in San Jose: production, processing and marketing of vegetable seeds, fruit juices and homemade cheeses.</li> <li>○ Support given in drawing up pilot agroindustrial projects for small-farmer organizations for an approximate total investment value of US\$3 150 000, including local contributions.</li> <li>○ MGAP's Support Unit to Granja Agroindustrial Projects (UAPAG), the NEC Commission and the Granja Sector Plan upgraded in project preparation and evaluation skills.</li> <li>○ International seminar-workshop held on the outlook for developing new agroindustrial products, attended by 214 leaders, technicians, small farmers and entrepreneurs; papers from Argentina, Brazil, Chile and Uruguay presented.</li> <li>○ Publications on the following topics prepared and distributed: the elements of external fruit and vegetable markets; possibilities for agroindustry in the granja subsector; onions for export. Publications under way: table grapes for export, and the proceedings of the seminar-workshop on agroindustrial development.</li> </ul>		
■ Support to Regional Agencies for Conversion of Agricultural Practices for Small-Scale Low-Income Farmers			IICA TOTAL	7 732 7 732
	<ul style="list-style-type: none"> <li>● To support municipal authorities and regional entities in identifying rural development and preinvestment projects. <ul style="list-style-type: none"> <li>○ Two projects prepared: a rural development program for women in Uruguay, to be submitted to UNIFEM, and another on rural youth, to be presented to other external funding sources.</li> <li>○ Short-term IDB missions carried out, including preparation of institutional profiles and project profiles for Rural Development Society (SFR), La Casilla (Flores Municipality) and the Agrarian Youth Movement.</li> <li>○ Support provided in organizing meetings for municipal agricultural outreach technicians, and geared to coordinating technical action related to rural development; sixth meeting held in August in Trinidad, Flores; seventh meeting held in Maldonado, in December.</li> <li>○ Support provided to six municipalities in the search for preinvestment funding for seven projects, and investment funding for three small projects.</li> </ul> </li> </ul>			

■ Instrument	● Objectives	○ Achievements	Resources Source	Amount
<b>■ Regional Agricultural Development</b>				
	● To help boost agroindustrial development in the northwestern region of Uruguay with a view to consolidating the CALAGUA project (water for irrigation) in benefit of the small-scale farmers of the area.		CALAGUA/	128 488
			CALPICA	12 643
			IICA	141 131
			<b>TOTAL</b>	
	○ Consultants hired for CALAGUA project under the terms of the technical cooperation funded by the IDB, to work on the following: design and implementation of irrigation systems, industrial plant for frozen products, agricultural machinery, institutional strengthening, economics, plant pathology and irrigated vegetable crops.			
	○ Logistic support provided for actions of the consultants and selection completed of support personnel for computer sciences and marketing.			
<b>■ Institutional Strengthening of MGAP's Plant Protection Directorate</b>				
	● To increase the institutional capacity of MGAP's Plant Protection Directorate (DSV) to improve plant health services (plant quarantine, monitoring, alarm, diagnosis and plant health campaigns) in order to boost grain production and fruit and vegetable exports.		Plant Protection	288 363
			<b>TOTAL</b>	288 363
	○ Phytosanitary control and inspection services improved for agricultural imports and exports; progress made in standardizing quarantine systems and procedures at the national and regional levels; technologies developed for the National Certification Service for certifying propagation materials.			
	○ Laboratory installations and computerized information unit strengthened; plant protection campaigns for wheat, soybeans, potatoes and citrus crops carried out at the national level; progress made in developing technologies for diagnosing plant protection problems in propagation material for "problem crops;" early-warning system in operation for grapevine mildew.			
	○ DSV technical personnel received training; agreements reached with other institutions and organizations for joint action on phytosanitary problems of mutual interest; bill prepared on plant protection.			
	○ Support provided for activities of the Plant Protection Committee for the Southern Area (COSAVE), and for binational meetings on phytosanitary issues affecting border trade and the transportation of agricultural products between Uruguay, Argentina and Brazil; implementation of short-term planning system begun.			





## Chapter 4

***As an agency of the inter-American system, IICA has Permanent Observer Countries from all parts of the world, and maintains close ties with numerous international agencies.***

# Institutional Relations

The primary goal of the Institute's external relations policy is to increase availability of the financial and technical resources for carrying out satisfactorily programs and projects considered as priority by the member countries.

The 1987-1991 Medium Term Plan calls for a total IICA budget of approximately US\$50 million by the end of the five-year period. Of this total, the major source of funding will be external resources, providing almost US\$30 million. If achieved, this figure will represent more than 50% of total Institute funds. Should this figure be obtained, the Institute will be in a better position to upgrade its activities in its areas of competence and consolidate its role as an vehicle for channeling technical and financial resources to development efforts in its Member States.

During 1989, IICA's Offices in the countries played a key role in the activities carried out to secure external resources for cooperation, through the ongoing contacts they maintain with the representatives of funding institutions and the Permanent Observer and donor countries, and by identifying, in conjunction with national institutions, priority projects for funding. The five Program Directorates were also active in seeking and obtaining external resources for specific projects.

A very important role was played by the IICA Offices in Canada and the United States. In both countries, they worked closely with bilateral technical and financial cooperation organizations, with international lending agencies headquartered there, and with representatives of IICA's Permanent Observer and donor countries.

*This Chapter summarizes the activities carried out during 1989 by the Directorate of External Relations with agencies of the inter-American system, regional and subregional organizations and the agencies of the United Nations system, governments and institutions of IICA's Permanent Observer and donor countries, and other international civil service organizations. It also briefly describes the activities of IICA's Offices in Canada and in the United States of America.*

## Relations with Canada and the United States of America

### *Canada*

In 1989, the aim of the IICA Office in Canada was to broaden the scope of the Institute's work and to disseminate information on the Institute and on agriculture in Latin America and the Caribbean. It also strove to promote new and greater opportunities for ties between Canada and the countries of LAC.

Noteworthy efforts were made to publicize IICA's work, using various media, through the Office's participation in congresses and meetings with Canadian organizations, during which documents on the Institute's work were widely distributed.

Among the main activities carried out by the Office this year were those related to the preparation of the Plan of Joint Action for Agricultural Reactivation in Latin America and the Caribbean (PLANLAC), follow up on the IICA/CIDA Project and the opening up of new areas of institutional relations.

The PLANLAC was distributed among the different Canadian entities during the consultation process, thanks to the interest and collaboration of Agriculture Canada. Within the framework of the Plan, a human resources development project was presented to the Canadian International Development Agency (CIDA). Human resources, together with environmental protection, represent two areas in which CIDA and the Institute can expand future cooperation efforts. This possibility for increased cooperation between IICA and Canada has become more likely with the recent establishment of a regional CIDA unit for Central America, with headquarters in Costa Rica.

The IICA Office in Canada worked closely with Agriculture Canada, particularly with two of its technical divisions: agricultural research, and animal health and plant protection. Agriculture Canada also played an important role in implementing the IICA/CIDA project, which provides support for IICA's Programs. The Institute suffered a great loss in August with the death of Dr. Brian Perkins, CIDA coordinator of the project, who had devoted considerable time and effort to making it a success.

AECI	AGCAN	AID	
ALADI	ALIDE	CABE	
CADESCA	CAF	CARDI	
CARICOM	CIAT	CIDA	
CIMMYT	CIP	CIRAD	
CORECA	EEC	EDI	FAO
GTZ	IBRD	ICI	IDB
IDRC	IFAD	ILPS	INSTRAW
JICA	OAS	PREALC	RNTC
SAREC	SELA	SIDA	
SIECA	TCA	UNDP	
UNICEF	UNIFEM	USDA	

In 1989 formal relations were established with the Provincial Government of Quebec, through its Ministry of International Trade, and through which IICA took steps to obtain post-graduate fellowships for technicians from Latin American and the Caribbean. Contacts were also made to involve professors from Quebec universities in the Institute's technical activities.

IICA established closer ties with the Secretariat of State for External Affairs during the visit of the Director General of the Institute, Dr. Martin E. Pifeiro, to that institution. This led to the establishment of productive contacts with several political and technical entities.

IICA also developed important contacts with Canadian universities as a result of support from the AUCC (a consortium of Canadian universities and colleges), with which it shares pertinent information, and the IICA/CIDA Project, through which contact was established with several universities for the hiring of consultants. Also noteworthy is the number of Institute scholarship holders in Canada; in 1989, the Office provided support to six professionals from the Brazilian Agricultural Research Agency (EMBRAPA).

The Institute strengthened its ties with several professional associations, among which mention should be made of the Association of Agronomists, the Association of Veterinary Doctors, the Association of Deans of Schools of Agronomy and Veterinary Sciences, the Canadian Council for International Cooperation and the World Food Program of Canada. IICA also maintained close contact with the International Development Research Centre (IDRC), with which it shares common areas of interest, such as biotechnology and environmental protection.

As in past years, the IICA Office in Canada continued to support the Institute's Offices in the other member countries, with the greater part of its efforts being concentrated in the Caribbean Area, and in the Animal Health and Plant Protection Program in particular.

## *United States of America*

During 1989, the IICA Office in the United States forged closer ties with United States government agencies, the private sector and the academic community, as well as with international development and funding institutions. The Office distributed an unprecedented amount of information on Institute activities.

Contacts were increased with key members of U.S. House of Representatives and Senate, especially those holding important positions on committees that authorize and allocate funds for agricultural development and for international agencies dealing with agriculture. During a visit to the IICA Office in Washington, the Director General held a press conference in the Foreign Correspondents Center of the United States Information Service and met with senior officials from several offices of the U.S. Congress. The U.S. Congress acknowledged IICA's efforts to modernize its operations and better respond to the needs of its Member States.

The Office maintained contact with the Department of State, especially with the Permanent Mission of the United States to the Organization of American States (OAS), with which it worked closely in following up on Institute activities. Positive relations were maintained with the newly appointed Undersecretary of State and the Director of the U.S. State Department's Office of International Organizations, which in large measure determines the allocation of quotas to international organizations.

The Office established contact with the new United States Ambassador to the OAS and with the members of the delegation in order to inform them of IICA's work in support of overall development and growth in the hemisphere. They were also informed of IICA activities with other government agencies, and on IICA's programs in which other sectors of the United States participate.

During the General Assembly of the OAS in November, a photography exhibition on rural women, which consists of



*At the headquarters of the Organization of American States (OAS), the Secretary General of the OAS, João Clemente Baena Soares, and IICA's Director General, Martin E. Piñeiro, jointly inaugurated an exhibition of entries in the 1989 IICA/RNTC Award for Photography, whose theme was the multifaceted life of rural women. The Radio Nederlands Training Centre and IICA co-sponsored the event.*

the winning entries of the 1989 IICA/RNTC Award for Photography, was displayed in the main lobby of the OAS building.

Fruitful relations were maintained with members of the Board for International Food and Agricultural Development (BIFAD), of the Agency for International Development (AID). The Deputy Director General of IICA attended a meeting of the BIFAD and informed the participants of IICA's activities and how they fit into the goals of BIFAD.

Also of importance were the meetings the Director General and the Deputy Director General of the Institute held during the year with the Secretary and the

Undersecretary of the United States Department of Agriculture (USDA) to brief them on IICA's activities as they relate to U.S. agricultural programs and policies. Close ties were maintained with the staff of the Office for International Cooperation and Development (OICD), which has been especially valuable since it serves as a liaison between IICA and the USDA.

The Office worked closely with the Animal and Plant Health Inspection Service (APHIS), which has provided firm support for IICA activities, including the program to eradicate *Amblyomma variegatum* in the eastern Caribbean and in gathering information on African swine fever in Haiti. APHIS has also provided several specialists to IICA, one of whom participated in the evaluation of the Animal Health and Plant Protection Program. Cooperation continues with the Graduate School of the USDA, which presented a proposal to the Institute to increase cooperation activities.

The Office also established contacts with other agricultural agencies, such as the Foreign Agricultural Service (FAS) and the Economic Research Service (ERS) of the USDA. Negotiations are currently under way for the temporary transfer of specialists to IICA for specific tasks.

IICA maintained contacts with several North American universities, aimed at promoting joint technical cooperation. To this end, the Office participated in several meetings with directors of international development programs from state universities specializing in agricultural studies.

Along the same line, mention should be made of the sizeable increase in the fellowship program sponsored by the Brazilian Agricultural Research Agency (EMBRAPA), which, by the end of the year, had placed 31 graduate students in different universities throughout the United States. The IICA Office in Washington provided administrative support to EMBRAPA in managing and distributing fellowship funds, helping the students apply for admission, obtaining visas for the students and their dependents, and helping students solve problems in

adapting to new environments. The purchasing services provided by IICA's Office in Washington to other IICA Offices increased considerably during 1989, especially as concerns the acquisition of equipment, which amounted to a total of US\$300 000.

## Relations with Agencies of the Inter-American System

### *Inter-American Development Bank (IDB)*

During the course of the year, IICA continued to strengthen relations with IDB authorities in Washington, and with IDB representatives in the countries, in an effort to better coordinate hemisphere-wide technical and financial cooperation for agricultural development in the member countries, as well as to identify new cooperative opportunities. Of particular importance are the following activities:

- IICA continued implementing the Cooperative Program for Agricultural Research in the Southern Cone (PROCISUR), financed by the IDB, which is in its fifth year of the second stage of the Program.

This Program is especially important in that its objective is to institutionalize, in the participating countries (Argentina, Bolivia, Brazil, Chile, Paraguay and Uruguay), a permanent system of coordination and assistance for reciprocal support and the exchange of information related to agricultural research, through joint and cooperative actions. In August 1989, the Eleventh Meeting of the Board of Directors of PROCISUR was held in Montevideo, Uruguay. The main item on the agenda was the implementation of the agreement to begin the second stage of the Program, agreed upon by the participating countries, which will begin in 1990.

- IICA also administered and executed the Cooperative Agricultural Research Program for the Andean Subregion (PROCIANDINO), with funding from the IDB.

This Program, headquartered in Quito, Ecuador, began in April 1987 and involves Bolivia, Colombia, Ecuador, Peru and Venezuela. Through active cooperation among the national agricultural research institutions in the countries, PROCIANDINO aims to upgrade agricultural research in the participating countries and contribute to improving agricultural production and productivity.

- In late 1989, a meeting was held between officials of the IDB and IICA, at which time they studied the progress made in the Cooperative Program for Agricultural Research in the Southern Cone (PROCISUR) and the Cooperative Agricultural Research Program for the Andean Subregion (PROCIANDINO). They also established the objectives and procedures for implementing the Caribbean Cooperative Agricultural Research Program (PROCICARIBE).

Coordination with agricultural research institutions and programs in Latin America and the Caribbean, taking into consideration existing mechanisms, the need for adjustments, and coordination with the Consultative Group on International Agricultural Research (CGIAR), were also covered.

- On January 17, 1989 IICA signed the third extension of technical cooperation agreement between IDB and IICA, to continue the technical cooperation program for preparing agricultural projects. This three-year program is executed by IICA, with US\$3 million support from the IDB.

In February, representatives from IDB and IICA met at the Institute's Headquarters to implement the third extension and to draw up the program of activities for the first year of execution of the Agreement.

Two activities were carried out under the Agreement: the feasibility study of a fisheries development program for Argentina, which was approved by the IDB and is currently under negotiation between the Bank and the government of Argentina, and the feasibility study of phase two of the Agricultural Services Development Program, in the Bahamas.

- In April, a joint seminar on agricultural modernization and development in Latin America, with the participa-



*IICA and the Inter-American Development Bank (IDB) have strengthened their relationship and augmented their joint actions. Here, IICA's Director General Martin E. Piñeiro, and the President of the IDB, Enrique Iglesias.*

tion of the President and Board of Directors of the Bank, and the Director General and officials of IICA. During the seminar, the participants discussed matters related to agricultural development in the region, the needs for increased cash flow and new funding mechanisms.

The participants also considered areas for IDB cooperation in the Plan of Joint Action for Agricultural Reactivation in Latin America and the Caribbean (PLANLAC), in regard to the strategy to be followed for funding new investment projects, IDB support for IICA's plans of actions, and technical advisory services of the Institute for Bank projects.

- IICA participated, as an Observer, in the Thirtieth Annual Meeting of the IDB Board of Governors and at the Fourth Meeting of the Assembly of Governors of the Inter-American Investment Corporation, held in Amsterdam, in March, 1989.
- In November, the Director General met with the president and officials of the IDB in Washington. At that time, it was agreed that both organizations would make certain changes in order to make the operational and financial rules and regulations of both institutions more simple and flexible. They also reached an agreement in regard to broadening the objectives of the current technical cooperation agreement, as concerns the preparation of sectoral policy studies and sectoral adjustment programs and investments. Furthermore, a working group was established to formulate proposals for broadening the objectives, new execution mechanisms and a plan of operations for the IDB/IICA General Cooperation Agreement.

### *Organization of American States (OAS)*

As the depositary of the Institute's Convention, the Organization of American States (OAS) is of special significance to IICA.



***Permanent Council.*** During 1989, the IICA Office in the United States was represented at most of the regular meetings of the various bodies of the General Secretariat of the OAS, such as CEPCIES, CIES, CEPCIECC, and CIECC. The Institute was also represented at special ceremonies held to honor different political and scientific authorities of the inter-American system.

***Meetings of the OAS General Assembly.*** The Director General participated in the Nineteenth Regular Session of the OAS General Assembly, held in Washington, D.C., in November 1989, at which time he presented IICA's 1988 Annual Report and the Plan of Joint Action for Agricultural Reactivation in Latin America and the Caribbean (PLANLAC) to the Assembly for consideration.

The Assembly issued a resolution in support of the PLANLAC and resolved to convene the Tenth Inter-American Conference of Ministers of Agriculture (ICMA), which will be held in 1991 in Madrid, Spain, concurrently with the Sixth Regular Meeting of the Inter-American Board of Agriculture (IABA).

***General Secretariat.*** In compliance with the terms of the cooperation agreement signed between IICA, the General Secretariat of the OAS, Guatemala, Honduras and El Salvador, an integrated development plan was designed for the border zone of the three countries (Trifinio). As part of the process to reach agreement, important progress was made in negotiations to fund specific projects designed to strengthen the process of border integration. In 1988, a total of 31 integrated rural development projects, valued at US\$458 million and covering a period of 10 years, were delivered to the vice presidents of El Salvador, Guatemala and Honduras by the Director General of IICA. In 1989, the European Economic Community (EEC) approved funding for a project to support the development of the rural population in the Trifinio region, valued at 7 500 000 ECUs (approximately US\$8 475 000), to be carried out over a five-year period. The objective of the project is to contribute to the development and physical and economic integration of the border region of the three countries, through agricultural, forestry, infrastructure and technical assistance components.

In November 1989, a meeting of the coordinating committee of the Trifinio Plan was held in Metapan (El Salvador), Esquipulas (Guatemala) and Nueva Ocotepeque (Honduras), sub-headquarters of the project. During the meeting, attended by representatives from said countries, the OAS and IICA signed an agreement for the execution of four projects for which funding had been approved. At that time, the trinational sub-committees were established, which are in charge of executing projects included in the Plan. With this, the operating stage of the Integrated Development Plan for the Trifinio Zone was launched.

During the meeting, a memorandum of understanding was signed by the representatives of the governments of El Salvador, Guatemala and Honduras and the General Secretariat of the OAS and IICA, which extends the terms of the agreement for the formulation of the Trifinio Plan, incorporating technical assistance to consolidate an organizational structure that provides advisory services and support for the execution of studies, programs and projects to integrate the countries and improve the socioeconomic situation of the Trifinio region.

In 1989, IICA joined the Foreign Trade Information Service (SICE) of the OAS, which maintains a data base on trade information on the United States market (tariffs, commodities, prices, etc.), and which is of great importance for importers and exporters from the region.

### *Pan American Health Organization (PAHO)*

During the year, relations between IICA and the Pan American Health Organization were strengthened. The Director of External Relations of the Institute attended a working meeting at PAHO headquarters in Washington, D.C. in June.

As part of agreements signed, negotiations have been held on the signing of an IICA/PAHO cooperation agreement for increasing the participation of rural women in health activities carried out through rural development policies, programs and projects in Central America. This

cooperation agreement will be signed within the framework of the current IICA/PAHO General Cooperation Agreement, and will make it possible, beginning in 1990, to carry out several activities related to health, training and information, and to formulate investment and credit projects that involve rural women.

IICA also participated as an observer in the Thirty-fourth Meeting of the PAHO Council of Directors, held in Washington, D.C. from September 25-30, 1989.

## Relations with Regional and Subregional Organizations

The following is a summary of the activities conducted in cooperation with regional and subregional organizations.

### *Amazon Cooperation Treaty (TCA)*

The Director General participated, as an observer, in the Third Meeting of Foreign Ministers of the Amazon Cooperation Treaty, held in Quito, Ecuador in March 1989. The Treaty will serve as a political framework for the Cooperative Program on Technology Generation and Transfer for the South American Tropics (PROCITROPICOS) project, drawn up by IICA under the PLANLAC.

The Treaty is a joint cooperation effort among the countries of the Amazon region, involving Bolivia, Brazil, Colombia, Ecuador, Guyana, Peru, Suriname and Venezuela.

### *Andean Development Corporation (CAF)*

In February 1989, the President of CAF and the Director General of IICA met in Caracas, Venezuela to define joint actions within the framework of the general technical cooperation agreement signed in 1988. This agreement

calls for joint studies, identification of investment opportunities, and the preparation and execution of projects in the Institute's five Program areas.

IICA also collaborated in establishing the Andean Rural Development Fund (FONADER), approved by the five presidents of the Andean Area at the meeting held in Galapagos, Ecuador in December 1989, and which will be administered by the CAF in support of technical cooperation and assistance actions undertaken by entities and organizations in charge of rural development in the member countries of the Agreement. IICA will play an important role in these tasks.

### *Board of the Cartagena Agreement*

Under the terms of the cooperation agreement signed between the Board of the Cartagena Agreement and IICA, the Plan of Joint Action for Agricultural Reactivation in the Countries of the Andean Subregion was prepared as one of the subregional components of the PLANLAC.

IICA participated in the Twelfth and Thirteenth Meetings of the Agricultural Council of the Andean Pact, held in Caracas, Venezuela, and Lima, Peru in April and September 1989, respectively, and worked with the Board of the Cartagena Agreement in obtaining the initial approval of the Plan document.

The Fiftieth Special Session of the Commission of the Board of the Cartagena Agreement, on that occasion made up of the ministers of agriculture of the Andean Pact, was held in Lima, Peru in September 1989. At that time, the Plan of Joint Action for Agricultural Reactivation and Development in the Andean Subregion was approved.

IICA also participated in a subregional technical meeting to identify areas for technical cooperation among the agricultural sectors of the Andean Group, which was held in Bogota, Colombia in February 1989. The Board of the Cartagena Agreement also participated in the Inter-Agency Advisory Meeting, convened by IICA and held in San Jose, Costa Rica in March 1989.

An IICA/Board of the Cartagena Agreement mission made a round of visits and held meetings with authorities, officials and technical experts from the five countries of the Andean Area between February and March 1989.

The Board of the Cartagena Agreement participated in the fifth meeting of the Subregional Technical Committee for Plant Protection, organized by IICA and held in Quito, Ecuador in December 1989.

With regard to the coordination of specific programs and projects carried out by the Institute and the Board of the Cartagena Agreement, mention should be made of the collaborating ties established between PROCIANDINO and the Regional Food Program of the Andean Pact (AREPA).

### *Caribbean Agricultural Research and Development Institute (CARDI)*

In February 1989, IICA signed a cooperation agreement with the Caribbean Agricultural Research and Development Institute (CARDI), through which IICA agreed to provide US\$300 000 in financial support yearly to strengthen technological research and development in the Caribbean. Steps will also be taken to promote cooperation and contacts between CARDI and other institutions of the hemisphere in order to facilitate the transfer of agricultural technology.

The following have been established as areas of cooperation: securing financial and technical resources for activities of mutual interest; executing technical cooperation projects and activities funded by third parties; transferring technology between CARDI and other agencies of the hemisphere; and including specialists from both IICA and CARDI in activities related to training, research and development.

In November, the Deputy Director General participated in the Twenty-ninth Meeting of the Board of Directors of CARDI, during which the participants reviewed progress

made in the operation of the agreement signed between the two institutions.

### *Caribbean Community (CARICOM)*

In August, the Director General of IICA met with CARICOM officials to analyze the Plan of Joint Action for Agricultural Reactivation in the Caribbean Countries, which this organization helped in large part to design.

During the year, IICA and CARICOM worked jointly to implement the Caribbean Community Plan for Agricultural Development (CCPAD). As part of the activities carried out under the Plan of Joint Action for Agricultural Reactivation in Latin America and the Caribbean (PLANLAC), IICA's initiatives in the Caribbean seek to support the CCPAD in those areas in which the Institute offers comparative advantages.

Closer ties will be fostered between Latin America and the Caribbean, especially as concerns increasing trade opportunities, providing inputs and capital for investment activities, and supporting technology development and transfer.

Other PLANLAC actions programmed for the Caribbean Area include upgrading farmers' organizations to improve agricultural production and marketing and promoting the participation of youth in the changes taking place in Caribbean agriculture and rural development. In addition, plans exist for improving the subregion's institutional capabilities connected with the production and marketing of non-traditional crops, such as fruits, vegetables and other food crops.

### *Central American Bank for Economic Integration (CABEI)*

In view of CABEI's decision to increase its actions in agriculture and agroindustry, in support of the agricultural development strategy of the countries of the region, IICA has been involved in negotiations to sign a cooperation

agreement with the Bank for the identification and formulation of specific investment programs and projects.

These actions will contribute to strengthening the pre-investment and investment activities carried out by institutions of the region and others beyond it, and will provide the Central American countries with a mechanism for identifying, preparing and implementing priority development projects and programs. The initiation of these activities is scheduled for 1990.

### *Latin American Association of Development Finance Institutions (ALIDE)*

The Seventh Latin American Meeting on Agricultural Financing was held in November 1989, at IICA Headquarters, with the collaboration of ALIDE and the Center for Latin American Monetary Studies (CEMLA). The main objective of the meeting was to study funding strategies for the Latin American agricultural sector. Among the topics discussed were the new funding requirements and mechanisms for mobilizing resources that will contribute to equitable modernization of the agricultural and agroindustrial complex.

IICA also participated, as an observer, in the Nineteenth Regular Meeting of the General Assembly of ALIDE, held in São Paulo, Brazil, in June 1989.

### *Latin American Integration Association (ALADI)*

Under the terms of the basic cooperation agreement signed by the two institutions, IICA and ALADI continued to work together in 1989.

### *Permanent Secretariat of the General Treaty on Central American Economic Integration (SIECA)*

In 1989, Letter of Understanding No. 2, signed by SIECA and IICA in December 1988, went into effect. The purpose

of the Letter was to create a joint IICA-SIECA Agricultural Unit which will serve to strengthen the Secretariat in agricultural matters and provide support to the Regional Council for Agricultural Cooperation in Central America, Mexico, Panama and the Dominican Republic (CORECA) in connection with investment projects and the analysis of agricultural policies. It will also provide technical support to the Inter-institutional Group of the Agricultural Sector (GISA), whose Secretariat is jointly managed by SIECA and CORECA.

At the end of February, the Institute participated, as an observer, in the Fifth Conference of Ministers of Foreign Affairs, "San Jose V," held in San Pedro Sula, Honduras, which was attended by the ministers of foreign affairs of the Central American countries, the European Economic Community (EEC) and the countries that make up the Contadora Group.

The joint economic communiqué, issued at the Conference by the European Economic Community (EEC) and the signatories of the General Treaty on Central American Economic Integration, indicates the interest of the parties in supporting Central American regional organizations and strengthening the economic integration process. It also declares the willingness of the European Community to help meet these objectives, through cooperation with the Central American Bank for Economic Integration (CABEI), SIECA and other subregional institutions.

Representatives from IICA and CORECA were invited by SIECA to participate in the Joint Central American Isthmus-EEC meeting, held in Brussels, Belgium in June 1989.

### *Permanent Secretariat of the Latin American Economic System (SELA)*

IICA continued to work with SELA, through the Action Committee in Support of Economic and Social Development in Central America and Panama (CADESCA), and the Action Committee for Regional Food Security (CASAR).

IICA participated in the Sixth Regular Meeting of CADESCA, held in Panama City, Panama, and the Second Special Meeting of CASAR, in Caracas, Venezuela, in March and April, respectively. It also participated in the Fourth Meeting of the Heads of the Information Offices of Cooperation and Integration Organizations of Latin America, which was held at SELA Headquarters in Caracas, Venezuela, in November 1989.

In order to increase collaboration between SELA and IICA, a general cooperation agreement was signed in February with the Permanent Secretariat of the System. This instrument will facilitate coordinated actions in benefit of both institutions, and especially the countries of the region, in connection with agroindustry, multilateral trade negotiations, technology generation and transfer to modernize agriculture, and training for the promotion and development of international agricultural trade.

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

In 1989, IICA continued to provide support to CORECA's efforts to coordinate agricultural policies and technical cooperation in Central America, with a view to strengthening subregional integration.

The technical and financial support provided by IICA focused on strengthening CORECA as a mechanism for effectively harmonizing the objectives of the governments of the subregion and those of cooperation and lending agencies operating in the area to promote agricultural development.

IICA participated in formulating the Reciprocal Technical Cooperation Program (COTER), which is being implemented with the participation of the IDB to encourage the exchange of experiences among the institutions of the agricultural sectors of the countries in priority areas of importance to the PLANLAC. In addition, IICA was responsible for imple-

menting the institutional strengthening and policy analysis program in the countries of the subregion, which aims to increase the capacity for action of the ministries of agriculture. At the invitation of the ministers of agriculture, IICA participated in designing and establishing a regional network of research programs on biotechnology, the goal of which is to take advantage of existing capacities in this field in the countries of the subregion.

Another highlight from the year was IICA's participation in the ad hoc coordination group for Central America - Central Area, whose activities included the formulation of technical projects to be presented at the meeting of cooperating countries and officials from the agricultural sectors in Central America, to be held in late 1990.

## **Relations with Agencies of the United Nations System**

During 1989, cooperative relations were promoted and furthered with the following agencies of the United Nations system:

### *International Bank for Reconstruction and Development (IBRD)*

In 1989, closer contact and working relations were developed with different units of the World Bank, especially the Economic Development Institute (EDI).

In March, in Santiago, Chile, IICA offered a course on macroeconomic and sectoral policies and agricultural development, with the collaboration of the EDI. The course examined the impact of changes in the international scene, national development strategies and sectoral macroeconomic policies for the agricultural sector.

Under the cooperative relations between the two institutions, IICA participates in the execution of the RUTA II

project, headquartered in Costa Rica, which supports the planning, identification and preparation of projects in Central America.

### *International Fund for Agricultural Development (IFAD)*

With a view to strengthening the cooperation agreement signed by IICA and IFAD, officials from both institutions agreed that IICA should serve as a cooperating institute and provide support to IFAD in preparing projects to be carried out in Central America. It was also agreed that IICA and technical experts from the Central American Bank for Economic Integration (CABEI) would evaluate a production project for small-scale farmers in El Salvador.

IICA participated in a joint mission to Paraguay which established priorities for the technical assistance programs IFAD will carry out in that country. Also, IICA and IFAD agreed to hold a seminar-workshop in 1990 on the implementation of IFAD projects in Latin America and the Caribbean, with a view to helping the countries of the region operate projects carried out with IFAD.

### *Latin American Institute of Economic and Social Planning (ILPES)*

In order to achieve greater efficiency in the design and implementation of rural development policies in Latin America and the Caribbean, IICA and ILPES signed a general cooperation agreement in September 1989.

This agreement is being carried out through studies, research and training activities, as well as through the production of printed and audiovisual materials and the holding of seminars and joint meetings.

### *United Nations Children's Fund (UNICEF)*

In April, IICA, together with UNICEF, held a seminar at the Institute's Headquarters on the participation of rural

women in the rural development of the Central American isthmus. During the seminar, the participants reviewed a project aimed at encouraging the integrated development of rural women in Central America through joint IICA/UNICEF actions.

The project's main lines of action are to train and organize rural women, create special funding mechanisms that will provide women with access to production resources, and provide pertinent training to technical personnel from government institutions and non-governmental organizations (NGOs) that work with women in rural areas.

UNICEF and IICA agreed to jointly present this project for funding to the government of Finland.

### *United Nations Development Fund for Women (UNIFEM)*

UNIFEM provided resources for the program to support small-scale farmers in northwestern and northeastern Argentina, which began in 1989. These resources will be used to promote training and the active participation of women in developing the rural community. The Program was prepared by the Secretariat of Agriculture, Livestock and Fisheries (SAGyP), and will receive technical assistance from IICA and the UNDP for the six-year duration of the project.

During the first quarter of 1989, a consultant from UNIFEM worked with IICA in matters related to rural women. IICA also received US\$100 000 from UNIFEM to execute research projects and projects that foster the participation of rural women in the development of Latin America and the Caribbean.

In September, Sharon Capeling-Alakija, Director of UNIFEM, visited IICA Headquarters, where she and the Director General studied progress being made on cooperation activities between the two institutions.



*The Director of the United Nations Development Fund for Women (UNIFEM), Sharon Capeling-Alakija, emphasized the positive results of a joint cooperation project on rural women during a visit to IICA Headquarters.*

### *United Nations Development Programme (UNDP)*

As a result of the presentation of the Special Program for Economic Cooperation for Central America (PEC) to the United Nations General Assembly in May 1988, the Administrative Council of the UNDP approved, in June of the same year, US\$20 million for promoting, coordinating, executing and following up on the actions and objectives of the PEC.

During the meeting of ministers of agriculture of Central America, Panama, the Dominican Republic and Mexico, held in July in Panama, it was agreed to request the UNDP to coordinate, together with the Secretariat of CORECA, actions related to agriculture to be carried out as part of the PEC.

Subsequently, the portfolio of projects for the Central American components of the Plan of Joint Action for Agricultural Reactivation in Latin America and the Caribbean (PLANLAC) was incorporated into the PEC. IICA and CORECA were invited to participate in the first meeting of representatives of Central American governments, their European counterparts and cooperating institutions, held in Geneva, Switzerland in July 1989. A progress report on the Plan and the priority projects approved by the ministers of agriculture of CORECA were presented during the meeting.

In October, the ministers and vice ministers in charge of the PEC met with the ministers of agriculture of the subregion, at which time they agreed to convene a meeting, in September 1990, of officials from the agricultural sector of Central America and cooperating countries and agencies.

To date, the most important project approved under the PEC in the area of agricultural development has been the RUTA II project (Technical Assistance for Agricultural Development in Central America), the objective of which is to generate fundable projects related to macroeconomic and sectoral policies for structural adjustment in the region. Participants in the project include the UNDP, the International Fund for Agricultural Development (IFAD), the World Bank, the government of Japan and IICA.

### *United Nations Food and Agriculture Organization (FAO)*

IICA continued to work with FAO to strengthen cooperative and complementary activities in areas of common interest, and in the preparation of the Plan of Joint Action

for Agricultural Reactivation in Latin America and the Caribbean (PLANLAC), which required a broad-based process of consultation. The Institute also participated in a FAO mission in support of the government of Mexico's development of the Six-year Agricultural Modernization Program.

In April, IICA and FAO signed a letter of understanding which provides for the IICA-Radio Nederland project and FAO to carry out joint communications training activities in Nicaragua.

IICA participated in the twenty-fifth session of the FAO Conference, held in Rome, Italy in November 1989.

### *United Nations International Research and Training Institute for Women (INSTRAW)*

The Director of INSTRAW, Dunja Pastizzi, visited the Institute and discussed with the Director General the possibility of establishing joint cooperation activities related to rural women.

During the meeting, several matters of interest to both institutions were reviewed and it was agreed that close contact would be maintained in order to define more specifically the cooperation actions to be carried out in coming years.

### *Regional Employment Program for Latin America and the Caribbean (PREALC)*

A General Cooperation Agreement was signed with PREALC in December, the goal of which is to contribute to execute rural development policies which will boost employment in Latin America and the Caribbean.

In this legal instrument, PREALC and IICA agreed to provide mutual support in conducting studies, through direct advisory services, training, publications, audiovisual and other communications materials, and other technical cooperation actions in areas of mutual interest.

## **Relations with other Institutions**

IICA maintains relations with other organizations, which typically take the form of cooperation and complementary actions.

Considering the broad scope of Institute activities, its inter-governmental nature, its Offices, Programs and institutional linkages in all its member countries in Latin America and the Caribbean, IICA has an operational base that enables it to combine and complement resources and efforts with other agencies with similar interests and objectives. An example is the support the International Wheat and Maize Improvement Center (CIMMYT) provided to the Cooperative Program for Agricultural Research in the Southern Cone (PROCISUR) and to the Cooperative Program for Agricultural Research in the Andean Subregion (PROCIANDINO) in 1989, both of which are executed by IICA with financial support from the IDB. Similarly, the International Center for Tropical Agriculture (CIAT) and the International Potato Center (CIP) also cooperated with PROCIANDINO.

IICA grants Associate International Personnel status to specialists from international organizations that participate in joint programs and projects, and whose field offices are located in the IICA Offices in its member countries.

Under this particular relationship of cooperation and integration, both CIMMYT and CIAT have established the offices of their regional programs at IICA Headquarters.

## **Relations with Governments and Institutions of Observer and Donor Countries**

### *European Economic Community (EEC)*

In April, an agreement was signed with representatives of the European Economic Community for almost US\$12



million in funding for the regional program on strengthening agronomic research on basic grains in Central America, to be administered by IICA. The objective of this four-year program is to upgrade the efficiency of institutions involved in research and the transfer of agricultural technology.

This initiative will work to redirect the efforts of national research systems, placing emphasis on agronomic research, on regional coordination among research institutions, and on linking them with transfer systems to speed up the adoption of technology.

In December, a meeting was held with the vice ministers of agriculture of Central America, with a view to taking the steps necessary to set the project into motion.

### ***Federal Republic of Germany***

In 1989, IICA continued to work with the West German Agency for Technical Cooperation (GTZ). The German Government agreed to contribute US\$1 million, which will be used to execute different technical cooperation projects covered by the PLANLAC. It was agreed that priority would be given to the subjects of small-scale farmers, natural resources, rural women, training and technical assistance. Implementation of the cooperation actions resulting from the General Agreement will begin in 1990.

### ***Finland***

In October 1989, IICA and UNICEF submitted a multinational project to increase the participation of rural women in the socioeconomic development of the Central American isthmus to the government of Finland for funding. This five-year project will also receive funding from the IICA-RNTC Agreement, UNICEF and the participating governments. At the present time, the project is under study by Finland.



*The Federal Republic of Germany has expressed its interest in supporting agricultural reactivation, through IICA, in Latin America and the Caribbean. A German mission made up of representatives of the German Agency for Technical Cooperation (GTZ) discussed future joint efforts during a visit to IICA Headquarters.*

### ***France***

In 1989, France continued to collaborate with the Cooperative Program for the Protection and Modernization of Coffee Cultivation in Mexico, Central America, Panama and the Dominican Republic (PROMECAFE), under the terms of the cooperation agreement between IICA and the Coffee and Cocoa Research Institute (IICC) of the Center for International Cooperation in Agricultural Research for Development (CIRAD).

Also during 1989, an expert from France continued to provide support to IICA's Marketing and Agroindustry Program.

In late March, an official mission by the Directorate of External Relations of IICA visited France, where meetings were held with representatives of the Ministries of Foreign Relations and of Agriculture, which coordinate France's cooperation with Latin America and the Caribbean. The objective of these meetings was to analyze possible areas for joint cooperation and to continue negotiations on technology transfer projects for developing fruit crops in the eastern Caribbean, an agricultural project included in the PLANLAC.

- *Center for International Cooperation in Agricultural Research for Development (CIRAD)*

In July 1989, IICA and CIRAD of France signed a technical cooperation agreement designed to contribute to improving agriculture and rural development in Latin America and the Caribbean.

The agreement will be carried out through the Institute's five Programs: Agricultural Policy Analysis and Planning, Technology Generation and Transfer; Organization and Management of Rural Development, Marketing and Agroindustry, and Animal Health and Plant Protection.

### *Italy*

Meetings were held with Italian authorities in which interest was expressed in including in the PLANLAC some of the bilateral agricultural agreements already being executed by Italy in Latin America. A meeting between representatives of the Italian government and IICA is scheduled for the first semester of 1990.

### *Japan*

Negotiations undertaken by the official IICA mission to Japan in 1988 resulted in the government's assigning two

specialists to work with IICA on technical cooperation projects and agricultural investment projects. They joined the Institute in early 1989, and were assigned to the Center for Investment Projects (CEPI).

### *Kingdom of the Netherlands*

The Ministry of Cooperation for Development of the Kingdom of the Netherlands agreed to assign a specialist in the area of economic analysis to the Institute during the last quarter of 1989.

The Director of External Relations visited the Hague in November 1989, where he met with senior officials of the Ministries of Foreign Relations and of Cooperation for Development. In conversations with the officials, he proposed a three-year extension, beginning in 1990, of the rural communications project IICA is executing with Radio Nederland, which was approved.

Also discussed were ways the Kingdom of the Netherlands can participate in the execution of the PLANLAC, some of which will be implemented in 1990. Progress was made with senior authorities from the Institute for Social Studies (ISS) on an agreement calling for high-level joint seminars with representatives of European countries to analyze issues related to the implementation of the PLANLAC.

- *Radio Nederland Training Center (RNTC)*

The project on communications applied to education and rural development in Latin America and the Caribbean continued under the technical cooperation agreement signed in 1987 by IICA and the Radio Nederland Training Centre (RNTC), of the Kingdom of the Netherlands.

In 1989, nine international courses lasting a total of 47 weeks were held and attended by 103 representatives of

*Felix Clercx, Dutch technical specialist, monitors a radio recording session with Jose Perez, Head of the IICA/RNTC Project, in the studio constructed by the Project at IICA Headquarters.*



*In 1989, more than 100 participants were trained in techniques appropriate for rural communications; here, the Director General of RNTC, Jaap Swart; the Head of the IICA/RNTC Project, Jose Perez; the Ambassador of the Kingdom of the Netherlands for Central America, Jan Wilhem Bertens; and IICA's Director of External Affairs, Jorge Werthein.*

governmental and non-governmental organizations in the region. Nine national workshops, attended by 160 people and lasting an average of two weeks, were held in Costa Rica, Honduras, Nicaragua and El Salvador, in conjunction with the ministries of agriculture of these countries, or with regional programs such as PROMECAFE.

During the year, special emphasis has been given to producing radio programs related to agricultural topics. So far, production includes 24 dramatized chapters on the use of pesticides, 40 episodes on coffee cultivation

and 84 talks in three different series on beekeeping, cooperatives and sugar cane cultivation. In support of efforts aimed at dissemination, eight one-week workshops were offered to 142 journalists and representatives of the mass media from Central America.

In the area of research, two studies were undertaken to determine the current situation in Central America with regard to radio and to the materials the radio stations have at their disposal on educational topics and for specific audiences, such as rural women.

### *Norway*

An official IICA mission visited Norway in March to further talks aimed at establishing areas in which its government can support Institute activities. Possibilities for joint efforts with rural women were identified. The agreements are expected to be signed in 1990.

### *Republic of Korea*

The Institute continued its discussions with Korean authorities regarding possibilities for cooperation and submitted a proposal for joint efforts, which is under consideration by the Korean government. This proposal includes a request for a specialist in agricultural economics, to be assigned to the Center for Investment Projects (CEPI).

### *Spain*

In 1989, the government of Spain increased its technical cooperation to IICA through the Ibero-American Cooperation Institute (ICI). The participation of seven young Spanish technicians in projects IICA is carrying out in its member countries was financed by ICI, a significant



*The Director General of IICA, Martin E. Piñeiro, and Jorge Werthein, Director of External Relations, as part of a mission to Asiatic countries, met with high-level authorities of the government of Korea to analyze prospects for new cooperative efforts.*

contribution of external resources from Spain. The Spanish technicians are working in Argentina, Bolivia, Chile, Ecuador, Peru and Uruguay.

IICA and the Spanish "Commission of the Quincentennial of the Discovery of America: Encounter of Two Worlds" agreed to sponsor a painting contest on the subject of rural development for artists from Latin America and the Caribbean, and carry out other activities in 1990 to commemorate this important event.

Institute staff made an official visit to Spain to review and program different activities to be carried out jointly with the Ministry of Agriculture, Fisheries and Food, and to discuss Spain's participation in the execution of the Plan of Joint Action for Agricultural Reactivation in Latin America and the Caribbean (PLANLAC).

Special mention should be made of Spain's assigning an expert to a project on the demand and marketing channels for new Latin American and Caribbean products of possible interest to the European market, a facet of the PLANLAC activities.

Also, agreement was reached with representatives of the Spanish International Cooperation Agency (AECI) on the signing of a letter of understanding for the coordination of all activities to be undertaken jointly by the Agency and IICA. The letter, to be signed in early 1990, will contain biannual work plans.

The process of selecting projects for Central America, to be included in the United Nations Special Program for Economic Cooperation for Central America (PEC), was also discussed with the AECI.



*Spain will be the site of the Tenth Inter-American Conference of Ministers of Agriculture (ICMA) in 1991. Spain's Ambassador to Costa Rica, Alfonso Ortiz, presented the formal offer to host the Tenth ICMA during the Fifth Regular Meeting of the Inter-American Board of Agriculture.*

## Sweden

In July 1989, two agreements were signed between the Swedish International Development Authority (SIDA) and IICA. Under these agreements, SIDA funds training projects in mass and group communications techniques for governmental and private organizations working with rural women in Central America, and the formulation of agricultural development strategies in the countries of Central America. Both projects began operations during the second half of the year.

The Swedish Agency for Research Cooperation with Developing Countries (SAREC) approved funding for a project on applied research on structural adjustment programs for agriculture in Latin America and the Caribbean, which supports countries where this type of loan will be applied. SAREC and IICA signed an agreement in October 1989 to put the project into action.

In November 1989, the Director of External Relations visited Sweden, where he met with high-level governmental officials in charge of technical cooperation. Discussions focused on studying and outlining a cooperation policy with IICA, especially with regard to Central America and in connection with the conservation of natural resources and sustainable agricultural development.

## Legal Instruments

The actions undertaken to put into practice the relations described in this Chapter took place under the terms of agreements, contracts, letters of understanding and other binding legal instruments which govern the cooperative relations and specific projects agreed upon by IICA and international organizations, different government entities (mainly the ministries of agriculture) and related institutions of the agricultural sector of the member countries. In general, these relations include funding for the technical cooperation projects to upgrade the Institute's regular activities on behalf of its Member States. At the end of this Chapter is a table of the legal instruments registered in 1989.

## IICA: Crossroads of the Hemisphere

IICA Headquarters has served as the venue for numerous special events which have fostered and improved dialogue between countries and agencies of the Americas, as well as specifically contributing to the Central American peace process. On the occasion of the hemispheric summit convoked by Costa Rican President Oscar Arias, attended by 16 heads of state, Argentinian President Carlos Menem made a special visit to IICA, during which he described the Institute as the "Home of Agriculture in the Americas."

In December, IICA Headquarters hosted an historic meeting of Central American presidents, during which important steps toward peace in the isthmus were taken. Presidents Vinicio Cerezo of Guatemala, Alfredo Cristiani of El Salvador, José Azcona of Honduras, Daniel Ortega of Nicaragua, and Oscar Arias of Costa Rica took part in the meeting.



*Above: The Director General greets the Central American presidents (from left, Jose Azcona of Honduras; Alfredo Cristiani of El Salvador; Oscar Arias of Costa Rica; Vinicio Cerezo of Guatemala; Daniel Ortega of Nicaragua) at the inaugural session of their meeting at IICA Headquarters. Right: Carlos Menem, President of Argentina.*

## Agreements, Contracts and Letters of Understanding Filed by the Legal Advisory Office, Headquarters, 1989

### Beneficiary Member States

Argentina	9
Bolivia	2
Brazil	41
Chile	3
Colombia	18
Costa Rica	13
Dominica	1
Dominican Republic	1
Ecuador	4
El Salvador	1
Guatemala	4
Guyana	1
Haiti	1
Jamaica	1
Paraguay	2
Peru	2
Saint Vincent and the Grenadines	1
Uruguay	6
Venezuela	2

**Subtotal** 113

### Inter-American System

General Secretariat of the Organization of American States (OAS)	•
Inter-American Development Bank (IDB)	••

### Regional and Subregional Agencies

Latin American Integration Association (ALADI)	•
Permanent Secretariat of the General Treaty for Central American Economic Integration (SIECA)	•
Latin American Economic System (SELA)	•
Latin American and Caribbean Institute for Economic and Social Planning (ILPES)	•

### Multinational

Cooperative Program for the Protection and Modernization of Coffee Cultivation in Mexico, Central America, Panama and the Dominican Republic (PROMECAFE)	•••
Regional Project for Agricultural Technology Networks	•
Regional Technical Assistance Project for Agricultural Development in Central America	•
Mobilization of Agricultural Technology to Face Challenges in Central America	•
Strengthening of Farmer Associations and Cooperatives in the Eastern Caribbean	•
Training and Study Program on Agrarian Reform and Rural Development for the Central American Isthmus and the Dominican Republic (PRACA)	•
Research Network on Animal Production Systems in Latin America (RISPAL)	•

### United Nations System

United Nations Development Fund for Women (UNIFEM)	•
--	---

### International Centers

Center of International Cooperation in Agricultural Research for Development (CIRAD)	•
International Development Research Center (IDRC)	•

### Special Scientific and Educational Organizations

Care International	•
Iowa State University (USA)	•
Caribbean Agricultural Research and Development Institute (CARDI)	••
Economic Research Service of the United States Department of Agriculture (ERS-USDA)	•
Museum of Costa Rican Art (Costa Rica)	•
La Crujia Educational Communications Center (Argentina)	•
University of Florida	•

### Observer and Donor Countries

Ibero-American Cooperation Institute (ICI), Spain	•
European Economic Community (EEC)	•
Swedish International Development Authority (SIDA)	••
Swedish Agency for Research Cooperation with Developing Countries (SAREC)	•

**Total**

145



## Chapter 5

*The PLANLAC was approved during the Fifth Regular Meeting of the Inter-American Board of Agriculture, held at IICA Headquarters in October 1989, and was the highlight of Institute activities that year. Present during the opening ceremony were: Martin E. Pifeiro, Director General of IICA; José María Figueres, Minister of Agriculture and Livestock of Costa Rica; Oscar Arias, President of the Republic of Costa Rica; Murray Cardiff, M.P., Parliamentary Secretary to the Minister of Agriculture of Canada; Rodrigo Madrigal Nieto, Minister of Foreign Affairs of Costa Rica; and J. André Ouellette, Technical Secretary of the Meeting.*



# Institutional Structure, Human Resources and Finances

## The Executive Committee

The Executive Committee held its Ninth Regular Meeting from June 12-16 at IICA Headquarters in San Jose, Costa Rica. As provided for in its rules of procedure, the main purpose of the meeting was to prepare the Fifth Regular Meeting of the Inter-American Board of Agriculture (IABA), the Institute's highest governing body. During 1989, the Committee was made up of: Argentina, Barbados, Colombia, Costa Rica, the Dominican Republic, Ecuador, El Salvador, Grenada, Mexico, Paraguay, Trinidad and Tobago, and the United States of America. The following 12 Member States also participated in the meeting: Antigua and Barbuda, Bolivia, Canada, Chile, Dominica, Haiti, Honduras, Jamaica, Nicaragua, Panama, Uruguay and Venezuela. Representatives of the following Permanent Observer Countries were present: the Federal Republic of Germany, France, Israel, Japan, the Republic of Korea and Spain. Eighteen international organizations also attended.

The Minister of Agriculture and Livestock of Costa Rica, Mr. Jose Maria Figueres, was elected to preside over the meeting, and Ms. Mary Quinlan, of the United States' delegation, served as rapporteur.

The Director General of IICA, Dr. Martin E. Piñeiro, presented to the Committee the reports called for in the rules of procedure of the Institute, as well as various proposals to be included on the agenda of the IABA meeting.

*The Convention on the Institute establishes three executive bodies for IICA: the Inter-American Board of Agriculture, the Executive Committee and the General Directorate. It also provides that the responsibility of the will be under the General, who legally represents the Institute and is responsible for administering the General Directorate.*

## The Inter-American Board of Agriculture (IABA)

The Inter-American Board of Agriculture (IABA) is the highest governing body of the Institute and consists of IICA's 31 Member States, generally represented by their ministers of agriculture, secretaries of agriculture, or senior government officials of the agricultural sector. The IABA meets regularly every two years, and its responsibilities include providing policy guidelines for the General Directorate, approving the two-year Program-Budget, and electing or removing the Director General of the Institute.

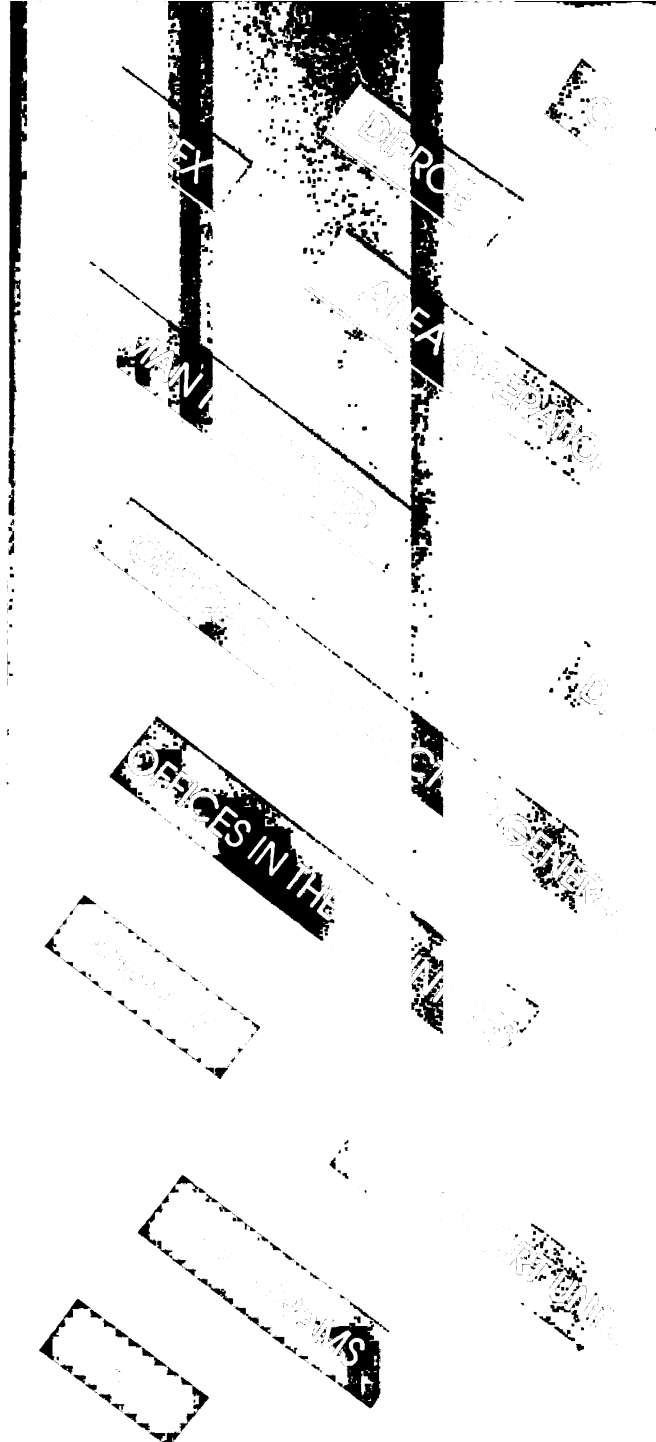
During 1989, the IABA held its Fifth Regular Meeting at IICA Headquarters in Coronado, Costa Rica. It was attended by some 200 people, including representatives from all its Member States, 26 of whom were ministers or vice ministers of agriculture; eight delegates from Permanent Observer Countries and 18 representatives from organizations belonging to the inter-American and United Nations Systems, as well as other international organizations.

The meeting was presided over by the Minister of Agriculture and Livestock of Costa Rica, Mr. Jose Maria Figueres. The inaugural session was attended by the President of Costa Rica, Dr. Oscar Arias; the Director General of IICA, Dr. Martin E. Piñeiro; Mr. Murray Cardiff, Parliamentary Secretary to the Minister of Agriculture of Canada, which hosted the Fourth Regular Meeting of the IABA; and the Minister of External Relations of Costa Rica, Rodrigo Madrigal Nieto. Mr. Pedro Olmos, Deputy Director General of the Ministry of Livestock, Agriculture and Fisheries of Uruguay and alternate delegate from that country, was elected rapporteur for the meeting.

Dr. Piñeiro reviewed the Institute's activities during the 1985-1989 period and presented an overview of IICA's situation at the conclusion of his term of office. The Director General indicated that, during that period, the Institute had been modernized and had adapted to the changes occurring in the agricultural sector of the hemisphere.

In the second plenary session, Dr. Martin E. Piñeiro was elected by acclamation to a second term of office for the 1990-1994 period.

As mentioned in Chapter 1 of this Annual Report, one of the most important items on the agenda was the Plan of Joint Action for Agricultural Reactivation in Latin America and the Caribbean (PLANLAC), which the Director General submitted to the consideration of the participants in the Fifth Regular Meeting of the IABA. Following discussion by the delegations, the PLANLAC was unanimously approved, together with a series of resolutions that set forth clear guidelines for the Director General's mandate in regard to this important undertaking.



The IABA also approved the proposed Program-Budget, as submitted by the Director General. The IICA budget for the 1990-1991 period includes a 3% annual increase over the preceding period, which will make it possible to strengthen the projects of the PLANLAC and to compensate for inflation.

The agenda for the Meeting also included amendments to the Rules of Procedure of the IABA, the Executive Committee, the General Directorate, and other rules of the Institute, as well as a series of proposals presented by the Director General on various aspects of institutional relevance.

The Board accepted with great satisfaction the generous offer by the Government of Spain to host the Sixth Regular Meeting of the IABA, and the Tenth Inter-American Conference of Ministers of Agriculture (ICMA), which will be held concurrently in 1991.

Worth mention also is the fact that, during its four-day meeting, the IABA approved a total of 34 resolutions. The report of the Meeting was published in the IICA Official Documents Series, in the four official languages of the Institute.

## The General Directorate

### Adjustments to the Management Structure

As a result of the Board's approval of the PLANLAC, and in order to increase the efficiency of the Institute, it was decided to make several changes in the organizational and management structure of the Institute, without altering substantially the existing basic organizational chart.

First, the Director General broadened the scope of the Inter-American Agricultural Documentation and Information Center (CIDIA) to include the coordination and implementation of Institute policies on dissemination of information. The Communications Division, which was previously

under the Directorate of External Relations, and the Editorial Service, formerly under the Directorate for the Coordination of Institutional Affairs (DICA), were incorporated into CIDIA. The new CIDIA is now made up of the Communications Division, the Editorial Service, the Division of Documentary Information and Distribution, and the Headquarters' Print Shop. In this way, all activities related to the dissemination of information, and particularly that information related to the PLANLAC, were brought under a single administrative unit, as recommended by the IABA during its Fifth Regular Meeting.

In late 1989, the Center for Investment Projects (CEPI) became the Center for Investment Programs and Projects (CEPPI), whose functions now include advising the Director General and other IICA units with regard to all aspects of technical cooperation related to agricultural sector programs and investments. It also provides advisory services on technical and operating relations with national and international funding organizations.

One of the underlying reasons for the redefinition of CEPI's tasks was IICA's conviction that investment funding for agriculture, combined with the technical cooperation it offers, will enable it to act more effectively at the country level.

The allocation of resources for financing and executing development projects and programs in the context of agricultural preinvestment represents an important challenge for IICA. To face this challenge, the Institute must adjust its operations in order to tend to the needs of the countries in this field in an appropriate and timely manner, and to coordinate its actions efficiently.

The new CEPPI will also direct and administer the execution of projects and legal instruments to carry out hemispheric and multinational technical cooperation activities related to agricultural investments and sectoral programs. It will develop and adapt methodologies for use in preparing sectoral diagnoses which will serve as the basis for formulating IICA's strategy of action in each of its Member States.

This Center will also provide technical support to IICA's Member States and other IICA units in the identification, preparation, administration and evaluation of investment projects, and related training activities. Finally, CEPPI will be responsible for organizing, executing and participating in training events connected with sectoral programs and investments in the agricultural sector, and for funding of the same.

The Directorate of Programming and Evaluation (DIPROE) has added the new Division of Technical Cooperation Strategies and Projects, the objectives of which are to support and coordinate the preparation of IICA action strategies at the regional and country levels. These serve as the basis for internal programming, as well as of the processes to identify and prepare technical cooperation projects. The Division will also coordinate and ensure consistency between regional and country-level strategies by formulating new technical cooperation projects, and will participate in the preparation and study of proposals for institutional development and internal organization.

Another significant change that took place at the end of 1989 was the creation of the Dissemination and External Funding Committee, which rounds out the internal committees needed for the decision-making process in the General Directorate. The objective of this Committee is to facilitate consensus on dissemination strategies and actions for IICA as a whole, and for the PLANLAC in particular. It also defines the strategies to be taken in securing external resources to support the execution of PLANLAC projects.

## Headquarters

The organizational chart of the Institute, which is presented in this Chapter, did not undergo any significant changes in 1989. IICA Headquarters was made up of the Office of the Director General, the Deputy Director General, the Advisors and the Unit of Internal Audit; IICA's

management support units, which come directly under the Director General and include the Directorates of External Relations, Human Resources and Finances, and the Directorate for the Coordination of Institutional Affairs (DICA). The latter serves as the Technical Secretariat of the Inter-American Board of Agriculture (IABA) and of the Executive Committee. It also provides support for the meetings sponsored by the Institute, and manages the Language Services Unit.

The Directorates of the Institute's five Programs are responsible for developing conceptual guidelines and working methods to govern the different areas of concentration of each Program. They cooperate with the countries in identifying and analyzing problems; set priorities and implement solutions; and identify, design and implement multinational technical cooperation in their respective areas of expertise. The five Program Directors, stationed at Headquarters, report to the Director General.

### *The Center for Investment Projects (CEPI)*

At the end of 1989, CEPI underwent a process of adjustment in order to better equip it to meet the needs generated by the Plan of Joint Action for Agricultural Reactivation in Latin America and the Caribbean (PLANLAC), and those that may result from strengthening IICA and its new role in the modernization and reactivation of the agricultural sector of the region.

To this end, and pursuant to the guidelines set forth by the Office of the Director General, CEPI became known as the Center for Investment Programs and Projects (CEPPI). From an organizational point of view, CEPPI comes under the Office of the Director General.

During the year, technical cooperation to identify, prepare and evaluate projects was related to the following principal areas of action: support to the Plan of Joint Action for Agricultural Reactivation in Latin America and the Caribbean (PLANLAC); the execution of the IICA/IDB

agreement for project preparation; and advisory services to IICA units and national agencies in project identification, preparation and evaluation.

Within the framework of the PLANLAC, CEPI coordinated and supervised the preparation of approximately 30 of a total of 71 projects. It also provided support in the selection of the proposals for action to be included in the Plan of Action; in the control and selection of the official list of projects; and in the preparation of documents published by the office of the PLANLAC coordinator.

As part of the IICA/IDB agreement, six disbursement requests were prepared and submitted to the Bank. A feasibility study was made of the General Agricultural Credit Project for the modernization of the fisheries sector of Argentina and another for a project to provide support to agricultural services in The Bahamas.

The Center prepared several prefeasibility studies, project profiles and technical-economic proposals for the execution of technical components of cooperation projects, in support of Institute units and its Offices in the countries.

With regard to training in the identification, preparation and evaluation of agricultural projects, CEPI concentrated its efforts on two related fields: the organization, execution of and participation in training events; and the preparation of teaching materials. CEPI also held several in-house seminars on topics related to the design and preparation of agricultural projects.

Since CEPI is a technical support unit, it places special importance on the study, adaptation and design of methods to be used in the different phases of the project cycle.

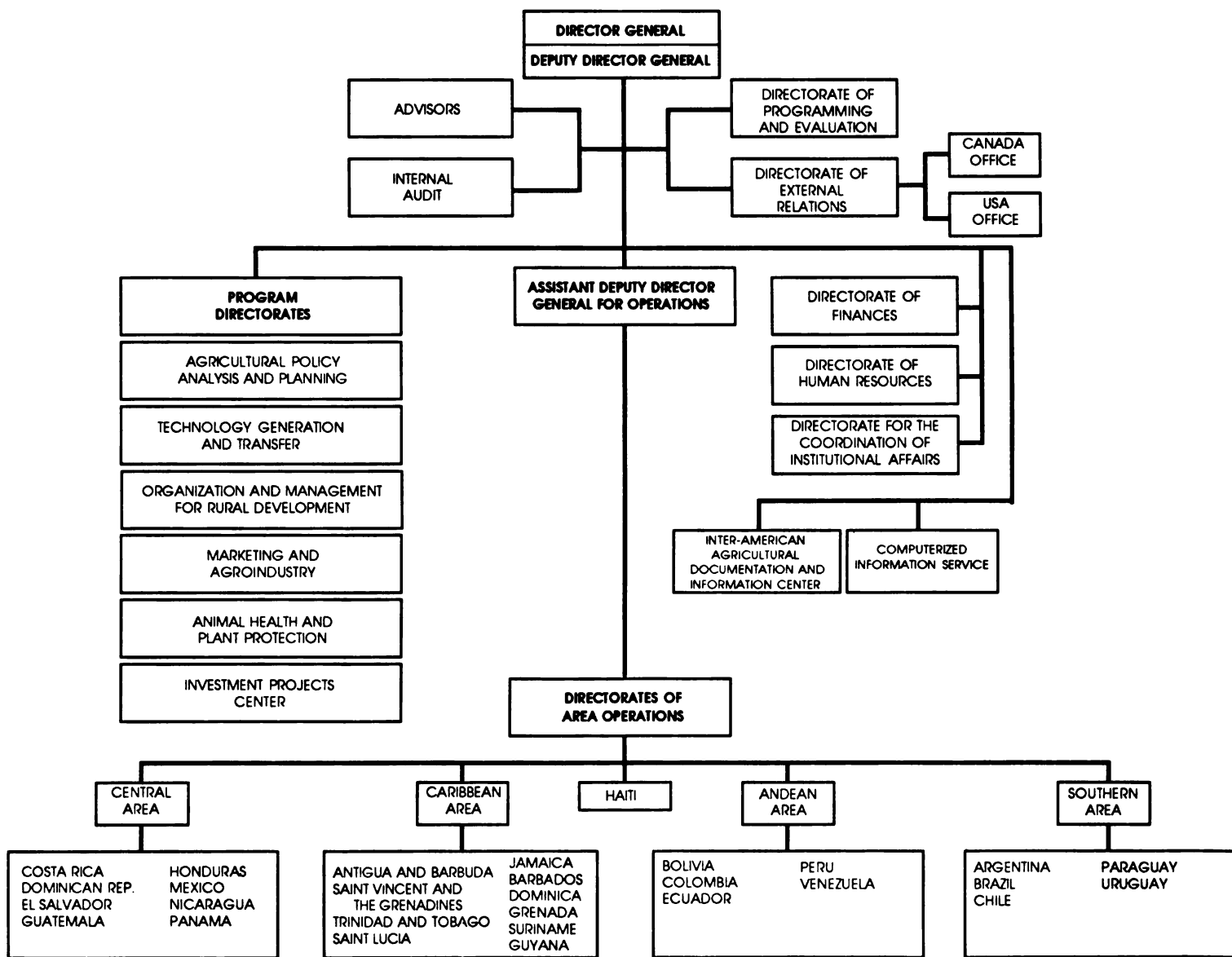
As part of these activities, the Center developed the Agricultural Project Formulation and Analysis Program (FAPRO). The purpose of this Program is to enable CEPI to provide project specialists with more complete tools for designing and evaluating agricultural and livestock projects. FAPRO is currently being validated.



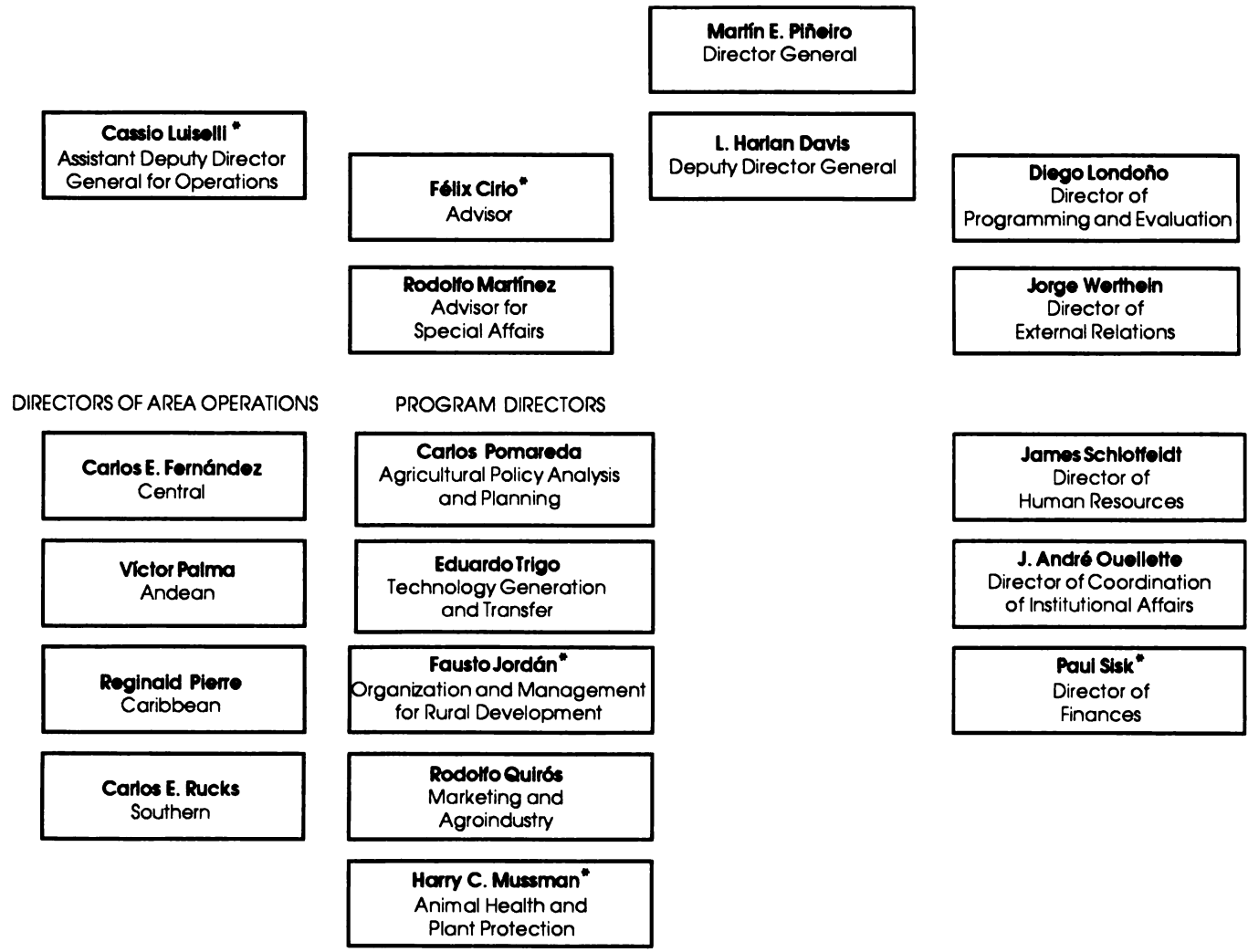
*Above: François Boucher (French Technical Cooperation), an agroindustrial specialist in Program IV. Below: Kurashiro Izumi and Hiroshi Kidono, Japanese cooperants specialized in investment and technical cooperation projects, based in CEPPI.*



ORGANIZATIONAL CHART OF THE INTER-AMERICAN INSTITUTE FOR COOPERATION ON AGRICULTURE (1989)



MANAGEMENT STRUCTURE OF THE INTER-AMERICAN INSTITUTE FOR COOPERATION ON AGRICULTURE (1989)



\* During the first months of 1990, the following staff members assumed their posts: Alfonso Cebrenos (Assistant Deputy Director General for Operations); Manuel Otero (Advisor to the Director General); Manuel O. Chiriboga (Director of the Organization and Management for Rural Development Program); Gordon Malr (Director of Finances); Jerry Fowler (Director of the Animal Health and Plant Protection Program).

## *The Inter-American Agricultural Documentation and Information Center (CIDIA)*

In 1989, CIDIA increased the services it provides to the Programs, increasing substantially the amount of information it made available to IICA's technical personnel and, through the Programs, to national technical staff of institutions in the member countries involved in research, technology transfer, planning and education.

In 1989, in coordination with the Programs, CIDIA published numerous bibliographies, including the following quarterly bulletins: ICAPPA – Bibliographic Service on Research and Training in Agricultural Policy Analysis (Program I); ORADIA – Bibliographic Information Service on Organization and Management of Agricultural Research (Program II), containing descriptors and key words in separate Spanish and English editions; DESARURAL – Bibliographic Service on Organization and Management for Rural Development (Program III); AGR-Y-COM – Bibliographic Service for Agroindustry and Marketing (Program IV); and Animal Health and Plant Protection (two separate publications) (Program V). All told, CIDIA publishes and distributes throughout the hemisphere 2 000 copies of these quarterly bulletins of documentary information.

With regard to specific products, CIDIA, together with Cooperative Program for the Protection and Modernization of Coffee Cultivation in Central America, Mexico, Panama and the Dominican Republic (PROMECAFE) and Regional Network for Cacao Technology Generation and Transfer (PROCACAO), publishes the REDCAFE and CACAO bibliographic bulletins which are distributed throughout Central America, the Caribbean, and the tropical zone of South America.

CIDIA also publishes a compendium of abstracts of IICA's contributions to agricultural literature. It is the only bulletin of its kind in Latin America, and offers the countries complete references on the papers produced by the Institute. This information is incorporated into AGRIS, a worldwide information system coordinated by FAO.

Institutional efforts in the area of documentary and bibliographic information are carried out by a technical staff and involve the creation, updating and maintenance of institutional and subject-specific data bases and the production of high-quality, up-to-date materials for broad dissemination.

The major change affecting CIDIA has been in the focus given to the Center's operations. Whereas emphasis was formerly placed on the accumulation of documentary information, the current priority is giving a more selective treatment to that information. The aim is to use the resources in libraries and data bases to provide "active" information to people who can make real use of it.

CIDIA maintains contacts and exchanges information with hemispheric information networks such as RIALIDE, under the Latin American Association of Development Finance Institutions (ALIDE); REDUC, in the field of education; CESPAL, in areas of economics and population; REPIDISCA, in the field of environmental health.

These services, together with the preparation of more and better products and the distribution of these products to increasingly broader segments of the population, are based on real demand, and provide IICA and national technical personnel with the documentary information support they need.

### *Editorial Service*

At the end of 1989, the Editorial Service became one of the divisions of the Inter-American Agricultural Documentation and Information Center (CIDIA).

IICA's publications reflect the orientation, goals and activities of the Institute, in accordance with the current Medium Term Plan and the resolutions approved by the Inter-American Board of Agriculture at its biennial meetings.

During the year, the Editorial Service focused its efforts on the publication of works directly linked to IICA technical cooperation actions and those that describe priorities for



the coming years, especially in relation to the Plan of Joint Action for Agricultural Reactivation in Latin America and the Caribbean (PLANLAC). One high point in this process was the publication of a very attractively presented Principal Document, which summarizes 14 studies (also published individually in 1989) related to the subject/geographic areas of the Plan of Joint Action.

In cooperation with IICA's five Programs, eight high-quality technical monographs relevant to the PLANLAC were published as part of the Program Papers Series.

*Turrialba*: The Inter-American Journal of Agricultural Sciences will soon celebrate its fortieth anniversary. Two special issues, one on coffee and the other on cacao, were published this year. Also, six books, ranging from 120 to 700 pages in length and with a press run of 2 000 to 3 000 copies, were published as part of IICA's Educational Books and Materials and Research and Development collections.

In 1989, more than 10 000 copies of Editorial Service publications were distributed to the IICA Offices in the countries, to subscribers, to international agencies, and to 180 depository libraries around the world.

### ***Computerized Information Service***

Over recent years, IICA's management system has undergone radical changes, thanks to the use of computerized information systems. IICA's Computerized Information Service has provided considerable support to the Institute Units, particularly at Headquarters, thus making it possible to increase the Institute's output.

In 1989, a new computerized system was implemented to prepare the plans of operation for all of the Institute's units. This system, in addition to allowing for a more rapid distribution of these plans of operation, also makes it possible for approved plans of operation to be included semi-automatically into IICA's accounting system, thus notably reducing the work load.



***Lystra Fletcher, from Trinidad and Tobago, is participating in the Junior Professional Programme at IICA Headquarters.***

Together with the development and maintenance of specific systems for particular units of Headquarters, the Computerized Information Service also offered training courses for IICA personnel.

It collaborated with the Directorate for the Coordination of Institutional Affairs (DICA) by developing a word processing system for the four official languages of the Institute, for use by the translators working at the Fifth Regular Meeting of the Inter-American Board of Agriculture (IABA). Likewise, it assisted the Inter-American Agricultural Documentation and Information Center (CIDIA) in restructuring the Institute's bibliographic data base.

### **The Office of the Assistant Deputy Director General for Operations**

The Office of the Assistant Deputy Director General for Operations is the unit responsible for directing and

supervising the activities of the Directorates of Area Operations and, through them, the actions of IICA's Offices in the countries, except those in Canada and the United States.

The Directorates of Area Operations (Central, Caribbean, Andean and Southern) are the principal means of supervising and following up on Institute operations.

In accordance with the objectives of the Plan of Joint Action for Agricultural Reactivation in Latin America and the Caribbean (PLANLAC), and with the intention of increasing regional integration, the actions of the Directors of Area Operations were aimed primarily at promoting horizontal cooperation among the countries of each Area, with a view to increasing complementarity and making better use of the human and financial resources available to the countries.

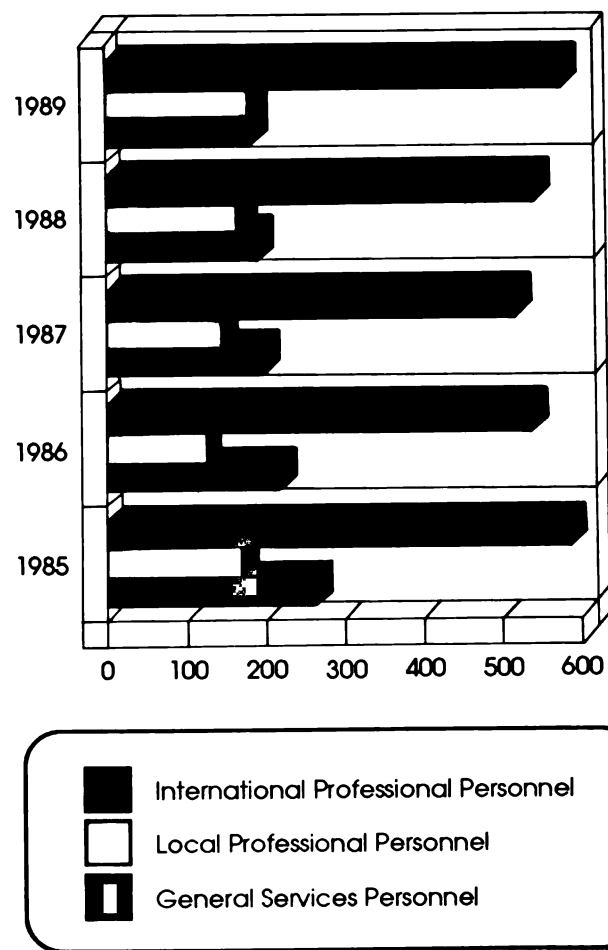
In light of IICA's capacity for technical-scientific brokerage, joint actions were promoted among countries, especially in the fields of technology, disease control, production and trade complementarity. Participation in such actions by pertinent agencies of the Areas was encouraged.

Also promoted was the development of multinational technical cooperation projects, especially those that can be financed by other institutions, by identifying problems of regional scope. The design and execution of such projects was supported through collaboration with the pertinent Program Directors and Representatives.

## Human Resources

In recognizing that human resources planning and development is a critical aspect of management in the Institute and, in its continued efforts to meet the goals established in the Medium Term Plan, the Directorate of Human Resources placed special emphasis on working with the Programming Committee, the Coordinating Committee for Operations and the Administrative Committee to link other resource planning with that of human resources.

Figure 1 Distribution of Human Resources by Category, as of December 31, 1989.



To that end, an analysis was made of human resources management systems such as the performance evaluation system; the recruitment, selection and promotion system; and the salary and personnel classification system. As a result, all vacant positions in the Institute were filled through an open, competitive selection process. Vacant positions for international professionals were filled by calling for candidates from the Institute's Member States and by placing announcements in international periodicals, technical journals and other publications in the Member States. These efforts produced nearly 900 applicants, some of whom were from labor markets not previously explored. Those applicants not selected were entered into the candidates' data bank for consideration for future vacancies.

Changes were made in the performance evaluation system for professional personnel and general services personnel, to be introduced in 1990. They provide for evaluation of factors more clearly related to the performance of individuals, and thus provide for greater objectivity and equity in assessing work performed by IICA's staff members.

The application of the classification system for local professional personnel was altered to extend the classification system for local professionals to the PL-5 level, thus unifying the criteria used to evaluate IICA's professional personnel.

An English language training program, designed to meet the specific needs of Institute Headquarters, was introduced during the last semester of the year. Twenty staff members

participated in the program and almost all of them advanced to the intermediate level. Work began on the design of a management training program for Representatives, Directors and other supervisory personnel.

As detailed in the tables included herein, the total number of international professional personnel (IPP) was reduced and the number of local professional personnel (LPP) increased. In part, this was achieved through a reduction of international professional personnel covered by quota resources and an increase in local professional personnel covered by extra-quota resources.

During 1989, 17 specialists left the Institute for various reasons, including the termination of externally-funded projects and age, thus reducing the number of international personnel to 185. In contrast, at Headquarters and in the Offices in the countries, the number of local professional personnel increased by 42, which brought the number of local technical personnel to 209. In addition, during 1989, 897 international consultants were hired under extra-quota agreements. These changes reflect the guidelines established in the Medium Term Plan.

In order to provide support to specialists working with new projects and to upgrade administrative functions, it was necessary to increase general services positions by 39, producing an increase in this category from 541 to 570. It should be noted that all of these additional general services positions were covered by extra-quota funds and that, conversely, the number of general services staff paid with quota funds was decreased.

Table 1. Distribution of IICA human resources by category and funding source, as of December 31, 1989

	Quotas	%	Extra-quotas	%	Total	%
<b>Category</b>						
International Professional Personnel	148	80.0	37	20.0	185	19.2
Local Professional Personnel	86	41.2	123	58.9	209	21.7
General Services Personnel	353	61.9	217	38.1	570	59.1
<b>Total</b>	<b>587</b>	<b>60.9</b>	<b>377</b>	<b>39.1</b>	<b>964</b>	<b>100</b>

Source: Directorate of Human Resources

Table 2. Distribution of IICA personnel by nationality and category, as of December 31, 1989

	International Professional	Local Professional	General Services	Total
<b>Nationality</b>				
Argentina	10	3	13	26
Barbados	2	0	8	10
Bolivia	5	4	10	19
Brazil	12	80	85	177
Canada	4	1	2	7
Chile	16	5	11	32
Colombia	22	9	43	74
Costa Rica	4	42	226	272
Cuba	1	0	0	1
Dominica	0	1	0	1
Dominican Republic	4	2	9	15
Ecuador	5	14	18	37
El Salvador	3	5	7	15
Grenada	1	0	4	5
Guatemala	5	9	13	27
Guyana	2	2	10	14

**Table 2. (Cont.)**

Haiti	1	2	9	12
Honduras	3	7	10	20
Jamaica	2	1	10	13
Mexico	9	2	8	19
Nicaragua	2	1	7	10
Panama	2	2	4	8
Paraguay	2	2	9	13
Peru	26	3	13	42
Saint Lucia	0	1	4	5
Saint Vincent and the Grenadines	0	1	0	1
Spain	2	0	1	3
Suriname	0	0	2	2
The Netherlands	1	0	0	1
Trinidad and Tobago	3	1	6	10
United States	13	2	0	15
Uruguay	12	3	14	29
Venezuela	11	4	14	29

<b>Total</b>	<b>185</b>	<b>209</b>	<b>570</b>	<b>964</b>
Percentage	19.2	21.7	59.1	100

*Source: Directorate of Human Resources*

**Table 3. Geographic distribution of IICA personnel by category and funding source, as of December 31, 1989**

	International Professional		Local Professional		General Services		Total		Total	%
	Quotas	Extra-quotas	Quotas	Extra-quotas	Quotas	Extra-quotas	Quotas	Extra-quotas		
Headquarters	44	7	42	6	159	59	245	72	317	32.9
CATIE/Turrialba	0	1	0	0	0	0	0	1	1	0.1
United States	2	0	1	0	3	1	6	1	7	0.7
Canada	1	0	0	0	1	0	2	0	2	0.2
<b>Subtotal</b>	<b>47</b>	<b>8</b>	<b>43</b>	<b>6</b>	<b>163</b>	<b>60</b>	<b>253</b>	<b>74</b>	<b>327</b>	<b>33.9</b>

Table 3. (Cont.)

		International Professional		Local Professional		General Services		Total		Total	%
		Quotas	Extra-quotas	Quotas	Extra-quotas	Quotas	Extra-quotas	Quotas	Extra-quotas		
<b>Area 1 - Central</b>	Costa Rica	5	0	1	0	9	0	15	0	15	1.6
	Dominican Republic	5	0	2	0	7	1	14	1	15	1.6
	El Salvador	3	1	1	3	7	0	11	4	15	1.6
	Guatemala	7	0	3	6	8	4	18	10	28	2.9
	Honduras	4	1	2	4	8	1	14	6	20	2.1
	Mexico	4	0	2	0	9	0	15	0	15	1.6
	Nicaragua	4	0	1	0	7	0	12	0	12	1.2
	Panama	3	0	1	0	4	0	8	0	8	0.8
	<b>Subtotal</b>	<b>35</b>	<b>2</b>	<b>13</b>	<b>13</b>	<b>59</b>	<b>6</b>	<b>107</b>	<b>21</b>	<b>128</b>	<b>13.4</b>
<b>Area 2 - Caribbean</b>	Barbados	5	0	0	0	8	0	13	0	13	1.4
	Dominica	0	0	1	0	1	0	2	0	2	0.2
	Grenada	0	0	1	0	3	0	4	0	4	0.4
	Guyana	2	0	2	0	9	0	13	0	13	1.4
	Haiti	2	2	1	0	8	2	11	4	15	1.6
	Jamaica	2	0	2	0	7	3	11	3	14	1.5
	Saint Lucia	3	0	1	0	5	0	9	0	9	0.9
	Suriname	3	0	0	0	3	0	6	0	6	0.6
	Trinidad and Tobago	3	0	1	0	6	0	10	0	10	1.0
	<b>Subtotal</b>	<b>20</b>	<b>2</b>	<b>9</b>	<b>0</b>	<b>50</b>	<b>5</b>	<b>79</b>	<b>7</b>	<b>86</b>	<b>9.0</b>
<b>Area 3 - Andean</b>	Bolivia	3	0	4	0	6	2	13	2	15	1.6
	Colombia	4	0	3	5	14	29	21	34	55	5.7
	Ecuador	4	3	1	13	4	14	9	30	39	4.1
	Peru	4	0	3	0	11	0	18	0	18	1.9
	Venezuela	7	0	0	4	8	6	15	10	25	2.6
	<b>Subtotal</b>	<b>22</b>	<b>3</b>	<b>11</b>	<b>22</b>	<b>43</b>	<b>51</b>	<b>76</b>	<b>76</b>	<b>152</b>	<b>15.9</b>

Table 3. (Cont.)

		International Professional		Local Professional		General Services		Total		Total	%
		Quotas	Extra-quotas	Quotas	Extra-quotas	Quotas	Extra-quotas	Quotas	Extra-quotas		
<b>Area 4 - Southern</b>	Argentina	4	0	3	0	9	6	16	6	22	2.3
	Brazil	7	22	4	78	6	80	17	180	197	20.4
	Chile	4	0	1	1	9	1	14	2	16	1.7
	Paraguay	3	0	1	1	7	1	11	2	13	1.4
	Uruguay	6	0	1	2	7	7	14	9	23	2.4
	<b>Subtotal</b>		<b>24</b>	<b>22</b>	<b>10</b>	<b>82</b>	<b>38</b>	<b>95</b>	<b>72</b>	<b>199</b>	<b>271</b>
<b>Total</b>		<b>148</b>	<b>37</b>	<b>86</b>	<b>123</b>	<b>353</b>	<b>217</b>	<b>587</b>	<b>377</b>	<b>964</b>	<b>100</b>
Percentage		15.4	3.8	8.9	12.8	36.6	22.5	60.9	39.1	100.0	

Source: Directorate of Human Resources

Table 4. Distribution of ICA human resources according to their participation in the Retirement Fund, as of December 31, 1989

	Retirement	%	Pension	%	Total
International Professional Personnel	98	53	87	47	185

Source: Directorate of Human Resources

## Financial Resources

The year 1989 was one of significant achievements for the Directorate of Finances. Among the most important of these was the gradual implementation of a computerized financial management system in the IICA Offices in the Member States. This system, in addition to making the financial-accounting management of the Offices more independent, expedites the issuance of financial statements. Workshops held with the Office administrators also contributed to improving and harmonizing IICA's accounting procedures at the country level. These workshops, along with periodic visits from Headquarters staff members to some of the Offices to provide administrative support, have made it possible for IICA to work with greater efficiency.

IICA's operations are financed by regular funds, which consist of revenues from Member States' quotas, overhead charged for administering external resources and miscellaneous income, and by external funds, which are resources from national and international agencies and organizations, administered by IICA for the conduct of specific activities, in accordance with established objectives.

As can be seen in Tables 1 and 2, total 1989 income from quota resources was not sufficient to cover total costs incurred by the regular fund program. However, the efficient management of available financial resources allowed IICA to conclude the year successfully.

It is also worth mentioning that the financial information system made it possible to manage satisfactorily an increase of more than 17% in the total amount of resources administered by the Institute, as can be seen in Table 2 and Figure 1. This is the largest increase in the last five years, in both absolute and percentage terms.

Table 3 and Figure 2 illustrate the distribution of execution of quota resources among the three chapters: Direct Technical Cooperation Services, representing 78%; Management Costs, 19%; and General Costs and Provisions, 3%.

Finally, Table 4 and Figure 3 depict Direct Technical Cooperation Services, broken down by category of activity, highlighting the direct costs for the five IICA Programs, where 40% of total quota resources are concentrated, as may be seen in Figure 4.

Based on the steady progress made in 1989, it is anticipated that in 1990 the computerized financial management system will be implemented throughout the Institute, with the result that the financial and accounting management of the Offices in the countries will become increasingly efficient and independent.

**Table 1. Income by source of funding for the 1987-1989 period (In US\$)**

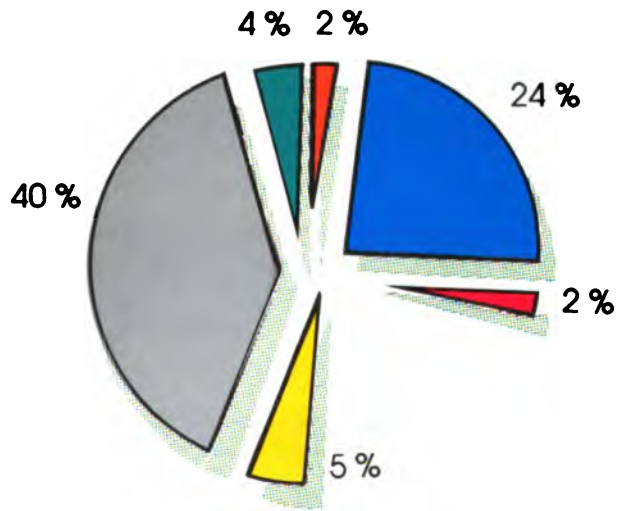
	1987	1988	1989
Cuotas	21 926 150	21 447 025	18 636 032
From earlier years	7 191 475	5 265 191	3 216 893
From the stipulated year	14 734 675	16 181 834	15 419 139
External Resources <sup>a</sup>	12 891 404	15 277 098	22 077 016
<b>Total</b>	<b>34 817 554</b>	<b>36 724 123</b>	<b>40 713 048</b>

<sup>a</sup> Includes Indirect Administrative and Technical Costs (CATIs).

Source: Directorate of Finances

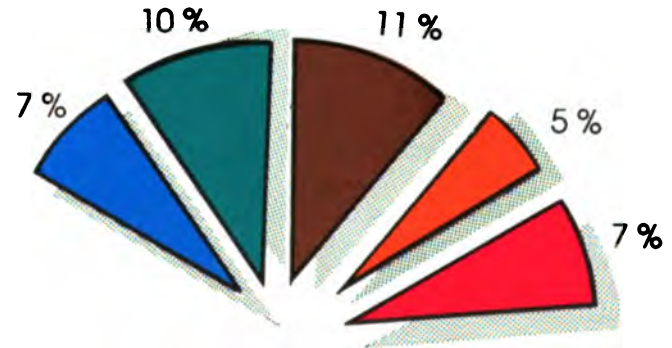


Figure 3. Detail of the Execution of Quota Resources Allocated to Direct Technical Cooperation Services



- Short-term Technical Cooperation and Pre-investment Costs
- IICA Offices in the Countries
- Projects Assigned to Directorates of Area Operations
- Technical Support Services
- Programs
- CATIE

Figure 4. Detail of the Execution of Quota Resources Allocated to the Programs



- Program I
- Program II
- Program III
- Program IV
- Program V

**Table 2. Execution of resources by source of funding, 1987 - 1989 (In US\$)**

	1987	1988	1989
Quotas <sup>a</sup>	19 004 345	20 277 975	21 176 463
External Resources <sup>b</sup>	13 735 475	15 441 157	20 681 690
Indirect Administrative and Technical Costs (CATIs) <sup>c</sup>	907 935	1 192 132	1 535 381
Direct Costs <sup>d</sup>	12 827 540	14 249 025	19 146 309
Simon Bolivar Fund	18 488	-	-
<b>Total</b>	<b>32 758 308</b>	<b>35 719 132</b>	<b>41 858 153</b>

a Expenditures made before final adjustments for the corresponding reserves and the Cuban quota.

b For the years 1987 and 1988, expenditures exceeded income because balances from previous years were executed.

c Refers to the collection of Indirect Administrative and Technical Costs (CATIs).

d Includes expenditures budgeted in agreements and contracts based on exchange rate differentials and the return of balances.

*Source: Directorate of Finances*

**Table 3. Execution of quota resources, by Chapter, 1987-1989 (In US\$)**

	1987	%	1988	%	1989	%
Direct Technical Cooperation Services	14 705 852	78	15 993 748	79	16 463 522	78
Management Costs	3 644 589	19	3 780 020	19	4 065 727	19
General Costs and Provisions	653 904	3	504 207	2	647 214	3
<b>Total</b>	<b>19 004 345</b>	<b>100</b>	<b>20 277 975</b>	<b>100</b>	<b>21 176 463</b>	<b>100</b>

*Source: Directorate of Finances*

Figure 1. Execution of Total Resources, by Source of Funding

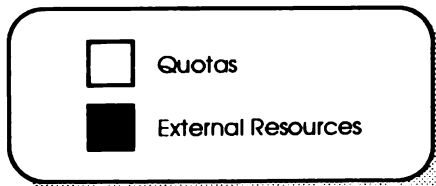
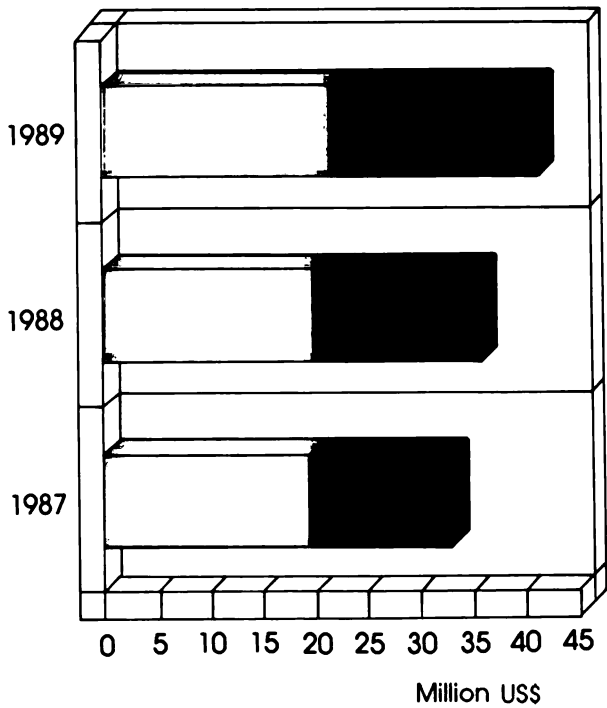
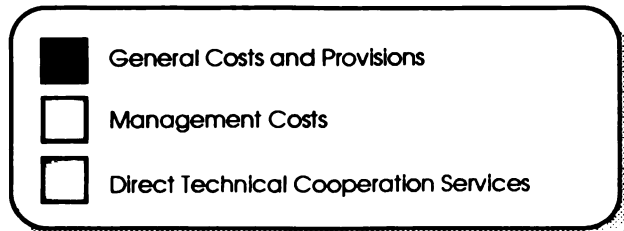
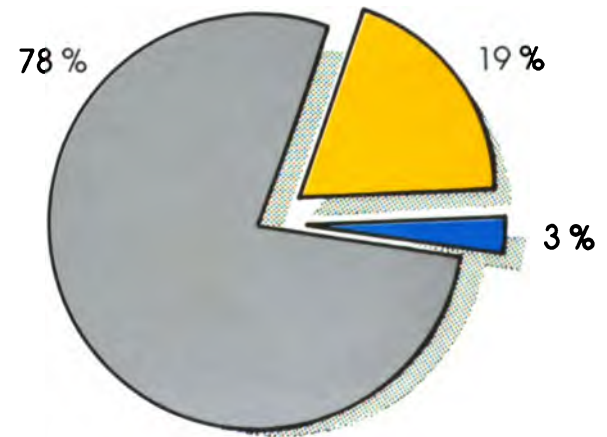


Figure 2. Execution of Quota Resources, by Chapter



**Table 4. Execution of quota budget, by category of activity, 1989 (in US\$)**

Chapter/Units	Total Expenditures—Amount in US\$
<b>Chapter I - Direct Technical Cooperation Services</b>	<b>16 463 522</b>
Programs	8 531 682
Program I	1 507 211
Program II	2 214 651
Program III	2 261 023
Program IV	1 087 764
Program V	1 461 033
Projects Assigned to Directorates of Area Operations	463 196
IICA Offices in the Countries	5 052 767
Technical Support Services	946 035
Contribution to the Tropical Agriculture Research and Training Center (CATIE)	1 107 300
Short-Term Technical Cooperation and Pre-Investment Costs	362 542
<b>Chapter II - Management Costs</b>	<b>4 065 727</b>
<b>Chapter III - General Costs and Provisions</b>	<b>647 214</b>
<b>Total</b>	<b>21 176 463</b>

*Source: Directorate of Finances*



Appendix 1

*In the Caribbean Area, the PLANLAC supports the development of tropical fruit crops, such as papaya (pawpaw).*

## Personnel Lists

*Appendix 1 contains the following:*

- *A list of persons appointed to Emeritus status (Directors General or Personnel Emeritus) by resolution of the Inter-American Board of Agriculture.*

*Article 13 of the Rules of Procedure of the General Directorate establishes that the Inter-American Board of Agriculture may confer the title of Director Emeritus to those persons who have served as Director General of the Institute, showing outstanding technical ability and an outstanding spirit of service.*

*It also provides for conferring the title of Personnel Emeritus to staff members with high professional personnel classifications who have made outstanding contributions to the Institute.*

- *A list of IICA's Representative in the member countries.*

- *A list of IICA's professional personnel. This list includes all local and international professional personnel who worked at the Institute during 1989.*

## Personnel Emeritus of the Institute (as of December 31, 1989)

	Name	Country	Date of Appointment
<b>Directors General</b>	Araujo, José Emilio .....	Brazil	January 15, 1982
	Morillo, Francisco .....	Venezuela	October 25, 1985
	Samper, Armando .....	Colombia	October 22, 1969
<b>Personnel</b>	Alvin, Paulo de Tarso .....	Brazil	April 7, 1977
	Blair, Enrique .....	Colombia	October 25, 1985
	Cabral, José Irineu .....	Brazil	October 28, 1986
	Cásseres, Ernesto .....	Costa Rica	October 26, 1983
	Castronovo, Alfonso .....	Argentina	March 16, 1979
	Clifford, Roy .....	United States of America	October 28, 1986
	Coto, Rogelio .....	Costa Rica	December 15, 1980
	Díaz Bordenave, Juan .....	Paraguay	September 3, 1987
	Lombardo, Heraclio .....	Panama	September 3, 1987
	Mac Donald, Malcolm H. ....	United States of America	October 26, 1983
	Mac Lean, Alejandro .....	Peru	October 26, 1983
	Malugani, María Dolores .....	Uruguay	October 25, 1985
	Marull, José .....	Chile	August 1, 1980
	Montero, Emilio .....	Chile	October 12, 1989
	Ramsay, Jorge .....	Chile	July 10, 1980
	Rangel, Jefferson F. ....	Brazil	January 1, 1980
	Ras, Norberto .....	Argentina	August 14, 1981
	Rodríguez, Manuel .....	Chile	October 28, 1981
	Rosado, Humberto .....	Mexico	October 26, 1983
	Shurtleff, Don L. ....	United States of America	October 26, 1983
Soria, Jorge .....	Ecuador	September 3, 1987	
Suárez de Castro, Fernando..	Colombia	October 12, 1989	
Sylvain, Pierre G. ....	Haiti	July 1, 1977	
Torres, José Alberto .....	Costa Rica	October 28, 1986	

Source : Directorate of Human Resources



## IICA Representatives in the Countries (as of December 31, 1989)

Country	Name
Argentina .....	Carlos Garramón
Barbados .....	Michael Moran (until 3/89) Reginald Pierre (as of 4/89)
Bolivia .....	Benjamín Jara
Brazil .....	Manuel Otero
Canada .....	Ermani Fiori
Chile .....	Alfredo Alonso
Colombia .....	Augusto Donoso
Dominican Republic .....	Gilberto Páez
Ecuador .....	Mario Blasco
El Salvador .....	Ramón Montoya (until 9/89) Mariano Olazábal (as of 10/89)
Guatemala .....	Armando Reyes
Guyana .....	George Buckmire
Haiti .....	Percy Aitken-Soux (until 7/89) Jan Hurwitch-MacDonald (until 8/89)
Honduras .....	Juan A. Aguirre
Jamaica .....	Jan Hurwitch-MacDonald (until 7/89) Vivian Chin (as of 8/89)
Mexico .....	Héctor Morales
Nicaragua .....	Alfonso Chirinos
Panama .....	Eduardo Salvadó
Paraguay .....	Luiz Carlos Pannunzio
Peru .....	Israel Tineo
Suriname .....	Mario França (until 7/89) Percy Aitken-Soux (as of 8/89)
Trinidad and Tobago.....	Chelston Brathwaite (until 3/89) Reginald Pierre* (until 11/89) Joan Wallace (as of 12/89)
United States .....	David Black
Uruguay .....	Arnaldo Veras
Venezuela .....	Mariano Segura
Windward and Leeward Islands: Dominica, Grenada, St. Lucia, St. Vincent and the Grenadines, Antigua and Barbuda .....	Franz Alexander

\* Acting

Source: Directorate of Human Resources

## List of Professional Personnel\*

Name	Academic Title	Position at IICA	Duty Station
Abarca, Martha	B.Sc., Library Sciences	Librarian, CIDIA	Headquarters
Abreu, Marcial	M.Sc., Agronomy	Production Systems Specialist	Chile
Acosta, Carlos J.	M.Sc., Veterinary Sciences	Epidemiologist	Venezuela
Aguilar, Carlos	B.Sc., Agronomy	Irrigation Specialist	Brazil
Aguilar, José	B.Sc., Agronomy	Irrigation Specialist	Brazil
Aguilera, Eustacio	M.Sc., Agronomy	Agricultural Extension Specialist	Paraguay
Aguirre, Juan	Ph.D., Agric. Economics	Representative	Honduras
Aitken-Soux, Percy	Ph.D., Agronomy	Representative	Suriname
Alarcón, Enrique	Ph.D., Agronomy	Technology Generation and Transfer Specialist	Headquarters
Alarcón, Pedro	M.Sc., Agronomy	Advisor to the Rural Development Secretariat	Ecuador
Alcócer, Raúl	Lic., Veterinary Sciences	Animal Health Specialist	Mexico
Alexander, Franz	M.Sc., Veterinary Sciences	Representative	St. Lucia (OECS)
Alfaro, Wilberth	B.Sc., Agronomy	Deputy Coordinator of COTER	Headquarters
Alonso, Alfredo	B.Sc., Agronomy	Representative	Chile
Alonso, Carlos	B.Sc., Agronomy	Marketing and Agroindustry Specialist	Paraguay
Alvarado, Edgar A.	M.Sc., Agronomy	Research Assistant	Guatemala
Alvarado, Edgar G.	Lic., Psychology	Administrator	Guatemala
Alvarado, Lorena	B.A., Agric. Economics	Head, Technical Cooperation Instruments, DIPROE	Headquarters
Alvarado, Ramón D.	M.Sc., Agronomy	Management and Administration Specialist	Ecuador
Alvarez, Aníbal	M.A., Psychopedagogy	Instructor, PNCA	Colombia
Alvarez, Marilia	Lic., Translation	Information and Documentation Specialist	Brazil
Amabile, Renato F.	B.A., Agronomy	Natural Resources Survey Specialist	Brazil
Amador, Maria Betânia	B.Sc., Forestry Engineering	Forestry Engineer	Brazil
Ambrose, Everton	M.A., Agronomy	Plant Protection Specialist	St. Lucia

\* This is a list of the professional personnel who worked at IICA during 1989.

Name	Academic Title	Position at IICA	Duty Station
Andrade, Carlos E.	Lic., Law	Rural Sociologist	Costa Rica
Ansorena, Ignacio	Ph.D., Agronomy	Agricultural Education Specialist	Venezuela
Antoine, Marlene	B.A., Management	Administrator	Trinidad and Tobago
Aquize, José	M.Sc., Agronomy	Irrigation and Drainage Specialist	Brazil
Araniva, Marco T.	Ph.D, Agric. Economics	Rural Development Specialist	Nicaragua
Araujo, Miguel A.	M.Sc., Agronomy	Head, Evaluation Division, DIPROE	Headquarters
Ardila, Jorge	M.Sc., Economics	Technology Generation and Transfer Specialist	Colombia
Arévalo, Jorge	M.Sc., Agronomy	Director, PROTECA	Ecuador
Argumedo, Manuel	M.A., Sociology	Rural Development Coordinator	Brazil
Arias, Ana María	Lic., Library Sciences	Head, Analysis, Processes and Services, CIDIA	Headquarters
Arrunategui, Humberto	B.Sc., Agronomy	Irrigation and Drainage Specialist	Brazil
Atrasas, Ana Lucía	B.A., Economics	Economic Evaluation Specialist	Brazil
Aubad, Rafael	Lic., Economics	Rural Development Specialist	Colombia
Azael, Ariel	Ph.D., Agronomy	Plant Science Specialist	Haiti
Azevedo, David	Lic., Meteorology	Agrometereologist	Brazil
Banuett, Marcelle	M.Sc., Sociology	Head, Publications Production, DICA	Headquarters
Barea, Francisco	M.Sc., Agronomy	Project Specialist	Dominican Rep.
Bareiro, José Luis	M.Sc., Agronomy	Agricultural Project Specialist	Peru
Barreto, María Angélica	B.Sc., Geology	Geologist	Brazil
Barreto, Filho Deraldo	B.A., Economics	Agricultural Production Specialist	Brazil
Barreyro, Héctor	Ph.D., Agronomy	Agricultural Policy Analysis and Planning Specialist	Honduras
Barros, Raimundo	B.Sc., Civil Engineering	Civil Engineer	Brazil
Basterrechea, Manuel	Ph.D., Civil Engineering	National Project Coordinator	Guatemala
Bastos, Ma. Bernardete	B.A., Sociology	Sociologist	Brazil
Batelli, João	B.Sc., Sociology	University Training Specialist	Brazil
Bazán, Rufo	Ph.D., Agronomy	Technology Generation and Transfer Specialist	Brazil
Bedoya, Michael J.	Ph.D., Veterinary Sciences	Coordinator, Animal Health and Plant Protection	Brazil
Beekman, Gertjan	B.Sc., Agronomy	Hydrology Specialist	Brazil
Berhouet, Daniel	B.Sc., Agronomy	Agricultural Project Specialist	Uruguay

Name	Academic Title	Position at IICA	Duty Station
Bermúdez, Fabio	B.Sc., Civil Engineering	Rural Development Specialist	Dominican Rep.
Black, David	M.Sc., Physics	Representative	United States
Blanco, Vernor	B.Sc., Information Sciences	Program Analyst, Computerized Information Services	Headquarters
Blasco, Mario	Ph.D., Agronomy	Representative	Ecuador
Bogantes, Rosario	B.A., Agric. Economics	Analysis Assistant	Headquarters
Borbón, Erick	B.A., Agric. Economics	Agricultural Economist, CIAT	Headquarters
Bragança, Augusto	Ph.D., Agronomy	Hydrologist	Brazil
Brathwaite, Chelston	Ph.D., Agronomy	Deputy Director of Operations for the Central and Caribbean Areas	Headquarters
Bresciani, Juan Carlos	M.Sc., Agronomy	Technology Generation and Transfer Specialist	Brazil
Browne, Joan	M.Sc., Sociology	Administrator	Jamaica
Brun, Julio Osmar	M.Sc., Agronomy	Farmers' Organization Specialist	Paraguay
Bucheli, Flavio A.	Lic., Civil Engineering	Irrigation Specialist	Ecuador
Buckmire, George	M.Sc., Agric. Economics	Representative	Guyana
Budhram, Dowlát	Ph.D., Agric. Economics	Agricultural Policy Analysis and Planning Specialist	Barbados
Buitrón, Hugo	M.Sc., Agronomy	Operations Director, Under-Secretariat for Rural Development	Ecuador
Burle, Marilia	B.Sc., Agronomy	Agronomist	Brazil
Caballero, Hernán	Ph.D., Agronomy	Technology Generation and Transfer Specialist	Uruguay
Cáceres, Ricardo	M.Sc., Management	Agricultural Policy Analysis and Planning Specialist	Nicaragua
Campos, Alfonso	Lic., Agronomy	Documentalist, CIDIA	Headquarters
Campos, Héctor	D.V.M., Veterinary Med.	Deputy Director for Animal Health	Headquarters
Cantalice, María José	B.Sc., Agronomy	Irrigated Agriculture Specialist	Brazil
Caracciolo, Mercedes	Lic., Sociology	Rural Development Specialist	Argentina
Caricati, Adhemar	B.Sc., Mechanical Eng.	Alcohol Distillation Specialist	Brazil
Caro, Jorge	Lic., Economics	Marketing and Agroindustry Specialist	Venezuela
Casás, Roberto	M.Sc., Agric. Economics	Project Design and Management Specialist, CEPI	Headquarters
Castagnino, Dante	D.V.M., Veterinary Med.	Animal Health Specialist	Venezuela

Name	Academic Title	Position at IICA	Duty Station
Castro, Marco Tulio	M.Sc., Agronomy	Entomologist	Honduras
Castro, Rodolfo	M.Sc., Agronomy	Agricultural Production Specialist	Bolivia
Cavalcante, Genny	Lic., Design	Designer	Brazil
Cavalcante, Nice Ma.	B.Sc., Civil Engineering	Hydrologist	Brazil
Cavalcanti, Fernando R.	B.Sc., Civil Engineering	Irrigation and Drainage Specialist	Brazil
Cavalcanti, Manoelito	B.A., Mechanical Eng.	Specialist in Electromechanics	Brazil
Cetrángolo, Miguel	M.Sc., Agric. Economics	Technology Generation and Transfer Specialist	Venezuela
Chacón, José A.	B.A., Human Resources Management	Head, Division of Professional Personnel, Human Resources	Headquarters
Chaquilla, Oscar	M.Sc., Agronomy	Agricultural Policy Analysis Specialist	Peru
Chin, Vivian	M.Sc., Agronomy	Agricultural Research Specialist, Acting Representative	Jamaica
Chirinos, Alfonso	M.Sc., Agronomy	Representative	Nicaragua
Cirio, Félix	M.Sc., Economics	Advisor to the Director General	Headquarters
Coelho, Erminia	Lic., Business Administr.	Administrator	Brazil
Colmenares, Humberto	Ph.D., Economics	Project Specialist	Mexico
Coltro, Adolfo	Lic., Medicine	Nutritionist	Brazil
Condines, Luis Alberto	Lic., Management	Administrator	Uruguay
Corven, James	M.Sc., Biology	Institutional Development Specialist	Headquarters
Costa, João Emanuel	B.A., Agronomy	Pisciculture Specialist	Brazil
Costa, Humberto	B.A., Agronomy	Follow-Up, Control and Evaluation Systems Specialist, PROTECA	Ecuador
Coto, Daniel	Lic., Medicine	Doctor, Human Resources	Headquarters
Coto, Laura	B.A., Library Sciences	Head, Orton Library, CIDIA	Costa Rica
Crawford, Constantine	M.Sc., Agric. Education	Rural Development Specialist	Guyana
Da Cunha, Lélia María	B.Sc., Civil Engineering	Civil Engineer	Brazil
Da Fonseca, Wilma	B.Sc., Architecture	Environmentalist	Brazil
Dall'Acqua, Fernando	Ph.D., Economics	Director, CEPI	Headquarters
Dancourt, Susana	B.Sc., Business Administr.	Administrator, Swine Reproduction Project	Haiti

Name	Academic Title	Position at IICA	Duty Station
Dao, Federico	Ph.D., Agronomy	Plant Protection Specialist	Peru
Davis, L. Harlan	Ph.D., Economics	Deputy Director General	Headquarters
De Abreu, Raimundo	Lic., Agronomy	Irrigation Management Specialist	Brazil
De Aguiar, Julio César	B.Sc., Agronomy	Irrigated Areas Management Specialist	Brazil
De Albuquerque, Germano	B.Sc., Agronomy	Irrigation Maintenance Specialist	Brazil
De Albuquerque, Marconi	B.A., Economics	Planning Specialist	Brazil
De Brito, Glauco	B.Sc., Agronomy	Farm Action Specialist	Brazil
De Carvalho, Rizelda	B.A., Geology	Geologist	Brazil
De Castro, María E.	M.B.A., Management	Public Policy Evaluation Specialist	Brazil
De Farías, Renato	B.Sc., Forestry Engineering	Energy Forest Management Specialist	Brazil
De França, Mariana	M.Sc., Management	International Trade Specialist	Brazil
De Freitas, Ednardo	Lic., Economics	Farmers' Organization Specialist	Brazil
De las Casas, Lizardo	Ph.D., Agronomy	Head, Regional Project	Colombia
De León, Eberto	Lic., Economics	Forestry Economics Specialist	Guatemala
De León, José	M.Sc., Information Sciences	Head, Systems Division, Computerized Information Service	Headquarters
De León, Ricardo	M.Sc., Agronomy	Seed Production Specialist	Costa Rica
De Lima, Edinair	Lic., Programming	Computer Specialist	Brazil
De Lima, Luiz Carlos	B.Sc., Agronomy	Irrigated Agriculture Specialist	Brazil
De los Santos, Laureano	Lic., Public Accounting	Administrator	Panama
De Madeiros, Roberto	B.A., Agronomy	Irrigation Specialist	Brazil
De Meneses, Pedro A.	M.Sc., Agronomy	Agronomist	Brazil
De Miranda, Carlos L.	B.A., Law	Rural Development Specialist	Headquarters
De Moura, José	B.Sc., Agronomy	Production Systems Specialist	Brazil
De Novaes, Marcia Luiza	B.Sc., Management	Administrator	Brazil
De Oliveira, Manoel	B.Sc., Agronomy	Rural Extension Specialist	Brazil
De Oliveira, José Ma.	B.A., Management	Administrator	Brazil
De Oliveira, Renata	B.Sc., Library Sciences	Documentalist	Brazil
De Rosa, Milva Edith	B.A., Management	Administrator	Brazil
De Souza, Marco Antonio	B.Sc., Agronomy	Researcher	Brazil
Del Angel, Víctor	M.Sc., Economics	Head, International Cooperation Division, DIREX	Headquarters

Name	Academic Title	Position at IICA	Duty Station
Del Risco, Fernando	M.Sc., Agronomy	Head, Programming Division, DIPROE	Headquarters
Delgado, Julio	Ph.D., Agronomy	Regional Plant Protection Specialist	Uruguay
Detzortis, Maristela	Lic., Management	Data Center Specialist	Brazil
Diaz, José Luis	B.A., Agronomy	Agronomist	Brazil
Doherty, Federico	B.A., Civil Engineering	Irrigation Specialist	Brazil
Doherty, Miguel John	B.Sc., Civil Engineering	Irrigated Agriculture Specialist	Brazil
Donoso, Augusto	B.Sc., Agronomy	Representative	Colombia
Dos Santos, Ma. Goretti	Lic., Geography	Geographer	Brazil
Dos Santos, Elza	B.Sc., Civil Engineering	Hydraulics Specialist	Brazil
Dos Santos, Devanir	B.Sc., Agronomy	Irrigation Projects Specialist	Brazil
Dos Santos, Luiz F.	B.Sc., Civil Engineering	Cartographer	Brazil
Dugas, Raymond	D.V.M., Veterinary Med.	Regional Animal Health Specialist	Argentina
E. Souza, Paulo Marcos	Lic., Social Communications	Project Supervision Specialist	Brazil
Echeverri, Jorge Hernán	M.Sc., Agronomy	Agricultural Researcher	Costa Rica
Echeverri, María Olga	Lic., Economics	IICA/AID Coordinator	Colombia
Esparza, Javier	B.Sc., Agronomy	Plant Protection Specialist	Chile
Espinoza, Nelson	B.Sc., Agronomy	Project Preparation Specialist, CEPI	Headquarters
Espinoza, Waldo	Ph.D., Agronomy	Soil Fertility Specialist	Brazil
Estefanell, Gonzalo	M.Sc., Agronomy	Head, Technical Cooperation Strategies and Projects Division, DIPROE	Headquarters
Fallas, Helio	M.Sc., Economics	Agricultural Policy Analysis Specialist	Headquarters
Farías, Osvaldo	M.A., Statistics	Head, Division of General Services Personnel, Human Resources	Headquarters
Febres, Abraham	M.Sc., Agronomy	Project Specialist	Bolivia
Fernández, Angel	Lic., Library Sciences	Documentation and Public Information Specialist	Argentina
Fernández, Carlos E.	Ph.D., Agronomy	Director of Central Area Operations	Headquarters
Fernández, Rodrigo	Pub.Acct., Accounting	Assistant Comptroller, Finances	Headquarters
Ferreira, Nelson	Lic., Economics	Project Funding Specialist	Brazil

Name	Academic Title	Position at IICA	Duty Station
Ferreira, Rubem	B.Sc., Agronomy	Plant Nutrition Specialist	Brazil
Figueroa, Carlos E.	B.Sc., Agronomy	National Coordinator, MADELEÑA Project	Guatemala
Fiori, Ernani	M.Sc., Agronomy	Representative	Canada
Fletcher, Lystra	Ph.D., Agronomy	Junior Professional	Headquarters
Flores, Luis	Lic., Pedagogy	Rural Development Specialist	Haiti
Flores, Roberto	Lic., Agronomy	Assistant, Program II	Headquarters
Fontes, Luiz Carlos	B.A., Public Accounting	Administrator	Brazil
Fróes, Ricardo	B.A., Economics	Agricultural Economist	Brazil
Frossard, Ulysses	B.A., Law	Agricultural Credit Specialist	Brazil
Fuentes, Rafael	Lic., Veterinary Med.	Organization and Management Specialist	Venezuela
Gallegos, Benjamín	M.Sc., Economics	Crop Production Specialist	Honduras
Gálvez, Gloria Cecilia	Lic., Biology	Plant Pathologist	El Salvador
Gálvez, Hildebrando	M.Sc., Civil Engineering	Irrigation Engineer	Brazil
Ganen, Nadir	Lic., Law	Agricultural Management Specialist	Brazil
Ganen, Roseli	M.Sc., Ecology	Environmentalist	Brazil
Ganoza, Víctor	Ph.D., Agric. Economics	Agricultural Policy Analysis and Planning Specialist	Brazil
García, Alfonso	Ph.D., Agronomy	Plant Protection Specialist	Guatemala
García, Francisco	Lic., Veterinary Med.	Epidemiologist	Mexico
Garramón, Carlos	M.Sc., Agronomy	Representative	Venezuela
Gastal, Edmundo	Ph.D., Agronomy	Director, PROCISUR	Argentina
Gil de Muro, Julio	D.V.M., Veterinary Med.	Rural Development Specialist	Uruguay
Goic, Yanko	M.B.A., Management	Budgetary Programming Specialist, DIPROE	Paraguay
Gómez, Carlos J.	B.Sc., Agronomy	Irrigation Specialist	Headquarters
Gómez, Joel	Lic., Veterinary Med.	Swine Pathology Specialist	Brazil
González, Leonel	Ph.D., Economics	Agricultural Policy Analysis and Planning Specialist	Venezuela
González, Roberto	M.Sc., Agronomy	Rural Development Specialist	El Salvador
González, Tomás Backer	M.Sc., Agronomy	Agricultural Project Specialist	Ecuador
Grajales, Guillermo	B.Sc., Agric. Economics	Agricultural Trade Specialist	Brazil
Granizo, Tarcisio	M.A., Veterinary Med.	Rural Development Specialist	Panama
			Guatemala



Name	Academic Title	Position at IICA	Duty Station
Guerra, Guillermo	M.Sc., Agronomy	Deputy Director for Andean and Southern Area Operations	Headquarters
Guillén, Róger	M.Sc., Agronomy	Technical Coordinator, CORECA	Headquarters
Harris, Jaime	B.Sc., Agronomy	Agricultural Planning Specialist	Chile
Hatta, Félix	B.A., Agronomy	Irrigation and Drainage Specialist	Brazil
Hernández, Guillermo	B.Sc., Agronomy	Coordinator, Legume Subprogram	Ecuador
Hernández, Ivette	M.B.A., Management	Human Resources Specialist	Headquarters
Holguín, José	M.A., Business Administr.	Coordinator, Costa Rica Plan of Action	Costa Rica
Hurwitch, Jan	B.A., Social Sciences	Representative	Haiti
Indarte, Eduardo	Ph.D., Agronomy	Technology Generation and Transfer Specialist	Uruguay
Infante, Mario	M.Sc., Agronomy	Project Specialist	Argentina
Isaza, Jaime	Ph.D., Agronomy	Rural Development Specialist	Honduras
Jaffé, Walter	M.Sc., Biology	Technology Generation and Transfer Specialist	Headquarters
Jara, Benjamín	D.V.M., Veterinary Med.	Representative	Bolivia
Jara-Almonte, Marcial	Ph.D., Agronomy	Animal Production Specialist	Honduras
Jáuregui, Beatriz	Lic., Social Communications	Editor, DIREX	Headquarters
Jiménez, Danilo	B.A., Journalism	Press Editor	Headquarters
Jordán, Fausto	B.Sc., Economics	Director, Program III, Organization and Management for Rural Development	Headquarters
Joseph, Cosmos	B.Sc., Agronomy	Agronomist	Grenada
Jova, Henry	M.A., Art	Assistant to the Representative	United States
Juárez, Modesto	B.Sc., Agronomy	Economist	El Salvador
Junior, Antonio	B.A., Agronomy	Irrigated Area Operations Specialist	Brazil
Junior, Diomedes	B.Sc., Agronomy	Marketing Specialist	Brazil
Junior, Sebastião	B.A., Agronomy	Agronomist	Brazil
Kaminsky, Mario	Ph.D., Economics	Agricultural Policy Analysis and Planning Specialist	Mexico
Karia, Claudio	B.Sc., Agronomy	Researcher	Brazil
La Gra, Jerry	M.A., Economics	Marketing and Agroindustry Specialist	St. Lucia

Name	Academic Title	Position at IICA	Duty Station
Larrea, Augusto	Lic., Sociology	Rural Development Agreements Coordinator	Ecuador
Lassig, Ricardo S.	Lic., Public Accounting	Administrator	Argentina
León, Juan	Ph.D., Veterinary Med.	Animal Health Specialist	Guyana
León, Patricia	Lic., Journalism	Head, Public Information Unit	Headquarters
Lima, Geraldo Alfonso	B.Sc., Agronomy	Biomass Management Specialist	Brazil
Linares, César	Lic., Economics	Project Specialist	Guatemala
Linares, Mary	Lic., Library Sciences	Librarian	Colombia
Lindarte, Eduardo	Ph.D., Sociology	Technology Generation and Transfer Specialist	Headquarters
Little, Vincent	Ph.D., Agronomy	Project Specialist	Barbados
Lizarazo, Luis	B.Sc., Economics	Marketing and Agroindustry Specialist	Headquarters
Lizarraga, Gustavo	B.Sc., Agronomy	Small-scale Irrigation Specialist	Brazil
Londoño, Diego	Ph.D., Agronomy	Director, Programming and Evaluation	Headquarters
López, Xinia V.	Lic., Management	Assistant, DIREX	Headquarters
Lopezlage, Manuel	C.P.A., Accounting	Comptroller, Finances	Headquarters
Loza, Eduardo	Lic., Auditing	Administrator	Bolivia
Luiselli, Cassio	Ph.D., Economics	Assistant Deputy Director General for Operations	Headquarters
Luna, Julio	Lic., Law	Coordinator, Institutional Relations	United States
MacDonald, Alexander	B.A., Agronomy	Agricultural Production Specialist	Jamaica
Macedo, Luiz Dielson	B.Sc., Civil Engineering	Micro-hydraulic Plants Specialist	Brazil
Magalhães, Luis	M.Sc., Agric. Economics	Agricultural Policy Analysis and Planning Specialist	Colombia
Marambio, Juan L.	B.Sc., Agronomy	Rural Development Specialist	Uruguay
Marín, Jaime	B.Sc., Agronomy	Coordinator, Irrigated Areas Project	Brazil
Márquez, Lucía	B.A., Language and Lit.	Translator	Brazil
Marte, Rafael	M.Sc., Agronomy	Fruit Crop Specialist	Barbados
Martín, Urban Wilmoth	M.Sc., Agronomy	Plant Pathologist	Dominican Rep.
Martínez, Alejandro	Tech., Agric. Technology	Rural Development Technician	Costa Rica
Martínez, Rodolfo	B.Sc., Agronomy	Advisor to the Director General for Special Affairs	Headquarters
Mattos, Carlos	Ph.D., Economics	Agricultural Policy Analysis and Planning Specialist	Headquarters

Name	Academic Title	Position at IICA	Duty Station
Mayorga, Róger	M.Sc., Information Sciences	Systems Analyst, Computerized Information Service	Headquarters
Medrano, Diana	Lic., Anthropology	Women and Rural Development Specialist	Headquarters
Memòria, Ronaldo	B.Sc., Agronomy	Agricultural Mechanics Specialist	Brazil
Mena, Alfredo	M.Sc., Veterinary Med.	Swine Nutrition Specialist	Haiti
Méndez, Juan Carlos	M.Sc., Agric. Economics	Project Management Specialist	Guatemala
Méndez, Judith	Lic., Public Accounting	Administrator	Honduras
Mendoza, Gilberto	B.Sc., Economics	Marketing and Agroindustry Specialist	Bolivia
Mendoza, Pablo	M.Sc., Agronomy	Advisor to the Secretary for Rural Development	Ecuador
Millar, Agustín	Ph.D., Agronomy	Irrigation and Drainage Specialist	Brazil
Molestina, Carlos	M.Sc., Agronomy	Head, Documentary Information Division	Headquarters
Molina, German	M.Sc., Agronomy	Assistant to the Deputy Director General	Headquarters
Monnerat, João Bosco	Ph.D., Economics	Project Specialist, CEPI	Headquarters
Montero, Roxana	B.A., Business Administr.	Head, Documents and Meetings Unit, DICA	Headquarters
Montoya, Ramón	M.Sc., Agronomy	Regional Plant Protection Specialist	Costa Rica
Morales, Alberto	B.Sc., Management	Systems Analyst	Headquarters
Morales, Domingo	B.C.I., Inform. Sciences	Computer Specialist, CIDIA	Headquarters
Morales, Héctor	M.Sc., Agronomy	Representative	Mexico
Moran, Michael	M.A., Economics	Agricultural Marketing Specialist	United States
Moreira, Henrique José	B.A., Economics	Agrometeorologist	Brazil
Moulthrop, James	Ph.D., Veterinary Med.	Coordinator, Information and Data Monitoring Systems	Headquarters
Moutelik, Alena	Lic., Economics	Animal Health and Plant Protection Project Supervision Specialist	Brazil
Mulleady, Tomás	Ph.D., Economics	Rural Development Specialist	Jamaica
Muñoz, Alberto	Lic., Public Administration	Head, General Services Division, Finances	Headquarters
Muñoz, Héctor	Ph.D., Agronomy	Animal Production Specialist	Suriname

Name	Academic Title	Position at IICA	Duty Station
Murillo, Roxana	B.A., Inform. Sciences	Systems Analyst, Computerized Information Service	Headquarters
Murphy, Paul	M.A., Linguistics	Translator II, DICA	Headquarters
Murta, José	B.Sc., Civil Engineering	Hydrologist	Brazil
Mussman, Harry	Ph.D., Veterinary Med.	Director, Program V, Animal Health and Plant Protection	Headquarters
Nonone, Carlos	M.Sc., Agronomy	Irrigation Specialist	Brazil
Ojeda, Víctor	M.Sc., Agronomy	Rural Planning and Development Specialist	Venezuela
Olazabal, Mariano	M.Sc., Agronomy	Representative	El Salvador
Ordóñez, Rolando Arturo	B.A., Forestry Engineering	Coordinator, MADELEÑA Project	Honduras
Orna, Jesús	B.A., Public Accounting	Administrator	Peru
Ortiz, Jaime	M.Sc., Agronomy	Rural Development Specialist	El Salvador
Osorto, Juan Carlos	M.Sc., Agronomy	Head, PROMECAFE	Guatemala
Otero, Manuel	M.Sc., Veterinary	Advisor to the Director General	Headquarters
Ouellette, J. André	M.Sc., Social Sciences	Director, Coordination of Institutional Affairs	Headquarters
Padilla, Arturo	Ph.D., Economics	Marketing and Agroindustry Specialist	Headquarters
Padilla, Jaime	B.Sc., Agronomy	Irrigation Specialist	Brazil
Páez, Gilberto	Ph.D., Agronomy	Representative	Dominican Rep.
Palma, Víctor	Ph.D., Agronomy	Director, Andean Area Operations	Headquarters
Pando, José Luis	M.Sc., Economics	Marketing and Agroindustry Specialist	Mexico
Pannunzio, Luiz Carlos	B.Sc., Economics	Representative	Paraguay
Pasten, Waldo Héctor	B.Sc., Agronomy	Agricultural Production Specialist	Bolivia
Pastora, Juan Francisco	Lic., Economics	Economist	Honduras
Paulet, Manuel	Ph.D., Agronomy	Land and Water Conservation and Management Specialist	Brazil
Pedrosa, Marta María	Lic., Economics	Economist	Brazil
Peña, Ismael	Lic., Economics	Head, Marketing Unit	Colombia
Perdomo, Alberto	Ph.D., Agronomy	Plant Protection Specialist	Costa Rica
Pereira, Olivo	Lic., Accounting	Accountant	Brazil
Pérez, Reynaldo	D.V.M., Veterinary Med.	Coordinating Secretary, CORECA	Headquarters
Phillips, Ronnie	M.Sc., Agronomy	Agricultural Economist	Brazil

Name	Academic Title	Position at IICA	Duty Station
Pierre, Reginald	Ph.D., Veterinary Med.	Director, Caribbean Area Operations	Barbados
Pinchinat, Antonio	Ph.D., Biology	Regional Technology Generation and Transfer Specialist	St. Lucia
Pineda, Raul Amable	M.Sc., Management	Agricultural Communicator	Dominican Rep.
Pira, Lars	Ph.D., Economics	Agricultural Policy Analysis and Planning Specialist	Headquarters
Planella, Isidro	M.Sc., Agronomy	Agroindustry Specialist	Trinidad and Tobago
Poitevien, Ghislaine	M.Sc., Library Sciences	Head, Documentation Services, CIDIA	Headquarters
Pomareda, Carlos	Ph.D., Economics	Director, Program I, Agricultural Policy Analysis and Planning	Headquarters
Pozo, José	Acct., Business Mgmt.	Administrator	Nicaragua
Puignau, Pedro	Lic., Veterinary Med.	Communications Support Specialist	Uruguay
Quirós, Rodolfo	Ph.D., Economics	Director, Program IV, Marketing and Agroindustry	Headquarters
Raine, Susana	M.A., Translation, Interpr.	Head, Language Services, DICA	Headquarters
Ramakrishna, B.	M.Sc., Agronomy	Technology Generation and Transfer Specialist	Ecuador
Ramírez, Pedro Martín	B.A., Agric. Economics	Agricultural Economist	Headquarters
Ramos, Francisco	Lic., Economics	Marketing and Agroindustry Specialist	Peru
Ramsammy, Peter	B.A., Agronomy	Farm Management Specialist	Guyana
Rego, Manuel	M.Sc., Economics	Rural Development Specialist	Costa Rica
Revilla, Freddy	M.A., Economics	UPP Institutional Funding Specialist	Headquarters
Reyes, Armando	Ph.D., Economics	Representative	Guatemala
Reyes, Jesús	M.A., Agronomy	Irrigation and Drainage Specialist	Brazil
Rieger, Enrique	Ph.D., Veterinary Med.	Animal Health Specialist	Ecuador
Rivas, Nelson	M.Sc., Agronomy	Director, PROCIANDINO	Ecuador
Robinson, Harold	M.Sc., Economics	Technical Cooperation Projects Analysis Specialist, DIPROE	Headquarters
Rock, Llewyn	M.A., Economics	Junior Professional	Barbados
Rodríguez, Teresinha	B.A., Psychology	Farmers' Organization Specialist	Brazil

Name	Academic Title	Position at IICA	Duty Station
Rodríguez, Amaro	M.Sc., Agric. Economics	Head, FOSEP	El Salvador
Rodríguez, Lupita	Lic., Library Sciences	Documentalist, CIDIA	Headquarters
Rodríguez, Mario	B.Sc., Veterinary	Project Chief	Guatemala
Rojas, Flory	Lic., Agric. Economics	Assistant, Directorate of Human Resources	Headquarters
Rojas, Ma. del Rosario	Lic., Agronomy	Assistant Agricultural Engineer, CIAT	Headquarters
Román, Lina	B.A., Library Sciences	Librarian, CIDIA	Headquarters
Román, Raúl Oliverio	Lic., Veterinary Med.	Project Management Specialist	Ecuador
Ruano, Sergio	Ph.D., Anthropology	Coordinator, PIPA Project	Costa Rica
Rucks, Carlos	Ph.D., Economics	Director, Southern Area Operations	Headquarters
Ruiz, Manuel	Ph.D., Agronomy	Executive Secretary, RISPAL Project, Program II	Headquarters
Ruiz, Manuel Emilio	M.Sc., Information Sciences	Systems Analyst, Computerized Information Service	Headquarters
Saborío, Jorge Arturo	Lic., Agronomy	Assistant Agricultural Engineer, CIAT	Headquarters
Salazar, Ernesto	M.Sc., Agronomy	Marketing and Agroindustry Specialist	Nicaragua
Salinas, Luis	B.Sc., Agronomy	Agricultural Communications Specialist	Peru
Salvadó, Eduardo	Ph.D., Sociology	Representative	Panama
Samanez, Benjamín	B.Sc., Agronomy	Rural Development Specialist	Venezuela
Sanaiotti, Luiz Antonio	Lic., Business Administr.	Project Planning and Coordination Specialist	Brazil
Sánchez, Marcial	M.B.A., Management	Head, Benefits and Remunerations Division, Human Resources	Headquarters
Saravia, Antonio	M.Sc., Agronomy	Technology Generation and Transfer Specialist	Nicaragua
Scarsi, Juan C.	Ph.D., Agronomy	Technology Generation and Transfer Specialist	Argentina
Scherer, Paulo	B.A., Accounting	Accountant	Brazil
Schlotfeldt, James	M.A., Business Administr.	Director, Human Resources	Headquarters
Schneider, João	Ph.D., Sociology	Rural Development Specialist	Colombia

Name	Academic Title	Position at IICA	Duty Station
Segura, Mariano	Ph.D., Agronomy	Representative	Guatemala
Sepúlveda, Sergio	Ph.D., Economics	Rural Development Specialist	Headquarters
Sermeño, Antonia Luisa	Lic., Management	Administrator	El Salvador
Silva, Francisco A.	B.Sc., Agronomy	Irrigated Agriculture Specialist	Brazil
Silva, Odilson	B.Sc., Agronomy	Alcohol-producing Crops Specialist	Brazil
Silva, Wagner	B.Sc., Agronomy	Human Resources Specialist	Brazil
Sisk, Paul	C.P.A., Accounting	Director of Finances	Headquarters
Snarskis, Michael J.	Ph.D., Anthropology	Head, Editorial Service, DICA	Headquarters
Solís, Clara	Lic., Social Sciences	Rural Development Specialist	Dominican Rep.
Stagno, Horacio	M.Sc., Agronomy	Technology Generation and Transfer Specialist	Dominican Rep.
Stemshorn, Barry	Ph.D., Veterinary Med.	Coordinator, Animal and Plant Health Information and Data Monitoring System	Trinidad and Tobago
Suárez, Susana	Lic., Public Accounting	Accountant	Ecuador
Tablada, Gladys	Lic., Agric. Economics	Project Specialist	Honduras
Tejero, Luis	B.Sc., Agronomy	Farmers' Organization Specialist	Brazil
Telfer, Irwin	B.Sc., Economics	Agricultural Economist	Suriname
Terán, Gonzalo	Lic., Agronomy	Advisor, Project Administration, Management and Operation	Ecuador
Terán, Gustavo	M.Sc., Agronomy	Director of Rural Development	Ecuador
Teruel, Rodolfo	M.B.A., Management	Project Analyst, CEPI	Headquarters
Tim, Jose Ubirajara	M.B.A., Management	Pisciculture Specialist	Brazil
Tineo, Israel	B.Sc., Agronomy	Representative	Peru
Tineo, Nelson	B.Sc., Agronomy	Programming Specialist	Headquarters
Tollini, Paulo Martins	B.Sc., Mech. Engineering	Specialist, Palm Oil Micro-factories	Brazil
Tona, Claudio	M.Sc., Economics	Agricultural Policy Analysis and Planning Specialist	Panama
Tonina, Teodoro	Ph.D., Agronomy	Production Systems Specialist	Argentina
Toro, Guillermo	M.Sc., Agronomy	Agricultural Planning Specialist	Guatemala
Torres, Hugo	Ph.D., Economics	Deputy Representative	Brazil
Torres, Jorge Eduardo	M.Sc., Agronomy	Marketing and Agroindustry Specialist	Headquarters
Torres B., Jorge	Ph.D., Veterinary Med.	Animal Health Specialist	Costa Rica

Name	Academic Title	Position at IICA	Duty Station
Torres Z., Jorge	Ph.D., Economics	Agricultural Policy Analysis and Planning Specialist	Headquarters
Torres, Marco Polo	M.A., Social Commun.	Head, Communications Division, DIREX	Headquarters
Tórrico, David	B.Sc., Agronomy	Agricultural Production Specialist	Bolivia
Trigo, Eduardo	Ph.D., Business Administr.	Director Program II, Technology Generation and Transfer	Headquarters
Tunarosa, Víctor	M.Sc., Forestry Engineering	Rural Development Specialist	Guatemala
Unda, René	B.Sc., Sociology	Rural Development Training Advisor	Ecuador
Urdaneta, Aminta	M.Sc., Sociology	Rural Development Specialist	Brazil
Uribe, María Josefina	Lic., Library Sciences	Documentalist	Colombia
Valdebenito, Alejandro	Lic., Public Accounting	Administrator	Chile
Valerio, Alfredo	Lic., Agronomy	Research Assistant	Headquarters
Vargas, Eduardo	B.Sc., Information Sciences	Systems Programmer, Computerized Information Service	Headquarters
Vargas, Hugo	M.Sc., Agronomy	Animal Production Specialist	Guatemala
Vartanián, Daniel	B.A., Economics	Assistant, Technology Generation and Transfer	Headquarters
Vásquez, Margarita	Lic., Sociology	Administrator	Dominican Rep.
Vásquez, Marta	B.A., Library Sciences	Librarian, CIDIA	Headquarters
Vásquez, Rodolfo	B.A., Management	Head, Accounting and Information Unit, Finances	Headquarters
Vega, Mayo	M.Sc., Agronomy	Agricultural Policy Analysis and Planning Specialist	Venezuela
Vega, Rodolfo	B.Sc., Economics	Natural Resources Evaluation Specialist	Brazil
Vejarano, Gilberto	Ph.D., Sociology	Coffee Technology and Transfer Specialist	Honduras
Veras, Arnaldo	B.Sc., Economics	Representative	Uruguay
Vergara, Nizar	Lic., Economics	Planning and Management Specialist	Colombia
Vigués, Enrique	Ph.D., Economics	Deputy Director for Operations	Headquarters
Vilar, Roberto	B.Sc., Agronomy	Rural Extension Specialist	Brazil



Name	Academic Title	Position at IICA	Duty Station
Vilas, Andrés T.	Ph.D., Economics	Marketing and Agroindustry Specialist	Chile
Villagómez, José Ricardo	Lic., Public Accounting	Administrator PROCIANDINO	Ecuador
Villanueva, Guillermo	M.Sc., Agronomy	Coordinator, PROCACAO	Headquarters
Waiselfisz, Jacobo	M.A., Sociology	Coordinator, IICA/MEC Agreement	Brazil
Wallace, Joan	Ph.D., Sociology	Representative	Trinidad and Tobago
Weld, Leisa	Ph.D., Statistics	Head, Computerized Information Service	Headquarters
Werthein, Jorge	Ph.D., Education	Director, External Relations	Headquarters
Williams, César	B.Sc., Agronomy	Rural Development Specialist	Brazil
Zambrana, Hugo	B.Sc., Agronomy	Forestry Research Specialist	El Salvador
Zeledón, Marianela	B.Sc., Forestry Engineering	Assistant, Organization and Management	Headquarters
Zuñiga, Jorge	B.Sc., Agronomy	Irrigation and Drainage Specialist	Brazil





Appendix 2

***The small-farm economy, made up of diverse social strata, requires equitable rural development policies that will improve living conditions and income for the neediest rural inhabitants.***

## Publications

*Appendix 2 lists all the books and other publications produced by the Editorial Service during 1989.*

*The Editorial Service was also responsible for all aspects of editing, production and distribution of the journal TURRIALBA, as well as for producing the AIBDA journal and various other bulletins and brochures describing the activities of IICA.*

*Another important task was the edition and publication of the 10 documents on the subregions and the Principal Document of the Plan of Joint Action for Agricultural Reactivation in Latin America and the Caribbean (PLANLAC).*

*The publications produced at Headquarters are the result of research experiences, projects, programs, and technical or scientific events sponsored by the Institute or agencies specializing in agricultural development in the Member States.*

*Also listed are selected titles published in the member countries, giving an idea of the wide range of documents produced. The selection of bibliographic materials for this listing was made on the basis of number of pages, relevance to an official series of books or documents, and topics related to IICA programs, for completed works only. In addition to the items on the list, IICA staff members throughout the Americas prepared numerous working documents for symposia and seminars, project proposals, brochures and leaflets for extension work, analytical reports, and feasibility studies.*

## IICA Publications

### *Books and Educational Materials Collection*

CAPACITACION Y participación campesina: Instrumentos metodológicos y medios. 1989. Compiled by F. Jordán. San Jose, C.R., IICA. Books and Educational Materials Collection no. 90. 238 p. ISBN 92-9039-155-3.

GLOOBE, H. 1989. Anatomía aplicada del bovino. San Jose, C.R., IICA. Books and Educational Materials Collection no. 91. 226 p. ISBN 92-9039-160-X.

NICKEL, J.L. 1989. Research management for development: Open letter to a new agricultural research director. San Jose, C.R., IICA. Books and Educational Materials Collection no. 89. 129 p. ISBN 92-9039-154-5.

### *Research and Development Collection*

HARDENBURG, R.E.; WATADA, A.E.; WAN, C.Y. 1989. Almacenamiento comercial de frutas, legumbres y existencias de floristerías y viveros. San Jose, C.R., IICA. Research and Development Collection no. 16. 149 p. ISBN 92-9039-147-2.

IICA (C.R.); FRENCH MINISTRY OF FOREIGN AFFAIRS. 1989. Compendio de agronomía tropical: Tomo II. San Jose. Research and Development Collection no. 13. 693 p. ISBN 92-9039-152-9.

LA ECONOMIA CAMPESINA: Crisis, reactivación y desarrollo. 1989. Compiled by F. Jordán. San Jose, C.R., IICA. Research and Development Collection no. 19. 290 p. ISBN 92-9039-153-7.

### *Administrative Documents Series ISSN-1011-775X*

IICA (C.R.). DIRECTORATE OF PROGRAMMING AND EVALUATION. 1989. The IICA programming system, v. 4: Rules and procedures for preparing the annual plan of operation. San Jose. Administrative Documents Series no. 4. 108 p.

Also in Spanish.

### *IICA's Contributions to Agricultural Literature: Abstracts ISSN 1012-8212*

IICA (C.R.). INTER-AMERICAN AGRICULTURAL DOCUMENTATION AND INFORMATION CENTER. 1989. Contribuciones del IICA a la literatura agrícola: Resúmenes. San Jose. v.1(3-4).

\_\_\_\_\_. 1989. Contribuciones del IICA a la literatura agrícola: Resúmenes. San Jose. v.2(1-4).

### *Miscellaneous Publications Series ISSN-0534-5391*

ALVARADO, R. 1989. Evaluación técnica del PROCASNEA. Guatemala, Gua., IICA. Miscellaneous Publications Series no. A1/GT-89-07. 26 p.

ARDILA, J. 1989. Las enfermedades institucionales más habituales (Aplicación a la investigación agropecuaria). San Jose, C.R., IICA. Program II: Technology Generation and Transfer. Miscellaneous Publications Series no. A1/SC-89-01. 34 p.

BARBATO DE SILVA, C. 1989. Cooperación del IICA con la integración Argentina/Brasil/Uruguay. San Jose, C.R., IICA. Office of the Assistant Deputy Director General for Operations, Directorate of Southern Area Operations. Miscellaneous Publications Series no. A1/SC-89-11. 167 p.

CANTLIFFE, D.J. 1989. Seed physiology. Brasilia, Bra., IICA. Miscellaneous Publications Series no. A4/BR-89-041.

\_\_\_\_\_. 1989. Technology for field-sowing embryos or synthetic seeds. Brasilia, Bra., IICA. Miscellaneous Publications Series no. A4/BR-89-003. 11 p.

DREVES, A.J. 1989. Instructions for fruit fly trappers. Tacarigua, Tri., IICA. Miscellaneous Publications Series no. A2/TT-89-07. 50 p.

DUBOS, B. 1989. Vegetal pathology and grape production. Brasilia, Bra., IICA. Miscellaneous Publications Series no. A4/BR-89-046. 12 p.

ESPAÑOL, I.J.P. 1989. Fitopatología en producción de manzanas. Brasilia, Bra., IICA. Miscellaneous Publications Series no. A4/BR-89-060. 15 p.

- ESTRADA, R. 1989. Un análisis del programa de representantes agrícolas proyectado a su perfeccionamiento a una segunda fase. Guatemala, Gua., IICA. Miscellaneous Publications Series no. A1/GT-89-08. 79 p.
- FERNANDEZ ALSINA, M.A. 1989. Política leiteira da Argentina, Chile e Urugual. Brasilia, Bra., IICA. Miscellaneous Publications Series no. A4/BR-89-037. 359 p.
- FRANCE, F. 1989. Biomathematics in ruminant nutrition. Brasilia, Bra., IICA. Miscellaneous Publications Series no. A4/BR-89-047. 8 p.
- GALAND, R.A. 1989. Distribution of elasticity estimates computed from factor demand systems. Brasilia, Bra., IICA. Miscellaneous Publications Series no. A4/BR-89-055. irreg. p.
- GODRON, M. 1989. Ecology characteristics for the Itarare Region. Brasilia, Bra., IICA. Miscellaneous Publications Series no. A4/BR-89-050.
- GONZALEZ, R. 1989. Entomology: apple production. Brasilia, Bra., IICA. Miscellaneous Publications Series no. A4/BR-89-039. 10 p.
- GORONDI, P.E. 1989. Planejamento estratégico. Brasilia, Bra., IICA. Miscellaneous Publications Series no. A4/BR-89-043. 40 p.
- GROF, B. 1989. Pasture species evaluation. Brasilia, Bra., IICA. Miscellaneous Publications Series no. A4/BR-89-058. 59 p.
- GUERCHE, P. 1989. Biología molecular. Brasilia, Bra., IICA. Miscellaneous Publications Series no. A4/BR-89-040. 9 p.
- HAFLEY, W.L. 1989. Growth and yield model for *Pinus taeda* and *Pinus elliotti* in Brazil. Brasilia, Bra., IICA. Miscellaneous Publications Series no. A4/BR-89-045. 14 p.
- HARRIS, N. 1989. Optical and electron microscopy and immunocytochemistry in the examination of transgenic expression. Brasilia, Bra., IICA. Miscellaneous Publications Series no. A4/BR-89-006. 11 p.
- HEUN, M. 1989. Consultancy on EMBRAPA breeding program for resistance to wheat diseases. Brasilia, Bra., IICA. Miscellaneous Publications Series no. A4/BR-89-020.
- IBARRA, E. 1989. Base de datos de la oferta tecnológica agropecuaria difundida por la Secretaría de Recursos Naturales. Tegucigalpa, Hond., IICA. Miscellaneous Publications Series no. A1/HN-89-002. 155 p.
- IICA (BRA.). 1989. Experiencias no controle das vacinas contra o carbúnculo sintomático no Brasil. Brasilia. Miscellaneous Publications Series no. A4/BR-89-022.
- \_\_\_\_\_. 1989. Informe de situación de los laboratorios de salud animal RILSA 1989. Brasilia. Miscellaneous Publications Series no. A4/BR-89-023.
- \_\_\_\_\_. 1989. Métodos para producao de anticorpos monoclonais. Brasilia. Miscellaneous Publications Series no. A4/BR-89-021.
- IICA (C.R.). 1989. Propuesta para mejorar el sistema de comercialización del arroz en Costa Rica. San Jose. Miscellaneous Publications Series no. A1/CR-89-008. 58 p.
- \_\_\_\_\_. 1989. PROGRAM II: TECHNOLOGY GENERATION AND TRANSFER. 1989. First annual report (in Spanish). Research Network on Animal Production Systems in Latin America (RISPAL). June 1987. San Jose. Miscellaneous Publications Series no. A1/SC-89-07. 68 p.
- \_\_\_\_\_. 1989. Second annual report (in Spanish). Research Network on Animal Production Systems in Latin America (RISPAL). August 1988. San Jose. Miscellaneous Publications Series no. A1/SC-89-08. 15 p.
- IICA (C.R.). PROGRAM IV: MARKETING AND AGROINDUSTRY. 1989. El comercio de productos agropecuarios en el Area Sur: Principales características, evolución, obstáculos y perspectivas. San Jose. Miscellaneous Publications Series no. A1/SC-89-06. 164 p.
- IICA (C.R.). PROGRAM V: ANIMAL HEALTH AND PLANT PROTECTION. 1989. Técnicas para el diagnóstico de babesiosis y anaplasmosis bovinas. San Jose. Miscellaneous Publications Series no. A1/SC-89-09. 79 p.
- IICA (GUA.). PROGRAMA DE INTERMEDIACION FINANCIERA PARA EL DESARROLLO INTEGRAL. 1989. Propuesta para el proyecto productivo de café en el Departamento de Huehuetenango, Guatemala. Miscellaneous Publications Series no. A1/GT-89-03. 15 p.
- \_\_\_\_\_. 1989. Antecedentes, convenio y paquete de currícula de la propuesta técnico-económica para la elaboración del estudio ambiental del Programa de Riego y Drenaje II del Ministerio de Agricultura, Ganadería y Alimentación. Guatemala. Miscellaneous Publications Series no. A1/GT-89-04. 122 p.

- IICA (GUA.). 1989. Presencia institucional del IICA en Guatemala. Miscellaneous Publications Series no. A1/GT-89-05. 31 p.
- \_\_\_\_\_. 1989. Estrategia de acción del IICA en Guatemala (1986-1989). Miscellaneous Publications Series no. A1/GT-89-06. 31 p.
- IICA (PERU). INSTITUTO NACIONAL DE INVESTIGACION AGRARIA Y AGROINDUSTRIAL (PERU). 1989. Guía para la gestión de créditos para las estaciones experimentales del INIAA ante el Banco Agrario del Perú. Ed. by Fabián Erquinigo, Víctor Torres and Miguel Cetrángolo. Lima. Miscellaneous Publications Series no. A3/PE-89-02. 52 p.
- IICA (SALV.). 1989. Memoria de la Reunión Regional sobre Tecnología de Aplicación de Agroquímicos. Ed. by IICA/ISIC. 2 ed. San Salvador. Miscellaneous Publications Series no. A1/SV-87-010. 250 p.
- IICA (TRI.). Desert Locusts in the Caribbean. Proceedings of a Regional Meeting (1988, Port of Spain, TRI.). 1989. Ed. by Barry Stemshorn. Tacarigua. Miscellaneous Publications Series no. A2/TT-89-01. 68 p.
- \_\_\_\_\_. MINISTRY OF FOOD PRODUCTION AND MARINE EXPLOTATION. 1989. A post harvest handling system for cassava (*Manihot esculenta*, Crantz). Tacarigua. Miscellaneous Publications Series no. A2/TT-89-03. 19 p.
- \_\_\_\_\_. 1989. A post harvest handling system for sweet peppers (*Capsicum annuum*). Tacarigua. Miscellaneous Publications Series no. A2/TT-89-05. 20 p.
- JOHNSON, D.G. 1989. Agricultural policy, development and international trade. Brasilia, Bra., IICA. Miscellaneous Publications Series no. A4/BR-89-033. 30 p.
- JONES, A.L. 1989. Research on apple diseases in Brazil. Brasilia, Bra., IICA. Miscellaneous Publications Series no. A4/BR-89-029. 13 p.
- JOSEPH, C.; REGIS, A. 1989. A study of the agricultural stations of the Ministry of Agriculture (Grenada). Report. St. George's, IICA. Miscellaneous Publications Series no. A2/GD-89-001. 31 p.
- KAUFFMAN, H. 1989. Soybean processing technology. Brasilia, Bra., IICA. Miscellaneous Publications Series no. A4/BR-89-048. 9 p.
- KIRBY III, E.G. 1989. Biotechnology of forest species. Brasilia, Bra., IICA. Miscellaneous Publications Series no. A4/BR-89-056. 19 p.
- KOGAN, M. 1989. Soybean insect pest management. Brasilia, Bra., IICA. Miscellaneous Publications Series no. A4/BR-89-053.
- KOZLOWSKY, T.T. 1989. "Seca de Ponteiros" in forestry production in the Rio Doce Valley. Brasilia, Bra., IICA. Miscellaneous Publications Series no. A4/BR-89-017. 29 p.
- KREBERS, E. 1989. Plant genetics. Brasilia, Bra., IICA. Miscellaneous Publications Series no. A4/BR-89-038. 11 p.
- LACHER, T.E. 1989. Programming evaluation and future needs in animal ecology: El Pantanal. Brasilia, Bra., IICA. Miscellaneous Publications Series no. A4/BR-89-041. 18 p.
- LA GRA, J.L.; BORLAND, B. 1989. Profiles of farmers' organizations in Dominica. Dominica, IICA. Miscellaneous Publications Series no. A2/DM-89-001. 147 p.
- LA GRA, J.L. *et al.* 1989. Profiles of farmers' organizations in St. Lucia. St. Lucia, IICA. Miscellaneous Publications Series no. A2/LC-89-001. 125 p.
- LAYNE, R.E.C. 1989. Breeding for bacterial spot resistance (*Xanthomonas campestris* pv. *pruni*). Brasilia, Bra., IICA. Miscellaneous Publications Series no. A4/BR-89-008. 8 p.
- LINDARTE, E. 1989. Capacidad adaptativa en organizaciones de Investigación agropecuaria. San Jose, C.R., IICA. Program II: Technology Generation and Transfer. Miscellaneous Publications Series no. A1/SC-89-01. 48 p.
- MARUNIAK, J.E. 1989. Genetic resources and biotechnology. Brasilia, Bra., IICA. Miscellaneous Publications Series no. A4/BR-89-044. 9 p.
- NEALE, C.M.U.; MERKELY, G.P. 1989. Observations and recommendations on the current state of agricultural irrigation in Brazil. Brasilia, Bra., IICA. Miscellaneous Publications Series no. A4/BR-89-007. 62 p.
- NESHICH, G. 1989. Biophysics and molecular biology. Brasilia, Bra., IICA. Miscellaneous Publications Series no. A4/BR-89-049. 37 p.
- NORD, R. 1989. Operations research analysis. Brasilia, Bra., IICA. Miscellaneous Publications Series no. A4/BR-89-035. 34 p.



- NORTON, G.A. 1989. Tick and tick-borne disease control. Brasilia, Bra., IICA. Miscellaneous Publications Series no. A4/BR-89-012. 26 p.
- OECHSLE, S. 1989. Guide to collecting data for the import substitution database. St. Lucia, IICA. Miscellaneous Publications Series no. A2/LC-89-002. 19 p.
- \_\_\_\_\_. 1989. User's manual for the ORD database. St. Lucia, IICA. Miscellaneous Publications Series no. A2/LC-89-003. 43 p.
- \_\_\_\_\_. 1989. Guide to collecting data for ORD database. St. Lucia, IICA. Miscellaneous Publications Series no. A2/LC-89-004. 31 p.
- \_\_\_\_\_. 1989. User's manual for the egg/broiler monitoring database. St. Lucia, IICA. Miscellaneous Publications Series no. A2/LC-89-005. 36 p.
- \_\_\_\_\_. 1989. Guide to collecting data for egg/broiler monitoring database. St. Lucia, IICA. Miscellaneous Publications Series no. A2/LC-89-006. 20 p.
- PEREZ, E.L. 1989. Amostragem de germoplasma, domesticação e definição de áreas de alta diversidade de espécies perenes tropicais e subtropicais. Brasilia, Bra., IICA. Miscellaneous Publications Series no. A4/BR-89-028. 49 p.
- PINTO, H.G. 1989. Melhoramento, citogenética e genética de triticale. Brasilia, Bra., IICA. Miscellaneous Publications Series no. A4/BR-89-032. 35 p.
- POLLARD, G.V.; FRANCIS, H. 1989. A bibliography of crop pests and other insects of the Commonwealth Caribbean. 1884-1984. Tacarigua, Tri., IICA. Miscellaneous Publications Series no. A2/TT-89-08. 300 p.
- PROCHAZKA, G. 1989. Evaluación de pérdidas poscosecha en arroz en la costa norte del Perú. Lima, Peru, IICA. Miscellaneous Publications Series no. A3/PE-89-04. 45 p.
- QUOIRIM, M. 1989. Plant tissue culture. Brasilia, Bra., IICA. Miscellaneous Publications Series no. A4/BR-89-057. 11 p.
- RAMOS, F.; ESTRADA, J.; ARCE, S.; ARISPE, M.; CASTILLO, C. 1989. Estudio de comercialización e industrialización de la aceituna y subproductos en Tacna. Lima, Peru, IICA. Miscellaneous Publications Series no. A3/PE-89-05. 65 p.
- RAVEN, J.A. 1989. Ionic equilibrium in nitrogen fixation systems. Brasilia, Bra., IICA. Miscellaneous Publications Series no. A4/BR-89-011. 12 p.
- REITZE, N. 1989. Tropical silviculture. Brasilia, Bra., IICA. Miscellaneous Publications Series no. A4/BR-89-042. 18 p.
- RIBA, G. 1989. Entomopatógenos: Recursos genéticos para control biológico. Brasilia, Bra., IICA. Miscellaneous Publications Series no. A4/BR-89-059.
- RIBEIRO, O.K. 1989. Isolation, identification and taxonomy workshop on *Phytophthora* spp. Brasilia, Bra., IICA. Miscellaneous Publications Series no. A4/BR-89-010. 8 p.
- RICHARDSON, M. 1989. Determination of the primary structure (Amino acid sequence) of the polyhedron protein form *Baculovirus anticarsia* (AGMNPV). Brasilia, Bra., IICA. Miscellaneous Publications Series no. A4/BR-89-009. 9 p.
- ROCHE, L. 1989. Forest genetic resources conservation. Brasilia, Bra., IICA. Miscellaneous Publications Series no. A4/BR-89-0.
- SCHAAD, N.W. 1989. Advanced international course on seed pathology in wheat. Brasilia, Bra., IICA. Miscellaneous Publications Series no. A4/BR-89-002. 7 p.
- SCHENK, N.C. 1989. Consultancy on VA Mycorrhizae fungi. Brasilia, Bra., IICA. Miscellaneous Publications Series no. A4/BR-89-016.
- SCHUH, E.G. 1989. Agricultural policy, development and trade. Brasilia, Bra., IICA. Miscellaneous Publications Series no. A4/BR-89-034. 15 p.
- SINGH, R.P. 1989. Doenças causadas por ácidos nucleicos patogénicos em coqueiro e dendezeiro. Brasilia, Bra., IICA. Miscellaneous Publications Series no. A4/BR-89-031. 10 p.
- SKINNER, F. 1989. Simposio internacional de fixação de nitrogênio das não-leguminosas. Brasilia, Bra., IICA. Miscellaneous Publications Series no. A4/BR-89-001. 36 p.
- TAKAHASHI, Y. 1989. Experimental embryology. Brasilia, Bra., IICA. Miscellaneous Publications Series no. A4/BR-89-036. 9 p.
- THOMAS, D. 1989. Ex-post evaluation system for PROCENSUL II. Brasilia, Bra., IICA. Miscellaneous Publications Series no. A4/BR-89-019. 20 p.

- THORSEN, J. 1989. Enzyme-linked immunoabsorbent assay (ELISA) for serologic diagnosis of equine infectious anemia. Brasilia, Bra., IICA. Miscellaneous Publications Series no. A4/BR-89-013. 8 p.
- TIGCHELAR, E.C. 1989. Research on processing tomato in Brazil. Brasilia, Bra., IICA. Miscellaneous Publications Series no. A4/BR-89-051.
- TORO, G. 1989. El comportamiento de los productos de origen agropecuario y la inflación en Guatemala 1983-1988. Guatemala, Gua., IICA. Miscellaneous Publications Series no. A1/GT-89-01. 47 p.
- TRIGO, E.J. 1989. La participación del sector privado en la investigación agropecuaria: notas y comentarios. San Jose, C.R., IICA. Program II: Technology Generation and Transfer. Miscellaneous Publications Series no. A1/SC-89-01. 30 p.
- VANDERLEYDEN, J. 1989. Development of genetic tools for the analysis of *Acetobacter diazotrophicus*. Brasilia, Bra., IICA. Miscellaneous Publications Series no. A4/BR-89-005. 8 p.
- VALENCIA, M.; PEREZ, W.; RAMOS, F. 1989. Estrategia para impulsar el procesamiento rural de los cultivos nativos andinos. Lima, Peru, IICA. Miscellaneous Publications Series no. A3/PE-89-06. 150 p.
- VIEIRA, R.A.P. 1989. Consultoria em epidemiologia de suínos. Brasilia, Bra., IICA. Miscellaneous Publications Series no. A4/BR-89-026. 11 p.
- VILLEDA DE GARCIA, B. 1989. La deuda externa del sector público agrícola de Guatemala. Situación actual y perspectivas. Guatemala, Gua., IICA. Miscellaneous Publications Series no. A1/GT-89-02. 73 p.
- VOSTI, S.A. 1989. Consultancy on technology adoption and human capital in agricultural research. Brasilia, Bra., IICA. Miscellaneous Publications Series no. A4/BR-89-018. 44 p.
- WAHAL, I. 1989. Cereal pathology and breeding: Small grain crops improvement in Brazil. Brasilia, Bra., IICA. Miscellaneous Publications Series no. A4/BR-89-030. 11 p.

WILKINS, J.V. 1989. Cattle conservation and breeding programmes of CPAP in the Pantanal, Brasil. Brasilia, Bra., IICA. Miscellaneous Publications Series no. 4A/BR-89-015. 14 p.

ZULUAGA, F.O. 1989. Taxonomia de gramineas tropicais, generos da tribo Paniceae. Brasilia, Bra., IICA. Miscellaneous Publications Series no. A4/BR-89-004. 40 p.

### *Official Documents Series*

IICA (C.R.). DIRECTORATE FOR THE COORDINATION OF INSTITUTIONAL AFFAIRS. 1989. Report of the Ninth Regular Meeting of the Executive Committee. San Jose. Official Documents Series no. 46. 193 p.

Also in Spanish, French and Portuguese.

IICA (C.R.). DIRECTORATE FOR THE COORDINATION OF INSTITUTIONAL AFFAIRS. 1989. Report of the Fifth Regular Meeting of the Inter-American Board of Agriculture. San Jose. Official Documents Series no. 47. 329 p.

Also in Spanish, French and Portuguese.

### *Plan of Joint Action for Agricultural Reactivation in LAC (PLANLAC)*

IICA (C.R.). 1989. Plan of Joint Action in Support of Agricultural Reactivation in the Central American Isthmus and the Dominican Republic. San Jose. 154 p. (Plan of Joint Action for Agricultural Reactivation in Latin America and the Caribbean no. 2).

Also in Spanish.

\_\_\_\_\_. 1989. Plan of Joint Action for Agricultural Reactivation in the Countries of the Andean Subregion. San Jose. 129 p. (Plan of Joint Action for Agricultural Reactivation in Latin America and the Caribbean no. 4).

Also in Spanish.

\_\_\_\_\_. 1989. Plan of Joint Action for Reactivation of Agriculture in the Caribbean Countries. San Jose. 64 p. (Plan of Joint Action for Agricultural Reactivation in Latin America and the Caribbean no. 5).

Also in Spanish.

IICA (C.R.). 1989. Plan of Joint Action for Agricultural Reactivation in the Countries of the Southern Area. San Jose. 148 p. (Plan of Joint Action for Agricultural Reactivation in Latin America and the Caribbean no. 6).

Also in Spanish.

\_\_\_\_\_. 1989. Plan of Joint Action for Agricultural Reactivation in Latin America and the Caribbean: the Case of Haiti. San Jose. 49 p. (Plan of Joint Action for Agricultural Reactivation in Latin America and the Caribbean no. 8).

Also in Spanish.

\_\_\_\_\_. 1989. Plan of Joint Action for Agricultural Reactivation in Latin America and the Caribbean: the Case of Mexico. San Jose. 107 p. (Plan of Joint Action for Agricultural Reactivation in Latin America and the Caribbean no. 10).

Also in Spanish.

\_\_\_\_\_. 1989. Principal document. San Jose. 161 p. (Plan of Joint Action for Agricultural Reactivation in Latin America and the Caribbean no. 11).

Also in Spanish.

\_\_\_\_\_. 1989. Modernización del estado para la reactivación y desarrollo de la agricultura en América Latina: Documentos de referencia. San Jose. 89 p. (Plan of Joint Action for Agricultural Reactivation in Latin America and the Caribbean no. 12).

IICA (C.R.). 1989. Demanda y canales de comercialización de nuevos productos de posible interés para Latinoamérica en el Mercado Europeo. San Jose. 342 p. (Plan of Joint Action for Agricultural Reactivation in Latin America and the Caribbean no. 13).

\_\_\_\_\_. 1989. Comunicación para el desarrollo rural: Versión preliminar. San Jose. 42 p. (Plan of Joint Action for Agricultural Reactivation in Latin America and the Caribbean no. 14).

\_\_\_\_\_. 1989. Plan of Joint Action for Agricultural Reactivation in Latin America and the Caribbean: Principal document. San Jose. 161 p. (Plan of Joint Action for Agricultural Reactivation in Latin America and the Caribbean). ISBN 92-9039-159-6.

Also in Spanish

*Program Papers Series*  
*ISSN 1011-7741*

DE JANVRY, A.; MARSH, R.; RUNSTEN, D.; SADOULET, E.; ZABIN, C. 1989. Rural development in Latin America: an evaluation and a proposal. San Jose, C.R., IICA. Program III: Organization and Management for Rural Development. Program Papers Series no. 12. 155 p.

DE LA OSSA, A.; GUERRA-BORGES, A. 1989. Acceso a mercados y comercio intrarregional. San Jose, C.R., IICA. Program IV: Marketing and Agroindustry. Program Papers Series no. 15. 60 p.

JORDAN, F.; MIRANDA, C.; SEPULVEDA, S.; RUBEN, W. 1989. La economía campesina en la reactivación y el desarrollo agropecuario. San Jose, C.R., IICA. Program III: Organization and Management for Rural Development. Program Papers Series no. 10. 85 p.

LUISELLI, C.; VIDALI, C. 1989. México en la Ronda Uruguay: El caso de la agricultura. San Jose, C.R., IICA. Program IV: Marketing and Agroindustry. Program Papers Series no. 9. 72 p.

POMAREDA, C.; NORTON, R.; RECA, L.; TORRES, J. 1989. Las políticas macroeconómicas y la agricultura. San Jose, C.R., IICA. Program I: Agricultural Policy Analysis and Planning. Program Papers Series no. 14. 67 p.

SCHUH, G.E.; ANGELI-SCHUH, M.I. 1989. Human capital for agricultural development in Latin America. San Jose, C.R., IICA. Program II: Technology Generation and Transfer. Program Papers Series no. 11. 39 p.

TRIGO, E.J.; RUNSTEN, D. 1989. Hacia una estrategia tecnológica para la reactivación de la agricultura de América Latina y el Caribe. San Jose, C.R., IICA. Program II: Technology Generation and Transfer. Program Papers Series no. 13. 91 p.

VASQUEZ, R.; WEBB, R.; POMAREDA, C.; CIRIO, F. 1989. Inversión y mecanismos para la movilización de recursos financieros para la agricultura. San Jose, C.R., IICA. Program I: Agricultural Policy Analysis and Planning. Program Papers Series no. 16. 75 p.

***Reports, Results and Recommendations from  
Technical Events Series ISSN-0253-4746***

BAREIRO, J.; CHAQUILLA, O.; LERZUNDI, A. 1989. Seminario sobre Metodología de Identificación, Priorización y Elaboración de Perfiles de Proyectos Agrícolas. Lima, Peru, IICA. Reports, Results and Recommendations from Technical Events Series A3/PE-89-01. 65 p.

IICA (BRA.). 1989. Os desafios da agricultura brasileira nos anos 90: Da crise macroeconomica ao crescimento setorial auto-sustentado. Brasilia. Reports, Results and Recommendations from Technical Events Series no. A4/BR-89-01. 223 p.

IICA (C.R.). PROGRAM I: AGRICULTURAL POLICY ANALYSIS AND PLANNING. 1989. Memoria del Seminario-Taller: Procesos y Modernización de la Agricultura en América Latina y el Caribe (1989, San Jose, C.R.). San Jose. Reports, Results and Recommendations from Technical Events Series no. A1/SC-89-09. 60 p.

\_\_\_\_\_. 1989. Memoria del Seminario: La Política Agrícola Común Europea y la Cooperación para el Desarrollo (1988, San Jose, C.R.). San Jose. Reports, Results and Recommendations from Technical Events Series no. A1/SC-89-02. 74 p.

\_\_\_\_\_. PROGRAM II: TECHNOLOGY GENERATION AND TRANSFER. 1989. Síntesis de Sesiones y Conclusiones del Seminario: Políticas y Movilización de Recursos para la Innovación Tecnológica en la Agricultura de América Latina y el Caribe (1988, Montevideo, Uru.). San Jose. Reports, Results and Recommendations from Technical Events Series no. A1/SC-89-04. 76 p.

\_\_\_\_\_. 1989. Informe VIII Reunión General de la Red de Investigación en Sistemas de Producción Animal en Latinoamérica (RISPAL). (1988, Guatemala, Gua.). San Jose. Reports, Results and Recommendations from Technical Events Series no. A1/SC-89-06. 505 p.

\_\_\_\_\_. 1989. Summary and Conclusions of the Seminar on Policies and Mobilization of Resources for Technological Innovation in Latin America and the Caribbean (1988, Montevideo, Uru.). San Jose. Reports, Results and Recommendations from Technical Events Series no. A1/SC-89-05. 24 p.

\_\_\_\_\_. PROGRAM II: TECHNOLOGY GENERATION AND TRANSFER; FEDERACION DE ENTIDADES PRIVADAS DE CENTROAMERICA Y PANAMA. 1989. Seminario: Oportunidades de las Biotecnologías Agropecuarias en América Central (1988, San Pedro Sula, Hond.). San Jose. Reports, Results and Recommendations from Technical Events Series no. A1/SC-89-03. 206 p.

\_\_\_\_\_. PROGRAM IV: MARKETING AND AGROINDUSTRY. 1989. Políticas para el Desarrollo Agroindustrial. San Jose. Reports, Results and Recommendations from Technical Events Series no. A1/SC-89-07. 480 p.

\_\_\_\_\_. 1989. Compilación de las ponencias. Memoria: Taller sobre Estrategias Metodológicas para el Desarrollo Agroindustrial Rural (1988, Cali, Col.). San Jose. Reports, Results and Recommendations from Technical Events Series no. A1/SC-89-01.

IICA (C.R.). PROGRAM V: ANIMAL HEALTH AND PLANT PROTECTION. 1989. Memorias de la III Reunión de la Comisión Interamericana de Salud Animal (COINSA III). (1989, Buenos Aires, Arg.). San Jose. Reports, Results and Recommendations from Technical Events no. A1/SC-89-12. 248 p.

\_\_\_\_\_. 1989. Memorias del Seminario de Administración y Economía en Salud Animal (1989, Buenos Aires, Arg.). San Jose. Reports, Results and Recommendations from Technical Events Series no. A1/SC-89-10. 110 p.

\_\_\_\_\_. 1989. Memoria del Taller: Legislación Sanitaria y Comercio Internacional Agropecuario (1989, San Jose, C.R.). San Jose. Reports, Results and Recommendations from Technical Events Series no. A1/SC-89-08. 82 p.

IICA (GUA.). 1989. Seminario-Taller: La Política Macroeconómica y su Relación con el Sector Agrícola de Guatemala. Guatemala, IICA-USPADA. Reports, Results and Recommendations from Technical Events Series no. A1/GT-89-02. 80 p.

\_\_\_\_\_. 1989. Seminario-Taller: Oportunidades de Inversión Agrícola y Selección de Proyectos. Guatemala, IICA-USPADA. Serie Ponencias, Resultados y Recomendaciones de Eventos Técnicos no. A1/GT-89-02. 70 p.

IICA (GUA.). 1989. Seminario-Taller: El Sistema de Información Agrícola de Guatemala. Guatemala, IICA-USPADA. Reports, Results and Recommendations from Technical Events Series no. A1/GT-89-03. 100 p.

IICA (GREN.). 1989. Workshop on Formulation of Programmes for Technological Development of Agriculture in Grenada. (1988, St. George's, GREN.). [Proceedings]. Reports, Results and Recommendations from Technical Events Series no. A2/GD-89-001. 31 p.

IICA (ST. LC.). 1989. Proceedings of the Seminar on Guidelines on Pesticide Usages in St. Lucia. Ed. by Everton C. Ambrose. St. Lucia. Reports, Results and Recommendations from Technical Events Series no. A2/LC-89-002. 18 p.

\_\_\_\_\_. LA GRA, J.L. *et al.* 1989. Experiences in diversification and their application to the OECS. St. Lucia. Reports, Results and Recommendations from Technical Events Series no. A2/LC-89-001. 31 p.

IICA (TRI.). 1989. Animal and Plant Disease and Pest Monitoring for the Caribbean. Proceedings of a Regional Workshop (1988, Port of Spain, Tri.). Ed. by Barry Stemshorn and Theresa Bernardo. Tacarigua. Reports, Results and Recommendations from Technical Events Series no. A2/TT-89-02. 163 p.

\_\_\_\_\_. 1989. Seminar on Post Harvest Handling of Hot Peppers (*Capsicum frutescens*) (1988, Port of Spain, Tri.). [Proceedings]. Ed. by Rafael Salazar and Majeed Mohammed. Tacarigua. Reports, Results and Recommendations from Technical Events Series no. A2/TT-89-06. 104 p.

### *Turrialba: Revista Interamericana de Ciencias Agrícolas. ISSN 0041-4360*

IICA (C.R.); EDITORIAL SERVICE. 1989. Turrialba: Revista Interamericana de Ciencias Agrícolas. San Jose, v. 39(1-4).

### *Other IICA Publications*

ARGUMEDO, M. 1989. Experiencia del IICA en Brasil en el campo de acción del Programa III: Organización y Administración para el Desarrollo Rural. Recife, IICA.

ARREGUI, J. 1989. Producción de la faena tipificada de vacunos. Buenos Aires, Arg., IICA.

BREVIS, O. 1989. CIAT: I Advanced course on "Sistema de semillas para pequeños productores". Recife, Bra., IICA.

\_\_\_\_\_. 1989. Diretrizes, metodologia de cálculo e guias de trabalho para realizar os cálculos de recuperação de custos em projetos de irrigação publica estadual do PAPP. Recife, Bra., IICA.

CIENCIAS SOCIALES y enfoque de sistemas agropecuarios. 1989. Ed. by E. Nolte; M. Ruiz, Lima, Peru, IICA. Research Network on Animal Production Systems in Latin American (RISPAL). 172 p.

CHIRIBOGA, M.; LANDIN, R.; BORJA, J. 1989. Los cimientos de una nueva sociedad: Campesinos, cantones y desarrollo. Quito, Ec., IICA. 86 p.

DEHORITY, B.A. 1989. Microbiology in animal production. Brasília, Bra., IICA. 7 p.

DE LAS CARRERAS, A.; FERREIRA, J.A. 1989. Informe sobre las perspectivas de un mercado de futuros de ganado vacuno. Buenos Aires, Arg., IICA.

DE LEON, R. 1989. Investigación de componentes de producción pecuaria: Sistemas de utilización de pastos y forrajes. Proyecto multidisciplinario a corto y mediano plazo. Tegucigalpa, Hond., IICA/SRN/PROFOGASA. Documento de Trabajo. 37 p.

\_\_\_\_\_. 1989. Memoria. Curso de Producción de Semillas de Especies Forrajeras. Tegucigalpa, Hond., IICA/SRN/PROFOGASA. Documento de Trabajo. 84 p.

\_\_\_\_\_. 1989. Propuesta para la creación y operación de la Unidad de Recursos Fitogenéticos Forrajeros del Departamento de Investigación Pecuaria de la Dirección General de Ganadería. Tegucigalpa, Hond., IICA/SRN/PROFOGASA. Documento de Trabajo. 41 p.

\_\_\_\_\_. 1989. Guía técnica sobre la agronomía de producción de semillas de especies forrajeras. Tegucigalpa, Hond., IICA/SRN/PROFOGASA. Documento de Trabajo. 75 p.

\_\_\_\_\_. 1989. Propuesta de reglamentos, normas y procedimientos para la producción de semillas de especies forrajeras. Tegucigalpa, Hond., IICA/SRN/PROFOGASA. Documento de Trabajo. 75 p.

- DE LEON, R. 1989. Guía técnica sobre la agronomía de producción de semillas de especies forrajeras. Tegucigalpa, Hond., IICA/SRN/PROFOGASA. Documento de Trabajo. 75 p.
- \_\_\_\_\_. 1989. Propuesta de reglamentos, normas y procedimientos para la producción de semillas de especies forrajeras. Tegucigalpa, Hond., IICA/SRN/PROFOGASA. Documento de Trabajo. 75 p.
- \_\_\_\_\_. 1989. Acondicionamiento de semillas de especies forrajeras para Honduras. Tegucigalpa, IICA/SRN/PROFOGASA. Documento de Trabajo. 42 p.
- ESPINOSA, W.; GOMES, U. 1989. Adaptação e transferencia de tecnologias nos perímetros irrigados da CODEVASF: o papel das unidades de observação e demonstração. Brasília, Bra., IICA. 67 p.
- ESPINOSA, B.A. 1989. Os solos do Baixo São Francisco. Brasília, Bra., IICA. 24 p.
- FRANCO, C. 1989. Informe final de consultoría en evaluación socioeconómica. Cooperación técnica IICA-MAGA; Programa de Sanidad Animal. Guatemala, Gua., IICA. Informes Técnicos A1/GT-89-04. 58 p.
- GALVEZ, H.; PADILLA, J.; NONONE, C.; PAULET, M. 1989. Avanço dos estudos para implantação do Projeto de Irrigação de Gravata/PB. Recife, Bra., IICA. Informe Técnico.
- GUERRERO, C. 1989. Claves de identificación de ixódidos. Tegucigalpa, Hond., IICA/SRN/PROFOGASA. Documento de Trabajo. 74 p.
- GUZMAN, J.M. 1989. Informe final do Convenio IICA/Secretaria de Educação do Piauí. Teresina, Bra., IICA.
- IBARRA, E. 1989. El sistema de generación y transferencia de tecnología agropecuaria de la Secretaría de Recursos Naturales: Breve descripción analítica y recomendaciones generales. Tegucigalpa, Hond., IICA. 77 p.
- IICA (ARG.). 1989. Estrategia de acción del IICA a nivel de país: Argentina 1990-1991. Buenos Aires.
- \_\_\_\_\_. 1989. Fluctuaciones cíclicas del stock vacuno. Buenos Aires. Documento de Trabajo no. 1.
- \_\_\_\_\_; CONVENIO JUNTA NACIONAL DE CARNES/IICA/PNUD. 1989. Area de mercadotecnia. Buenos Aires. Documento de Trabajo no. 2.
- \_\_\_\_\_. 1989. Relevamiento permanente a comercios minoristas de carnes. Buenos Aires. Documento de Trabajo no. 3.
- \_\_\_\_\_. 1989. Metodología para el diseño, desarrollo y documentación de un sistema económico sectorial. Buenos Aires. Documento de Trabajo no. 5.
- IICA (BOL.). 1989. Bases para una estrategia de comercialización en proyectos de desarrollo agrícola con pequeños productores: La problemática de los mercados campesinos. La Paz.
- \_\_\_\_\_; CORPORACION REGIONAL DE DESARROLLO DE POTOSI. 1989. Estudio sobre comercialización de ovinos en la Provincia Modesto Omiste. Tupiza.
- \_\_\_\_\_. 1989. Estudio sobre comercialización de caprinos en el área del proyecto Cotagua-San Juan del Oro. Tupiza.
- \_\_\_\_\_. 1989. Estudio sobre comercialización de maíz en el área del proyecto Cotagaita-San Juan del Oro. Tupiza.
- \_\_\_\_\_. 1989. Estudio sobre comercialización de durazno en el área del proyecto Cotagaita-San Juan del Oro. Tupiza.
- \_\_\_\_\_. 1989. Estudio sobre comercialización de durazno en el área del proyecto Cotagaita-San Juan del Oro. Tupiza.
- IICA (BOL.); CORPORACION REGIONAL DE DESARROLLO DE CHIQUISACA. 1989. Estudio sobre comercialización de la papa cultivada en el área del proyecto Chuquisaca norte. Sucre.
- \_\_\_\_\_. 1989. Estudio sobre comercialización del trigo en el área del proyecto Chuquisaca norte. Sucre.
- IICA (C.R.). INTER-AMERICAN AGRICULTURAL DOCUMENTATION AND INFORMATION CENTER. 1989. Información sobre eventos en ciencias agrícolas y afines. San Jose. v.3(1-3).
- \_\_\_\_\_; PROGRAM I: AGRICULTURAL POLICY ANALYSIS AND PLANNING. 1989. ICAPPA; Bibliographic Service on Research and Training in Agricultural Policy Analysis. Special number: Finance and Investment. San Jose. v.2(1-4).
- \_\_\_\_\_. PROGRAM I: AGRICULTURAL POLICY ANALYSIS AND PLANNING. 1989. ICAPPA; Bibliographic Service on Research and Training in Agricultural Policy Analysis. San Jose. 85 p.

IICA (C.R.). PROGRAM II: TECHNOLOGY GENERATION AND TRANSFER. 1989. ORADIA; Bibliographic Information Service on Organization and Management of Agricultural Research. San Jose. v.2(1-4).

\_\_\_\_\_. PROGRAM III: ORGANIZATION AND MANAGEMENT FOR RURAL DEVELOPMENT. 1989. DESARURAL; Bibliographic Information Service on Organization and Administration for Rural Development. San Jose. v.1(1-4).

\_\_\_\_\_. PROGRAM IV: MARKETING AND AGROINDUSTRY. 1989. AGR-Y-COM; Bibliographic Information Service. San Jose. v.1(1-4).

\_\_\_\_\_. PROGRAM V: ANIMAL HEALTH AND PLANT PROTECTION. 1989. ANIMAL HEALTH; Bibliographic Information Service. San Jose. v.2(1-4).

\_\_\_\_\_. PROGRAM V: ANIMAL HEALTH AND PLANT PROTECTION. 1989. Bibliografía sobre langosta del desierto (*Schistocerca gregaria*). San Jose. 61 p.

\_\_\_\_\_. 1989. CACAO; Bibliographic Information Service. San Jose. v.1(1-2).

\_\_\_\_\_. COOPERATIVE PROGRAM FOR THE PROTECTION AND MODERNIZATION OF COFFEE CULTIVATION. 1989. REDCAFE; Bibliographic Information Service. San Jose. v.1(1-2).

\_\_\_\_\_. PROGRAM I: AGRICULTURAL POLICY ANALYSIS AND PLANNING. 1989. Information System for Agricultural Policy Analysis in Latin America and the Caribbean (SIAPA). San Jose. 11 p.

Also in Spanish.

\_\_\_\_\_. 1989. DIRECTORATE FOR THE COORDINATION OF INSTITUTIONAL AFFAIRS. 1989. Annual Report 1988, San Jose. 290 p. ISBN 92-9039-150-2.

Also in Spanish.

\_\_\_\_\_. 1989. DIRECTORATE FOR THE COORDINATION OF INSTITUTIONAL AFFAIRS. 1989. Summary of Annual Report 1988. San Jose. 36 p.

Also in Spanish.

\_\_\_\_\_. DIRECTORATE OF PROGRAMMING AND EVALUATION. 1989. Programa-Presupuesto 1989-1990. San Jose. 218 p.

IICA (EC.). PROGRAMA COOPERATIVO DE INVESTIGACION AGRICOLA PARA LA SUBREGION ANDINA. 1989. VIII Seminario: Métodos y experiencias de Investigación agrícola en campos de agricultores. Ed. by B. Ramakrishna. Quito. 281 p.

\_\_\_\_\_. 1989. IX Seminario: Manejo de Enfermedades y Plagas de Maíz. Ed. by B. Ramakrishna. Quito. 201 p.

\_\_\_\_\_. 1989. X Seminario: Administración de la Investigación Agrícola. Subregión Andina. Ed. by B. Ramakrishna. Quito. 251 p.

\_\_\_\_\_. 1989. XI Seminario: Labranza de Conservación en Maíz. Ed. by H. Barreto. Quito. 195 p.

\_\_\_\_\_. 1989. II Curso Corto: Pruebas en Fincas. Ed. by B. Ramakrishna. Quito. 245 p.

\_\_\_\_\_. 1989. III Curso Corto: Investigación para la producción de haba, lenteja, arveja y garbanzo en la Subregión Andina. Ed. by G. Hernández. Quito. 400 p.

\_\_\_\_\_. 1989. Investigación en los cultivos de arveja y haba. Ed. by G. Hernández. Quito. Boletín Técnico no. 1. 41 p.

\_\_\_\_\_. 1989. Investigación en cultivo de papa. Ed. by P. León. Quito. Boletín Técnico no. 2. 47 p.

\_\_\_\_\_. 1989. Compilación de las conclusiones y recomendaciones de los seminarios y cursos cortos. Ed. by B. Ramakrishna. Quito. Boletín Técnico no. 3. 170 p.

IICA (GUA.). 1989. Cooperación técnica del IICA en Guatemala. Informes Técnicos A1/GT-89-01.

\_\_\_\_\_. 1989. Informe final de la ejecución técnica y administrativa del PROCASNEA. Guatemala. Informes Técnicos A1/GT-89-02. 171 p.

\_\_\_\_\_. 1989. Informe final del contrato para la cooperación técnica IICA-MAGA; contrato administrativo 02-84. Programa de Sanidad Animal. Guatemala. Informes Técnicos A1/GT-89-03. 69 p.

- IICA (HOND.); SECPLAN; COSUDE. 1989. Memoria del Tercer Seminario-Taller: Lineamientos de Política para el Desarrollo de las Etnias Autóctonas. Tegucigalpa.
- \_\_\_\_\_. 1989. Memoria del Cuarto Seminario-Taller: Lineamientos de Política para el Desarrollo Rural: El Punto de Vista de la FENAGH. Tegucigalpa.
- \_\_\_\_\_. 1989. Lineamientos de política y estrategia para el desarrollo rural en Honduras: Un enfoque para la reactivación del sector rural pobre. Tegucigalpa.
- IICA (MEX.). 1989. Lineamientos generales para formular un programa nacional de comercialización agropecuaria: Una propuesta. Mexico, D.F. 12 p.
- \_\_\_\_\_. 1989. Criterios y orientaciones para la implementación de la Dirección de Insumos y Comercialización de la DGSAEP. Mexico, D.F. 61 p.
- \_\_\_\_\_. 1989. Programa IICA/FIRA de comercialización para las explotaciones agropecuarias asistidas por el FIRA. Mexico, D.F. 50 p.
- IICA (SALV.). COOPERATIVE PROGRAM FOR THE PROTECTION AND MODERNIZATION OF COFFEE CULTIVATION; INSTITUTO SALVADOREÑO DE INVESTIGACIONES EN CAFE. 1989. Pasos para la siembra de semillero. Ed. by IICA/PROMECAFE. San Salvador. Serie Orientaciones al Caficultor no. 1.
- \_\_\_\_\_. 1989. Pasos para la siembra de viveros de café. Ed. by IICA/PROMECAFE. El Salvador. Serie Orientaciones al Caficultor no. 2.
- \_\_\_\_\_. 1989. Control de chacuete *Idriarthum subquadratum*. Ed. by IICA/PROMECAFE. El Salvador. Serie Orientaciones al Caficultor no. 3.
- IICA (TRI.). 1989. Caraphin news. Tacarigua, no. 1; no. 2.
- IICA (URU.). 1989. La cebolla como rubro de exportación del Uruguay: Seminario-Taller. Ed. by J.L. Marambio y J. Paseyro. Montevideo.
- \_\_\_\_\_. 1989. La uva de mesa como rubro de exportación del Uruguay: Seminario-Taller. Ed. by J.L. Marambio, J. Paseyro y D. Gomez Bono. Montevideo.
- \_\_\_\_\_. 1989. Perspectivas del desarrollo agroindustrial de productos no tradicionales de exportación en Uruguay: Resumen del Seminario-Taller. Ed. by J. Notaro. Montevideo.
- \_\_\_\_\_. 1989. VI Encuentro de Promoción Agropecuaria Municipal: Reunión Técnica. Trinidad, Uru.
- LOPEZ, E.; ESPINOSA, A. 1989. Manual de procedimientos del Sistema de Información y Sistema de Vigilancia Epidemiológica de Salud Animal (SISVESA). Tegucigalpa, Hond., IICA/SRN/PROFOGASA. Documento de Trabajo. 382 p.
- MILLAR, A.A. 1989. A recuperação e modernização dos projetos de irrigação como fator de expansão produtiva de agricultura irrigada. Brasília, Bra., IICA. 54 p.
- \_\_\_\_\_. 1989. A cooperação técnica do IICA aos programas de irrigação no Brasil. Brasília, Bra., IICA. 23 p.
- \_\_\_\_\_. 1989. Assistência técnica ao DNOCS. Brasília, Bra., IICA. v.1, tomo 8, 91 p.
- \_\_\_\_\_. 1989. Capacitação de recursos humanos. Brasília, Bra., IICA. v.1, tomo 2, anexo c, 20 p.
- \_\_\_\_\_. 1989. Diagnóstico e Plano de recuperação e modernização do perímetro irrigado São Gonçalo: Documento síntese. Brasília, Bra., IICA. 34 p.
- \_\_\_\_\_. 1989. Manejo racional da irrigação: Uso de informações básicas sobre diferentes culturas. 2 ed. Brasília, Bra., IICA. 57 p.
- \_\_\_\_\_; ZUÑIGA, J.H.; VIEIRA, G.M.; FREITAS, G.B.; FIGUEREIDO, L.P.P.; FLORENCIO, E.A.M. 1989. Plano de recuperação e modernização do perímetro Irrigado Guru-Paraipaba. Fortaleza, Bra., IICA. 230 p.
- \_\_\_\_\_. 1989. Diagnóstico do perímetro irrigado Curu-Paraipaba para formulação do plano de recuperação e modernização. Paraipaba, Bra., IICA. 203 p.
- MILLAR, A.A.; VIEIRA, G.M.; FREITAS, G.B.; AGUIAR JUNIOR, A.P.; FLORENCIO, E.A.M.; PEREIRA, Z.M.R. 1989. Plano de recuperação e modernização do perímetro irrigado São Gonçalo. Recife, Bra., IICA. 187 p.
- MILLAR, A.A.; ZUÑIGA, J.H.; CARVALHO, J.M. 1989. Projeto Subsetorial de Irrigação II: Recuperação, modernização e emancipação dos perímetros irrigados do DNOCS. Fortaleza, Bra., IICA. 95 p.



- MOLESTINA, C.J. 1989. La información científica y documental y las publicaciones en el Instituto Interamericano de Cooperación para la Agricultura. In Seminario Internacional: Las Fuentes de Información Agraria de Países Hispanófonos (1989, Madrid, España). Madrid, España, CTA/CEE/INIA. 13 p.
- PANDO, J.L. 1989. Lineamientos para el diseño de un banco de datos para el Programa de Precios de Garantía. Mexico, D.F., Mex., IICA. 24 p.
- \_\_\_\_\_. 1989. Propuesta de creación de una comisión nacional agropecuaria de defensa contra la competencia desleal externa. Mexico, D.F., Mex., IICA. 10 p.
- PAULET, M. 1989. Cooperación técnica al Programa de Apoyo al Pequeño Productor: Convenio IICA/SUDENE-PAPP. Recife, Bra., IICA.
- \_\_\_\_\_. 1989. La irrigación para el desarrollo rural. Recife, Bra., IICA.
- \_\_\_\_\_. 1989. Soil water management and conservation for agriculture in Saint Vincent: A trip report. Recife, Bra., IICA.
- \_\_\_\_\_. 1989. Términos de referencia para la elaboración de la propuesta de cooperación técnica del IICA con el PAPP para el quinquenio 1990-1994. Recife, Bra., IICA.
- \_\_\_\_\_. 1989. Water requirements for agriculture in Grenada: A trip report. Recife, Bra., IICA.
- \_\_\_\_\_; NONONE, C. 1989. Estudio de solos de Gravatá/PB: Términos de referencia. Recife, Bra., IICA.
- \_\_\_\_\_; ARGUMEDO, M. 1989. Propuestas sobre normas de actuación del IICA en relación con la ejecución de acuerdos y atención de organismos nacionales con recursos externos. Recife, Bra., IICA. 8 p.
- PEREZ, J.M. 1989. Informe final de consultoría en comunicación y educación sanitaria. Programa de Sanidad Animal. Guatemala, Gua., IICA. Informes Técnicos A1/GT-89-05. 77 p.
- PHILLIPS, R. 1989. Área de trabalho no PAPP: versão preliminar para discussão. Recife, Bra., IICA.
- PINEDA, J. 1989. La transferencia de tecnología dentro del Programa de Fomento de la Producción Bovina y Sanidad Animal. Tegucigalpa, Hond., IICA/SRN/PROFOGASA. Documento de Trabajo. 113 p.
- \_\_\_\_\_. 1989. Manejo reproductivo de hatos. Tegucigalpa, Hond., IICA/SRN/PROFOGASA. Documento de Trabajo. 22 p.
- \_\_\_\_\_. 1989. Estructura del Servicio de Inseminación Artificial. Tegucigalpa, Hond., IICA/SRN/PROFOGASA. Documento de Trabajo. 29 p.
- \_\_\_\_\_. 1989. Mejoramiento genético: Esquema de selección y cruzamientos. Tegucigalpa, Hond., IICA/SRN/PROFOGASA. Documento de Trabajo. 28 p.
- \_\_\_\_\_. 1989. La investigación pecuaria dentro del Programa de Fomento de la Producción Bovina y Sanidad Animal. Tegucigalpa, Hond., IICA/SRN/PROFOGASA. Documento de Trabajo. 82 p.
- PLANELLA, I. 1989. Posibilidades de la agroindustria de granja en Uruguay. Montevideo, Uru., IICA. 58 p.
- REUNION LATINOAMERICANA SOBRE FINANCIAMIENTO AGRICOLA (7., 1989, San Jose, C.R.). 1989. [Informe]. San Jose, C.R., IICA. Program I: Agricultural Policy Analysis and Planning. 12 p.
- ROSEGRANT, M.W. 1989. Investment benefits from agricultural research. Brasília, Bra., IICA. 25 p.
- RUANO, S. 1989. El Sondeo: Actualización de su metodología para caracterizar sistemas de producción animal de Latinoamérica. IICA/RISPAL. 103 p.
- SEMINARIO-TALLER: PROCESOS DE MODERNIZACION DE LA AGRICULTURA DE AMERICA LATINA Y EL CARIBE (1989, San Jose, C.R.). 1989. [Informe]. San Jose, C.R., IICA. Program I: Agricultural Policy Analysis and Planning. 8 p.
- SOLIS, S. 1989. Manual de procedimientos para el control del tórsalo. Tegucigalpa, Hond., IICA/SRN/PROFOGASA. Documento de Trabajo. 36 p.
- \_\_\_\_\_. 1989. Organización técnico-administrativa: Proyecto Control de Garrapata (*Boophilus microplus*) y Tórsalo (*Dematobia hominis*). Tegucigalpa, Hond., IICA/SRN/PROFOGASA. Documento de Trabajo. 36 p.
- \_\_\_\_\_. 1989. Metodología y procedimientos para la fase de promoción del Proyecto de Control de Garrapata y Tórsalo a nivel multidisciplinario a corto y mediano plazo. Tegucigalpa, Hond., IICA/SRN/PROFOGASA. Documento de Trabajo. 32 p.

URDANETA, A. 1989. A Importancia da documentação. Recife, Bra., IICA.

\_\_\_\_\_. 1989. Auto avaliação permanente: a experiencia latinoamericana. Recife, Bra., IICA.

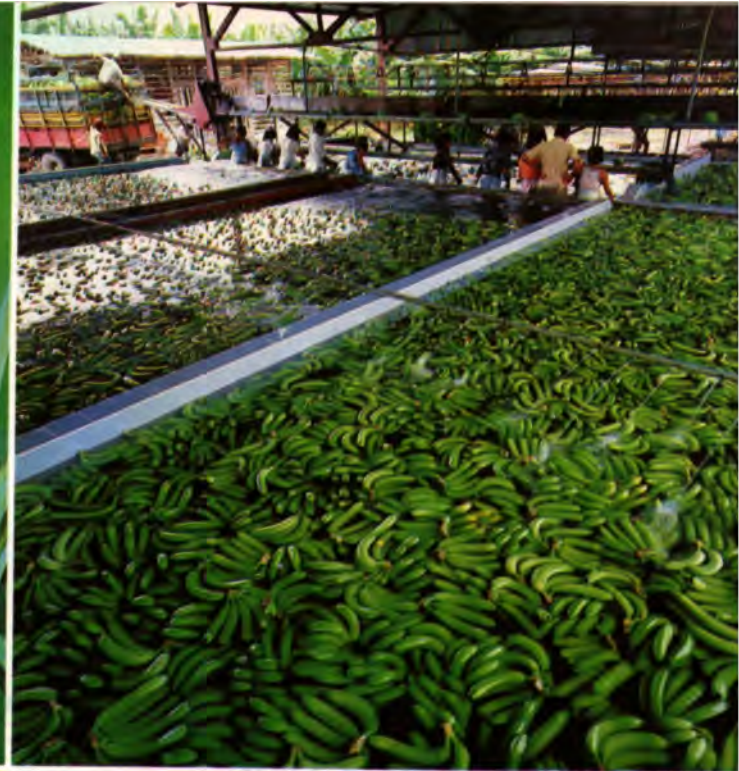
\_\_\_\_\_. 1989. Notas a respeito da organização dos agricultores nas áreas de Salgadinho e Cavaco-PE. Recife, Bra., IICA.

\_\_\_\_\_ ; LIZARRAGA, G.; BRESCIANI, J.C.; TEJERO, L.; PAULET, M.; PHILLIPS, R. 1989. Proposta da metodologia de

transferencia dos bans do Projeto Alcacuz aos agricultores e de estrutura operacional do projeto. Recife, Bra., IICA.

ZUÑIGA, J.H. 1989. Balanço hídrico mensal do acude Custodia visando atender as demandas de irrigação. Fortaleza, Bra., IICA.

\_\_\_\_\_. 1989. Proposta para fixação da tarifa d'água para irrigação e abastecimento de centros urbanos e industriais referentes ao ano de 1989. Fortaleza, Bra., IICA. v.1.



Appendix 3

***Traditional export crops, such as bananas, are still important in many tropical countries.***

## **Extra-quota Agreements and Contracts Signed in 1989**

*In Resolution No. 29 of 1983, the Inter-American Board of Agriculture requested the Director General to present the Executive Committee and the Board with all the information on extra-quota agreements and contracts signed with the Member States and external entities.*

*In 1984, the Executive Committee requested the General Directorate to include said information in the Annual Report.*

*Appendix 3 presents the information on these legal instruments by Area/country, listing the title of the instrument, participating institutions, funds committed, by source, and effective life of the instruments.*

## List of Legal Instruments Signed in 1989

AREA/COUNTRY	RESOURCES				
	Title of Instrument	Counterpart Institution	Source	Amount US\$	Duration
<b>CENTRAL</b>					
<b>COSTA RICA</b>					
	Operating Agreement with the National Subterranean Water, Irrigation and Drainage Service of Costa Rica (SENARA) for technical cooperation in carrying out the second stage of the Arenal-Tempisque irrigation project	SENARA	IDB	420 000	30 months
	General Cooperation Agreement with the Costa Rican Museum of Art	Costa Rican Museum of Art	----	----	3 years
	Memorandum of Understanding with the Central Bank of Costa Rica (BCCR) and the Agency for International Development (USAID) to provide funds to create the Control and Follow-Up Office (OCS)	BCCR	USAID	372 670	18 months
	Cooperation Agreement with the Ministry of Agriculture and Livestock (MAG) to provide technical and administrative support to the Executive Secretariat of agricultural sectoral planning	MAG	MAG IICA	24 479 47 796	1 year
	Letter of Understanding with the Agricultural Development Institute (IDA) for a technical cooperation project to identify, prepare and execute rural development projects in small farmers' organizations	IDA	IICA IDA	105 493 24 570	2 years

Source: Directorate of Programming and Evaluation

AREA/COUNTRY	Title of Instrument	Counterpart Institution	RESOURCES		Duration
			Source	Amount US\$	
<b>DOMINICAN REPUBLIC</b>					
	Attachment No. 3 to the Technical Cooperation Agreement with the National Institute of Water Resources (INDRHI) to set up a follow-up and evaluation system for the Nizao-Valdesia irrigation project	INDRHI	INDRHI	----	1 year
	Attachment No. 4 to the Technical Cooperation Agreement with the National Institute of Water Resources (INDRHI) to set up a follow-up and evaluation system for the Nizao-Valdesia irrigation project	INDRHI	INDRHI	19 491	1 year
<b>EL SALVADOR</b>					
	Consultancy Contract with the Salvadoran Pre-Investment Studies Fund (FOSEP)	FOSEP	IDB	715 929	9 months
	Cooperation Contract for consultancy services to the institutional strengthening program of the Ministry of Agriculture and Livestock (MAG)	MAG	IDB IICA	920 000 193 000	3 years
<b>GUATEMALA</b>					
	Agreement for formulation of environmental study of Irrigation and Drainage Program II with the Ministry of Agriculture, Livestock and Food (MAGA) of Guatemala	MAGA	IDB	99 974	7 months
	Letter of Understanding with the Tropical Agriculture Research and Training Center (CATIE) for formulation of environmental impact study of the Irrigation and Drainage Program II of the Ministry of Agriculture, Livestock and Food (MAGA) of Guatemala	CATIE	IICA	23 704	7 months



<b>AREA/COUNTRY</b>		<b>RESOURCES</b>		
<b>Title of Instrument</b>	<b>Counterpart Institution</b>	<b>Source</b>	<b>Amount US\$</b>	<b>Duration</b>
Agreement for administrative support to the training program for the National Agricultural Extension System with the Ministry of Agriculture, Livestock and Food (MAGA) of Guatemala	MAGA	MAGA	74 815	1 year
Letter of Understanding with the Ministry of Agriculture, Livestock and Food (MAGA)	MAGA	MAGA	414 000	11 months
Letter of Understanding with the Center for International Cooperation for Agricultural Pre-Investment (CIPREDA)	CIPREDA	----	----	1 year
<b>HONDURAS</b>				
Technical and Financial Cooperation Agreement signed with the Development Cooperation of Switzerland (COSUDE) and the Gov. of Honduras, represented by the Secretariat of Planning, Coordination and Budget	Secretariat of Planning, Coordination and Budget	IICA Government of Honduras COSUDE	14 025 109 000* 174 810*	2 years
<b>PANAMA</b>				
Contract with the United Nations Development Programme (UNDP) for the execution of a study related to the project to strengthen the national technology generation and transfer system	UNDP	UNDP IICA	86 000 65 700	3 years
<b>MULTINATIONAL</b>				
Agreement on Swedish contribution to the development of compatible agricultural policies in Central America	Swedish International Development Authority (SIDA)	SIDA	150 000	15 months

\* Resources not administered by IICA.



AREA/COUNTRY	RESOURCES				
	Title of Instrument	Counterpart Institution	Source	Amount US\$	Duration
	Agreement on Swedish contribution to training in mass communications techniques for government and non-governmental organizations working with women in Central America	SIDA	SIDA	348 575	15 months
	Grant Agreement in support of the project on macroeconomic policy analysis and the impact of structural adjustment on agriculture	Swedish Agency for Research Cooperation with Developing Countries (SAREC)	SAREC	294 118	9 months
	Grant Agreement for limited-scope project between the United States of America, through the Regional Office for Central American Programs (ROCAP) of the Agency for International Development (AID) and IICA (PROMECAFE)	AID-ROCAP	AID-ROCAP	25 500	1 month
	Memorandum of Understanding between the Governments of the Republics of El Salvador, Guatemala and Honduras, the General Secretariat of the Organization of American States (OAS) and IICA	Government of El Salvador Government of Guatemala Government of Honduras OAS	IICA OAS	200 000 200 000*	2 years
	Funding Agreement with the European Economic Community (EEC) and the Regional Council for Agricultural Cooperation in Central America, Panama, the Dominican Republic and Mexico (CORECA)	EEC Countries	EEC Countries	11 993 400 5 108 300*	68 months
	Contract for administration of funds for the program to upgrade agricultural research on basic grains in Central America and Panama	EEC	EEC	----	4 years
	Grant agreement for the limited-scope project between the United States of America, through the Regional Office for Central American Programs (ROCAP) of the Agency for International Development (AID) and IICA for the project to mobilize agricultural technology to face challenges in Central America	AID-ROCAP	AID-ROCAP	150 000	11 months

\* Resources not administered by IICA.

AREA/COUNTRY Title of Instrument	Counterpart Institution	RESOURCES		
		Source	Amount US\$	Duration
Regional Project of the Governments of Costa Rica, El Salvador, Guatemala, Honduras and Nicaragua on technical assistance for agricultural development in Central America (RUTA II)	UNDP	UNDP	1 200 000*	3 years
	IFAD	IICA	360 000	
	IDB	Countries	1 261 000*	
Amendment No. 10 to the agreement with the United States of America, through the Regional Office for Central American Programs (ROCAP) of the Agency for International Development (AID) and IICA (PROMECAFE)	AID-ROCAP	AID-ROCAP	671 000	2 years
Amendment No. 2 to the agreement between the United States of America, through the Regional Office for Central American Programs (ROCAP) of the Agency for International Development (AID) and IICA (PROCACAO)	AID-ROCAP	AID-ROCAP	1 000 000	2 years
Operating Agreement for the Training and Studies Program on Agrarian Reform and Rural Development in the Central American Isthmus and the Dominican Republic (PRACA)	Countries	Countries IICA	140 000 240 000	4 years
Attachment No. 1 to the Letter of Understanding between ANACAFE/IRCC/CIRAD and IICA/PROMECAFE	ANACAFE IRCC CIRAD	----	----	3 years
Attachment No. 2 to the Letter of Understanding between ANACAFE/IRCC/CIRAD and IICA/PROMECAFE	ANACAFE IRCC CIRAD	----	----	3 years
Memorandum of Understanding with the Ministry of Agriculture of Belize on participation in PROCACAO	Ministry of Agriculture of Belize	----	----	20 months

\* Resources not administered by IICA.

AREA/COUNTRY	RESOURCES			
	Title of Instrument	Counterpart Institution	Source	Amount US\$
<b>CARIBBEAN</b>				
<b>BAHAMAS</b>				
Letter of Understanding with the Government of the Commonwealth of the Bahamas for the Preparation of the Agricultural Services Development Project	Government of the Commonwealth of the Bahamas	IDB Government of the Bahamas	399 400 116 000 *	5 months
<b>DOMINICA</b>				
Cooperative Agreement between IICA and United States Department of Agriculture Animal and Plant Health Inspection Service (APHIS) Project: <i>Amblyomma</i> "Bontick" in Dominica	USDA-APHIS	USDA-APHIS	15 000	4 months
<b>GUYANA</b>				
Agreement between the Government of the Cooperative Republic of Guyana and IICA for the implementation of a Project entitled Integrated Rural Community Development - St. Francis Mission	Government of Guyana	Government of Guyana IICA	185 000 50 100	3 years
<b>SAINT VINCENT AND THE GRENADINES</b>				
Basic Agreement between the Government of St. Vincent and the Grenadines and IICA	Government of Saint Vincent and the Grenadines	---	---	To be established

\* Resources not administered by IICA.



AREA/COUNTRY	RESOURCES				
	Title of Instrument	Counterpart Institution	Source	Amount US\$	Duration
<b>MULTINATIONAL</b>					
	Cooperative Agreement between IICA and Caribbean Agricultural Research and Development Institute (CARDI) to promote agricultural research and development in the Caribbean	CARDI	IICA	300 000	5 years
	Agreement between the Canadian Cooperative Association and IICA in Support of Project entitled "Strengthening Farmers' Cooperatives and Associations in the Eastern Caribbean" - Saint Lucia	Canadian Cooperative Association	Canadian Cooperative Association	118 000	12 months

## ANDEAN

<b>COLOMBIA</b>					
	Agreement with the Integrated Rural Development Fund to provide administrative support services to the marketing and production sub-programs	Integrated Rural Development Fund (DRI)	DRI/FINAN-CIACOOP	131 560	9 months
	Administrative Support Agreement with the Integrated Rural Development Fund	Integrated Rural Development Fund (DRI)	DRI Fund	51 130	1 year
	Attachment to the Operating Agreement with the Colombian Agricultural Institute (ICA) to provide scientific brokerage	ICA	IBRD	114 000	1 year
	Attachment to the Operating Agreement with the Colombian Agricultural Institute (ICA) to support plans for training	ICA	ICA	71 721	

AREA/COUNTRY	RESOURCES				
	Title of Instrument	Counterpart Institution	Source	Amount US\$	Duration
	Attachment to the Agreement with the Colombian Agricultural Institute (ICA) to purchase bibliographic materials abroad	ICA	IBRD	72 000	1 year
	Attachment to Agreement No. 057/89, for administrative support to the DRI Fund	DRI Fund	DRI Fund	70 025	10 months
	Attachment No. 2 to Agreement No. 057/89, for administrative support to the DRI Fund	DRI Fund	DRI Fund	134 804	9 months
	Agreement with the Ministry of Agriculture to execute a project in support of the National Agricultural Training Program (PNCA)	MA National Institutions	National Institutions	460 000	4 years
			IICA	120 000	
	Attachment to Agreement No. 118, for technical cooperation with the Ministry of Agriculture	MA	MA	10 788	1 year
	Administrative Services Agreement with the Agrarian, Industrial and Mining Credit System (CCAIM)	CCAIM	IBRD	432 000	3 years
			CCAIM	68 000	
	Amendment to grant No. 598-0616-G-00603-00 from the United States Agency for International Development (USAID) (Project on the use of the media in technology transfer and nutritional health)	USAID	USAID	32 000	6 months
<b>ECUADOR</b>					
	Attachment No. 6 to the technical cooperation agreement with the Government of Ecuador, represented by the Ministry of Social Welfare (MBS)	MBS	MBS IICA	300 000 15 000	1 year

AREA/COUNTRY	RESOURCES				
	Title of Instrument	Counterpart Institution	Source	Amount US\$	Duration
	Attachment No. 7 to the technical cooperation agreement with the Government of Ecuador, represented by the Ministry of Social Welfare (MBS)	MBS	MBS IICA	729 000 20 000	1 year
	Attachment No. 8 to the technical cooperation agreement with the Government of Ecuador, represented by the Ministry of Social Welfare (MBS)	MBS	MBS	608 000	To be established
	Memorandum on grant conditions (Project to Evaluate Tropical Grasses II - Ecuador)	International Development Research Centre (IDRC)	IDRC IICA	103 580 80 120	2 years
<b>PERU</b>					
	Extension of Operating Agreement with the Ministry of Agriculture of Peru to provide institutional support in the execution of agricultural sector projects	Ministry of Agriculture	Ministry of Agriculture	32 500	11 months
	General Technical Cooperation Agreement with the Nuclear Energy Institute of Peru (IPEN)	IPEN	----	----	3 years
<b>PERU</b>					
	Attachment to the FCA-IICA Letter of Understanding for technical cooperation in 1989	Agricultural Credit Fund (FCA)	FCA	65 033	1 year
	Grant agreement with the Central University of Venezuela (UCV) and the International Development Research Centre (IDRC)	UCV	IDRC IDRC UCV	185 190 50 720* 28 470*	3 years

\* Resources not administered by IICA.

AREA/COUNTRY	RESOURCES			
	Title of Instrument	Counterpart Institution	Source	Amount US\$
<b>SOUTHERN</b>				
<b>ARGENTINA</b>				
Operating Agreement with the Secretariat of Agriculture, Livestock and Fisheries (SAGyP) for the institutional strengthening of the SAGyP in connection with the formulation and implementation of rural development policies, programs and projects	SAGyP	UNIFEM	148 092	3 years
Agreement with the La Crujia Educational Communications Center	La Crujia Educational Communications Center	IICA	6 200	1 month
Attachment No. 3 for the execution of the project to incorporate women into the credit and technical support project in northeastern Argentina	SAGyP	SAGyP	173 570	1 year
Attachment No. 6 for the execution of the project to incorporate women into the credit and technical support project in northeastern Argentina	SAGyP	----	----	6 months
Letter of Understanding No. 10 on cooperation and support for the execution of the program to analyze information obtained from the 1988 National Agricultural Census and to draft proposals for the first stage of the integrated agricultural information system of the INTA-INDEC Agreement	INTA	INTA	51 600	1 year
Letter of Understanding with the National Fish Market (MNCP) at the port of Mar del Plata	MNCP	MNCP	19 926	45 days

<b>AREA/COUNTRY</b>		<b>RESOURCES</b>		
<b>Title of Instrument</b>	<b>Counterpart Institution</b>	<b>Source</b>	<b>Amount US\$</b>	<b>Duration</b>
Agreement with the Canadian Embassy in Argentina to execute the project in support of small-scale farmers in Huancar	Canadian Embassy	Canada	3 200	7 months
Agreement with the Canadian Embassy in Argentina to execute the project in support of small-scale farmers in the irrigation district of Margen Izquierda Belen, Catamarca Province	Canadian Embassy	Canada	2 842	7 months
Contract with the Secretariat of Agriculture, Livestock and Fisheries (SAGyP) of the Republic of Argentina to support the design and implementation of the Project Follow-up and Evaluation Unit of the General Agricultural Credit Program	SAGyP	IBRD	1 500 000	50 months
Contract with the Secretariat of Agriculture, Livestock and Fisheries (SAGyP) of the Republic of Argentina to train technical personnel from and provide institutional support to the credit and technical support program for small-scale farmers in northeastern Argentina	SAGyP	IFAD	190 000	4 years
Agreement with the Canadian Embassy in Argentina to execute the alfalfa and hay production project	Canadian Embassy	Canada	1 971	10 months
<b>BRAZIL</b>				
Agreement with the International Center for Tropical Agriculture (CIAT) and the Secretariat of Agriculture and Agrarian Reform of the State of Ceará (SEARA), through the Ceará Institute of Agricultural Research (EPACE) and the Ceará Institute of Technical Assistance and Rural Extension (EMATERCE), to implement the integrated cassava cultivation development project in the State of Ceará	CIAT Secretariat of Agriculture and Agrarian Reform of the State of Ceará	EMATERCE EPACE	84 530 43 290	6 months



AREA/COUNTRY	RESOURCES				
	Title of Instrument	Counterpart Institution	Source	Amount US\$	Duration
	Attachment No. 6 to the agreement signed on December 9, 1985 with the Ministry of Agriculture of the Federal Republic of Brazil regarding the provision of technical assistance to strengthen the National Animal Health Program carried out under the National Secretariat for Agricultural Health (SNAD)	M.A.-SNAD	M.A.-SNAD	6 253	6 months
	Agreement with the San Francisco Valley Development Agency (CODEVASF) to provide technical cooperation in farmer organization, technical assistance, planning and implementation, with emphasis on irrigation projects	CODEVASF	----	----	5 years
	Attachment No. 1 to the Agreement with the San Francisco Valley Development Agency (CODEVASF) to provide technical cooperation in farmer organizations, technical assistance, planning and implementation, with emphasis on irrigation projects	CODEVASF	CODEVASF	350 400	
	Attachment No. 8 to Agreement No. 02/86-DPP/UOP, signed by the Superintendancy for Development of the Northeast (SUDENE) and IICA	SUDENE	SUDENE	350 000	9 months
	Attachment No. 9 to Agreement No. 02/86-DPP/UOP, signed by the Superintendancy for Development of the Northeast (SUDENE) and IICA	SUDENE	SUDENE	126 770	4 months
	Attachment No. 10 to Agreement No. 02/86-DPP/UOP, signed by the Superintendancy for Development of the Northeast (SUDENE) and IICA	SUDENE	SUDENE	16 077	45 days
	Attachment No. 11 to Agreement No. 02/86-DPP/UOP, signed by the Superintendancy for Development of the Northeast (SUDENE) and IICA	SUDENE	SUDENE	57 803	1 month

AREA/COUNTRY	RESOURCES				
	Title of Instrument	Counterpart Institution	Source	Amount US\$	Duration
	Agreement No. 00640110/0001-18, with the Ministry of Agriculture (M.A.) to develop the project to train personnel attached to loan contract No. 2864 BR, of 7/27/87, on the control of animal diseases.	M.A.-SNAD	M.A.-SNAD	5 964	2 months
	Attachment No. 32 to the Agreement signed on 5/24/76 with the Ministry of Agriculture (M.A.) to provide technical cooperation on activities related to the national agricultural information system, agroenergy actions and projects, and drainage/irrigation projects for small- and medium-scale farmers	M.A.	M.A.	98 040	8 months
	Attachment No. 33 to the Agreement signed on 5/24/76 with the Ministry of Agriculture (M.A.) and IICA to provide technical cooperation on activities related to the national agricultural information system, agroenergy actions and projects, and drainage/irrigation projects for small- and medium-scale farmers	M.A.	M.A.	389 131	6 months
	Attachment No. 34 to the Agreement signed on 5/24/76 with the Ministry of Agriculture (M.A.) and IICA to provide technical cooperation on activities related to the national agricultural information system, agroenergy actions and projects, and drainage/irrigation projects for small- and medium-scale farmers	M.A.	M.A.	200 199	8 months
	Attachment No. 35 to the Agreement signed on 5/24/76 between the Ministry of Agriculture (M.A.) and IICA to provide technical cooperation on activities related to the national agricultural information system, agroenergy actions and projects, and drainage/irrigation projects for small- and medium-scale farmers	M.A.	M.A.	95 918	2 months

AREA/COUNTRY	RESOURCES				
	Title of Instrument	Counterpart Institution	Source	Amount US\$	Duration
	Attachment 3 to the Agreement between the Ministry of Agriculture (M.A.) and IICA to support plant protection activities	M.A.	M.A.	332	1 year
	Attachment to Agreement DPG-020/88, between the Superintendancy for Development of the Northeast (SUDENE) and IICA on agrometeorology	SUDENE	SUDENE/ Agrometeorology	34 106	----
	Attachment No. 11 to the Agreement between the Federal Union, through the Secretariat for Basic Education of the Ministry of Education (MEC), and IICA to provide further technical cooperation in developing rural education	MEC	MEC	80 000	8 months
	Attachment No. 12 to the Agreement between the Federal Union, through the Secretariat for Basic Education of the Ministry of Education (MEC), and IICA to provide further technical cooperation in developing rural education	MEC	MEC	99 403	1 year
	Attachment No. 14 to the Agreement between the Federal Union, through the Secretariat for Basic Education of the Ministry of Education (MEC), and IICA to provide further technical cooperation in developing rural education	MEC	MEC	48 169	1 year
	Attachment No. 19 to the Technical Cooperation Agreement signed on March 10, 1977, with the Executive Commission for Planning Cacao Cultivation (CEPLAC)	CEPLAC	CEPLAC	29 820	1 year
	Attachment No. 1 to the Agreement signed 4/88 with the Superintendancy for Development of the Northeast (SUDENE)	SUDENE	SUDENE/ PRN	24 510	8 months
	Attachment No. 2 to the Agreement signed 4/88 with the Superintendancy for Development of the Northeast (SUDENE)	SUDENE	SUDENE/ PRN	28 750	6 months

<b>AREA/COUNTRY</b>	<b>RESOURCES</b>			
<b>Title of Instrument</b>	<b>Counterpart Institution</b>	<b>Source</b>	<b>Amount US\$</b>	<b>Duration</b>
Attachment No. 3 to the Agreement signed 4/88 with the Superintendancy for Development of the Northeast (SUDENE)	SUDENE	SUDENE/ PRN	22 506	3 months
Attachment No. 4 to the Agreement signed 4/88 with the Superintendancy for Development of the Northeast (SUDENE)	SUDENE	SUDENE/ PRN	19 230	2 months
Attachment No. 18 to the Agreement signed with the Executive Secretariat of the Irrigation Program, with the participation of the San Francisco Valley Development Agency (CODEVASF)	CODEVASF	IBRD CODEVASF	256 521 224 706	10 months
Attachment No. 20 to the Agreement signed with the Executive Secretariat of the Irrigation Program, with the participation of the San Francisco Valley Development Agency (CODEVASF)	CODEVASF	IBRD CODEVASF	153 450 321 200	7 months
Attachment No. 22 to the Agreement signed with the Executive Secretariat of the Irrigation Program, with the participation of the San Francisco Valley Development Agency (CODEVASF)	CODEVASF	IBRD CODEVASF	89 584 84 284	4.5 months
Attachment No. 23 to the Agreement signed with the Executive Secretariat of the Irrigation Program, with the participation of the San Francisco Valley Development Agency (CODEVASF)	CODEVASF	CODEVASF	62 300	4.5 months
Attachment No. 1 to the Agreement signed with the National Bank for Economic and Social Development (BNDES) to provide technical cooperation related to institutional strengthening and the planning and implementation of rural development projects	BNDES	----	----	4 years

<b>AREA/COUNTRY</b>	<b>Counterpart Institution</b>	<b>RESOURCES</b>		
		<b>Source</b>	<b>Amount US\$</b>	<b>Duration</b>
Attachment No. 3 to the Agreement signed with the Secretariat of Education of the State of Piauí	Secretariat of Education of Piauí	Piauí	40 000	7 months
Attachment No. 19 to the Agreement signed with the Executive Secretariat of the Irrigation Program (PRONI) to provide further technical cooperation	PRONI	PRONI	1 390 030	1 year
Attachment No. 25 to the Agreement signed with the Executive Secretariat of the Irrigation Program (PRONI) to provide further technical cooperation	PRONI	IBRD	239 796	1 month
Attachment No. 6 to the Agreement signed with the State of Bahia to provide technical cooperation to the Secretariat of Planning, Science and Technology of the State of Bahia (SEPLANTEC-BA) for the coordination of regional and rural development actions in the State of Bahia	SEPLANTEC	SEPLANTEC	190 960	12 months
Attachment No. 17 to the Agreement signed with the National Drought Control Department (DNOCS) for cooperation with the National Irrigation Program	DNOCS	IBRD DNOCS	51 670 100 000	8 months
Attachment No. 24 to the Agreement signed with the National Drought Control Department (DNOCS) for cooperation with the National Irrigation Program	DNOCS	DNOCS	11 670	2 months
Attachment No. 26 to the Agreement signed with the National Drought Control Department (DNOCS) for cooperation with the National Irrigation Program	DNOCS	DNOCS	3 371	

AREA/COUNTRY	Title of Instrument	Counterpart Institution	RESOURCES		
			Source	Amount US\$	Duration
<b>CHILE</b>					
	Letter of Understanding with the Ibero-American Cooperation Institute (ICI) regarding the preparation of a document on ICI's strategy for the forestry-agriculture sector in Chile	ICI	ICI	5 000	3 months
	Letter of Understanding with the National Agricultural Research Institute (INIA) to put into operation, in 1989, the technical cooperation agreement in effect	INIA	----	----	9 months
	Letter of Understanding with the Agriculture and Livestock Service (SAG) to implement, in 1989, the technical cooperation agreement in effect	SAG	----	----	7 months
<b>CHILE</b>					
	Attachment No. 1 to the Technical Cooperation Agreement with the Ministry of Agriculture and Livestock (MAG) to strengthen, through the National Office for Project Coordination and Administration (ONCAP), a structure within the agricultural extension service to promote, establish and support farmers' organizations under the "Caazapa" project	MAG-ONCAP	----	----	8 months
	Letter of Understanding with the Canadian Embassy in Paraguay	Canadian Embassy	Canada	7 345	

AREA/COUNTRY	RESOURCES			
	Title of Instrument	Counterpart Institution	Source	Amount US\$
<b>URUGUAY</b>				
Operating Agreement with the Ministry of Livestock, Agriculture and Fisheries (MGAP) of the Oriental Republic of Uruguay to provide technical cooperation to the agricultural technology generation and transfer project	MGAP	MGAP/IDB	848 000	4 years
Technical Cooperation Agreement with the Ministry of Livestock, Agriculture and Fisheries (MGAP) of Uruguay and the Federated Agrarian Cooperatives to strengthen cooperatives in Uruguay	MGAP Federated Agrarian Cooperatives	----	----	3 years
Technical Cooperation Agreement with the Ministry of Livestock, Agriculture and Fisheries (MGAP) of Uruguay within the framework of Program I (Agricultural Policy Analysis and Planning)	MGAP	----	----	4 years
Letter of Understanding No. PSA 1 with the Ministry of Livestock, Agriculture and Fisheries (MGAP) to prepare the base document to be used in proposing a sectoral research program between the government of Uruguay and the IDB	MGAP	MGAP IICA	10 000 20 000	3 months
Letter of Understanding with the Ministry of Livestock, Agriculture and Fisheries (MGAP) to provide support in administering financial resources during the establishment of the coordinating unit of the technology generation and transfer project	MGAP	----	----	6 months
Letter of Understanding with the Ministry of Livestock, Agriculture and Fisheries (MGAP) to provide support in administering financial resources during the establishment of the coordinating unit of the technology generation and transfer project	MGAP	MGAP	46 218	6 months

AREA/COUNTRY	RESOURCES				
	Title of Instrument	Counterpart Institution	Source	Amount US\$	Duration
	Letter of Understanding with the Ministry of Livestock, Agriculture and Fisheries (MGAP) to support the execution of the Cooperative Program for Agricultural Research in the Southern Cone (PROCISUR)	MGAP	----	----	To be established

## HEMISPHERIC

Agreement with the General Secretariat of the Organization of American States (OAS)	OAS	IICA	3 000	To be established
Operating Agreement with CARE International to organize and hold a seminar-workshop on technology transfer for small-scale farmers, agricultural practices and agro-forestry systems	CARE International	CARE	30 420	6 months
General Technical Cooperation Agreement with the Central American Journalism Program (PCP) to support mass communications actions	PCP	PCP	----	3 years
General Technical Cooperation Agreement with the Center for International Cooperation in Agricultural Research for Development (CIRAD)	CIRAD	----	----	3 years
General Cooperation Agreement with the Latin American Integration Association (ALADI)	ALADI	----	----	To be established



HEMISPHERIC Title of Instrument	Counterpart Institution	RESOURCES		
		Source	Amount US\$	Duration
General Cooperation Agreement with the Regional Employment Program for Latin America and the Caribbean (PREALC)	PREALC	----	----	3 years
General Cooperation Agreement with Latin American and Caribbean Institute for Economic and Social Planning (ILPES)	ILPES	----	----	3 years
Agreement with the International Development Research Centre (IDRC) for an additional grant related to the Research Network on Animal Production Systems in Latin America (RISPAL)	IDRC	IDRC IDRC	11 344 1 820*	2 months
Memorandum on grant conditions with the International Development Research Centre (IDRC) to proceed to Phase II of the RISPAL project	IDRC	IDRC IDRC	256 630 206 537*	34 months
Non-refundable technical cooperation for an international seminar on challenges in research and agricultural extension in Latin America and the Caribbean, No. ATN/SF-3341-Re.	IDB	IDB Countries IICA	112 000 28 000 14 000	13 months
General Cooperation Agreement with the Latin American Economic System (SELA)	SELA	----	----	To be established
Project document on agricultural policies, women and agricultural development	UNIFEM	UNIFEM	100 00	17 months

<b>TOTAL IICA CONTRIBUTIONS</b>	<b>\$ 1 878 139.55</b>
<b>EXTERNAL RESOURCES ADMINISTERED BY IICA</b>	<b>\$ 31 310 155.60</b>
<b>EXTERNAL RESOURCES NOT ADMINISTERED BY IICA</b>	<b>\$ 8 456 657.00</b>
<b>TOTAL</b>	<b>\$ 41 644 952.15</b>

\* Resources not administered by IICA.



*The Inter-American Agricultural Documentation and Information Center (CIDIA), through its Editorial Service and Print Shop, was responsible for the compilation, editing and publishing of IICA's 1989 Annual Report.*

*Danièle Trottier served as chief editor of the original Spanish version Michael J. Snarskis edited the English version, and coordinated the production of the Report in both languages.*

*The Directorate for the Coordination of Institutional Affairs (DICA), through its Language Services Unit, also collaborated in the editing and translating of the 1989 Annual Report: Paul E. Murphy and Barbara M. Cohen translated the Report to English, which was revised by Susana Raine.*

*Jimena Ugarte was in charge of graphic design, with the collaboration of Mario Loaiza, Juan Montero, Michael J. Snarskis and Olman Trigueros.*

*Marcelle Banuett supervised the text design, layout and all other pre-press activities. Word processing and typesetting was carried out by Olga Cascante, Giselle Madrigal, Clotilde Rodríguez and Claudia Rowe. Layout was done by Hugo Calderón, Johnny Carmona, Juan Montero and Olman Trigueros, while Rodrigo Guevara did the photomechanics.*

*Printing was done by Efrain Aguilar, Carlos Alvarado and Alfredo Calvo, under the supervision of Edwin Bolaños.*

*A special thanks to all those IICA staff members and others who provided the materials and information with which this Report was produced.*

**PHOTOGRAPHS**

**Color:**

<i>Michael J. Snarskis</i>	<i>Cover</i>	<i>"Seleccionando", Aníbal D. Morales, Guatemala (Entry in the 1989 IICA/RNTC Award for Photography)</i>	<i>p. 243</i>
<i>Manchete (Brazil)</i>	<i>pp. 15; 49 (two photos); 156</i>	<i>Bruno Stagno, Costa Rica</i>	<i>p. 136</i>
<i>IICA/Costa Rica</i>	<i>p. 46</i>	<i>IICA/Program II</i>	<i>pp. 140; 165; 172</i>
<i>Anny Chaves; James D. Nations (two photos); A. Mata (all courtesy of the Organization for Tropical Studies, Costa Rica)</i>	<i>p. 7 (four photos)</i>	<i>Masterfile Stock Photo Library (Toronto, Canada)</i>	<i>p. 147</i>
<i>James D. Nations (courtesy of the Organization for Tropical Studies, Costa Rica)</i>	<i>p. 82</i>	<i>Public Information Unit, Directorate of External Relations, IICA</i>	<i>p. 199</i>
<i>Víctor Villalobos, CATIE, Costa Rica</i>	<i>p. 23 (four photos); p. 72</i>	<i>FOTOCOMERCIAL (John Skiffington, Costa Rica)</i>	<i>pp. 40; 64; 91; 108; 126; 221 (three photos); 259 (three photos)</i>
<i>"Madre Tierra", Guillermo D. Caruso, Uruguay (Honorable Mention in the 1989 IICA/RNTC Award for Photography)</i>	<i>p. 57</i>	<i>Black and White</i>	
<i>"Pounding the Plantain for Sunday Lunch", Noel P. Norton, Trinidad and Tobago (Entry in the 1989 IICA/RNTC Award for Photography)</i>	<i>p. 101</i>	<i>Public Information Unit, Directorate of External Relations, IICA</i>	<i>pp. 22; 191; 192 (below photo)</i>
		<i>IICA/Ecuador</i>	
		<i>Michael J. Snarskis</i>	

This book was printed at IICA Headquarters, located in Coronado, San Jose, Costa Rica, in June 1989 with a press run of 800 copies. The original version was published in Spanish.

## IICA Offices in the Countries

**ANTIGUA AND BARBUDA**  
The Representative of this Office is  
headquartered in Saint Lucia.

**ARGENTINA**  
Mailing address: Casilla de  
correos 2448  
Buenos Aires, Argentina

**BARBADOS**  
Mailing address: P.O. Box 705-C  
Bridgetown, Barbados, W.I.

**BOLIVIA**  
Mailing address:  
Cajón postal 9142  
La Paz, Bolivia

**BRAZIL**  
Mailing address:  
Caixa postal 09- 1070  
71600 Brasília, D.F., Brasil

**CANADA**  
130 Albert Street, Suite 1002  
Ottawa, Ontario K1P 5G4  
Canada

**CHILE**  
Mailing address: Casilla 244,  
Correo 34  
Santiago, Chile

**COLOMBIA**  
Mailing address:  
Apartado aéreo 14592  
Bogotá, Colombia

**COSTA RICA - Headquarters**  
Mailing address: Apdo. 55-2200  
Coronado, Costa Rica

**DOMINICA**  
c/o Division of Agriculture  
Botanical Gardens,  
Roseau Commonwealth of  
Dominica, W.I.

**DOMINICAN REPUBLIC**  
Mailing address: Apartado 711  
Santo Domingo,  
República Dominicana

**ECUADOR**  
Mailing address: Apartado 201-A  
Quito, Ecuador

**EL SALVADOR**  
Mailing address:  
Apartado (01) 78  
San Salvador, El Salvador

**GRENADA**  
Mailing address: P.O. Box 228  
St. George's, Grenada

**GUATEMALA**  
Mailing address: Apartado 1815,  
Código postal 01901  
Guatemala, Guatemala, C.A.

**GUYANA**  
Mailing address: P.O. Box 10-1089  
Georgetown, Guyana

**HAITI**  
Mailing address: B.P. 2020  
Port-au-Prince, Haïti

**HONDURAS**  
Mailing address: Apartado 1410  
Tegucigalpa, Honduras

**JAMAICA**  
Mailing address: P.O. Box 349  
Kingston 6, Jamaica, W.I.

**MEXICO**  
Mailing address: Apartado 61-148  
Código postal 06600  
México, D.F.

**NICARAGUA**  
Mailing address:  
Managua

## FECHA DE DEVOLUCION

14/2/92			
06-2-92			
22-1-92			

Washington, D.C. 20006-4499  
USA

**URUGUAY**  
Mailing address:  
Casilla de correos 1217  
Montevideo, Uruguay

**VENEZUELA**  
Mailing address: Apartado 5345  
Caracas, Venezuela

Handwritten address and postage stamp area, including a circular postmark and some illegible text.



INTER-AMERICAN INSTITUTE FOR COOPERATION ON AGRICULTURE  
P.O.Box 55-2200 Coronado, Costa Rica/Tel.: 29-02-22/Cable: IICASANJOSE/Telex: 2144 IICA CR  
Electronic Mail EIES: 1332 IICA SC / FAX (506) 29-47-41, 29-26-59 IICA COSTA RICA