

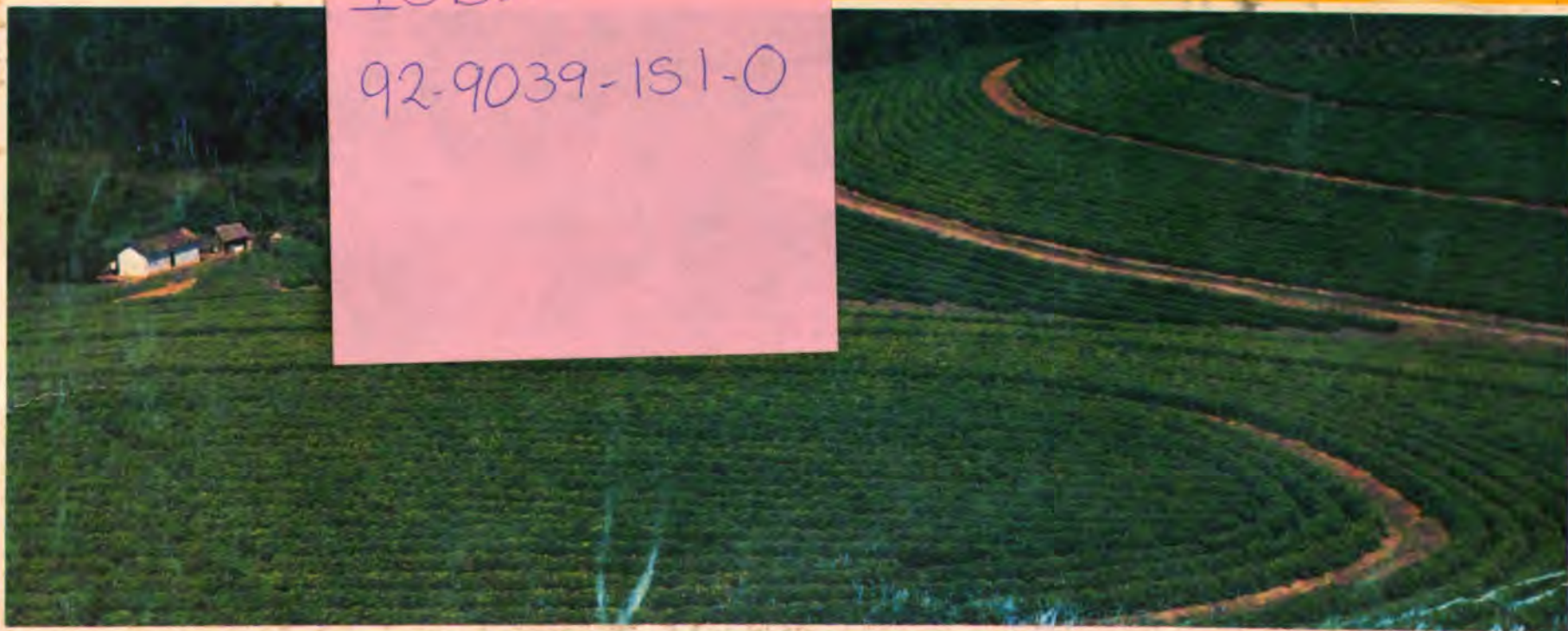


ANNUAL REPORT 1988

INTER-AMERICAN INSTITUTE FOR COOPERATION ON AGRICULTURE

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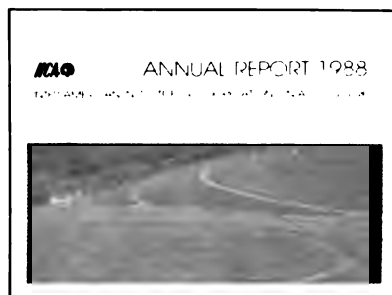
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INTER-AMERICAN INSTITUTE FOR COOPERATION ON AGRICULTURE

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This year, IICA is pleased to present a selection of color photographs illustrating various agricultural and agroindustrial activities in Brazil.

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E14

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Foreword

The IICA Annual Report is an informational document which aids in and encourages reflection on the Institute's mandate, its organizational structure, its human and financial resources, and its performance as a technical cooperation agency. The Report also enables the reader to visualize the Institute as a whole and to gain a better understanding of its mandate and responsibilities, as well as the overall difficulties it faces.

As part of this reflection, we must try to visualize the Institute not only in terms of what it is at present, but also of what it may become in the near future.

Over the last three years, we have made a considerable effort to truly understand and address the needs of our member countries. This effort has required that many significant changes be made in a very short span of time. Feedback we have received suggests that these changes and the view which, together with the countries, we have held of the problems affecting the hemisphere have been generally correct.

In 1988, the 1987-1991 Medium Term Plan (MTP) continued to be an important policy-setting document for the Institute. The Ottawa Declaration, adopted by the ministers of agriculture of the hemisphere at the conclusion of the September 1987 meeting, together with the preparation of the Plan of Joint Action for Agricultural Reactivation in Latin America and the Caribbean, have served to enrich the current Medium Term Plan, and have become a new mandate for the Institute, which will strengthen and perhaps modify some aspects of its general guidelines.

During this year, the general outline of the Plan of Joint Action for Agricultural Reactivation in Latin America and the Caribbean was drawn up in close collaboration with the countries and with regional and subregional cooperation agencies. The preparation of the Plan confirmed the political commitment of the countries of Latin America and the Caribbean to moving toward joint actions in a number of areas related to agriculture.

During the Fifth Regular Meeting of the Inter-American Board of Agriculture, to be held in October 1989, the ministers of agriculture and other representatives of IICA's Member States will have the opportunity to endorse the relevance of some of the ideas developed during the preparation of the Plan. For example, what should IICA's member countries do to get the process of economic growth off to a new start, in light of their foreign debt difficulties and the economic stagnation of the 1980s? How can the countries modernize their production apparatuses in order to join the technological revolution of the coming century? What progress is being made in Latin America and the Caribbean with regard to integration? The integration of Latin America and the Caribbean is a long-term issue, but the need for it becomes clearer every day in the face of the formation of huge economic conglomerates: the free trade agreement between Canada and the United States; a Europe without trade borders in 1992; and the strengthening of economic relations among Southeast Asian countries.

A subject arising from the preparation of the Plan, and which is relatively new for IICA, is the conservation of natural resources. Although the topic is mentioned only briefly in the MTP and is not included under any of IICA's five Programs, we cannot ignore the fact that the deterioration of natural resources gives rise to concrete problems which affect agricultural production. In light of this, the Institute must include the "conservation of natural resources" issue in its five Programs.

In 1988, we stressed the need for the Programs to reflect the Institute's emphasis on multinational projects, as a concrete response to the mandate received in Ottawa and as a reaffirmation of the international nature of agricultural problems and of IICA itself. One of the major challenges facing the Institute will be to define multinational projects linked to IICA's technical cooperation projects in the countries, which are relevant and have an impact because they solve concrete problems at the national level.

The process of self-analysis which took place within the Institute, through the preparation of the Plan of Joint Action, and in the different forums used for consultation with the countries and cooperation agencies, shows us that more can be done to make IICA an institution that is exceptionally capable of detecting and understanding not only the problems of the entire region, but also the specific problems of each Member State, of identifying opportunities for technical cooperation, and of effectively organizing and administering projects to address these problems.

I am pleased to present the 1988 Annual Report, which was prepared in compliance with the rules of the Inter-American Board of Agriculture and the Executive Committee of the Inter-American Institute for Cooperation on Agriculture (IICA).

Chapter 1 outlines the technical cooperation actions undertaken by IICA in its member countries.

Chapter 2 describes the activities carried out during the year by IICA's five Program Directorates, including a brief summary of the multinational projects assigned to each.

Chapter 3 illustrates the relations of the Institute with other technical cooperation and financial institutions.

Chapter 4 summarizes all of the tasks carried out, the contacts made and the agreements reached during the year in connection with the preparation of the Plan of Joint Action for Agricultural Reactivation in Latin America and the Caribbean.

Chapter 5 details IICA's management structure, presents the activities of the Executive Committee and describes the results of the application of the evaluation system. It also provides statistical information on human resources, and describes the Institute's financial standing.

A handwritten signature in black ink, appearing to read 'M. Piñeiro', with a long horizontal stroke extending to the right.

***Martín E. Piñeiro
Director General***





Chapter 1



IICA in the Countries

Projects as instruments of IICA technical cooperation

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

Each section begins with a brief summary of the status of agriculture in the area, followed by a description of multinational activities that come under the particular Area Directorate.

In addition, for each country, cooperative actions are grouped according to their affiliation with the Institute's five Programs. In some cases, the actions described began in 1988, while in others projects began prior to 1988 and continue today.

Finally, at the end of each country report, a table lists technical cooperation activities under way. These tables summarize the objectives of the cooperative activities and offer a brief evaluation of the results available at the time of publication of this Report.

Article 4 of the IICA Convention states that one of the functions of the Institute is to formulate and execute plans, programs, projects and activities, in accordance with the needs of the governments of the Member States, to contribute to the achievement of the objectives of their agricultural development and rural welfare policies and programs.

The Projects are one of the instruments through which the Institute implements its strategy and defines its actions. They have been defined as a group of technical cooperation activities or actions designed to solve a given problem and produce significant foreseeable results within a stated period of time, carried out with the application of certain resources, using a specific method, and under the management and responsibility of a competent professional.

Projects are not the only technical cooperation instruments available to the Institute. It also uses unanticipated *short-term actions, technical addenda to technical agreements, and administrative support actions*. Many of these take the form of legal instruments (agreements, contracts, letters of understanding, etc.) in which IICA's role varies. In some cases, an agreement does not evolve into a project, such as when the cooperation provided is in the form of an administrative support action with no technical component. In that case, a plan of operations is drawn up directly. In other cases, the support involves carrying out technical cooperation actions which require the preparation of a technical addendum to the agreement or contract. Specific forms exist for each of these instruments.

In addition to the legal and technical cooperation instruments already mentioned, project profiles are also prepared, which describe an important problem and present the central idea that should guide action taken to address the problem. They are not, therefore, technical cooperation instruments per se. They constitute an initial step in preparing projects in order to put forth the Institute's position on the proposed topic and initiate the search for funding.

IICA technical cooperation projects are related to the development objectives of the participating country or countries; emphasize the transfer of know-how and experiences; and complement local technical capacity. In addition, they should create

the institutional capacity to absorb technical cooperation actions; be transitory, with clearly defined periods for implementation; and correlated with the activities of the target institution.

Lastly, projects must be implemented under the protection of a formal arrangement, involve complementary financial or other resources as the case may be; and are subject to evaluation to measure results and to facilitate decision-making.

Central Area

The countries of the Central Area (Costa Rica, Guatemala, Honduras, Nicaragua, El Salvador, Panama, Mexico and the Dominican Republic) share a variety of common characteristics, but are sufficiently different from one another to make it difficult to approach them as a consistent whole.

In 1988, the most noteworthy aspect of the economy of Mexico, which grew only slightly, was the Economic Solidarity Pact and the economic policy changes arising from same. The Pact has been considered a success because the devaluation of the Mexican peso was controlled and inflation was stopped. According to preliminary ECLAC estimates, inflation fell from 160% in 1987 to less than 60% in 1988. The purchasing power of wage-earners fell and exports increased.

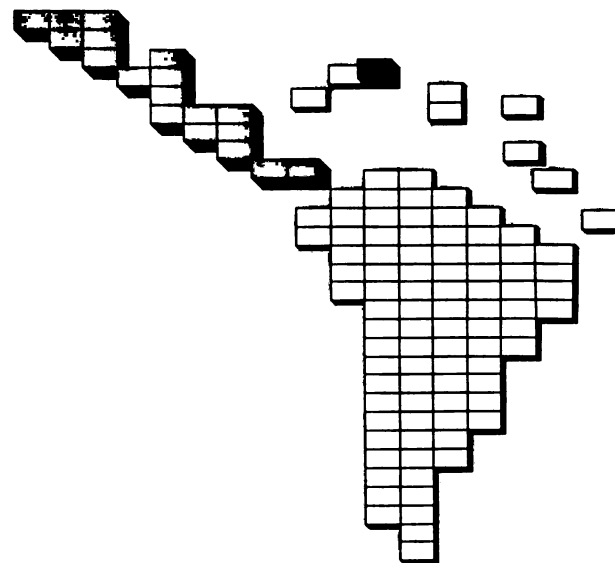
Agriculture was affected adversely by bad weather, lack of agricultural credit and low prices. This situation resulted in a drop in agricultural production, especially in basic grains.

In Central America, the lack of social stability, political developments, and, of course, adverse weather conditions, especially in the second half of the year, led to severely diminished agricultural production.

Just as in every other country of Latin America, the countries in this region continued to suffer under the burden of their foreign debts, which consume resources needed for development.

In spite of these negative factors, the governments of the countries of the region took very positive steps in an effort to tip the scales in favor of development. Efforts have also been mounted to increase exports of non-traditional crops, curb public spending, create employment opportunities, and stimulate production. On different occasions, the countries have worked together on projects designed to benefit two or more countries.

For its part, the international community has been paying special attention to the area, and its support has taken the form of initiatives aimed at alleviating the current crisis.



Worthy of special mention are the meetings held by the presidents of the Central American countries in an effort to achieve a "firm and lasting peace," the meetings of the vice presidents, and the initiative for creating a Central American Parliament, all of which serve the goal of intraregional coordination.

The Joint Commission of the European Economic Community and Central America (EEC-CA) was established to take maximum advantage of the support which the EEC provides to the subregion as a whole, in addition to its bilateral support efforts.

Among the international initiatives, mention should be made of the following: the United Nations Special Plan for Economic Cooperation for Central America; the support from the Latin American countries which make up the "Group of Eight," through the Action Committee in Support of Economic and Social Development in Central America and Panama (CADESCA); the International Commission for the Reactivation and Development of Central America (Sanford Commission), in which the Director General of IICA was involved; the Social Investments Program for the Development of the Central American Isthmus, promoted by the Inter-American Economic and Social Council; and the Program of Technical and Financial Cooperation in Support of Cooperatives, promoted by the vice presidents of Central America and the Commissioner of the EEC.

For its part, IICA continued with its regional projects: the Training and Study Program on Agrarian Reform and Rural Development for the Central American Isthmus and the Dominican Republic (PRACA); its animal health and plant protection projects; the Cooperative Program for the Protection and Modernization of Coffee Cultivation (PROMECAFE); the Regional Network for Cacao Technology Generation and Transfer (PROCACAO), inaugurated this year; the Integrated Development Plan in the Border Zone of El Salvador, Honduras and Guatemala (TRIFINIO); and, the Regional Council for Agricultural Cooperation in Central America, Mexico, Panama and the Dominican Republic (CORECA).

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

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

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

The most outstanding successes of CORECA are related to its coordination of and participation in numerous activities. Examples of CORECA's activity during this period are the consolidation of the Inter-institutional Agricultural Sector Group (GISA), as a mechanism to coordinate the activities of subregional and international agencies; the formalization of the IICA and SIECA understanding, in a cooperation agreement; assistance given in the negotiations to reformulate PRACA, which resulted in a proposal for a new agreement between IICA and the countries; the meetings of the vice ministers of agriculture and the presidents of national coffee institutes to deal with issues related to the international trade of coffee, and which laid the groundwork for the discussion of the position of member countries vis a vis the new International Coffee Organization agreement (OIC); and the understanding established between Central American entrepreneurs and Spanish cooperation agencies as concerns fisheries.

One highlight of the year was the visit of the president of CORECA to the member countries in order to exchange points of view on the work carried out by the Council. Another was the signing of an agreement by the government of Mexico, BCIE, and ECLAC that involves conducting studies for regional investment projects. Participation in the negotiations on the project to strengthen agronomic research in staple grains for Central America, which will be implemented by IICA with funding from the European Economic Community, was also of importance.

The consultations carried out in the countries on the formulation of the strategy of joint action for agricultural reactivation allowed the member countries to make a meaningful contribution to this effort.

Integrated Development Plan in the Border Zone of El Salvador, Honduras and Guatemala (TRIFINIO)

The Trifinio Plan is an ambitious and successful effort at socioeconomic development in the border area of Guatemala, Honduras and El Salvador (7,584 km²), the result of an effective integration process initiated by the three countries. The Montecristo massif (the Fraternidad biosphere), which is at the center of the Trifinio region, is a world-renowned ecological zone noteworthy for its numerous species of flora and fauna.

In 1986, a technical cooperation agreement was signed in Guatemala by the governments of Guatemala, Honduras and El Salvador, and the OAS and IICA, for the preparation of a development plan for the border region of the three countries, with financial support from the European Economic Community.

In November 1987, on the occasion of the first meeting of the coordinating committee of the Trifinio Plan, held in Metapan, Esquipulas and Ocotepeque, the vice presidents of the three countries set up a permanent Trifinational Commission for the Plan, including a technical executive secretariat. Since then, the three vice presidents, who also sit on the commission, have held eight meetings connected with the Trifinio Plan. One outcome of these meetings was the design of a strategy to finance the conclusion of unfinished studies and the implementation of the 29 projects scheduled under the Plan, as well as the submission of requests for technical cooperation and financial support to numerous international institutions.

In 1988, the vice president of Guatemala, the designee to the presidency of Honduras and the representative of the vice president of El Salvador received from the multinational technical group -through Dr. Martin Piñeiro, Director General of IICA- a

document describing the Trifinio international regional border development plan and 18 other documents related to the Plan. The Plan calls for three basic programs, with 220 projects in the economic and social sectors, requiring a total investment of US\$878 million over 10 years. Of the projects, 29 are multinational and will come under the responsibility of the Trifinational Commission. The remaining 191 are divided as follows: 98 in Guatemala, 52 in Honduras and 41 in El Salvador.

Several technical and financial cooperation ventures were undertaken in 1988 for the Trifinio Plan. One of these is the study on the management plan for the Fraternidad Biosphere Reserve, with the International Union for Conservation of Nature and Natural Resources (IUCN), which will receive financial support from the Government of Sweden. It is estimated that funds invested in studies and investment will total more than US\$2 million.

Also under way are the studies associated with the irrigation program for the Trifinio region, with technical cooperation from Spain. The cost is estimated to be approximately US\$300,000. The European Economic Community approved a donation of US\$8.6 million for the first phase of the project to support the development of the campesino population.

Another donation of US\$550,000 was approved by the United Nations Development Programme (UNDP), under a US\$1 million project in which the Central American Bank for Economic Integration (BCIE) will contribute US\$200,000 to complement US\$250,000 provided by the Trifinio countries. The funds will support the work of the executive secretariat of the trifinational commission and that of the sectoral operating committees.

The United Nations Revolving Fund for the Exploration of Natural Resources agreed to invest US\$5 million in exploring mining opportunities at six mining sites in the Trifinio area, with financial support from Finland.

A US\$150,000 donation from IDB is currently under negotiation to support the funding of the executive secretariat of the trifinational commission. In addition, a US\$650,000 extension of the technical cooperation agreement with OAS and IICA will soon be signed, which will support the technical secretariat and the implementation of studies and execution of trifinational projects under the Plan. There is also a two-year (1989-1990) US\$400,000 agreement between OAS and IICA for continued support to the

Trifinio Plan and other border integration efforts in Central America.

Lastly, negotiations for BCIE funding of six projects are in the final stages. This bank has approved the creation of a special office in Metapan to handle activities related to the funding of the Trifinio Plan and of the radio broadcasting project sponsored by the government of the Kingdom of the Netherlands.

Costa Rica

In 1988, economic growth was 3%, accompanied by substantial improvement in public finances. The agricultural sector also grew by 3%. This sector is the economic base of the country not only because of its contribution to GDP (18.7% in 1987), but also, and primarily, because of its role in the generation of foreign exchange (69% of total value of exports in 1987) and jobs. Agriculture's contribution to the national economy could be even greater if further efforts were made to introduce and develop non-traditional crops for export, and strengthen the mechanisms for the generation, testing and transfer of agricultural and marketing technology.

In 1988, the IICA Office in Costa Rica offered technical cooperation to private and public institutions and organizations associated with the agricultural sector in order to strengthen the mechanisms for implementing and adjusting agricultural sectoral policy; strengthen the mechanisms for generating and transferring agricultural technology, and upgrade the production and distribution of seeds; conduct research on forage to improve livestock feed; and implement rural development projects through small-farmer organizations. The Office also lent support to technical meetings and seminars, training courses, exchanges of experiences among technicians from different countries, and in the administration of financial resources for technical activities, programs and projects.

Summary of Cooperation Actions

Agricultural Policy Analysis and Planning

IICA collaborated with the Executive Secretariat for Agricultural Sector Planning and Renewable Resources (SEPSA) in the implementation and adjustment of sectoral policy. As part of this support, a proposal was prepared for a strategic plan to upgrade the institutions of the agricultural sector.

A project profile was prepared concerning the development of the quantitative information and decisions subsystems of the agricultural sector information system. In addition, the mechanism for coordinating information among the banks of the national banking system began operations. It will provide follow-up on the sector's credit program, as it applies to seven priority commodities within the government's "agriculture of change" program.

In order to strengthen the planning system of the Ministry of Agriculture and Livestock, work was carried out to establish a mechanism to follow up on and evaluate MAG's annual plan of action, through the implementation of this plan in two pilot regions. MAG technical personnel received training in planning and in the use of microcomputers.

Technology Generation and Transfer

In 1988, IICA made further progress on a study to improve dairy cattle feed technology, using mowed forage. This study focused on two aspects of the issue: one describing dairy operations in Costa Rica, and the other involving study of different forage species.

In the first study, the ecophysiological characteristics of thirteen zones of the country were identified. Of these, six are in the high altitude zone (Monteverde, Poas, Coronado, Oreamuno, Pacayas and Turrialba) and seven in the low altitude zone (Nicoya, Tilaran, Rivas, Corredores, La Fortuna, Pital and Siquirres).

To characterize prevailing dairy production systems, the method used to gather information was reviewed, and secondary information was compiled at Monteverde and Rivas in Perez Zeledon. A static diagnosis is also being conducted to gather primary information.

In an effort to identify the systems used for technology transfer, information from Tilaran, Monteverde, and Rivas in Perez Zeledon was processed, and common aspects of their methods and technical teams were identified. The compilation of information from other locations is under way.

In the second area of study, concerning forage species, several experiments were conducted to determine the potential of different species and varieties. At the selected sites, the 53 experiments were planted as planned. Of these, 49 have been established; all others were hurt by the weather. Laboratory analyses of 450 duplicate samples were received and incorporated into the data base.

In order to perform a biological and economic evaluation of mowed forages, farms in five different locations were identified for follow-up, and four were kept under observation. The information gathered is being incorporated into a data base for later analysis by season and by estimated production costs.

Regarding MAG's Program to Increase Agricultural Productivity (PIPA), the Institute focused its efforts on: a) the design of programs, proposals and recommendations for overcoming problems and limitations, and b) on providing technical assistance in the production and distribution of seeds. Under the first activity, a method has been designed for selecting priority crops for research, and, as a result, the number was reduced from 88 to 36.

A document was drawn up on the creation and make-up of national research programs, which aided MAG in selecting nine national programs. Another document prepared concerned the integration of research and extension, integration mechanisms, and a method for planning same.

Several documents analyzing research and agricultural technology transfer were produced in order to upgrade MAG's information and scientific research documents system; plan and establish priorities among regional activities in this field; and supervise, follow up on and evaluate research and transfer in efforts involving researchers and extension workers.

Forms were designed and put into use to gather basic data at the level of trials and validation plots, for the purpose of planning, follow-up and evaluation. Studies were conducted on the structure, organization and duties of the Agro-socioeconomic Studies Program (PREASE), which is currently in operation.

The adoption of technology by rice, bean, coffee, potato and onion producers was also studied. Methods were used to measure the impact of new agricultural technologies already in use, and of those yet to be released; and to determine the acceptance of extension officers by farmers, with recommendations for improving the situation.

Documents were also prepared concerning the Extension Officer Training Plan and Program, and on priority training areas, including grass and vegetable seed production, rural sociology, scientific research information, communication and agricultural information, economic evaluation of research and technology transfer, and planning and administration of research and technology transfer.

The Office also drew up several documents and manuals on: a) the agronomy of grass seed production; b) industrial conversion; c) quality control; d) storage and preservation; e) marketing; and f) administration of grass seed production programs. Several proposals for action in these areas resulted from these studies. Documents were also prepared containing recommendations on systems and equipment for the harvesting, preparation and storing of grass seeds.

This year, 21 training activities were carried out. They dealt with: grass seed production; drilling techniques for potato researchers; economic evaluation of permanent crops; economic evaluation of integrated pest management; on-farm research methods; and the economic analysis of experimental results. Other courses, more technical in nature, were related to: preparation of publications and technical writing; integration of development and dissemination of technology; agricultural extension methods; preparation of surveys for studies on the acceptance and adoption of technologies; and a course on farm statistics and research.

Organization and Management for Rural Development

Under this program, IICA offered technical cooperation to the Agricultural Development Institute (IDA) in the identification, preparation and implementation of rural development projects through small-farmer organizations.

Formal training began with the first course on the preparation and management of rural development projects for small-farmer organizations, attended by 27 people. The course is divided into modules and in 1988 three such modules, of one week each, were offered, for a total of 405 participant/days.

In-service training in the identification and preparation of investment projects began with the formation of five technical teams, which are preparing projects for 12 small-farmer associations.

A national team responsible for training regional teams in the future also received formal and in-service training. Diagnoses were prepared on 12 organizations, benefitting approximately 30 campesinos. In addition, 30 events were held for training campesinos in identifying and setting priorities to problems of farmers' organizations and proposals.

A guide for the preparation of the diagnosis of the settlements was prepared, as was a form for use by the farmers in supplying information on farm-level production. The project totaled 1,442 participant/days in training activities.

As part of the Training and Studies Program on Agrarian Reform and Rural Development in the Central American Isthmus and the Dominican Republic (PRACA), an activity on the information systems of farmer settlements was carried out in Costa Rica. This activity directly benefitted 50 technical personnel from the Agricultural Development Institute (IDA) and indirectly benefitted more than 500 livestock producers from IDA settlements.

To gather the information, 200 people were surveyed at the settlements in La Virgen of Sarapiquí and La Fortuna of San Carlos. A seminar was offered to 15 technicians from the Brunca region to equip them to survey 300 more people at settlements in the southern part of the region.

Other training activities were: a three-day seminar on organization, given to 33 technicians from the Department of Campesino Organization and Business Assistance (DOCAE); the trip of Costa Rican technicians and campesinos to El Salvador to visit farmer's organizations in that country; and the training of DOCAE and IDA technicians in the use of computers. In addition, computer equipment was purchased to process the survey data.

The Office conducted two seminars to analyze DOCAE's training programs, in which 50 campesino leaders participated.

Under the training project on communications for development, conducted jointly by the Radio Nederland Training Center and IICA, an agreement was signed between MAG, IDA and IICA, which will provide training to officials from these institutions and from the association of agricultural engineers in connection with communications theory and techniques. These international courses involved 120 technicians for a total of 749 participant/days.

Training in agricultural accounting was given to farmers from 19 agricultural cooperatives throughout the country, with funds from the project to strengthen the management skills of associative agricultural production enterprises (FORGE), provided by the European Economic Community. Three introductory accounting courses, attended by 55 members of cooperatives, were offered.

Marketing and Agroindustry

Under this Program, 10 training activities were offered, nine of which were part of an agreement signed with MAG and the Center for Export Promotion (CENPRO).

The beneficiaries of 10 seminars on international marketing of non-traditional products belong to 26 public and private institutions and organizations.

Animal Health and Plant Protection

Program V supported MAG in the preparation and discussion of a document on the integrated analysis of the Livestock Development and Protection Program (PROGASA). A seminar-workshop was held to examine the diagnosis of the plant protection situation in the agricultural sector, with a view to preparing the profile of a project to strengthen plant protection services in Costa Rica.

Other actions not covered by a specific Program involved administering financial resources for technical activities related to programs and projects; and offering courses, seminars, technical

meetings and exchanges of professionals with other countries. Worth special mention is the agreement to manage MAG funds to carry out its project to evaluate corn technology adopted in Costa Rica.

The Office hired the project's research director and assistant, both of whom work out of MAG's Office of the Director General of Research and Extension. They have surveyed 450 farmers in the Atlantic, southern Pacific and dry-Pacific regions, collecting the data necessary to characterize the adoption of corn technology by small-scale farmers.

Another agreement was implemented for managing funds to be

used by SEPSA. The Office obtained goods and services required by SEPSA support personnel and professionals in their advisory services with MAG. It also assisted in preparing agricultural sector plans and programs, including follow-up, evaluation and control of the gathering and processing of sectoral information for decision-making.

In addition to the many training activities carried out under the different projects and agreements, the Office assisted other institutions in organizing and holding 10 events, including courses, seminars and technical meetings, benefitting approximately 350 participants.

Costa Rica

Resources Source	Amount	■ Instrument	● Objectives	○ Achievements
IICA	32 980	■	●	○
TOTAL	32 980			
<p>■ Strengthening Mechanisms for Implementation and Adjustment of Agricultural Sectoral Policy</p> <ul style="list-style-type: none"> ● To enable SEPSA and MAG's Institutional planning System (SIPLAN) to provide effective support to agricultural sector authorities for implementing and adjusting agricultural development and reactivation policies. <ul style="list-style-type: none"> ○ Proposal prepared for strategic program for institutional strengthening for the agricultural sector; project profile designed to develop quantitative information subsystems for decision-making in the agricultural sector information system. ○ Information mechanism in operation in coordination with banks of the National Banking System to provide follow-up for the agricultural credit program, for seven products included in "agriculture of change" ○ Follow-up and evaluation mechanism of MAG's annual plan of action prepared and implemented in two pilot regions. 				
<p>■ Supporting the Executive Secretariat for Agricultural Sector Planning and for Renewable Natural Resources (SEPSA)</p> <ul style="list-style-type: none"> ● To efficiently manage resources assigned. <ul style="list-style-type: none"> ○ Goods purchased and services hired to enable SEPSA personnel to carry out their duties. 				
MAG-MIDEPLAN	16 829			
TOTAL	16 829			

Resources
Source Amount ■ Instrument ● Objectives ○ Achievements

PRACA	11 484
TOTAL	11 484

■ **Information System on IDA Settlements**

- To train IDA technical personnel and members of small-farmer settlements.
- To implement information systems on small-farmer settlements.
 - Approximately 200 diagnostic surveys carried out in two settlements in San Carlos; a seminar held for 15 technicians from the Brunca region on using survey questionnaires, and 300 questionnaires completed in this region; 33 technicians from DOCAE and IDA planning trained in the use of computers; computer equipment acquired to process survey data; two seminars held to analyze DOCAE training programs, attended by 50 small-farmer leaders.

MAG	202 253
ICA	8 538
TOTAL	210 792

■ **Technical Cooperation Services for the Program to Increase Agricultural Productivity (PIPA)**

- To strengthen entities which execute the program by hiring consultants to work in areas of critical importance to meet the goals of PIPA's subprograms on research, transfer and seed production.
 - Programs, proposals and recommendations prepared to solve problems in this field; support provided for technical strengthening of seed production and distribution; four consultant reports approved by MAG; 21 training activities carried out and numerous support documents prepared.

MAG (Forages)	23 525
TOTAL	23 525

■ **Research for Improving Feeding Technology for Dairy Livestock using Mowed Forage**

- To research the possibilities for improved dairy livestock feeding with mowed forage.
 - Ecophysiological characterization made in 13 areas: six in the high zone and seven in the low zone; progress made in the characterization of prevailing dairy production subsystems. Information from three zones processed to identify systems used for technology transfer; experiments carried out to determine the potential of forage species and varieties; farms identified for follow-up in connection with the evaluation of mowed forages.

Resources
Source Amount ■ Instrument ● Objectives ○ Achievements

IICA	89 593
TOTAL	89 593

- **Technical Cooperation in the Identification, Preparation and Execution of Rural Development Projects in Small-Farmer Organizations**
 - To better define rural development policies for small farmers organized by national organizations involved in the project.
 - Formal training initiated during the first course on preparation and management of rural development projects in small-farmer organizations; in-service training begun to identify and prepare investment projects, carried out by five teams of technicians who drew up projects for 12 organizations.
 - National team responsible for teaching regional teams received training. A guide for preparing the diagnostic study of settlements and small-farmer questionnaire prepared.

EEC-FORGE	1 121
TOTAL	1 121

- **Accounting Records Course for Members of 19 IDA Cooperatives**
 - To provide training to agricultural producers through accounting courses.
 - Three introductory accounting courses given; 55 members of cooperatives benefitted.

MAG (Evaluation)	17 394
TOTAL	17 394

- **Administrative Support for the Project to Evaluate the Corn Technology Adopted in Costa Rica**
 - To efficiently manage resources assigned.
 - Project Head and research assistant hired; 450 small farmers from different regions surveyed and information obtained to evaluate the situation of corn technology adoption by small farmers.

Dominican Republic

During 1988, a number of cooperation activities were carried out in the Dominican Republic in IICA's five program areas. Work in agricultural policy planning and analysis focused on a study and on the preparation of guidelines for drawing up a document on agricultural policy. The Office cooperated with the Study and Analysis Unit of the Secretariat of State for Agriculture (SEA), and prompted development of a national initiative for a joint strategy for agricultural reactivation in the countries of the Central Area.

In regard to technology generation and transfer, the Office worked in close collaboration with the SEA to create the National Cacao Technology Development Center; it also participated in the design of the legume center. This work was extended to coffee and musaceous (banana-related) stations in order to upgrade them to specialized centers. A conceptual and operational frame of reference was prepared to coordinate research and transfer, and the IICA Office provided the technical cooperation needed to implement this action in several research centers. IICA also assisted SEA in creating technology transfer units at the research centers.

IICA stepped up its cooperative actions in the area of organization and management for rural development and cooperated with the National Institute of Water Resources (INDRHI) in the design and preparation of an agricultural development project in three priority irrigated areas. The Follow-Up and Evaluation Unit (USE) was formally established and an important achievement was its participation in the preparation and evaluation of policy-setting and operating documents geared to gradually transferring management responsibility from the irrigation districts to the General Board of Irrigation Users. IICA worked with the Dominican Agrarian Institute (IAD) to develop and implement the self-managed associative enterprise model. All of the initiatives and projects designed included a component involving the active participation of rural youth and rural women in rural development.

In regard to marketing and agroindustry, cooperation activities focused on adjusting the perishable products markets, while in the area of plant protection, efforts were aimed at detecting coffee rust in the country.

Summary of Cooperation Actions

Agricultural Policy Analysis and Planning

In an effort to improve agricultural policy design and implementation skills in the Dominican Republic, IICA cooperated with the Technical Undersecretariat of Agricultural Planning in drawing up a profile describing the present situation of the sector's planning system. The Office proposed a technical cooperation initiative to upgrade SEA's process to generate agricultural policy. The institution's operating capacity was improved with trained personnel and through the installation of an analytic data processing system.

Another activity carried out during the period under review was the preparation of a technical proposal on institutional strengthening for presentation to INDRHI, for subsequent funding by the Inter-American Development Bank (IDB). To this end, IICA prepared a pre-qualifying document for international public bidders, which was accepted by the six entities selected.

In this area, IICA also cooperated with INDRHI in its internal reorganization, as part of its technical cooperation for pre-investment. In order to improve communication of information concerning the execution status of projects receiving external funds, a document was prepared proposing the creation of an international technical cooperation unit within INDRHI's Planning Department. The unit was approved and has been fully incorporated into INDRHI.

Technology Generation and Transfer

IICA assisted in the reorganization and implementation of the technology generation and transfer system, helping establish the National Cacao Technology Development Center (CENDETECA). The Office also participated in designing the legume center, for which a project-document on technology generation and transfer for small-scale farmers of edible legumes was prepared. This work was extended to two experimental stations, one concerning coffee and the other musaceous cultivars, with a view to converting them into specialized centers for these crops.

The Office in the Dominican Republic also contributed to designing a conceptual and operational frame of reference for coordinating research and transfer activities, and to implementing it at several centers. As a complementary activity, the IICA Office promoted and collaborated in establishing, through SEA, technology transfer units in the agricultural research centers. Technical personnel were trained in the methods and techniques of experimentation, as were the administrators of training programs for researchers.

Further assistance was given to the national extension service (created in 1985), in connection with the design and application of methods to improve technology transfer at the level of production units. National extension personnel also received training. IICA encouraged the Dominican Republic to join the Regional Network for Cacao Technology Generation and Transfer (PROCACAO), and relations were fostered with the Agricultural Development Foundation.

Organization and Management for Rural Development

In an effort to strengthen rural development program and project management skills, the Institute designed and put into operation self-managed enterprises at the campesino settlement in Angostura. Plans were completed for establishing the campesino enterprises at Puerto Escondido, San Ramon and El Limon de Jimani (on the Haiti border). To this end, six proposals addressing the consolidation of agrarian reform settlements in Angostura and Puerto Escondido were prepared. Each contained three documents: a summary, a diagnosis, and technical proposals. A diagnosis on the settlement at San Ramon was also drawn up.

The IAD management information system is in the design stage, and the policy-setting and operating instruments governing the administration of self-managed campesino enterprises have been prepared. At the same time, technical personnel from IAD and from the Secretariat of Agriculture received training on how to draw up projects and design an information system.

Training was also provided to personnel from the institutions participating in the rural development project for small-scale food producers of Monte Plata (IFAD II). Course work focused on rural development, extension activities, marketing, and organization and management of enterprises.

IICA was responsible for the technical aspects of the Nizao-Valdesia Complex Irrigation Project, which expanded its area of coverage to include Yaque del Sur-Azua (YSURA) and Yaque del Norte. One of the objectives was to study the three areas and propose corrective measures through agricultural development projects eligible for external financing, specifically from the World Bank.

Eighteen documents were prepared which describe in detail an agricultural project in three priority irrigated areas. The project covers 28,400 hectares, will benefit 9,000 people directly, and has an estimated cost of US\$60.5 million.

The Follow-up and Evaluation Unit (USE) of the Nizao-Valdesia Project is fully operational and has been formally incorporated into the institutional structure of INDRHI. The system was applied at the beginning of the Nizao-Valdesia Project, but has been extended to other projects of interest to the institution. Several policy-setting and operating documents have come out of this activity.

Fifteen technicians were trained in follow-up and evaluation, and the preparation of technical reports. In addition, the actions of the development project for small-scale food producers were strengthened with the establishment of the Follow-up and Evaluation Unit.

Activities began in October with the establishment of the technical team. Adjustments were made in the plan of operations, support resources were allocated (for purchasing vehicles), and the technical coordinator has become familiar with the different aspects of the project. The purpose is to design a model for gathering, organizing, and processing periodic information on the field performance (activity and results) of the project.

Marketing and Agroindustry

With regard to marketing and agroindustry, specific actions taking place included upgrading the markets for perishable goods in conjunction with the National District Council and the National Price Stabilization Institute (INESPRE). SEA was given assistance in evaluating the Integrated Rural Service Centers (CENSERIs), and support was offered to the farmers' markets.

Animal Health and Plant Protection

The appearance of coffee rust in 1988 made it necessary to develop an emergency plan of action. In animal health, activities centered on the provision of information and regional health alerts; support was also given to the laboratory network.

Dominican Republic

Resources
Source

Amount

■ Instrument ● Objectives ○ Achievements

SEA	31 875
TOTAL	31 875

■ **Establishing a Follow-Up and Evaluation Unit for the Small-Scale Food Producers Development Project**

- To gather, organize and process periodic information on performance (activities and projects) at the field level.
 - Team of technicians established. Plan of work completed and donation of support resources received.

IICA	77 973
TOTAL	77 973

■ **Technical Support for Reorganizing and Operating the Technology Generation and Transfer System**

- To cooperate with efforts to reorganize the research system, and to train its personnel to become effective managers.
 - SEA supported in the creation of the National Cacao Development Center, and in the design of a legume center; this effort was extended to coffee and bananas.
 - Conceptual and operational frame of reference for the coordination of research transfer designed and implemented in research center; creation of technology transfer units supported in those centers.
 - Technical personnel trained in different aspects of research; support provided to National Extension Service in training extension workers to conduct economic analysis and planning of farms.
 - Dominican Republic's participation in the Cacao Network (PROCACAO) encouraged, and working ties promoted with the Development Foundation.

Resources Source	Amount	■ Instrument	● Objectives	○ Achievements				
<table border="1"> <tr> <td>INDRHI-Nizao</td> <td>398 759</td> </tr> <tr> <td>TOTAL</td> <td>398 759</td> </tr> </table>	INDRHI-Nizao	398 759	TOTAL	398 759		<p>■ Design of Agricultural Development Project for Three Priority Irrigation Areas</p> <ul style="list-style-type: none"> ● Design the second phase of the Nizao-Valdesia project to include two additional areas (Ysura and Yaque del Norte) for INDRHI to increase its service capacity for areas under irrigation to 28,400 ha. <ul style="list-style-type: none"> ○ Documents and agricultural development project designed for three priority irrigation areas, for an estimated value of US\$50 million, a surface of 28,400 ha and 9,000 beneficiaries. ○ Documents delivered to INDRHI for processing loan from the World Bank. 		
INDRHI-Nizao	398 759							
TOTAL	398 759							
<table border="1"> <tr> <td>INDRHI-World Bank</td> <td>75 855</td> </tr> <tr> <td>TOTAL</td> <td>75 855</td> </tr> </table>	INDRHI-World Bank	75 855	TOTAL	75 855		<p>■ Establishing a Follow-Up and Evaluation System for the Nizao-Valdesia Project</p> <ul style="list-style-type: none"> ● To organize a technical unit to carry out follow-up and evaluation activities and to train technicians and support personnel to execute same. <ul style="list-style-type: none"> ○ The Follow-up and Evaluation Unit officially incorporated into INDRHI; system used on the Nizao-Valdesia Project extended to other projects. 		
INDRHI-World Bank	75 855							
TOTAL	75 855							
<table border="1"> <tr> <td>IICA</td> <td>73 646</td> </tr> <tr> <td>TOTAL</td> <td>73 646</td> </tr> </table>	IICA	73 646	TOTAL	73 646		<p>■ Strengthening of Capacity to Manage Rural Development Programs and Projects</p> <ul style="list-style-type: none"> ● To design and apply management mechanisms that provide integrated delivery of service to farmers, and train personnel from participating institutions in the IFAD II Project: Rural development, agricultural extension, marketing and organization, business management. <ul style="list-style-type: none"> ○ Self-management enterprises for the Angostura Campesino Settlement designed and implemented. ○ Design completed for small-farmer enterprises in Puerto Escondido, San Ramon, and El Limon de Jumani. ○ Progress made in the design of the IAD's information system; policy setting and operating instruments developed for administering self-managed small-farmer enterprises; technicians from IAD and Secretariat of Agriculture trained. 		
IICA	73 646							
TOTAL	73 646							

Resources
Source Amount ■ Instrument ● Objectives ○ Achievements

IICA	9 713
TOTAL	9 713

■ **Providing Support for Improving Capacity to Formulate and Implement Agricultural Policy**

- To cooperate with SEA's Technical Deputy Secretariat of Agricultural Sector Planning in the design and analysis of agricultural policy.
 - Study made of the country's agricultural planning system.
 - Technical cooperation project designed to strengthen the agricultural policy generation process.

El Salvador

In 1988, IICA technical cooperation in El Salvador centered on supporting the Ministry of Agriculture and Livestock (MAG) in improving its capacity for securing and channeling IDB financial resources in order to strengthen its institutions and support self-management in agrarian reform cooperatives. Two external funding agreements were signed in which the Institute was appointed executor agency. Further training was provided in the identification and design of agricultural projects, in the integrated planning of production, and in the social organization of management of associative enterprises. This training was offered as a complement to the overall effort to strengthen sectoral institutions in their policy on decentralization and provision of services.

The IICA Office in El Salvador was evaluated in October 1988. The evaluation mission found that the technical cooperation provided by the Office was in compliance with the guidelines of the Medium Term Plan.

Summary of Cooperation Actions

Agricultural Policy Analysis and Planning

In support of efforts to strengthen sectoral planning institutions, the Office played an active and decisive role in preparing a

document on general and specific agricultural sector policies in El Salvador, which will guide the formulation of agricultural policies in the coming years. This was done in close collaboration with the Ministry of Planning, to ensure that the five-year agricultural development plan will be consistent with the national development plan for 1989-1994.

During 1988, the IICA Office in El Salvador was the forum for many discussions on agricultural problems and the implications of economic policy decisions for the nation as a whole and for the sector. Seminars and meetings were held to analyze and discuss possible guidelines for agricultural development and rural well-being, as well as a joint strategy for agricultural reactivation in the Central American isthmus and Panama.

This cooperative action, in addition to providing an institutional framework for coordinating IICA's work with the highest levels of the agricultural sector in El Salvador, has made a significant contribution to improving the quality of planning, policy formulation and decision-making within the top ranks of MAG. A projected outcome of this effort will be the effective provision of services for farmers at the regional level.

By late 1988, IDB had approved a non-refundable, three-year US\$920,000 technical cooperation project in El Salvador, which

will begin in 1989. IICA will execute the project, as part of its consultancy with MAG.

With support from CEPI and CORECA, a second course was offered on the identification and formulation of projects, attended by 40 officials from various national agencies and from the different agricultural regions. Profiles of four investment projects to be carried out by the regional offices came out of this course.

Technology Generation and Transfer

The regional cooperative project in support of coffee cultivation (PROMECAFE) focused its technology transfer activities on testing and training, two aspects essential to the plan of operation of the Salvadoran Coffee Research Institute (ISIC), a counterpart agency.

In the field of research and technology transfer, research on the epidemiology and chemical control of coffee rust and coffee berry borer continued, and will be reinforced in 1989 with the addition of a newly-created technology testing unit. Nurseries and parcels were stocked with genetic material and the equipment needed to operate the plant pathology laboratories and, in particular, the tissue culture unit.

In connection with technological exchanges and training, El Salvador will be the site of the Seventh International Meeting on the Genetic Improvement of Coffee, and the Ninth Symposium on Coffee Cultivation in Latin America, which will bring together national researchers, technical personnel and producers, as well as those from PROMECAFE member countries.

Organization and Management for Rural Development

The project to plan, integrate and evaluate self-managed participatory rural production enterprises continued its training activities in planning and production with the method known as SIMPLE (Integrating Microplanning and Evaluation System). In 1988, training in the SIMPLE method reached 2,300 members, officials and directors of 232 cooperatives. As a result, 522 production plans were drawn up for 17 crops and other diversification ventures.

As a complement to these activities, follow-up was provided for small-scale farm managers who use production, planning and management techniques to administer cooperative enterprises, an important part of self-management.

The project proposes to consolidate production in reformed sector cooperatives, by moving from co-management of such enterprises to self-management. It recognizes that annual planning and farmers' training aid in increasing farm profitability. Current project strategy is based on improving the rural family's production output, strengthening its managerial skills, and upgrading the performance of Agricultural Planning System (SPA) agents.

The IICA Office in El Salvador carried out further training activities in the social organization of production to encourage the development of self-managed enterprises in agrarian reform cooperatives. This project contributed to consolidating the structure of agrarian reform cooperatives, an essential part of the self-management process, which is a top priority of the government of El Salvador. While progress was made on declaring 53 reformed sector cooperatives to be self-managed, the project



The countries of the Central Area produce about 14 million sacks of coffee annually, that is, 15.5% of world production. The coffee crop provides permanent employment to more than 1 million people, and seasonal employment to four times that number.

continued to support the training, social organization and legal aspects of this venture through direct support to the Institute for Agrarian Transformation of El Salvador (ISTA).

With support from the project for institutional strengthening, a IDB loan was obtained for MAG, to be channeled through the Salvadoran Pre-investment Fund (FOSEP), and used to fund the preparation of 50 pre-feasibility studies on agrarian reform cooperatives. IICA has signed an agreement to manage this US\$700,000 project.

As part of advisory services provided to the Office of the Minister of Agriculture and Livestock, rural development policies were formulated, as were procedures for following up on their application. As a result of this assistance, seven macropolicies defined by the agricultural sector were put into force. Direct beneficiaries of this support were ISTA, through the incorporation of new members into the cooperatives; and the National Agricultural Lands Finance Agency (FINATA), with the implementation of the land bank action plan.

El Salvador

Resources
Source

Amount

■ Instrument ● Objectives ○ Achievements

IICA	75 509
TOTAL	75 509

■ Institutional Strengthening of the Sector Responsible for Delivering Services to the Rural Population

- To upgrade the sectoral planning system responsible for advising on political and administrative matters related to the formulation and implementation of policies, agricultural development plans, projects and to rural well-being.
 - Document drafted on general and specific policies for the agricultural sector in El Salvador, which serves as a framework for national programs analysis and discussion encouraged of sectoral policies and of the plan to reactivate agriculture in El Salvador.
 - Project prepared for external funding to strengthen MAG's capacity for planning and executing programs at the regional level; project approved by IDB for execution in 1989.
 - Technicians trained in the identification, formulation and evaluation of agricultural projects.

FESACORA	6 703
IICA	63 846
TOTAL	70 550

■ Planning, Integration and Evaluation of Rural Production Enterprises for Self-management and Participation

- To contribute to developing economic, self-management and participatory skills in El Salvador's agricultural production system, so as to improve the quality of life of the rural family and boost socioeconomic development.
 - Associates and employees of 232 cooperatives trained, resulting in the preparation of 522 integrated production plans.

Resources
Source Amount ■ Instrument ● Objectives ○ Achievements

IICA	77 790
TOTAL	77 790

- **Training in the Social Organization of Production, to Promote the Development of Self-Managed Enterprises in Agrarian Reform Cooperatives**
 - To contribute to consolidating agrarian reform through training that promotes development of self-management enterprises.
 - Actions supported for consolidation of agrarian reform cooperatives through the self-management process; fifty-three cooperatives soon to be declared self-managed.
 - IDB loan approved for MAG for a project to carry out feasibility studies for 50 cooperatives; execution entrusted to IICA.

IICA	35 865
TOTAL	35 865

- **Providing Consultation in the Formulation of Rural Development Projects for the Ministry of Agriculture and Livestock (MAG)**
 - To advise the ministerial office in the formulation of rural development and agrarian reform policies.
 - Contributed to agrarian policy analysis and definition; seven basic macropolicies implemented; ISTA beneficiaries; FINATA benefitted from financing the Land Bank's plan of action.

Guatemala

In 1988, agriculture continued to play an important role in the government's overall strategy for economic development. Agriculture has been the key to ensuring a permanent supply of food, providing raw materials for industry, and generating the foreign exchange and jobs which make the expansion of the domestic market possible. The major goals of the agricultural sector are the diversification and technification of agriculture, the coordination of agroindustry with agricultural production, the full use of the human and natural resources available, the generation and diversification of agricultural exports, and efficient import substitution.

Agricultural sector programs, projects and activities were directed primarily at those sectors of the population most ignored by the State and which benefitted least from the advances of a modern society. IICA has helped in this effort through administrative support actions with the Program for the Design, Follow-up, Evaluation and Dissemination of Emergency Projects in the Public Agricultural and Food Sector (PROESPADA), the Training Program for the National Agricultural Extension System (PROCASNEA), and technical cooperation projects to upgrade policy analysis capabilities in the Office of the Minister of Agriculture, improving double-purpose cattle production systems,

strengthening the Animal Health Programs (PRODESA), and supporting rural development and the organization of small farmers.

Summary of Cooperation Actions

Agricultural Policy Analysis and Planning

IICA actions in 1988 under this Program focused on three major areas, the first being support to the Agricultural Sector Planning Unit (USPADA) in the formulation of agricultural modernization policies.

The second dealt with agricultural planning activities, the most important of which were support in identifying priority programs and projects for the Public Agricultural and Food Sector (SPADA) and support for upgrading agricultural statistics.

The third area involved the strengthening of SPADA's ability to conduct macroeconomic analyses. To this end, several technical documents were prepared on the following topics: modernization of SPADA; the impact of foreign exchange price changes on the agricultural sector; standardization of tariffs and their impact on the agricultural sector; interest rate fluctuations and their impact on agricultural sector credit; and technical aspects of investment management.

Technology Generation and Transfer

The first phase of the technical cooperation action to improve double-purpose cattle production systems officially came to a close in April with the publication of the project's final report. The second phase (three years) was negotiated and approved, and began in August 1988.

An important activity carried out during the year was the analysis of the cattle production system of Asuncion Mixta, as part of a strategy for a dairy development pilot plan in this zone. Of equal importance were the evaluation of associated corn-bean technology, and the evaluation of the performance of promising sorghum forage materials.

The project also ascribed considerable importance to training, and it conducted numerous formal courses, seminars, workshops and in-service training activities.

Organization and Management for Rural Development

Under this Program, the IICA Office carried out several activities in support of the Ministry of Agriculture and Livestock (MAGA), of federated and non-federated agricultural cooperatives, and of the agricultural representatives from the eight urban and rural development regions of the country.

MAGA was provided with administrative support under the terms of two agreements concerning the execution of the Training Program for the National Agricultural Extension System (PROCASNEA) and the Program for the Design, Follow-up, Evaluation and Dissemination of Emergency Projects in the Public Agricultural and Food Sector (PROESPADA).

PROCASNEA, which began in early 1988, provided training to 3,800 MAGA agricultural representatives in the eight regions of the country, through 320 courses in support of mini-agricultural production projects, and 160 courses to discuss and resolve specific agricultural problems affecting rural communities.

This administrative support to projects benefitting small- and medium-scale farmers concluded in May, in partial fulfillment of IICA's commitment to help the Ministry with priority projects of the public agricultural sector.

As a result of IICA's administrative support to MAG under PROCASNEA, a new agreement was signed to create a second program, PROESPADA. The major activities of PROESPADA were aimed at strengthening MAGA's management capability in the handling of financial resources, the consolidation and expansion of new activities it carries out in support of small- and medium-scale farmers, and the identification, formulation, follow-up and evaluation of agricultural projects. Eight emergency projects were evaluated and the executor unit of the program was reorganized.

Through a short-term action to provide support to the institutional framework of the agricultural sector with a view to

consolidating rural development actions, a document was prepared for creating and implementing a social investment fund to boost the development of the poorest segments of the rural sector. Two technical cooperation agreements were prepared to support the Federation of Agricultural Cooperatives of Guatemala (FEDECOCAGUA) and the Grand Union of Non-federated Cooperatives (GUCONOFE). In addition, funds are being sought from the United Nations Development Fund for Women (UNIFEM) for the project in support of the organization of women from the small-scale coffee growing sector into cooperatives.

Marketing and Agroindustry

With support from the Institute for Ibero-American Cooperation (ICI), first steps were taken to market some of the agricultural products produced under the emergency project dealing with farmers' markets. Emphasis has been given to making improvements in existing infrastructure, analyzing and modifying pricing systems, promoting the regional exchange of agricultural products, and establishing marketing committees.

Animal Health and Plant Protection

Under this program, IICA carried out two important technical cooperation actions. The first provided technical assistance to the Animal Health Program (PRODESA) of the General Directorate of Livestock Services (DIGESEPE); and the second worked to strengthen the technical and operating capabilities of animal health services in the countries of the Central Area.

IICA technical cooperation to strengthen PRODESA/DIGESEPE focused on developing the infrastructure necessary to prepare diagnoses, mount sanitary campaigns, and control animal diseases. Program V also worked to upgrade national technical personnel, to improve current levels of preventive medicine and to boost livestock production in the country. IICA technical cooperation included consultancy services and training offered locally and abroad. The most outstanding PRODESA actions were: the training of its regional and central laboratory personnel; the preparation of lab manuals; the classification of ectoparasites;

and the specification of positions and duties of lab personnel. Nine technical documents were prepared for support to the program, and research was conducted on virus cultures. Sixty-one people were given training scholarships, and 16 courses were offered on different topics.

The most outstanding event in the area of plant protection was a seminar held on the organizational, infrastructural, and economic constraints on the Technical Directorate of Plant Protection. The National Plant Protection Diagnosis was prepared, and the IICA-AID agreement regarding the project to conduct an environmental analysis of the Mediterranean fruit fly program was carried out, under the technical supervision of CICP.



Providing training to local technical specialists is a critically important step in the process to transfer modern and appropriate technology to small- and medium-scale farmers.

Guatemala

Resources Source

Amount

■ Instrument ● Objectives ○ Achievements

IDRC	25 523
IICA	7 661
TOTAL	33 184

■ Improving Dual-Purpose Cattle Production Systems (Phase I)

- To generate know-how in priority aspects of milk production in dual-purpose cattle systems for small-scale farmers in Regions IV and VI of Guatemala.
 - Diagnostic studies conducted in selected areas and on research activities for determining main constraints affecting farmers in those areas.

IDRC	25 439
TOTAL	25 439

■ Improving Dual-Purpose Cattle Production Systems (Phase II)

- To strengthen linkages between research and technology transfer in animal production and develop, propose and validate technological innovations adaptable to conditions in Regions IV and VI.
 - Profile of cattle production system in Asuncion Mita drawn up; evaluation completed on corn technology associated with beans; and on the behavior of materials used to provide sorghum forage for silages.

MAGA	116 341
TOTAL	116 341

■ Cooperating with MAGA in Managing the Financial Resources of the National Agricultural Extension System (PROCASNEA) and in Technical Support Activities

- To train and motivate agricultural representatives in the different regions of the country to carry out activities in the field of agricultural development.
 - Financial resources managed according to MAGA-IICA letter of understanding.

IICA	26 292
TOTAL	26 292

■ Supporting the Institutions of the Agricultural Sector in Order to Consolidate Rural Development Actions

- To create and implement a social investment fund to support development of the poor rural sector and to improve technological aspects for the federated and non-federated cooperative movement.
 - Four documents prepared to support the campesino sector.

Resources Source	Amount	■ Instrument	● Objectives	○ Achievements
MAGA-IDB TOTAL	360 634 360 634	■	●	○
		<p>■ Technical Cooperation for Institutional Strengthening of Animal Health Programs (PRODESA)</p> <ul style="list-style-type: none"> ● To train national technical experts in the use of various scientific and technical livestock-related disciplines and to select specialists to collaborate in solving national problems. <ul style="list-style-type: none"> ○ Laboratory manuals and nine support documents prepared; 61 scholarships granted; 16 courses offered. 		
MAGA TOTAL	21 433 21 433	■	●	○
		<p>■ Cooperating with MAGA in Preparing and Implementing Emergency Programs and Projects</p> <ul style="list-style-type: none"> ● To design and promote programs, project proposals and other studies required to meet the immediate needs of small-and medium- scale farmers. <ul style="list-style-type: none"> ○ A total of US\$127,800 in MAGA financial resources managed by an agreement and two letters of understanding between MAGA and IICA; final report prepared. 		
IICA TOTAL	73 505 73 505	■	●	○
		<p>■ Supporting the Minister's Office and USPAD A in the Upgrading of its Agricultural Policy Analysis Skills</p> <ul style="list-style-type: none"> ● To improve the capacity of advisory units of the Minister's Office in the analysis, definition, execution and evaluation of sectoral policies and in negotiating with the macroeconomic decision sectors. <ul style="list-style-type: none"> ○ Two policies prepared, as well as four documents on planning and five on strengthening SPADA's macroeconomic analysis skills. 		
MAGA- PROESPADA TOTAL	46 909 46 909	■	●	○
		<p>■ Design, Follow-Up, Evaluation and Dissemination of Emergency Projects in the Public Agriculture and Food Sector (PROESPADA)</p> <ul style="list-style-type: none"> ● To strengthen and consolidate emergency projects under way and design and implement new emergency projects. <ul style="list-style-type: none"> ○ Eight emergency projects evaluated; the Program's Executor Unit restructured; administrative support given for managing financial resources. 		

Resources
Source Amount ■ Instrument ● Objectives ○ Achievements

USAID- MOSCAMED	101 270
TOTAL	101 270

■ **Environmental Analysis of MOSCAMED Program**

- To evaluate the environmental impact of the MOSCAMED Program.
 - Administrative support for technical execution of the CACP-AID evaluation.

Honduras

In 1988, the Honduran economy suffered a serious setback as a consequence of the 1987 drought. Nevertheless, a better supply of basic grains, the mainstay of the national diet, was produced in the winter of 1988. However, in the latter part of the year, the country was hit by two hurricanes and torrential rains that decreased the production of certain basic foods and traditional export products. At present, Honduras continues to have a narrow export base, mainly in coffee and bananas. Efforts for diversification are just beginning and have been adversely affected by unemployment and low agricultural production and productivity levels.

During 1988, Honduras began to negotiate a structural adjustment program with an important sectoral adjustment component. It is hoped that the economic adjustments of this component will improve the balance of payments situation and ease the pressure on international reserves. On the other hand, the country has been hard-hit by domestic inflation, the decreased purchasing power of the lempira, and sharp increases in production costs for both crops and livestock raising.

During the period under review, IICA actions provided continued support for the Secretariat of Natural Resources (SRN) and the Minister's Agenda for the 1987-1990 development plan in the following areas: fostering production, improving agricultural services to satisfy the basic needs of the rural population, and implementing institutional changes for agricultural development.

Moreover, more and better support was provided to the National Agrarian Institute and the Secretariat for Planning, Coordination and Budget (SECPLAN) in connection with rural development. IICA continued to provide support to the National Agricultural Development Bank (BANADESA), through agreements in effect. Specific support actions were also initiated for the Central Bank of Honduras, to be consolidated by mid-1989.

Relations with the United Nations system were strengthened and the Inter-American Development Bank (IDB) provided technical cooperation, through the PROFOGASA Agreement, with CEPI support in the preparation of the Research and Extension Project-Phase III.

Summary of Cooperation Actions

Agricultural Policy Analysis and Planning

With regard to agricultural development policy analysis, IICA cooperated in implementing a macroeconomic data bank and agricultural information system, as well as in preparing analytical methods for evaluating nominal and effective protection of basic grains, and in identifying investment opportunities and defining agricultural policies. Several methodological and analytical

studies were made to serve as inputs to policy design on topics such as food aid and the production and protection of basic grains in Honduras.

The IICA Office in Honduras contributed to gathering macroeconomic and sectoral statistics from various public sector agencies and integrating this information into the data bank.

Advisory services were also provided to the agricultural policy unit for analyzing and designing agricultural policy studies. Discussions were held with staff from the Minister's Office concerning agricultural policies and sectoral coordination, especially relating to effective nominal protection of basic grains. The issue of milk prices was discussed with the National Federation of Farmers and Ranchers.

IICA also provided advisory services to the Secretariat for Planning, Coordination and Budget (SECPLAN) and the Secretariat of Natural Resources (SRN) as concerns sectoral policies and coordination. It cooperated in preparing guidelines for rural development and agrarian reform policies, food security and the diversification of non-traditional exports.

The IICA Office worked with a World Bank mission in connection with the structural adjustment program currently under negotiation. At the same time, negotiations are under way to obtain funding of a high-level seminar on agricultural policy from the U.S. Agency for International Development (AID). Lastly, IICA participated in the negotiation and drafting of a tripartite agreement on the implementation of an institutional support program in agricultural policy analysis and planning.

As a complement to these IICA actions, and through an agreement with the National Agricultural Development Bank (BANADESA), IICA provided support for the development of training seminars and the analysis of institutional problems.

A training seminar on BANADESA Agricultural Projects was given, with the support of CEPI, in which 27 BANADESA officials participated. The aim of the seminar was to upgrade the skills of the Bank's credit officers and technicians of its economic studies department in the identification, formulation and evaluation of agricultural investment projects. A very useful internal document on collateral security policies was prepared.

Technology Generation and Transfer

With a view to boosting production, technical support was provided for reorganizing and upgrading the Agricultural Research and Extension Program of the Secretariat of Natural Resources (SRN). This consisted of the preparation of strategic guidelines for its medium-term general action program (1987-1991) (PLANAGRO), in areas such as: promotion of basic foodstuffs production; promotion of agricultural exports, diversification and agroindustry; and the appropriate use of renewable natural resources and environmental protection.

These guidelines constitute the first step in defining and establishing priorities for SRN actions as the coordinator of the agricultural sector, one of the duties recently entrusted to the SRN by Presidential Agreement 177-88.

Another important activity was field research and research conducted at SRN headquarters to determine the Secretariat's current agricultural technological supply. As a result, SRN prepared a report on technological recommendations for the country, with a local research component, which is being disseminated through its agricultural extension and livestock outreach program. This report-catalog will serve as the basis for SRN medium-term planning on technology generation and transfer and is a positive contribution in bringing about technological change in Honduras.

IICA helped design a model to be used to reorganize present agricultural research and extension programs, and which will expedite institutional changes with a view to improving technical support services for small farmers in 1989, through the creation of the Office of Agricultural Sciences and Technology (DICTA).

The creation of DICTA is especially relevant to the sector's future. With the approval of the law creating DICTA in the first half of 1989, the process to consolidate technology generation and transfer activities will have begun, through a relatively autonomous and ongoing mechanism. Both the World Bank and the International Monetary Fund have recognized DICTA's importance and have asked that special emphasis be given to this effort within the sectoral adjustment plan, implementation of which will be negotiated in 1989.

IICA also supported SRN's Agriculture and Livestock Office in programming agriculture and livestock research. The PROMDECA study on the slaughtering of cattle provided the government with information needed to regulate this process throughout the country. Likewise, several research projects on production and the reproductive behavior of Honduran dairy herds paved the way for actions in these fields by the Secretariat of Natural Resources.

Lastly, support was provided to the Regional Council for Agricultural Cooperation (CORECA) in the preparation of standardized regulations for the genealogical registry of herds in the countries of the Area. Technical activities to standardize the herd records in eight countries were begun and a first document was produced.



The role of women in producing food in developing countries can no longer be ignored. In Latin America, women produce 40% of the food consumed domestically.

Organization and Management for Rural Development

In an action intended to upgrade rural development management in Honduras, support was given to conducting workshops and drafting documents based on the systematization and evaluation of national rural development experiences. This led to the design of a conceptual and methodological policy proposal and the formulation and execution of rural development programs and projects.

As a result, 21 rural development projects, in various stages of development, have been identified in the country. Information has been gathered on 10 of these projects concerning their conceptual framework and the processes of execution and evaluation. These 10 projects represent different approaches, depending on their funding source: IDB-IFAD, COSUDE, Integrated Management Area (IMA), Concentrated Rural Development (DRC), EEC, IBRD, the Japanese model and NGO models.

The strategy used analyzes four processes (management-design, negotiation-approval, execution and evaluation), results and 20 variables, the main parameters of which concern origin, relationship to government policy, the concept of development, funding source, technical assistance, scope, strategy, operating plans, evaluation and use of results.

Two workshops were held, one on the analysis and systematization of information on rural development projects, and the other, to discuss concepts, policies and strategies in rural development, with a view to producing documents on this topic. As a result of these workshops, two reports were presented, in addition to a document on conceptual guidelines for rural development policies and strategies.

A supplementary activity was carried out in support of SRN's Region 7 Directorate for managing and executing its plan of operation, and for improving its technical programs and the management of the Western Region Development Project (PRODERO). To this end, URPLA staff members were trained in defining the frames of reference they will use in identifying, formulating, evaluating and executing programs and projects.

Among other IICA achievements in Honduras were the preparation of a proposal to evaluate PRODERO; a base study to

develop an irrigation project in the municipality of Copan; and the technical-economic evaluation of a milk-cheese project. In addition, the Office cooperated in the preparation of an emergency food project profile for the border zone of the Department of Lempira.

The Institute participated in carrying out a seminar on enterprise management and four leadership development courses for directors of AHPROPAPA cooperatives from the Esperanza zone,

in the Department of Intibuca. This training activity improved participants' self-management skills.

As a result of these activities, five enterprise project profiles and 20 work project profiles on topics related to improved cropping practices and enterprise leadership in cooperatives were drawn up by the directors of AHPROPAPA and the farmers. Reciprocal training was offered in Costa Rica to potato harvesters from La Union, Irazu and the Ujarras settlement. Visits were also made to apple and plum diversification programs.

Honduras

Resources
Source Amount ■ Instrument ● Objectives ○ Achievements

IICA	95 898
TOTAL	95 898

■ Strengthening Rural Development Management in Honduras

- To reinforce the country's institutional capacity to define and implement integrated rural development policies and strategies and to put the National Plan for Agricultural Policy Development (PLANAGRO) into operation.
 - Structuring of proposals for rural development programs and projects supported; twenty-one projects identified; working strategy designed to analyze the management-design, negotiation-approval, execution and evaluation processes.
 - Two reports written for workshops on management of project information; guidelines for rural development policies and strategies.

IICA	46 425
TOTAL	46 425

■ Support for Policy Analysis

- To contribute to strengthening the SRN's capacity to identify problems and define agricultural policies for solving them, and to determine, quantify, and counteract the impact of economic policies on the sector.
 - Macroeconomic and agricultural sector information data bank and analysis methods implemented.
 - Advice given to agricultural policy unit on the analysis and design of agricultural policy studies; and to the discussion of agricultural policies and sectoral coordination.
 - Three-party agreement negotiated and drafted for implementing an institutional support program for agricultural policy planning and analysis.

Resources
Source Amount ■ Instrument ● Objectives ○ Achievements

PROFOGASA	25 824
IICA	82 158
TOTAL	107 982

■ **Technical Support for Reorganizing and Upgrading the Agricultural Research and Extension Program of the Secretariat of Natural Resources (SRN)**

- To strengthen SRN's capacity to design and put into operation an agricultural technology generation and transfer system, for improving and increasing the generation of appropriate technology, and transferring it so as to raise productivity of basic products and diversify agricultural production.
 - SRN received support in the elaboration of strategic guidelines for its overall programs of medium-term action; research conducted to define SRN's present agricultural technological capacity; progress made in the preparation of guidelines for medium-term technology generation and transfer program; document drawn up on Research on Cattle Raising in PRONDECA, as well as various projects on production and reproductive behavior of dairy herds in Honduras.

BANADESA	3 265
TOTAL	3 265

■ **Supporting the Training of BANADESA Personnel in the Area of Project Preparation**

- To strengthen the capacity of Credit Officers of BANADESA's management and technician teams from the Department of Economic Studies, in the identification, formulation and evaluation of agricultural investment projects.
 - Seminar held on Agricultural Projects/BANADESA attended by 27 Bank officials; document drawn up on security guarantee policies.

IICA	1 500
TOTAL	1 500

■ **Support to the Secretariat of Natural Resources, Region No. 7, in the Administration and Execution of its Program of Action**

- To support Region No. 7 of the Secretariat of Natural Resources in the development of a frame of reference identifying, formulating, evaluating and executing projects and activities.
 - Personnel from URPLA trained in how to define the frame of reference to be used; proposal prepared for evaluating PRODERO; base study for developing an irrigation project in the municipality of Copan; profile drafted of an emergency food project for the border zone of the Department of Lempira; training programs for human resources designed; technical-economic evaluation made of a dairy product project (milk and cheese).

Resources
Source Amount ■ Instrument ● Objectives ○ Achievements

PRACA	12 645
TOTAL	12 645

■ **Training for Improving Production and Business Skills at AHPROPAPA**

- To train AHPROPAPA directors in business management techniques and develop leadership in cooperatives in Esperanza, Department of Intibuca.
 - Seminar held on business management and four courses on leadership development in cooperatives; training offered in Costa Rica for potato farmers; apple and plum diversification projects visited.

Mexico

In general terms, 1988 was a year characterized by a close relationship between political events and economic and financial developments. First of all, the political campaign, the election and the inauguration of a new government all affected the stock market, which is going through a slow process of recovery. Secondly, the implementation and subsequent removal of the Economic Solidarity Pact (PSE), which froze wages and most prices, discouraged inflationary tendencies, and actually kept prices within acceptable limits for growth. In real terms, this meant the relative downsliding of prices for agricultural products, creating almost unbearable pressures at the end of the year. Despite a freeze in the exchange rate, growth of exports was reasonable and compensated for the decline in domestic demand, in the overall context of a recession that was relatively under control. The policies of decreasing the economy's dependency on petroleum, reducing the public sector deficit, and, in general, reducing the government's role in the economy continued (numerous public enterprises were transferred to the private sector).

Food self-sufficiency was and will continue to be a central policy in the government's plans. The negotiation of the terms and conditions of the foreign debt placed conditions on economic and financial development, and made it possible for Mexico to obtain a

US\$3.5 billion credit bridge. Public investment and expenditures -and to a great extent private investment as well- ceased, with a concomitant impact on the agricultural economy. Restrictions on the external sector worsened as a result of the drastic drop in the international price of petroleum.

In this new political, economic and social context, rural development and the battle against poverty became priorities to which IICA began to adapt its cooperation with new ideas and mechanisms, taking shape as part of a strategic plan of action for 1989-1994.

Summary of Cooperation Actions

Agricultural Policy Analysis and Planning

The IICA Office in Mexico continued to provide technical cooperation to enable the Secretariat of Agriculture and Water Resources (SARH) to strengthen activities associated with the identification, preparation and management of projects in the states. Training activities were carried out, such as the six-week workshop on investment project preparation held in Patzcuaro, Michoacan. This seminar was attended by different government

institutions such as the National Rural Credit Bank (BANRURAL), the Shared Risk Trust (FIRCO), the Fund for Agricultural, Livestock and Poultry Development (FIRA), the National Studies and Projects Fund (FONEP), as well as the General Directorate of Agroindustries and SARH agencies at the central level and state levels. Twenty professionals from different agencies and financial institutions benefitted from the workshop, producing eight investment projects to be presented to funding agencies. Based on these experiences, a proposal was made to develop similar workshops, and training was offered in the use of different computer programs.

IICA was involved in conducting a seminar-workshop in which a strategic project was drawn up for small-farm women. Two professionals from the General Directorate of Sectoral Policy and Evaluation were granted scholarships to receive training in the preparation of women-oriented projects. A proposal was drafted on a method to evaluate and monitor national, district and state-level projects and programs.

The Institute collaborated in designing a project on agricultural and rural development strategies and policies within the context of macroeconomic and sectoral relations. The major objective of this short-term action was to make progress, during the last few months of 1988, in preparing the project itself, which is scheduled to begin in 1989.

To design this project, numerous talks were held with representatives of the present government. The talks will continue with the new government, once it takes office. Technical and financial assistance was arranged with SARH, through its General Directorate of International Affairs - the agency which will serve as contact until a counterpart institution is formally established.

Other activities carried out during the year include : project preparation, training activities, and the drafting of investment project profiles. Support was given in designing a development program for Mexico's "ejidos" and indigenous communities, to be included in a joint SARH-IFAD activity for possible funding.

A technical-economic proposal for executing the cooperation component of the SARH-IBRD Organization, Training and Technical Assistance Project (PROCATI) was prepared. As a result of these efforts, a US\$1.9 million agreement was signed by

IICA and SARH for providing selected technical cooperation services through this project.

IICA worked with the National Forestry Commission (CONAFOR) to prepare projects for submission to the World Bank and to the IDB, and assisted in the preparation of forestry development projects for Oaxaca and Guerrero, as well as similar projects for Durango and Chihuahua.

Five SARH technicians were granted scholarships for training in the organization of information for project development, in the preparation of technical-economic proposals for developing specific components and projects, and in the design of profiles and projects.

In-service training in selected areas of project preparation was offered to 22 technicians from SARH offices in Chihuahua, Durango, Oaxaca, Guerrero, Chiapas and Tlaxcala; from the National Institute for Indigenous Groups; from the National Forestry Commission; the General Directorate for International Affairs (DGAD); and from SARH farmers' organizations.

Technology Generation and Transfer

In an effort to upgrade the capabilities of the technology generation and transfer authorities of the National Institute for Agricultural and Forestry Research (INIFAP), the IICA Office in Mexico met with INIFAP officials to program several training activities for senior research managers. As a result, the first working session of the advisory committee was held to design the INIFAP training program for the heads of technological innovation. A workshop on the management and administration of research for state research centers was held in Cuernavaca, Morelos in July 1988.

Another important objective of this short-term action was the preparation of the technical cooperation project to upgrade the INIFAP research and technology transfer model. This project, which began operations in October 1988, had as its major objective to assist INIFAP in increasing its operational and managerial capabilities with a view to upgrading its technology generation and transfer services. In a workshop held in November,

32 INIFAP officials in charge of technological innovation received training to update their skills and knowledge.

Marketing and Agroindustry

IICA continued to support SARH's General Directorate of International Affairs (DGAI) in the formulation and implementation of international agricultural marketing policies.

IICA collaboration with DGAI in this area focused on supporting Mexico in its GATT negotiations. In this regard, Program IV worked actively in the preparation of a proposal on tropical products, the development of a method for assessing farmer subsidies, and the review of current plant protection measures.

The Institute also participated in a study on the significance to agriculture of the policy to organize protection. In it, an analysis was made of SARH's role in implementing this policy, and of the impact such liberalization had on selected commodities. IICA also worked with the foreign trade task force charged with developing a plan to reactivate agriculture in Mexico.

The training of personnel was another important aspect of the project. Scholarships were granted to DGAI officials to attend a course in Geneva, Switzerland; executive marketing seminars were held with various institutions and universities; and instructions and methodological guides were prepared for DGAI personnel.

Although the focus of the project is foreign trade, important contributions to domestic trade have also been made, such as the analysis of the marketing of agricultural products in two rural development districts in Oaxaca.

Animal Health and Plant Protection

The Institute continued to support SARH's efforts to improve its technical and operating capacity in the area of plant protection. Negotiations were held with the Regional International Organization for Agricultural Health (OIRSA) in which a project idea was accepted for creating an international center for information and training on agricultural quarantine, as a means of



The prickly pear cactus has been cultivated in Mexico since pre-hispanic times. Its high nutritional content and its apparent medicinal value make it an increasingly sought-after product on international markets. Mexico exports large quantities of prickly pear, grown in the semi-desert northern and central parts of the country, to Japan.

improving plant protection quarantine procedures, and as support to management for effective decision-making.

Also established was a regional technical group on pesticides for Mexico, Central America, Panama and the Dominican Republic. Its work will contribute to the national and international marketing of agricultural products.

On another front, IICA, SARH and OIRSA drew up the agenda for the second international training course on integrated fruit fly management, to be held in July 1989 in Tapachula, Mexico, and which will benefit the fruit and vegetable marketing and export programs.

Training activities were undertaken in connection with plant protection quarantine information systems, and those related to diagnoses. Fruit flies were selected as the model for testing the capacity for analysis and diagnosis of these information systems, and for drafting proposals to improve the systems.

To further strengthen animal health laboratory services, IICA focused its attention on three major areas: a) training and technology transfer to upgrade the technical capacity of national and regional laboratory technicians to perform diagnoses; b) the design of a strategy to make the laboratories self-supporting, through financial assistance, and c) improvements in infrastructure and the allocation of capital to operate the laboratory network.

In the first area, several training activities and seminars were conducted which reached 176 veterinarians from 30 animal health laboratories, with a view to improving the quality, efficiency and speed with which animal diseases are diagnosed. A technical team was set up to survey, evaluate and classify nine laboratories. Based on this diagnosis, it was possible to determine the current status of laboratories at present and to program the needed support actions.

In the second area, in order to provide financial support to the laboratories, interviews were held with six farmers' organizations for the purpose of updating, and in some cases drawing up agreements for financial assistance to the laboratories. Eleven agreements were updated and the systems for administering the funds were set up.

Lastly, the Institute contributed to upgrading the infrastructure of the laboratories by consolidating the functional capacity and coverage of the two national reference centers and the regional laboratories through new equipment and supplies. Both centers can now assist the regional laboratories in confirming diagnoses and detecting residues in animal and food products. They have also increased their capacity for testing veterinary products and producing strategic animal health products.

Mexico

Resources Source	Amount	■ Instrument	● Objectives	○ Achievements
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IICA	12 020			
TOTAL	12 020			

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

- To improve the data gathering, management and processing capacity of executor units of the plant protection quarantine service in order to improve timely decision-making in this field.
 - A project idea to create an international information and training service on agricultural quarantine accepted by SARH and OIRSA; regional technical group on pesticides set up for countries of the Central Area; Program for the Third International Training Course on Fruit Fly Management prepared; training initiated in support of plant quarantine information systems.

Resources Source	Amount	■ Instrument	● Objectives	○ Achievements
SARH IICA TOTAL	14 761 73 543 88 304	■	●	○
		<p>■ SARH-IICA Technical Cooperation to Strengthen Activities to Identify, Prepare, and Manage Projects in the States</p> <ul style="list-style-type: none"> ● To support the transfer of methodologies for identifying, formulating and evaluating investment projects. <ul style="list-style-type: none"> ○ Training module developed for conducting workshops on project preparation; eight investment projects prepared to be submitted for funding; technical staff trained in management of computer programs. ○ Strategic project for campesino women drawn up; two scholarships granted for preparing projects affecting women. 		
IICA TOTAL	9 740 9 740	■	●	○
		<p>■ Formulation of Agricultural and Rural Development Strategies and Policies Project in the Context of Macroeconomic and Intersectoral Relations</p> <ul style="list-style-type: none"> ● To prepare the corresponding project document. <ul style="list-style-type: none"> ○ Progress made in drafting the agricultural and rural development strategies and policies project in the context of macroeconomic and intersectoral relations. 		
IICA TOTAL	32 388 32 388	■	●	○
		<p>■ Strengthening INIFAP Activities for Technology Generation and Transfer</p> <ul style="list-style-type: none"> ● To draft the technical cooperation project "Strengthening INIFAP Activities for Technology Generation and Transfer." To help upgrade INIFAP and develop criteria for planning IICA technical cooperation. <ul style="list-style-type: none"> ○ Technical cooperation project prepared entitled "Strengthening the INIFAP Research and Technology Transfer Model;" workshop held for administration and management of government research centers. 		
IICA TOTAL	31 562 31 562	■	●	○
		<p>■ Strengthening the INIFAP Research and Technology Transfer Model</p> <ul style="list-style-type: none"> ● To contribute to improving INIFAP operating and management skills so as to improve technology generation and transfer services. <ul style="list-style-type: none"> ○ Thirty-two INIFAP officials trained in refresher courses designed for heads of technology innovation. 		

Resources
Source Amount ■ Instrument ● Objectives ○ Achievements

IICA	99 382
TOTAL	99 382

■ **Supporting SARH's Directorate for International Affairs in Formulating and Executing International Agricultural Trade Policies**

- To collaborate with the Trade Relations Directorate in its program to promote agricultural and forestry exports.
 - Proposal drawn up on tropical products and mechanisms developed to calculate farm subsidies; revision of present health measures; study made on policy to rationalize protection for the agricultural sector; analysis made of SARH in its role as executor of said policy.
 - Support provided in preparing the Agricultural Reactivation Plan for Mexico; scholarships granted to DGAI officials.

SARH (Health)	154 912
IICA	40 297
TOTAL	195 209

■ **Strengthening Animal Health Laboratory Services**

- To strengthen laboratory diagnostic services and verify the quality for veterinary products of the Animal Health Directorate.
 - 176 veterinarians from 30 animal health laboratories trained in techniques for diagnosing diseases; technical group set up to evaluate and classify nine laboratories; 11 financial cooperation agreements updated and systems established for managing funds; two national reference centers and the regional laboratories consolidated.

Nicaragua

The agricultural sector of Nicaragua, through the concerted efforts of the government and the social sectors involved in production, gave priority to ensuring an adequate supply of basic foods for domestic consumption, reactivating agroindustrial production and increasing the export of traditional products. Because of abundant and regular rainfall at the beginning of the year, it was hoped that the sector might experience recovery during 1988-1989.

However, these efforts suffered a serious setback and expectations were dashed with the devastating effects of Hurricane Joan, which struck the country in October, causing US\$828 million in damage to infrastructure and production. The extent of the ecological damage has not even begun to be estimated, though it is considerable.

The agricultural sector suffered losses not only in harvests, but also in physical infrastructure, machinery, equipment and seed for the 1989-1990 crop. The most severely affected were the small-scale producers of basic grains.

IICA support was geared to increasing the effectiveness of the mechanisms used for formulating and adjusting agricultural sector policies, and to increasing production and productivity levels in order for the country to meet its goals for 1988. IICA projects were directly linked to strengthening the technology generation and transfer systems, the marketing system, and the organization of small farmers.

Summary of Cooperation Actions

Agricultural Policy Analysis and Planning

Program I cooperated with the Ministry of Agricultural Development and Agrarian Reform (MIDINRA) in defining and implementing sectoral policies in two related areas. The first concerns the development of methods for analyzing policy measures, and the second, the training of technical personnel in the design and application of instruments for drawing up these

methods. The project worked directly through MIDINRA's General Planning Directorate (DGP) to affect the institutional structure of Region IV.

As a result of the economic reforms undertaken by the government at the beginning of the year, the development of a methodological base for analyzing production costs and for providing input to decisions on policy measures became a priority area of cooperation. With support from the National Farmers and Livestock Ranchers Union (UNAG) and the National Development Bank (BND), 220 farmers/stock raisers were identified and selected to serve as sources of information. Using this list, a pilot survey was conducted on the costs of the major agricultural products in Region IV.

Computerized analysis of survey data will make it possible to undertake a systematic analysis of the structure of production costs, by level of technology and size of farm/ranch, for the major agricultural activities in the Region. Regional MIDINRA and BND technicians attended a training seminar on the method and instruments used both in characterizing the participants in the survey and in testing and applying the pilot survey. To this end, workshops were held with technical staff from eight area headquarters of the region.

Central-level DGP technicians were trained in the use of computer programs to record and process data, and in data-gathering methods and instruments. These technicians lent support to the training of the regional technicians.

This integrated effort in both areas of project action, and the implicit task of strengthening ties and joint actions between the central, regional and local levels, to encourage a systematic analysis of policy measures with reliable and timely information, represent an important contribution to upgrading the advisory services provided by DGP.

MIDINRA was given support in formulating recommendations for sectoral policy measures within the context of a macroeconomic stabilization program. A document was written which analyzed the sector in light of the structural adjustment plan, and strategies were proposed for achieving a balanced modernization of the sector.

Technology Generation and Transfer

In 1988, short-term IICA support to the General Directorate for Agricultural Technology (DGTA) in the development of non-traditional crops came to an end. Genetic improvements in corn and sorghum germplasm and their evaluation have enabled DGTA to make available at the commercial level material resistant to important pests and diseases, which will increase productivity of these two crops. Two DGTA officials concluded the training they had been receiving in Brazil in soybean rhizobiology and in the management and production of soybean seed.

IICA continued to work to strengthen the agricultural information network being developed by the National Agricultural Information and Documentation Center (CENIDA), and during the year the computerized agricultural information processing system was installed and put into operation. National agricultural information available for use by researchers, extension officials and students was expanded considerably. CENIDA has acquired 1,332 agricultural documents and 945 periodic publications have been identified and registered. This project is being carried out with financial support from the International Development Research Center (IDRC) of Canada.

Toward the end of the year, a project was initiated to support DGTA in preparing pertinent technology generation and transfer, policies, plans and programs. An analysis was conducted of the various subsystems of the national agricultural sector research and technology transfer system, with special emphasis on the experimental stations. There was a subsequent proposal for a functional and operational system to cover these stations. This project will last four years, and will serve as the basis for the medium- and long-term strengthening of DGTA.

Organization and Management for Rural Development

Agrarian reform has been active nationwide, and has benefitted huge numbers of small farmers. Nonetheless, marketing and production problems still persist, a situation which is even worse in certain associative enterprises. Such is the case with the Credit and Services Cooperative, as borne out in research.

IICA technical cooperation in connection with the identification and formulation of projects aimed at consolidating the economic aspects of associative enterprises, by supporting the cooperative subsector and improving production techniques and existing marketing organizations.

The project aims to train technicians and small farmers in the selection and development of non-traditional crops, in order to reduce dependence on traditional crops and improve marketing organization, both of which are essential in improving the standard of living of the small farmers.

To achieve this, MIDINRA was assisted through the training of five technicians from the General Directorate for Small-Farmer Support, and the selection of cooperative enterprises. Field research was carried out and a document was prepared on the creation of an entity to coordinate the promotion and marketing of non-traditional crops.

Marketing and Agroindustry

In 1988, the project to support the domestic trade subsector of the Ministry of Economy, Industry and Trade (MEIC) continued to upgrade marketing through research, technical assistance and training. Training in the different areas of marketing was institutionalized as a key instrument for developing the subsector.

Marketing research was carried out in two stages: one to support marketing policy and strategy designs, and the other to improve the usefulness of infrastructure and increase the value of marketing services.

In the area of "technical assistance," IICA worked directly with the Directorate of Supplies in carrying out studies on demand, price information and the setting of guaranteed prices. In general terms, technical assistance focused on training officials from the Ministry itself and from the enterprises that make it up, through advisory services on the identification and definition of obstacles to marketing growth and development, and on the search for possible solutions.

Finally, the project participated in designing curricula for courses, selecting countries and institutions where personnel were

sent for training, preparing teaching materials for the courses, and teaching the courses.

Nicaragua

Resources Source	Amount	■ Instrument	● Objectives	○ Achievements
IICA TOTAL	26 721 26 721	■	●	○
		<p>■ Technical Support for the Institutional Strengthening of the National Research and Technology Transfer System</p> <ul style="list-style-type: none"> ● To strengthen the organizational structure and technical capacity of MIDINRA's Technology Generation and Transfer System in designing and executing methods that enable the country to use available resources more efficiently. <ul style="list-style-type: none"> ○ Documents drawn up analyzing the research and technology transfer system and proposal made for creating an appropriate system for MIDINRA's experimental centers. 		
IICA TOTAL	78 104 78 104	■	●	○
		<p>■ Support for the Ministry of Agricultural Development and Agrarian Reform (MIDINRA) in Defining and Implementing Agricultural Policies</p> <ul style="list-style-type: none"> ● To upgrade the DGE and its regional counterparts' effectiveness in advising MIDINRA's decision-making bodies on the execution of short- and medium-term policies. <ul style="list-style-type: none"> ○ Methodological base developed for analyzing production costs for MIDINRA policies; technicians trained in how to use the instruments of the proposed methods; coordination strengthened between DGP of MIDINRA and the Region IV Directorate. 		
IICA TOTAL	7 568 7 568	■	●	○
		<p>■ Supporting the Identification and Formulation of Programs Contributing to the Economic Consolidation of Associative Enterprises</p> <ul style="list-style-type: none"> ● To gain a greater understanding of the production of nontraditional crops in the country, with an eye to upgrading them. <ul style="list-style-type: none"> ○ Methods developed for a diagnostic study of non-traditional crop production; document drawn up for establishing a coordinating body. ○ Bill designed for creating a non-traditional crop promotion and development corporation. 		

Resources Source	Amount	■ Instrument	● Objectives	○ Achievements
IICA TOTAL	78 187 78 187	■	●	○
		<p>Supporting MICOIN in Creating the National Training Program for the Domestic Trade Sector</p> <ul style="list-style-type: none"> ● To implement the 1987-1990 Domestic Trade Strategy. ● To institutionalize training in various areas of marketing as a fundamental instrument for strengthening both MICOIN and the domestic trade subsector. <ul style="list-style-type: none"> ○ Officials trained in marketing and operational programming strategies, as well as in matters concerning agricultural engineering and the marketing of perishable items; methods developed for research and evaluation and follow-up program prepared. ○ Training program developed in economic and technical areas of marketing and enterprise management. 		
IICA TOTAL	7 514 7 514	■	●	○
		<p>Supporting MIDINRA in Developing New Agricultural Crops</p> <ul style="list-style-type: none"> ● To introduce and develop nontraditional crops in the country. <ul style="list-style-type: none"> ○ Research carried out on corn and sorghum hybridization; 17 corn hybrids obtained; technicians trained in sorghum seed management and production. 		
IDRC TOTAL	18 830 18 830	■	●	○
		<p>Support to the Agricultural Information Network (CENIDA)</p> <ul style="list-style-type: none"> ● To improve MIDINRA agricultural research by increasing the gathering and dissemination of national and international livestock information. <ul style="list-style-type: none"> ○ National agricultural information service for researchers, extension workers and students of agricultural sciences improved. 		
IICA TOTAL	16 642 16 642	■	●	○
		<p>Support to MIDINRA in Generating Recommendations for Selected Sectoral Policy Measures within the Framework of a Macroeconomic Program for Economic Stabilization</p> <ul style="list-style-type: none"> ● To analyze the impact of Nicaragua's structural adjustment plan on the agricultural sector, and to identify a transition strategy for achieving balanced modernization in the sector. <ul style="list-style-type: none"> ○ Status of the agricultural sector analyzed vis a vis the structural adjustment plan; strategic proposals for transition presented. 		

Panama

1988 was a particularly difficult year for Panama. According to preliminary estimates from ECLAC, the economy suffered the sharpest drop in its history. According to the same source, the GDP fell by approximately 25%, capital formation contracted sharply and the open unemployment rate climbed to 21%. Various factors, particularly those dealing with domestic and external policies, greatly affected the financial and production climate of the country; export volume decreased 6%, while the value of imports contracted by 12%.

During 1988, IICA stepped up its technical cooperation activities in technology generation and transfer in order to help boost agricultural production and productivity. IICA cooperated with the Agricultural Research Institute (IDIAP) in setting priorities on products to be targeted for research and in drafting a national research plan. Special emphasis was given to planning and implementing the agricultural policy of the Ministry of Agricultural Development (MIDA) and to upgrading the mechanisms and information needed for exporting non-traditional products. The Institute contributed to strengthening the institutional system connected with rural development, and helped the agrarian reform process overcome problems of an organizational and managerial nature. The Office also offered its assistance in planning and supervising the execution of the plans and programs of the National Directorate for Sectoral Planning.

Summary of Cooperation Actions

Agricultural Policy Analysis and Planning

In 1988, in order to upgrade the national system responsible for planning and implementing agricultural policy, IICA focused on supporting agricultural policy decisions geared to ensuring the production and supply of products for the shopping basket. A study was completed on the effects of government policies on rice production. Support was given to various meetings of the National Rice Commission, and the government adopted policies to ensure

the production of this indispensable product, even under very difficult conditions for the country.

The preparation of documents was completed on the institutional framework for the agricultural sector planning system. IICA also cooperated with the government of Panama in adopting a series of measures putting the Ministry of Agricultural Development in a position to lead the sector in managing the crisis. The Institute provided support to the technical meetings of the national commissions concerned with rice, onions, milk, corn, sorghum and livestock, as well as of potato growers and poultry raisers. As a result of these meetings, the government drew up policies on these items, thus ensuring the supply thereof and/or the necessary import quotas for 1988. Nine technical meetings were held on each production item, and 250 small farmers participated in establishing the policies for each item.

Lastly, IICA completed a new project on agricultural policy analysis and planning in Panama, which will be in effect from 1989-1991.

Technology Generation and Transfer

With a view to upgrading the national technology generation and transfer system, the IICA Office geared its activities toward improving the technological level of small farmers so as to increase production and productivity by generating and adapting technology for priority items of domestic consumption and export. In 1988, the basic document on investment priorities and the assignment of resources was completed. Work groups were organized for setting priorities and assigning resources according to the country's areas of interest; in this way, a better distribution of resources was obtained.

The Institute cooperated in a series of crop analyses and in the execution of priority projects to upgrade the work of the Agricultural Research Institute (IDIAP). One of the project's objectives was to help draft a new, up-to-date version of the IDIAP charter to bring it in line with the country's needs. Amendments were made to Law 51 of the IDIAP, and a preliminary document for the bill was drawn up. The methodological groundwork was also laid for drafting a national research plan on the basis of clear and well-defined policies.

The Office provided advisory services for the preparation of the national technology generation and transfer plan, which includes a transfer system that reorganizes and defines the duties for 76 extension agencies, and improves technical assistance for more than 10,000 users. The Office in Panama also cooperated in drawing up local extension plans, offering training to 20 supervisors in the management and supervision of the national extension system. The project focused on policies to improve its service to target users. To this end, training sessions were offered with the support of the IICA-Radio Nederland project, which enabled the Office to transmit various radio programs on technology transfer twice a week.

Technical support was provided to the Panamanian government in drafting a project-document for upgrading the technology generation and transfer system, with a view to obtaining external funding.

The regional cooperative program on coffee, PROMECAFE, focused its activities on technology generation and transfer, providing training for 10 officials from the national coffee program, through various regional courses. It also cooperated in building a coffee laboratory and donated a drying oven for coffee seed, as well as a manual pulper.

Organization and Management for Rural Development

In order to upgrade the management capacity of programs and projects of the National Agrarian Reform Office (DINRA), IICA collaborated in two regional courses on the management of the land adjudication process, in which 60 officials participated, among them department heads, regional legal advisors and supervisors.

Marketing and Agroindustry

In 1988, the Institute contributed to upgrading the Ministry of Agricultural Development (MIDA) as concerns information on and analysis of the domestic and external demand for agricultural products. It also provided support for the marketing process, through the gathering of material from secondary sources and at

the field level in order to prepare a feasibility study on promoting the production of non-traditional agricultural export products. This study involved promoting 10 non-traditional items: hot peppers, ginger, cashew nuts, mangoes, melons, papaya, pineapples, plantains, watermelons and squash. Emphasis was also given to expediting the export process.

An analysis was made of the institutional system currently involved with the trade of agricultural products, identifying critical areas for decision-making at the different stages of the marketing process. Training was provided for 75 officials from the Agricultural Development Bank (ADB) in areas of product organization for marketing, market organization, and financial mechanisms for the exportation of agricultural products.

Animal Health and Plant Protection

The diagnostic study on regional veterinary laboratories was concluded and the Institute continued its support to this program by providing the information needed for animal health activities. In addition, IICA collaborated in the training of 25 laboratory technicians in a course on parasitology.

Various activities were held in regard to plant protection, among which was the first seminar-workshop on the aerial application of agrochemicals, held in February. The IICA Office also collaborated in drafting regulations on the aerial application of agrochemicals in Panama, and the bill on regulations for registering, marketing, using and controlling agrochemicals and related products used in agricultural production.

Other activities included support in the preparation of the project for the control and eradication of witches' broom in cacao (*Crinipelis perniciosus* - Stahel-Singer). IICA also helped draw up and publish a manual on the detection of coffee berry borer (*Hypothenemus hampei*-Ferrari) in Panama. Likewise, the Institute cooperated in conducting the project that will determine whether or not coffee berry borer exists in Panama. Lastly, the Office provided training on the National Contingency Plan through 10 regional seminars on plant protection in rice, corn and sorghum. As a result of these events, 650 instruction booklets were distributed to 366 participants for conducting diagnoses of diseases.

Panama

Resources
Source

Amount

■ Instrument ● Objectives ○ Achievements

IICA	9 867
TOTAL	9 867

■ Support for Reinforcing the National Technology Generation and Transfer System

- To strengthen the organizational structure and technical capacity of IDIAP and MIDA in designing and executing technology generation and transfer, and to use available national and international resources more efficiently and effectively.
 - Document completed on research priorities and resource allocation, as well as on the IDIAP draft charter and the national research plan.
 - Twenty supervisors trained in the management of the national technology transfer system; four officials trained in production of technology transfer programs; 10 officials from the National Coffee Program trained in coffee technology.

IICA	28 243
TOTAL	28 243

■ Institutional Strengthening of MIDA in Information and Analysis of Domestic and External Demand for Agricultural Products, and Support for the Marketing Process

- To carry out market studies for selected agricultural products and analyze the institutional structure of the national marketing system.
 - Studies made on the supply of and demand for 10 non-traditional export products, and of the institutional structure of the marketing system; areas critical to the decision making process in marketing identified.
 - Seventy-five BDA officials trained in marketing techniques and in financial resources for exporting.

IICA	43 541
TOTAL	43 541

■ Strengthening the Institutional System Responsible for Planning and Implementation of Agricultural Policy

- To strengthen the MIDA's institutional capacity of National Sectoral Planning Directorate; to advise authorities on the implementation of policies; to train personnel in planning matters; to design IICA's 1989-1991 plan on project analysis.
 - Nine technical meetings held on products to establish government policies.
 - Study completed on the impact of government policies on rice production; document completed on the sectoral planning system; IICA project of "Support for Agricultural Policy Analysis and Planning in Panama 1989-1991" drawn up.
 - Regional personnel trained in the use of the operational planning system.

Caribbean Area

The Caribbean Area consists of nine island states ranging in size from 311 km² (Grenada) to 27,700 km² (Haiti), plus two mainland countries, Guyana and Suriname. Although the latter countries are relatively large in terms of land mass (21,500 and 164,000 km² respectively), they are very sparsely populated. The population density is under four persons per km² in Guyana and Suriname, but ranges from 103 (Dominica) to 581 (Barbados), with the other countries between 180-300 persons per km².

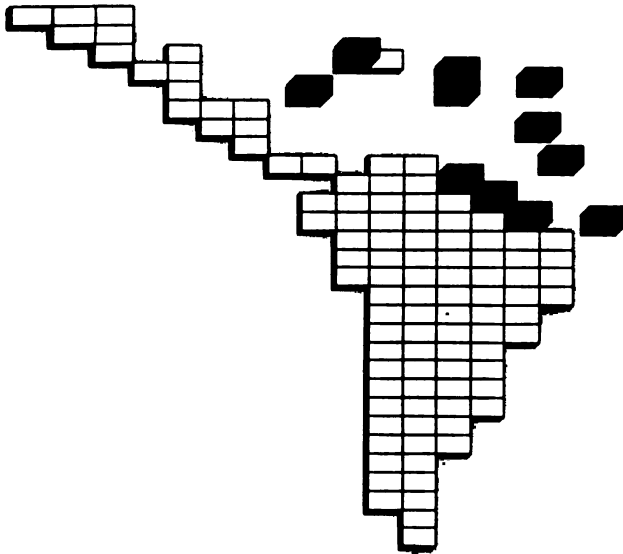
With regard to language, all Caribbean Community (CARICOM) countries speak English. These include Antigua and Barbuda, Barbados, Dominica, Grenada, Guyana, Jamaica, St. Lucia, St. Vincent and the Grenadines and Trinidad and Tobago. The language of Haiti is French and that of Suriname is Dutch.

Given these unique linguistic, cultural and geographic features, and their more recent association with IICA, the countries of the Caribbean Area have been experiencing an inevitable process of accommodation with their integration into the Institute. Important steps have been taken to overcome these difficulties.

Caribbean countries have maintained strong trading links with Europe in spite of their geographical proximity to the Americas. More recently, however, significant relationships have developed with both Canada and USA and attempts currently are being made to foster closer links between Caribbean countries and a number of their Latin American neighbors. In this regard, agencies such as IICA are expected to play a significant role.

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

Traditionally, the countries have relied on a few export commodities such as sugar, cocoa, and banana. But because of factors that include substantial decline in world market prices for primary commodities, uncertainties as regards preferential market arrangements 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 to increase food self-sufficiency and provide a more varied base for the generation of foreign exchange.



Earlier this year, for example, the Heads of Government of the Organization of Eastern Caribbean States (OECS) – a subgroup within CARICOM – mandated the Caribbean Development Bank (CDB) and IICA to prepare a program for agricultural diversification. This program was approved by the governments during their November meeting in St. Lucia and steps are currently being taken to secure the necessary external financial support for its implementation. IICA also participated in the preparation of CARICOM's Regional Agricultural Sector Program (RASP), which was approved in September of this year by the Standing Committee of Ministers responsible for Agriculture (SCMA).

Many countries also have made significant advances in the development of their non-agricultural sectors, particularly tourism and light manufacturing, and in the promotion of greater intersectoral linkages.

The Caribbean Area had its fair share of problems during 1988. The political uncertainty in Haiti continued, although there were some indications of increasing stability in the latter part of the year. Hurricane Gilbert ravaged Jamaica in September, causing an estimated US\$400 million damage to the agricultural sector, just as the country appeared to be on the road to economic recovery, and a new threat to Caribbean agriculture emerged in the latter part of the year in the form of the African desert locust *Schistocerca gregaria*. This pest apparently was brought to the Caribbean by one of the seasonal hurricanes originating off the coast of Africa. IICA quickly responded by providing emergency support to the countries for initial survey, monitoring and control of this dangerous insect pest.

The year 1988 saw the initiation of IICA's *Junior Professional Program*. This program, which was developed in response to the expressed concerns of Caribbean governments, seeks to overcome the language barrier that limits the incorporation of Caribbean nationals into the Institute. Accordingly, two young professionals from Barbados and Jamaica, respectively, were selected to

undergo training in Spanish in Costa Rica, in addition to participating in the Institute's activities within their areas of competence. The program envisages the development of a group of young Caribbean agriculturists with competence in Spanish, thus enhancing their opportunities for incorporation into the Institute and contributing to the development of linkages between agricultural institutions in the Caribbean and Latin America.

The *Regional Project Unit* was established in 1987 in response to specific requests from some Caribbean member countries for support in the identification, formulation and evaluation of investment projects. The Unit also provides in-service training to nationals in methodologies and procedures related to the project preparation process.

During 1988, the Unit carried out assessments of the agricultural sectors of Grenada, Antigua and Barbuda, and St. Vincent and the Grenadines for the purpose of identifying projects and outlining a policy framework for their development and execution.

The Unit, in association with the Caribbean Development Bank, played a significant role in developing the agricultural diversification program for the Eastern Caribbean countries and also assisted in the preparation of a dairy development project in Suriname. During 1989, the Unit will be strengthened with additional personnel to enable it to provide more effective support to Caribbean countries.

Clearly, 1988 was not without challenges in the Caribbean Area. Nonetheless, a climate of optimism prevails. The governments of the CARICOM countries made a number of decisions which will facilitate the integration process and promote collaborative actions in the pursuit of economic development and improved well-being for the people. For example, the governments have re-committed themselves to the spirit and the letter of the agreement on intra-regional free trade, effective as of October 1, 1988, subject to compliance with the CARICOM charter.

Barbados

Despite its limited resources, Barbados has made substantial progress in improving living standards and in diversifying its economic base since independence in 1966. Tourism and manufacturing have provided the main thrust for this growth. Agriculture still plays an important role in terms of generating foreign exchange and employment, but has been losing ground to other sectors of the economy. This situation is due mainly to falling prices on the world sugar markets and reduced output from non-sugar agriculture. These losses have been partly offset by an increase in output of other traditional crops.

The overall goal defined for Barbados is to improve its foreign exchange balance through increased exports and import substitution. In this context, within the agricultural sector, the government is pursuing a two-pronged and mutually reinforcing diversification strategy: improving the efficiency of the sugar industry in order to release lands for diversification, while still meeting the internal demand and the North American and European market quotas, and promoting diversification with non-traditional crops, especially fruits, cut flowers, selected vegetables and root crops.

IICA action in Barbados has been oriented to supporting the government's diversification policy. In 1988, major emphasis was placed on encouraging fruit production, as a result of which papaya output increased steadily, to the point where Barbados is now an exporter of this commodity. The Ministry of Agriculture also received support in strengthening information management systems, including preparatory work for the agricultural census. Together with the Barbados Agricultural Development Corporation (BADC), it received assistance in farm management training.

Summary of Cooperation Actions

Policy Analysis and Planning

In 1988, the activities in support of the development of an agricultural data and information system came to a close.

Efforts during the year concentrated on the preparatory work for the agricultural census, which included questionnaire design, data entry programs, and selection of data processing algorithms.

A management information system, in relation to farm planning, was developed for the Barbados Agricultural Development Corporation (BADC).

Technology Generation and Transfer

The Project "Supporting the Generation and Transfer of Technology for Fruit Production in Barbados" has significantly contributed to improving the production of fruits in Barbados and



By significantly increasing its production of papaya, Barbados now satisfies domestic demand and exports a considerable volume of this fruit to international markets.

neighboring islands. During 1988, this project organized and conducted 10 training events (short courses, conferences, field days, and demonstration tours) which benefitted over 350 people, including technicians, field personnel, nursery staff, farmers and students.

In-service training was provided on subjects such as plant reproduction methods, nursery management, production and medium decontamination techniques, as well as pest control. More than 200 farm visits were made to promote fruit production and provide technical assistance to farmers.

The most significant impact of the project in this regard has been in papaya production. Whereas previously there was little or no production, within two years the capacity was developed not only to meet local demand, but also to export significant quantities to overseas markets. In 1988, papaya exports reached 2,500 boxes per week, and exports are expected to show a substantial increase early in 1989.

Total acreage in Barbados cherry –the fruit which, by weight and volume, has the highest concentration of vitamin C– has substantially increased as a result of actions aimed at facilitating the multiplication and distribution of selected outstanding

cultivars. The demand for Barbados cherry in extraregional markets looks promising, being at present 10 times greater than it was two years ago. Increments in the amounts of fruit have sparked interest in processing it locally.

Another area of concentration of this support has been the introduction, testing and multiplication of out-of-season cultivars of avocados and other fruits, opening up the possibility of extending the harvesting seasons.

Organization and Management for Rural Development

After a year and a half of operations, the Micro-Agribusiness Training and Advisory Service Project, which was part of the activities of a multinational project operating out of Jamaica, came to an end in Barbados.

This technical cooperation activity contributed to strengthening national institutions in their capacity to provide training on micro-agribusiness. To this end, a training of trainers approach was employed in which over 68 persons from different national institutions participated, themselves receiving training.

Barbados

Resources
Source Amount ■ Instrument ● Objectives ○ Achievements

IICA	5 846
TOTAL	5 846

■ Support for Improving Export Marketing of Non-Traditional Crops

- Increase the quality of fresh produce for export from Barbados.
 - Training in agricultural marketing initiated for agricultural sector technical personnel and small-scale farmers.

**Resources
Source**

Amount

■ Instrument

● Objectives

○ Achievements

IICA	93 730
TOTAL	93 730

■ Support for Technology Generation and Transfer for Fruit Production in Barbados and Guyana

- To support the Ministry of Agriculture in identifying, introducing, and developing practices and methods for eliminating obstacles to fruit production in Barbados.
- To implement mechanisms that ensure dissemination and adaptation of appropriate technology in agricultural production, and support MAFF efforts to strengthen its research and extension services.
 - Ten training activities carried out benefitting more than 350 people.
 - Eighty people trained in plant reproduction methods, nursery management, production techniques and decontamination techniques.
 - Farmers benefitted from more than 200 visits.
 - MAFF assisted in organizing its fruit program.
 - New method implemented to eliminate constraints on fruit production.
 - Papaya and West Indian cherry production increased; massive reproduction of out-of-season cultivars.

Guyana

This year was marked by the government's purposeful pursuit of political and economic reforms aimed at resolving the persisting problems of the increasing international debt (currently estimated at between US\$1.2 and US\$1.8 billion), a growing balance of trade deficit, and a continuing scarcity of foreign exchange. These factors contributed not only to the slow growth of the national economy but also to the sub-performance of the agricultural sector in achieving established production goals and targets in some critical production areas, including sugar and rice.

Perhaps the most positive development which took place in 1988 was the increasing confidence and optimism generated by

the new fiscal and economic policies adopted and promoted by the government. The government's commitment to these changes was underscored by the adoption of a number of positive measures designed to put the country back into the mainstream of progressive economic activity.

A key element of the government's policies, referred to as the Economic Recovery Programme (ERP), has been the efforts to conclude an agreement with the IMF, regarded as a *sine qua non*. By year's end the negotiations were at an advanced stage, and an agreement was expected to be signed in 1989. Such an agreement is only part of a total economic package and policy measures adopted as essential elements of the ERP.

Under the ERP, agriculture will continue to play a vital and central role, with increasing emphasis on production diversification and increased production of non-traditional commodities. Successful negotiations with the IMF are expected to have an important and positive impact on the government's agricultural program, inasmuch as foreign exchange will become available to finance some of the major production projects, and to procure essential production inputs and services.

The technical cooperation between the government and IICA during 1988 was well-advised, concentrating on two high-priority areas: livestock and fruit production. These two areas of technical cooperation were consistent with and supportive of not only the government's agricultural diversification program, but also of the ERP. In spite of the overall economic problems alluded to above, the projects achieved satisfactory success with respect to projected targets, and were ably supported by the principal counterpart government Ministries and national agencies.

Summary of Cooperation Actions

Technology Generation and Transfer

The Project "Fruit Crop Demonstration Propagation Unit (FCDPU)" was established to provide technical assistance to the Government of Guyana in its diversification program. By its termination at the end of 1988, the project, with financial assistance from the Canadian International Development Agency (CIDA), had achieved all its programmed goals with respect to the rehabilitation and expansion of nursery facilities. The modernized facility now has the physical capacity for producing in excess of 100,000 plants per year, for sale and distribution to farmers. Equally important has been the training of national technicians in the operation and management of the nursery facility.

With the termination of the project, an important second phase, entitled "Supporting the Generation and Transfer of Technology for Fruit Crop Production" was started. The compilation and analysis of data on the production and marketing of fruit in Guyana served as the basis for the formulation of this project and

establishing production priorities. Also, an agreement with the Government of Guyana will put in place comprehensive programs to encourage the export of selected fruit crops.

Among its important achievements, the FCDPU installed new mist propagation and humidity units and introduced selected planting material for upgrading germplasm collection.

Applied research activities were carried out with the collaboration of the National Agricultural Research Institute (NARI). Local materials for replacing imported inputs have been identified and are being used in routine plant propagation at the Central Horticultural Station (CHS). Additionally, two experiments to assess the influence of different mist and humidity regimes, rooting hormones and growth media on the propagation of carambola *Averrhoa carambola* and soursop *Annona muricata* have been initiated.

The quality of nursery plants produced at CHS improved significantly with the routine application of decontamination and sanitation practices and improved propagation techniques.

In-service training provided to the technical and nursery personnel from the main collaborating institutions—the Ministry of Regional Development (MORD) and the National Agricultural Research Institute (NARI)—covered subjects such as: the propagation of selected tropical fruit species; nursery management; technical assistance delivery systems for fruit growers; and the production of citrus, passion fruit, and West Indies cherries.

The experiences gained by the FCDPU during Phase I have been applied at selected nurseries around the country. The FCDPU has the possibility of becoming a major training center in the Caribbean, demonstrating appropriate production techniques and systems.

By eliminating the major constraint of the pre-production and marketing of fruit, and with the improved capability of the Ministries of Agriculture and Regional Development to provide farmers with the quantity and quality of nursery plants required, it is hoped that this subsector will be able to make a significant contribution to the generation of foreign exchange.

Organization and Management for Rural Development

The project "Improving Dairy Production for Landless, Small- and Medium-Scale Farmers" came to a conclusion this year after four years of operation. This project, which achieved 95% of its objectives, focused on livestock production, especially cattle, which is an integral part of agricultural production and development in Guyana, and a priority of the government.

In 1988, the project concentrated its efforts on supporting the National Dairy Development Program (NDDP), through the transfer of technology to dairy farmers, and through training national technicians and counterparts.

The St. Stanislaus Dairy Demonstration Unit was established by the project as a model unit and has been the key tool in the process of transferring technology. By the end of 1988, 10 dairy units of different sizes had been established in different regions of the country. These units have been used by dairy farmers as a source of planting material, a site for observation of improved dairy practices and for implementation of improved technologies for increasing milk production.

Increasing the number and improving the capabilities of the personnel involved in the dairy production subsector constituted important outputs of this project. These achievements were obtained through training of farmers, students, and farm and technical personnel utilizing various methodologies, including field days, field demonstrations, in-service training, conferences and short courses. On-farm training was an important feature of these training activities.

During the year, the positive results of the project were disseminated to the dairy farmers, and more than 15 farms, both small- and medium-size, were incorporated into the project, and began to adopt the proven technologies. The participating farms had a positive demonstrative effect on other neighboring farms.

In terms of the institutionalization of the project, strong support was provided by the NDDP, which, during the year, established

more than 10,000 acres of improved communal pastures with antelope grass *Echinocloa pyramidalis*, one of the grasses best suited to the coastal conditions of Guyana. The project emphasized the use of grass as an important crop, and demonstrated the contribution that such a natural feeding system could make to improving milk production and ensuring that feed is available throughout the year, using silage. The improvement of management practices, emphasizing basic record-keeping, animal health and general sanitation were introduced, which contributed to increased milk productivity. These efforts demonstrated an important concept, by no means new, that it is possible, with improved feeding/nutrition and management practices, to achieve substantially increased productivity from the existing genetic stock.

In addition to the preceding, support was also given to national efforts, through the Livestock Development Company (LIDCO) in the processing of dairy products, especially cheese. This constitutes a further incentive for dairy farmers.

As a measure of the success and impact of the project, the Government has requested an extension. In response to that request, the new project, in addition to consolidating present actions, will incorporate aspects dealing with small livestock (sheep and goat) production, integrated with appropriate cropping systems, e.g. coconuts.

Animal Health and Plant Protection

The IICA Office in Guyana continued to collaborate with national and regional agencies in strengthening animal health activities, and in developing new areas of technical cooperation. A short-term activity for the diagnosis and evaluation of bovine tuberculosis in Guyana began at mid-year. This activity is expected to generate a major project in animal health and herd fertility in Guyana.

Guyana

Resources
Source Amount ■ Instrument ● Objectives ○ Achievements

MAG-CHC	8 019
IICA	27 191
TOTAL	35 211

■ Support for Technology Generation and Transfer for Fruit Production in Barbados and Guyana

- To support the government of Guyana in increasing the fruit crop to meet national demand, using surpluses for regional and extra-regional trade.
 - Fruit crops selected as a result of the analysis of fruit production and marketing in the country. MORD and NARI personnel trained in different facets of the production of selected fruit. Research conducted with the cooperation of NARI.

IICA	102 043
TOTAL	102 043

■ Improving Dairy Production Systems for Landless, Small- and Medium-Scale Farmers

- To increase production and productivity in small-farmer dairy systems; to increase the supply of food and opportunities for work, thus reducing milk imports; to augment support services and inputs.
 - Training provided to dairy subsector personnel through the installation of 10 demonstration dairy units. In collaboration with the NDDP, 4,050 ha of improved grass planted for common grazing.
 - LIDCO and GUYSUCO assisted in providing support to efforts to process dairy products.

IICA	3 921
TOTAL	3 921

■ Collaboration and Support to the Planning and Management of Agricultural and Rural Development Agencies and Systems

- To upgrade the skills and improve the technical capacity of the Office with respect to the information gathering, analysis and storage needed for ongoing monitoring, evaluating and planning of agricultural programs and activities.
- To support the government's institutional capability with respect to agricultural information systems and national agricultural planning and programming.
 - Inventory conducted of sources of information and statistics.
 - Personnel trained in the organization and management of information systems.
 - Micro-computer information systems in operation.

Resources
Source Amount ■ Instrument ● Objectives ○ Achievements

IICA	9 247
TOTAL	9 247

■ **Diagnosis and Evaluation of Bovine Tuberculosis in Guyana**

- To strengthen the operating capacity of the Ministry of Agriculture in its efforts to diagnose and control bovine tuberculosis in Guyana.
 - National livestock census and available information updated and evaluated. Survey type and geographic scope of the sampling for tuberculin test designed.
 - Execution of tuberculin test and survey; results evaluated. Transitory measures prepared and project drawn up.

Haiti

Political instability has created insecurity and social unrest and, as a consequence, some assembly plants located in Haiti have closed their doors and transferred out of the country. However, since the installation of the new Haitian government, the government of the United States and those of other donor countries have begun to free up part of the funds originally allocated to Haiti, and it is hoped that continued stability will lead to increased access to international assistance.

The agricultural sector, which was responsible historically for nearly 50% of the Gross Domestic Product (GDP), is decreasing, but remains a government priority. During the year, the Ministry of Agriculture was reorganized in an effort to achieve greater efficiency. 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 nearly 400,000 tons of topsoil to the sea per year. To stop this erosion, the government must make a major effort in agricultural extension services, to train peasants in ecological conservation, and improvement of agricultural and animal production technology.

Coffee exports for the year have decreased as compared with last year, while mango exports are up to approximately US\$14 million.

The Ministry of Agriculture was reorganized this year with a view to improving its efficiency.

Summary of Cooperation Actions

Technology Generation and Transfer

In 1988, IICA carried out a short-term action in Haiti intended to support efforts in the battle against coffee rust. The expected result from this action was a project document on the control of the disease in the northern region of the country. To achieve this result, the person responsible for the short-term action worked closely with a technical team consisting of three professionals: a coffee production specialist who carried out a survey of coffee rust in the north of the country; an agronomist who worked to match coffee

production practices to the conditions known to favor or impede rust establishment and propagation; and a specialist in the control of coffee rust who collaborated in formulating and elaborating the project document.

The project document is now being discussed by USAID and IICA, and a rust control and coffee production project may emerge.

Organization and Management for Rural Development

Under Program III, a short-term action was undertaken on institutional strengthening for increased participation of small-scale producers. This led to the elaboration of a project document on strengthening the institutions linked to the improvement of agricultural production and living conditions of the small-scale farmers in Haiti. Of particular importance are those institutions which could channel new technologies to small-scale farmers and provide them with services related to production and marketing.

The project will strengthen the capacity of these institutions to execute agricultural extension services and training at the farm level, and to detect the real needs of the beneficiaries and their possibilities of adoption and execution. The project has been elaborated with the joint participation of technicians from these institutions and farmers' representatives.

Animal Health and Plant Protection

Since 1982, the Institute has worked with the government of Haiti in a major effort to rid the country of African swine fever. This initial effort involved the extermination of virtually the entire swine population. Subsequently, a project was mounted to reestablish the swine industry, and at present there are 1.5 million animals in the country.

The first phase of the swine repopulation project, which began in 1983, lasted until 1986. During that period, 10,600 animals were distributed among 440 Secondary Multiplication Centers (SMC)

created for this purpose. In the second phase, which began in 1986 and concluded a year later, 120,000 animals from the SMC were distributed free of charge to peasants. The third phase, currently under way, is to reinforce the capability of farmers, farmers' associations and UNAPEL (which is a national confederation of peasant associations) in food production and animal health surveillance. The project was financed by USAID with almost 9 million dollars and will finish in September 1989.

Under its program of strengthening the national peasant association, IICA provided medicines to UNAPEL, and supported the creation of five regional veterinary pharmacies that distribute medicines and hold training seminars for peasant farmers.

Peasant farmers were also given training in swine nutrition alternatives, such as newly introduced plant species like amaranth and ramy, and tree species with edible leaves.

IICA continues to prepare and print extension bulletins, which are used in the training courses, and distributed thereafter for reference. The Institute initiated a training program in radio outreach work, with a view to better serving and training small farmer.

The technical cooperation action to develop swine production systems, using sugar cane juice and high-protein forages, received economic assistance from the International Foundation for Sciences of Sweden. Twelve sugar cane mills, powered by animal traction, were manufactured locally and installed in twelve different areas where sugar cane is the predominant crop. These mills are located in Secondary Multiplication Centers on the farms of community leaders. A total of 120 pigs in the growth and fattening stage have been evaluated using different rations, in which sugar cane juice is the main source of energy. These feeds were compared with others available and normally used by producers, such as wheat shorts, rice shorts and corn screenings.

Preliminary results from the study of the pigs in the different trials indicate that the use of sugar cane juice and foliar proteins (from both legume and non-legume trees introduced by the project, as well as domestically produced double-purpose crops) is both economically and biologically feasible. These ingredients are easily obtainable in comparison with those that are imported, which are expensive and often in short supply.

Haiti

Resources

Source	Amount
USAID	913 668
IICA	14 188
TOTAL	927 856

■ Instrument ● Objectives ○ Achievements

■ Swine Repopulation and Animal Health Extension Project

- To produce and distribute improved breeding stock to Haitian farmers, and to support a nation-wide program of animal health.
 - Assistance provided to national small-farmer associations in the transfer of medicines to UNAPEL and the creation of three regional veterinary pharmacies.
 - Workshops given to small farmers on alternative feed for hogs. Team sent to UNAPEL to distribute mixed feeds. Extension bulletins published and radio extension program initiated for training small farmers. Marketing of hogs initiated by UNAPEL.

IFS	10 525
TOTAL	10 525

■ Development of Swine Production Systems (OSPS) Using Sugar Cane Juice and High Protein Forages

- To increase the production of feed for swine, to sustain reproduction efforts.
 - Seven locally-built animal-powered sugar cane mills installed in the CSM in different regions of the country.
 - Several hog feed trials using sugar cane juice and leaves from certain crops conducted in the field and with the participation of farmers. Preliminary results point to the biological and economic feasibility of using these ingredients in hog feed.

IICA	23 394
TOTAL	23 394

■ Institutional Strengthening for the Participation of Small-Scale Farmers

- To strengthen agricultural public sector agencies with a view to increasing the participation of small-scale farmers
 - Project-document prepared to increase the institutional capacity of agencies involved in improving agricultural production and the standard of living of small-scale farmers.

IICA	11 655
TOTAL	11 655

■ Short-term Action on Coffee Rust in Haiti

- To implement actions to control coffee rust in Haiti.
 - Project document prepared on the control of coffee rust in northern Haiti.

Jamaica

The Jamaican Government's priorities in the agricultural sector were to expand and diversify exports and consolidate the production of traditional crops to meet export quotas; to reduce imports and strengthen programs addressing the problems of small-scale hillside farmers, with special emphasis on land titling and resettlement; and to support infrastructure, soil conservation, public irrigation systems and new settlements in the Rio Cobre and Black River basins.

By the end of August, the economy had improved considerably, showing a growth rate of 4.6%, while inflation had been reduced to 8%. However, due to the severe damage to the agricultural sector caused by Hurricane Gilbert, both export and domestic crops are expected to show losses for the year.

Calling the hurricane the "worst natural disaster in Jamaica's modern history," Prime Minister Edward Seaga announced the following losses in the 1988 crop: bananas, plantains and pimento 100%; coffee, coconut, breadfruit, mangoes, avocados, ackee, papaya and vegetables 80%; cacao and root crops 70%; citrus and sugarcane 40%.

In response to the immediate needs of agriculture in the wake of the hurricane, the IICA projects supporting the government were reoriented to address priorities such as planting, accessing financing and preparing nurseries.

Summary of Cooperation Actions

Technology Generation and Transfer

The project in support of agricultural technology generation and transfer in this country involved collaborating with the Ministry of Agriculture (MINAG) to define mechanisms that channel technological benefits to small producers.

In the area of applied research, the Institute continued to provide MINAG with assistance in its efforts to evaluate cropping systems at the farm level, in order that these systems might respond to the real needs of small-scale farmers. The project, which entered its

second three-year phase, was designed to develop production systems that will make it possible for small-scale farmers to increase their incomes, while at the same time conserving soil and water.

In this phase, MINAG will focus on tree crops, and on extending to farmers in other hillside areas the beneficial technologies adopted by small farmers for the production of potato, yam, cabbage, and corn.

The Institute continued to collaborate with the Research and Development Division of MINAG to promote the agronomic components of profitable production systems based on crops which generate foreign exchange, such as vegetables, grains, root crops and condiments. In addition, improvement of the cropping systems for potato, cabbage, yam and corn has opened up the possibility of



By 1990, the annual food deficit of Third World countries will have reached 80 million tons. Natural phenomena (like Hurricane Gilbert in Jamaica) can have a devastating effect on an already dramatic situation.

extending these crops to new areas of the project. The structured farm models, backed by a strong research component, led to an increase in production and profitability of these crops.

In two ecologically different zones, Watermount and Guy's Hill, important progress was made in testing crops in farmers' fields, and in the evaluation of improved cropping systems.

In the Watermount Area, trials were set up for coffee and cacao, and the technique of rapid multiplication of potato, a new crop introduced in varietal trials in 1987, was applied. In the Guy's Hill Area, where potato is a major cash crop, the use of technology generated by the project resulted in a bumper crop. Some 90 small-scale farmers benefitted directly from this cooperative action, and another 240 indirectly, through informal visits to farms in the project area.

During the year, the Research and Development Division, the Cropping Systems Project Director of MINAG and a specialist in this field participated in a USDA technical course at the University of Florida.

Another activity, concluded this year, involved support given to the National Cassava Rehabilitation Project, in evaluating cultivars of high-yield varieties of cassava. A specific goal of the project was to build a viable cassava industry as part of agriculture's contribution to GDP, by limiting the expenditure of foreign exchange on imported corn for animal feed, and using cassava instead. Several varieties of cassava were tested in different soils, at different altitudes and under different climatic conditions to determine yield potential. The most productive varieties were Smalling, C30 and Blue Bud.

Organization and Management for Rural Development

The actions in support of small business management for the rural development process in Jamaica entered into the second phase of operation.

The Small Enterprise Development Project (SEDPRO) has been IICA's response to the need to strengthen the capacity of national

institutions to assist rural micro-entrepreneurs in business management.

Its method of work being participatory, SEDPRO, from its inception, established a Small Business Training Advisory Committee (SBTAC), through which training programs appropriate to the needs of the small business sector were discussed and planned. SBTAC was dissolved in November 1988 to make way for a soon-to-be-launched National Association of Small Enterprise Trainers, to promote interests nurtured by SBTAC. Through this Committee, the Institute published two training manuals in 1988: the first is designed to upgrade the training skills of trainers, and the second focuses on assistance to small-scale producers and agricultural micro-entrepreneurs who suffered losses from the hurricane, in obtaining loans from financing agencies.

IICA met its objectives for the year by training 265 trainers, using manuals published earlier in the project, and thereby strengthening five national agencies participating in SEDPRO, as well as 15 others involved in the rehabilitation of small businesses and farms in the aftermath of the hurricane.

SEDPRO is now being reoriented as a result of Hurricane Gilbert. Financing for reconstruction has replaced training as the number one priority.

During the latter months of 1988, IICA carried out an emergency short-term action to assist Jamaica in its recovery from the losses caused by the hurricane. Among the outcomes of this action, special mention should be made of the assistance given to the Cocoa Industry Board, regarding tree crop rehabilitation through pruning techniques and fertilization, as well as the introduction of improved cultural practices. A second activity focused on crop production systems, using improved planting material and technologies proven in Jamaica, such as the mini-set technology in the production of yams, corn, cabbage, and Irish potato. Another success was the Youth Enterprise Production (YEP), which supported the Jamaica 4-H Club/IDB Loan Program, utilizing a methodology which seeks to identify an economically viable technology for producing and marketing an agricultural product on a small scale.

Jamaica

Resources
Source Amount ■ Instrument ● Objectives ○ Achievements

IICA	32 421
TOTAL	32 421

■ Farm Management Training and Generation of Information

- To strengthen the capability of public and private agriculture sector organizations in assisting small farmers in improving their farm management abilities.
 - Fifty technical personnel and small farmers received training.
 - System developed for collecting data on costs, and methods designed for analysis of milk.
 - Assistance provided in data collection; method prepared for annual crop cost analysis.

IDRC (Crops)	102 340
IICA	26 481
TOTAL	128 822

■ Support for the Generation and Transfer of Agricultural Technology

- To identify improved and appropriate production methods for cropping systems in the Guy's Hill and Watermount zones and to provide in-service training for project members in farm research techniques.
 - Actions carried out to identify constraints on transfer of agricultural technology. MINAG supported in identifying and designing strategies to solve yam marketing and productivity problems. Continued assistance to MINAG in evaluating cropping systems at farm level. MINAG's Research and Extension Division assisted in promoting agronomic components of profitable production systems.
 - Crop tests conducted in the field and evaluation made of improved cropping systems in Watermount and Guy's Hill. Production of potato, corn, cabbage and cassava increased.

IICA	17 390
TOTAL	17 390

■ Small Business Management Support for the Rural Development Process in Jamaica: Phase II

- To strengthen national institutions responsible for assisting the rural micro-enterprises sector, by producing training materials and educating trainers in business management.
 - Training manuals published in support of SBTAC; 265 trainers trained. Five national agencies participating in SEDPRO strengthened; 15 others involved in the economic recovery of small businesses after the hurricane.

Resources Source	Amount	■ Instrument	● Objectives	○ Achievements
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IICA	95 289
TOTAL	95 289

■ **Emergency Short-term Action to Assist Jamaica in Recovering from Agricultural Losses Caused by Hurricane Gilbert**

- To support Jamaica with emergency rehabilitation actions, to recover from the agricultural losses caused by Hurricane Gilbert.
 - MINAG, JAMPRO and AGRO-21 supported in rehabilitation of forest crops.

Organization of Eastern Caribbean States

The IICA member countries from the Eastern Caribbean include Antigua and Barbuda, of the Leeward Island chain, and the four Windward Islands: Dominica, Grenada, St. Lucia, and St. Vincent and the Grenadines. The islands are small, of volcanic origin and mostly mountainous, but enjoy a subtropical climate with clearly marked seasons. The Windward Islands are exposed to periodic natural disasters such as hurricanes and floods. The main pillars of the economies are agriculture, tourism, manufacturing and services.

In the Windward Islands, agriculture is the dominant sector. In Dominica, agriculture (including livestock, forestry, and fishing) accounts for 30% of GDP, 55% of export earnings, and occupies 60% of the labor force. In Grenada and St. Vincent and the Grenadines, the share of GDP is 18%, and in St. Lucia it is 16%, generating roughly 60% of export earnings and employing 34% of the work force. The dominant crop is banana, marketed jointly as WINBAN fruit to the United Kingdom. Agricultural exports include coconut, root crops, and fruits, and, from Grenada, cocoa, nutmeg and spices.

In Antigua, tourism is the leading sector, followed by construction. Of the five countries, only Antigua maintains full employment, with a very low percentage dedicated to agriculture. In recent years, some emphasis has been given to revitalizing the sector, especially in import substitution, mainly vegetables, fruit and livestock.

Faced with an uncertain future in 1992, when the United Kingdom market will no longer be protected for WINBAN fruit, and with increasing balance of payments difficulties, there has been a concerted call for agricultural diversification and promotion of joint marketing ventures. The heads of government of the member countries of the Organization of Eastern Caribbean States have approved a plan of action to address these issues.

Antigua and Barbuda

The Government recognizes the urgent need to reactivate agriculture and to establish stronger linkages between sectors, especially tourism and manufacturing.

The national White Paper "Objectives and Strategies for the Period 1988-1992" emphasizes the need to expand the productive capacity of the economy, and to promote economic and social development through meaningful collaboration between the private and public sectors in terms of private investment and enterprises.

Further, the White Paper stresses that the growing imbalance between imports and exports must necessarily exercise a dominating influence on the choice of a strategy, and concludes that new avenues for export and import substitution will be vigorously pursued.

The 1988-1990 projects of the Public Sector Investment Programme (PSIP) will require expenditures of US\$65.3 million, of which US\$44.7 million is from external financing. Major projects consist of hotel construction, to upgrade tourism infrastructure, livestock development and housing. Initiatives for vegetable and fruit crop production have increased.

Dominica

Real GDP grew by 6.8% in 1986 and a further 4.6% in 1987 due to strong growth in banana output. The need to increase public sector savings and to develop a diversified economic structure has been recognized. Investment priorities are the execution of sectoral projects for agricultural diversification, expansion of hydroelectric facilities, and infrastructure to expand agriculture, manufacturing and tourism.

The Public Sector Investment Programme amounts to US\$80.9 million. Projects include hydropower expansion, feeder and farm access roads, and water supply and sewerage requirements (external financing is US\$75.9 million).

Grenada

Real GDP grew by 3.5% between 1984-1986, due mainly to tourism and construction. A comprehensive value-added tax reform programme was introduced and substantial budgetary support was received from external grants. Incentives for improved

production and marketing of fruit and vegetables are planned. A model farm project to increase agricultural productivity has been started. An infrastructural investment project for agricultural diversification and crop rehabilitation is being implemented.

A Public Sector Investment Program of US\$59 million (with external financing of US\$47 million) has been fully financed. Balance of payments support is US\$41.8 million.

Saint Lucia

Real GDP grew by 6% per year in 1985-1986 due to an increase in banana output, growth in tourism, and increased construction activity. A drought affecting banana production in 1987 caused a reduced growth of GDP to 2.1%. The country's external debt situation is considered manageable.

Development of infrastructure is the key area of the Public Sector Investment Programme. Improved agricultural productivity of traditional and non-traditional crops is a priority policy, based on the private sector with support from the public sector. The government recently announced that 1988 exports of non-traditional crops such as breadfruit, mango, plantain and hot peppers have exceeded expectations.

Saint Vincent and the Grenadines

The economy of St. Vincent and the Grenadines has shown its capacity for recovering from successive natural disasters (a volcanic eruption in 1979 and a hurricane in 1980). Real GDP grew at an average of 5% per year during 1980-1986, and the balance of payments shifted from a deficit of 1% of GDP to a surplus of 10%, due to increased exports in 1986. Representatives from 10 donor countries under the Caribbean Group for Cooperation in Economic Development (CGCED) commended the government's efforts in implementing appropriate economic policies, and supported the overall development program. In particular, the government's major initiative in addressing the

development requirements of the agricultural sector, within the context of a comprehensive program of land reform and diversification, received a very positive response.

Summary of Cooperation Actions-OECS

Agricultural Policy Analysis and Planning

An IICA multidisciplinary team approach was applied in Antigua and St. Vincent and the Grenadines to undertake rapid sector appraisals for the identification of pressing problems and alternative actions expressed in project proposals and recommendations. The activities were coordinated by the Regional Project Unit, and received support from the OAS offices. Participating specialists covered the areas of policy and planning; vegetable, fruit and food production; livestock development; technology generation and transfer; strengthening of farmers' organizations and marketing.

Follow-up activities were conducted in Grenada on a previous sector study for endorsement of priority project proposals and implementation. A study on low incomes and farmer response to praedial larceny has been concluded in the main agricultural region of Grenada, and the assistance of an irrigation specialist is planned for 1989.

Following a request from the Ministry of Agriculture of St. Lucia for assistance in improving personnel management, a consultant was engaged to design and implement a performance enhancement training course for senior staff of the Ministry. The course highlighted the factors which affect performance, and dealt with the development of self-management skills and the improvement of team work.

Technology Generation and Transfer

The project in support of the organization and administration of technology generation and transfer systems in the States of the Eastern Caribbean began in mid-1988 in St. Lucia, Dominica and Grenada, where several actions were carried out; others were initiated in Antigua and Barbuda. An appraisal of the National

Agricultural Technology Development System (NATDS) was also conducted in St. Vincent and the Grenadines.

Support to the agricultural technology development process in the participating countries covered areas such as the establishment of institutional technology policy, organization and management of technology generation and transfer, the formulation and implementation of technological development plans, programs and projects for both internal and external funding and the incorporation of technological advances into farming systems.



Bananas are the most important crop of this region; they are marketed together with WINBAN fruits.

In St. Lucia, Dominica and Grenada, the first three phases of the agricultural technology development process have been successfully implemented, and the fourth is being set up.

In support of the subregional effort to boost the export of non-traditional commodities, especially fruit (tree) crops, the project provided assistance to Dominica in identifying and gaining access to sources of improved technology from Costa Rica, related to the production and marketing of christophene.

Grenada was provided with papaya seed from disease-resistant cultivars and the Asian Vegetable Research and Development Centre (AVDRC) of Taiwan, the Republic of China, collaborated with CARDI in the introduction of state-of-the-art technology to control sweet potato weevil in St. Lucia.

The project assisted the Caribbean Community (CARICOM) Secretariat in formulating a program for agricultural development. The resulting regional action plan contains commodity-based, as well as general institutional support program and investment projects, which will benefit the Eastern Caribbean States. The project also developed project profiles to promote and enhance cooperation between Latin America and the Caribbean in agricultural development, and to support fruit tree crop production and marketing, with external funding.

During the year, two technical publications were disseminated, and three seminar-workshops were held Dominica, Grenada and St. Lucia, benefiting some 100 people directly. In addition, 87 people from the three islands participated in training activities co-sponsored by the Institute.

Organization and Management for Rural Development

The IICA project on strengthening farmers' organizations in the OECS countries was designed using information generated in 1986-1987 by IICA during a comprehensive diagnosis of production and marketing constraints in the four Windward Islands. This project recognizes that farmers in the OECS countries make a significant contribution to the overall economy, and that, being small-scale farmers (1-5 acres), they need strong organizations capable of providing necessary services. Cooperation actions, therefore, have the general objective of

strengthening farmers' organizations, so that they can improve the quantity and quality of the marketing and production services they provide to their members.

Based on the belief that problems cannot be resolved unless they are clearly identified, IICA initiated a series of actions in 1988 which led to the establishment of a comprehensive data base. Complete profiles were prepared on 42 active farmers' organizations in the subregion, which contain information on the history, structure, current status, experiences, problems and needs of each. This baseline information is to be published as part of the IICA Miscellaneous Publications Series. Based on the particular situation within each farmers' organization, and the needs they all share, a national strategy was planned to orient development of farmers' organizations and their respective services.

With regard to the formulation of projects, IICA assistance consisted of identifying and formulating projects to benefit the two groups into which these farmers' organizations are divided: those involved in the production of small livestock for domestic consumption, and those whose members produce crops for domestic and export markets.

In 1988, five projects were designed, and funding was obtained for the following three: Inter-Island Joint Marketing within the OECS; Improved Post-Harvest Handling and Marketing in Antigua through the Dominica Hucksters Association; and Improvement of Poultry and Pork Processing Capabilities through the St. Lucia Association of Farmers' Cooperatives. In addition to providing assistance in the formulation of these three projects, IICA provided brokerage between the farmers and financing organizations.

One of the secondary benefits of this activity was the development of a methodology for identifying problems and alternative solutions and drafting of project profiles using a commodity systems approach. This methodology was tested and proven in a two-week workshop attended by 25 professionals.

With respect to training, Peace Corps staff assigned to this project worked with extension officers in the formation of farmers' organizations and the training of managers. They also worked with the National Research and Development Foundation (NRDF) in St. Lucia to write radio scripts for the NRDF radio program "Small

Business Management. Weekly courses in farm management were given at the agricultural school in St. Lucia. Selected personnel from each country who are associated with farmers' organizations were trained in the use of a computerized (PC) information base for the collection of on-farm production and marketing information.

In an attempt to improve the exchange of information and experiences among the OECS countries, an inter-island steering committee representing farmers' organizations was established. Two members of farmers' organizations from each of the five islands meet quarterly under the auspices of the project to discuss priority problems and exchange positive and negative experiences. IICA acts as Secretariat for this group, following up on decisions and recommendations with diverse regional and international organizations. This committee met three times in 1988, in Dominica, St. Vincent and the Grenadines, and St. Lucia.

A project formulated by IICA in 1987 to seek funding for a quarterly inter-island newspaper, which would express the views of small-scale farmers of the region, received funding from the Canadian International Development Agency (CIDA) for a three-year period. Support was given to the efforts of the St. Lucia Association of Farmers' Cooperatives in administering this project, in generating material for publication in "Focus on Integrated Rural Development," and in disseminating each edition throughout the hemisphere.

In the execution of this project, IICA has worked closely with other regional and bilateral groups or projects such as CARDI, CAEP, SPIF, Peace Corps and HIAMP. The project also contributed to CARICOM and OECS efforts in the design of actions to strengthen diversification initiatives.

This technical cooperation action is well on its way to achieving its objectives, surpassing all expectations during the first of a four-year plan of operations. By involving farmers in the decision-making process and in the identification and design of solutions, it is expected that this project will contribute greatly to the national goals of the OECS countries, oriented toward both import substitution and the export of non-traditional commodities.

In 1988, IICA continued to support small-scale sheep production in Dominica. Sheep breeding in Dominica has been

characterized as a subsistence activity, in which there is a high mortality rate, minimal growth, poor herd reproduction, and inadequate husbandry practices.

In collaboration with the Ministry of Agriculture and CARDI, the Institute continued its efforts to improve the organization of the production systems with a view to eliminating obstacles to sheep rearing related to nutrition, health and management at the farm level.

During the activities associated with validation of sheep production systems in Dominica, 10 data collection forms were developed and eight farms (six model units and two control units) were monitored weekly. Feeding regimes, flock size, health factors and breed performance were measured in terms of their profit-generating potential. Data has been computerized to validate recommendations for crop/livestock compatible systems for Dominica and the Windward Islands. The model units have been used by the Livestock Division of the Ministry of Agriculture as training units for farmers and students, and as a result of this effort, several farmers in the project area have adopted the new system.

With this new technology, self-sufficiency in ovine production may be a reality in the next two to four years, and the Ministry of Agriculture is promoting the creation of a Sheep Growers' Association.

Animal Health and Plant Protection

The project "Strengthening Plant Protection and Quarantine Capabilities in the Windward Islands and Antigua and Barbuda for the Production and Marketing of Non-Traditional Crops" focused on removing restraints existing in this field.

The project was divided into three areas: training in plant protection; development of an information retrieval system; and inter-institutional cooperation. Farmers, field officers, plant propagation personnel, and secondary school children were trained in the proper use of pesticides and the use of small-volume application equipment.

The role of plant quarantine in agriculture was discussed with plant quarantine inspectors, and plant quarantine regulations with

hucksters and traffickers. Customs and revenue officers were sensitized to plant quarantine problems and made aware of their role in assisting plant quarantine officers. Field officers were trained in soil-borne diseases of coffee.

Ministries of Agriculture, in collaboration with USAID, were assisted in the implementation of the fruit fly survey. A diagnosis of the post-harvest systems of four priority fruit crops in St. Lucia was made and solutions have been recommended.

The project assisted the countries in their fight against a locust incursion. Information on the biology, habits and control of locusts was distributed to the countries. Emergency aid to assist the countries in their fight against this pest was received and a comprehensive survey of one country to determine the level of infestation was conducted.

With regard to the information retrieval system, information was provided on existing problems- *Erwinia* sp. in papaya, *Euscepes* sp. in sweet potato, and *Peloropus* sp. in ginger. Leaflets entitled "Wetwood Termites," "Improve Mango Quality, Prune Now," "Pesticide Safety Manual," and "Small-Volume Application Equipment" were distributed.

In the field of interinstitutional cooperation, the plant protection systems of the two newest IICA member countries (Antigua and Barbuda and St. Vincent and the Grenadines) were reviewed and recommendations were made as to areas where assistance would be available through this project. A seminar to discuss guidelines

on usage, importation, storage and disposal of pesticides was held in St. Lucia, and a meeting of plant protection directors of the OECS to promote a uniform plant quarantine system for small States was held in Trinidad.

The Ministries of Agriculture are actively embarking on a strategy to increase production and marketing of crops. These activities have made a significant contribution by heightening the awareness of field officers, farmers, and the public to the pest and disease problems associated with production and marketing of crops, and by working closely with them to reduce these constraints.

The unanticipated short-term action being conducted to provide interim management of the tropical bont tick *Amblyomma variegatum* in Dominica focused on the systematic examination and treatment of livestock within a quarantine area, in order to eradicate this pest from Dominica. Support was given to the Ministry of Agriculture in the form of teams to systematically identify, examine and apply acaricide treatments to animals (cattle, goats, sheep and dogs) in the quarantine areas. As a result, acaricide was applied every two weeks on some infested premises and every month on others. The tick has not been seen in Dominica since September 1987. Support was also given to the Ministry of Agriculture of St. Lucia in the preparation of a project proposal seeking external funding and supplies needed for the tick control program.

Organization of Eastern Caribbean States (OECS)

Resources Source Amount ■ Instrument ● Objectives ○ Achievements

IICA	88 951
TOTAL	88 951

- **Strengthening Plant Protection and Quarantine Capabilities in the Windward Islands and Antigua and Barbuda for the Production and Marketing of Non-Traditional Crops**
 - To develop tech-packs for production and post-harvest handling of priority crops, and improved mechanisms for transfer of information to farmers.
 - To support the establishment and maintenance of appropriate plant quarantine services.
 - In-service training offered in pesticide management and fruit crop production practices to control pests and diseases. Improved plant quarantine practices.

Resources Source	Amount	■ Instrument	● Objectives	○ Achievements
IICA TOTAL	9 865 9 865	■	●	○
<p>Validation of Sheep Production Systems in Dominica</p> <ul style="list-style-type: none"> ● To improve sheep breeding, by conducting validations of improved sheep production systems. <ul style="list-style-type: none"> ○ Data gathered for economic analysis and adoption of the system by farmers 				
IICA TOTAL	2 962 2 962	■	●	○
<p>Interim Management of Tropical Bont Tick <i>Amblyomma variegatum</i> in Dominica</p> <ul style="list-style-type: none"> ● Eradication of <i>Amblyomma variegatum</i>. <ul style="list-style-type: none"> ○ The Bont Tick has not been seen in Dominica since September 1987. 				
IICA TOTAL	53 219 53 219	■	●	○
<p>Assistance to the Agricultural Sector for Project Identification in Antigua and St. Vincent</p> <ul style="list-style-type: none"> ● To appraise the sector with a view to making recommendations and setting priority to actions. <ul style="list-style-type: none"> ○ Draft documents prepared for the governments of Antigua and St. Vincent. 				
IICA TOTAL	151 748 151 748	■	●	○
<p>Strengthening of Farmer Organizations in the Windward Islands and Antigua and Barbuda</p> <ul style="list-style-type: none"> ● To improve the quality of production/marketing services reaching farmer organizations and their members in each of the Windward Islands and Antigua and Barbuda. <ul style="list-style-type: none"> ○ Steering Committees of Farmers' Organizations formed. Projects developed for funding. Information system developed. 				
IICA TOTAL	144 074 144 074	■	●	○
<p>Support for the Organization and Management of Technology Generation and Transfer Systems in the Eastern Caribbean States</p> <ul style="list-style-type: none"> ● To strengthen the organization and management of the national agricultural research systems and promote sub-regional collaboration in technology identification, generation and transfer. <ul style="list-style-type: none"> ○ Organizations of the Research and Extension System of the OECS countries in operation; national technology transfer programs implemented. 				

Suriname

In 1988, a new government assumed office in Suriname and promptly announced important monetary and fiscal policy initiatives designed to improve the nation's financial situation and to stimulate investment and growth in the economy.

However, for a variety of political and economic reasons, few of the objectives proposed were achieved during the year. Against the backdrop of a stagnant economy, which saw a slight increase in unemployment and a return of very high parallel market exchange rates, the oil palm estates in the east and southeast of the country failed to produce the expected yields.

External aid, which had been withdrawn, did not return as quickly or in amounts as large as had been hoped. The major source of such aid, the Development Cooperation Treaty with the Kingdom of the Netherlands, has been renegotiated. Under the terms of this agreement, monies will be made available over the next five years to finance priority development projects, and emergency funding was provided for the importation of replacement parts, machinery and raw materials needed for agricultural and industrial production.

In addition, it is expected that there will be satisfactory levels of public sector investment once the Multi-Annual Development Plan is approved.

The rice, banana and bauxite subsectors performed credibly with respect to production and exports. Rice yields averaged 4.5 tons/ha in both 1988 harvests. However, due to the shortage of machinery and replacement parts, only 75% of arable land is currently being planted. Banana exports decreased slightly due to a severe outbreak of a fruit-scarring beetle, which has since been brought under control.

In the fisheries subsector, the off-shore shrimp catch was satisfactory and export prices were uniformly high throughout the year. In the non-commercial fishing division, while additional boats were constructed, chronic problems arising from the shortage of equipment and inputs (e.g. ice) restricted operations and led to a significant reduction in the annual catch.

IICA technical cooperation expanded considerably during the year. Efforts focused primarily on providing support to dairy

production and on contributing to research aimed at stopping the spread of oil palm and coconut pests and diseases.

Summary of Cooperation Actions

Agricultural Policy Analysis and Planning

In support of agricultural and rural development in Suriname, the specialist in charge of this activity, in response to a request from the Ministry of Agriculture, Animal Husbandry and Fisheries, drew up several project profiles and proposals for sectoral development aid. These proposals were then presented to bilateral aid missions from Belgium and the Kingdom of the Netherlands.

A technical cooperation project to upgrade the data-processing capabilities of the Agricultural Statistics Unit has been designed and sent to USAID for possible financing.

Several meetings were held with a representative from the Training Department of the Anton de Kom University of Suriname, to discuss the content and programming of the course on sectoral policy analysis and planning. Contacts were also established with the University of Vermont (USA) to provide technical assistance to the Anton de Kom University through the project on support to agricultural and rural development. The major goal of this activity is the exchange of experiences among and between professors from both universities.

Twenty-four people received training during a national seminar-workshop on the identification and design of agricultural and rural development projects.

Technology Generation and Transfer

In 1988, IICA continued to strengthen the Animal Health and Production Division of the Ministry of Agriculture, Animal Husbandry and Fisheries, in response to the need to improve dairy production in Suriname.

Following a request from the Ministry of Agriculture, this project, which concluded in 1988, received assistance from an Animal Production specialist. After a detailed study was made of the project, it was decided to program further activities, following the model of the St. Stanislaus College Farm in Guyana,

established in 1986. Taking into account the similarity between agricultural conditions in Suriname and Guyana, the success achieved at this model farm should guarantee that the small-scale farmers assisted by the project will increase their dairy production.

The Association of Dairy Farms was given technical assistance in its efforts to obtain funding from IDB. IICA drafted the document in which the Bank was requested to provide funding through its program of support to small-scale projects. The Office for National Planning approved the project proposal and an IDB specialist travelled to Suriname to visit selected dairy farms.

Negotiations were also held with the Agricultural Bank of Suriname to secure funding for three feasibility studies related to small-scale farmers, and several dairy farms were evaluated to determine their eligibility for loans.

Because of the importance of the technical cooperation IICA provides in the area of animal health and production in Suriname, the Ministry of Agriculture emphasized the need for follow-up in these activities. To this end, work was begun on drafting a project in support of cattle production systems in Guyana and Suriname.

Animal Health and Plant Protection

Several documents on the control of pests and diseases affecting oil palm and coconut in Suriname were prepared by the personnel

assigned to the project. The first steps were taken in the preparation of a regional-level research program on the disease *Elaeis guineensis* (spear rot of oil palm). Work was also done on drawing up a proposal for the establishment of a regional oil palm research institute, and on an agreement for international cooperation in oil palm research in the tropical regions of the Americas.

Negotiations were held between the governments of Suriname, Brazil and the United States to obtain resources to carry out a program on the detection and control of the *Dacus dorsalis* species in Suriname. The incidence of this pest pointed up the urgent need for a program of joint action. There are sufficient data available on this pest to initiate its detection and control, activities which IICA will support administratively and technically.

The project also assisted national technical personnel who participated in the regional meeting on oil palm research, held in Ecuador and sponsored by FAO. It also facilitated the visit of a specialist who toured different locations in Brazil to interchange experiences with his counterparts who work with the Brazilian Agricultural Research Agency (EMBRAPA) in the study of spear rot of oil palm. This visit proved extremely beneficial in that the information obtained made it possible to isolate the virus characteristic of this pest.

IICA also co-sponsored two international seminars on spear rot of oil palm, and the *Dacus dorsalis* species in Suriname.

Suriname

Resources Source	Amount	■ Instrument	● Objectives	○ Achievements
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IICA	60 610
TOTAL	60 610

■ Support for the Program to Control Pests and Diseases of Coconut and Oil Palm

- To support the Ministry of Agriculture's research to combat spear rot disease and the *Cyparisiri* pest in these crops.
 - IICA co-hosted an international seminar on spear rot syndrome in oil palm.
 - One technician sent for training to Brazil; two researchers from Suriname sent to the Regional Conference on Oil Palm Research, held in Ecuador.

Resources Source	Amount	■ Instrument	● Objectives	○ Achievements
IICA TOTAL	27 544 27 544	■	●	○
<p>Strengthening the Animal Health and Production Division of the Ministry of Agriculture in Order to Respond to the Needs of Dairy Development</p> <ul style="list-style-type: none"> ● To promote the strengthening of the Animal Health and Livestock Division of the Ministry of Agriculture, in order to address the need to improve milk production in Suriname. <ul style="list-style-type: none"> ○ Feasibility studies finalized for selected demonstration dairy farms and agreement reached with the Agricultural Bank and the Livestock Division of the Ministry of Agriculture for their financing. ○ This project provided the major technical input to the Dairy Production Project Feasibility Study. 				
IICA TOTAL	61 809 61 809	■	●	○
<p>Support to Agricultural and Rural Development Planning in Suriname</p> <ul style="list-style-type: none"> ● To assist the government in developing systems for generating and analyzing policies for modernizing agricultural sector institutions and sectoral production. <ul style="list-style-type: none"> ○ Project implemented in the third quarter of 1988. In the workshop on project identification and design, 24 senior technicians of the National Planning Office, the Ministry of Agriculture and the Agricultural Bank were trained. ○ The first phase of the training course on sectoral planning for 36 participants from the School of Economics of the University of Suriname successfully completed. 				

Trinidad and Tobago

The contraction in economic activity, which began in Trinidad and Tobago in 1982, continued in 1988. Real Gross Domestic Product (GDP) fell for the sixth consecutive year, but there is continued evidence of growth of the domestic agricultural sector. A Draft National Agricultural Development Plan (1988-1992) and a Draft Medium-Term Macroeconomic Planning Framework (1989-1995) have been prepared. Both documents emphasize the important role of agriculture in the reactivation of the domestic economy.

The government continues to focus on diversifying the agricultural sector and on promoting the production and consumption of local foodstuffs, so as to reduce the huge food import bill faced by the country.

The Institute supported the government's efforts, and placed emphasis on technical support to improved food marketing systems, the promotion of small agribusiness enterprises, the development of a methodology for the management of investments in agricultural research.

Summary of Cooperation Actions

Technology Generation and Transfer

IICA continued its actions to develop a methodology for monitoring and evaluating investments in agricultural research in Trinidad and Tobago.

This project, the result of an agreement with the University of the West Indies (UWI), consists of four main activities. The first was the analysis of the cost structure of research in national institutions, which produced as a by-product an inventory of all research going on in the country, and information on the budget structure and method of allocating resources for research used by the national research institutions.

A second activity was an extensive review of the literature on the methodologies for analyzing the cost-benefit of agricultural research in an effort to identify the most appropriate techniques for the study.

Surveys were conducted of researchers, extension officers and agricultural input suppliers to determine the constraints on transferring and adopting research findings. A number of constraints were identified, and these will be considered when proposing institutional changes for the agricultural sector, and in specifying the model for assessing the impact of agricultural research.

The final activity was the analysis of the method currently used in allocating resources for agricultural research. This analysis was completed for the livestock and extension divisions, and highlighted shortcomings of the present system, as well as identifying areas for improvement of organizational structure.

Organization and Management for Rural Development

The project on small business management for the rural development process in Trinidad and Tobago commenced on July 4, 1988 with the appointment of a small business management specialist. Some preliminary data had been collected on the national institutions which could contribute to the development of the agribusiness sector. Based on this information, a study was

done, and recently concluded. Representatives from selected institutions were invited to form an Advisory Committee, subsequently established, and two meetings were held with a view toward providing a structured and organized approach to the training activities which have been planned. The Committee is seen as important to achieving the goal of strengthening national institutions, and serves to avoid duplication of efforts.

In addition, the draft manual "Starting and Financing a Small Business in Trinidad and Tobago: A Guide" was published and will serve as a teaching guide for trainers, advisors and micro-entrepreneurs.

The first training course was held in November 1988 for 25 participants from various institutions, including extension officers, small agro-processors, youth instructors and community personnel.

Marketing and Agroindustry

The major achievement of the technical support given to the Ministry of Agriculture to improve food marketing systems in Trinidad and Tobago was the publication of the Monthly Market News Bulletin, which provides market information to producers, traders, exporters and others involved in marketing agricultural commodities, in order that they might be able to make more informed decisions.

Training courses and workshops were used to train public and private sector personnel in efficient domestic and export marketing management.

A seminar on the post-harvest handling of hot peppers (*Capsicum frutescens*) was held to provide training in the production, marketing and export of this commodity. The specialist assigned to this project also collaborated in the publication of three manuals on post-harvest handling for melongene, sweet peppers and cassava. Arrangements were made for two people from the Central Marketing Agency to visit Venezuela to observe wholesale market facilities in that country, with a view to making inputs into the design and operation of wholesale market facilities in Trinidad and Tobago. In this activity, the principal results obtained were: acquisition of valuable technical information; assessment of the market news service and

the market information system; adaptation of the program to Trinidad and Tobago, and development of future cooperation between the two countries.

Animal Health and Plant Protection

A regional office was established in Trinidad and Tobago with the hiring of an international professional. A contract for consulting services was established with the University of Guelph, through Agriculture Canada, and with funds from the Canadian International Development Agency (CIDA). Selected animal and plant health monitoring procedures currently used in North America and the Caribbean were reviewed. The establishment of a Caribbean network of agricultural epidemiologists and a series of model health-monitoring projects were proposed to Plant and Animal Health Directors from 11 IICA member countries attending a workshop. At the request of the Ministers of Agriculture of CARICOM, CIDA supported the participation of Belize, St. Kitts and Montserrat in this workshop. The epidemiology network and projects are expected to improve the management of crop protection and production activities by providing improved information for more informed decision-making by producers and national officials.

A national course on plant disease diagnosis offered in Trinidad and Tobago to agricultural extension officers has made a major contribution to improved crop protection through accurate diagnosis. An important step was taken when responsibility for this course was taken over by the Ministry of Food Production, Marine Exploitation, Forestry and the Environment. In addition, a bibliography of plant disease studies in the region is in the final stages of preparation.

A regional survey for blue tongue in several countries identified a new strain of the virus in the hemisphere. Improved understanding of the distribution and epidemiology of this virus

will provide a rational basis for decisions on quarantine which affect trade in livestock in Trinidad and Tobago.

Finally, support was also provided to the efforts of OECS countries in the eradication of *Amblyomma variegatum* tick. Control of this pest is essential for the suppression of two tick-borne diseases.



According to United Nations data, a woman's working day can be up to 43% longer than that of the men in her family.

Trinidad and Tobago

Resources
Source Amount ■ Instrument ● Objectives ○ Achievements

IICA	96 217
TOTAL	96 217

■ Technical Support to Improve Food Marketing Systems in Trinidad and Tobago

- To improve food marketing systems in Trinidad and Tobago.
 - Monthly marketing information bulletin published. Public and private sector personnel trained in administration of domestic and export marketing. Seminar held on post-harvest handling of hot peppers (*Capsicum frutescens*), and manuals published on post-harvest handling of eggplant, bell pepper and cassava.
 - Visit of ACM officials to Venezuela to analyze its market program for possible adaptation to Trinidad and Tobago.

IICA	21 568
TOTAL	21 568

■ Small Business Management for the Rural Development Process in Trinidad and Tobago

- To assist the agricultural sector in Trinidad and Tobago to generate employment opportunities through the development of small agri-business enterprises.
 - Study concluded of national institutions that can contribute to development of agricultural enterprises. Advisory Committee set up to strengthen the national institutions and prevent duplication of efforts. First edition of a manual on starting up and financing a small business in Trinidad and Tobago distributed. Training course held for 25 people.

IICA	25 442
TOTAL	25 442

■ 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.
 - Inventory carried out of research conducted; information obtained on structure of budget and methods used to allocate funds to national institutions for research. Cost-benefit analysis of agricultural research initiated. Surveys conducted to determine restrictions to transfer and adoption of research results. Study concluded of the method applied by the livestock and extension divisions to allocate resources for agricultural research.

Andean Area

The international decline in the prices of petroleum and ores had a significant effect on the economies of Bolivia, Ecuador, Peru and Venezuela, the countries of the Andean subregion which produce and export fuels, ores and metals. Colombia's major export is agricultural products.

The contribution of agriculture to the gross domestic product of these countries continues to be significant, although the trend has been one of decline. In Bolivia, a high percentage of the population is involved in the agriculture sector, but in Venezuela, this figure is less than 10%. It is in this sector that unemployment and poverty levels are the highest. In spite of this situation, it is agriculture which provides the bulk of the foodstuffs and raw materials consumed in the Area.

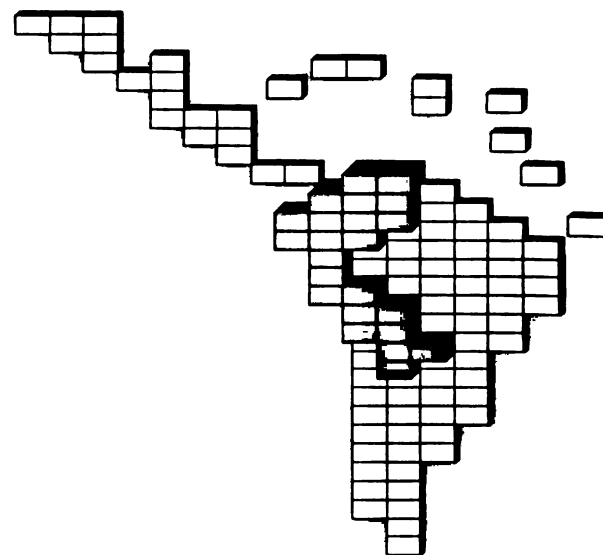
Of a total population of 70.7 million inhabitants, it is estimated that at the beginning of this decade there were at least 17.5 million rural poor, who lacked even the basic services of potable water and electricity. This situation has brought about a steady movement of the rural population to the larger cities, and, once there, to the informal sector.

Growth in exports from the subregion has been irregular, and imports have shown a tendency to decline. All the Andean countries import primarily machinery, transportation equipment and manufactured goods. Whereas the private sector is an important exporter of capital, capital is imported by the public sector. The debt of the countries has increased, the net flow of capital has fallen, and instability in the rural zones has grown.

All the governments of the Area are working to reduce their dependence on imported staple foods, increase production, and diversify agricultural production for export.

Despite the emphasis the governments have placed on the agriculture sector, agriculture in the subregion lacks policies and strategies designed to promote its development. The modernization process has been slow and the rural areas still lack basic infrastructure in transportation, communications and marketing, for both the domestic and export markets.

In 1988, IICA made a special effort in the five countries of the Andean Area to collaborate with agencies of the agricultural public sector in seeking solutions to its major problems.



Regional-level Actions

In 1988, the Sixth Meeting of the Ministers of Agriculture of the Andean Group, held in Lima, Peru, resolved to charge the Board of the Cartagena Agreement (JUNAC) and IICA with the preparation of a pilot plan for the reactivation of agriculture in the Andean subregion, as an integral part of the cooperation agreement signed between the two institutions. This agreement, signed in April of 1988, was a result of Recommendation No. 10 of the Ninth Inter-American Conference of Ministers of Agriculture (Ottawa, Canada, September 1987), which entrusted IICA with preparing a strategic plan of joint action in support of agricultural reactivation and economic development in Latin America and the Caribbean.

During this year, the countries of the Andean Group strengthened their regional integration mechanism. The Cartagena Agreement provides a framework for standardizing economic and social policies, and for bringing legislation of the different countries more into line with one another, in integration-related areas agreed upon by the Group. In this regard, the countries have upgraded the actions of the Board in the areas of production, food supply, and natural resources management, by setting up the institutional and financial mechanisms necessary to support these activities. It was within this framework that amendments were made to the agricultural sections of the Quito Protocol.

In conjunction with the authorities of the Board of the Cartagena Agreement, four possible areas for IICA/JUNAC cooperation have been identified. Among these are: rural development, agroindustry, plant protection and animal health, and information systems.

IICA has collaborated with JUNAC in the preparation of a project profile on an Andean network of rural development centers and has drawn up the regional draft for an Andean project for IICA/JUNAC Cooperation in agroindustrial growth and development. Likewise, the Institute is collaborating with the countries of the Andean Group and JUNAC in designing the Andean program for the control and eradication of fruit flies, all of great importance in the reactivation of agriculture in that region.

In addition to its work with JUNAC, IICA also directs the following regional projects in the Andean Area: Cooperative Agricultural Research Program for the Andean Subregion (PROCIANDINO), headquartered in Quito, Ecuador, with funding from the Inter-American Development Bank (IDB), IICA and the five countries of the Andean Group; support for the establishment of an integrated fruit fly management system in the Andean and Southern Areas, headquartered in Lima, Peru; and the project for strengthening animal health laboratory and epidemiological surveillance services in the countries of the Andean Area, which is headquartered in Quito, Ecuador. Detailed information on these projects is provided in Chapter II of this report.

Bolivia

During 1988, the Bolivian economy continued a gradual process of recovery, recording an estimated growth rate of 2.6%, in spite of an approximately 22% increase, at mid-year, in the inflation rate. Nonetheless, the agriculture sector was affected by a domestic market restricted by high unemployment and a free market policy which favored imports, as well as by the lack of real incentives for exportation.

With this view of the agriculture sector in mind, IICA focused its efforts on increasing the greater participation of the sector in defining overall policies, and in setting sectoral strategies and priorities. Collaboration was provided in strengthening sectoral institutions through technical assistance for reorganizing the Ministry of Campesino and Agricultural Affairs (MACA), and decentralizing administrative functions toward its Regional Development Corporations. To increase production and productivity, support was given to comprehensive agricultural development, and very successful contributions were made to identifying integrated production and marketing systems, to conducting market studies on several items such as milk, rice and chestnuts, and to identifying and designing export projects. Technical cooperation was also provided on five preinvestment studies.

During 1988, the IICA Office in Bolivia stepped up its official relations of technical cooperation through the MACA, the Regional Development Corporations, the Bolivia Agricultural Bank, the universities, and the bilateral and multinational cooperation agencies.

Summary of Cooperation Actions

Agricultural Policy Analysis and Planning

Program I provided MACA with support in a short-term, unanticipated action in connection with the formulation of emergency plans for responding to adverse weather conditions. Activities included identifying sources of meteorological data, and meetings were held with MACA authorities and agroclimatology specialists from the United Nations. Assistance was also provided to MACA's General Livestock Office, concerning a project to promote hog production in the regional corporations of Santa Cruz, Chuquisaca and Tarija.

Support was also provided to the regional development corporations of Chuquisaca and Potosi, through a training and technical cooperation program for the Chuquisaca Norte and the Cotagaita-San Juan del Oro projects, respectively. Agreements amounting to a total of US\$668,000 were signed for these activities.

The Office also cooperated in designing small-scale investment projects for low-income farmers of the regional development corporations of Beni and Potosi.

Finally, a course was offered to technicians from MACA, from the Beni regional development corporation, and from private sector institutions on the identification, preparation and evaluation of agricultural projects.

Technology Generation and Transfer

IICA worked in Bolivia to upgrade the national research and extension system, which involves the Bolivian Agricultural Technology Institute (IBTA), the International Center for Tropical

Agriculture (CIAT), and the Schools of Agriculture of the Universities of San Andres, Santa Cruz, Cochabamba and Potosi. To do so, it provided for horizontal technical cooperation activities among participating countries of the Cooperative Agricultural Research Program for the Andean Subregion (PROCIANDINO) and the counterpart program for the Southern Area (PROCISUR). Bolivia is the only country that participates in both programs, and it benefitted from the courses, seminars, in-service training and the exchange of specialists offered by both. These activities contributed to technology transfer for priority staple crops and to providing appropriate technology for improving production processes. The support of IICA's Office in Bolivia to these two multinational programs partially fulfilled the goals of its plan of action for the year, which included more than 50 events.

Organization and Management for Rural Development

This year IICA worked with the Regional Development Corporations to upgrade their management skills vis a vis the Integrated Agricultural Development Projects (PDAIs). At the same time, they began institutionalizing this agricultural development model for application in other Departments of the country.

Thus, the CORDEBENI, CORDEPO, and CORDEPANDO Corporations, of the Departments of Beni, Potosí and Pando, respectively, have been strengthened in their capacity to identify and draft agricultural projects, formulate preinvestment projects, and prepare farm-level plans of operation.

In the Department of Beni, the Corporation increased dairy yields thanks to improvements in production systems. In the Department of Potosí, a similar project is being carried out, in which training was provided in farming techniques for potatoes, wheat and barley. In the Department of Pando, the project centered on improving cattle production and the marketing of chestnuts.

Through the collaboration provided by the Institute, sectoral institutions were able to increase the support services they provide to small-scale farmers, and the Corporations were placed in a better position to negotiate credit for small-scale farmers.

Marketing and Agroindustry

During 1988, the IICA Office in Bolivia initiated a technical assistance project with MACA to design and operate agricultural marketing systems. Through the training of technical personnel, direct advisory services, and support to consultants, data collection was systematized, and MACA was provided with a method for conducting market studies. Likewise, progress was made in organizing the functions of the Directorate of Marketing, and a proposal now exists for restructuring the Directorate.

The three Departments mentioned above now have trained personnel associated with the PDAIs, who will identify viable alternatives for farmers, based on market studies of production items. A study was made on the marketing of milk in Trinidad, and the method can be used to expand and draw up other studies by regional institutions.

IICA, through a study it conducted in Bolivia on the marketing of chestnuts for export, has had a significant impact on one of the country's most attractive export products.

Animal Health and Plant Protection

As a complement to these activities, IICA lent technical support to the formation of a national animal health laboratory network in Bolivia. As a result of this technical support, MACA began reorganizing its diagnostic laboratory system. In addition, improvements were made in the services of the National Central Laboratory (LIDIVET), where a successful pilot plan for self-financing of services is now in effect.

Also, further action was taken to control the fruit fly, through the establishment of a national plant protection and quarantine network. At the same time, MACA began reorganizing the Directorate of Plant Protection, upgrading the skills of its personnel in formulating investment projects.

Bolivia

Resources Source

Amount

■ Instrument ● Objectives ○ Achievements

IICA	102 237
TOTAL	102 237

■ Technical Assistance to the Ministry of Campesino and Agricultural Affairs in the Design and Operation of Agricultural Marketing Systems

- To provide support in MACA's institutional reorganization in order to improve farmers' incomes through price policies, the organization of the domestic market, the regulation of the external market and the generation of new production, especially for export.
 - Data compiled and systematized, and MACA provided with marketing study methods. In Departments of Beni, Pando and Potosi, staff trained to identify viable options for farmers. Study made on milk marketing in Trinidad. Study on the marketing of chestnuts for export designed and disseminated

IICA	1 039
TOTAL	1 039

■ Support to MACA in Designing Emergency Plans for Adverse Weather Conditions

- To assist MACA and the regional development corporations in designing emergency plans for dealing with adverse weather conditions.
 - Working plan drawn up and meteorological data sources identified.

Resources
Source Amount ■ Instrument ● Objectives ○ Achievements

IICA	142 283
TOTAL	142 283

- **Support for the Implementation of the Integrated Rural Development Project**
 - To upgrade the capacity of the regional development corporations and national institutions in providing support to small-scale farmers.
 - Technicians trained in project design. Three project-documents targeting small farmers drafted and presented to IDB for funding. Three agreements signed between PDAIs and NGOs, for funding production activities for beneficiaries in 17 communities

Colombia

In 1988, there was a significant increase in the number of cooperation activities carried out by the IICA Office in Colombia, especially those under the Organization and Management for Rural Development Program. Also, new commitments were made under the Agricultural Policy Analysis and Planning Program.

An invaluable experience for the Office was the evaluation made of one of its own programs, and of its operating structure, which was part of the first application of the new system for evaluating IICA technical cooperation. The evaluation pointed up the quality of the cooperation provided and the efficient management of the Office, and included a recommendation for even greater action by the Office.

Several rural development efforts were carried out with the Ministry of Agriculture and the Colombian Agrarian Reform Institute (INCORA). Two worth special mention are the support provided for the administration and management of campesino enterprises, and the initiation of a project with the Integrated Rural Development (DRI) Fund, which expands IICA cooperation in this field. Agreement was reached on providing cooperation in policy and strategy analysis and definition, and in regional and municipal planning for rural development. In collaboration with the United

States Agency for International Development (USAID), continued support was given to specific campesino and indigenous regions of the country, through a project directed at improving the nutritional well-being of these populations.

Under the Agricultural Policy Analysis and Planning Program, mention should be made of the project with the Agricultural Sector Planning Office (OPSA) of the Ministry of Agriculture, aimed at strengthening the mechanisms for analyzing and managing priority programs and projects of the sector. Training activities continued under the National Agricultural Training Program (PNCA); this was the project which was evaluated. As a result, the Ministry of Agriculture, using experience already gained, designed and approved a technical cooperation project in support of the PNCA, which redirects the priorities, focus and responsibilities of IICA.

Also noteworthy was the support given to the Colombian Agricultural Institute (ICA), especially that provided through technical-scientific brokerage aimed at improving its institutional structure and upgrading the Divisions of the Office of the Assistant Manager for Research and Transfer.

Examples of successes in 1988 were: cooperative relations the Institute maintained with the World Bank; the progress made in executing the agreement between the Colombian Agricultural Institute and the World Bank, and the initiation of another with the

Hydrology, Meteorology and Land Improvement Institute (HIMAT) in support of the users of the irrigation districts. Also of importance were the administrative support actions carried out with the Ministry of Agriculture and the DRI Fund, both closely linked to the technical cooperation activities.

Summary of Cooperation Actions

Agricultural Policy Analysis and Planning

The project aimed at strengthening the Agricultural Sector Planning Office (OPSA) and the agencies under the Ministry of Agriculture, as concerns the analysis and management of priority projects and programs of the agriculture sector, is in full operation now. In the areas of programming and follow-up, progress was made on implementing the methodological and instrumental adjustments needed for drawing up the annual plans of operation and in following up on the programs being carried out by the



Small farmers in Latin America produce more than 50% of the food supply for domestic consumption, and they contribute to producing important export products such as cacao, coffee and cotton.

institutes linked to the sector: HIMAT, INCORA, and the Natural Resources Institute (INDERENA).

Within this framework, an analysis was made of the current status of the methods and mechanisms used by OPSA and other sectoral organizations and agencies for the identification, formulation and evaluation of investment projects. More specifically, two documents were completed: a base document on the system used by INDERENA for institutional planning, and another, on methods, to be used in reviewing the organizational structure of said Institute, as well as a proposal for adjusting the programming structure.

Finally, IICA continued its support to the National Agricultural Sciences Information Subsystem (SNICA).

Technology Generation and Transfer

The project, which lends support to the National Agricultural Training Program (PNCA) in areas which are of priority to the agencies of the sector, continued its activities, and some 1,670 people benefitted from the training provided during the year. Seventy-four training events were offered, covering agricultural planning and administration, marketing and agroindustry, agricultural education and sciences, and computer sciences; and the project's goals were met in this respect.

The Office continued to provide support to the Colombian Agricultural Institute (ICA) by coordinating and administering the technical-scientific brokerage of the cooperation agreement between IICA, said Institute and the International Bank for Reconstruction and Development (IBRD). Seventy consultants were hired and new specialized bibliographic materials were acquired.

Another administrative support action was the assistance provided to the Ministry of Agriculture for strengthening the planning information network. To this end, microcomputers and accessories were purchased for installation in and use by the technical units of OPSA.

Under the operation agreement with HIMAT for technical-scientific brokerage, the Institute developed a plan for irrigation-related activities, for HIMAT irrigation districts. An analysis was

made of the transfer of technology in the districts mentioned above, objectives were presented, and the components, strategy, activities and resources were described.

The Institute also completed an administrative support action with the Sugar Cane Research Center (CENICANA), in the management of financial resources to be used for hiring professional personnel and for upgrading equipment and specialized instruments needed for sugar cane research. A consultant was hired to administer the agronomic aspects of the center, and support was provided for the installation of laboratories, and for the acquisition of materials for field experimentation.

Organization and Management for Rural Development

In 1988, the Institute continued with a project designed to strengthen the technical capability of the Colombian Agrarian Reform Institute (INCORA) to support the campesino agrarian reform enterprises. One of the project's contributions was a document dealing with concepts and methods, which gives a new approach to the provision of integrated services.

At the same time, an adjustment in the methods used for evaluating and following-up on campesino enterprises was planned and carried out. These changes will make it possible to identify the level of development achieved and the factors affecting same. Six INCORA zones were studied and evaluation documents drawn up of each. To achieve this, training was provided to 153 INCORA staff members in the use of the new evaluation method, and in providing follow-up on the settlements.

Finally, a document was drawn up analyzing the charters of the community enterprises, which contains recommendations for amendments designed to stimulate new organizational models.

Also under this Program, a project was initiated on the use of the mass media for educational programming related to nutrition, and on the transfer of technology for production and food security. This project involves 1,000 campesino and indigenous families in the Departments of Nariño, Putumayo and Tolima. Radio and video

programs, as well as puppets, were used to provide training to these families.

Forty-five officials and community leaders were given training in the use of the media. In addition, two projects were designed: one on increasing milk production, and the other on organizing food supply services.

In 1988 a project was begun to strengthen the technical capability of the DRI Fund to manage the Integrated Rural Development Program at the national and regional levels. The Office began studies on the relationship between the different actions of the DRI Program, in light of the new economic and social policy guidelines, and the policy of decentralization. Furthermore, terms of reference were drawn up to be used in the analysis and interpretation of the problems of the campesinos at the Department level, as part of a critical review of the approaches and techniques traditionally used in regional and local planning.

Also, a preliminary analysis was conducted of the DRI Fund's marketing strategy, and the relation of same to national marketing policy. Also designed were a procedure and instructions to be used in determining the management capabilities of farmers' marketing organizations.

Prior to implementing this project in support of the DRI Fund, technical assistance was provided to the Fund, consisting of a review of the effectiveness of its management mechanisms. To achieve this, an inventory was made of the support local governments give to municipalities in the area of planning, as well as a first approximation of the conditions of eligibility for municipal-level projects.

A preliminary review revealed the need to employ a new approach in strategic planning, one involving the communities and the public sector.

Support was given to the preparation of the DRI Fund Project on Foreign Debt (DRI-III Project), under negotiation with the international banking community.

Finally, an agreement on technical advisory services with the DRI Fund allowed IICA to assist in developing its programs by hiring local and general services personnel and national consultants to carry out its plans.

Colombia

Resources Source

Amount

■ Instrument ● Objectives ○ Achievements

M.A. (Advisory Service)	106 876
M.A. (Cooperation)	31 682
IICA	89 385
TOTAL	227 944

■ Strengthening the Capacity of OPSA and Affiliated Institutes of the Ministry of Agriculture to Analyze and Manage Agricultural Sector Programs and Projects

- To contribute to improving the Ministry of Agriculture's capacity to analyze public investments policies.
 - Analytical report prepared on methods used by OPSA and sector institutions to identify, design and evaluate investment projects.
 - Documents prepared on the institutional programming system of INDERENA; revision of its organizational structure; and adjustment of its programming structure and institutional strategy.

PNCA	149 278
IICA- (Training)	5 797
M.A.	8 993
CENTA-IDB	64 940
IICA (Fruit crops)	11 382
TOTAL	240 391

■ Training in Support of Priority Areas of Agricultural Sector Organizations (National Agricultural Training Program-PNCA)

- To train personnel of agricultural sector organizations, through actions including research, consultation, information dissemination, and exchange of experiences.
 - Training activities conducted for 840 agricultural planning and administration officials, and 240 marketing and agroindustry officials. Training in agricultural education and agronomy provided to 260 people, and in computer science to 330 officials.

DRI (Advisory Services)	106 850
TOTAL	106 850

■ Technical Consultancy Agreement with the DRI Fund

- To provide the DRI Fund with technical advice on the development of its programs, with technical and support personnel requested from IICA.
 - Local general services personnel and national consultants hired for implementation of DRI Fund programs.

HIMAT-IBRD	109 170
TOTAL	109 170

■ Agreement between HIMAT and IICA for Technical-Scientific Brokerage

- To prepare the plan of action for technical-scientific brokerage.
 - Plan for irrigation extension actions in HIMAT irrigation districts; technology transfer in these districts analyzed.

Resources
Source Amount ■ Instrument ● Objectives ○ Achievements

DRI (Coop- eration)	39 322
IICA	19 756
TOTAL	59 078

■ **Technical Support to the DRI Fund**

- To contribute to the analysis and definition of policy guidelines and review experiences gained on management mechanisms available to the DRI Fund.
 - Inventory made of planning services provided by the local governments to the municipalities; review conducted of eligibility requirements for municipal-level projects to be developed by the DRI Fund.
 - DRI Fund external debt project designed (Project DRI-III), under negotiation with international banks.
 - Methods and instructions developed for identifying management skills of farmers' marketing organizations.

MAG	27 205
TOTAL	27 205

■ **Supporting the Ministry of Agriculture to Strengthen the Planning Information Network**

- To aid in developing a program for the acquisition and installation of computer and related equipment in the technical units of OPSA.
 - Microcomputers, additional equipment and a word processor acquired.

CENICAÑA	26 172
TOTAL	26 172

■ **Supporting the National Sugar Cane Research Center's (CENICAÑA) Institutional Research Model**

- To support sugar cane research through administrative actions related to the management of resources.
 - Consultant hired to manage the agronomic work of the Center. Support given to installation of laboratories and acquisition of materials for field experimentation.

USAID	46 009
TOTAL	46 009

■ **Using the Mass Media for Technology Transfer and Food Security**

- To have personnel trained in community-level nutrition education.
- To define and implement community food production projects.
 - One thousand families trained using different audiovisual media. Officials and leaders trained in the use of the media.
 - Projects designed, one to increase milk production, and the other to organize food supply services.

Resources
Source Amount ■ Instrument ● Objectives ○ Achievements

M.A.	10 400
M.A. (Coop- eration)	47 429
IICA	53 779
TOTAL	111 608

- **Strengthening INCORA's Technical Capacity to Support Small-farmer Agrarian Reform Enterprises**
 - To contribute to improving the quality and efficiency of services in support of small-farmer enterprise management.
 - Conceptual and methodological document prepared on a new approach for the provision of comprehensive services.
 - Method for evaluating and following up on small-farmer enterprises designed and adjusted. Reports prepared using results from evaluations made in six INCORA regions; also prepared was an analysis of and recommendations for modifications in the by-laws of the community enterprises in an effort to come up with new organizational models.
 - One hundred fifty-three INCORA officials trained in the use of the new methodology to evaluate and follow up on the settlements.

IBRD	179 431
IBRD-BAC	148 833
IICA	20 727
TOTAL	348 991

- **Supporting the Colombian Agricultural Institute**
 - To carry out technical-scientific brokerage activities, and acquire bibliographic materials overseas.
 - Seventy consultants hired; specialized bibliographic materials acquired.

Ecuador

During 1988, and as a result of the change in government, the technical cooperation action of IICA's Office in Ecuador had a dual focus: on the one hand, efforts focused on completing activities planned for that year; on the other, they sought to adjust IICA technical cooperation to the new government's priorities, which will shape IICA's plans in Ecuador for the coming years.

A new stage in Ecuadoran development began in mid-1988, with the establishment of a policy that, in agriculture, seeks to raise the standard of living of poor, small-scale farmers; increase the production of staple foods; generate employment options in order to increase income levels; and consolidate the democratic process in the countryside by upgrading small-farmer organizations and their participation in all stages of rural development.

Thus, together with the Ministry of Agriculture and Livestock and the Ministry of Social Welfare, IICA began to define, actions for its work that respond to the new policy of improving the standard of living of the most disadvantaged social groups.

Summary of Cooperation Actions

Agricultural Policy Analysis and Planning

In 1988, the IICA Office in Ecuador initiated a project to support the Ministry of Agriculture and Livestock (MAG) in the improvement of the process it employs for analyzing, preparing and carrying out agricultural development policies, plans, programs and projects. To this end, a conceptual framework of the policy planning, analysis and selection system was drawn up; personnel from MAG and the Ministry of Social Welfare (MBS) received training; and collaboration was provided in organizing and conducting seminars and technical meetings. Another action carried out was the evaluation of MAG's Policy Analysis Unit (UAP), which serves in an advisory capacity to the Minister, and is responsible for analyzing and designing sectoral policies.

Through an unanticipated, short-term action, the Institute assisted the government-elect of Ecuador in the design of high-priority agricultural policy strategies. Several documents were

drawn up for the Under Secretariat for Rural Development of the MBS, the National Agricultural Research Institute (INIAP), and MAG, in areas such as pricing policies, urban food distribution, and marketing.

Technology Generation and Transfer

In 1988, the project on the evaluation of tropical pasturelands continued. This project, which is being carried out jointly with INIAP, receives funds from the International Development Research Centre (IDRC) of Canada. The use of several forage legume and grass ecotypes for fattening cattle and in the production of forage seed was evaluated. Also, studies were made of ectoparasites in cattle, and of the mineralization of organic material and nitrification of the soil.

Under this Program, INIAP was also given support in programming, carrying out and evaluating research and



Mounting an alternative ditch irrigation system for a bean crop, suitable for small parcels. The work is being carried out under the Jipijapa Integrated Rural Development Program.

technology transfer. A special mission of officials from IICA and the International Service for Assistance to National Agricultural Research (ISNAR) analyzed and evaluated the organization, resources and administration of INIAP and recommended strategies and improvements aimed at upgrading the technology generation and transfer process. The recommendations and conclusions of the mission were studied and support was given to the implementation of actions affecting decision-making in important organizational matters of the institution.

In addition to these actions, IICA collaborated with PROTECA by providing management personnel for the project implementation unit, and international specialists to reinforce its operations. PROTECA, a project to strengthen agricultural research and technology, receives funding from the International Development Bank (IDB).

Organization and Management for Rural Development

In 1988, the assistance IICA provided to the comprehensive rural development program of the government of Ecuador went primarily to the reorganization and implementation of a newly-structured Undersecretariat for Rural Development, and to the reactivation of the units at Puerto Ila-Chone, Quininde, and Guamate, especially as regards their technical assistance, credit, marketing, irrigation and reforestation components. These projects, in which 24 national technicians are participating, receive funding from the IBRD and from the Andean Development Corporation (CAF). Also, the IICA Office collaborated in the design of the new Rural Development Program.

To provide administrative support, the Institute assisted the Undersecretariat for Rural Development of the MBS in the hiring of four high-level national technicians, who were placed in the

General Directorates of Rural Development, Operations, and Design and Construction.

The project on technological alternatives for replacing sugar cane in the Yunguilla Valley generated information on 18 agricultural species and on the classification and typification of farms, and activities related to irrigation and marketing were begun.

Marketing and Agroindustry

Under this Program, IICA carried out a short-term activity in support of the MAG and the MBS in the execution of urban-rural agricultural marketing policies, by updating and expanding the project on community storage and markets, a project to be presented later to external funding sources. In addition, work focused on drafting guidelines for a national marketing program, to be further developed in the near future.

Animal Health and Plant Protection

The IICA Office in Ecuador supported animal health activities by helping to consolidate the national animal health laboratory and epidemiological surveillance network. The national veterinary laboratory was evaluated, and the national animal health program was selected as the center for the network's activities. In addition, a project was drafted for producing oil-based vaccine against hoof and mouth disease. During 1988, Ecuador began to participate in the hemispheric surveillance system for swine diseases.

IICA cooperated with MAG in establishing the national plant protection program, under that ministry's Undersecretariat for Administrative Affairs. The objectives of the program are to offer plant protection for economic, agricultural and forestry crops; prevent the entry of exotic pests into the country, and discourage the spread of those already present.

Ecuador

Resources Source	Amount	■ Instrument	● Objectives	○ Achievements						
<table border="1"> <tr> <td>CEPE</td> <td>2 203</td> </tr> <tr> <td>IICA</td> <td>166</td> </tr> <tr> <td>TOTAL</td> <td>2 369</td> </tr> </table>	CEPE	2 203	IICA	166	TOTAL	2 369		■	●	○
CEPE	2 203									
IICA	166									
TOTAL	2 369									
		<p>Supporting the Management of the Cayambe-Coca Ecological Reserve and Mass Environmental Education</p> <ul style="list-style-type: none"> ● To have an updated management plan for the Cayambe-Coca Ecological Reserve. ● To design a system of mass environmental education for the population associated with the reserve; set up permanent boundaries; and prepare a program of institutional strengthening. <ul style="list-style-type: none"> ○ Project prepared for external financing. ○ Four subprojects prepared on administration of the reserve; mass environmental education; physical delimitation of the reserve; and institutional strengthening. 								
<table border="1"> <tr> <td>IICA</td> <td>15 656</td> </tr> <tr> <td>TOTAL</td> <td>15 656</td> </tr> </table>	IICA	15 656	TOTAL	15 656		■	●	○		
IICA	15 656									
TOTAL	15 656									
		<p>Supporting the Government-elect of Ecuador in Designing Agricultural Policy Strategies in Priority Areas</p> <ul style="list-style-type: none"> ● To support the agriculture commission called for in the new government's platform in the formulation of policy measures and strategic actions related to the agricultural sector, in particular, to price policies, urban distribution of staple foods, technology generation and transfer, and support to small farmers. <ul style="list-style-type: none"> ○ Documents on marketing and price policy prepared for INIAP, MAG and the Undersecretariat for Rural Development at MBS. ○ Meetings held to analyze information generated by MAG and MBS. 								
<table border="1"> <tr> <td>IICA</td> <td>6 637</td> </tr> <tr> <td>TOTAL</td> <td>6 637</td> </tr> </table>	IICA	6 637	TOTAL	6 637		■	●	○		
IICA	6 637									
TOTAL	6 637									
		<p>Supporting the Ministries of Agriculture and Livestock (MAG) and of Social Welfare in the Execution of Urban-Rural Agricultural Marketing Policies, by Updating and Expanding the Project on Community Markets</p> <ul style="list-style-type: none"> ● To design a marketing project of community markets, through which coordinated action will improve the marketing process for low-income urban dwellers, based on the agricultural output of small farmers, especially those from areas covered by integrated rural development projects. <ul style="list-style-type: none"> ○ The project on community supply markets prepared for and delivered to MAG and MBS, which will seek external funding. ○ National Agricultural Marketing Program (PRONACOMA) in advanced stage of preparation; audiovisual materials prepared for delivery to MAG and MBS. 								

Resources
Source Amount ■ Instrument ● Objectives ○ Achievements

MBS-IBRD	251 683
MBS-CAF	27 560
IICA	40 656
TOTAL	319 900

■ **Technical Cooperation to the Integrated Rural Development Program of the Government of Ecuador**

- To provide technical cooperation in programming and implementing the Puerto Ila, Quinindé and Guamote Projects; institutional strengthening to the Undersecretariat for Rural Development, and training for technicians from the implementation units.
- To provide support to the Undersecretariat of Rural Development (Ministry of Social Welfare).
 - Undersecretariat of Rural Development reorganized and implemented; the three implementation units reactivated, especially as concerns technical assistance, credit, marketing, irrigation and forestry, with the participation of 24 national technicians. New national rural development program being prepared.
 - Four national technicians hired to support the Undersecretariat in its Offices for

MAG- PROTECA	41 889
TOTAL	41 889

■ **Provision of Management Personnel and International Specialists to Offer Institutional Strengthening to PROTECA's Central Unit**

- Institutional strengthening to the central implementation unit of PROTECA in the fields of technical and economic evaluation; follow-up, control and evaluation systems; and financial organization and administration.
 - Directors selected and appointed (all having resigned with arrival of new government). New selection process initiated, and new Technical Director appointed.
 - Specialist in administration and finances hired for the central implementation unit. Search for and selection of new specialists initiated.

IICA	81 341
TOTAL	81 341

■ **Supporting INIAP in Programming, Executing and Evaluating Research and Technology Transfer**

- To strengthen INIAP's technical and administrative capabilities in research, training, technical assistance and dissemination of agricultural information.
 - Analysis and evaluation made of INIAP's organization, resources and administration by a special mission made up of IICA and ISNAR officials. Conclusions of the mission analyzed, and actions taken concerning basic organizational structure of the institution.

Resources Source	Amount	■ Instrument	● Objectives	○ Achievements
IICA TOTAL	61 774 61 774	■	●	○
		<p>Supporting MAG in Improving its Analytical Capacity for Programming and Following Up on Policies and Projects</p> <ul style="list-style-type: none"> ● To increase MAG's efficiency and effectiveness in the analysis, formulation and implementation of agricultural development policies, plans, programs and projects. <ul style="list-style-type: none"> ○ Conceptual framework for the national planning and policy analysis and selection system prepared and discussed. MAG and MBS personnel trained in project planning and management; technical meetings and seminars conducted; and evaluation carried out of policy analysis unit. 		
IDRC TOTAL	20 727 20 727	■	●	○
		<p>Supporting the Project to Evaluate Tropical Grasses (INIAP-IICA- IDRC)</p> <ul style="list-style-type: none"> ● To evaluate the grasses' efficiency and their adaptability and resistance to grazing, and train people in their use. <ul style="list-style-type: none"> ○ Various ecotypes of forage grasses and forage legumes evaluated; proven germplasm used in fattening cattle; forage seeds produced. Studies conducted on ectoparasites in cattle, and on determining the degree of mineralization of organic material and the nitrification of the soil. 		
CREA-IDRC IICA TOTAL	24 406 14 216 38 623	■	●	○
		<p>Technological Alternatives for Sugar Cane Substitution in the Yunguilla Valley</p> <ul style="list-style-type: none"> ● To strengthen the Center for Economic Conversion of Cañar, Azuay and Morona Santiago in sugar cane for small farmers. <ul style="list-style-type: none"> ○ Information generated on 18 agricultural species through tests. Irrigation and marketing activities initiated. Progress made in study in the Yunguilla Valley. 		

Peru

During 1988, the technical cooperation activities of the IICA Office in Peru focused on addressing the priorities agreed upon with authorities of the agriculture sector, as described in the document "Strategy for IICA Action in Peru," and framed by the guidelines of the Institute's Medium Term Plan.

In the area of agrarian policy planning, support was given to the Agricultural Sector Planning Office (OSPA) of the Ministry of Agriculture (MAG) in the development and use of a selective system of evaluation of and follow-up on agricultural and rural development policies. In the field of technology generation and transfer, cooperation was provided in developing a system of experimental stations of the National Institute of Agrarian and Agroindustrial Research (INIAA), and in research on native fruit crops of the Peruvian Amazon. With regard to organization and management for rural development, support was given to microregional development in the Andean trapezoid, and to the implementation of the Sierra Plan.

In the area of marketing and agroindustry, support was given to the Ministry of Agriculture in the development of an agricultural marketing system, as well as to the promotion of agroexports. Under the Animal Health and Plant Protection Program, IICA supported the establishment of an integrated fruit fly management system, and the upgrading of animal health laboratory services and epidemiological surveillance. As part of the program to reactivate agriculture and achieve food security, the Ministry of Agriculture was given support through the hiring of senior national technical consultants, to offer advice on the execution of priority sector projects.

Summary of Cooperation Actions

Agricultural Policy Analysis and Planning

In this area, the IICA Office supported the development and use of a selective system of follow-up and evaluation for agricultural and rural development in Peru. The project is scheduled to last three years, and integrated activities have already been initiated

with the OSPA counterpart and the Agrarian Policy Analysis Group (GAPA) of the Ministry of Agriculture, for the purpose of developing OSPA's capacity to follow up on and evaluate agrarian policy.

For this purpose, a comparative study was made of agrarian policies of the 1986/87 and 1987/88 agricultural campaigns, and, at the same time, follow-up was provided on selected agrarian policies from the 1988/89 campaign. Also, a qualitative evaluation was made of the effect of certain macroeconomic and sectoral policy decisions.

Because of OSPA's limitations in following up on and evaluating all policy decisions, it became necessary to design a method for classifying and setting priorities among policy instruments, in order to facilitate the selection of policies to be evaluated. Additionally, a seminar was held covering a method for identifying, setting priorities among and evaluating agricultural profiles and projects, as were 20 interinstitutional technical meetings.

Finally, an operations manual was drawn up for OSPA, which synthesized the experience and method designed by the Mid-America International Agricultural Consortium (MIAC).

Another activity of the IICA Office was the support given to the Ministry of Agriculture in the execution of agriculture sector projects through the selection and hiring of consultants under the Program of Agricultural Reactivation and Food Security. To this end, an evaluation and classification committee was formed, consisting of the IICA Representative in Peru and a counterpart representative appointed by the Minister of Agriculture.

Technology Generation and Transfer

During the year, cooperation began on the development of the Experimental Stations System of the National Institute of Agrarian and Agroindustrial Research (INIAA).

The activities centered on drafting regulations governing the organization and administration of experimental stations; on training INIAA personnel in the organization and administration of these stations; and on collaborating with the development of an

information system linking the stations to each other, to INIAA headquarters and to producers.

The managers and technical personnel of INIAA have produced and disseminated three manuals. Two of these are to be used in performing diagnoses on agroecological areas and on research planning. The third concerns the management of experimental stations.

An institutional diagnosis was conducted with the participation of the senior staff of 36 INIAA experimental stations, resulting in the identification of a number of organizational and administrative problems. Three working guides were drafted for planning the development of the experimental stations, formalizing land ownership rights over these units, and negotiating credits for research projects.

The formation of multidisciplinary teams organized by INIAA's Experimental Station Management Office (OGEE) made it possible to provide direct support to eleven zone stations, as it relates to the identification of technological problems; the improved programming, execution and administration of research projects; and the transfer of technology.

In conjunction with technical personnel from INIAA's General Directorate of Research Expansion, a study is being made of the libraries currently in operation at the experimental stations.

With regard to the training of personnel, 260 managers and technical personnel from 36 experimental stations, six universities and four rural development organizations participated in a seminar-workshop and four courses on subjects such as organization and administration of experimental stations, and communications techniques for the transfer of agricultural technology.

Among the organizations participating were: the Agrarian Bank of Peru, the Research Institute of the Peruvian Amazon (IIAP), INIAA, the San Marcos National University (UNMSM), the National University of the Peruvian Amazon (UNAP), the Loreto Departmental Development Corporation (CORDELOR), and the Pedro Ruiz Gallo, Central Peru and Cajamarca National Universities.

With collaboration from technical personnel of the Ibero-American Cooperation Institute (ICI) and researchers from

INIAA's National Tropical Crops Program, activities have been undertaken in support of the research project on native fruit crops from the Peruvian jungle.

IICA also cooperated in drafting a project aimed at increasing available knowledge on the agroecological zones of the region covered by the San Roque experimental station in Iquitos. In addition, a project is under way to improve the systems for producing such tropical fruits as camu-camu, arazá, peach palm and huasaí, conona, carambola, umaú and guaraná; as well as traditional crops such as plantains and cassava, which could be processed industrially in the area.

Organization and Management for Rural Development

In 1988, IICA continued to provide technical support for microregional development within the Andean trapezoid. Its actions centered on the design, testing and operation of mechanisms for managing the microregional development process; the design and management of production projects; and the design and management of the training project to involve campesinos in the rural development process in the microregions.

One of the major achievements of the project was to pinpoint the factors which limit the quantity and quality of the services the agricultural public sector provides to the campesino communities in the Oyón microregion (Department of Lima). This was done during a seminar attended by 40 local officials and campesino leaders.

Two events were held to strengthen campesino organizations and upgrade the ability of their members to participate in rural development in the highlands area of the country. These meetings were promoted and financed by the Coordinating Committee for International Technical Cooperation in Support of the Sierra Plan, made up of representatives of UNDP, FAO, IICA, USAID, the Technical Corporation of Switzerland, and the governments of the Federal Republic of Germany and the Kingdom of the Netherlands.

The first event was a forum on agricultural extension strategies for highland campesino communities, and the second a workshop on the design of guidelines for an extension system for highland campesino communities.

Also, in a joint action with IICA Program I in Peru, a seminar to design methods for identifying, giving priorities to and preparing agricultural projects was conducted. The objective of this event, attended by 30 professionals, was to upgrade the technical teams of the agricultural public sector, with a view to improving production and the well-being of farmers in Peru.

Another activity carried out in support of the Sierra Plan was the awarding of scholarships for in-service training, and the provision of technical assistance to officials from 10 public institutions associated with the agriculture sector, for preparing the 10 plans of operation of the Sierra Plan, to be executed in 1989.

A further achievement was the drafting of the rural development project of the Río Blanco microbasin, a part of the Rimac Basin. Seven professionals from different Offices of the Ministry of Agriculture participated in the design of the activities to be carried out during the year.

Marketing and Agroindustry

In 1988, the Institute continued to provide support to the Ministry of Agriculture in connection with marketing systems, with a view toward developing three major activities: institutional support for the design of agricultural marketing and agroindustry policies; the development of instruments governing the supply and regulation of markets; and technical support for studies and training in the area of agricultural marketing.

Collaboration was provided in drafting the bylaws of the National Food Support Corporation (CONAA) and Mercados del Pueblo (People's Markets) S.A. (MESA), as well as the regulations governing their organization and duties. Also drawn up were plans of operation for the MESA subsystems in Chimbote and Huancayo, including 12 administrative procedures for the sale and distribution of merchandise, and a manual of operations for the Urban Distribution Center.

The system of concessions that will govern the operation of the Rural Marketing Centers (CCR) of the People's Markets was designed. Studies on the production costs and marketing of garlic and plantain, as well as the development and testing of the method

for reducing post-harvest losses in rice, were completed and published.

Collaboration was provided to the General Directorate for Agroindustry in evaluating the conditions and potential of the northern region of the country for the development of agroindustrial projects, especially those geared to exportation.

Information was gathered and compiled on supply and prices, in support of OSPA's preparation and publication of quarterly bulletins.

A study and training program was held in Mexico for the managers of CONAA's supply and marketing depots and its planning and business development division.

A roundtable discussion on agroindustrial potential in northern Peru and the export possibilities was attended by 250 representatives of public and private sector agencies.

Lastly, 46 public and private sector technical personnel and managers involved in food supply and agricultural trade received training.

Animal Health and Plant Protection

During 1988, IICA renewed its technical cooperation in the area of animal health with the Livestock Protection Division of the Ministry of Agriculture. Efforts were guided by the objectives of the multinational project to upgrade animal health laboratories and epidemiological surveillance. IICA cooperated in identifying the main difficulties of the laboratory services, which include the areas of diagnoses, the production of biologics, the control and verification of biologics and reagents, and research. Other topics addressed in the studies were the need to update the laboratories' information, through visits to production and diagnostic centers; and the design of an evaluation survey.

Actions to train and update laboratory staff were discussed at meetings with representatives of the Ministries of Agriculture and Public Health. Also discussed were the organization, management and operations of the main laboratories making up the national network. In this regard, the Institute helped organize a seminar-

workshop on brucellosis, tuberculosis and hoof and mouth disease, which was attended by more than 40 public sector and laboratory veterinarians.



More studies must be conducted in the countries of the region to determine the economic impact of pests and diseases on agricultural production and productivity, and on international trade.

National health authorities and IICA personnel agreed to give priority to drawing up project profiles for a diagnostic reference laboratory, establishing a cold-storage network, and involving Peru in the Subregional Andean Laboratory Network.

After foot and mouth disease broke out in the Departments of Puno and Piura, IICA, in collaboration with the Pan American Health Organization (PAHO), provided technical and financial support for a course to update field technicians in techniques for taking, processing and sending samples to the reference laboratory.

As concerns plant protection, the IICA Office in Peru continued providing support to the Ministry of Agriculture, focusing on the detection and control of the fruit fly. In this regard, technicians were trained in: the economic and organizational aspects of control and eradication campaigns, biology, ecology and systematics, detection methods and sterile fly techniques.

The distribution, harvesting and processing of olives in Tacna Valley came under analysis in a market study to identify the economic impact of *Ceratitis capitata*. The management of the olive harvest at processing plants was also studied.

Lastly, a joint action was carried out with the Southern Area's plant protection project, where a meeting was held to define methods for drafting projects on the control of Mediterranean Fruit fly. Participating were national plant protection directors from the Southern Area and from Peru, observers from international organizations, government institutions and IICA technical staff.

Peru

Resources Source	Amount	■ Instrument	● Objectives	○ Achievements
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IICA	263
TOTAL	263

■ Supporting Research on Production System for Native Fruits of the Peruvian Amazon

- To identify technological limitations to serve as the basis for designing and supporting research and technology transfer projects.
 - Diagnosis prepared of agronomic and agroindustrial problems of farmers in the Iquitos-Nautua region, as was a project for orienting research in production systems for native fruits: camu-camu, araza, pijuayo and huasai.

Resources
Source Amount ■ Instrument ● Objectives ○ Achievements

IICA	99 353
TOTAL	99 353

■ **Cooperating in the Development of INIAA's System of Experimental Stations**

- To strengthen the organization and administration of the experimental stations and the relations among them, and with the agriculture sector to offer better products and research services, as well as to foster technology transfer that is less dependent on government funding.
 - Three manuals and guides were prepared, aimed at planning the development of INIAA experimental stations, with a view to improving the administration of their resources and obtaining credit in order to reduce their dependence on public funds. Training provided to 260 management and technical personnel in organization, administration and communication for the development of experimental stations, universities and institutions involved in agricultural research in Peru.

IICA	72 608
TOTAL	72 608

■ **Support for Managing Microregional Development in the Andean Trapezoid of Peru**

- To improve managerial effectiveness in the public agricultural sector for managing microregional agricultural development.
 - Guidelines established for the development of the Oyón microregion, with the participation of 40 technicians and farmers from the region. Support given to the Ministry's Sierra Plan in the preparation of the program for the Rio Blanco microbasin, and in the development of a meeting on agricultural extension, attended by 120 national and international technicians. Two documents drawn up on guidelines for extension service in the campesino communities of the Peruvian highlands.

IICA	102 826
TOTAL	102 826

■ **Supporting the Ministry of Agriculture in Marketing Systems**

- To operate integrated agricultural marketing systems, using a method for diagnosing production and profitability problems as well as other agricultural policy instruments.
 - A total of 22 policy and operations instruments prepared on agricultural trade. Two studies on production and marketing costs concluded, as were a method for evaluating and reducing post-harvest loss, a training program, and two periodical informational bulletins on supply and prices. Training provided to 46 technical and management personnel from public and private institutions associated with agricultural trade.

Resources
Source Amount ■ Instrument ● Objectives ○ Achievements

IICA	18 653
TOTAL	18 653

■ **Development and Implementation of Selective System of Follow-up and Evaluation for Agricultural and Rural Development Policies**

- To implement an effective mechanism in OSPA to provide timely follow-up on the programs, policies and the evaluation of same, in order to propose needed adjustments.
 - Mechanisms for follow-up and evaluation of agrarian policies were planned and implemented for OSPA of the Ministry of Agriculture. Technical team set up and integrated with the Policy Analysis Group.
 - Three follow-up and evaluation studies made of selected policies; two methodologies developed for the classification of and follow-up on agrarian policy instruments.

M.A.	215 091
TOTAL	215 091

■ **Supporting the Ministry of Agriculture in the Execution of Agricultural Sector Projects**

- To support the Ministry of Agriculture in implementing priority projects, by selecting and hiring consultants for its agricultural reactivation and food security program.
 - Twenty-nine consultants and high-level professionals specializing in agricultural policy analysis, sectoral planning, statistics, agroclimatology and administration were hired to carry out specific activities in support of the Ministry of Agriculture and sector institutions.

CONAA	53 315
TOTAL	53 315

■ **Institutional Support to the National Food Support Agency (CONAA) in the Formulation of Food Assistance and Food Security Policies and in the Development and Application of Marketing Instruments**

- To support CONAA in designing food assistance and food security policies, and in developing and applying marketing instruments.
 - Ten consultants hired to design, develop and execute programs to regulate the supply of staple products and to provide food assistance.

Venezuela

In 1988, the IICA Office in Venezuela supported the Ministry of Agriculture and Livestock (MAC) in its efforts to design and implement mechanisms to decentralize agricultural policies in high-priority areas. The national technical assistance system was upgraded with the training of a considerable number of personnel involved in technology transfer. IICA also participated in strengthening Venezuela's plan for the development and diversification of production in coffee-growing areas. The animal health program was upgraded through actions which expanded the operational capacity of the regional diagnostic laboratories to deal with the control of bovine brucellosis, tuberculosis and rabies, and hog cholera.

Support was given to the newly-restructured Agricultural Credit Fund (FCA), financed with national funds and a loan from the IDB. The process of obtaining credit was made more modern, less cumbersome, and more equitable. In addition, unscheduled requests from the Central University of Venezuela (UCV) and FUNDACEA concerning agroenergy, and from the University of Zulia (LUZ) on the dissemination of livestock-related technology, were dealt with.

IICA carried out 107 actions in Venezuela, directly benefitting approximately 1,300 officials and professionals, and indirectly benefitting more than 1,000 agriculture sector technicians.

Summary of Cooperation Actions

Agricultural Policy Analysis and Planning

The Institute continued to provide support to the Pilot Area Authority (AUA) and to MAC's General Directorate of Planning in the design and introduction of decentralized mechanisms for the effective management of agricultural policies in areas essential to agricultural development, and progress was made with the AUA in developing objectives for the execution of agricultural policy in these areas. A methodology was applied which breaks down the management process by dividing the Pilot Priority Area into five homogeneous sectors.

The identification of variables and information needs at the Area level was concluded, along with the design of five effective management mechanisms for the AUA, and a proposal was made for reorganizing the seven Area Authorities. At the same time, training was provided for regional management and technical personnel in different aspects of regional sector management, and in program and project management, with 49 officials receiving a total of 784 days of training.

During the first year of execution, the actions carried out have brought about continued strengthening of the sectoral planning system as related to the definition and ongoing implementation of the country's policy of growth and sectoral adjustment.

Technology Generation and Transfer

In 1988, IICA collaborated with MAC in its efforts to bolster the National Technical Assistance System (SNAT), which is expanding its activities in an effort to reach all agricultural producers in the country by providing coordination among its member institutions, all of which pool their resources through the State Agricultural Development Units (UEDAs). One important activity carried out during the year was the drafting of regulations dealing with general doctrine, and with the planning and supervision of technical assistance, which will be submitted for consideration by SNAT executives for institutionalization. Another area given priority was training in the administration of technical assistance, which reached 295 officials directly and another 1,065 indirectly.

Organization and Management for Rural Development

During 1988, the Institute collaborated in the design and implementation of different methods for planning and executing the actions of the Plan for the Development and Diversification of Production in Coffee-growing Areas. A method to evaluate its effect/impact in the state of Tachira was designed and approved. The production costs for 37 items were adjusted for the credit assistance project, and the plans for seven Venezuelan states were reformulated.

With respect to the coordination of different institutions, support was given to the participation of several governmental and private agencies in a study of agricultural issues, such as production costs in Venezuela, as a means of strengthening agriculture and the economy of the country.

At the express request of MAC, a methodology and draft regulations were drawn up for registering rural cadastral information, and several methods were adapted for application to a priority project begun by the government on support for small farmers from the state of Sucre. To this end, the organizational structure and the manual of duties were updated; the creation of the Area Authority was planned; the rules and manual for processing loans were prepared; and the information system for following up on and evaluating activities was designed.

Training was provided through 12 workshops, which reached 134 officials for a total of 425 participant/days.

Marketing and Agroindustry

In support of the Agricultural Credit Fund (FCA), a data processing system was put into operation. This system will facilitate the evaluation of the impact of financing on agricultural, fishing and forestry credit. To this end, operations and procedural manuals were prepared and distributed throughout the country. These manuals will aid in the preparation of projects to be submitted to funding sources, and facilitate follow-up on the execution of same.

Also, FCA was supported in its efforts to redirect its purposes and operations. Considerable modernization was achieved, and the process of securing credit was made simpler and more equitable.

All of this was possible because maximum use was made of credit available from national sources -public and private financing- and from external resources, most of which came from an IDB loan to FCA.

In addition to the technical cooperation provided to FCA, 404 public and private sector officials received training, and a large number of manuals were published.

Animal Health and Plant Protection

With respect to animal health, in 1988, technical cooperation focused on the establishment and strengthening of the national network of animal health laboratories in Venezuela. Collaboration was provided in the design and implementation of a national bovine brucellosis control program, and in the design of an epidemiological surveillance system for bovine tuberculosis, which was complemented by the execution of a program to eradicate the same disease in the Sur del Lago area in the state of Zulia.

A strategy was designed to control bovine rabies, and a control program is in full operation in high-risk areas. Also, a national hog cholera control program was initiated.

There is considerable private sector participation in all the activities mentioned above, both from livestock ranchers and veterinarians in private practice, which makes the technical assistance IICA is providing to MAC all the more important.

Training is a very important component of the assistance offered in the area of animal health. Eleven seminars and workshops were held, benefitting 176 national professionals for a total of 1,192 participant days; also, four meetings were held, attended by 205 livestock ranchers.

Venezuela

Resources Source Amount ■ Instrument ● Objectives ○ Achievements

IICA	72 139
TOTAL	72 139

- **Strengthening the Institutional Capabilities of the Sectoral Planning Directorate of the Ministry of Agriculture and Livestock (MAC) to Introduce and Operate Mechanisms for Decentralized Execution, Adjustment and Growth in the Agricultural Sector**
 - To strengthen the institutional capacity of MACs Planning Directorate; to advise the consolidated area authorities and achieve more effective management of agricultural development in priority areas.
 - Five mechanisms designed for the decentralized planning and implementation of agricultural policies in priority areas.
 - Method applied for factorizing the planning/executing process of the Pilot Area; variables and information needs identified for ongoing evaluation system of the Pilot Area.
 - Forty-nine regional officials trained in concepts and techniques for the Regional Sectoral Directorate and the management of programs and projects.

MAC (Animal Health)	106 321
IICA	65 364
TOTAL	171 686

- **Strengthening the Animal Health Programs of MAC's General Directorate for Livestock Development**
 - To strengthen the operating and functional capacity of Venezuela's animal health laboratories, and their actions to control brucellosis, bovine rabies and hog cholera.
 - Documents drafted on pilot programs for eradication and control of bovine brucellosis, tuberculosis, rabies; on the program to strengthen the diagnostic services of regional laboratories; and on designing sampling techniques to determine the incidence of hog cholera, and model for field survey.
 - One hundred seventy-six professionals trained in seminars and workshops, for a total of 1,192 participant/days.
 - Rabies vaccination of cattle increased in pilot area (from 450,000 to 630,000). Support committees set up for the eradication and control of bovine tuberculosis and rabies in the State of Zulia and at the central level.

Resources
Source Amount ■ Instrument ● Objectives ○ Achievements

FCA	17 332
IICA	62 614
TOTAL	79 947

■ **Supporting the Agricultural Credit Fund's Operational Plan and the Establishment of the National Credit Program for the Agricultural Marketing and Agroindustrial Development**

- To consolidate agricultural credit in its important role in increasing agriculture's participation in overall economic development, and contribute to improving the agricultural trade balance.
 - Three thousand issues of a manual on identification, design and evaluation of agricultural, livestock, fishery and forestry projects published; regulations and institutional adjustment strategy drafted to bring into line with new FCA law.
 - Computerized general system of credit designed and approved, consisting of eight operational modules. Structure and functions for the guarantee fund proposed.
 - Fifteen courses and workshops held for 404 participants.

IICA	65 494
TOTAL	65 494

■ **Supporting the Plan to Develop and Diversify Production in Coffee Growing Areas**

- To strengthen planning, implementation, follow-up and evaluation, by generating and implementing methods and procedures to achieve Plan goals.
 - Method for evaluating the effect/impact in the State of Tachira designed and approved. Costs of 37 production items readjusted for credit assistance. Seven State Plans for 1989-1993 reformulated.
 - Twelve training workshops held on: effect/impact evaluation; activity follow-up and evaluation systems; formulation of credit projects; production costs, with the participation of 134 officials.
 - The various methods extrapolated to the priority project "Support to Small Farmers in the State of Sucre." Methodology and draft regulations for rural cadastral survey formulated.

IICA	10 000
TOTAL	10 000

■ **Providing Technical Support for Combatting and Eradicating the Desert Locust**

- To support MAC in its actions to eradicate the desert locust and to prevent this pest from spreading throughout the hemisphere.
 - Plan of action designed to systematize the tracking and eradication of the pest; plan delivered to MAC.

**Resources
Source**

Amount

■ Instrument ● Objectives ○ Achievements

IICA	75 520
TOTAL	75 520

■ **Supporting the National Technical Assistance Service (SNAT) of MAC**

- To formulate the IICA project and support the Ministry's efforts to implement and expand SNAT, through training of mid-level personnel.
 - The following documents prepared and submitted to SNAT authorities: "General Rules for Technical Assistance to SNAT" and "Creation of the National Technical Assistance System." For consideration by UEDA, the document "Rules and Procedures for Planning Technical Assistance" was drafted.
 - Direct training on aspects of technical assistance offered to 295 SNAT officials; and indirect training to another 1,065 officials.

Southern Area

One key fact that distinguished 1988 from previous years was a considerable increase in the international prices paid for some of the agricultural commodities exported by the subregion, which translated into reduced external pressure for the countries of the Southern Area (Argentina, Brazil, Chile, Paraguay and Uruguay).

This improvement in prices made it possible for the Southern Area countries to significantly reduce their current account deficits. However, the negative effect of higher international interest rates on the external debt service nullified some of the profits made by the countries in 1988 based on improved terms of trade.

The combination of adjustment policies and the burden of the external debt aggravated the inflationary cycle in these countries, especially Argentina and Brazil, where economic growth was severely restricted.

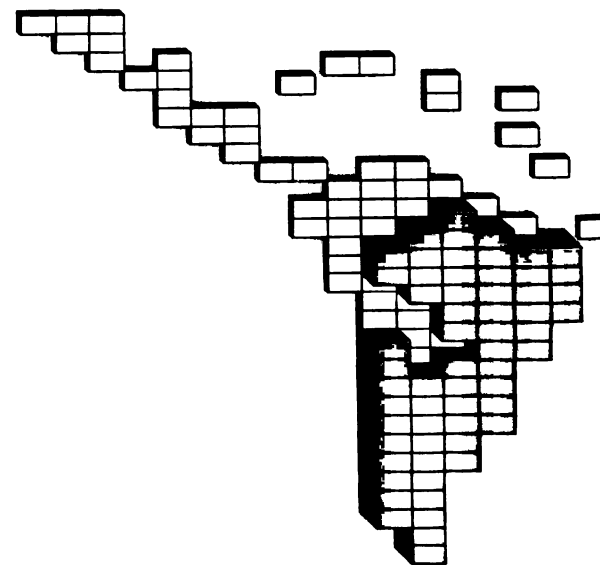
In Argentina, both inflation and the fiscal crisis worsened in spite of a favorable turnaround in foreign trade and a sustained level of economic activity. In late August, authorities launched a new stabilization program that will set the course for future economic development.

In 1988, the Brazilian economy was characterized by a rapid acceleration of inflation, a deepening of the recession that began in mid-1987, and an excellent performance by the external sector. Economic policy focused on reducing the public deficit and reestablishing links with the international financial system.

The economy of Chile performed well in 1988, due in part to significant improvement in its terms of trade. Exports broke all previous records, the balance of payments current account closed with a surplus, international reserves increased, and the external debt was reduced. In addition to an increase in GDP, and improvements in employment figures, inflation was reduced, and real wages partially recovered.

The economy of Paraguay expanded in 1988 as a result of favorable conditions surrounding the export of its agricultural commodities, and a moderate rate of inflation during the year. The improvement in exports strengthened the balance of payments, but since the additional foreign exchange went to the private sector, the lessening of external pressures did not necessarily translate into a noticeable reduction in the public deficit.

The economy of Uruguay continued to grow in 1988, at a somewhat slower pace than in 1987, and there was a slight improvement in the balance of payments current account, brought about by a significant increase in exports. The slow fall in the inflation rate levelled off at mid-year (when it was still quite high), and public sector accounts experienced a slight reversal after two years of intense fiscal adjustment.



In 1988, joint efforts were stepped up to tackle common problems affecting the subregion. During the year, the Vice Ministers of Agriculture of the Southern Area countries attended two meetings to decide on joint actions to be taken to reactivate agriculture, as part of the Plan of Action entrusted to IICA.¹

The PROCISUR Project went forward with the technology exchange activities agreed upon by the countries of the Area and Bolivia. These countries continued to work to institutionalize PROCISUR, to enable it to continue, with IICA support, after financial assistance from the Inter-American Development Bank comes to an end.

In 1988, important joint actions in animal health and plant protection were carried out with support from IICA multinational projects.

Argentina

In 1988, the government of Argentina continued its efforts to revitalize the agricultural sector, and economic policy attached the highest importance to modernizing the sector, and to strengthening its institutions. What is sought is a structure which will allow the sector to tap the country's agricultural potential, the effect of which will be consistent with a macroeconomic policy aimed at helping the country to regain and expand its role in international markets, revitalize the regions and combat poverty.

IICA supported government and private efforts to achieve these objectives, through complementary actions. As a result of these actions, important progress was made in building up the institutions of the agricultural public sector, especially with regard to their policy-making and investment project preparation capabilities. In this effort, IICA worked in close coordination with

¹ See Chapter 4 of this report for further information on the Plan of Joint Action for Agricultural Reactivation in Latin America and the Caribbean.

the Secretariat of Agriculture, Livestock and Fisheries (SAGyP). As regards technological development, IICA contributed to consolidating the technology generation and transfer system through technical cooperation and administrative support actions, especially with the National Agricultural Technology Institute (INTA). The modernization of the domestic and foreign marketing system for agricultural and agroindustrial products went forward, through actions designed to strengthen the National Meat Board (JNC) and the National Grain Board (JNG).

Contributions were also made to coordinate the social and regional aspects of rural development, and steps were taken to integrate the national authority (SAGyP) and its counterparts in the provinces (SAG) of northern Argentina, which produce benefits in the form of local and investment projects. In order to improve production efficiency through animal health and plant protection measures, top priority was given to IICA support for the national animal health service.

Participating institutions have committed funds, which are complemented with funding and support from international lending agencies such as the World Bank (IBRD), the Inter-American Development Bank (IDB), the United Nations Development Programme (UNDP), the United Nations Development Fund for Women (UNIFEM), as well as the Embassy of Canada. This support has made the implementation of specific projects possible.

Summary of Cooperation Actions

Agricultural Policy Analysis and Planning

The Institute continued to provide technical cooperation for modernizing the agricultural sector of Argentina. In 1988, IICA focused on identifying and designing projects for possible funding by the World Bank, based on the needs and priorities brought to light in the diagnoses performed last year. After a lengthy process of negotiations, officials from the Ministry of Economy, the SAGyP, and representatives of the World Bank and IICA, agreed on two major projects: one on the marketing of grains, and the other on the promotion of non-traditional (especially

agroindustrial) exports. Both projects were completed and submitted to IBRD, and are currently being studied for possible funding.

The first project, aimed at modernizing the grain marketing system, includes reorganizing the National Grain Board (JNG). Its marketing operations would be updated, and the Board itself reorganized. The project provides the JNG with funds to carry out its purchasing policy and to finance selected exports. It also provides short-term credit for marketing. Improvements in the grain transportation system within the country, the privatization of post-based grain elevator services, and more efficient maritime transportation are all envisaged.

The project to promote agroindustrial exports contributes to achieving the general objective of diversifying Argentine exports. In addition to promoting exports, one component of the project addresses price stabilization policies. A second component includes funding for agroindustrial sector investments in the processed meat, fruit and vegetable, fishing, and wool and forestry subsectors, and in leather and improved seed production. These efforts are being carried out in conjunction with the institutional strengthening of the National Grain Board (JNC) and the Export Promotion Foundation, and with the support provided to the subsectors mentioned above.

The Institute also participated in the elaboration of the document "Sector Analysis Review," which the World Bank prepared for the Argentine agricultural sector. The results of this analysis will be used by the SAGyP and the IBRD in preparing a pipeline of projects for the next five years, which may be financed by the Bank.

IICA continued to support the SAGyP in the preparation of the Overall Agricultural Credit Program to be financed by the Argentine government, the World Bank and the IDB. The nationwide program, which has received a loan of US\$700 million, will facilitate the task of replenishing and increasing the supply of agricultural tools and machinery, and of installing storage facilities for medium-sized farms. In addition, high-cost, high-yield agrochemical inputs will be given widespread use in order to increase livestock productivity and encourage a sustained recovery of stock.

Technology Generation and Transfer

IICA continued to strengthen the capacity of the National Agricultural Technology Institute (INTA) in technology generation and transfer, with INTA, IDB and IICA resources. The operating agreement for professional services went forward, and outstanding among the actions taken under this agreement was the work of 22 consultants who, in conjunction with INTA specialists, university professors and farmers, assessed real production problems in the field. Also reviewed were INTA research programs, with emphasis on plant production and protection, soil fertility, seed technology, biotechnology, animal production and health, and agricultural extension services. The consultants also offered advisor services on the use of more effective methods for developing projects, and on the training of technicians in techniques appropriate to each discipline.

Cooperation was provided in upgrading the INTA Information and Documentation System (SIDINTA), and its structure is now compatible with the demands of an institution of its size.

Through an administrative support action, the Institute cooperated with INTA in the hiring of technical personnel to start up a project on permanent agriculture for the pampa region, an area of more than five million hectares. One of the aims of this project is to offer 35,000 farmers conservation techniques. In addition, by project end, some 540 private professionals will have received up-to-date information on this subject, and been trained to provide advice in the application of these techniques. INTA came to an agreement with the Ministry of Health and Human Services to carry out new technological development projects for small-scale producers, and the Institute cooperated with INTA in the execution of this agreement in the relatively less-developed areas of the country.

The program in support of small-scale farmers conducted activities related to corn, cotton, and vegetable crops in the eastern part of the province of Formosa. In Añatuya, it focused on corn, cotton, pest management, and alfalfa harvesting, while in Cachi, in the province of Salta, on peaches, nectarines, walnuts and quince. Agroforestry systems were encouraged among small-scale farmers of the province of Misiones; community actions were taken with small-scale farmers of Tucuman to repair drainage

canals and local roads; and joint efforts were made with small-scale farmers of Chubut in finding solutions to the water problem, and in eliminating parasites from sheep and horses.

The program also worked with small-scale farmers from Corrientes on cassava, corn, fruits, onion, cotton, cowpea, rice, sorghum, sweet potato and forages; with small-scale producers in Chaco on clover, corn, beans, squash, green peas, soybean and cotton, while also providing technical assistance to the agricultural cooperatives of San Juan.

The program assisted grape growers in Tinogasta, Catamarca and worked with goat raisers in Rio Negro and Neuquen. Training activities were provided for the women who belong to the Small-Scale Farmers' Association of Salta.

All of these cooperative activities were conducted with organized groups of farmers, and include informational meetings, exchanges of experiences in technical and organizational matters, and training workshops. Training materials were provided.

Finally, under this IICA Program, technical cooperation was provided to INTA and to the National Statistics and Census Bureau (INDEC) to carry out the studies leading up to the national agricultural census, especially in the pampas.

Organization and Management for Rural Development

In 1988, IICA support of the SAGyP in the formulation and execution of rural development projects was divided into four areas: institutional organization and coordination; project preparation and management; management and administration of financial resources; and training and organization of small farmers. Through this project, IICA has been collaborating in defining a strategy and mechanisms for coordinating actions between SAGyP and its provincial offices (SAG), and the actions of the latter with official and private institutions, NGOs, and small-farmer organizations, to contribute to the implementation of rural development programs and projects in the northern part of the country. Of all the successes of the program, the most noteworthy was the consolidation of the National Rural Development Office of the SAGyP, which will provide coordination for related activities.

The SAGyP began to decentralize the formulation and management of local projects. It promoted the concept of projects as catalysts, with a view to increasing the negotiating power and improving the self-management of small-farmer organizations, which will equip them to exert influence over decisions affecting them. In terms of the formulation and management of projects, the IICA Office supported the SAGyP in the design of 20 local projects in northwestern Argentina, as part of the project to support small-scale farmers in that region. As regards the organization and training of small farmers, IICA and SAGyP offered a training seminar on participatory diagnoses, aimed at small producers of Cachi. Two seminar-workshops on participatory methods and techniques of project design were offered in Jujuy and Tucuman, during which a total of 60 technical personnel from official institutions and NGOs of the region were trained.

Also designed was a project for the training of 25 technicians from the 10 provinces of northern Argentina, who will, in turn, train small-scale farmers. The project aims to create a high-level team that will be able to conduct training activities in the respective provinces.

Continued support was given to SAGyP through the program to support small farmers in northeastern Argentina, which is being negotiated with IFAD and IDB, and which will benefit some 5,000 small farmers. With regard to the securing and management of financial resources, an agreement was reached with SAGyP whereby IICA will administer the resources of three projects funded by the United Nations Development Fund for Women (UNIFEM). One began operations in Cachi in early 1988, and it emphasizes the participation of women in rural development projects and programs.

Marketing and Agroindustry

In 1988, the Institute continued to focus its efforts on strengthening the information systems of the National Grain and Meat Boards, with a view to modernizing their marketing systems. Funds for these activities came from the World Bank, UNDP and IICA.

The economic information system of the National Grain Board was designed and put into service. To do so, studies were carried out as to the demand for and supply of economic information, as well as the type of system needed. The final touches were put on the design of the system, and the necessary computer equipment was purchased and installed.

Training was provided to the technical personnel who will manage and operate the computers, and to the users in the Grain Board's Economic Studies Department. The Board now has a trained technical team that can offer advice to management and technical personnel, and to the private sector concerning decisions related to the economic aspects of the production and marketing of grains and their by-products.

The Economic-Livestock Information System (SIEP) of the National Meat Board is in the final stages of design. The overall design of the system included, among others, information modules on livestock production and marketing, the cold-storage industry, and domestic and external marketing of meat. The computer equipment needed for the project has been purchased and is being installed. Progress was made during the year in preparing the necessary software and in training personnel in the use of the computers for economic matters related to livestock production.

This project benefitted some 700 people directly (personnel from the Grain and Meat Boards; users), reaching some 800,000 indirectly.

Animal Health and Plant Protection

In their efforts to upgrade the subprogram of the National Animal Health Service (SENASA), the SAGyP and IICA carried out several activities under an operating agreement. The most noteworthy of these were: a prefeasibility study of the project to strengthen SENASA; the establishment of a medium-security international livestock quarantine; the strengthening of the sanitary campaigns; and the implementation of an epidemiological surveillance system. With technical assistance from CEPI, an advanced draft project profile was drawn up and presented to a project identification mission from the World Bank.

SENASA also received assistance in the processing and analysis of data gathered as part of the Ayacucho Pilot Plan of inoculations against foot and mouth disease.

Argentina

Resources Source	Amount	■ Instrument	● Objectives	○ Achievements
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IICA	17 293
TOTAL	17 293

■ Cooperation to Create a Project Unit.

- To cooperate in the creation and implementation of the Project and Resource Management Unit.
 - Cooperated with the Ministry in creating the Project Unit with technical advice component available; personnel trained, in conjunction with technicians from 12 municipalities, to build a decentralized project network; 20 technicians trained in project preparation; projects already identified under way.

Resources
Source Amount ■ Instrument ● Objectives ○ Achievements

SAGyP- IBRD-UNDP	555 694
TOTAL	555 694

■ **Cooperation for the Modernization of Argentina's Agricultural Sector**

- To formulate proposals for SAGyP in high-priority areas that must be addressed to ensure Argentine agriculture's medium- and long- term development.
 - Two large projects on modernization of grain marketing systems and promotion of nontraditional exports, particularly agroindustrial products, defined, prepared and presented to the IBRD for funding.
 - Support provided to SAGyP for preparation of Global Agricultural Credit Program, to be funded by the Argentine government, the World Bank and IDB.
 - Participation in the analysis of the Argentine agricultural sector made by the IBRD; contributed with the SAGyP and the IBRD in drawing up a list of projects for the five-year period, with possible IBRD funding.

SAGyP	11 159
IICA	60 802
TOTAL	71 961

■ **Support to SAGyP in Formulating and Implementing Rural Development Programs**

- To define a strategy to coordinate SAGyP and provincial Agriculture and Livestock Secretariats (SAG), and to coordinate their work with that of other official and private institutions of the sector, to contribute to formulating and implementing rural development programs and projects, emphasizing the northern region of the country.
 - Strategies and mechanisms to coordinate actions between SAGyP and provincial institutions and between these and official and private institutions that contribute to executing programs and projects in the northern region of the country.
 - SAGyP's National Directorate of Rural Development consolidated as the coordinator of rural development actions; mechanism implemented in the SAGyP to decentralize local project preparation and management; promotion of the concept of the project as a catalyst to increase self-management skills of small farmers.
 - Twenty local projects formulated in northwest; training of technicians and farmers made it possible to use methods and techniques for participatory project formulation.
 - Advice provided program in support of small farmers in the northeastern region of Argentina for negotiations with IFAD/IDB; participation of women in rural development programs and projects developed in Cachi; UNIFEM funding obtained for these projects.

Resources
Source Amount ■ Instrument ● Objectives ○ Achievements

INTA-IDB	143 346
INTA (Letter of Under.)	8 929
IICA	103 815
TOTAL	256 091

■ **Technical Cooperation to Strengthen INTA's Capacity to Generate and Transfer Technology**

- To support INTA's efforts to create, produce and disseminate technological innovations, especially to upgrade SIDINTA and facilitate exchange between INTA and similar institutions.
 - Operating agreement in progress to render services; analysis of production problems developed and INTA research programs revised by 22 consultants, INTA specialists, university professors and farmers in the use of methods and techniques that correspond to each research area analyzed.
 - INTA supported through the hiring of technicians to implement a permanent agriculture project in the "pampa" region of some 5 million ha.; 35,000 small farmers subsequently informed of conservation techniques.
 - INTA agreed with the Ministry of Health to carry out new technology development projects to benefit small farmers; IICA cooperated with INTA in executing this agreement, particularly in relatively less-developed areas of the country.
 - Cooperation provided through administrative support in the execution of projects intended for small farmers and subsistence farmers in various provinces of the country.
 - Cooperation with INTA and INDEC in executing studies prior to conducting the national agricultural census, particularly in the "pampa" region.

SAGyP	5 073
TOTAL	5 073

■ **Promoting the Participation of Women in Cachi, Financed by the United Nations Development Fund for Women**

- To efficiently manage assigned resources.
 - Corresponding administrative actions taken.

IICA	34 074
TOTAL	34 074

■ **Cooperation with INTA to Develop Technology Generation and Transfer Programs for Non-Traditional Agricultural Products**

- To assist INTA in the consolidation of the new institutional model, to design mechanisms for identifying non-traditional agricultural products and technological processes with strong possibilities of access to external markets.
 - Technical documents prepared on the production and export potential of a non-traditional product of regional interest; necessary technology defined.

SAGyP	30 516
TOTAL	30 516

■ **Providing Support to the Analysis and Reorganization of Tobacco-producing Areas in Argentina**

- To efficiently administer assigned funds.
 - Administrative support provided to enable SAGyP to draft proposal for exporting tobacco products with higher value added; for reorganizing tobacco-producing areas; and for allocating funds from the Special Tobacco Fund.

JNC	304 375
JNG	82 252
IICA	44 284
TOTAL	430 911

■ **Institutional Strengthening of the National Meat and Grain Board's Information Systems**

- To establish a computerized system to organize and systematize information on meat and grain activities at the JNG and JNC, to improve decision-making of private and public entities involved in producing and marketing meat, grains and their by-products.
 - Economic information system designed and implemented; computer equipment and software installed, and staff trained, enabling the JNG management for economic studies to advise directors, technicians and the private sector in economic matters related to the production and marketing of grains and their by-products.
 - Design for JNG economic livestock information system near conclusion; computer equipment being installed; software and staff training in preparation.

INTA (Letter of Under.)	324 655
IICA	26 729
TOTAL	351 385

■ **Administrative Support Action for INTA**

- To efficiently manage assigned resources.
 - Corresponding administrative actions taken.

Brazil

In 1988, the agricultural situation in Brazil was unstable mainly due to external factors resulting from the country's monetary policy, payment of the external and domestic debts, and the effect of these debts on national revenue.

This panorama, which is of a strictly financial nature, was also aggravated by political factors, including priorities for drawing up the new Constitution enacted in September of this year, as well as feelings of uneasiness about the upcoming 1989 presidential elections.

Nevertheless, in spite of this situation, the national agricultural policy was fully implemented, emphasizing production for domestic supply and the generation of exportable surplus. Thus, the present situation continues to pressure the agricultural sector to generate foreign exchange.

In the 1987-1988 period, in spite of losses in wheat and soybean production due to weather conditions, the agricultural sector was able to exceed all past levels of production of grains for the second consecutive year, producing 65.8 million tons (compared to 64.9 million tons the previous year). The most important agricultural products were corn, soybean, rice, wheat and beans.

In view of these results, it is highly probable that there will be a third record-breaking harvest for 1988-89. Soybeans will be the main product on the international market, due to low levels of North American production. Corn may also be an important product, particularly due to government incentives for farmers.

IICA continued its technical cooperation actions with institutions from the public agricultural sector as part of its contribution to Brazil's agricultural development. In the area of irrigation, particularly in the northeast, the Institute worked under the terms of agreements with decentralized organizations such as CODEVASF, DNOCS and PRONI, which work in irrigated areas. A substantial contribution was made to building infrastructure for irrigation projects, and complementary projects for fisheries, and the shrimp breeding industry.



Guarana is a non-traditional crop that is currently used to produce a popular soft drink. Its stimulating properties were discovered by natives of the Amazon basin, who cultivate it in its natural environment.

Summary of Cooperation Actions

Agricultural Policy Analysis and Planning

The IICA Office in Brazil continued its support to the Brazilian Agricultural Planning System (SUPLAN) in the development of medium-term analysis methods and in reorganizing the national agricultural planning system. Data on planning were gathered in the 26 units of the country and studies were published on consumption and nutrition.

Technology Generation and Transfer

This Program continued to assist the Brazilian Agricultural Research Agency (EMBRAPA) in executing the project on

upgrading the dissemination of agricultural research and technology in the South Central Region of Brazil (PROCENSUL II). Technicians received training in universities in the United States and Europe, and 77 consultants were hired in the fields of virology, plant pathology, bovine health, botany and forest virology. IICA-EMBRAPA-PROCENSUL II reports were published and distributed; the financial control system for the project was computerized, and a study was undertaken on agricultural policies and their effect on agricultural research.

IICA also supported the technical cooperation project of the Executive Commission for Planning Cacao Cultivation (CEPLAC). Through this project, the special Department of Amazonas continued to receive help in evaluating and programming research on the genetic improvement of cacao. The Office continued to provide administrative assistance for research centers of the International Tropical Agriculture Center (CIAT) and Cornell University. Actions were concluded with the Inter-American Potato Institute (CIP) in June of this year.

The IICA Office in Brazil developed joint actions with the coordinating agency of the Ministry of Agriculture to put the final touches on the technical cooperation project for developing a support system for agricultural biotechnology in Brazil.

Organization and Management for Rural Development

During the year, the Institute focused on three fields within this program area: irrigation as a component of rural development, rural development per se, and education for rural development.

Irrigation

In 1988, the objectives of most of the projects were revised and reformulated. Technical cooperation activities in support of the Special Ministry for Irrigation Matters (PRONI/PROINE) were reoriented and expanded. Options were presented for public, federal, state and private irrigation strategies. A computerized model for project management was proposed, using World Bank funds. A sectoral study of settlements was prepared and training was given to irrigation personnel from the San Francisco Valley

Development Agency (CODEVASF), the National Drought Control Department (DNOCS) and the National Health Department (DNOS). Technical advice was offered on the implementation of technical research and transfer projects. Agricultural export models were established for irrigated areas and a technical assistance proposal was prepared. The Office also helped organize cartographical functions with a view to coordinating water resources. Documents on irrigation, agrarian reform and tenant farming were prepared and a market study carried out for preparing a shrimp larvae production project.

CODEVASF continued to receive advisory services from IICA in the form of technical and socio-economic reports, plans for the dissemination of technology and direct support for the development of irrigated agriculture. The economic development of small-scale farmer organizations in irrigated districts was evaluated. Amendments were made to manuals and rules of operation.

Evaluation and technical-administrative control systems were the target of technical support and training was offered in the management and operation of irrigated districts. At the same time, a diagnostic study was made of operational problems in these districts and a data bank was established. The Office also carried out a study on the rehabilitation needs of the irrigated districts, which led to the creation of a project of the same name. Also, rules were established to prepare and evaluate irrigation projects and technical cooperation for lot improvement.

As part of the technical cooperation offered to DNOCS in connection with the operation of irrigated districts, an annual plan of operation was prepared in Caldeirão and San Gonçalo. The Office also offered technical advice on the evaluation of methods used in the districts for billing of water services. Technical support was given in the reclamation of irrigated districts. Thirty-five people in charge of irrigation for the project received training.

IICA continued to offer assistance to the National Program for Irrigated Plains (PROVARZEAS), under the Ministry of Agriculture. To this end, a demonstration project was designed and the ditch irrigation system was evaluated. A technical document describing a diagnosis of mechanization and an evaluation of training centers was presented and contributions were made to the irrigated agriculture program. The Institute also collaborated in

the publication of the guide for preparing irrigation, drainage and agricultural protection projects.

Rural Development

The support project for the Superintendancy of Development in the Northeast (SUDENE), which is being expanded, continued to be a top priority for the Office. Cooperation agreements were negotiated with SUDENE on other aspects of its efforts, such as agricultural meteorology, the use of small dams, and marketing. The Support Project for Small Farmers (PAPP) continued to receive assistance in management and training, while the technical unit and executive bodies of the State of Rio Grande do Norte were supported in drafting guidelines for small-scale farmer organizations.

IICA made major contributions in connection with the publication of documents, the designing of methods, the development of computerized management systems, and the planning and evaluation of irrigation and rural development projects. Methods were developed to improve cropping systems and seed reproduction and conservation in nine states of the region and a regional training course was offered on seed production and marketing.

The Office helped revise and implement the marketing-supply-credit (CAC) components of the program. Funding activities were carried out and a credit proposal was implemented. IICA was instrumental in revitalizing the water resources component in six states of the northeastern region. Also, the Institute helps coordinate the actions of regional and state institutions.

IICA continued its actions to develop projects in the state of Bahia. Some of these actions included studies on rural development in Vale Verde and Paraguaçu, preparation of supplementary soil maps, evaluation of irrigation systems for small-scale farmer settlements, training in irrigation and surveying, and evaluation of natural resources.

Lastly, the Office launched a new technology cooperation project with the National Bank for Economic and Social Development (BNDES), promoting rural development in the northeastern region. Short-term actions were carried out for

institutional strengthening in project planning and implementation. Assistance to technical groups in preparing projects according to BNDES criteria was increased and educational material was prepared for courses on rural development.

Education for Rural Development

The Institute continued to cooperate with the Secretariat for Education of Piauí in setting up its rural education program. Action strategies were identified for rural education and the first diagnostic test was prepared for agricultural schools in the state. Technical exchanges to observe other experiences (Cuba-Mexico) also took place. Interinstitutional coordination was developed between the Brazilian Agency for Technical Assistance and Rural Extension (EMBRATER), the Foundation for Basic Education for Young People and Adults (EDUCAR), and the Secretariat of Planning of the Ministry of Agriculture (SEPLAN). The Office in Brazil also participated in the dissemination of a document on participatory pedagogical planning.

IICA continued to cooperate with the Ministry of Education (MEC) in order to meet the goals in this field. Among its actions, mention should be made of the preparation of the five-year basic education plan for the northeastern region and adjustment made in nine action and investment plans. Forty-five state technicians and nine technicians from the central team received on-the-job training. A national meeting was held on rural and non-formal education.

The study on the rural school transportation system continued, and a national demographic forecast report was also completed. A new agreement was negotiated and signed with EDUCAR. The project document and plan of operation are being prepared to launch appropriate activities.

Marketing and Agroindustry

The final touches are being put on the only project in this area aimed at offering cooperation to the agroenergy program of the Ministry of Agriculture.

This project was redesigned and is currently under the consideration of the General Directorate of the Ministry. Actions to identify the institutional and technical make-up of rural agroindustry, including energy systems currently in use, will soon be launched in nine states in the northeast. The last steps are being taken as regards the agroindustry data bank, through joint action with the national agroenergy program of the Ministry of Agriculture.

Among the other activities carried out by the Institute within this area are technical assistance for implementing the integrated system of micro-distilleries; maintenance and transfer of micro-factories to Manaus; completion of the initial phase of the market study on fire wood, charcoal and energy forests; and the implementation of two integrated forestry units. IICA also helped prepare cost studies for the construction of small hydroelectric plants.

Lastly, IICA cooperated in the follow-up and evaluation of the physical-financial aspects of the agroenergy project. A study was made to identify strategies to improve data collection.

Animal Health and Plant Protection

IICA continued to provide technical cooperation in the area of animal health and plant protection through two projects. The first, in support of animal health activities, focused on the development of priority programs for the prevention, control and eradication of animal diseases and pests. As a part of this project, the Institute offered follow-up to the IBRD-SDSA project and collaborated in the organization of veterinary laboratory services. Several laboratory tests were made on blue tongue, during a workshop. A copy was made of a microfilm on exotic diseases and the proposal of the Zoonosis IICA/SNAD Agreement was delivered. The Office helped process 14 reports from REDSUR and the Inter-American Animal Health Laboratory Network (RILSA) and also participated in various technical and scientific meetings throughout the country.

The second project involved actions in support of the Integrated Management System for Plant Health Problems (SIMIP). These activities included a diagnostic study that paved the way for the plant protection project and actions to be taken in connection with the oriental fruit fly (*Dacus dorsalis*).

Brazil

Resources

Source Amount ■ Instrument ● Objectives ○ Achievements

Sec. Piaui	75 288
TOTAL	75 288

■ **Cooperation with the Secretariat of Education of the State of Piaui in Implementing the Rural Education Program**

- To put into operation guidelines for rural education; to promote gradual improvements in the structure of the rural educational system, at the municipal and central levels; to provide educational and administrative advice to personnel of the municipal education system; to promote inter-institutional activities in support of formal and non-formal education in rural communities.
 - Action strategies identified for rural education; first diagnostic study made of state agriculture schools; technical exchange carried out to observe other experiences; inter-institutional coordination developed with EMATER, EDUCAR Foundation and SEPLAN; document on participatory educational planning published.

Resources
Source Amount ■ Instrument ● Objectives ○ Achievements

SUDENE	955 905
IIICA	218 659
TOTAL	1 174 565

■ **Support for the Superintendancy of Development in the Northeast (SUDENE) in the Formulation and Execution of Rural Development Plans, Programs and Projects in Northeastern Brazil**

- To support the PAPP planning and management system.
- To facilitate access of small farmers from the northeastern region to basic production resources. To support the water resources component in the states.
 - Cooperation agreements negotiated in other SUDENE areas: agrometeorology, small dams and marketing. Continued administrative and training support given to the PAPP.
 - Assistance given to technical units and executor bodies of the state of Rio Grande do Norte in organizing producers; documents, methods and computerized systems developed for management, planning and evaluation of irrigation and rural development projects; methods proposed and training offered in seed production and marketing.
 - Advice given on revising and executing the Marketing-Supply-Credit (CAC) components; support provided for the farm action component; credit proposal implemented.

CODEVASF	442 961
TOTAL	442 961

■ **Technical Cooperation with the San Francisco Valley Development Agency (CODEVASF) for Developing Irrigated Agriculture**

- To strengthen CODEVASF activities in developing production systems, and in administering and maintaining irrigation districts that foster greater productivity for irrigated agriculture at a lower cost, through technical, economic and social management.
 - Technical and socio-economic reports prepared; dissemination of technologies planned and support given for development of irrigated agriculture; economic development of producer organizations in irrigated perimeters evaluated; changes incorporated into manuals and operations regulations.
 - Support provided for technical-administrative evaluation and control systems; training carried out in management and operation of irrigated districts; and diagnostic study conducted of operational problems.
 - Computerized data bank installed; diagnosis presented and rehabilitation project prepared, as were rules for formulating and evaluating irrigation and technical cooperation projects to improve lots.

Resources
Source

Amount

■ Instrument ● Objectives ○ Achievements

IICA	7 181
TOTAL	7 181

■ **Technical Cooperation to BNDES for Institutional Strengthening in Planning and Implementing the Rural Development Project in Northeastern Brazil**

- To strengthen the technical and organizational structure of the Secretariat for Plant Protection (SDSV) so as to efficiently introduce and implement in Brazil integrated plant protection management programs.
 - Short-term activities undertaken for institutional strengthening in project planning and implementation; assistance given to technical groups for formulating projects within BNDES framework; educational material prepared for project preparation course.

SUPLAN (Agro- energy)	151 711
TOTAL	151 711

■ **Cooperation with the Ministry of Agriculture's Agroenergy Program**

- To promote a rational increase in the use of energy technology in Brazilian apiculture and increase biomass supply for other sectors of the economy.
- To support the program in making energy sources available to farms and in adopting appropriate mechanization.
- To support the joint PMCA/IICA project to establish an agroenergy data bank.
 - Reformulation of project completed and under consideration by General Directorate; actions taken to identify institutional and technical system of rural agroindustry to the initiated; joint action in process with National Agroenergy Program of the MA/STA to consolidate agroenergy data bank.
 - Advice offered on the operation of the integrated microdistillery system and on the maintenance and transfer of a micro-factory for Manaus.
 - Initial phase of a market study on firewood, charcoal and energy forests completed; two integrated forests put into operation; studies carried out on the cost of implementing small hydroelectric plants.
 - Physical-financial execution of agroenergy project evaluated; strategy study prepared to upgrade data gathering efforts.

Biotechno- logy	45 046
TOTAL	45 046

■ **Technical Cooperation for Development of a Support System for Agricultural Biotechnology**

- To study the semi-arid tropics and strengthen the research program.
 - Actions defined with the coordinator from Ministry of Agriculture carried out.

Resources
Source Amount ■ Instrument ● Objectives ○ Achievements

SUPLAN-	
SNPA	120 069
IICA	846
TOTAL	120 915

■ **Strengthening the Agricultural Planning System**

- To improve SUPLAN capacity to develop medium-term analysis methods to aid in the establishment of instruments for agricultural decision-making.
 - SUPLAN supported in developing medium-term analysis methods and in restructuring the National Agricultural Planning System; data gathered on planning in 26 units; studies published on consumption and nutrition.

CEPLAC	41 803
TOTAL	41 803

■ **Technical Cooperation to Support the Executive Commission for Planning Cacao Cultivation (CEPLAC) in its Physical-Biological Research Program**

- To improve CEPLAC's capacity for research on genetic improvement of cacao, in order to produce crops that are highly productive and adaptable under different conditions.
 - Support continued for the Special Department of Amazonia in evaluating and programming research on the genetic improvement of cacao.

EMBRAPA-	
IDB	1 087 327
IICA	74 108
TOTAL	1 161 435

■ **Technical Cooperation to Develop Agricultural Research in the South-Central Region of Brazil (PROCENSUL II)**

- To collaborate in agricultural research with Brazil, in the south-central region, through the strengthening of support activities for research that will promote and ensure technological change, and foster increased productivity in 13 agricultural products.
 - Technicians trained in universities in the United States and Europe; 77 consultants hired in areas of plant virology and pathology, cattle health, botany and forest virology.
 - IICA-EMBRAPA-PROCENSUL II reports and six reports by consultants published and distributed.
 - Financial control of PROCENSUL II computerized; study begun on agricultural policies and their impact on agricultural research.

CIP	6 379
CIAT	205 135
Cornell	16 536
TOTAL	228 052

■ **Technical Cooperation for International Research Centers**

- To offer efficient administrative support to international research centers.
 - Administrative support given to CIAT and CORNELL projects; actions concluded with CIP in June of this year.

Resources
Source Amount

■ Instrument ● Objectives ○ Achievements

PROVARZEAS	189 103
TOTAL	189 103

■ **Technical Cooperation with the National Program for Irrigated Plains (PROVARZEAS) of the Ministry of Agriculture (MINAGRI) in Irrigated Agriculture Programs**

- To support activities related to the development of the irrigation and drainage program for small- and medium-scale farmers, through demonstration projects.
 - Demonstration project prepared and ditch irrigation system evaluated; diagnostic study of mechanization and evaluation of training centers presented.
 - Consultation provided for the irrigated agriculture program and support documents published.

MEC	325 464
TOTAL	325 464

■ **Cooperation with the Ministry of Education in Defining Strategies and Implementing Formal and Non-Formal Education Policies for Rural Areas**

- To help MEC technical teams in providing advice to the states and in preparing documents.
 - Five-year basic education plan prepared for northeastern region and nine action and investment plans adjusted; in-service training provided for 45 state technicians and nine technicians from the central team.
 - National rural and non-formal education meeting held; rural school transportation system under study and document on National Demographic Forecasting document completed (1985-2003); new agreement signed with EDUCAR to draft project-document and plan of operation for launching activities.

DNOCS	70 595
TOTAL	70 595

■ **Technical Cooperation for the National Department of Drought Control (DNOCS) in Operating and Maintaining Irrigation Districts**

- To improve the technical and operating capacity of DNOCS by establishing an operation and maintenance system for irrigated districts; and to train mid-level and senior technical personnel.
 - Annual plan of operation prepared in Caldeirão and San Gonzalo.
 - Advice given on evaluating the organization of the districts and the water billing methods; technical support for recuperating irrigated districts; training provided for 35 irrigation administrators.
 - Contributed to revitalization of water resources component; institutional coordination arranged for state and regional levels.

Resources
Source Amount ■ Instrument ● Objectives ○ Achievements

SNAD-	
LANARA	56 768
IICA	93 713
TOTAL	150 482

■ **Technical Cooperation in Animal Health**

- To support the upgrading of the veterinary diagnostic laboratory network in priority areas of animal health.
- To support the development of animal health information and epidemiological surveillance services.
 - Support given to priority programs for prevention, control and eradication of animal diseases and pests.
 - Follow-up provided for IBRD-SDSA project; assistance given in organization of veterinary laboratory services; nine consultants hired; seminar on laboratory management and workshop on blue tongue held; laboratory reagents tested; proposal for IICA-SNAB zoonosis agreement submitted.
 - Fourteen reports from 13 countries (REDSUR and RILSA) processed; participations in technical and scientific meetings; microfilm on exotic diseases copied.

MINTER	737 772
IICA	467
TOTAL	738 240

■ **Cooperation with Technical Team of the Special Ministry for Irrigation Affairs (MEAI-PRONI)**

- To collaborate in defining strategies and in executing the Irrigation Program for the Northeast (PROINE) and in preparing and executing the National Irrigation Program for southern, southeastern, central-eastern and northern regions.
- To support the development of planning, follow-up and evaluation systems for irrigation systems; to promote irrigation areas and the surveying of natural resources; to train national technical personnel.
 - Public, federal and private irrigation strategy options presented; computerized project management model prepared with World Bank resources; settlement study prepared and revised and irrigators trained at CODEVASF, DNOCS, DNOS and technology transfer projects; agricultural export models and proposal for technical assistance in irrigated areas prepared; documents prepared on irrigation, agrarian reform and share cropping; marketing study undertaken to prepare shrimp larva production project.

Resources Source	Amount	■ Instrument	● Objectives	○ Achievements
ANDEF	51 576	■ Integrated Management System for Plant Protection Problems	● To support the strengthening of quarantine and emergency services for exotic diseases.	○ Diagnostic study made to prepare plant protection project. ○ Actions developed on oriental fruit fly.
SDSV (MA)	8 791			
TOTAL	60 367			
SEPLANTEC-CAR	180 540	■ Technical Cooperation for the Preparation, Implementation, Supervision and Evaluation of Regional Rural Development Programs and Projects in the State of Bahia	● To strengthen the technical and operating capacity of the CAR through training of technicians in the use of methods to prepare and implement projects for rural development, small- and medium-scale irrigation, and surveying and assessment of natural resources potential.	○ Studies carried out on rural development in Valo Verde and Paraguacu; soil maps and evaluation of irrigation systems for small farmer settlements complemented; training provided in irrigation, surveying and evaluation of natural resources.
TOTAL	180 540			

Chile

The Chilean economy performed favorably in 1988, with significant improvement in its terms of trade, and more than 5% growth in the GDP. The trade surplus grew considerably, the current account deficit was eliminated, international reserves grew, and foreign debt was reduced.

Exports expanded considerably, favored by a sharp rise in international copper prices, and by an increase in agricultural exports, especially fruits and vegetables, which showed continued growth. As was the case last year, imports continued to increase, although at a slower pace, with the most dynamic items being capital and intermediate goods.

The favorable performance of the external sector and the efficient management of macroeconomic policy have made a solid expansion of economic activity possible, especially in trade, manufacturing and basic services. The resulting drop in unemployment had important social consequences. The reduced inflation rate made it possible, for the first time since 1981, to raise real wages.

In 1988, the Ministry of Agriculture continued to support agricultural production and marketing through the application of price controls, the stabilization of the purchase price for wheat, its trade policy on sugar beets, the provision of subsidies for

reforestation, and investment in irrigation projects. Policies on research, technology transfer and credit continued, and an adequate level of plant and animal health was maintained.

IICA's actions in Chile were carried out to reflect the overall development priorities of the nation, through agreements formalizing the provision of technical cooperation by specialists in the following areas: agricultural planning, technology transfer, rural development, agricultural marketing, and animal health and plant protection.

Summary of Cooperation Actions

Agricultural Policy Analysis and Planning

In 1988, IICA followed up on the agricultural planning process of the Ministry of Agriculture. Efforts focused on helping the Agricultural Planning Office (ODEPA) improve its technical and operating capabilities, conduct sectoral analyses and make policy proposals, as well as offer advisory services concerning the allocation of public funds.

Technical cooperation centered on the design of agricultural planning studies, strengthening the National Agrarian Projects System (SINAPRO-AGRO), and ODEPA's working relations with the rest of the system.

In the area of agricultural planning studies, a document was prepared on technical production coefficients for fruit and vegetable crops. IICA's Program I and the School of Agricultural and Forestry Sciences of the University of Chile have undertaken a study on the modernization of agriculture in Chile, using the fruit subsector as a case study. Also, an analysis was initiated of the process currently employed by the Ministry for gathering and disseminating sectoral information, with a view to modernizing it. To this end, ODEPA authorities have been provided access to IICA's information system on sectoral decisions for agricultural development.

The National Agrarian Projects System (SINAPRO) officially began operations this year with the participation of all Ministry agencies, and it is gradually being included in the Regional Ministerial Secretariats (SEREMI). IICA technical cooperation

included designing the software necessary to computerize the system. Assistance was also provided in the programming of activities, and in the formation and regulation of project analysis and selection committees.

SINAPRO-AGRO personnel were trained in project administration and follow-up, and a course on farm-level projects was offered to technical personnel from the Agricultural Development Institute (INDAP).

To improve ODEPA's working ties with related agencies, a greater coordination was achieved with the services of the Ministry of Agriculture, especially the Agriculture and Livestock Service (SAG) and the National Planning Office (ODEPLAN). During the last quarter of the year, an analysis was begun of the ties among the SEREMIs involved in agriculture, and basic mechanisms were established for the exchange of information and the participation of these Secretariats in SINAPRO.

Technology Generation and Transfer

Technical cooperation centered on strengthening the country's major technology generation and transfer agencies. This was done through the Cooperative Program for Agricultural Research in the Southern Cone (PROCISUR), which emphasizes research.

Similarly, the national project for technology transfer continued to provide support to the Community Agricultural Development Program of the Ministerial Secretariat of Agriculture for Region IX (PRODAC) and to the technology transfer program of the National Agricultural Research Institute (INIA).

The Community Agricultural Development Program, which offers agricultural extension services to small-scale farmers in the region, was given considerable support in management and implementation skills. Meetings were held to analyze, evaluate and plan activities in the two provinces (Cautin and Malleco) of the region, for the purpose of achieving more efficient transfer.

There was a technical exchange with Colombia to learn what that country had gained with regard to the transfer of technology to small farmers. In addition, three PRODAC coordinators were sent to a PROCISUR seminar on technology transfer held in Uruguay,

which brought together national technology transfer agencies of the Southern Cone.

Support to INIA's technology transfer program focused primarily on cooperating in the management and operation of its technology transfer groups, and in organizing them at the regional and national levels. At the regional level, seminars were offered on group dynamics and operational strategies for the regional councils, with a view to boosting the technology transfer process.

Organization and Management for Rural Development

Rural development activities undertaken this year started with two unanticipated, short-term actions, arising from a letter of understanding with the Ministry of Agriculture of Chile and the Agricultural Development Institute (INDAP). Its purpose was to provide technical cooperation to INDAP.

In one, INDAP officials received training in the preparation of small-scale irrigation and drainage projects for small farmers. Three more projects directly targeting small-scale farmers grew out of this course, which will enable them to take advantage of the subsidy provided for in the law to promote private investment in irrigation and drainage projects. The course was carried out with collaboration from the national irrigation commission and the School of Agricultural and Forestry Sciences of the University of Concepcion.

In the second unanticipated, short-term action, INDAP was given technical cooperation for strengthening its programs for small-scale farmers. INDAP personnel were trained in the formulation, analysis and evaluation of farm-level projects. The purpose of this training was to improve INDAP's capacity to assist small farmers in designing projects eligible for lines of credit from the Institute, as well as INDAP's own ability to evaluate these projects. INDAP officials participated in the course, which received support from the Agricultural Planning Office (ODEPA).

The Ministry of Agriculture, INDAP and IICA hope to draw up a technical cooperation project in the field of rural development.

In collaboration with the Department of Technical and Professional Education of the Ministry of Education, the



The written word is of great importance and is deeply rooted in rural life, where it has served to preserve and transmit the experience of the people.

Education SEREMI of Region VII received support in the analysis of vocational training projects for elementary and secondary students. Along the same lines, the University of Playa Ancha was given technical cooperation for a project being carried out by the Placilla High School in the Region V.

Marketing and Agroindustry

In 1988, the Institute supported Chile's efforts to increase the efficiency of its domestic marketing processes and to establish a greater role for itself in the international trade of agricultural commodities, especially non-traditional products. In conjunction with the Ministry of Agriculture, IICA formalized a technical cooperation project in marketing, the goal of which was to contribute to the institutional strengthening of the Ministry, and to improve its domestic and foreign agricultural marketing actions.

In the area of foreign trade, cooperation was provided in studying the principal methods used to quantify levels of protection and support in the agricultural sector, and in designing a systematic procedure for determining the levels of protection and support in the agricultural sector, as discussed in the General Agreement on Tariffs and Trade (GATT). The project also contributed to designing a method for determining tariff concessions for Chile's agricultural negotiations within the framework of Latin American Association for Integration (ALADI), as well as to designing of a computerized system for storing tariff and non-tariff information on Chile's major agricultural trading partners. It also participated in analyzing the institutions of the Ministries of Agriculture of Latin American countries, which work in support of foreign trade, with a view to building a similar organization in Chile.

With respect to domestic trade, follow-up was provided on the marketing of Chile's major agricultural commodities, and prevailing methods were compared with those in use in other IICA member countries. The Institute contributed to improving the price control mechanism for some priority agricultural products, through technical exchanges with other countries in the region having similar minimum price mechanisms. IICA conducted an analysis of the labor market in the fruit-growing sector, to examine its repercussions on specific products. At the same time, IICA assisted in the analysis of current wine market conditions, as well

as the outlook for its future. Proposed sectoral adjustments were also examined. Finally, assistance was given in the preparation of a proposal for technical cooperation in the production, processing and marketing of apicultural products, in conjunction with the Institute for Ibero-American Cooperation (ICI).

Technical cooperation in marketing, at the regional level, also included an analysis of the regional trade of agricultural commodities, its problems and potential; proposals for the Plan of Joint Action for Agricultural Reactivation in Latin America and the Caribbean; and technical exchanges of professionals and entrepreneurs from Uruguay on gearing small farms for participation in foreign markets. IICA also contributed to the study of success stories in Chilean agriculture, to be distributed among the other countries of the region.

Animal Health and Plant Protection

Technical cooperation to strengthen the plant protection programs was offered to the Agricultural Protection Division of the Agriculture and Livestock Service (SAG) in three major areas: training for personnel in priority matters; technical cooperation to strengthen SAG; and cooperation in the preparation or improvement of standards, procedures, working methods and instruments.

In the area of training, the technical team of the Agricultural Protection Division was advised on modern strategies for quarantine action. Chilean technicians participated in an international training course on the fruit fly, and in a course offered by the University of Chile on computerized data processing. Two technicians attended an in-service training program on the detection and control of potato diseases, at the headquarters of the International Potato Center (CIP) in Lima, Peru.

With regard to institutional strengthening, assistance was provided in studying and formulating a computerized quarantine and agricultural surveillance system, and SAG decided to promote the implementation of a computerized plant protection information management program.

Program V was also active in strengthening livestock protection programs in Chile, especially those dealing with classic swine

fever, brucellosis, tuberculosis, and bovine leucosis. In addition, specialists from several countries were granted scholarships for



The development of agriculture in pre-desert areas has become a significant activity in Chilean agriculture.

studying the diagnosis of exotic viral diseases, tuberculosis, and bovine leucosis.

SAG was assisted in reviewing its bovine brucellosis-free-farms program, which is geared to the control and eventual eradication of this disease. Assistance was also provided in designing the pre-feasibility study of the project to strengthen SAG's forestry and agricultural surveillance and sanitary diagnosis system and its quarantine subsystem. One achievement was the publication of a document on this topic, to be presented to external financing organizations, particularly IDB.

The Institute also collaborated with the Veterinary Schools of the universities of Chile, Concepcion and Austral in the design of a pre-investment study to be included for implementation in the national animal health research program. Documents related to specific components of this project were drafted to aid in the search for non-refundable financing through bilateral cooperation with IICA Permanent Observer countries.

The animal health subprogram carried out activities under the multinational project to strengthen animal health laboratory services and epidemiological surveillance, and under the project to strengthen SAG's livestock protection programs. The program received technical and financial contributions from Canada (CIDA-Agriculture Canada), the United States (APHIS-USDA), and from the Mexican-American Commission for the Prevention of Foot and Mouth Disease and other Exotic Diseases (CPA).

Finally, efforts continued to re-establish cooperative ties with Peru for developing bilateral actions against the Mediterranean fruit fly in the Arica-Tacna agroecological area. The groundwork has been laid for a Chilean-Peruvian plan of action which will be of great economic importance to both countries.

Chile

Resources Source	Amount	■ Instrument	● Objectives	○ Achievements
IICA TOTAL	9 060 9 060	■	●	○
<p>■ Collaboration and Support for the School of Veterinary Sciences of the Universities of Chile, Concepcion and Southern Chile in Preparing a Preinvestment Study on the Implementation of a National Animal Health Research Program</p> <ul style="list-style-type: none"> ● To collaborate with the Ministry of Agriculture and the School of Veterinary Sciences in preparing a feasibility study for implementing a National Animal Health Research Program. <ul style="list-style-type: none"> ○ Project profile prepared; detailed documents prepared on training instructors and researchers and on strengthening and equipping laboratories. 				
IICA TOTAL	3 123 3 123	■	●	○
<p>■ Training of INDAP Officials on Irrigation and Drainage Projects for Small Farmers</p> <ul style="list-style-type: none"> ● To train professionals to prepare small-scale irrigation and drainage projects. <ul style="list-style-type: none"> ○ INDAP capacity to support farmers strengthened; projects prepared to obtain subsidy through law promoting private investment in irrigation and drainage works. 				
IICA TOTAL	89 928 89 928	■	●	○
<p>■ Technical Cooperation to Chile's Agricultural Development Institute to Upgrade Programs for Small-scale and Subsistence Farms</p> <ul style="list-style-type: none"> ● To improve the capacity of regional directorates and area agencies analyzing and evaluating praedial investment projects. Formulation of IICA-MINAGRI cooperation project. <ul style="list-style-type: none"> ○ INDAP technicians' skills upgraded in preparing, analyzing and evaluating projects at the farm level; agreement reached to prepare a rural development project with INDAP. 				
IICA TOTAL	3 114 3 114	■	●	○
<p>■ Technical Cooperation to Strengthen Livestock Protection Programs in Chile, with Special Emphasis on Classic Swine Fever, Brucellosis, Bovine Tuberculosis and Leucosis</p> <ul style="list-style-type: none"> ● To strengthen the operational and functional infrastructure of Chile's SAG Livestock Protection Subprogram in the eradication of classic swine fever and in the certification of holdings free of bovine brucellosis, tuberculosis and leucosis. <ul style="list-style-type: none"> ○ Directors and technicians from the Livestock Protection Division trained in exotic viral diseases, diagnosis and epidemiology of bovine tuberculosis and leucosis; support provided to program for bovine brucellosis-free areas. 				

Resources
Source Amount ■ Instrument ● Objectives ○ Achievements

IICA	14 066
TOTAL	14 066

■ **Technical Cooperation to Increase Efforts to Improve Domestic Trade and Increase Exportation of Non-Traditional Products**

- To strengthen public sector (MINAGRI-ODEPA) capacity to identify, design and implement measures to improve the marketing system and increase its efficiency, in order to stimulate domestic production, contribute to import substitution and increase agricultural exports.
 - Methods and instruments created for study and evaluation of marketing policies, strategies and technologies for domestic and external markets; reciprocal technical exchange promoted with other countries through training and observation visits.

IICA	75 537
TOTAL	75 537

■ **Technical Cooperation to Strengthen the Principal National Technology Generation and Transfer Agencies**

- To support the strengthening of INIA's Technology Generation and Transfer Program and support PROCISUR activities. To advise MINAGRI on programs for small- and medium-scale farmers at the regional level.
 - Efficiency of PRODAC increased for better coverage; training and advisory services provided to directors and technicians.
 - INIA technology generation and transfer program improved at the national and regional levels; training provided for farmers and administrators.
 - PROCISUR activities coordinated and complemented.

IICA	81 321
TOTAL	81 321

■ **Technical Cooperation to Strengthen Plant Protection Programs**

- To help SAG solve high-priority plant protection problems of the national organization.
 - Directors and technicians from the Agricultural Protection Division trained in modern strategies for quarantine actions against fruit fly; computerized data processing and detection and control of potato diseases; support given to upgrade plant protection education campaigns; economic and demographic parameters determined for pine shoot moth and of damage caused, and establishment of new basis for bilateral actions against the Mediterranean fruit fly for Tacna-Arica border area; data bases delivered for computerized system on agricultural quarantine and surveillance.

Resources Source	Amount	■ Instrument	● Objectives	○ Achievements
IICA TOTAL	8 289 8 289	■	●	○
<p>Support for Agriculture and Livestock Service (SAG) in Preparing a Preinvestment Study to Strengthen their Sanitary Surveillance and Diagnosis Programs</p> <ul style="list-style-type: none"> ● To support SAG in preparing a preinvestment study to strengthen the forestry-agricultural health surveillance and diagnosis system. <ul style="list-style-type: none"> ○ A draft document was written on strengthening the forestry and agriculture health surveillance and diagnostic system and the quarantine subsystem. 				
Trust Fund ODEPA IICA TOTAL	18 117 16 555 5 143 39 817	■	●	○
<p>Technical Cooperation to Strengthen the Agrarian Planning Process of the Ministry of Agriculture</p> <ul style="list-style-type: none"> ● To support the creation, operation and management of the national agrarian project system and improve ODEPA procedures for sectoral analysis and agrarian policy design. <ul style="list-style-type: none"> ○ National agrarian project system institutionalized and implemented with trained personnel; investment project prepared; document on technical coefficients of fruit and vegetable crops drawn up and published. 				

Paraguay

The agricultural sector continued to play an important role in Paraguay in 1988, both from the viewpoint of its absolute contribution to overall economic growth and development, as well as its relative contribution, as compared to the other sectors.

Revenues for domestic development come primarily from the export sector, where agricultural commodities play the key role, and the value of agricultural exports grew considerably as compared to last year.

In 1988, the IICA Office in Paraguay focused its activities on three program areas: institutional strengthening of the technology generation and transfer system; the development of the National Rural Development Projects Coordination Office (ONCPDR); and the formulation of the National Agricultural Marketing Plan.

Summary of Cooperation Actions

Technology Generation and Transfer

To strengthen the national technology generation and transfer system, a profile of the Medium Term Plan (PMP) was designed and approved. In it, guidelines are proposed for activities related to technology generation and dissemination (GDT), and for the institutional framework in which they should take place. This will make it possible for public and private GDT entities to participate in an institutional system which is effectively articulated with the objectives, strategy and programs proposed in the profile.

A study was prepared with IICA support to evaluate the cost/benefit ratio of research in commodities such as wheat and

cotton. Study findings regarding the high rate of return on research investments, although reduced lately, was one of the justifications for approving and funding the PMP.

Private sector entities which benefit from the generation and transfer of technology, and which could eventually contribute to the funding of the PMP, were identified. Basic information is now on hand for identifying formal mechanisms for securing private funds. This includes a list of amounts exported, imported or marketed by private entities of the sector which could help fund the PMP in the future.

A proposal was drawn up for reorganizing the Office for Agricultural and Forestry Extension and Research (DIEAF), to bring it in line with the PMP. This reorganization will allow DIEAF to coordinate the various activities of the technology generation and transfer system, a role assigned to it by the PMP.

A proposal was made for technology generation and transfer programs, projects and activities, as they relate to different disciplines, commodities, production systems and services, to be incorporated into the final PMP document and later executed.

Organization and Management for Rural Development

Under this Program, the IICA Office in Paraguay focused its efforts on strengthening the National Project Coordination Office (ONCP) for integrated rural development. Technical cooperation was provided on ONCP project management and the Caazapa and Eje Norte projects.

Methods were designed for project planning, supervision, follow-up, control and mid-way evaluation. The application of these methods contributed to improved management of the Caazapa and Eje Norte projects.

Technical cooperation was also directed at strengthening the administrative-financial aspects of ONCP, of the Ministry of Agriculture and Livestock (MAG), and the Central Bank of Paraguay (BCP). Manuals on organizational, accounting and administrative procedures of the National Office for Project Coordination and Administration (ONCAP), and an appendix, with an accounting plan, were concluded.

Through the ONCP, IICA assisted the Agricultural and Livestock Extension Service (SEAG) in the design of an operating structure for creating farmers' organizations at the Caazapa Project. To achieve this, manuals, instructions, and rules were drawn up for the farmers' organizations, all of which improved the managerial capabilities of the members of the farmers' committees.

The IICA Office also presented a proposal to SEAG management concerning the creation of a national division in charge of fostering and supporting farmers' organizations.

Two projects were drawn up with the technical personnel and farmers of the Caazapa Project, both of which receive funding from the United Nations Development Fund for Women (UNIFEM) and the Embassy of Canada. The projects provide support to the farmers' committees and aim to boost the participation of women on these committees. In 1989, the farmers' committees of the Caazapa Project will undertake activities to diversify production, subject certain commodities to primary processing, and build basic infrastructure.

Program III supported the creation of a multi-action cooperative in San Juan Nepomuceno. A charter assembly meeting was held to constitute it, and the documents required to gain full legal status for the cooperative were drawn up for presentation to the General Directorate of Cooperatives.

Marketing and Agroindustry

The project to upgrade the institutional subsystem for agricultural marketing offered technical assistance in the formulation of the national agricultural marketing plan. Several meetings took place to coordinate the agreement between IICA and three government institutions: the Technical Secretariat for Planning (STP), the Ministry of Industry and Commerce (MIC) and MAG. In 1989, they will draw up a technical cooperation agreement under which the plan will be designed and implemented. The institutions later agreed to set up an inter-committee task force.

As a pre-investment activity, several meetings were held with IDB to secure funding for the plan. IDB requested that MAG,

through its Directorate of Marketing and Agricultural Economics (DCEA), gather data and provide background information as a prerequisite for pre-investment.

The Production Appraisal and Forecasting Service (SEPP) was assisted in designing a tested and proven method for systematizing the information produced by the Service, to provide the government with reliable information on soybean and wheat forecasts. Also available is information on inputs for national agroindustry, and the potential for soybean exports, a major source of foreign exchange for Paraguay. SEPP information on soybeans and wheat is the only such data validated by MAG.

The DCEA was also assisted in providing training to personnel from the Farmers' Market Information Service (SIMA) in the periodic and regular operation of the Service. SIMA provided information that was distributed to farmers concerning prices and market behavior, with a view to getting better prices for their products. Now, farmers can market their products more efficiently and competitively through specific channels.

SEPP and SIMA function automatically as regular services with tested and proven methodologies for gathering, processing and disseminating information on production, harvesting and

marketing, respectively. The farmers have increased the sales and prices of their produce, and thus have increased their personal incomes, by taking advantage of the channels SIMA has provided through price and market information.

The Marketing Extension Service (SEM) of DCEA, through which marketing support services are channeled to farmers, was given support to improve the efficiency and effectiveness of its operations. Farmers' organizations were formed in San Juan Nepomuceno and in Domingo Robledo, as pilot and test programs. The success of these programs prompted DCEA to expand coverage to the entire country. Sixteen farmers' committees were established, and their organizations upgraded so that they can conduct their negotiations and marketing activities more efficiently through selected channels.

A method was set up for promoting the role of farmers' organizations in joint marketing ventures. The production and sale of goods were diversified, inasmuch as the farmers currently have marketing and input purchasing subcommittees, and are building warehouses for consumers. As a result, savings and incomes of families participating in SEM have improved.

Paraguay

Resources Source Amount ■ Instrument ● Objectives ○ Achievements

IBRD-Caazapa	31 502
IICA	83 664
TOTAL	115 177

■ Institutional Support for the National Rural Development Projects Coordination Office (ONCPDR)

- To support the Paraguayan government in implementing rural development projects to raise the standard of living of the rural population.
 - National Office for Project Coordination and Administration (ONCAP) supported and on-going rural development projects evaluated.
 - Support given to SEAG, funded by IICA-MAG Agreement, for organizational strengthening of Farmers' Committees; 15 small-farmer committees from the Caazapa Project now have an operational structure and acceptable management skills; San Juan Nepomuceno Multiactive Cooperative created.

Resources
Source Amount ■ Instrument ● Objectives ○ Achievements

IICA	67 375
TOTAL	67 375

■ **Strengthening the Institutions of the Agricultural Marketing Subsystem**

- To help establish program guidelines and operational patterns to enable the agricultural marketing subsystem to cooperate effectively in reaching the goals and objectives of the National Development Plan.
 - Support given to the Production Appraisal and Forecasting Service (SEPP), which offers information useful for policy design and decision-making by the agricultural cabinet, and for the planting and domestic and external trade of soy bean and wheat.
 - Market Information Service for Farmers (SIMA) operating regularly in DCEA, providing information on market prices and behavior for decisions on sales and negotiations with farmers.
 - Marketing Extension Service (SEM) of DCEA supported to organize producers into marketing committees that improve the negotiating capacity of participating small farmers.

IICA	73 973
TOTAL	73 973

■ **Strengthening the National Technology Generation and Transfer System**

- To support preparation and implementation of a medium-term plan (MTP) that guides and coordinates national technology generation and transfer of activities for agricultural production.
 - An MTP that proposes integration of public and private entities of the GDT into an efficiently articulated institutional system prepared and approved; program guidelines, their cost and executives presented in the plan prepared and implemented.
 - Proposal completed for technology generation and transfer programs, projects and activities to be executed within framework of MTP.
 - Basic information obtained that will facilitate identification of private funding sources for executing the MTP and of mechanisms to secure and disburse those resources.
 - Cost/benefit ratio of research evaluated, as was trend of resources assigned to same, and capacity to retain qualified personnel; results obtained favor approval and funding of MTP.
 - Proposal designed for institutional organization of DIEAF to adapt it to the MTP strategy.

Uruguay

Within the overall strategy of national development, the agricultural sector, which consists of agroindustrial exports, the forestry sector, and fisheries, continues to play a key role in the diversification of the economy.

Initiatives aimed at strengthening the overall strategy of outward growth, with a strong emphasis on the agricultural sector, were intensified during the year. Efforts were made to develop comparative advantages, through investment projects funded with external resources. Important contracts were signed with IDB for institutional strengthening loans geared toward the generation and transfer of technology, and animal health. To the same end, negotiations were held with the World Bank to obtain loans to be used for the agricultural plan, the forestry sector and the export of non-traditional commodities.

In the interest of achieving a balanced agricultural policy, the Ministry of Livestock, Agriculture and Fisheries (MGAP) intervened on several occasions on behalf of small farmers in northeastern Canelones, where projects have been proposed in support of low-income farmers. The Ministry provided resources for the institutional strengthening of the Directorate of Plant Protection.

During this year, IICA undertook an in-depth review of its priorities in order to arrive at a new country-level strategy of action, the main technical cooperation components of which are: institutional strengthening in the generation and transfer of technology; support for low-income, small-scale farmers in switching over to the production of other crops; assistance to the agroindustrial products support unit in agricultural policy-related decisions; and plant protection.

Uruguay participated in regional cooperation actions under PROCISUR and the regional plant protection project, and was active in the regional and national mechanisms established for working on the Plan of Joint Action for Agricultural Reactivation in Latin America and the Caribbean.

Summary of Cooperation Actions

Technology Generation and Transfer

IICA provided technical support in the administration of funds used to set up the Technology Generation and Transfer Project Coordination Unit. Professional and technical personnel were hired to amend the project, and to start up, prior to the signing of the contract, the executor unit for upgrading technology generation and transfer, funded by IDB.

The Office supported efforts at creating an agricultural sciences graduate studies program geared toward regional integration, and a senior consultant was hired to draw up the project, in consultation with graduate studies centers in Argentina, southern Brazil and Uruguay. In addition, technical cooperation for providing training to MGAP researchers continued.

Organization and Management for Rural Development

The project in support of the institutional strengthening of the granja subproject, begun in 1987, was adjusted in 1988 to bring it into line with changes in MGAP. Technical cooperation plans were finalized in the second half of the year.

In order to identify investment opportunities for developing the granja subsector, the Office organized two regional seminar-workshops for national and foreign farmers and technicians, during which the production outlook for the external marketing of onions and table grapes was analyzed, and specific projects were designed for strawberries and asparagus.

Agroindustrial projects were analyzed with enterprises interested in exporting granja produce, and assistance was provided in preparing pre-investment applications for 3,000 farmers in connection with the systematization of land and water use. A program for the export of non-traditional products was drawn up and presented to the World Bank.

Several pilot projects for small-scale farmers were proposed. They aim to vitalize selected zones and disseminate new organizational and technical models. These projects deal with

strawberry storage infrastructure for small-scale farmers; machinery service center for small-scale farmers belonging to the San Bautista rural development association; fruit and vegetable production and marketing (infrastructure and technology for small farmers of Canelones); and a base study on the production of bean seed.

The IICA Office also helped upgrade the technical units of MGAP in connection with the identification, design, follow-up and on-going evaluation of rural development projects. Actions focused on training technicians from the Granja Agroindustrial Projects (UAPAG-MGAP) Support Unit, which equipped them to prepare pre-investment applications and projects for consideration by the NGOs of small-scale granja farmers.

As part of an information system on investment opportunities, several documents were published on agronomic, agroindustrial, and marketing issues related to granja production in Uruguay: cultivation of endive; external markets for fruits and vegetables; and fruit and vegetable production.

In the area of training, an intraregional technical cooperation rural development project (CT-INTRA) is currently being drawn up with IDB.

To consolidate regional agricultural development, the Institute continued to collaborate with the agricultural cooperative "Water for Irrigation" (CALAGUA), in designing a production program for 1,500 hectares of irrigated granja lands, including a strategy for mechanization.

The consultants called for in the technical cooperation program financed by IDB were hired. Staff of the development unit at the Tacuarembó intendency received training in the operation of a computerized credit accounting and administration system.

To provide follow-up on these actions, an analysis of the regional agricultural development project was made, and the parameters of future technical cooperation were established. The possibilities and feasibility of continuing to provide cooperation in the northeast of the country were discussed in meetings held with technical personnel and with the leaders and members of the cooperatives located in northern Uruguay: CALNU (northern Uruguay) CALAGUA (water for irrigation), CALPICA (sugar cane), and CALVINOR (grapes).

In conjunction with the CALAGUA cooperative, the production subproject was adjusted to target certain crops, and the labor requirements of the project were determined. The machinery subproject was reformulated, which made it possible to define machinery needs in light of the selected crops, proposed rotations, and the area to be cultivated per year. In support of this effort, a computer program was designed which makes it possible to quickly adjust the technical and economic coefficients of these subprojects.

An evaluation was carried out of the development project under way in support of small-scale producers in the Tacuarembó area. It addressed topics such as the design and execution of technical tasks, credit management, and matters illustrative of the achievements of beneficiaries.

In support of the rural development actions of various regional entities, IICA collaborated in each municipal intendency in organizing a technical task force made up of representatives of the agencies of the Department. A document providing an



Wool and its by-products have traditionally represented one of the foundations of the Uruguayan economy. In this country, sheep outnumber inhabitants eight to one.

interpretation of departmental rural development strategy was prepared, and became the basis for the identification of projects and pre-investment studies.

Some 40 technicians from the intendancies and regional entities received training in a seminar-workshop on project identification and on the preparation of pre-investment study proposals to be submitted to the Office of Planning and Budget (Pre-investment Fund)

Ninety-five rural development project ideas were identified for the intendancies, as were others in the six Departments. They are expected to generate pre-investment or investment requests. A project profile was drawn up with a view to securing external funds to be used for institutional strengthening in the area of generation and management of rural development projects.

Animal Health and Plant Protection

The project to upgrade the Directorate of Plant Protection (DSV) of Uruguay, which began operations in 1987 under the terms of an agreement signed between IICA and MGAP, is now fully operational, and will continue until 1991.

In an effort to improve the technical and operating capabilities of its personnel, in-service training on a number of subjects was provided to technicians from the Directorate, and improvements were made in the clinical diagnostic laboratories and information units.

Both achievements contributed to upgrading the quality of the services provided by the Directorate, especially those related to plant quarantine, the certification of plant propagation materials, and the control and correct use of pesticides.

Another success has been the standardization of quarantine systems and procedures at the regional and national levels. Plant protection actions related to wheat, soybean, potato, and citrus crops were strengthened at the national level. Progress has also been made in the design of plant protection diagnosis methods and in indexing plant propagation material in "problem crops," and in

the establishment of an early-warning system against mildew in the vineyard.

IICA also supported the coordination of actions between the Directorate and other public and private agencies concerned with plant protection, through the signing of agreements with other institutions for joint action on mutual problems. In this way, the foundations were laid for the establishment of a plant protection certification service for plant propagation material, which will include citrus crops, forage seeds, wheat, potato, as well as virosis-free vine buds and plantlets.

In an effort to achieve institutional coordination regarding the registration and use of pesticides, an agreement was signed with MGAP's Directorate of Laboratories to jointly address the legal and technical problems involved in the use of agricultural pesticides.

IICA supported the participation of the DSV in regional and international plant protection integration actions, through binational meetings on plant protection issues affecting border trade between Argentina and Brazil. Within this same framework, emphasis was given to cooperation with bordering countries on common plant protection problems, such as the fruit fly, citrus canker, and pest birds. This provided an opportunity to exchange technical information, and to reach agreement on joint actions.

Support was also given to the Plant Protection Committee of the Southern Cone (COSAVE) to participate in international plant protection fora, for the purpose of strengthening the role of the organization in regional plant protection activities of the Southern Cone countries. This also allowed COSAVE to participate in decision-making and the design of plans and proposals to coordinate the actions and activities planned by regional plant protection organizations of the hemisphere: the Caribbean Plant Protection Commission (CPPC), the Board of the Cartagena Agreement (JUNAC), the North American Plant Protection Organization (NAPPO), IICA and FAO.

Further progress was made on updating existing plant protection legislation with the drafting of a plant protection bill, which is in line with current problems in this field. This new legislation will clarify and improve operational aspects of the national plant protection service.

Uruguay

Resources
Source

Amount

■ Instrument ● Objectives ○ Achievements

Plant Protection	141 020
TOTAL	141 020

■ **Institutional Strengthening of the Plant Protection Directorate of the Ministry of Livestock, Agriculture and Fisheries of Uruguay**

- To increase the institutional capacity of MGAP Plant Protection Directorate to improve plant health services for plant quarantine, monitoring, alarm, diagnosis and organization of plant health campaigns against priority problems in order to increase grain production and fruit and vegetable exports.
 - Plant protection control services improved for plant products imported or in transit; progress made in standardization of quarantine systems and procedures at the national and regional levels, and in developing technologies to certify propagation materials for a National Certification Service.
 - Laboratories and computerized units upgraded; plant health campaigns carried out at the national level for wheat, soy beans, potatoes and citrus fruits; progress made in developing technologies for plant protection diagnosis of plant propagation material in "problem crops;" progress made in establishing alarm system for mildew in the vineyard.
 - DSV technicians received in-service training in various subject areas; agreements reached with other institutions and organizations for joint actions on problems of mutual concern; preparation of Plant Protection bill in advanced stage; participation supported in COSAVE efforts and binational meetings on plant protection topics that affect border trade with Argentina and Brazil.

IICA	9 289
TOTAL	9 289

■ **Analysis of Regional Agricultural Development Project and Definition of Framework for Future Technical Cooperation**

- To complete cooperation actions with CALAGUA and examine the possibility of continuing IICA technical cooperation in the north and northwest of Uruguay.
 - Possibilities and feasibility of continuing cooperation in the northeastern area of the country assessed through meetings with technicians, leaders and members of cooperatives from the northeast, and consultation with specialist involved in IICA cooperation in Bella Union.
 - Evaluation made of the progress of the project supporting small farmers of the Tacuarembó area.

Resources
Source Amount ■ Instrument ● Objectives ○ Achievements

CALAGUA-CALPICA	37 708
IICA	22 882
TOTAL	60 591

■ **Regional Agricultural Development**

- To support actions to achieve significant, stable income gains for small farmers of the Tacuarembó area and the northwestern region, to enable them to generate economic surpluses for reinvestment in their holdings.
 - Continued support given to agricultural cooperative (Water for Irrigation) to define a production program for 1,500 ha. of irrigated granja lands, including mechanization strategy; consultants hired, as provided for in the technical cooperation program funded by IDB; Development Unit of Tacuarembó intendancy trained in the computerized accounting and administrative management for the credit system.

Gov. of Uruguay	14 653
IICA	138 703
TOTAL	153 357

■ **Institutional Support to the Granja Sector**

- To support cooperatives and development groups in the southern part of the country in identifying investment opportunities and preparing projects for production, marketing and agroindustry.
- To support MGAP efforts in providing production services and channeling resources.
 - Exportation opportunities identified and projects prepared for strawberries and asparagus; production outlook analyzed for external onion and table grapes market; export alternatives for farm export products analyzed.
 - Preinvestment requests prepared for agroindustry project involving 3,000 farmers, related to systematization of land and water use.
 - Export program for non-traditional products designed and presented to the World Bank.
 - Proposals drafted for pilot projects intended to motivate small farmers in selected areas and to disseminate new organizational and technical models.

IICA	16 595
TOTAL	16 595

■ **Cooperation for Creating a Post-Graduate System in Agricultural Sciences Geared to Regional Integration**

- To prepare a cooperative project with post-graduate programs in Argentina, Brazil and Uruguay related to the topic of integration.
 - Basic idea of the project prepared and consultant hired to draft it in consultation with post-graduate learning centers in Argentina, southern Brazil and Uruguay.

Resources
Source

Amount

■ Instrument ● Objectives ○ Achievements

IICA	4 270
TOTAL	4 270

■ **Promotion of New Projects and Actions in Uruguay**

- To revise the action strategy at the country level and identify new actions and technical cooperation projects.
 - Project profiles designed for funding prepared and discussed with national authorities: support for conversion of low-income small farms in Uruguay; support for rural development of northwestern coastal settlements in Uruguay; upgrading information support systems for decision-making on agricultural policy; upgrading regional entities in the generation and management of rural development projects.

MGAP	19 689
TOTAL	19 689

■ **Support for the Management of Financial Resources to Implement the Coordinating Unit of the Technology Generation and Transfer Project**

- To manage financial resources for the creation and implementation of executor unit of the technology generation and transfer project, funded by IDB.
 - Professional and technical services contracted to adjust the project and implement the executor unit for strengthening of technology generation and transfer, funded by IDB.

IICA	18 272
TOTAL	18 272

■ **Support for Rural Development Activities of Regional Entities**

- To support the technical capacity of regional entities and intendancies in identifying projects and preinvestment opportunities for rural development.
 - Approximately 40 technicians from the intendancies and regional entities trained in methods to identify projects and proposals drawn up for preinvestment studies, for presentation to the Preinvestment Fund (OPP).
 - Project profile prepared to attract external funds for institutional strengthening in generation and management of rural development projects.





Chapter 2

IICA Multinational Action

Program I: Agricultural Policy Analysis and Planning

Program I, as described in the Medium Term Plan (MTP) and the Program's guidelines for cooperation, has concentrated its efforts on the following areas: strategies for agricultural development within the context of intersectoral relations, coordination of agricultural policies and strategic investments, and strengthening the institutional systems in charge of agricultural policy planning and execution. Project achievements in each of these areas will be discussed below.

The Program's hemisphere-wide action reflects an institutional response to the Ottawa Declaration, and includes important steps taken to better define the role of agricultural modernization as a key element in the new development style of the region. The notion of "policies for agriculture" has taken on strength in the region, and includes both sectoral policies and specific macroeconomic policies. Similarly, it has become clear that in order to promote an equitable modernization of agriculture, it is necessary not only to strengthen the institutions of the sector, but also the institutional systems in charge of policies affecting agriculture.

The Program has encouraged multisectoral dialogue and the exchange of experiences among countries as a way of making institutional systems more effective, at both the country and hemispheric levels. For example, in three international events for the exchange of experiences offered by Program I in conjunction with other international organizations (SIECA, ILPES, EDI/World Bank) and the government of a Permanent Observer country (Spain), the break-down of representation was as follows: 30% from the public agricultural sector; 17% from other sectors; 14% from research centers, universities and the consultant sector; 15% from other international organizations and 24% from IICA. In addition, a bibliographic information system (ICAPPA) has been established covering the most recent works falling within the Program's scope. This material has been disseminated among professionals and institutions that expressed interest in participating in a hemispheric professional exchange network.

The Program drew up two topical documents as part of its contribution to the implementation of the Plan of Joint Action for Agricultural Reactivation in Latin America and the Caribbean: one on macroeconomic policies and the other on

The five Programs established in the 1987-1991 Medium Term Plan are the principal instruments used by IICA for implementing its policy to concentrate efforts and exercise technical leadership. As part of their activities, the Program Directorates also develop networks for reciprocal cooperation and for the exchange of experiences, in order to intensify the impact of their activities and in this way contribute to solving problems the countries share.

mechanisms for investment and the mobilization of capital. It also contributed to drafting the document on the modernization of the State. These three documents are important elements in the conceptual framework of the Plan and they lay the groundwork for initiatives for joint action at the hemispheric and subregional levels. A key element to be taken into account when considering future IICA action, and particularly that of Program I, is the awareness that the integration process is in crisis, not only because of the deterioration of the model on which it is based, but also because of the trend towards bilateral trade financial relations with extraregional countries brought about by the process of economic adjustment.

These two points were highlighted at a seminar on the European Common Agricultural Policy and Cooperation for Development, which was held in November 1988. It was co-sponsored by the government of Spain and attended by representatives from 14 Latin American countries. A similar event has been planned for 1989 for the Caribbean countries. This seminar illustrated the urgent need to step up political efforts and to reorganize the economic model and institutional framework in order to strengthen the integration process. To this end, it will be extremely useful to obtain a greater understanding of the European experience, as concerns its achievement of a common agricultural policy and its 1992 goal of total consolidation of the market.

Lastly, it should be noted that the search for external resources continues to be of the utmost importance to Program I. Some resources have been obtained for joint actions with other international organizations (EDI- World Bank, IDB) and contributions from the governments of member countries (Canada) and Permanent Observer countries (Sweden). Activities carried out with Canadian funds began in the second half of 1988, and the activities carried out with Swedish resources will get under way during the first quarter of 1989. The search for external resources for subregional multinational action has intensified, since it is felt that this constitutes an important step in the Program's action strategy.

The following is a summary of the achievements of the projects carried out under the areas of concentration of Program I.

Projects of the Program Directorate

Intersectoral Relations in the Strategies for Agricultural Development

The equitable modernization of agriculture could well play a dynamic role in the economy, given the state of crisis of the development model in the countries of the region. Nevertheless, agriculture's potential role must be examined within the international context of products, technology and capital, and of intersectoral relations in the industry-agriculture-agroindustry complex.



The Canadian International Development Agency (CIDA) is lending its support to this project, which aims to study and evaluate models and strategies for the different types of countries in Latin America and the Caribbean. The thrust of the project is to determine the factors that most significantly affect agricultural modernization. It proposes suitable coordination of macroeconomic and sectoral policies to enable this modernization process to reach farmers who have consistently been bypassed by technological change over the past decades. The project includes research and studies, and the exchange of experiences relating to the nature and functioning of sectoral linkages and their multiplier effects for reactivating the economy.

As a part of this project, an econometric model for policy analysis was developed and applied to Costa Rica for the 1963-1987 period. The information obtained from this model has proven to be extremely useful for analytical, inferential and "substantive" purposes, in general. This econometric model of simultaneous equations was designed with replication in mind; that is, it can be adapted strictly to the prevailing conditions of data availability in IICA Member States. Using Costa Rica's information and that from other countries in the region (provided by FAO), an analysis was made of agricultural investment and growth in Latin America and the Caribbean, in support of the Plan of Joint Action for Agricultural Reactivation in Latin America and the Caribbean. The preliminary conclusion of this analysis was that the capital-product ratio (6:1) is disconcerting and indicative of the fact that regional agriculture is facing a technological crisis that will be difficult to overcome, given the limited amount of capital available. An earnest effort must be made to define policies that encourage adoption of technological patterns consistent with the macroeconomic reality of the countries.

This project will carry out a joint study with the Economic Research Service of the United States Department of Agriculture (ERS/USDA), to begin in January 1989, on the policies governing production, domestic marketing and the international trade of strategic inputs for the modernization of agriculture. This joint effort responds to a concern on the part of the countries that there is a lack of coordination between agricultural policies and policies that apply to the industrial sector, either because of the overall macroeconomic picture or because of the sectoral specificity of producing and marketing agricultural inputs.

Analysis and Consultation on Agricultural Policy

This project's main objective is to upgrade analytical and consultative capabilities in the design, implementation and adjustment of priority instruments of incentive policies and of agricultural investment programs, technical personnel and directors of agricultural sector planning units (USPAs), policy analysis groups (GAPAs), and institutions involved in said process. In order to meet this objective, activities are being developed to: a) conduct studies and research leading to the application of methods for the design, implementation and adjustment of macroeconomic and sectoral policies and to identify and select public investments in agriculture; b) train technical personnel from the USPAs, GAPAs and related institutions in matters pertaining to the project's objectives; c) offer technical cooperation to personnel from the aforementioned institutions; and d) disseminate information and exchange experiences on pertinent topics. Within this context, the most outstanding achievements for 1988 are summarized below.

Various studies and in-house seminars were prepared as a part of the Plan of Joint Action for Agricultural Reactivation in Latin America and the Caribbean. These highlighted the strategic importance of agricultural investments and of the preparation of a project profile on a program of incentives and resource mobilization for investment in agriculture and related industries, which will be submitted to the consideration of the countries in the near future.

In response to the interest shown by the countries and to the Mandate of Ottawa, a document on agriculture and structural change in Central America was presented at the seminar on planning, structural adjustment and agriculture in CORECA member countries, which was held in Antigua, Guatemala. This seminar provided the setting for a fruitful dialogue between government officials from the ministries of agriculture, treasury, planning and the central banks on the impact of macroeconomic and sectoral policies on agriculture, within the context of national development strategies and subregional integration. Following the seminar, a summary was published of the sessions and conclusions of the seminar-workshop on planning, structural adjustment and agriculture in CORECA member countries. The document highlights the most relevant points discussed in the seminar

sessions and the proposals presented by the working groups. It is hoped that it will be useful in future training activities.

One area that deserves high-priority attention is agricultural protection, as, in general, it has received less attention than industry. At the same time, there is considerable variation in the levels of protection within the sector, which has a serious impact on distribution. Eight case studies were begun on the degree of protection for specific agricultural products and according to technological levels. These studies will be used in subregional courses on macroeconomic policy and agriculture.

In response to a request by the countries, a course on macroeconomic and sectoral policies for agricultural development was designed and will be offered in March 1989, in Santiago, Chile, for South American countries. It will be offered in July of the same year for CORECA countries, and in August for the Caribbean countries. It aims to improve the analytical skills of participants in the design, implementation and adjustment of agricultural investment policies and programs, within a context that reevaluates the sector in national development strategies.

Various technical cooperation missions were carried out in Brazil, Ecuador, Guatemala, Mexico, and Panama in support of national projects focusing on agricultural policy analysis.

Project for Strengthening Institutional Systems in Charge of Planning and Implementing Agricultural Policies (PROPLAN)

This phase of the project has been in effect for two years and has made great strides in strengthening institutional systems in charge of planning and implementing agricultural policies. Methods are now available for ensuring the effective operation and implementation of agricultural policies in different institutional areas.

Studies carried out in Argentina, Colombia and Peru have provided important information on the effectiveness of these mechanisms. Both macroeconomic and intersectoral contexts in which policies affected agricultural and rural development were taken into consideration, as were intrasectoral issues. All the studies pinpoint the most significant conflicts between government

“economic teams” and “agricultural teams,” as well as conflicts between these teams and representatives of the different producers’ unions and groups of small-scale farmers. Conflicts that exist between the different components making up these groups are also covered.

Similar studies are being conducted in other countries in an effort to paint an overall picture of the region. This work is being complemented by other studies to analyze the limitations and potential of institutional, regional and program and project management for different scopes of institutional action.

The results of the aforementioned studies indicate that, contrary to popular belief, a key to the institutional change required by present conditions does not lie solely in the use of new analytical and data processing techniques, and even less in institutional reorganization or the creation of new operating units. These factors must be viewed from the right perspective, that is, they must complement and support something very important that is happening in the region at present: the new behavior of political leaders and private and technical sector leaders that fosters more equitable relations among the different protagonists, both within government institutions and with representatives from the different social sectors.

Given that the conditions under which agricultural reactivation and rural development must take place are characterized by social conflicts and shared power, we must shed the traditional view that the State and the State bureaucracy are infallible when it comes to the “common good.” This requires a new concept of participation in the decision-making process, which would include the identification of conflicts and negotiation of solutions to them, reaching agreement on policy and actions, and establishing ongoing mechanisms to maintain and manage the respective commitments among the many protagonists seriously involved in the development of agriculture and the rural milieu.

Certain demands are placed on the way support information is generated and managed in a system of flexible horizontal communications among protagonists of one type and vertical communications among protagonists of different types. It is within this framework that other activities undertaken by the project should be understood. They support these proposals and aim to establish an operating format and provide technical support to the

design and operation of effective mechanisms for the preparation, implementation and management of agricultural policies. The other activities concern: a) the examination of information systems such as SIDESE (Sectoral Decision-Making Information System, developed through IICA's work with the Executive Secretariat for Agricultural Sector Planning and for Renewable Natural Resources (SEPSA) of Costa Rica) and SITOD (Information System for Decision-Making, developed by JUNAC); b) the analysis of the application of some data base management programs, such as Javelin Plus and Reflex; and c) the analysis of some models for conducting analyses from the point of view of management mechanisms, as is the case of Q-analysis, Multimarkets and others.

Support has been given to the efforts of member countries in the design, adaptation and adoption of mechanisms to formulate, implement and adapt uniform agricultural policies in three countries: Costa Rica, Colombia and the Dominican Republic.

In addition, a strategy and materials are available for training technicians-consultants and leaders from the sector in topics relative to analysis, consultation and decision-making for effective management of the agricultural reactivation and development process. The training strategy, and the experiences gained on policies, investment programs and projects prepared last year, continued to be disseminated in the region. To further this effort, a seminar was held in Colombia.

Work is also being carried out to systematize the training materials PROPLAN has generated over the years, as well as the many training events it has organized. The accumulated experiences will be structured into modules by topic and type of events, according to the different groups of participants.

This will serve as input to an international seminar-workshop, to be held in 1989, on the institutional aspects of planning and the implementation of agricultural policies. Leaders and technical personnel from the agricultural sector planning offices (OSPAs) and the agricultural policy analysis groups (GAPAs) will meet to discuss their roles in the crisis affecting the region and the possibility of agriculture playing a more dynamic role in economic reactivation and rural development.

Experiences and know-how in the fields of agricultural policy planning and management were exchanged and disseminated.

During the year, PROPLAN's results were disseminated in four events, two of which were international in nature, and two bilateral. PROPLAN also participated in a practical exchange of experiences on information systems with JUNAC technical personnel, and with technical personnel from the World Bank and the Peruvian Institute of Scientific Research (IPIC) on policy analysis schemes.

Strategy Design for Agricultural Policy Analysis and Planning in the Caribbean

This project seeks to design and implement strategy options that consider agriculture's interplay with other economic sectors. It has selected the following priority policy areas 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) policy and decision-making technology; and h) political economy and agriculture.

This project aims to formalize mechanisms set up to facilitate the reaching of agreement among macroeconomic and agricultural policy makers. 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.

The project began in September 1988, and in this short time research has identified the critical areas of policy-making and institutional strengthening for planning and policy analysis through technical cooperation and training. The project has also worked in close coordination with the Caribbean Community (CARICOM) in the development of future joint actions.

Program I

Resources
Source Amount ■ Instrument ● Objectives ○ Achievements

IICA	119 630
TOTAL	119 630

■ Agricultural Development Strategies in the Context of Intersectoral Relations (Component of the IICA/CIDA Project)

- To contribute to clarifying and providing empirical proof of the relationship between agriculture and the rest of the production structure vis a vis its different areas and functions, and in relation to the different kinds of economic agents that need to be identified, and the viability of overall economic development based on the reactivation of agriculture and the agricultural-industrial complex.
 - Document on the agricultures of the countries of Latin America and the Caribbean in light of the current crisis: conditions, performance and functions.
 - Econometric model for policy analysis, and its application: a case study (Costa Rica 1965-1985).
 - Project profile on possible IICA-IDB actions.
 - Method for analyzing the factors affecting the agricultural modernization process: a) grain sector in Argentina; b) dairy sector in Costa Rica; c) fruit sector in Chile; d) export vegetable sector in Mexico; and e) poultry sector for local consumption in Peru.

IICA	91 237
TOTAL	91 237

■ Analysis of and Advisory Services on Agricultural Policies

- To support the countries in strengthening their capacity to analyze and provide advisory services on the design, implementation and adjustment of the priority instruments of incentive and investment policies in agriculture.
 - Document summarizing and presenting conclusions of the seminar-workshop on the planning process, structural adjustment and agriculture in CORECA member countries.
 - Document on agriculture and structural change in Central America.
 - Case studies on the degree of protection afforded certain agricultural products (corn and beans) in Chile, Costa Rica, Honduras and Panama.
 - Officials from ministries of agriculture and affiliated institutions trained in the design, implementation and adjustment of macroeconomic and sectoral policies in Brazil, Guatemala and Costa Rica.
 - SEPSA, Ministry of Planning and research institute officials trained in the multi-market model and its possible application for the analysis of agricultural policies.

Resources
Source Amount ■ Instrument ● Objectives ○ Achievements

IICA	109 542
TOTAL	109 542

■ **Strengthening the Institutional Systems Responsible for Planning and Implementing Agricultural and Rural Development Policy (PROPLAN)**

- To contribute to strengthening the institutional systems responsible for planning and implementing agrarian policy.
 - Studies conducted in Argentina, Colombia and Peru on the effectiveness of mechanisms used for formulating, implementing and adjusting agricultural policies.
 - Review of SIDESE and SITOD information systems.
 - Review of the application of certain data base management programs such as Javelin Plus and Reflex.
 - Review of models to support analysis from the point of view of management mechanisms: "Q-analysis" and "multimarkets," among others.
 - Support for the design/updating and adoption of mechanisms for the formulation, implementation and adjusting of agricultural policies in Costa Rica, Colombia and the Dominican Republic.
 - Strategy and training materials for technical advisors and sector management personnel in topics related to analysis/advisory services and decision-making for effective management of agricultural reactivation and development.
 - Systematization of the material and training events PROPLAN has generated and organized throughout its existence.
 - Dissemination of experiences and know-how in the areas of planning and administration of agricultural policies.

IICA	107 563
TOTAL	107 563

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

- To contribute, with national and regional institutions, to research into critical aspects of political decision-making, to promote the strengthening of mechanisms and methods for analysis and planning of agrarian policy.
 - Development of a data base for the analysis and planning of agrarian policy consistent with the system developed in St. Lucia, and a proposal for Antigua.
 - Establishment of institutional relations with the ministries of finance and planning and the Planning Units of the ministries of agriculture in Barbados, Antigua and St. Vincent and the Grenadines.
 - Development of comprehensive projects with agrarian policy research components. The projects will be carried out within the framework of CARICOM's agricultural plan of action, with the participation of IICA, UWI, CDB, UG, and OECS.

Resources Source	Amount	■ Instrument	● Objectives	○ Achievements
EDF- World Bank TOTAL	3 466 3 466	■	●	○
		<p>Structural and Sectoral Adjustment Programs: Implications for the Reactivation and Development of Agriculture</p> <ul style="list-style-type: none"> ● To analyze and exchange opinions on the design, purpose and scope of structural and sectoral adjustment programs, and in this way increase the countries' capacity to design, manage and evaluate these programs. <ul style="list-style-type: none"> ○ Document "Synthesis of Proceedings and Conclusions of the Seminar on Structural and Sectoral Adjustment Programs: Implications for the Reactivation and Development of Agriculture," published in Spanish and English. 		
IICA TOTAL	21 820 21 820	■	●	○
		<p>Organization and Holding of a Seminar on the European Common Agricultural Policy and Trade Policy and Cooperation for Development</p> <ul style="list-style-type: none"> ● To disseminate EEC experiences in agricultural policy, trade policy and cooperation for development. <ul style="list-style-type: none"> ○ Seminar held for disseminating of EEC experiences in agricultural and trade policies, and cooperation for development. 		

Program II: Technology Generation and Transfer

In 1988, Program II carried out numerous cooperation activities in IICA's member countries, in accordance with the subject areas established in its strategy for the generation and transfer of agricultural technology.

Some of the areas in which the Program concentrated its efforts were horizontal cooperation and the international transfer of technology, as well as the strengthening of national research institutions. Others of equal importance were support for the development of new technologies, especially in the field of biotechnology, and other actions aimed at strengthening technology transfer in the region.

With a view to improving horizontal cooperation, the Program worked to consolidate joint research efforts and international technology transfer through subregional cooperation mechanisms. One example was the initiation of the process to institutionalize the Cooperative Program for Agricultural Research in the Southern Cone (PROCISUR). Through this process, PROCISUR will become a permanent body for the exchange of information on research and for the horizontal transfer of research findings among participating countries.

At the same time, the counterpart program for the Andean subregion (PROCIANDINO) was evaluated, and the groundwork was laid for the second stage of the program. A formal proposal was drawn up for initiating PROCICENTRAL as a permanent body for the exchange of technology among the countries of the Central Area, and initial conversations were held with the Caribbean Agricultural Research and Development Institute (CARDI) and the Caribbean Community (CARICOM) concerning the possibility of setting up a similar mechanism for the countries of this subregion.

Two other achievements in 1988 were the initiation of the activities of the Regional Network for Cacao Technology Generation and Transfer (PROCACAO), and the contacts made with the European Economic Community to secure funding for research into basic grains, in support of specific needs of the countries in the Central Area.

The Research Network on Animal Production Systems in Latin America (RISPAL) continued its operations this year, providing support to production systems geared to small-scale farmers. The Cooperative Program for the Protection and Modernization of Coffee Cultivation in the Central Area (PROMECAFE) made important progress in the control of diseases such as coffee rust and coffee berry borer, and in the dissemination of techniques for improving productivity. Technical personnel and farmers from PROMECAFE member countries were given training in subjects related to coffee growing.

In the same vein, the Program provided institutional strengthening in support of the efforts of the countries and of some international centers—especially the International Maize and Wheat Improvement Center (CIMMYT)—to develop new decentralized research programs in which the national systems could take on greater responsibilities by assuming some of the work currently carried out by the international centers. As an initial step in this process, a meeting was held in San Jose, Costa Rica between representatives of the Consultative Group on International Agricultural Research (CGIAR), institutions which fund research and technology transfer activities, and CIMMYT, at which it was agreed to seek alternatives for the implementation of a specific project for designing and testing operating mechanisms for this type of venture. This initial phase of discussions and exchange of views will continue in 1989, and it is hoped that external funding will be secured for these alternatives, in order to upgrade research presently under way in the countries.

With support from the Canadian International Development Agency (CIDA), Program II began providing advisory services to the countries in connection with the development of national and subregional policies on biotechnology.

An activity of singular importance was the High-Level Seminar on Policies and the Mobilization of Resources for Technological Innovation in Latin America and the Caribbean, held in Montevideo, Uruguay in June 1988, and co-sponsored by the Economic Development Institute (EDI) of the World Bank. This seminar brought together for the first time representatives of both the public and private sectors to discuss critical aspects of the new technological context, in light of innovations in the field of biotechnology and the current economic and financial crisis. The

deliberations led to important conclusions with regard to mechanisms for private sector participation in agricultural development and the design of new funding strategies and models with which to overcome the crisis currently faced by the national research and technology transfer systems.

Given the importance of phylogenetic resources in the exploitation of biotechnology for agricultural development, support was given to the Action Committee for Latin American Cooperation and Concentration in Matters of Plant Germplasm (CARFIT) of the Latin American Economic System (SELA), which seeks to establish a network of regional cooperation for the conservation and exchange of these resources.

Multinational Projects

Institutional Strengthening

The Multinational Project on Institutional Strengthening (FORTALIN) went into full swing in 1988 to improve the efficiency and effectiveness of national technology generation and transfer systems, and to develop new skills at IICA for assisting the agricultural research systems of the countries.

A number of important studies were conducted concerning the day-to-day problems faced by national research and technology transfer institutions. An analysis was made of the more important models used around the world to determine priorities in agricultural research. As part of this study, an analysis was made of the type of statistics needed for each model, their sources, their statistic reliability, and the institutional cost of gathering such data for periodic distribution to the different models.

This material will be used by the Program in the managerial training activities it will carry out with national research systems. Also, existing software will be adapted to each model, with a view to formally incorporating the electronic management of these models into the training activities.

Efforts at identifying problems and finding solutions within several national research systems were also carried out in 1988. Progress was made in determining the problems faced by small countries, in establishing ongoing technology generation and

transfer systems. In addition, decisions were made as to how technical cooperation could best be implemented among the countries, depending on the size and characteristics of each. The technical experts also worked on identifying the most common problems in the management and operation of the national research systems, and an analysis was made of their internal structure and their strategic planning.

Similarly, the Program also provided technical assistance to national research systems in connection with policy, organization and management. Noteworthy in this regard was the support provided to the National Institute for Forestry Research (INIFAP) of Mexico, the National Agricultural Research Institute (INIAP) of Ecuador, and the National Directorate of Research and Extension Programs of the Ministry of Agriculture of Costa Rica. Working missions were also carried out at the Colombian Agricultural Institute (ICA), the Ministry of Agricultural Development and Agrarian Reform (MIDINRA) of Nicaragua, the Brazilian Institute of Agricultural Research (EMBRAPA), the Alberto Boerger Agricultural Research Center (CIAAB) of Uruguay, and the National Agricultural Technology Institute (INTA) of Argentina. In most of these cases, IICA worked in close collaboration with the International Service for National Agricultural Research (ISNAR).

These efforts involved formal missions (Costa Rica, Uruguay, Ecuador); training activities in research management and organization (Mexico); and specific assignments for the technical staff of Program II (Colombia, Brazil, Nicaragua, Uruguay), or consultation services (Argentina).

Multinational Training Project on Agricultural Research in Latin America and the Caribbean (CAPACITACION)

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

During 1988, Program II conducted a number of training activities in the countries. Worthy of special mention was the

support provided for a seminar-workshop on the identification, formulation and management of agricultural research projects, jointly organized by the Agricultural Development Foundation, Inc. and Program II, and held in Santo Domingo, Dominican Republic in November 1988. This event marked the beginning of strategic collaboration with new non-governmental organizations that support research. IICA's Program II provided all the specialists and material used in this seminar.

Program II also provided support to and collaborated with the University of the West Indies (UWI) and the Caribbean Agricultural Research and Development Institute (CARDI) for the seminar on agricultural research policies and administration, held in Port of Spain, Trinidad in February. It also collaborated with the National Institute for Agricultural and Forestry Research (INIFAP) of Mexico.

A third activity involved the production of training materials for the project. Two worthy of special mention are the documents: "Management by Objectives and Agricultural Research" and another on conceptual aspects of agricultural research, including preliminary notes on its characteristics and evolution. In addition, a teaching unit on project development and resources management was planned and begun, and it is expected to be ready for use in 1989.

Finally, in conjunction with ISNAR and the Tropical Agriculture Research and Training Center (CATIE), Program II planned an international seminar on the development and management of agricultural research, scheduled to take place in March 1989 at CATIE headquarters in Costa Rica. This seminar will bring together research directors and leaders from Central America, Panama, the Dominican Republic, and some of the smaller countries of South America.

Multinational Project on the Establishment of the IICA Information System on Policies, Organization and Management of Agricultural Research

The purpose of this project is to help 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 technological 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 hampers researchers and makes it difficult for them to take advantage of techniques, methods, concepts, and other findings that could increase the productivity of research efforts and the resources assigned to them.

The project, created during the second half of 1987, began operations in 1988, with the Information Service on the Organization and Management of Agricultural Research (ORADIA).

The quarterly distribution of a bulletin covering recent bibliographical materials published on the subjects covered by ORADIA, and the quarterly publication of the tables of contents from selected journals, are two of the services provided. The dissemination of materials of particular interest and the photocopying of uncopyrighted materials are other project activities.

At first, these materials were sent to a select group of 100 leading regional researchers and IICA technical personnel, but now they are distributed to more than 250 people.

Support to Latin American and Caribbean Scientific Associations Involved in Technology Generation and Transfer

In 1988, the Program lent administrative, technical and financial support to several scientific associations involved in agricultural research. Among these are: the Caribbean Food Crop Society, the Latin American Association of Animal Production, the Latin American Association of Advanced Agricultural Education, the Central American Cooperative Program for Food Crop Improvement, and the Latin American Association of Agricultural Sciences.

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

IFARD, which was established in 1977, and its regional chapter for Latin America and the Caribbean (IFARD-LAC), continued in 1988 to work to bring together national research systems through a mechanism for mutual support, so as to enhance the role of technological change in agricultural development. To this end, it helped promote and strengthen these systems and make their voices heard on the international scene, through joint action aimed at strengthening the contribution of agricultural research, and through the establishment of fora for the discussion of problems and possible solutions to same. Among the objectives of IFARD-LAC are: to exchange research experiences and information; to promote activities that will strengthen agricultural research systems; to provide for ongoing evaluation of guidelines and working systems, as well as to provide and coordinate support services aimed at improving research systems and programs at the national and regional levels; and to make recommendations on policies and strategies to be considered by the governments and the agencies concerned with agricultural development.

During 1988, IICA continued its assistance to IFARD-LAC, through support for activities of the Office of the President and of the Executive Secretariat, in terms of both logistics and administration. Worthy of special mention is the preparation of papers to be presented to the Consultative Group on International Agricultural Research (CGIAR).

IICA-CIDA Project in Support of IICA's Programs¹

This four-year, hemisphere-wide project, financed by the Canadian International Development Agency (CIDA), began operations in July 1988 with studies on the impact of and outlook for new technologies in agriculture, especially in the Caribbean; on the conceptualization of the problems of agricultural biotechnology in Latin America and the Caribbean, and on

¹ Detailed information on this project appears in Chapter III of this Report, under the description of the activities of the IICA Office in Canada.

conceptual and methodological issues of the prospects for agrotechnology in Latin America and the Caribbean.

Program II and the Federation of Private Enterprises of Central America and Panama (FEDEPRICAP) organized a seminar on opportunities for agricultural biotechnology in Central America, which was held in Honduras in November. The first stage of the project involved reviewing its plans, and establishing a data base on biotechnology policy and planning. This was incorporated into the IICA Information System on Policies, Organization and Management of Agricultural Research.

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

PROMECAFE, a regional cooperative program working for the improvement of coffee cultivation in Mexico, Central America, Panama and the Dominican Republic, continued its activities under a new five-year agreement with the Regional Office for Central American Programs of the U.S. Agency for International Development (USAID-ROCAP).

As in the past, the project continued to focus on bringing technology into line with the conditions faced by most coffee growers; developing instruments which will effectively transfer available technology; generating information to establish specific recommendations for the control of major diseases and pests; identifying high-yield, coffee rust-resistant varieties; disseminating technical and scientific information on coffee; improving the physical infrastructure of research; and upgrading personnel, in terms of their technical and scientific skills. In this new stage, certain changes are envisaged for the project's working strategy, and the emphasis from now on will be on technology transfer.

In connection with the control of coffee rust and coffee berry borer, test plots have been established in almost all of the countries, where both pests are subject to integrated management techniques. There, studies are made of pest population dynamics, the performance of pests and diseases, and agrochemical residues.

The development of varieties resistant to coffee rust and root nematodes will help the growers overcome these problems. This year, PROMECAFE sent the results of three regional experiments to the countries, including varieties outstanding for their resistance and productivity, to study their performance under local conditions. CATIE has a tissue culture laboratory where coffee plants of genetic variability are asexually reproduced. This year, six technicians were trained in Honduras, Guatemala, El Salvador and Costa Rica, where similar laboratories will be established by the Program.

In the generation, adaptation and transfer of technology, significant progress has been made with the method known as "Friendship and Work Groups," now being set up by coffee-related institutions in Honduras, El Salvador and Guatemala. In the first two countries, 26 new groups were organized in 1988, bringing the total to 62, and involving 1,645 coffee growers. In Guatemala, there are 450 groups, involving a total of 7,900 growers. Demonstration plots are used with these groups to facilitate the transfer and adoption of technology.

PROMECAFE also offered training of both a general nature and on specific aspects of coffee growing. In 1988, some 850 farmers and technicians from the region benefitted from such training.

Another activity of benefit to the region was the establishment of a coffee-related bibliographic data base that PROMECAFE operates in collaboration with IICA/CIDIA, and in which some 10,000 references are stored. In 1988, 82 searches were made to aid in research being conducted by national technicians.

Research Network on Animal Production Systems in Latin America (RISPAL)

RISPAL was created by agreements among CATIE, Canada's International Development Research Centre (IDRC) and Peru's National Agricultural and Agroindustrial Research Institute (INIAA). Its purpose is to foster the exchange of technology and the development of research methods among the projects and institutions of the network on the support of animal production systems.

In 1988, the Institute furthered its efforts to bring RISPAL into full operation. Sixteen scientists from eight countries attended a meeting to standardize methods for research on ruminant nutrition. A conference was held on breeding strategies for dual-purpose cattle in the tropics, as was a course on forest-pasture systems for the humid tropics.

Following the agreements signed with INIAA and IDRC, support was also provided to a working meeting held on the application of the social sciences with a systems approach to agricultural research. The Project also provided support in the form of consultants and other resources to specific projects in Peru (production systems for guinea pigs), the Dominican Republic, Guatemala and Mexico.

Cooperative Agricultural Research Program for the Andean Subregion (PROCIANDINO)

This project, which involves national agricultural research agencies of Bolivia, Peru, Ecuador, Colombia and Venezuela, is in its second year of operation. It falls within the scope of the Institute's actions to strengthen horizontal cooperation among the research and technology transfer systems of the countries of the region, in order to make efficient use of available resources and increase the impact of technological innovations on economic development. The activities being carried out during this stage receive the financial support of the IDB and include cooperative research and technology transfer in legumes, edible grains, corn, potatoes and oilseeds.

During 1988, work continued on the 18 research projects begun in 1987. In addition, several technical activities were carried out, including seven technical seminars, 36 exchanges of professionals, five activities involving advisory services from international centers, 20 in-service training actions, 20 activities involving advisory services by national specialists, and six short courses. Also, 14 fellowships were granted to national researchers, and seven short-term international consultant services were provided.

Since it began operations in 1987, PROCIANDINO has completed 202 of the 308 events called for in its three-year plan. This year, 852 professionals participated in events offered by the PROCIANDINO subprograms.

Cooperative Agricultural Research Program for the Southern Cone (PROCISUR)

PROCISUR is now in the fifth year of its second stage, which began in August 1984. This Program links the main agricultural research centers, institutes and enterprises of Argentina, Bolivia, Brazil, Chile, Paraguay and Uruguay, with support from the IDB and IICA, and focuses its efforts on winter and summer cereals, oilseeds and cattle.

The Program engaged in several activities, including 17 technical meetings that brought together agricultural professionals from PROCISUR member countries participating in each of the subprograms. These meetings include two of the PROCISUR Board of Directors, attended by the ranking senior authorities of the agricultural research agencies in the member countries, and by observers and representatives from IICA, IDB, ISNAR and other institutions. Also noteworthy was a seminar-workshop held in Uruguay on the subject of technology transfer. Attention focused on the various aspects of the "generation-transfer-adoption" cycle; different models were analyzed, options were proposed and experiences exchanged in an area of paramount importance to the Program. Senior research directors and leaders from all the countries of the subregion participated.

In the area of reciprocal technical cooperation, there were six seminars and 132 exchanges of professionals, broken down into 34 trips to provide advisory services, 95 observation trips, and three for participation in congresses and other events.

One long-term, and five short-term international consultants provided advisory services in connection with the crops covered by the Program. Furthermore, during the year, PROCISUR helped channel the services of 10 specialists from international centers: five with the subprogram on winter cereals, four with the subprogram on cattle, and one with the program on technology transfer and training.

A total of 46 training activities took place, including: two short courses, two scholarships for graduate studies, 21 in-service training sessions, and an equal number at other institutions.

A total of 850 researchers benefitted directly from these activities in 1988.

With regard to publications, in 1988 PROCISUR published five numbers in the series "Diálogo." It also continues to publish the bulletin "PROCISUR Informa," which provides valuable information to researchers in relevant fields and others interested in the activities of the Program.

A Southern Cone Seeds Committee was set up to develop seed programs in the countries of the area, and to foster technology-related research of interest to the countries.

As in previous years, PROCISUR maintained close ties with CIMMYT, CIAT and ISNAR, and collaborated with them on important joint activities.

In addition to continuing the work already being carried out on such priority products as wheat, corn, soybeans and cattle, new projects were also identified on: fruit growing, a forage evaluation network for the Southern Cone (REFCOSUR), seeds, soil management and conservation, production systems, biotechnology, technology transfer, socioeconomics, and biological control.

Regional Network for Cacao Technology Generation and Transfer (PROCACAO)

This network, in its first year of operation, has as its goal to contribute to efforts being made in Central America and Panama to improve access to and the quality of agricultural research findings, through the establishment of a research program based on specific products, and of a regional network for technology transfer and development in cacao. This network also proposes to increase cacao production and the incomes of small- and medium-scale farmers in Central America and Panama. It represents a joint venture between IICA, CATIE and the Honduran Agricultural Research Foundation (FHIA), with funding from ROCAP.

In 1988, working agreements were signed with CATIE and FHIA, and letters of understanding were signed with the governments of Costa Rica, El Salvador, Guatemala, Honduras and Panama to bring the network into operation. Contacts were also established with Belize, and a national project was formulated in the Dominican Republic permitting its participation in the network, with USAID funding.

More specifically, the network will work through CATIE to come up with a strategy to deal with the problem of witches' broom (caused by the *Crinipellis perniciosa* fungus), a disease that has been detected in Panama and that represents a serious threat to the region.

As far as the research component is concerned, research and validation tests were carried out in participating countries, with technical and financial assistance from the major technical institutions involved in the project. CATIE coordinated an experiment in Costa Rica on the management of moniliasis and black pod of cacao, which is of interest to the entire Central Area. Also, a study was begun to analyze the cost of controlling diseases, the results of which will be used throughout the region. For the development of high-yield cacao germplasm, four tests on the adaptation and yield of genetic material were conducted in two cacao-producing areas of Costa Rica, which are representative of the two major ecosystems in the countries of the network. These tests cover 44 hybrids and two local control specimens.

To improve growing practices, experiments were conducted in Honduras on the effect of the use of non-traditional, permanent shade species on the cultivation of cacao; fertilization and management in full sunlight; and behavior of the cacao/black pepper combination.

The project contributed to training and technology transfer, through a regional course on the analysis of the major production and research problems faced by the countries, which was attended by extension agents and researchers from five countries. There was also a seminar on witches' broom, attended by experts from Colombia, CIAT, CATIE and personnel from the Ministries of Agriculture of Costa Rica and Panama. Arrangements were made for farmers from Honduras to visit demonstration farms and study the applicability of prevailing practices.

In support of technology transfer, materials were prepared, including an pamphlet on witches' broom, and a publication on cacao cultivation.

Program II

Resources
Source Amount ■ Instrument ● Objectives ○ Achievements

IICA	86 839
TOTAL	86 839

■ Training in Agricultural Research Management for Latin America and the Caribbean

- To improve the efficiency and effectiveness of national technology generation and transfer systems.
 - Seminar-workshop held on the identification, formulation and management of agricultural research projects, organized jointly by the Agricultural Development Foundation and Program II technical personnel in the Dominican Republic.
 - Collaboration offered to INIFAP of Mexico, the University of the West Indies and CARDI for the seminar on agricultural research policies and administration, held in Trinidad
 - Documents and training materials produced: "Management by Objectives and Agricultural Research" and another on the conceptual aspects of agricultural research, including preliminary notes on characteristics and evolution; international seminar planned on the development and management of agricultural research.

Resources
Source Amount ■ Instrument ● Objectives ○ Achievements

IICA	133 150
TOTAL	133 150

■ **Institutional Strengthening**

- To promote and support the implementation of efficient policies, organizations and operating structures for technology generation and transfer, that accurately reflect the conditions and limitations faced by the countries of Latin America and the Caribbean.
 - National agricultural research systems assisted, and major models for setting priorities in agricultural research examined.
 - Problems of small countries defined in connection with the establishment of stable technology generation and transfer systems, and modes of technical cooperation among countries, according to size and conditions, characterized.
 - Support given to INIFAP in Mexico, INIAP of Ecuador and the National Directorate of Research and Extension Programs of the Ministry of Agriculture of Costa Rica. Work missions sent to ICA in Colombia, MIDINRA in Nicaragua, EMBRAPA in Brazil, CIAAB in Uruguay and INTA in Argentina.

IICA	21 908
TOTAL	21 908

■ **IICA Support for the Latin American and Caribbean Scientific Associations (ACLYC) Involved in Technology Generation and Transfer**

- To contribute to maintaining professional forums in the countries for orienting, developing and disseminating agricultural technology.
- To collaborate with ACLYC authorities in guiding, coordinating and promoting the activities of their associations.
 - Administrative, technical and financial support given to the Caribbean Food Crop Society, the Latin American Association for Animal Production, the Latin American Association for Advanced Agricultural Education, the Cooperative Central American Program for the Improved Food Crops, and the Latin American Association of Agricultural Sciences.

OAS	5 000
PAHO	4 588
IOE	20 176
USDA-APHIS	4 607
USDA-ARS	1 001
IDB	17 076
TOTAL	52 449

■ **Preparation of International Guidelines and Recommendations on the Use of Biotechnology**

- To strengthen efforts in the field of biotechnology.
 - Progress made in the preparation of international guidelines and recommendations on the use of biotechnology.

Resources
Source Amount ■ Instrument ● Objectives ○ Achievements

IFAD	8 000
IDRC	7 549
Rockefeller	7 000
IICA	13 281
TOTAL	35 830

■ **Support to National Systems and International Centers for Decentralizing Wheat-related Research and Training, Sponsored by CGIAR in Latin America**

- To support the national research systems and international centers community in developing a plan to delegate responsibilities connected with wheat-related research and training, and with others not related to wheat.
 - Terms of reference drawn up and consultants hired.
 - Contacts initiated with the international donor community, to support the decentralization process.

RISPAL	61 742
IICA	52 972
TOTAL	114 714

■ **Research Network on Animal Production Systems in Latin America (RISPAL)**

- To strengthen the technical capacity of national and regional research organizations for generating and transferring animal production systems for small-scale producers.
 - Working meeting to standardize methods for research on ruminant nutrition, conference on strategies for improving dual-purpose cattle in the tropics, and course on forest-pasture systems for the humid tropics.

IICA	24 812
TOTAL	24 812

■ **Support to the International Federation of Agricultural Research Institutions for Development in Latin America and the Caribbean (IFARD/LAC)**

- To increase IFARD/LAC's contribution to the analysis of and search for solutions to the problems of national research and technology transfer systems.
 - Activities promoted to strengthen agricultural research systems, and recommendations made as to policies and strategies to be submitted to the consideration of governments and organizations associated with agricultural development.

EDI-World Bank	55 800
TOTAL	55 800

■ **High-Level Seminar on Policies and Mobilization of Resources for Technological Innovation in Latin America and the Caribbean**

- To analyze policies and mechanisms for mobilization of resources for technological innovation in Latin America and the Caribbean.
 - High-level seminar held on policies and mobilization of resources for technological innovation in Latin America and the Caribbean.

Resources
Source Amount ■ Instrument ● Objectives ○ Achievements

IICA	13 522
TOTAL	13 522

■ **Establishment of the IICA Information System on Policies, Organization and Administration of Agricultural Research**

- To strengthen the countries' capacity for formulating policies, and for organizing and managing national technology generation and transfer systems, by increasing the availability of relevant scientific and technical information.
 - Activities initiated by the Information Service on Organization and Management of Agricultural Research (ORADIA), which provides relevant information to those who administer and make decisions concerning research. Quarterly bibliographic bulletin of relevant recent works distributed, and selected content pages of important journals published quarterly.

USAID-ROCAP	87 564
USAID-ROCAP-CATIE	87 300
USAID-ROCAP-FHIA	48 000
IICA	11 327
TOTAL	234 191

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

- To support regional efforts in Central America and Panama to improve the quality of and access to the results of agricultural research, through the establishment of a cacao research program, and a regional network for the transfer and development of cacao technology.
 - Strategy formulated for measures needed to combat witches' broom, a disease detected in Panama that represents a serious threat to the region.
 - Research and validation tests conducted in participating countries, with technical and financial assistance provided by the project's major technical institutions.
 - Regional course held on major production and research problems faced by countries; extension personnel and researchers from five countries participated.

IDB-PROCIANDINO	549 545
IICA	128 088
TOTAL	677 634

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

- To strengthen the capacity for and quality of agricultural research in the participating countries through active cooperation among the national agricultural research institutions, with a view to improving agricultural production and productivity.
 - Cooperative research and technology transfer carried out on legumes, edible grains, corn, potatoes and oilseed crops, with financial support from IDB.
 - Eighteen research projects, begun in 1987, implemented; technical seminars, 36 exchanges of professionals, five consultancies from international centers, 20 in-service training activities, and six short courses took place.

Resources
Source Amount ■ Instrument ● Objectives ○ Achievements

USAID-ROCAP	16 206
TOTAL	16 206

■ **Preparation of Base Studies for the Seminar on Opportunities and Threats of Agricultural Biotechnology in Central America**

- To inform public and private sector leaders as to the possible impact of agricultural biotechnology in Central America, and to identify possible strategies for action by the public and private sectors in this area.
 - Analytical document prepared on the nature of the of the impact of new agricultural biotechnologies in Central America: four documents drawn up, with their respective bibliographies, analyzing specific biotechnologies in the context of Central America; and one document produced per country on the capacity for generating, transferring and using agricultural biotechnology in Central America.

PROCISUR-Countries	12 053
IDB-PROCISUR	545 530
IICA	299 954
TOTAL	857 537

■ **Cooperative Agricultural Research Program for the Southern Cone (IICA/IDB/PROCISUR)**

- To institutionalize, in the member countries, an ongoing system of coordination and support for reciprocal assistance and the exchange of knowledge related to agricultural research, through joint actions.
 - Seventeen technical meetings held which brought together agricultural professionals in each of the subprograms from the six countries, and in which the groundwork was laid for an ongoing mechanism of reciprocal cooperation and the exchange of results of agricultural research.
 - Six seminars and 132 exchanges of professionals conducted. Two short courses, 21 in-service training activities and 21 in other institutions carried out. Two scholarships for graduate work awarded.
 - Five issues of the series "Dialogo" published, and the bulletin "PROCISUR Informa" published regularly.

IICA	29 841
TOTAL	29 841

■ **Preparation of the Project to Improve the Method Used in Validating and Transferring Appropriate Technology to Small-scale Farmers in the Andean Subregion**

- To analyze and systematize rural development experiences at the project level, considering the appropriate technology, credit and marketing components; and to generate a conceptual and operating framework for each of the components.
 - Progress made on the plan of operations and on compiling results of field work, to be presented in a seminar-workshop to be held in Quito, Ecuador in 1989.

Resources
Source

Amount

■ Instrument ● Objectives ○ Achievements

PROMECAFE-Countries	86 808
PROMECAFE-ROCAP	523 177
Gov. of France	8 850
IICA	65 526
TOTAL	684 361

■ **Cooperative Program for the Protection and Modernization of Coffee Cultivation (PROMECAFE)**

- To promote, through regional technical cooperation, the improvement of coffee cultivation, with a view to increasing productivity and income levels, especially those of small-scale producers.
 - Technology brought in line with the conditions faced by most coffee growers; instruments developed which permit the effective transfer of available technology; and information generated to be used in making specific recommendations for control of major diseases and pests.
 - In the control of coffee rust and coffee berry borer, plots established to validate technologies for integrated management of both pests.
 - Progress achieved through the implementation by coffee institutions of a "Friendship and Work Group" method in Honduras, El Salvador and Guatemala.
 - More than 850 technical personnel and farmers trained in specific and general aspects of coffee cultivation.
 - Ten thousand references entered into the coffee-related bibliographic data base operated in collaboration with IICA/CIDIA.

UNDP	25 507
TOTAL	25 507

■ **Preparatory UNDP Technical Assistance to IICA for the Project on Technology Generation and Transfer for Small-scale Basic Food Producers in Central America, Panama and the Dominican Republic**

- To strengthen technology generation and transfer for small-scale producers of basic food in the Central Area.
 - Technical assistance provided to the aforementioned project.

USAID-ROCAP	14 752
TOTAL	14 752

■ **Technical Preparatory Meeting for the Regional Conference on Technology Transfer, IICA-ROCAP 1989**

- To organize an international technical conference on technology transfer for mid-1989.
 - Preparatory technical meeting organized and held. The subject areas to be discussed, technical profile, agenda, presentations and speakers, and participants in the regional conference established.

Resources
Source

Amount

■ Instrument ● Objectives ○ Achievements

USAID-ROCAP	10 783
TOTAL	10 783

■ **Situation of Technological Inputs in Agricultural Production in the Central Region**

- To have access to analytical information for identifying possible areas of action and investment for the reactivation of the sector.
 - Information compiled on the use of technological inputs and the supply of inputs.

CIDA	47 883
IICA	32 800
TOTAL	80 683

■ **Institutional Strengthening of IICA's Programs (Component of the IICA/CIDA Project)**

- To provide support to the conceptual and operational development of IICA's Programs, and through them, to the countries' efforts to modernize and reactivate their agricultural sectors. This general objective will be sought for each Program, through the development of sub-projects that include studies and technical assistance activities.
 - The project got under way in the second half of 1988, and the following was achieved:
- *Overall Coordination*
 - Mechanisms were established for coordination, follow-up on activities and evaluations as needed.
- *Program II: Access to New Developments in the Field of Biotechnology*
 - Analysis begun of trends in biotechnology, their overall impact on agriculture, and especially on agriculture in the Caribbean
 - Studies on the following subjects undertaken: Impact and outlook for new technologies in agriculture, with an emphasis on the Caribbean; a conceptualization of the problems of agricultural biotechnology in Latin America and the Caribbean; outlook for agricultural biotechnology in Latin America and the Caribbean, focusing on conceptual and methodological issues.
 - Seminar organized together with FEDEPRICAP on opportunities for agricultural biotechnology in Central America.

Program III: Organization and Management for Rural Development

The Organization and Management for Rural Development Program (PROADER) was set up in early 1987, pursuant to the guidelines established in IICA's 1987-1991 Medium Term Plan (MTP). The Program's actions in 1988 focused on preparing instruments for technical cooperation for each of the areas of concentration established for PROADER in the MTP. These instruments were to define the conceptual, methodological and operating guidelines for the Program in its entirety and for its different areas of concentration, as well as to design projects for different geographical areas, train personnel, validate and disseminate concepts and strategies, and take the institutional and financial steps necessary to implement said projects.

Thus, in 1988 PROADER actions focused on projects offering a conceptual, methodological and operating frame of reference in the following areas: training for small farmers; training for technical personnel in rural development project and program management; creating and upgrading special funds for rural development, and incorporating rural women and youth into development. PROADER provided support to non-governmental organizations (NGOs) involved in rural development actions.

The main goal of PROADER's actions was to define and strengthen a strategy to give the small-farm economy an active role in reactivating the agricultural sector and in surmounting the economic crisis affecting Latin America and the Caribbean. The key point of this strategy is the unique and heterogeneous nature of small-farmer economy, as well as the potential for increasing its contribution to the economic and social life of the countries of the region. Therefore, the purpose of the Program is to cooperate with IICA's member countries in the formulation and implementation of differentiated and participative policies.

During 1988, PROADER's actions broadened the perspectives for IICA's work and strengthened the Institute's ability to participate, through national and multinational projects, in rural development actions.

Other Activities of the Program Directorate

In 1988, as a part of the IICA/CIDA project to strengthen IICA Programs within the framework of the Medium Term Plan, studies were undertaken to systematize and analyze the experience gained with differentiated policies for rural development in Brazil, Colombia, Ecuador, Guatemala, Honduras, Mexico and Peru. Likewise, studies were begun on the experience gained from decentralizing the design and implementation of rural development policies and programs with small farmer participation in Argentina, Bolivia, Brazil, Colombia, Guatemala, Mexico and Peru.

These studies, to be concluded in November of 1989, are aimed at formulating differentiated policy options for rural development, as well as institutional models for designing and implementing these policies through decentralized processes involving small farmers.

PROADER also made a substantial contribution to the preparation of subregional documents and profiles of multinational projects for the Plan of Reactivation. Nonetheless, its main contribution was the international seminar it offered on "The Role of Small Farmer Economy in the Strategy for Agricultural Reactivation and Development," held in San Jose in September, 1988. This international seminar discussed differentiated strategy and policy options for the development of a small-farm economy within the context of national strategies to overcome the economic crisis and to reactivate the economies. These strategies and policies were considered in the light of the variety and specificity of the small-farm economy, its structural trends, the experiences gained from rural development programs and projects implemented in the region, and the status of adjustment policies in the different countries. In addition to IICA specialists, 30 rural development specialists from the countries of the region participated.

The program prepared studies and documents for this seminar, which served as the basis for the discussions. The documents dealt with the following topics: rural poverty in Latin America and the Caribbean; the development and characteristics of rural development policies applied in Latin America and the Caribbean; the small-farm economy; crisis and reactivation; differentiated strategy and policy options for rural development; and strategies

for the creation of national and multinational funds for rural development. A selection of these documents will be published in book form.

PROADER drew up a multinational project for the Central American region to train and organize rural women for participation in rural development programs and projects. This multinational project will be carried out in cooperation with the United Nations Development Fund for Women (UNIFEM) and the United Nations Children's Fund (UNICEF), with the financial support of the Norwegian government.

Finally, Program III specialists participated in three technical cooperation missions established under the IICA/IFAD agreement. Two missions went to Brazil to identify and provide technical aid in setting up a project to support small-scale farmers in the Federal District. The third mission took place in Mexico, where a strategy was designed for boosting the socioeconomic development of the "ejidos" and of indigenous communities in the states of Tlaxcala, Chiapas and Oaxaca.

Projects of the Program Directorate

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

By the end of the year, the goals for 1988 had been met, with the preparation of four basic conceptual and methodological documents on: small-farmer training in rural development projects; the role of IICA Offices and of the structuring concepts of small-farm training actions; communication, the media and culture; and literacy programs. In addition to these documents, a book was published on the topic.

Two regional projects were designed and implemented to provide training to technical personnel to equip them to offer training to small farmers. One was carried out in northeastern Brazil and the other in northwestern and northeastern Argentina.

Negotiations were undertaken as planned with the following international agencies to fund a larger portion of the project; the Italian Ministry of Foreign Affairs, as concerns the project for the

central American Isthmus, Mexico and the Caribbean; and the Ministry for Cooperation of the Federal Republic of Germany, through the GTZ, for the projects in the Southern Area.

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

In accordance with the goals established for 1988, an inventory was made of rural development projects under way in Bolivia, Brazil, Colombia, Haiti, Honduras, Jamaica, Mexico, Nicaragua, Panama, Paraguay and Venezuela. Also gathered was information on existing training programs for technical personnel in the planning and implementation of development actions.

Likewise, the experience gained in the management and administration of rural development programs and projects in Brazil, Ecuador and Mexico was systematized, using case studies, and an analysis was made of training activities developed in the countries themselves. Also systematized was the experience gained over the past decades from the main multinational training programs for technical personnel in this field, especially through the program to increase agricultural productivity (PIPA); the training project on planning, programming, agricultural projects and rural development (PROCADES); and the project for strengthening institutional systems in charge of planning and implementing agricultural policies (PROPLAN).

Based on the information collected and the analysis made, a multinational project was formulated for training technical personnel in the management of rural development projects in the field. In order to validate this project, an international meeting of experts in the field was planned for early 1989.

Support for the Consolidation of Rural Development Actions

The experiences of Brazil, Colombia, Ecuador, Honduras, Mexico and Venezuela in creating and activating special funds for rural development programs and projects were systematized. On the basis of this information, a strategy document is currently being prepared.

Negotiations were begun with the Board of the Cartagena Agreement (JUNAC), the European Economic Community (EEC), and the Andean Development Corporation (CAF) for creating the Subregional Rural Development Fund.

Strengthening Government and Private Development Institutions

A research project was designed to analyze and systematize experiences in order to set up a conceptual and operating base to be used in redefining, adjusting and improving specific rural development systems and instruments, with a view to extrapolating and adapting them to the institutional-policy and socio-economic conditions of the different countries, particularly with respect to the specific characteristics of each group of beneficiaries. This project will include Brazil, Colombia, Ecuador, Guatemala, Mexico and Peru.

Providing Support for Mexican, Panamanian, Central American and Caribbean NGOs through Institutional Strengthening

Negotiations were initiated to obtain financial support to implement this project. A module including actions to be developed in Costa Rica, El Salvador and Nicaragua was prepared for presentation to Agro Action, of the Federal Republic of Germany.

Multinational Projects

Participation of Rural Youth in Development

One of the main achievements of this project in 1988 was the preparation and approval of IICA's three-year technical

cooperation project. The conceptual, methodological and operating framework for IICA actions with rural youth was also established.

A multinational project was also designed to train and organize rural youth so as to equip them to participate in rural development programs.

Also worth mentioning is Program III's support in revising the by-laws of the Ibero-American Rural Youth Advisory Council (CAIJR) this year, to make it consistent with the aforementioned conceptual framework.

Training and Study Program on Agrarian Reform and Rural Development in the Central American Isthmus and the Dominican Republic (PRACA)

In order to help in the reorientation of PRACA's actions, a study was conducted on the status of and outlook for agrarian reform in the Central American isthmus and the Dominican Republic. The study assessed agrarian reform and rural development programs in the area, as well as trends in land tenure structure and the situation of small farmers.

The PRACA agreement was renegotiated to establish the institutional and technical foundation to upgrade the actions of Program III. The participation of the Regional Council for Agricultural Cooperation in Central America, Mexico, Panama and the Dominican Republic (CORECA) was also defined. This will make it easier to integrate and complement agrarian reform and rural development actions in beneficiary countries of the Central American isthmus and the Dominican Republic, thus making it possible to carry out production and rural development projects in reformed zones.

Program III

Resources
Source

Amount

■ Instrument ● Objectives ○ Achievements

IICA	82 982
TOTAL	82 982

■ **Designing Projects and Carrying Out Basic Actions for Strengthening Public and Private Rural Development Organizations**

- To prepare a multinational project to analyze, systematize and disseminate rural development experiences, to validate the methodology proposed in same and to seek institutional and financial assistance for implementation.
 - Project document prepared and project methodology verified.
 - Steps taken to obtain financial and institutional support from national and international organizations; international networks and associations of NGOs identified and selected in accordance with the criteria of the project. Funding sought from donor organizations.

CIDA	72 383
IICA	63 454
TOTAL	135 837

■ **Instructing Technicians in the Design and Used of Methods for Training Small Farmers (Component of the IICA/CIDA Project)**

- To prepare the basic conceptual and methodological documents which will serve as the basis for the training provided to those who will train small farmers.
 - To negotiate with national and international private and public organizations to secure funding for regional small-farmer training projects.
 - Three conceptual and methodological documents prepared; four project documents prepared.
 - Negotiations concluded.

IICA	36 591
TOTAL	36 591

■ **Preparation of a Hemisphere-Wide Project to Train Technicians in the Technical and Administrative Management of Rural Development Programs and Projects**

- To formulate a hemisphere-wide project to train technicians from public and private agencies in the technical and administrative management of rural development programs and projects, based on the systematization and analysis of international experiences, and in making an inventory of and evaluating training availability and needs in this area.
 - Inventory prepared characterizing rural development projects and programs; documents analyzing and systematizing experiences drawn up.
 - Negotiations held with national and international public and private agencies for institutional and financial support.

Resources
Source Amount ■ Instrument ● Objectives ○ Achievements

PRACA	7 984
IICA	4 116
TOTAL	12 100

■ **Training and Study Program on Agrarian Reform and Rural Development in the Central American Isthmus and the Dominican Republic (PRACA)**

- To train personnel to manage and administer projects in the reformed areas; to conduct research on the development of agrarian reform in the region; to design technical cooperation projects for the development of the reformed areas, and to seek financing for these projects.
 - Study conducted, with the participation of the agencies responsible for agrarian reform in the region, on the current status of and prospects for agrarian reform and rural development in Central America, Panama and the Dominican Republic. Based on this study, the national institutions decided to expand the program four additional years and to strengthen same by increasing rural development activities in the reformed areas, and by incorporating CORECA into the multinational agreement.

IICA	3 622
TOTAL	3 622

■ **Participation of Rural Women in Rural Development in the Central American Isthmus**

- To design a project in support of governmental and non-governmental institutions responsible for promoting rural development, in connection with the generation of knowledge and training programs, and in the creation and management of investment funds, using participatory methods which respond to the socioeconomic and cultural conditions of rural women in Central America.
 - Information from secondary sources compiled, analyzed and systematized for description of problems. Methods and techniques available for solving the problem compiled and analyzed.
 - Project drawn up.

IICA	7 212
TOTAL	7 212

■ **Technical Support to the IICA Office in Colombia in Preparing a Proposal for an Agreement and a Project in Support of the National Agricultural Training Program (PNCA)**

- To provide support to the IICA Office in Colombia, through a training consultant, for drafting a proposal for a technical cooperation project in support of the National Agricultural Training Program of Colombia, and a proposal for a new agreement.
 - Guidelines for the preparation of the technical cooperation project in support of PNCA now available.
 - Proposal for technical cooperation project in support of PNCA drawn up.

Resources
Source

Amount

■ Instrument

● Objectives

○ Achievements

IICA	71 188
TOTAL	71 188

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

- To contribute, with the countries, to the definition and implementation of policies on rural youth and to develop specific methods and projects aimed at promoting the participation of youth in rural development
- To support the organizational development of the Ibero-American Rural Youth Advisory Council (CAIJR) in consolidating its role as a forum for the exchange of experiences and for advocating the participation of rural youth in development.
 - A framework was established for orienting the work to be done with rural youth in Latin America and the Caribbean. Based on this framework, it was decided to reorient CAIJR; necessary regulations, rules and procedures established.
 - A network organized for information and exchange of experiences on work with rural youth in LAC. Technical cooperation actions carried out in support of public and private organizations working with rural youth in LAC. Noteworthy was the work done in the Dominican Republic and Uruguay to implement specific credit projects targeting this segment of the rural population.

Program IV: Marketing and Agroindustry

The Medium Term Plan identifies concrete problems that negatively impact marketing and agroindustry in the region: lack of adequate information; insufficiently developed infrastructure for agroindustry and marketing, and poor participation of the private sector in developing international markets. In view of these problems, the Plan has chosen to focus on the following areas: identifying marketing problems and solutions; fostering rural agroindustry; encouraging technical cooperation for international and interregional trade and food security; and boosting non-traditional agroexports.

Program IV provides technical cooperation to member countries in their efforts to: develop agroindustry and marketing; strengthen the organizational and administrative aspects of this institutional system; promote multilateral cooperation actions that facilitate technology transfer and integration among countries; promote actions to reactivate agricultural development and improve rural well-being; and foster and execute preinvestment and investment projects.

The Program conducts the following multinational projects: Agroindustry and agroindustrial conversion; Development of rural agroindustry; Appropriate Food Technology Network for Rural Agroindustrial Development (RETADAR); Agroindustrial diversification; Identifying products with export potential for Latin American and Caribbean countries; Trade information service for expanding the intraregional and international trade of agricultural and agroindustrial products.

Under the titles of Multilateral Agricultural Trade Negotiations and Technical Cooperation with Subregional Integration Institutions, an analysis was made in Chile of the marketing of agricultural products in the Southern Area. Two technical cooperation activities were carried out in Uruguay: the first activity in support of integration among Argentina, Brazil and Uruguay, and the second in connection with the preparation of projects to be included in the Plan of Action for Agricultural Reactivation in the Southern Area. In addition to the aforementioned projects and other actions, the Marketing and Agroindustry Program developed specific national projects in 14 member countries.

Strengthening of IICA Programs within the Framework of the Medium Term Plan

This project, which is funded by the Canadian International Development Agency (CIDA), has a subproject in the Program IV Directorate which, during 1988, contributed to defining the following activities: a) market studies of selected non-traditional agroindustrial products; b) identification of agroindustrial projects presented to various development institutions for possible funding.

Support for Regional Integration

The main objective of this project is to cooperate with countries of the region to increase the technical and economic efficiency of their domestic agricultural marketing systems and processes. To this end, the project cooperated with the Southern Area countries in promoting rural agroindustry; the countries received support in their efforts to increase their participation in intra- and extra-regional agricultural trade, mainly of non-traditional products.

The project also worked with subregional integration agencies and institutions and with the ministries of agriculture of the Southern Area, to increase the participation of the agricultural sector in the regional integration process. For this purpose, an analysis was made in 1988 of agricultural trade in the Southern Area that examined the main characteristics of the trade, its development, obstacles and short-term prospects.

The Institute cooperated with ECLAC and FAO, providing information that was used in writing the Plan of Joint Action for Agricultural Reactivation in Latin America and the Caribbean.

Experiences gained from a symposium held in Chile on the growth of vegetable exports were published in book form. In addition, a technical cooperation project was drafted on support for regional and subregional integration (trade and agroindustry).

The above actions carried out in Chile were complemented by the following activities in Uruguay: technical cooperation for the Ministry of Livestock, Agriculture and Fisheries in connection

with agricultural marketing for the Uruguayan Granja subsector; institutional strengthening for agroindustrial project support unit for the Granja subsector; and technical cooperation in agricultural marketing for the CALAGUA cooperative, for the IDB project.

Promoting Rural Agroindustry: Upgrading the Appropriate Food Technology Network for Rural Agroindustrial Development (RETADAR)

During 1988, RETADAR was the focus of efforts by IICA, the Technological Food Research Center (CITA) of the University of Costa Rica, French cooperation, the Latin American Rural Technology and Education Center (CELATER), the International Center for Tropical Agriculture (CIAT) and the International Development Research Centre (IDRC). Main achievements were the publication of eight bulletins, the initiation of a series on rural agroindustry, as well as eight case studies on rural agroindustrial development in Honduras, Costa Rica and Ecuador (two studies each), and Colombia and Bolivia (one each). In February 1988, a workshop on methods for rural agroindustrial projects was held at CIAT, in Colombia. The workshop report summarizing both the conceptual framework of rural agroindustry and the methods used for identifying and promoting projects was widely disseminated. In April, September and November courses on rural spheres of action for technologists were given in Central America, Panama and the Dominican Republic, and Bolivia and Peru.

As a result of the activities generated by RETADAR, a national network (REDAR) is being established in Chile to promote and guide rural agroindustrial development in that country. Advisory services on agroindustrial matters from the Food Technology Research Center (CITA), at the University of Costa Rica, began to operate through the network.

A broad exchange of know-how in all aspects of rural agroindustry (technology, trade, food) was made possible through the upgrading of RETADAR. Solutions were proposed for specific problems presented by the countries.

The objective of training technical personnel was fulfilled to satisfaction. More than 100 technical experts from 12 Latin American countries exchanged experiences and know-how in Rural Spheres of Action for Technologists (ERTEC) courses, and

in a workshop on methods and strategies for rural agroindustrial development, held in Cali, Colombia. During the Fourth Congress on Science and Food Technology, held in Bogota in October, a day was dedicated to RETADAR for informing participants of the conceptual advances made in the area of rural agroindustrial development.

Agroenergy and Agroindustrial Conversion

This project, which began in 1979, was designed this year to bring its activities in line with the priorities established in the Medium Term Plan. Industrial conversion and modernization, based on recent technological advances, are the main objectives of this new stage of the project.

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

This project focuses on boosting non-traditional agroexports, identifying problems and solutions, and providing technical cooperation for intraregional trade and food security.

The specific objective of the project is to establish a trade information service on agricultural and agroindustrial products, as an instrument for promoting food security and expanding intraregional and international trade in Latin America and the Caribbean. This is achieved by upgrading the national agricultural trade information units and their ties with other services of regional and international coverage, so as to develop compatible and intercommunicating networks.

By late 1988, the project had led to the signing of a technical cooperation agreement with the Action Committee for Regional Food Security (CASAR). In addition, the project collaborated with IICA units involved in this type of information system, in drafting the rules and guidelines that will govern Program IV cooperation and services. The equipment needed for these actions was purchased and installed.

Lastly, training was provided for members of the Program staff, as well as for selected IICA staff and officials from national institutions.

Program IV

Resources
Source

Amount

■ Instrument ● Objectives ○ Achievements

IICA	32 801
TOTAL	32 801

■ **Seminar on Agroindustrial Development in Latin America**

- To expand the capacity of the countries for analysis, with a view to proposing policies consistent with the reactivation of the agricultural sector, and to ensure the design and proper implementation of agroindustrial development programs.
 - Progress made in organizing the seminar on agroindustrial development in Latin America.

INTAL	5 907
TOTAL	5 907

■ **Collaboration with the Institute for Latin American Integration (INTAL) on the Study of the Intra-regional Trade of Basic Products in Central America**

- To compile and analyze data for a final report on each country, concerning the potential for intraregional trade in basic products in Central America, in accordance with the method prepared by INTAL.
 - As a result of the survey, final report on each country obtained.

IICA	26 554
TOTAL	26 554

■ **Strengthening the Appropriate Food Technology Network for Rural Agricultural Development (RETADAR)**

- To contribute to organizing the rural agroindustrial sector in LAC, and to improve the effectiveness of the policies and programs in this area.
 - Eight issues of the RETADAR bulletin and the procedures of the seminar on methodologies published. Eight case studies and the ERTEC courses in Bolivia, Peru and Central America conducted. Agreement signed with CITA.

IICA	5 523
TOTAL	5 523

■ **Trade Information Service for Expanding Intra-regional and International Trade of Agricultural and Agroindustrial Products**

- To establish a trade information service on agricultural and agroindustrial products as a means of achieving food security in the countries of LAC.
 - Installation and hook-up with the External Trade Information Service (SICE) soon to be concluded; Program IV personnel trained in the operation of the system. IICA/CASAR agreement signed.

**Resources
Source**

Amount

■ Instrument ● Objectives ○ Achievements

IICA	62 948
TOTAL	62 948

■ **Support to Regional and Subregional Integration (Marketing and Agroindustry)**

- **1. Chile**
To analyze the trade of agricultural products in the Southern Area (main characteristics, evolution, obstacles and prospects).
 - Contribution made to the Plan of Joint Action for Agricultural Reactivation in Latin America and the Caribbean. Proposal for a technical cooperation action included in the project "Support to Regional and Subregional Integration."
- **2. Uruguay (Regional)**
To support regional integration among Argentina, Brazil and Uruguay
 - Information obtained on objectives, structure and functions of international technical cooperation agencies in the ministries of agriculture of IICA member countries.
- **3. Uruguay (Regional)**
To support the preparation of the Plan of Action for Agricultural Reactivation in the Southern Area.
 - Agricultural import and export statistics obtained (Argentina, Brazil, Chile, Paraguay, Uruguay).

CIDA	4 400
IICA	46 520
TOTAL	50 920

■ **Agricultural Diversification: Identification of Products with Export Market Potential for the Countries of Latin America and the Caribbean (Component of the IICA/CIDA Project)**

- To select agroindustrial products with market potential, to quantify demand and identify technological production processes; to draw up an inventory of agroindustrial projects to determine common areas of interest.
 - In 1988, agreement was reached and determinations were made to classify and establish general objectives.

Resources
Source Amount ■ Instrument ● Objectives ○ Achievements

IICA	87 065
TOTAL	87 065

■ **Agroenergy and Agroindustrial Conversion**

- To facilitate the transfer and use of existing commercial technologies for the elaboration of new products derived from sugar cane, and the use of agricultural products, by-products and residues for energy.
 - Project reformulated to bring its activities in line with the priorities established in the Medium Term Plan.

Program V: Animal Health and Plant Protection

IICA's Animal Health and Plant Protection Program continued its action in Latin America and the Caribbean through six multinational projects, four national plant protection projects in Brazil, Chile, Mexico and Uruguay, and six national animal health projects in Argentina, Brazil, Guatemala, Haiti, Mexico and Venezuela. It also developed a technical-administrative plant protection action in Guatemala.

Among initiatives to be implemented in 1989 at both the national and international levels, the Program laid the groundwork to launch a training project on the proper use of pesticides in Costa Rica and a technical cooperation project on cattle production and animal health in Honduras.

Argentina, Brazil, Costa Rica, Chile and Uruguay were among the countries that showed interest in cooperating with IICA in preparing and implementing new animal health and plant protection projects with external resources.

The Institute, through its Animal Health and Plant Protection Emergency Fund, collaborated with the Caribbean countries in implementing the first measures for controlling African desert locust and with Panama for controlling "witches' broom" of cacao.

IICA also participated in meetings with inter-American animal health and plant protection groups to coordinate and complement technical cooperation actions with other international and regional agencies in the Americas.

Among the scientific associations supported by IICA were the Caribbean Plant Protection Society, the Organization of American Tropical Nematologists and the Latin American Association for Weed Control. IICA also helped establish the Pan American Association of Veterinary Sciences and will serve as the Executive Secretariat.

Some of the publications produced by the Program were a report on biotechnology in agriculture and health, the report of the Technical Advisory Committee (CTC) on plant protection, the report of the Inter-American Commission on Animal Health

(COINSA), and the report on the results of mango and papaya quarantine treatments.

IICA's 15 animal health and plant protection specialists in Latin America and the Caribbean provided timely follow-up to the requests of national authorities and kept in contact with them in order to support them in new animal health and plant protection projects and actions.

Projects of the Program Directorate

Strengthening the Capabilities of Plant Protection Institutions in the Central Area

One of the main actions of this project was the completion of diagnostic studies of official plant protection services in Costa Rica, El Salvador and Guatemala. Using these studies, project profiles will be prepared in an effort to secure external funding to upgrade these services.

Of special interest in this project was the joint action by CATIE, IICA and OIRSA in support of Panama's situation analysis of "witches' broom" of cacao, a new disease to the Central American isthmus. These organizations also collaborated to initiate efforts to eradicate it. Additionally, IICA helped organize Panama's diagnostic laboratories, draft the regulations on the aerial application of pesticides and published three documents on pests and diseases existing in that country.

IICA cooperated with the Dominican Republic in implementing the coffee rust disease control program, in plant quarantine training and in the use of pesticides. It helped Mexico set up a national plant quarantine training program and organize a regional meeting on the technical regulations for registering pesticides in Central America.

In Costa Rica, IICA launched the environmental education project for the prevention, proper handling and use of chemical products in agriculture in rural areas, and, in Nicaragua, it contributed to training efforts on the use of information and data-gathering systems for crop loss models.

Integrated Fruit Fly Management in the Andean and Southern Areas

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 continued education for personnel, and the establishment of a regional system to identify and set priorities among the problems caused by the fruit fly.

A specific action of this project that should be mentioned is the first meeting of the task force on integrated fruit fly management, held in Peru in October. As a result of this meeting, the binational project for Mediterranean fruit fly control in the Arica-Tacna region was reactivated, and the groundwork was laid for an integrated fruit fly management program in the Southern Area.

As a result of the seminar-workshop held in Caracas, Venezuela, in April, steps were taken to establish an Andean program for the control and eradication of the fruit fly, which was approved by the Technical Committee of the Board of the Cartagena Agreement (JUNAC).

At the national level, this project collaborated in drafting the proposal for a national plant protection and fruit fly detection program in Bolivia. It also helped organize the second international intensive course on the integrated control of agricultural pests and diseases in Peru; and the subregional Andean course on post-harvest sanitary management of plant products for export and consumption, held in Maracay, Venezuela; and the course-workshop on technology transfer for banana cultivation in Ecuador. Also in Ecuador, Program V helped draw up the project to reorganize the national plant protection program.

Multinational Plant Protection Project for the Southern Area

This project focused its action on institutionalizing the Regional Plant Protection Committee (COSAVE), which involves the Southern Area countries, and considerable progress was made in preparing its by-laws and in drafting its plan of action.

The project also supported national projects geared to strengthen plant protection services in Brazil, Chile and Uruguay. Various training activities on toxicology were offered through these services. Argentina, Brazil, Chile, Peru and Uruguay were some of the countries that attended meetings to discuss vegetable protection.

Strengthen Laboratory Services and Epidemiological Surveillance in the Central, Andean and Southern Areas

One of the most significant achievements of this project in 1988 was the establishment of the Inter-American Network of Animal Health Laboratories (RILSA) during a meeting held in Lima, Peru, last August. At that time, representatives of laboratory networks from the four IICA Areas, Canada and the United States, as well as from other countries of the hemisphere, approved RILSA's by-laws and discussed the actions to be undertaken in the countries over the next two years to promote and strengthen technological exchange among American countries in the field of animal health.

Also in 1988, 80% of the animal health laboratories currently operating in Latin America and the Caribbean were evaluated, and the results of this evaluation shed light on the present state of the infrastructure, equipment and functioning of these units. Immediate actions were taken to improve the conditions of these laboratories.

One of the project's major activities in 1988 was the consolidation of a hemispheric system of swine fever surveillance, which is conducted by IICA with the support of PAHO's Pan American Foot and Mouth Disease Center. This mechanism provided health authorities with timely information on the presence of classic swine fever in neighboring countries and thus enabled them to take pertinent quarantine measures. Valuable information on the epidemiological distribution and behavior of this disease throughout the hemisphere was also made available.

In the Central Area, the project was instrumental in implementing the Central Area Animal Health Laboratory Network, which has served to establish technological exchange among the countries of Central America, Mexico, Panama and the

Dominican Republic. One of the most pertinent exchanges dealt with residues in export meat, and a meeting was held with representatives from these countries and the United States to discuss the techniques used for residue detection in meats.

In the Andean Area, actions were developed in Bolivia and Ecuador to upgrade their central reference laboratories, and exchanges initiated through the Andean Animal Health Laboratory Network have enabled the countries of that subregion to identify areas for technological support among them.

Twenty-five veterinarians from the Southern Area received training through the second course on the epidemiology and diagnosis of exotic diseases. Professionals from this Area participated in training on brucellosis, blue tongue, and bovine leucosis, among others.

One of the project's major goals for the 18 Latin American countries was to upgrade national laboratory networks, both as concerns the development of new diagnostic technology and the organization and management of the units.

External resources are being sought to fund technology exchange projects drawn up for IICA's three areas: Central, Andean and Southern.

Actions developed by the Inter-American Network of Animal Health Laboratories are now being disseminated through a quarterly newsletter, which also promotes and facilitates exchange among the countries of Latin America and the Caribbean.

Lastly, support from this project made it possible to publish the second part of the Inter-American Compendium of Veterinary Products, which includes information from nine countries. This Compendium is published in cooperation with the Virginia Polytechnic Institute.

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

This project receives support from the Canadian International Development Agency (CIDA) and the University of Guelph. Its main achievement in 1988 was the definition of specific actions to be taken in the countries of the Caribbean as concerns animal health and plant protection information.

As a result of a number of consultations and a regional meeting attended by representatives from 13 Caribbean countries, priorities were set for the countries. Most of these priorities concern the need for more accurate information on the factors and limitations hindering optimum agricultural production and productivity, and international trade.

At the same time, Caribbean animal health and plant protection authorities requested that a regional information system on agricultural health be implemented in the area.

Latin American Animal and Plant Health Monitoring and Information Network

This project receives support from the United States Department of Agriculture (USDA), through a coordinator who is in charge of implementing this system in the 18 Latin American countries.

Principal project actions in 1988 included a survey to determine the countries' present interest in participating in pilot projects to evaluate economic losses due to animal and plant pests and diseases. The survey provided helpful information on the approach to be used in the system, based on the countries' needs. Finally, a method was designed for gathering and processing information for the specific pilot projects to be implemented in Latin America.

Program V

Resources
Source

Amount

■ Instrument ● Objectives ○ Achievements

IICA	143 181
TOTAL	143 181

■ Strengthening Plant Protection Institutes in the Central Area

- To strengthen the technical and administrative capacity of the Directorates of Plant Protection of the Central Area.
 - Institutional diagnoses made in Costa Rica, El Salvador and Guatemala.
 - Project prepared for the control of coffee rust in the Dominican Republic; personnel in that country trained.
 - Personnel trained in quarantine techniques and in using information on losses to harvest in Nicaragua; project prepared for plant quarantine training in Mexico.
 - Project to evaluate environmental impact of Mediterranean fruit fly pesticides implemented.
 - Diagnostic laboratories organized; support provided on legislation, aerial pesticide application, and joint OIRSA-CATIE-IICA actions to evaluate the current situation of witches' broom in cacao in Panama.

IICA	93 651
TOTAL	93 651

■ Integrated Fruit Fly Management in the Andean and Southern Areas

- To establish a regional system for the control of flies affecting fruit and vegetable production.
 - A regional project for an Andean Fruit fly program prepared and approved by the JUNAC Technical Committee. Meeting held on integrated management of fruit flies in the Andean and Southern Areas.
 - Proposal drawn up for a national plant protection and fruit fly detection program in Bolivia.
 - Workshop held in Ecuador on technology transfer related to banana cultivation; project profile prepared for reorganization of plant protection program.
 - International course on integrated pest control held in Peru.

IICA	85 181
TOTAL	85 181

■ Regional Plant Protection Cooperation in the Southern Area

- To support plant protection institutions in the Southern Area, and promote regional coordination of plant protection cooperation.
 - Agreements formulated among the countries of the Southern Area, to boost intra-regional cooperation in plant protection.

Resources
Source

Amount

■ Instrument ● Objectives ○ Achievements

SAGyP (SENASA)	28 875
IICA	247 792
TOTAL	276 667

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

- To contribute to improving the technical and administrative operation of animal health laboratories in Latin America.
 - Inter-American Network of Animal Health Laboratories established and subregional laboratory network set up, to facilitate technological exchange among laboratory services. Eighty percent of laboratories in Latin America evaluated; priority technical areas in need of reinforcement identified; actions initiated to address same.
 - Professionals trained in 18 countries of Latin America.
 - Hemispheric system for epidemiological surveillance of swine fever consolidated.

CIDA	13 185
IICA	105 023
TOTAL	118 208

■ **Surveillance and Monitoring of Agricultural Diseases and Pests to Increase Production Efficiency in the Caribbean (Component of the IICA/CIDA Project)**

- To establish an information and data monitoring network in the Caribbean, for gathering and disseminating information on the economic impact of pests and diseases on agricultural production, productivity and marketing.
 - Work begun to establish the agricultural health information and data monitoring network for the Caribbean, by bringing available evaluation systems into line with the conditions faced by Caribbean countries.
 - Proposed system presented to agricultural health authorities in the 13 Caribbean countries, and countries selected where first actions will be taken (pilot projects).

USDA-APHIS	19 569
IICA	6 104
TOTAL	25 673

■ **Animal Health and Plant Protection Information and Data Monitoring System in Latin America**

- To support the countries of Latin America in evaluating the economic impact of diseases and pests on agricultural production, productivity and marketing.
 - General framework designed for the Latin American Animal and Plant Health Monitoring and Information Network (RIMSAL) and for the method to be used in applying it in the countries. Survey in 18 Latin American countries updated concerning their interest in participating in RIMSAL.

Resources Source	Amount	■ Instrument	● Objectives	○ Achievements
IICA	22 048			
TOTAL	22 048			
		<p>■ Animal Health and Plant Protection Emergency Fund: Locust Control in the Caribbean</p> <ul style="list-style-type: none"> ● To support countries affected by locusts (<i>Schistocerca gregaria</i>) in taking control and eradication emergency measures. <ul style="list-style-type: none"> ○ Actions initiated by governments of the affected Caribbean countries to control the pest. ○ Epidemiological report prepared on <i>S. gregaria</i> in the Caribbean. 		



Chapter 3



Institutional Relations

Although each country is responsible for defining and implementing its own solutions (...), the introduction of joint undertakings in areas of common interest will assuredly become a key element in any strategy designed to make better use of the scarce resources available.

Ottawa Declaration

This Chapter summarizes the activities carried out during 1988 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.

At this particularly difficult economic juncture for the countries of the region, one of IICA's duties is to combine forces with other agencies dedicated to fostering agricultural development and rural well-being, in an effort to take maximum advantage of the resources available, complement actions, and avoid a duplication of efforts.

The primary goal and function of external relations policies is to increase availability of the financial and technical resources needed to carry out specific programs and projects satisfactorily.

The needs and priorities of the IICA Programs and of the Member States determine external relations policies in these areas. The five IICA Programs are broad enough in scope to offer numerous opportunities for cooperation with the Member States. All cooperation projects should reflect the subject areas covered by, and the general policies of, the Programs.

Financial and technical resources are sought by the Institute in order to complement and expand upon actions being carried out by IICA, upgrade projects under way, or initiate new ones considered by the member countries and IICA to be of priority.

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, or more than 50% of the Institute's funds.

To achieve the goal of complementing the quota budget with extra-quota resources would place IICA in an important position among agricultural and rural development institutions in the hemisphere. Furthermore, the Institute would be able to increase its activities in its areas of competence and would gain greater recognition within and beyond the hemisphere as an important vehicle for channeling technical and financial resources to development efforts in its Member States.

The IICA Offices in the Member States played a key role in the activities carried out to secure external resources for technical 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 in 1988 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.

These Offices helped channel technical and financial resources to the Institute, through direct contacts with them, and by informing them of IICA activities in its Member States.

Throughout the year, there were continuing efforts at intensifying relations with international funding agencies and IICA's Permanent Observer and Donor countries, to keep them informed of IICA's actions and interest them in participating in the projects through technical and financial support.

Relations with Canada and the United States of America

Canada

IICA's Office in Canada is the smallest of the Institute's Offices in its member countries, but because the structure of the Canadian government and political power are highly decentralized, because Canada is vast in territory, and because it is a country with two official languages, the role of IICA's Office in Canada is a very complex one.



The IICA Office in Canada has two main tasks: to represent the Institute before the Canadian government, and to promote new and greater opportunities for ties between Canada and the Latin American and Caribbean countries. In 1988, the IICA Office in Canada engaged in a number of activities in pursuit of these goals.

Throughout the year, the Office maintained ongoing contacts with the Ministry of Agriculture, the Secretariat of State for External Affairs, and the Canadian International Development Agency (CIDA).

Noteworthy efforts were made in 1988 to publicize IICA's work, using various media. These included many meetings with Canadian organizations, occasionally with the participation of IICA Directors, advisors and Program representatives.

One of the specific missions of the IICA Office was to participate in a national meeting of agronomists in Calgary, Alberta, where a presentation was made on the Institute. In addition, two prestigious Canadian journals, *Agrologist* and *World Food Update*, published articles on IICA in close collaboration with the Office.

In addition to that project, the possibility is being studied of carrying out actions on projects in connection with industrial cooperation, management for change, institutional and bilateral cooperation (especially in the Caribbean). The projects or areas under negotiation deal for the most part with the training of human resources and the formulation of projects.

The IICA Office in Canada worked with Agriculture Canada, the federal ministry responsible for the agricultural sector, to identify and promote the use of Canadian consultants for short-term initiatives with the Institute.

IICA's actions in Canada to date have focused primarily on projects and other commitments with CIDA and Agriculture Canada. In addition, talks have begun with several organizations concerning the preparation of joint projects. Included among those organizations are: the AUCC (a consortium of Canadian universities), the Canadian Council for International Cooperation (an agency bringing together Canadian NGOs), the International Development Research Centre (IDRC), and the Canadian association of deans of schools of agronomy and veterinary sciences.

Finally, an important outcome of the cooperative relations between Canada and the Institute is the IICA-CIDA project approved in 1987 at the meeting of the Inter-American Board of Agriculture, held in Ottawa. Following are the highlights of this important project.

IICA-CIDA Project to Strengthen IICA Programs

Background

In May 1987, the Institute presented a project proposal for the consideration of the Canadian International Development Agency (CIDA). The aim of the project was to strengthen the methodological and operating base of IICA's five Programs, which form the backbone of IICA's activities as described in the 1987-1991 Medium Term Plan.

CIDA approved the proposal because it was consistent with the agency's policies to assist less-favored countries and regions, promote structural adjustment that increases the participation of beneficiaries, strengthen the role of women in development, and promotes access of all people to food and energy sources.

On the occasion of the Ninth Inter-American Conference of Ministers of Agriculture (ICMA), held in Ottawa in 1987, the Honorable Monique Landry, Minister of External Relations and International Development, officially announced approval of the project and CIDA's contribution to its implementation, in the amount of CN\$4.5 million.

Project Description and Management

This four-year multinational project is hemispheric in scope. It is a decentralized project, in that the Program Directorates will be responsible for the execution of their corresponding subprojects. The Director of Program II will be in charge of the overall project coordination. About one half of Canada's contribution to this project will come in the form of direct support to IICA's Programs, while the other half will be made in kind (consultants, equipment and materials).

This project represents CIDA's first contribution to IICA, and is seen as the initial step in an enduring and broad relationship of mutual support, not just between CIDA and IICA, but also between IICA and other Canadian institutions interested in becoming involved in Latin America and the Caribbean.

The project, then, provides a privileged channel to the Canadian services component for the establishment of working ties between IICA's Programs and Canadian institutions of mutual interest.

The project includes two subprojects of great importance to future relations between Canada and IICA and the countries of the region. One will serve to publicize in Canada the objectives and action of IICA in the region. The other will explore new areas and forms of technical and financial cooperation between Canada, IICA and IICA's member countries.

Project Description

The purpose of the project is to provide support to the conceptual and operational development of IICA's programs, and through these, to the efforts of the member countries to modernize and reactivate their agricultural sectors. Also, the project focuses on several innovative areas, considered of strategic importance for upgrading the Institute's capacity to work with its member countries in the search for and implementation of rural development strategies and policies and economic growth, in ways that produce equitable distribution and that conserve natural resources.

These innovative areas concern:

- creating a policy framework of incentives for production, promoting the use of new technologies and ensuring broad participation by all social sectors;
- efficiently exploiting opportunities afforded by new technological breakthroughs;
- developing mechanisms for incorporating all sectors into the development effort, so as to correct existing inequalities in the technological sphere;
- gaining new market opportunities; and

- facilitating the movement of agricultural products at both the national and international levels.

The project will place special emphasis on designing and implementing actions to promote and expand the active participation of women in the development process.

Operationally, the project is divided into five independent but closely related projects. Each one will reflect the strategic and operating guidelines of one of the Institute's Programs.

- ***Subproject 1: Intersectoral relations as the basis for reactivating agriculture and fostering economic growth.*** The purpose of the component coming under Program I, Agricultural Policy Analysis and Planning, is to contribute to developing strategies for modernizing agriculture, with an eye to coordinating macroeconomic and sectoral policies and directing the modernization process to the farming sector that has been bypassed by the technological process in past decades.

Agricultural modernization's new role as a catalyst for economic development must be examined in relation to international conditions of products, technology and capital, and of intersectoral relations within the industrial-agricultural-agroindustrial complex.

This subproject includes research, studies and the exchange of experiences gained on the nature and performance of intersectoral linkages, and their multiplier effects for economic recovery.

These efforts will be conducted in close cooperation with socioeconomic research institutions and public sector agencies in the countries, and with some international organizations.

- ***Subproject 2: Access to new developments in the field of biotechnology.*** The main objective of the component corresponding to Program II, Technology Generation and Transfer, is to provide support to and upgrade the capabilities of national technology generation and transfer systems to generate, acquire, use and assimilate technological advances in the field of biotechnology.

New developments in biotechnology represent a great opportunity for reactivating agriculture in the region. Because

of the nature of biotechnological work, however, tremendous investments are required which, for the most part, make it impractical for most Latin American and Caribbean countries. To achieve the critical mass necessary to operate effectively in this field, then, it is necessary to establish priorities and seek complementary and cooperative ventures among countries.

In addition, changes will be required in the policies and in the structure and operations of technology generation and transfer systems, so as to maximize the use of scarce resources available at the national and international levels.

With these factors in mind, two stages of activities have been designed. The first aims to examine the potential impact of new technologies on agriculture in the region, and to raise technical and institutional capabilities for work in this new area of endeavor. The second stage involves technical cooperation activities with national technology generation and transfer systems, to develop nationwide policies and programs on biotechnology. Technological management mechanisms suitable for the new technology will also be designed and implemented, and horizontal cooperation projects (networks), will be designed and supported for areas of critical importance to biotechnological development in the countries of the region.

- ***Subproject 3: Differentiated policies and participatory systems for rural development.*** The component corresponding to Program III, Organization and Management for Rural Development, aims to support the policy design process and technical-institutional strengthening of public administration systems for rural development in the Latin American and Caribbean countries. It will focus on examining and systematizing experiences gained in the area of rural development, the design of differentiated policy options for small-scale rural producers, testing the validity of these models, and providing training for technical personnel.

The subproject will seek to decentralize the process involved in planning and implementing rural development policy instruments to include the participation of the small-farming sector, integrating rural women and youth into the process.

Studies on the participation of small-farming women will serve to promote improved access of female heads of households to lands and to technical and financial resources. The studies will also help uncover the constraints that limit women's participation in programs and projects for rural development and organization.

- ***Subproject 4: Identification of and access to market niches.*** This component, under Program IV, Marketing and Agroindustry, will work to identify a series of agroindustrial products that can be sold on the Canadian and United States markets, and that would justify the undertaking of joint ventures involving both marketing per se and the investments needed for production.

This would include determining market requirements and identifying marketing processes for selected products. It will also identify institutional needs, of both exporting and importing countries, especially as concerns incentives and constraints.

A method will be developed for drawing up projects in this area, and for identifying funding institutions interested in participating in them.

- ***Subproject 5: Animal health and plant protection information systems in the Caribbean.*** The purpose of the component coming under Program V, Animal Health and Plant Protection, is to organize and implement in the Caribbean an information and data monitoring system on the prevalence, incidence and distribution of animal and plant pests and diseases, which will enable the governments of the Caribbean countries to set priorities in the establishment and development of programs and projects for bringing these problems under control.

This system will provide ongoing updates on the real animal and plant health situation of the Caribbean countries, and will contribute to facilitating regional agricultural trade by preventing the establishment of unnecessary health barriers.

The system will be headquartered in Port of Spain, Trinidad and Tobago, where a group of animal health and plant protection information and data management specialists will design and implement the program. They will also provide training for technical personnel of the system's units in each of the Caribbean countries.

United States of America

During 1988, the main objective of IICA's Office in the United States was to increase the visibility of the Institute in that country and to generate support for its activities in the Member States, especially those in which United States participation has a direct bearing. The Office established new contacts with government, international and academic communities, with technical cooperation and lending organizations, and with the media, in order to release information on IICA and on its objectives and actions in the region.

Contacts were established with key members of the U.S. House of Representatives and Senate who hold important positions on committees that authorize and allocate funds for agricultural development and for related international agencies. The Office provided information on IICA's Programs and their contribution to agricultural development in the region.

The Office maintained excellent relations with the Permanent Mission of the United States to the OAS, and with the U.S. State Department's Office of International Organizations, which in large measure determines the allocation of quotas to international organizations. Through these contacts, information was provided on IICA's contribution to development in the region, and on the importance of financial contributions by the United States to the Institute.

Relations were also developed with the Board for International Food and Agricultural Development (BIFAD), an agency of USAID, with the purpose of examining areas of possible cooperation. The Office assisted BIFAD in conducting its annual meeting, held at OAS headquarters, in which the Director General of IICA participated.

During 1988, fruitful relations were maintained with the staff of the Office for International Cooperation and Development (OICD), of the United States Department of Agriculture, where numerous meetings were held to review IICA's activities. The OICD provided valuable collaboration to IICA during this period, especially in the testimony of the OICD Administrator to the House Appropriations Committee concerning how well IICA was fulfilling its mandate to provide technical cooperation in its sphere of competence, in the Latin American and Caribbean countries.

A cooperative agreement was signed by IICA, the OAS and the USDA Graduate School, under the terms of which a technical specialist from one of IICA's Member States will be granted a scholarship for a master's degree in management at George Washington University. IICA will administer the scholarship.

Relations with the Animal and Plant Health Inspection Service (APHIS) continued steadily. APHIS provided support and co-sponsored a first meeting on biotechnology held at IICA Headquarters in San Jose, Costa Rica. An agreement was signed with APHIS, through which a specialist of that organization will work on loan to IICA's Animal Health and Plant Protection Program for a period of two years.

Talks were held in connection with continuing the project on swine repopulation and animal health extension services, with possible funding by AID for a laboratory for the projects. The program to eradicate *Amblyomma variegatum* in the eastern Caribbean was discussed, as were possible funding sources for the conference on tuberculosis and paratuberculosis, scheduled to take place in Mexico City in 1989.

A cooperative agreement was signed with the Economic Research Service (ERS), through which a policy and external debt specialist was loaned to IICA's Agricultural Policy Analysis and Planning Program, at IICA Headquarters.

The Office established ties with other agencies, such as USDA's Foreign Agricultural Services and Extension Service, with a view to determining possible areas of joint action.

Contacts were made with foundations, governmental and paragonmental agencies, in order to discuss possible funding or cooperation with IICA, and for updating the agencies' information on IICA's actions in the hemisphere. Some of these were the National Research Council, which helped the Office identify universities in the United States with which general agreements may be signed; the Peace Corps, with which an agreement is pending concerning the assignment of volunteers to the Institute; the General Accounting Office, representatives of which visited the IICA Office for information on the formulation, use and regulation of pesticides in some of its Member States; the International Foundation for Science, which offered technical cooperation to IICA; the International Management and

Development Institute; and the National Agricultural Chemical Association.

In addition, possible areas of cooperation were discussed with the Pan American Development Foundation, the National Science Foundation, and the National Pork Producers' Council. Similarly, the Ford, Rockefeller, Carnegie and Rothschild Foundations were contacted in order to obtain their funding guidelines and to exchange general information.

In 1988, the Office developed closer ties with the Inter-American Development Bank (IDB). An agreement was negotiated to fund the third extension of IICA's Investment Projects Center, and negotiations continued on the PROCICENTRAL and PROCICARIBE subregional research programs.

A national association of universities was used to establish contact with some of the major universities of the United States. During the year, cooperative agreements were signed with the following centers for higher learning: Texas A & M, Georgia Institute of Technology, University of Wisconsin at Madison, Oklahoma State University, and Iowa State University. Furthermore, contacts were made with Maryland University and ties were reestablished with Illinois University.

The Office maintained contact with the diplomatic missions in Washington of all of IICA's Permanent Observer countries, keeping them up to date on the Institute's activities in the hemisphere.

Algeria, the People's Republic of China, Mozambique, Saudi Arabia, Finland, the Philippines and Switzerland expressed their interest in joining the Institute as Permanent Observer countries.

As in the past, the IICA Office in Washington provided administrative support to IICA staff on technical visits in Washington. In addition, the Office continued providing administrative and services support, which included, among other things, managing the IICA and EMBRAPA fellowship program. By 1988, this program had placed 16 students in different universities throughout the United States. The Office provided EMBRAPA with administrative support in managing and distributing the fellowships, helping the students apply for admission, obtaining visas for the students and their dependents,

and solving students' problems. Three students from IICA's Southern Cone project also benefitted from these services.

The supply services provided by IICA's Office in Washington increased considerably during 1988, especially as concerns the purchase of computers for IICA's Offices throughout the hemisphere, which amounted to a total of US\$300,000. A network of suppliers was established, and purchasing procedures were standardized, resulting in a more efficient delivery of services.

Relations with Agencies of the Inter-American System

Organization of American States (OAS)

As the depositary of the Institute's Convention, the Organization of American States is of special significance to IICA. In 1988, the IICA Office in the United States continued to strengthen ties with the General Secretariat of the OAS, and IICA's Director General maintained ongoing contact with the Secretary General of the OAS, Ambassador João Clemente Baena Soares.

Permanent Council. By invitation of the President of the Permanent Council, the Director General of IICA participated in a Special Session on September 14. At that time, he spoke on the objectives and activities of the Institute, and on the serious problems besetting agriculture in Latin America and the Caribbean. The Director General discussed with the Council the Plan of Joint Action for Agricultural Reactivation in Latin America and the Caribbean. The delegates commented very positively on the structure, management and priorities of the Institute.

Throughout 1988, the IICA Office in the United States was represented at the regular meetings of the various bodies of the General Secretariat of the OAS, such as CEPCIES, CIES, CEPICIECC 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 Eighteenth Regular Session of the OAS General Assembly, held in San Salvador, El Salvador in November 1988, at

which time he presented IICA's 1987 Annual Report to the Assembly for consideration.

General Secretariat. Within the framework of the cooperation agreement signed between IICA and the General Secretariat of the OAS for the execution of the Multinational Integrated Development Plan in the Border Zone of El Salvador, Honduras and Guatemala (Trifinio Plan), the institutions worked together in formulating the Plan for the development of the border region of the three countries; negotiating funding for specific projects included in the Plan; and creating a multinational institutional mechanism for backing the process of border integration and for implementing the development plan.

In fulfillment of the agreement signed in November 1986 by the Governments of El Salvador, Guatemala and Honduras, and the OAS and IICA, 28 integrated rural development projects, valued at US\$458 million, were delivered to the Vice Presidents of these countries by the Director General of IICA, in October.

During the Eighteenth Regular Session of the OAS General Assembly, the OAS Secretary General and the Director General of IICA signed an agreement for the execution of an integrated development project for border regions in Central America.

Inter-American Commission on Women (IACW)

As called for in Letter of Understanding No. 2, signed in September 1987 by the IACW and IICA, a project was prepared in 1988 on increasing the participation of women in rural development projects in Central America. It is currently being negotiated with the government of Norway.

Pan American Health Organization (PAHO)

Continued support was given to the PAHO's Pan American Foot and Mouth Disease Center (PANAFTOSA) in developing the information and epidemiological surveillance system for swine diseases.

IICA collaborated with PAHO in the meeting of the South American Commission for the Eradication of Foot and Mouth

Disease (COSALFA), during which subregional projects for the eradication of this disease were discussed.

In January 1988, the OAS, PAHO, the International Office of Epizootics (IOE) and IICA held a meeting at IICA Headquarters of the Inter-American Study Group of the New Biotechnology in Agriculture and Health.

Inter-American Development Bank (IDB)

During the course of the year, IICA maintained close ties with IDB authorities in Washington, and with IDB representatives in the countries, in an effort to improve hemisphere-wide coordination of technical and financial cooperation for agricultural development in the member countries, as well as to identify new cooperation opportunities.

IICA participated with the IDB in the following activities:

- IICA continued implementing the Cooperative Agricultural Research Program for the Southern Cone (PROCISUR), financed by the IDB, which is in its fourth year of activities and in the second stage of the Program. This Program is especially important in that its ultimate 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.
- During the year, IICA also administered and carried out the Cooperative Agricultural Research Program for the Andean Subregion (PROCIANDINO), funded by the IDB.
- Through the Project Preparation Unit (PPU), the Institute proceeded with the implementation of Phase II of the technical cooperation agreement signed with the IDB in 1985 to continue developing the technical cooperation program for the preparation of specific investment projects in the agricultural sector of IICA's member countries.

Two activities were conducted in 1988 under the agreement: the final feasibility study of Stage III of the Agricultural Research and Extension Program, in Honduras; and Phase I of the Agricultural Services Development Program, in the Bahamas.

Negotiations were concluded with the Bank for a third extension of the IICA/IDB agreement, which will take effect in early 1989. This operation will last three years and the Bank's contribution will be US\$3 million.

- Another agreement is currently under negotiation for establishing general administrative relations between the IDB and IICA for project implementation.
- IICA participated, as an Observer, in the Twenty-ninth Annual Meeting of the IDB Board of Governors and at the Third Meeting of the Board of Governors of the Inter-American Investment Corporation, both held in Caracas, Venezuela in March of 1988.
- The new president of the IDB, Dr. Enrique Iglesias, and the Director General of IICA, Dr. Martín Piñeiro, met at IICA Headquarters in June. At the meeting, they exchanged ideas and renewed the commitment of their respective institutions to strengthening relations and cooperation in support of agriculture in Latin America and the Caribbean. They also reviewed the major activities being undertaken jointly by the two institutions, such as the renewal of the agreement which established IICA's Project Preparation Unit, and the funding of some important activities such as the Cooperative Agricultural Research Program for the Central Subregion (PROCENTRAL), which includes the Central American countries, Panama and the Dominican Republic.

Relations with Regional and Subregional Organizations

The following is a summary of activities conducted in cooperation with regional and subregional organizations throughout the Americas.

Latin American Association for Integration (ALADI)

Under the terms of the basic cooperation agreement signed by the two institutions, IICA and ALADI continued to work together in 1988.

Latin American Energy Organization (OLADE)

In 1988, OLADE and IICA continued their joint efforts in the area of agroenergy, in connection with the Institute's Multinational Project for Cooperation in Agroenergy. IICA also attended the Nineteenth Meeting of Ministers of the Organization, held in Mexico in November of 1988.

Permanent Secretariat of the Latin American Economic System (SELA)

Under the 1986 technical cooperation agreement on food security, signed by IICA, on behalf of the Regional Council for Agricultural Cooperation in Central America, Mexico, Panama, and the Dominican Republic (CORECA), and by SELA's Action Committee in Support of Economic and Social Development in Central America and Panama (CADESCA), the Institute agreed to lend support in the execution of the regional research and technology transfer project being carried out through CADESCA.

IICA signed an agreement with SELA's Action Committee for Regional Food Security (CASAR), concerning on a cooperative activity to design and operate a system for compiling, processing and disseminating trade-related information and statistics on the needs of and prospects for intraregional trade and food security of selected basic foodstuffs in Latin America and the Caribbean. One outcome of this agreement is the preparation of a project on trade information, to be carried out jointly by CASAR and IICA.

Negotiations are being held with SELA for reciprocal cooperation in order to conduct studies, and design and carry out projects in the areas of agroindustry, multilateral trade negotiations, reactivation of agriculture, training in agricultural commodity marketing, and the generation and transfer of technology.

International Regional Organization of Agricultural Health (OIRSA)

In accordance with the cooperation agreement signed in 1986 by OIRSA and IICA, activities were undertaken to support Panama in the control of witches' broom in cacao, as well as other activities in support of the efforts of Mexico, Central America and Panama to upgrade their quarantine systems.

A letter of understanding is soon to be signed for implementing the OIRSA/IICA cooperation agreement. The letter will spell out the specific types of cooperation to be provided to the member countries of both institutions.

Latin American Association of Development Finance Institutions (ALIDE)

IICA continued to work with ALIDE by actively participating in the Second Latin American Seminar on Development Banking and Agroindustry, held in Bogota, Colombia in April 1988, and in the Eighteenth Regular Meeting of ALIDE on "Financing Foreign Trade and Regional Integration: The Role of Development Banks in Latin America," held in Buenos Aires, Argentina in May 1988.

Caribbean Community (CARICOM)

The Ministers of Agriculture of the Caribbean, while attending a meeting in Georgetown, Guyana in September 1988, took under consideration the document presented by IICA "Strategy of Action for Reactivation of Agriculture in the Caribbean Countries," which is the Caribbean component of the Plan of Joint Action for Agricultural Reactivation in Latin America and the Caribbean, and which contains a detailed analysis of the major social and economic characteristics of the area. The CARICOM ministers gave their support for the cooperation program with IICA in the areas of animal health and plant protection, and marketing.

The Ministers endorsed the program on animal health and information systems for crop protection proposed by IICA, which will assess and monitor animal and plant pests and diseases, with a

view to increasing agricultural production in the Caribbean. This program began in July 1988 and will last three years.

Board of the Cartagena Agreement (JUNAC)

Under the terms of the general cooperation agreement signed in 1984 between JUNAC and IICA, a cooperation agreement was signed in April 1988 for the purpose of establishing the bases for technical cooperation between the two institutions in the joint preparation of the Andean component of the Plan of Joint Action for Agricultural Reactivation in Latin America and the Caribbean.

This Agreement, signed in Lima, Peru by the Coordinator of JUNAC and the Director General of IICA, responds to a mandate by the Ministers of Agriculture of the Andean Group during their Sixth Meeting and who, in their Resolution No. 1, charged IICA and JUNAC with preparing the draft of a pilot plan for the reactivation of agriculture in the Andean subregion.

The Director General of IICA attended the Sixth Meeting of Ministers of Agriculture of the Andean Group to report on progress made in the elaboration of the plan, to gather opinions and criteria from agricultural authorities of the five member countries of the Cartagena Agreement, and to formally establish the mechanisms for the joint preparation, by IICA and JUNAC, of the chapter dealing with the Andean subregion.

Andean Development Corporation (CAF)

The Andean Development Corporation focuses its activities in the subregion on identifying and promoting projects, obtaining technical assistance, transferring technology and securing resources for funding these projects.

In 1988, the CAF and IICA signed a general technical cooperation agreement that calls for joint studies, identification of investment opportunities, and preparation and execution of projects in the Institute's five Program areas.

Permanent Secretariat of the General Treaty for Central American Economic Integration (SIECA)

In September 1988, a general cooperation agreement was signed with SIECA, which establishes areas of joint cooperation between the two institutions. To put this general agreement into practice, two letters of understanding were signed.

Pursuant to Letter of Understanding No. 1 between the Permanent Secretariat and IICA, signed in September 1988, they jointly prepared the draft strategy for the reactivation and development of the agricultural sector in Central America. SIECA used this proposal in its efforts to establish a frame of reference for a new development model for the region, and IICA used it in the elaboration of the Plan of Action. On the basis of this proposal, priority areas were identified within the previous strategy and concrete proposals for action were elaborated into programs and projects, and into mechanisms for institutional action.

Letter of Understanding No. 2, signed in December 1988, is aimed at strengthening and continuing these actions, through the creation of a joint IICA-SIECA Agricultural Unit, which will provide technical cooperation to the Inter-institutional Agricultural Group (GISA), whose Secretariat is managed by SIECA and CORECA. It will also coordinate efforts with and provide support to the Central American Bank for Economic Integration (BCIE) and the Regional Council for Agricultural Cooperation (CORECA) as concerns investment projects and agricultural policy analysis.

Letter of Understanding No. 2 also makes collaboration possible with SIECA and CORECA in connection with their duties within the United Nations Special Plan for Economic Cooperation for Central America (PEC); the Central America-European Economic Community (EEC) Joint Commission; and other initiatives taken in support of the region.

Group of Sugar-exporting Countries of Latin America and the Caribbean (GEPLACEA)

GEPLACEA is a regional organization for Latin America and the Caribbean, serving as an advisory and coordinating body that

informs its member countries of matters relating to the production and marketing of sugar and its by-products.

During the annual meeting of the Board of Directors of GEPLACEA, held in San Jose, Costa Rica in October 1988, a general technical cooperation agreement was signed by the Executive Secretariat of GEPLACEA and IICA, for the purpose of contributing more effectively to the study, development and promotion of production options of general benefit to the countries of Latin America and the Caribbean.

Latin American Association of Food-related Industries and Associations (ALICA)

IICA signed a technical cooperation agreement in May 1988 with the ALICA, which is headquartered in Uruguay. The goal of this agreement is to join efforts and make use of resources available for developing agriculture and agroindustry in the member countries and institutions of both organizations, and to serve as a link between the trade associations and ALICA associates and the technical cooperation which IICA offers or channels through its Programs.

Relations with Agencies of the United Nations System

During 1988, cooperative relations were promoted and furthered with the following agencies of the United Nations system:

International Bank for Reconstruction and Development - World Bank

Closer contact and working relations were developed with different units of the World Bank, especially the Economic Development Institute (EDI), in an effort to attract funds to benefit the member countries of IICA.

Cooperative Project for the Modernization of the Agriculture Sector in Argentina. The Agricultural Sectoral Loan granted to Argentina by the World Bank during the first semester of 1986

included as part of its technical assistance component a series of studies to identify topics of priority in the development of the agriculture sector in the medium and long terms under the Project for Basic Studies on Agricultural Policy.

The Ministry of Agriculture, Livestock and Fisheries (SAGyP) subcontracted with the Inter-American Institute for Cooperation on Agriculture to carry out this project.

Contract between IICA and the National Institute for Hydraulic Resources of the Dominican Republic (INDHRI) for the Formulation of a Project on the Agricultural Development of Three Priority Irrigation Areas. The IICA Office in the Dominican Republic prepared this project over a period of eleven months. It includes three separate irrigation systems: the Nizao-Valdesia, Alto Yaque del Norte, and Valle de Azua (YSURA) irrigation systems, serving a total area of 28,400 hectares and 9,000 farmers. This five-year project has been approved, and is valued at US\$60.5 million.

United Nations Food and Agriculture Organization (FAO)

During 1988, IICA continued to work with FAO to strengthen cooperative and complementary activities in areas of common interest. They worked together on a number of tasks involved in the FAO study on the food and agriculture sector of Latin America.

The Institute participated in the Twentieth Regional FAO Conference for Latin America and the Caribbean, held in Recife, Brazil in October 1988. At this gathering, the status of and outlook for the overall economy and the agricultural sector were examined. Attention was called to the importance of the complementary efforts between the FAO Plan of Action and the Plan of Joint Action for Agricultural Reactivation in Latin America and the Caribbean, a task that was entrusted to IICA at the Ninth Inter-American Conference of Ministers of Agriculture, and endorsed by the Seventeenth Meeting of the OAS General Assembly.

IICA's Director General and Director of External Relations visited FAO's Regional Office for Latin America and the Caribbean in Santiago, Chile, where they discussed the

complementary actions engaged in by both organizations in the hemisphere.

Also in 1988, IICA and FAO organized and provided support to the Third Meeting of the Executive Committee of the Inter-American Group for Coordination in Plant Protection (GICSV), which was held in Lima, Peru at the headquarters of the Board of the Cartagena Agreement. The by-laws of GICSV were approved at this meeting, and a plan of action was drafted and approved involving FAO, OIRSA, IICA, NAPPO and JUNAC.

International Fund for Agricultural Development (IFAD)

The cooperation agreement signed by IICA and the International Fund for Agricultural Development (IFAD) calls for IICA to participate in the identification and design of agricultural projects, and to provide support to special IFAD planning missions. It also calls for IICA to offer technical cooperation services to countries where projects are under way with Fund financing.

Three joint IICA-IFAD missions were sent to Mexico and Brazil in 1988. Two missions went to Brazil in February and in July to make adjustments in and lend guidance to the preparation of a development project for low-income rural communities in the Federal District, involving an investment of approximately US\$30 million over a five-year period.

The purpose of the third joint mission, to Mexico, was to propose a strategy for orienting IFAD's rural development actions in Mexico, and, based on this strategy, to evaluate and select projects for possible IFAD funding.

United Nations Development Programme (UNDP)

The UNDP will make an important contribution to a project on technology generation and transfer for Central America, Panama and the Dominican Republic, currently being prepared.

United Nations Children's Fund (UNICEF)

In September 1988, a general cooperation agreement was signed by the United Nations Children's Fund (UNICEF) and the

Institute, which will boost actions in the field of rural communications, through the use of group and mass communication in support of rural development in general, and of the well-being of women in the countries of Latin America and the Caribbean in particular.

Together with UNICEF, the Institute held a meeting in March 1988 at Headquarters on social communication and the problems of childhood.

Centre on Integrated Rural Development for Asia and the Pacific (CIRDAP)

For the purpose of exchanging experiences and knowledge in the field of rural development in Asia and the Pacific, and Latin America and the Caribbean, IICA and CIRDAP (headquartered in Bangladesh) signed an agreement at IICA Headquarters in March 1988.

CIRDAP is an intergovernmental, regional and autonomous agency founded on July 6, 1979, with support from the United Nations. At present its member countries are: Bangladesh, India, Indonesia, Laos, Malaysia, Nepal, Pakistan, Philippines, Sri Lanka, Thailand and Vietnam.

Relations with other Institutions

This general heading covers IICA's cooperative relations with other organizations operating major programs for agricultural development and rural well-being.

International Center for Tropical Agriculture (CIAT)

CIAT continued to provide support to the Cooperative Program for Agricultural Research in the Andean Subregion (PROCIANDINO), in accordance with the provisions of the agreement signed between Bolivia, Colombia, Ecuador, Peru and Venezuela, the IDB and IICA.

A letter of understanding was signed by IICA and CIAT for the appointment of associate personnel to work in Mexico, Central America and the Caribbean.

International Maize and Wheat Improvement Center (CIMMYT)

CIMMYT specialists continued to provide support to the Cooperative Agricultural Research Program for the Southern Cone (PROCISUR) and to a similar program which IICA is implementing in the countries of the Andean subregion (PROCIANDINO), with IDB funding.

The specific agreement between IICA and CIMMYT for developing joint actions in Paraguay was renewed.

International Potato Center (CIP)

In 1988, CIP cooperated with PROCIANDINO, in accordance with the terms of the agreement signed by Bolivia, Colombia, Ecuador, Peru and Venezuela, the IDB and IICA.

International Institute of Refrigeration (IIF)

The International Institute of Refrigeration was originally established by 35 countries in September 1908 as the International Association of Refrigeration. An international agreement signed in June 1920 by 43 nations established the IIF as an intergovernmental organization of a scientific and technical nature, set up to promote the use of refrigeration in agriculture, industry and the medical sciences. It currently has 57 member countries in the Americas, Africa, Asia, Europe and Oceania. Of IICA's member countries, only Argentina, Brazil, Canada and the United States of America belong.

In 1988, IICA joined the International Institute of Refrigeration (IIF) as an associate member. IICA's member countries will be able to enjoy the benefits and services of IIF through IICA.

IICA's membership in this institute gives it the capacity to provide scientific and technological brokerage in the field of

refrigeration, as a means of modernizing the marketing of perishable agricultural commodities.

In addition, IIF will negotiate funding to respond to IICA requests for technical assistance on projects in its member countries.

Organization of Petroleum Exporting Countries (OPEC) Fund for International Development

Stemming from contacts made in late 1987 at OPEC Fund for International Development headquarters in Vienna, Austria, the Fund provided a grant to IICA in 1988 to support the preparation of the Plan of Joint Action for Agricultural Reactivation in Latin America and the Caribbean.

Relations with Governments and Institutions of Observer and Donor Nations

Spain

The government of Spain stepped up its technical cooperation with IICA through the Institute for Ibero-American Cooperation (ICI). The participation of 18 young Spanish technicians (cooperants) was financed by ICI in 1988 on projects IICA is carrying out in its member countries. This represents a significant contribution of external resources from Spain. These cooperants were placed in the Investment Projects Center (CEPI), the Directorate of External Relations, and in countries such as Argentina, Bolivia, Brazil, Chile, Dominican Republic, Ecuador, Guatemala, Peru and Uruguay.

IICA continued to collaborate with the international training center established by ICI in Santa Cruz de la Sierra, Bolivia. In August 1988, IICA and ICI conducted a course for planners on the elaboration and evaluation of agricultural projects. The course was attended by five professionals from Bolivia, and 20 others from Argentina, Brazil, Chile, Colombia, Ecuador, Peru, Uruguay and Venezuela.

In November 1988, IICA, along with the Ministry of Agriculture, Fisheries and Food of Spain, conducted at IICA Headquarters a seminar on the European Common Agricultural Policy and cooperation for development. The purpose of this event was to provide participants with information they could disseminate in their countries concerning experiences of the EEC over the past years in terms of its common agricultural policy, and the institutions, legislation and funding mechanisms that make it possible.

France

In 1988, France continued to collaborate with the Cooperative Program for the Protection and Modernization of Coffee Cultivation (PROMECAFE), under the terms of the agreement between IICA and the Coffee and Cacao Research Institute (IICC) of the Center for International Cooperation in Agricultural Research for Development (CIRAD).

Also, during 1988, an expert from France provided support to the IICA Marketing and Agroindustry Program.

At present, negotiations are under way with the government of France on an important technology transfer project for the development of fruit crops in the eastern Caribbean.

Also presented to France for consideration was a project for the Plan of Joint Action for Agricultural Reactivation in Latin America and the Caribbean on the experience of the European Economic Community in the design and application of agricultural policies. This plan is expected to establish priorities for support to multinational actions agreed upon and coordinated with a group of countries. To achieve this, an analysis will be made of the experience of the European Economic Community in developing its Common Agricultural Policy (CAP). A detailed analysis will be made of the essential elements of the process to formulate and negotiate the CAP, and to identify agricultural policies used by the EEC that might be applied in Latin American and Caribbean countries.

Contacts continue with the government of France to secure support for a seminar on the structural adjustment of strategic investments for modernizing agriculture, to be held jointly by IICA

and the Mediterranean Agronomic Institute (IAM). This activity will enable the Latin American and Caribbean countries, and the developing countries of the Mediterranean, to study research, training and technical assistance priorities for defining and executing economic and sectoral policies, as well as institutional mechanisms for increasing agricultural investments in the region.

Kingdom of the Netherlands

In March 1988, the facilities of the IICA/Radio Nederland Project were inaugurated at IICA Headquarters, coming under the Communications Division of the Directorate of External Relations. The new physical infrastructure includes a professional sound studio, portable recording equipment, computers, classrooms and offices.

As established in the agreement signed in 1987 by the Radio Nederland Training Center (RNTC) and IICA, to develop the project "Communication Applied to Rural Development in Latin America, with an emphasis on Central America and the Caribbean," 32 activities were carried out in connection with using communications to support rural development in the countries.

Participants in the various events totalled 597. Some courses were offered at cooperating institutions, such as CIESPAL (International Center for Advanced Studies in Communications in Latin America) in Ecuador, and CRUJIA in Argentina. An additional outcome of the courses was the preparation of four educational radio series to be distributed to the ministries of agriculture and to interested radio stations. They concern the use of pesticides, the cooperative movement, health and the situation of rural women in Central America.

In an effort to make better use of available resources, the Project worked together with international organizations such as OAS, UNESCO and UNICEF. Noteworthy among these cooperative efforts was the agreement signed with UNICEF to offer courses and produce materials concerning the situation of women.

Federal Republic of Germany

In October, IICA Headquarters was visited by a mission from the West German Agency for Technical Cooperation (GTZ). Successful negotiations were held with GTZ for the creation of a 1 to 1.5 million German mark fund to be used for activities of the Plan of Joint Action for Agricultural Reactivation in Latin America and the Caribbean, and for funding projects arising from said Plan.

Israel

An agreement on agricultural development training is about to be signed between the Government of the State of Israel and IICA. The agreement includes courses and seminars in Israel and courses in IICA member countries, financed with resources from Israel and from international funding institutions.

Japan

An official technical mission from Japan visited IICA Headquarters in 1987, and the relations opened at that time were cemented in a return visit to Japan made by IICA's Director General and Director of External Relations in 1988.

During this trip, meetings were held with representatives of the Ministries of Foreign Relations and Agriculture, and of research and development aid agencies, in order to introduce them to the activities IICA carries out in the interest of agriculture and rural development in Latin America and the Caribbean.

The directors of these Japanese organizations showed great interest in studying possible cooperation with the Institute, and feasible alternatives for Japanese-IICA cooperation came out of the conversations. Agreed upon during this visit were the placement of two Japanese experts in IICA's Investment Projects Center (CEPI) and the placement of Japanese volunteers in IICA projects in the member countries.

Republic of Korea

The Director General of IICA visited the Republic of Korea, where he held talks with representatives of the Ministries of Foreign Relations and Agriculture, and agencies specializing in research and development aid.

As a result of these conversations, Korea agreed to place Korean experts in IICA projects; a project would be submitted to Korea for funding; and technical personnel from IICA member countries would receive training in Korea.

Sweden

During a visit to Sweden, the Director General met with senior officials to discuss the possibility of Swedish cooperation in Central America through regional programs.

After studying the activities IICA is carrying out in the Central American isthmus, officials of the Swedish International Development Authority (SIDA) expressed interest in providing support.

The government of Sweden approved projects on the following subjects in December 1988: training in mass and group communications techniques for governmental and private organizations working with rural women in Central America; and strategy for designing compatible policies for agriculture in Central America.

In addition, negotiations are under way with the Swedish Agency for Research Cooperation with Developing Countries for a project on applied research in structural adjustment of agriculture in Latin America and the Caribbean, which will provide support to countries that expect to implement a structural adjustment loan.

Belgium

During the visit of the Director General to Belgium, representatives of the Belgian government and of Belgian cooperation agencies expressed interest in and a willingness to

provide support for agricultural development in Latin America and the Caribbean. Also discussed was the possibility of IICA serving as the executor agency for bilateral projects currently under way in Suriname, Bolivia, Ecuador and Peru.

As a result of these negotiations, projects were submitted in 1988 to Belgium, through the Government of Suriname, for possible funding.

European Economic Community (EEC)

An official mission of the European Economic Community examined the possibilities of cooperation between the EEC and IICA, through regional programs and projects.

In June 1988, the Director General visited EEC headquarters to meet with Community officials. During the discussions, further progress was made on analyzing possible areas of joint cooperation. Given special attention were projects the Community is considering funding in Central America.

Non-governmental Organizations (NGOs) and Foundations

IICA recognizes the growing importance of non-governmental organizations and foundations in the sphere of international cooperation, in that both serve to channel financial and technical resources, and for the particular contribution NGOs make in the rural development strategies being promoted in the region. With this in mind, IICA kept in close touch with such organizations during 1988, with an eye to working together with them on joint projects.

Among the NGOs and foundations contacted were: the Pablo Iglesias Foundation of Spain; CROCE VIA and TERRA NOVA of Italy; the Association for Cultural, Technical and Educational Cooperation (ACTEC) of Belgium; the Konrad Adenauer and the Friedrich Ebert Foundations of the Federal Republic of Germany; and the Ford, Kellogg, and Winrock Foundations of the United States.

Legal Instruments

The actions undertaken for formalizing the relations or complementing the activities described in this chapter took place under the terms of agreements, letters of understanding and other binding legal instruments which govern cooperative relations and specific

projects with international organizations, different government entities (mainly the ministries of agriculture) and related institutions of the agriculture sector of the member countries, on the one hand, and IICA, on the other. In general, these relations include the funding for technical cooperation projects which strengthen the Institute's regular activities in the interest of the Member States. Following is a table of the legal instruments registered in 1988.



Chapter 4



Plan of Joint Action for Agricultural Reactivation in Latin America and the Caribbean

Introduction

The Ninth Inter-American Conference of Ministers of Agriculture (ICMA), a specialized agricultural conference of the inter-American system, convened every four years by the Organization of American States, took place from August 31 to September 2, 1987, in Ottawa, Canada. Thirty-two countries of the Americas sent representatives; 22 of them, their ministers of agriculture.

The agreements reached during this hemisphere-wide summit on agriculture are synthesized in the Ottawa Declaration and in 10 recommendations, which constitute a mandate for the agricultural sector of the region and for all those who, in one way or another, have a voice in its development.

The meeting reached a broad consensus of a conceptual, declarative nature, which must now be translated into concrete actions that will help reactivate the economy and spur the development of the region. For this purpose, the Ninth ICMA charged IICA, as the specialized agency in agriculture of the inter-American system, to draft a "Strategic Plan of Joint Action for Agricultural Reactivation in Latin America and the Caribbean." The Institute was also instructed to seek external resources to finance the preparation of this Plan.

Both the general consensus achieved in the final Conference documents and the demand for a plan of joint action were subsequently endorsed by the ministers of foreign relations of Latin America and the Caribbean (LAC) during the 17th OAS General Assembly, held in Washington, D.C. in October 1987, where a resolution backing these initiatives was unanimously approved.

Nature and Objectives of the Plan

Nature

The general ideas outlined above, along with the more specific issues set out in ICMA Recommendation X, represent an important point of departure and are useful in

IICA has placed singular importance this year on the preparation of the Plan of Joint Action for Agricultural Reactivation in Latin America and the Caribbean. For this reason, a chapter of the 1988 Annual Report is devoted to this vital subject.

pinpointing several key concerns for drafting a plan of joint action to reactivate the agricultural sector of LAC.

This type of plan, to be successful, poses two essential requirements: a consensus by the countries of the region concerning a general strategy and an array of reforms and actions necessary for reactivating production and for garnering the support needed to carry them out. These two factors complement one another and are interdependent.

Secondly, the need for coordination of action among countries marks a break with the past. It reflects, on the one hand, the desire of the countries to bolster regional integration through joint action to solve concrete problems, and, on the other, the greater impact and efficiency of external cooperation emphasizing such an approach.

Objectives

This is to be a true Plan of Joint Action, rather than a simple study. Therefore, the overall objective in preparing the Plan was to design a conceptual and operating framework within which to implement joint actions to reactivate the agricultural sector in the countries of Latin America and the Caribbean, and contribute to their economic development.

The specific objectives are:

- a. To foster an understanding of general problems of agricultural development and of possible solutions, thus contributing to generating a region-wide line of shared ideas;
- b. To identify and propose an ensemble of actions to be conducted by individual countries and groups of nations, to solve concrete problems; and
- c. To ascertain the needs and opportunities for external cooperation in implementing these proposals.

A partial list of the major results achieved in the preparation of the Plan includes:

- a. Thoughts and proposals generated on problems of agricultural development and possible actions for solving them.
- b. Forums held for discussion and exchange of ideas among technical specialists and officials of the countries, to explain ideas and bring the countries closer together.



- c. Publications prepared for broad circulation, providing information and training in problems of and possibilities for agriculture in the region.
- d. Institutional mechanisms designed for coordinating action among countries and for channeling external resources in areas that are essential for the modernization and reactivation of the agricultural sector.
- e. A portfolio of projects and programs of joint action identified and prepared. To be included, projects must have the support of countries involved, put forth concrete actions for the reactivation of agriculture, and specify local resources available, as well as needs for external assistance.
- f. International sources of technical and financial cooperation (organizations, countries, etc.) identified, with descriptions of their operating approaches and a breakdown of those facets of implementation of the Plan that might prove interesting to them.
- g. The scope and content of the Plan broadly publicized in the countries of LAC and in developed countries, so as to contribute to the formation of a body of opinion on it and facilitate negotiations on its implementation.

Organization

IICA has the primary responsibility for preparing the Plan, and for this purpose it sought the participation of its member countries, agencies of the inter-American system and other specialized organizations.

An independent organizational structure was established for conducting the study, comprised of a Technical Group, an Institutional Steering Committee, an International Advisory Commission and a mechanism for consultation.

The Technical Group has a small full-time team consisting of a coordinator and consultants. It also includes the directors of IICA's five Programs (Agricultural Policy Analysis and Planning, Technology Generation and Transfer, Organization and Management for Rural Development, Marketing and

Agroindustry, and Animal Health and Plant Protection), the Assistant Deputy Director General for Operations and the Director of Programming and Evaluation. Furthermore, international experts were hired for specific, short-term tasks. This team had basic responsibility for preparing proposals and was in charge of overall coordination of the various activities involved in preparing the Plan. The participation of IICA's technical units (the Programs and the Investment Projects Center -CEPI) in the group provided access to the Institute's full range of technical capacity.

Other international institutions have participated in the preparation of proposals and basic documents, as have technical agencies of some developed countries.

The Institutional Steering Committee is made up of the members of IICA's Programming Committee, which includes the Deputy Director General, the Assistant Deputy Director General for Operations and the directors of all the operating units. This



Members of the International Advisory Commission at a meeting on the Plan of Joint Action.

group has provided regular follow-up on the progress of the Plan, monitored compliance with established timetables, examined whether proposals are consistent with IICA philosophy, and ensured that all the different Institute units have participated as needed.

The International Advisory Commission is made up of nine persons linked to the field of agriculture, renowned for their ability and technical expertise. They are: Ralph Campbell, of Canada; David Ibarra, of Mexico; Fernando Homem de Melo, of Brazil; Miguel Urrutia and Roberto Junguito, of Colombia; Edward Schuh, of the United States; Lucio Reza, of Argentina; Alister McIntyre, of Grenada; and Michel Petit, of France. The Commission's role is to advise and lend guidance to IICA in the preparation of the Plan.

The consulting process has taken place through three kinds of meetings. The first, technical consultative meetings, are attended by other agencies that cooperate with and fund agriculture. The second type of consulting mechanism was directed toward the countries at the regional level, through subregional bodies (such as CARICOM, CORECA, JUNAC and others). The third forum involved discussions with all the member countries of the Institute, during the meetings of its governing bodies (the Executive Committee and the Inter-American Board of Agriculture).

This process of consultation made it possible to achieve a broad consensus among the countries and the agencies interested in implementing the Plan.

There has also been a process of information sharing, discussion and participation with countries and organizations that may provide external cooperation. This is the first step toward securing resources, a task that will begin in earnest once the Plan has been approved by the countries.

Activities and Timetable

Activities to be undertaken for the preparation of the Plan have been divided into two phases: "Development of a conceptual framework and identification of possible actions" (Dec. 1987 - Aug. 1988), and "Preparation of proposals for action" (Aug. 1988 - Aug. 1989).

This division reflects the logical sequence of activities involved in preparing the Plan, which required a phase of conceptual analysis and detailed identification of possible areas of attention before proposals for action could be developed. It was also based on the timetable established for consultative meetings.

The work is expected to reach completion in August 1989, and results will be discussed in the second part of the meeting of IICA's Executive Committee, to take place from September 28-29, 1989, before it is presented to the Fifth Regular Meeting of the Inter-American Board of Agriculture, which will be held in October 1989.

Development of the conceptual framework and identification of possible actions (Dec. 1987 - Aug. 1988)

Actions taken during the first phase focused on three broad topics:

- a. Preparation of a **conceptual framework** to be used for further elaborating on some of the essential topics singled out by the Ninth ICMA, and for pinpointing actions with which to address them.
- b. A **strategy for joint action** for each of the subregions in LAC. These strategies included an analysis of problems and opportunities in the agricultural sector and identified areas of concern for which joint program action in the subregion could be feasible.
- c. The design and implementation of **mechanisms for consultation and discussion**, to include a number of technical gatherings: with the LAC countries and agricultural cooperation and lending agencies; consultation meetings with the countries, at the national and subregional levels; and consultation meetings at the hemispheric level.

Conceptual framework: hemisphere-wide challenges for agricultural development

Activities under this heading included: preparation of eight topical documents which constitute a framework for conceptual

analysis to be used in submitting proposals for joint action. Also drawn up were other related topical documents, and a series of basic documents explaining the scope and objectives of the Plan, and aiming to secure resources for achieving same.

Joint strategies for reactivating and developing the agricultural sector in each subregion

Joint strategies have been formulated for the different subregions of LAC. These provide a frame of reference and a consensual base for proposing subregional programs of action.

The subregions are:

- Central Area, including the countries of the Central American isthmus, the Dominican Republic and Mexico;
- Caribbean Area, including Antigua and Barbuda, Barbados, Dominica, Grenada, Guyana, Jamaica, Haiti, St. Lucia, St. Vincent and the Grenadines, Suriname and Trinidad and Tobago;
- Andean Area, with Bolivia, Colombia, Ecuador, Peru and Venezuela; and
- Southern Area, made up of Argentina, Brazil, Chile, Paraguay and Uruguay.

Mechanisms for consultation and discussion

Three types of meetings have been held:

- a. Technical consultative meetings, attended by technical experts from the countries of LAC and from other agencies engaged in cooperation and financing of agriculture.
- b. National and subregional consultations with the countries. The subregional meetings have taken place in subregional forums, such as CARICOM, CORECA and JUNAC. In the Southern Area, where no forum exists, IICA organized consultative meetings at the vice-ministerial level.

Meetings of vice ministers and ministers of agriculture have already taken place with CORECA, JUNAC and CARICOM, at which time reports were given of progress made in preparing the Plan.

- c. Hemisphere-wide consultative meetings, during the meetings of the governing bodies of IICA (the Executive Committee and the IABA).

The Eighth Regular Meeting of the Executive Committee took place August 1-5, 1988. The Committee will meet again in June 1989 and the IABA in October of that year.

Preparation of proposals for action (Aug. 1988 through Aug. 1989)

Based on the outcome of the first phase, more detailed action proposals are being prepared in this period. Three basic types of action are included, noteworthy in terms of their scope as well as their characteristics.

The scope of the proposals implies two different levels of implementation: hemisphere-wide and intersubregional, and subregional. In the first group, suggested actions involve all the countries of LAC or a group of countries representing more than one subregion. In the second type, action affects all or some of the countries in a single subregion.

In all cases, efforts will be made to quantify funding requirements. A document will be prepared on overall investment needs. For each subregion, a detailed analysis will be performed of resource needs and availability, identifying the institutional system for channeling financial resources and proposing institutional options to guarantee continuity in formulating investment projects.

In the area of external cooperation, attention will be paid to both financial and technical assistance. Proposals will be identified which can succeed in coordinating program and project action with external cooperation.

Results of Activities Carried Out in 1988

During the year, numerous meetings were held in connection with the preparation of the Plan of Joint Action. Two results deserve special mention: the consultative meetings and the documents drawn up in support of the Plan.

Consultative Meetings*

- Meeting of PROCISUR, Montevideo, Uruguay, March 9-10
- Meeting of CORECA Vice Ministers, Santo Domingo, Dominican Republic, April 6-9
- Meeting of JUNAC Vice Ministers, Quito, Ecuador, March 16-18
- Meeting of Ministers of Agriculture of the Andean Group, Lima, Peru, April 13-15
- First Meeting of the International Advisory Commission, San Jose, Costa Rica, April 18-19
- First Consultative Meeting of Vice Ministers of the Southern Area, Buenos Aires, Argentina, May 2-3
- Meeting of CARICOM Ministers of Agriculture, Port of Spain, Trinidad and Tobago, May 22-28
- High-Level Seminar on Policies and Mobilization of Resources for Technological Innovation in Latin America and the Caribbean, Montevideo, Uruguay, June 27-29
- Fourth Special Meeting of CORECA Ministers, Panama, Panama, July 21-22
- Meeting of Vice Presidents of Central America, Guatemala, Guatemala, July 29
- Eighth Regular Meeting of the Executive Committee of IICA, San Jose, Costa Rica, August 1-4

* Included are all meetings in which general or specific aspects of the Plan of Joint Action were discussed.

- Second Meeting of the International Advisory Commission, San Jose, Costa Rica, September 8-9
- Third Andean Meeting on Food Security, Cartagena, Colombia, August 7-9
- Extraordinary Meeting of the Standing Committees of the Ministers Responsible for Agriculture, Georgetown, Guyana, September 14-16
- Second Consultative Meeting of Vice Ministers of the Southern Area, Asuncion, Paraguay, September 19-20
- Meeting of PROCISUR, Montevideo, Uruguay, September 23-26
- Seminar on the Role of the Small-farmer Economy in Agricultural Reactivation, San Jose, Costa Rica, September 26-28
- Eleventh Meeting of the Agricultural Council of the Andean Pact, Santa Cruz de la Sierra, Bolivia, September 21-23
- Consultative Meeting on the Plan of Joint Action, Mexico, D.F., October 23-25
- Third Meeting of the International Advisory Commission, San Jose, Costa Rica, December 8-9
- Meeting of the Inter-Institutional Group of the Agricultural Sector (GISA), Panama, Panama, December 13-15

Topical documents on the following subjects were produced:

- Macroeconomic policies and the agricultural sector
- Agroindustrial development and agricultural reactivation
- The role of the small-farm economy in the strategy for agricultural reactivation and development
- Modernizing the public sector for reactivation and agricultural development
- Market access and intra-regional trade
- Investment and mechanisms for mobilizing productive capital

- **Toward a technological strategy for the reactivation of agriculture in Latin America and the Caribbean**
- **Human resources and basic services in the modernization of agriculture**

Strategy documents exist on the following:

- **Strategy of joint action for agricultural reactivation in the Central American isthmus and the Dominican Republic**
- **Strategy for agricultural reactivation and areas of joint action for the Andean Region**
- **Strategy of joint action for agricultural reactivation in the countries of the Southern Area**
- **Strategy for agricultural reactivation and development in Haiti**

- **Strategy of joint action for agricultural reactivation in the countries of the Caribbean**

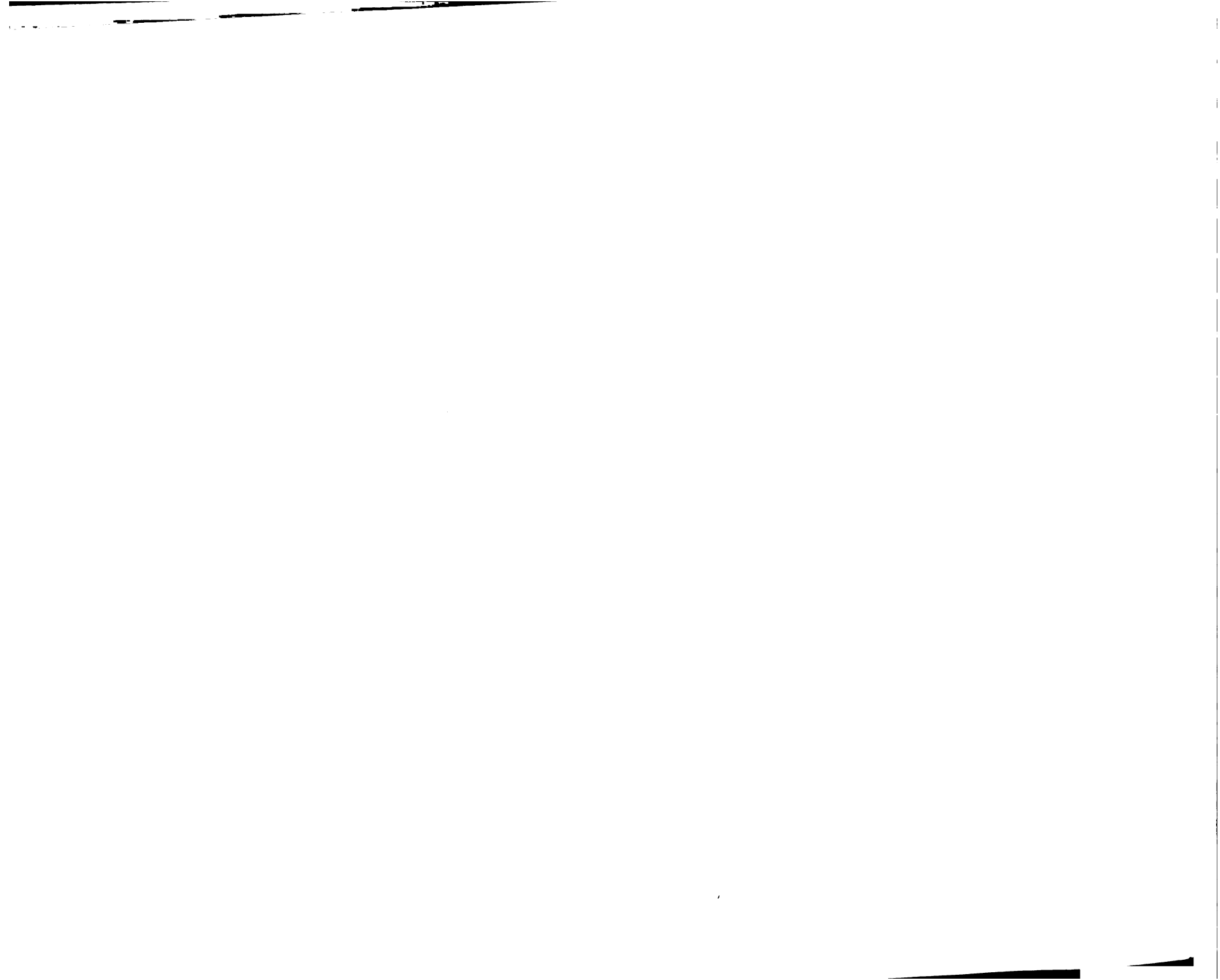
Other documents:

- **Plan of joint action for agricultural reactivation in the Southern Area: proposals for action**
- **Analysis of the mechanisms used by international banks and proposals for mobilizing resources for investment in agriculture and agroindustry in Latin America and the Caribbean**
- **The trade of agricultural products in the Southern Area: principal characteristics, evolution, obstacles and outlook**





Chapter 5



IICA Management System

The Inter-American Board of Agriculture

The Inter-American Board of Agriculture (IABA) is the highest governing body of the Institute and consists of IICA's 31 Member States. The IABA meets regularly every two years, and its responsibilities include approving policy guidelines, the two-year Program-Budget and electing the Director General of the Institute every four years, unless circumstances demand otherwise.

The IABA did not meet during 1988. Nevertheless, the Chairman of the Fourth Regular IABA Meeting, the Canadian Minister of Agriculture, Mr. John Wise, undertook a series of initiatives to inform the international community of the Ottawa Declaration and the recommendations of the Ninth Inter-American Conference of Ministers of Agriculture (ICMA).

In communications sent to the directors of development cooperation and lending agencies, the Canadian Minister of Agriculture requested that these entities support the initiatives taken by the Institute to implement the recommendations adopted by the ministers of agriculture of the hemisphere during the Ottawa conference, particularly as concerns the development of the Plan of Joint Action for Agricultural Reactivation in Latin America and the Caribbean.

The Executive Committee

IICA's Executive Committee held its Eighth Regular Meeting from August 1-4 at Institute Headquarters in San Jose, Costa Rica. During 1988, the Committee was made up of: Argentina, Barbados, Bolivia, the Dominican Republic, Ecuador, El Salvador, Guatemala, Grenada, Paraguay, Suriname, the United States, and Venezuela.

The following member states also participated in the meeting: Brazil, Canada, Chile, Costa Rica, Dominica, Mexico, Nicaragua, Panama, St. Vincent and the Grenadines,

The Convention on the Institute establishes three bodies: the Inter-American Board of Agriculture, the Executive Committee, and the General Directorate. It also provides that the General Directorate will be under the responsibility of the Director General, who legally represents the Institute and is responsible for administering the General Directorate.

and St. Lucia. Representatives of the following Permanent Observer countries were also present: France, Israel, Japan and the Federal Republic of Germany. The Organization of American States (OAS), the Inter-American Development Bank (IDB), the Inter-American Commission of Women (IACW), the Inter-American Indian Institute (IAII) and the Pan American Geography and History Institute, all Agencies of the inter-American system, sent delegates.

Nine other cooperation and regional integration agencies were represented: the Latin American Association of Development Finance Institutions; the Central American Bank for Economic Integration; the Caribbean Community Secretariat; Canada's International Institute of Development and Cooperation; the Board of the Cartagena Agreement; the Regional International Organization for Agricultural Health; the Latin American Energy Organization; the Permanent Secretariat of the Latin American Economic System; and the Permanent Secretariat of the General Treaty for Central American Economic Integration.

The Executive Committee elected Venezuela by acclamation to preside over the meeting, under the guidance of the regular Representative from that country, Ms. Elvira Vargas Rodríguez. Bolivia served as rapporteur. During this Committee meeting, a total of 19 resolutions were adopted.

The Committee approved the reports submitted by the Director General on the work carried out by the General Directorate during 1987 and the first half of 1988. The Director General presented the members of the Executive Committee with a detailed progress report on the Plan of Joint Action for Agricultural Reactivation in Latin America and the Caribbean. He also pointed out that fulfillment of the Ottawa Mandate should give rise to an active process of generating, discussing and reaching agreement on ideas and proposals concerning the role of agriculture in the region, with a view to promoting agricultural development projects and programs. During his presentation, the Director General, and other officials invited to participate in the discussion, stressed that the Plan did not pretend to regulate actions, but rather was a group of ideas around which a consensus could be built among those responsible for making decisions on concrete proposals for action.

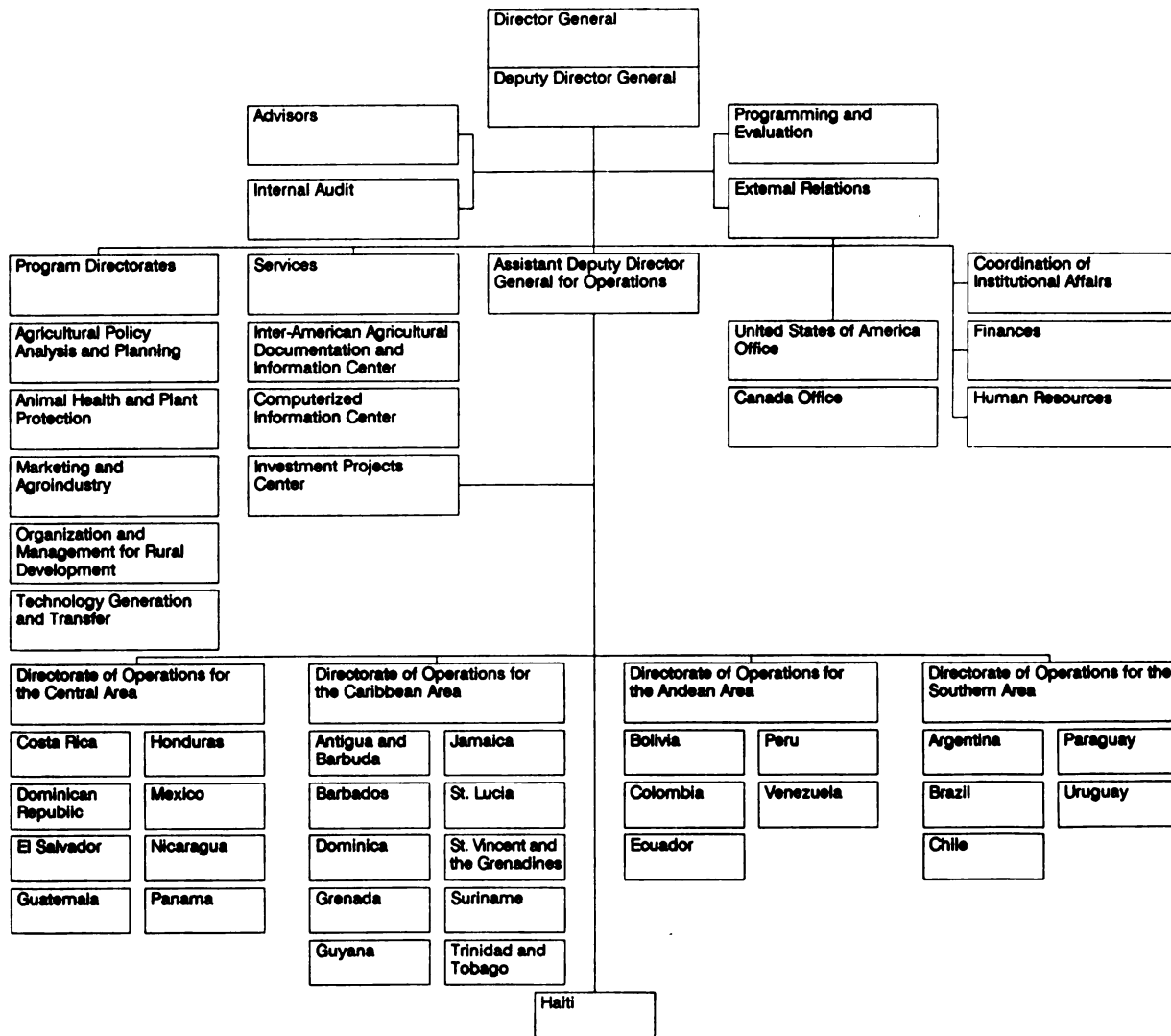
The General Directorate

Implementation of the Medium Term Plan requires that the Institute be equipped with a decentralized organizational and management structure that is both flexible and dynamic. In order to improve the administration of Institute resources, a management system was established that ensures that a greater portion of resources is earmarked for cooperative activities.



Dr. Martín E. Piñero, Director General of IICA and Ms. Elvira Vargas Rodríguez (Venezuela), Chair of the Meeting, sign the final report of the Eighth Regular Meeting of the Executive Committee during the closing session.

Organizational Chart of the Inter-American Institute for Cooperation on Agriculture 1988



At Headquarters

The organizational chart of the Institute, which appears on the previous page, did not undergo any significant changes this year. In 1988, Headquarters was made up of the Office of the Director General, which includes the Offices of the Deputy Director General, Advisors and the Internal Audit.

IICA's management support units come directly under the Director General and include the Directorates of External Relations, Human Resources, Finances, Programming and Evaluation, and for the Coordination of Institutional Affairs. The latter serves as the Technical Secretariat of the Inter-American Board of Agriculture and of the Executive Committee.

DIPROE continued this year to serve as Technical Secretariat of the Programming Committee, which is a basic element of the committee structure established at Headquarters to enrich the decision-making process.

The Directorates of the Institute's five Programs are responsible for developing concepts and working methods, and for establishing guidelines to govern the different areas of concentration of each Program. They perform the following functions: cooperating with the countries in identifying and analyzing problems, setting priorities and implementing solutions; and identifying, designing and implementing multinational technical cooperation in their particular areas of expertise. The five Program Directors, stationed at Headquarters, report to the Director General.

The technical support units generate specific, specialized services to strengthen Institute action. They are: the Inter-American Agricultural Documentation and Information Center (CIDIA), Computerized Information Services and the Center for Investment Projects (CEPI).

The Inter-American Agricultural Documentation and Information Center (CIDIA)

The Inter-American Agricultural Documentation and Information Center (CIDIA) is a technical service within the Institute that provides bibliographic and technical reference

support to the five IICA Programs, in general, and to specific projects, in particular.

To achieve this, CIDIA has specialists in documentation, bibliotechnology, selective dissemination of information, analysis and selection of documents and distant data bases, such as AGRICOLA (USDA), CAB International (England) and AGRIS (FAO), among general agricultural programs. The Foreign Trade Information Service (SICE) of the OAS, RIALIDE, INFOLAC and others target specific fields, including agrarian policies, rural development, trade and sectoral investment, among others.

As a result of CIDIA's work and its contacts with distant data bases and regional, subregional or world information networks, a number of different products are prepared, published and distributed. These include the ORADIA (Organization and Management of Agricultural Research) and ICAPPA (Research and Training in Agricultural Policy Analysis) bulletins, as well as documents of interest on rural development, marketing, agroindustry, and animal health and plant protection.

A quarterly publication is also produced, which offers complete references on the papers produced by the Institute and by its technical personnel, as well as abstracts of each.

Lastly, alert services are also offered through bulletins containing tables of contents from journals dealing with each area of institutional work; as well as bulletins on important events, including congresses, conferences, technical meetings, post-graduate courses, short-cycle courses, symposia and expositions.

All these materials are available to IICA's technical staff, on a quarterly basis. The demand for this documental-bibliographic information service grew considerably during 1988 as IICA Offices in the member countries, through their technicians, made these services available to national institutions and other technicians.

In addition, through its Orton Commemorative Library (Turrialba) and Venezuela Library (San Jose), CIDIA offers photocopying and microfilm service of documents. It also prepares short or exhaustive bibliographies (the latter on very specific topics) for agencies, institutions and technicians in more than 40 countries of the world. The income generated by these services contributes to the maintenance and periodic upgrading of CIDIA's equipment.

Management Structure of the Inter-American Institute for Cooperation on Agriculture
1988

Martín E. Piñeiro
Director General

Félix Cirio
Advisor

L. Harlan Davis
Deputy Director General

Rodolfo Martínez
Advisor for Special Affairs

Cassio Luiselli
Assistant Deputy Director
General for Operations

Directors of Area Operations

Carlos E. Fernández
Central

Luis A. Montoya
Andean

Reginald Pierre
Caribbean

Carlos Rucks
Southern

Program Directors

Fausto Jordán
Organization and Management
for Rural Development

Harry C. Mussman
Animal Health and Plant
Protection

Carlos Pomareda
Agricultural Policy Analysis and
Planning

Rodolfo E. Quirós
Marketing and Agroindustry

Eduardo J. Trigo
Technology Generation and
Transfer

Augusto Donoso
Director of Human Resources

J. André Ouellette
Director of Coordination of
Institutional Affairs

Paul E. Sisk
Director of Finance

Diego Londoño
Director of Programming and
Evaluation

Jorge Werthein
Director of External Relations

CIDIA's data base consists of the 164,000 hemisphere-wide references from the AGRINTER base (available on magnetic tape, photocopy or microfilm) for the years 1974-1986, as well as the data base of the Institute (all of IICA's publications), and some specific bases, such as the coffee data base. The latter, with PROMECAFE funding, is being installed in all of PROMECAFE's member countries in the Central Area, and consists of 10,000 references. The same will be done for African palm, and immediately afterwards, for cacao and other important crops of the region.

Computerized Information Services

This technical support unit reports to the Deputy Director General. During 1988, the Computerized Information Services was restructured administratively to better reflect the Institute's computer needs and enable it to cover these needs more efficiently with its available resources.

This year, as part of its new duties, the Service provided significant support to the Institute. Noteworthy was the implementation of a new institutional accounting system, prepared in cooperation with the Directorate of Finances, which reaches the microcomputers in IICA's Offices in the countries. In addition to representing a decisive step toward more accurate accounting control, these systems continue to be the object of ongoing improvements and adaptations in order to satisfy specific needs and to adjust to changes in Institute accounting policies.

A new document management system went into operation, allowing the Institute to meet its unique needs for word processing in IICA's four official languages. This is a semi-centralized, flexible, versatile and custom-made system which meets the Institute's criteria of accuracy and availability.

While designing specific systems for units at Headquarters, the Service also provided consistent, coordinated training courses for Institute personnel in key areas, with a view to better exploiting IICA's operating capacity.

The Office of the Assistant Deputy Director General for Operations

Each IICA Office in the countries reports to a Director of Area Operations. The Institute has divided its operations into four geographical areas: Caribbean, Central, Andean and Southern.

The four Directors of Area Operations report to the Assistant Deputy Director General for Operations. They play an important role in promoting horizontal cooperation among countries of the same area and in programming and executing multinational projects in their areas. The Office of the Assistant Deputy Director General for Operations is located at the Institute's Headquarters in San Jose, Costa Rica.

The Investment Projects Center (CEPI)

The Investment Projects Center (CEPI), under the Office of the Assistant Deputy Director General for Operations (ADDGO), cooperates with member countries and IICA units in identifying, formulating and evaluating projects. It also supports the formulation of technical cooperation projects, training and the design of methods in these fields. CEPI provides technical support for units and direct services to IICA's member countries in its area of expertise.

Allotting resources to finance and execute development programs and projects represents a serious challenge for IICA in the area of agricultural preinvestment. In order to meet this challenge, IICA must adjust its operations to meet the countries' demands appropriately and in a timely fashion, and improve the coordination of its actions to achieve greater efficiency.

Its plan of action, subject to a rigorous examination before resources are committed, has a certain degree of flexibility to enable CEPI to respond to requests for support not covered in the annual plan of operation. CEPI makes use of conceptual and technical instruments to assess the overall situation in the countries and its relation to agriculture. This is particularly important in the present regional situation, which requires that greater emphasis be given to harmonizing adjustment and stabilization programs with sectoral reactivation programs and projects.

CEPI's duties focus on three related elements: cooperation with the Program Directorates and DIPROE; support for IICA Offices in the countries, channeled through the Directors of Area Operations and implemented through specific activities and projects under the technical personnel of these Offices; and support to countries in preparing projects to be presented to different agencies for possible funding.

During the year, through the revision of various project profiles, support for the preparation of feasibility studies, and adjustment of preparatory documents for formulating projects, 11 projects benefitting several Offices in the countries, Institute Programs and cooperation agencies came into effect.

In addition, CEPI organized nine training events for more than 200 technicians from institutions of the public agricultural sector. Topics covered were: formulating projects for financing production activities; evaluating investment projects; and designing the evaluation components of the projects.

Lastly, the Center provided specific support to Institute units. In this connection, it prepared approximately 20 activities, such as prefeasibility studies, project profiles, technical-economic proposals (for implementing the technical component of cooperation projects), and the list of technical cooperation and investment projects and studies that fall within the Plan of Joint Action for Agricultural Reactivation in Latin America and the Caribbean.

Coordinating Committee for Operations

The Coordinating Committee for Operations was established in 1986 by the Director General as one of the various committees operating at Headquarters. It serves as a forum for coordinating actions to implement approved projects and to determine the support needed by the Institute's different administrative units.

This Committee also analyzes requests concerning the execution of the plan of operation and the proposals for reprogramming ongoing technical cooperation projects. It studies project execution reports and recommends to the Director General their continuation, modification or termination. It also examines

budgetary execution reports, presenting pertinent recommendations to the Director General.

Another of its duties is to coordinate the action of the Office of the Assistant Deputy Director General for Operations with that of the Program Directorates, for executing technical cooperation projects at the hemispheric, regional or national levels. It also serves to coordinate activities that must be carried out to comply with the commitments acquired through legal and technical cooperation instruments.

The Deputy Director General chairs this Committee, while the Assistant Deputy Director General for Operations is in charge of the technical Secretariat. Fundamentally, the Committee has served as a consultative, deliberating and advisory body for the different units of the Institute, where decisions are made by an interdisciplinary team of senior technical officials, concerning the execution of IICA operations.

During 1988, the Committee met 29 times and reached more than 100 agreements on Institute operations in the member countries or in other operational units at Headquarters.

Offices in the Countries

IICA's Offices in the countries constitute the institutional and administrative foundation for the execution of IICA activities and they play a central role in: maintaining relations with government authorities; providing administrative and logistic support to IICA's activities; providing technical assistance to the countries faced with unanticipated, short-term problems; developing the capacity to identify, manage and execute projects; and executing national service projects.

While the structure of each IICA Office in the countries varies considerably from one country to another, the IICA Representative is responsible for managing the Office.

IICA's Offices in Canada and the United States, due to the different role they play within the Institute's structure, respond directly to the Director General, through the Director of External Relations.

The Evaluation System

In 1987, the evaluation system for IICA technical cooperation was designed and implemented, which, together with other institutional mechanisms (i.e. supervision, follow-up and ongoing evaluation), provides the upper levels of the IICA management structure with the information needed for the decision-making process.

The system is designed in such a way as to permit a comprehensive evaluation of IICA action carried out by the Programs and Offices, as the operating units responsible for the implementation of technical cooperation instruments. Individual projects are also evaluated to comply with contractual obligations, or because of their importance in terms of methodology or impact.

These evaluations are conducted by external consultants selected on the basis of their academic background or experience in the specific subject area being evaluated, and supported by a technical secretariat under the responsibility of the Directorate of Programming and Evaluation (DIPROE).

The Institute's 1987 Annual Report presented the system's guidelines, describing the model adopted, its conceptual framework and the scope of the evaluations, as concerns Program action, IICA action in the countries, and the action of specific projects.

This year, some of the results obtained by applying the system to three IICA Offices and to a project conducted by one of them are presented.

Application of the System and Results

In 1988, the evaluation system was tested to determine the relevance and usefulness of its conceptual approach, methods and procedures in order to amend it before converting it into an official norm of the Institute. The outcome also provided information which has aided in making decisions for improving the technical cooperation provided to the member countries.

This year, evaluations were made of the National Agricultural Training Program (PNCA) in Colombia, and of the IICA Offices in Argentina, Colombia and El Salvador.

The Evaluation of PNCA in Colombia

During the first quarter of 1988, the National Agricultural Training Program (PNCA), run by the IICA Office in Colombia, was evaluated; the members of the evaluation mission were Dr. Marcela Gajardo (Chile), Dr. Angel Matovelle (Ecuador) and Dr. Fernando Guilherme Tenorio (Brazil).

Both the report of the mission and IICA's appraisal of the report were presented to the PNCA Advisory Board, which was presided over by the Minister of Agriculture of Colombia. The Board expressed agreement with the report and accepted its recommendations. The government of Colombia accepted the proposal for a new agreement, which calls for PNCA to enter a new stage based on the recommendations of the evaluation and the priorities established by the Advisory Board.

The Evaluation of IICA Action in Argentina and Colombia

The evaluation of these two Offices took place in June and July of 1988, and was carried out by Dr. Roberto Martinez Nogueira (Argentina) and Dr. Juan Jose Salazar (Colombia).

The objective of this evaluation was to make a critical analysis of the orientation given to technical cooperation actions during 1984-1988; the significance and impact of the results of same on the sectoral and institutional setting of Colombia and Argentina; and the management of the resources allocated to these Offices and the activities they carry out.

The IICA Office in Argentina was directly involved in addressing one of the major concerns of the present government: modernizing agriculture to equip it to fill the new role it must play in economic development.

Using the 1987-1991 Medium Term Plan and the Ottawa Declaration as a frame of reference, the Institute concentrated its

efforts in Argentina on strengthening its capacity to analyze the agricultural public sector, with a view to coordinating agricultural activity with macroeconomic policy. Therefore, the Office focused on adapting to the government's action strategy. The evaluation indicated that the Office was very successful, having concentrated on preparing diagnoses as input for policy-setting and on analyzing and formulating projects.

The evaluation mission stated that the IICA Office in Argentina is a mechanism consistent with the needs of the country. The report makes special mention of the Office's openness to dialogue, and of its collaboration with sectoral institutions as well as national and international agencies, in the formulation of external investment projects aimed at modernizing and reactivating agriculture.

The evaluation mission to Colombia reported that the Institute's long-standing relationship of cooperation with the Ministry of Agriculture and related agencies had allowed IICA to gain a wealth of knowledge and a thorough understanding of the problems faced by Colombian agriculture. The Office's acceptance in the country and by those in the sector, combined with its technical capacity and infrastructure, put it in a favorable position to test a new institutional model for the organization and administration of technical cooperation.

The mission concluded that, in light of the nature of the Colombian agricultural sector, IICA should work to generate ideas on how to respond to the crisis and overcome the development models in place today, underscoring the contribution of agriculture to achieving the objective of growth with equality.

The Evaluation of IICA Action in El Salvador

An evaluation mission consisting of Mr. Domingo Marte (Dominican Republic) and Dr. Jean Casimir (Haiti) evaluated the IICA Office in El Salvador and submitted its report to the Director General in October 1988.

The mission found that the technical cooperation offered by the Office is in line with the Medium Term Plan. The objectives, strategy and expected results of this cooperation are consistent with the problems of the agricultural sector and the country's institutional setting. IICA contributed to the style of social and

economic development being sought, in which the agricultural sector and the rural population play a major role. Special emphasis is placed on development plans and strategies for extending agrarian reform.

The mission understands that the Office must work steadily to determine the country's future needs and priorities. It must keep government authorities abreast of changes in IICA's approach to and emphasis on agricultural development, and must see that the country makes better use of its comparative advantages.

Use of the Evaluation Results

As a result of these evaluations, the Institute made decisions and took steps which will allow the IICA Office in Argentina to consolidate its work and strengthen its contacts with the institutions involved in the formulation and implementation of macroeconomic and sectoral policies. IICA examined the extent of the Representative's decision-making responsibilities, and moved toward a more decentralized scheme that better reflects the number of activities and the nature of the conditions encountered. In order to ensure that the lessons gained from the experiences of the Office in Argentina are put to greater use, this information is being disseminated to other projects under way.

Institute actions in Colombia are aimed at promoting activities which will produce new approaches to overcoming agricultural problems; IICA will be a forum for the exchange of ideas, points of view and experiences, and a place where lessons learned on the topic can be accumulated and disseminated. Emphasis is being given to the fact that there must be consistency between cooperation projects and scientific brokerage and administrative support actions if their impact is to converge on achieving the objectives of the action strategy, and to strengthening national institutions.

The new technical cooperation agreement between IICA and PNCA in Colombia is in the final stages of negotiation, and its implementation will provide the country with a new instrument for training officials from agricultural sector institutions.

The IICA Office in El Salvador is consolidating a new organizational and management model which reflects the

prospects for the sector and the new focus of the Institute. The Institute has done much to improve its image and to make its presence felt among national and international financial cooperation agencies, resulting in a sharp increase in external resources for the Office in El Salvador. These funds will make it

possible for the Office to make important contributions to the sectoral planning system. Rural development actions are also being consolidated. These will lend support to the reformed sector, made up of the agrarian reform cooperatives which have been classified as self-managed by the government.

Human Resources

The Directorate of Human Resources, in its desire to reach the goals established in the Medium Term Plan, and as is detailed in the tables included herein, reduced the total number of International Professional Personnel (IPP) and increased the number of Local Professional Personnel (LPP). In part, this was achieved through a reduction of IPP covered by quota resources and an increase in LPP covered by extra-quota resources.

The training, recruitment and selection process facilitated the renewal and updating of the Institute's professional personnel through the transfer and promotion of existing personnel and the selection of new personnel. At the same time, and with a view to recognizing the contribution local professional personnel make to the technical work of the Institute, the first steps have been taken to adjust the salaries and benefits of this group of employees.

On 18 occasions, the Institute announced international competitions, and 21 specialists were hired to carry out new technical cooperation projects, to fill positions in the five Programs, and to fill vacancies in the management support units. For various reasons, including the termination of externally funded projects and age, 28 specialists left the Institute, thus reducing the number of international personnel to 189. In contrast, at Headquarters and in the Offices in the countries, the number of Local Professional Personnel increased by 22, which brought the number of local technical personnel to 168. These changes, like those made in 1987, reflect the guidelines established in the Medium Term Plan.

In order to provide support to the new specialists and to upgrade administrative functions, it was necessary to increase General Services positions by 23, producing an increase in this category from 518 to 541, of which 187 are funded with external resources provided through technical cooperation agreements. Overall, total Institute personnel rose from 860 to 898, as of December 31.

The application of the Executive Order concerning salary adjustments for Local Professional Personnel marked an important step forward in stabilizing the situation of LPP with respect to inflation. Similarly, and in accordance with a request from the Inter-American Board of Agriculture, the Performance Appraisal System for General Services Personnel was reviewed and amended, also exemplifying progress made in achieving the objectives of the current Staff Rules.

At the request of the Director General, and due to difficulties encountered in hiring International Professional Personnel, a detailed study was conducted of the incomes of IICA officials, as compared to those earned by officials of other international agencies engaged in similar activities.

Taking advantage of the experience gained from the application of the Executive Order concerning the hiring of Consultants, this Executive Order was reviewed and brought into line with IICA's current requirements. The purpose was to make IICA more competitive in the marketplace, make it more flexible, and improve supervision. In doing so, consideration was given to the prevailing conditions in the consultant market, current rules at IICA, and the recommendations that can be deduced from existing agreements and projects.

Table 1. Distribution of IICA Human Resources by Category and Funding Source, as of December 31, 1988

	Quota	%	Extra-quota	%	TOTAL	%
Category						
International Professional Personnel	151	79.5	39	20.6	190	21.0
Local Professional Personnel	76	45.8	91	54.2	167	18.7
General Services Personnel	354	66.0	187	34.9	541	60.2
Total	581	65.1	317	35.5	898	100.0

Source: Directorate of Human Resources.

Table 2. Distribution of IICA Personnel by Nationality and Category, as of December 31, 1988

	International Professional Personnel	Local Professional Personnel	General Services Personnel	Total	%	
Country of Origin						
Antigua and Barbuda	-	-	-	-	0.0	
Argentina	12	3	15	30	3.3	
Barbados	2	-	9	11	1.2	
Bolivia	5	4	10	19	2.1	
Brazil	10	45	63	118	13.1	
Canada	5	1	1	7	0.8	
Chile	16	5	10	31	3.5	
Colombia	21	10	56	87	9.7	
Costa Rica	3	35	215	253	28.3	
Dominica	-	-	1	1	0.2	
Dominican Republic	4	4	10	18	1.8	
Ecuador	3	10	11	24	2.9	
El Salvador	4	6	7	17	1.9	
Grenada	1	1	4	6	0.7	
Guatemala	8	8	13	29	3.0	
Guyana	2	1	7	10	1.1	
Haiti	1	5	10	16	1.8	
Honduras	1	8	11	20	2.2	
Jamaica	2	1	7	10	1.1	
Mexico	11	2	5	18	2.0	
Nicaragua	3	1	6	10	1.1	
Panama	2	1	5	8	0.9	
Paraguay	2	2	9	13	1.4	
Peru	28	3	13	44	4.9	
Saint Vincent and the Grenadines	-	-	-	0	0.0	
Saint Lucia	-	1	4	5	0.6	
Suriname	-	-	4	4	0.4	
Trinidad and Tobago	2	2	4	8	0.9	
United States of America	15	1	-	16	1.8	
Uruguay	12	3	16	31	3.5	
Venezuela	10	4	14	27	3.1	
Subtotals	185	167	540	891	99.3	
Other Countries	5	-	1	6	0.7	
Total	Personnel	190	167	541	898	100
	Percentage	21.0	18.7	60.2	100	

Source: Directorate of Human Resources.

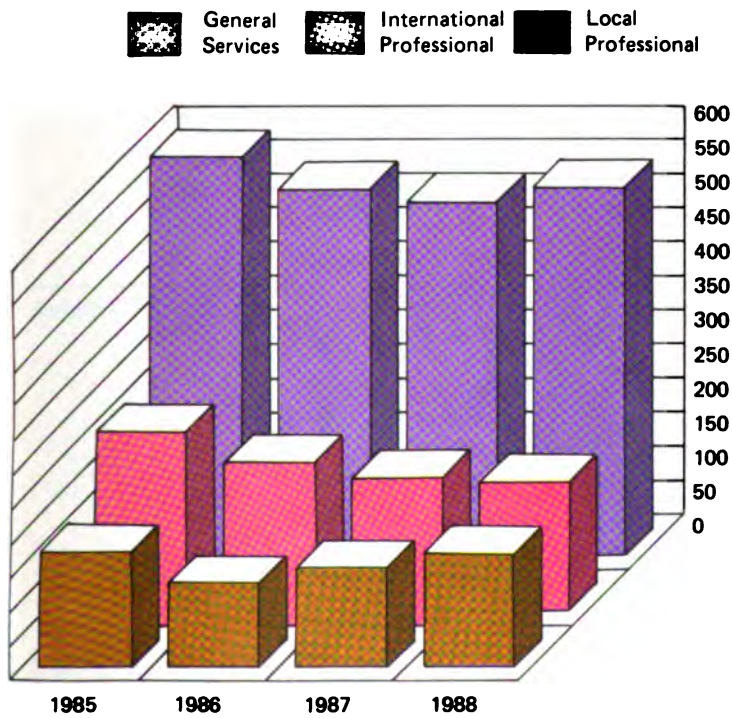


Figure 1. Distribution of Personnel by Category.

(Includes Quotas and Extra-Quotas)

Source: Directorate of Human Resources.

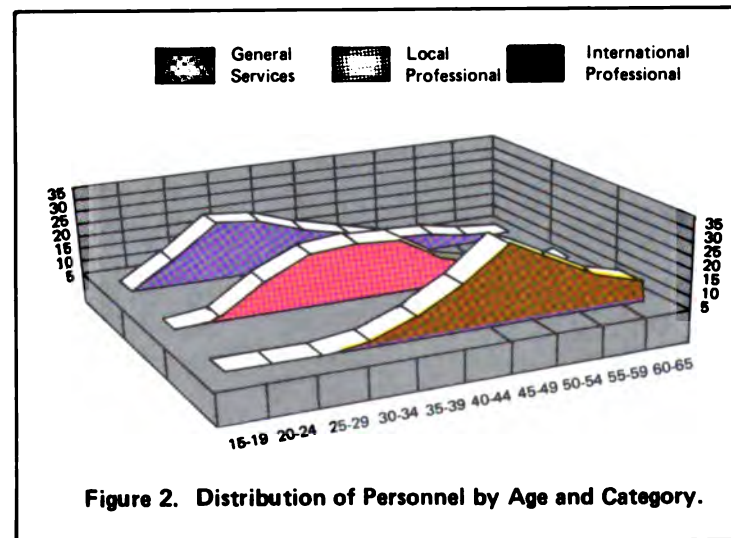


Figure 2. Distribution of Personnel by Age and Category.

Table 3. Geographic Distribution of IICA Personnel by Category and Funding Source, as of December 31, 1988

	Local Professional Personnel		General Services Personnel		International Professional Personnel		Total	%
	Quota	Extra-quota	Quota	Extra-quota	Quota	Extra-quota		
Headquarters	36	2	177	29	46	6	296	33.0
CATIE/Turrialba	-	-	-	-	-	1	1	0.1
United States	1	-	3	1	3	-	8	0.9
Canada	-	-	1	-	1	-	2	0.2
Subtotals	37	2	181	30	50	7	307	34.2
Area 1 - Central								
Costa Rica	2	1	9	1	4	2	19	2.1
Dominican Republic	2	-	8	2	4	-	16	1.8
El Salvador	1	5	4	3	3	-	16	1.8
Guatemala	2	4	9	3	4	-	22	2.4
Honduras	2	5	8	2	5	1	23	2.6
Mexico	2	-	6	-	4	-	12	1.3
Nicaragua	1	-	6	-	4	-	11	1.2
Panama	1	-	3	1	2	-	7	0.8
Subtotals	13	15	53	12	30	3	126	14.0
Area 2 - Caribbean								
Antigua and Barbuda	-	-	-	-	-	-	-	0.0
Barbados	-	-	9	-	3	-	12	1.3
Dominica	1	-	1	-	-	-	2	0.2
Grenada	1	-	3	-	-	-	4	0.4
Guyana	1	-	7	-	2	-	10	1.1
Haiti	1	3	6	4	3	3	20	2.2
Jamaica	2	-	6	1	3	-	12	1.3
Suriname	-	-	4	-	2	-	6	0.7
Saint Vincent and the Grenadines	-	-	-	-	-	-	-	0.0
Saint Lucia	1	-	5	-	3	-	9	1.0
Trinidad and Tobago	2	-	4	-	3	-	9	1.0
Subtotals	9	3	45	5	19	3	84	9.4
Area 3 - Andean								
Bolivia	4	-	8	-	4	-	16	1.8
Colombia	2	7	14	43	4	-	70	7.8
Ecuador	1	11	3	8	7	2	32	3.6
Peru	2	1	10	1	5	-	19	2.1
Venezuela	-	5	7	7	6	-	25	2.8
Subtotals	9	24	42	59	25	2	162	17.9

Table 3. Geographic Distribution of IICA Personnel by Category and Funding Source, as of December 31, 1988

	Local Professional Personnel		General Services Personnel		International Professional Personnel		Total	%		
	Quota	Extra-quota	Quota	Extra-quota	Quota	Extra-quota				
Area 4 - Southern										
Argentina	3	-	8	9	4	-	24	2.7		
Brazil	2	43	6	60	9	23	143	15.9		
Chile	1	1	7	1	6	-	16	1.8		
Paraguay	1	1	6	2	4	-	14	1.6		
Uruguay	1	2	7	8	4	1	23	2.6		
Subtotals	8	47	34	80	27	24	220	24.5		
Total	Personnel		76	91	355	186	151	39	898	100
	Percentage		8.6	10.1	39.6	20.7	16.7	4.3	100	

Table 4. Distribution of IICA Human Resources by Category and Age, as of December 31, 1988

	International Professional		Local Professional		General Services		Total	%	
		%		%		%			
Age									
15-19	-	0.0	-	0.0	1	0.2	1	0.1	
20-24	-	0.0	2	1.8	54	10.0	56	6.3	
25-29	-	0.0	21	12.5	121	22.4	142	15.8	
30-34	4	2.1	34	20.2	114	21.1	152	16.9	
35-39	17	8.6	37	22.0	83	15.3	137	15.2	
40-44	33	17.5	36	21.4	61	11.3	130	14.5	
45-49	57	30.2	18	10.7	43	7.9	118	13.1	
50-54	40	21.2	9	5.4	35	6.5	84	9.4	
55-59	24	12.7	4	2.4	17	3.1	45	5.0	
60-65	15	7.9	6	3.6	12	2.2	33	3.7	
Total	Personnel		190	100.0	167	100.0	541	100.0	898

Table 5. Distribution of IICA Human Resources, according to their Share in the Retirement Fund, as of December 31, 1988

	Retirement	%	Pension	%	TOTAL	%
Category						
International Professional Personnel	105	55.6	85	44.4	190	100

Source: Directorate of Human Resources.

Financial Resources

Institute operations are financed by a number of sources classified either as trust or regular funds.

Regular funds comprise revenue from quotas collected from Member States, overhead charged for administering trust funds, and miscellaneous income. Trust funds comprise resources of national entities and international agencies held by IICA for conducting specific activities with established objectives.

The persistent and tangible support of the Member States produced in 1988 for the second consecutive year quota receipts in excess of annual assessment. This cash flow improved the liquidity of the Institute and reduced quotas outstanding from prior years, as can be seen in Table 1. This excellent collections record allowed

the Institute to continue with a trend of increasing success in executing the approved quota budget and of increasing total resources administered. This trend, depicted in Table 2 and Figure 1 for years 1984 to 1988, brought quota expenditures and total resources to record levels of US\$21,305,751.00 and US\$36,745,278.00 respectively. The composition of quota expenditures progressed in the period from a 60-40 split between direct technical services and management costs in 1984 to a 80-20 split in 1988 (Table 3 and Figure 2).

The growth in quota income and expenditure in comparison to approved budget can be seen in Table 4 and Figure 3 for the years 1984-1988.

The concentration of quota resources in direct technical cooperation services is evident in Table 5 and Figure 4, where actual expenditures in 1988 are presented by major budget item.

Table 1. Detailed Table of Income by Quota for the 1984-1988 Period (in US\$)

	1984	1985	1986	1987	1988
Source					
From Earlier Years	1 348 145	5 361 046	6 534 840	7 191 475	5 265 191
From the Stipulated Year	15 575 178	12 911 348	14 250 239	14 734 675	16 181 834
Total	16 923 323	18 272 394	20 785 079	21 926 150	21 447 025
Percentage of Budget Approved	88	90	102	108	101

Source: Directorate of Finances.

Table 2. Total Resources Used, by Source 1984-1988 (in US\$)

	1984	1985	1986	1987	1988
Source					
Quotas	17 497 441	19 234 497	19 917 409	20 240 560	21 305 751
Overhead Recovery	1 272 063	1 396 859	1 187 697	1 198 938	1 190 511
S.B.F.	34 140	22 856	79 726	18 488	--
Extra-Quotas	15 820 423	15 143 686	12 192 971	12 827 540	14 249 025
Total	34 624 067	35 797 898	33 377 803	34 285 526	36 745 278

Table 3. Comparative Table of Actual Quota Expenditures by Chapter during 1984-1988 Period

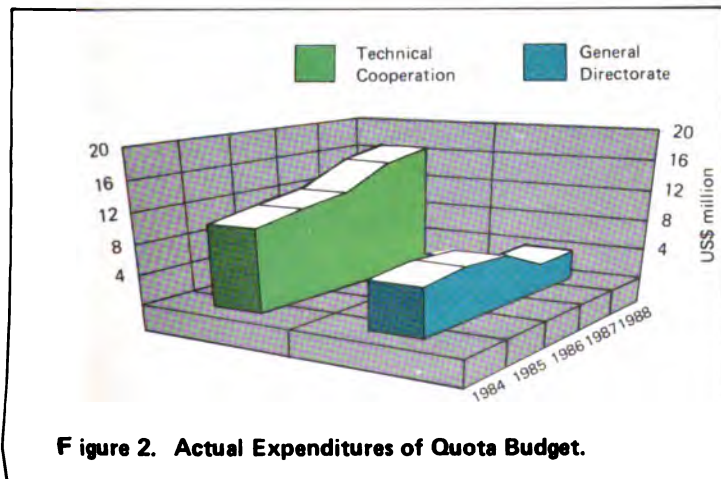
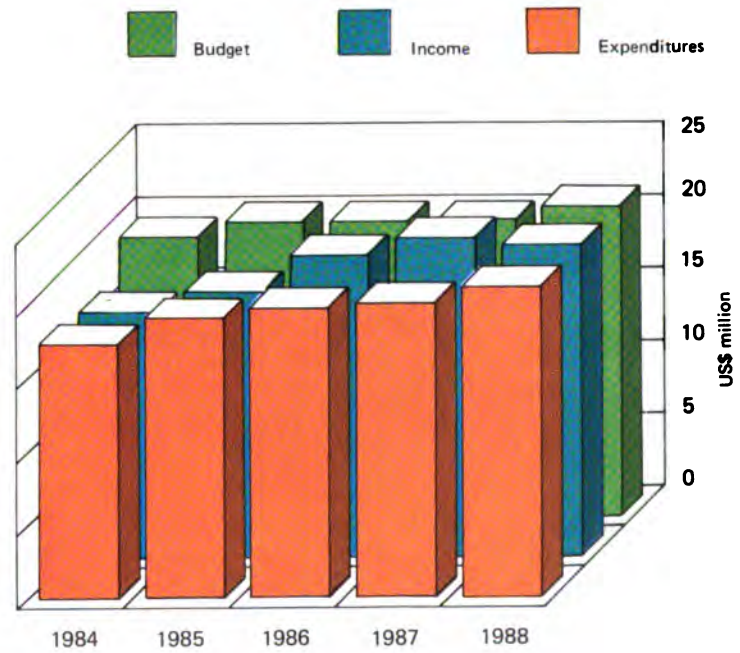
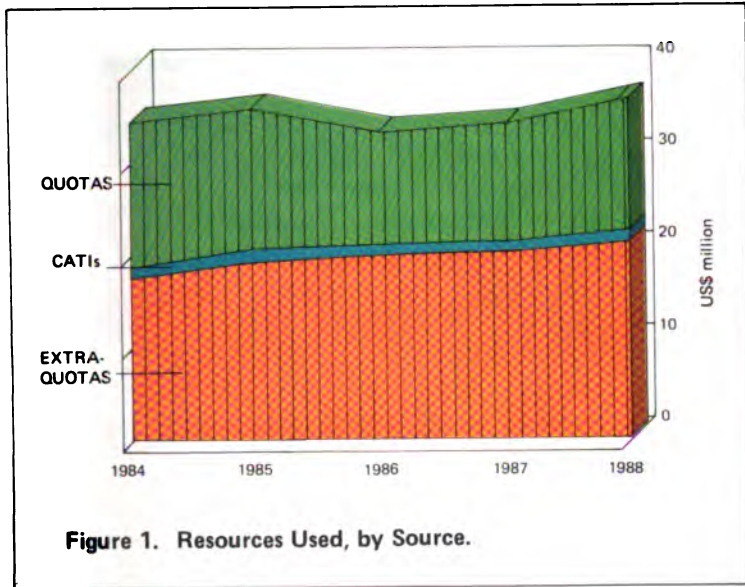
	1984	%	1985	1986	1987	1988	%
Direct Technical Cooperation Services	10 650 027	60	11 838 979	12 688 756	15 741 371	16 884 507	79
General Directorate Costs	6 173 066	35	6 835 735	6 469 208	3 687 313 *	3 910 085	18
General Costs and Provisions	674 348	5	559 783	759 445	811 876	511 159	3
Total	17 497 441	100	19 234 497	19 917 409	20 240 560	21 305 751	100

* Reduction from 1986 reflects change in budgetary classification of the cost of the basic structure of the IICA Offices in the member countries.

Table 4. Comparative Table of Budget, Income and Expenditures from Quota Resources during 1984-1988 Period

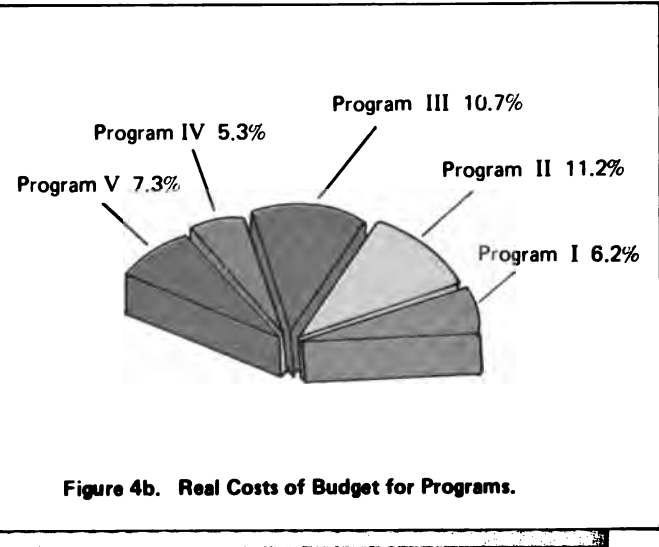
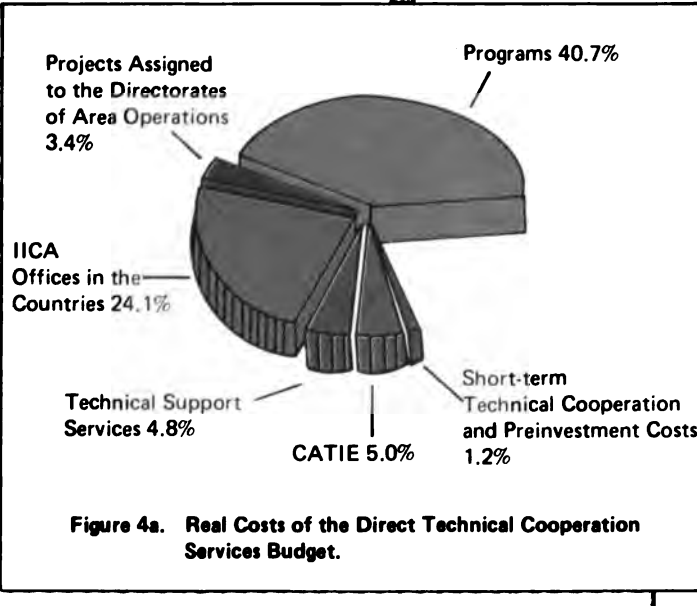
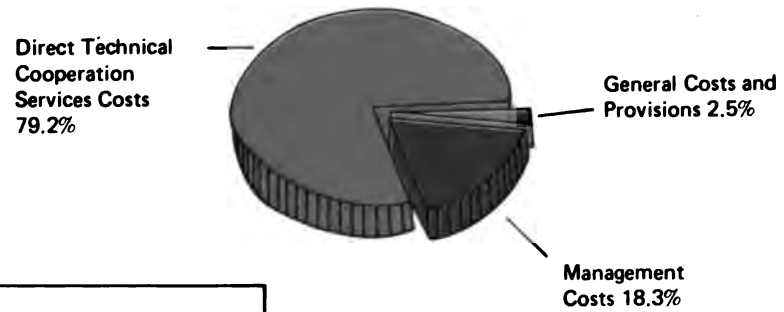
	1984	1985	1986	1987	1988
Approved Budget in US\$	19 322 935	20 289 100	20 289 100	20 289 100	21 314 187
Income	16 923 323	18 272 394	20 785 079	21 926 150	21 447 025
Expenditures	17 497 441	19 234 497	19 917 409	20 240 560	21 305 751

Source: Directorate of Finances.



Source: Directorate of Finances.

Figure 4. Distribution of Real Costs of the Quota Budget.



Source: Directorate of Finances.

Table 5. Actual Expenditures of Quota Budget by Level of Programming (in US\$)

Chapter / Units	Total Expenditures - Amount in US\$	%
Chapter I - Direct Technical Cooperation Services	16 884 507	
Programs	8 676 984	
Program I	1 313 253	6.2
Program II	2 385 792	11.2
Program III	2 287 277	10.7
Program IV	1 136 978	5.3
Program V	1 553 684	7.3
Projects Assigned to Directorates of Area Operations	728 262	3.4
IICA Offices in the Countries	5 142 452	24.1
Technical Support Services	1 032 625	4.8
Contribution to the Tropical Agriculture Research and Training Center (CATIE)	1 054 600	5.0
Short-Term Technical Cooperation and Pre-investment Costs	249 584	1.2
Chapter II - Management Costs	3 910 085	18.3
Chapter III - General Costs and Provisions	511 159	2.5
Total	21 305 751	100.0

Source: Directorate of Finances.





Appendix 1

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 Representatives 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 1988.

Personnel Emeritus of the Institute (As of December 31, 1988)

	Name	Country	Date of Appointment
Directors General	Araujo, José Emilio	Brazil	January 15, 1982
	Morillo, Francisco	Venezuela	October 25, 1985
	Samper, Armando	Colombia	October 22, 1969
<hr/>			
Personnel	Alvin, Paulo de Tarso	Brazil	March 31, 1977
	Blair, Enrique	Colombia	October 25, 1985
	Cabral, José Irineu	Brazil	October 28, 1986
	Casseres, 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
	Elgueta, Manuel	Chile	October 1, 1976
	Gorbitz, Adalberto	Peru	July 18, 1980
	Lombardo, Heraclio	Panama	September 3, 1987
	Mac Lean, Alejandro	Peru	October 26, 1983
	Mac Donald, Malcolm H.	United States of America	October 26, 1983
	Malugani, María Dolores	Uruguay	October 25, 1985
	Marull, José	Chile	August 1, 1980
	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
	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

Country	Name
Argentina	Carlos Garramón
Barbados	Michael Morán; Reginald Pierre*
Bolivia	Benjamín Jara
Brazil	Manuel Otero
Canada	Ernani Fiori
Chile	Alfredo Alonso
Colombia	Mario Blasco; Augusto Donoso*
Dominican Republic	Gilberto Páez
Ecuador	Jaime Román; Mario Blasco**
El Salvador	Ramón Montoya
Guatemala	Armando Reyes
Guyana	George Buckmire
Haiti	Percy Aitken-Soux
Honduras	Juan A. Aguirre
Jamaica	Jan Hurwitch-MacDonald
Mexico	Héctor Morales
Nicaragua	Alfonso Chirinos
Panama	Eduardo Salvadó
Paraguay	Sergio González; Luiz Carlos Pannunzio**
Peru	Israel Tineo
Suriname	Mario França
Trinidad and Tobago	Chelston Brathwaite
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

* Will take over as Representative in early 1989.

** Took over as Representative during second half of 1988.

Source: Directorate of Human Resources.

List of Professional Personnel*

Name	Academic Title	Position at IICA	Duty Station
Abarca, Martha	B.Sc.	Librarian, CIDIA	Headquarters
Abreu, Marcial	M.Sc.	Production Systems Specialist	Chile
Acosta, Carlos J.	M.Sc.	Epidemiologist	Venezuela
Acha, Pedro†	D.V.M.	Coordinator of International Relations	United States
Aguilar, Carlos	B.Sc.	Irrigation Specialist	Brazil
Aguilar, José	B.Sc.	Irrigation Specialist	Brazil
Aguilera, Eustacio	M.Sc.	Agricultural Extension Specialist	Paraguay
Aguirre, Juan	Ph.D.	Representative	Honduras
Aitken-Soux, Percy	Ph.D.	Representative	Haiti
Alarcón, Pedro A.	M.Sc.	Advisor to the Rural Development Secretariat	Ecuador
Alcócer, Raúl	Lic.	Animal Health Specialist	Mexico
Alexander, Franz	M.Sc.	Representative	St. Lucia
Alfaro, Wilberth	B.Sc.	Deputy Coordinator of COTER	Costa Rica
Alonso, Alfredo	B.Sc.	Representative	Chile
Alonso, Carlos	B.Sc.	Marketing and Agroindustry Specialist	Paraguay
Alvarado, Edgar A.	M.Sc.	Research Assistant	Guatemala
Alvarado, Edgar G.	Lic.	Administrator	Guatemala
Alvarado, Lorena	B.A.	Head, Technical Cooperation Instruments, Programming and Evaluation	Headquarters
Alvarado, Ramón D.	M.Sc.	Management and Administration Specialist	Ecuador
Alvarez, Anibal	M.A.	Instructor, PNCA	Colombia
Alvarez, Hugo	M.Sc.	Forestry Development Specialist	Panama
Alvarez, Marilia	Lic.	Information and Documentation Specialist	Brazil
Ambrose, Everton	M.A.	Plant Protection Specialist	St. Lucia
Andrade, Carlos E.	Lic.	Communications Specialist	Costa Rica
Andrade, Florencio	Ph.D.	Rural Sociology Specialist	Costa Rica
Ansorena, Ignacio	Ph.D.	Agricultural Education Specialist	Venezuela

* This list includes professional personnel who worked at IICA during 1988.

Name	Academic Title	Position at IICA	Duty Station
Antoine, Marlene	B.A.	Administrator	Trinidad and Tobago
Aquize, José	M.Sc.	Irrigation and Drainage Specialist	Brazil
Araniva, Marco T.	Ph.D.	Rural Development Specialist	Nicaragua
Araujo, Miguel A.	M.Sc.	Head, Evaluation Division, Programming and Evaluation	Headquarters
Arauz, Carlos	Lic.	Project Management Specialist	Costa Rica
Ardila, Jorge	M.Sc.	Technology Generation and Transfer Specialist	Colombia
Arévalo, Jorge	M.Sc.	Director, PROTECA	Ecuador
Argumedo, Manuel	M.A.	Rural Development Coordinator	Brazil
Arias, Ana María	Lic.	Head, Analysis, Processes and Services, CIDIA	Headquarters
Arrunategui, Humberto	B.Sc.	Irrigation and Drainage Specialist	Brazil
Aubad, Rafael	Lic.	Rural Development Specialist	Colombia
Azael, Ariel	Ph.D.	Plant Science Specialist	Haiti
Baltodano, Patricia	Lic.	Editor, External Relations	Headquarters
Banuett, Marcelle	M.Sc.	Head, Publications Production, Institutional Coordination	Headquarters
Barea, Francisco	M.Sc.	Project Specialist	Dominican Republic
Bareiro, José Luis	M.Sc.	Agricultural Project Specialist	Peru
Barreyro, Héctor	Ph.D.	Agricultural Policy Analysis and Planning Specialist	Honduras
Barrios, José	M.Sc.	Soil Conservation and Management Specialist	Uruguay
Basterrechea, Manuel	Ph.D.	National Project Coordinator	Guatemala
Batelli, João	B.Sc.	University Training Specialist	Brazil
Bazán, Rufo	Ph.D.	Head, Agroenergy Projects	Brazil
Bedoya, Michael J.	Ph.D.	Coordinator, Animal Health and Plant Protection	Brazil
Beekman, Gertjan	Ag. Eng.	Hydrology Specialist	Brazil
Berhouet, Daniel	B.Sc.	Agricultural Project Specialist	Uruguay
Beckley, Dora	Soc. Wk.	Rural Women's Organization Specialist	Honduras
Biondolillo, Aldo Luis	B.Sc.	General Project Coordinator	Argentina
Black, David	M.Sc.	Representative	United States
Blanco, Vernor	B.Sc.	Programming Analyst, Computerized Information Services	Headquarters

Name	Academic Title	Position at IICA	Duty Station
Blasco, Mario	Ph.D.	Representative	Ecuador
Boaventura, Afonso	Ph.D.	Natural Resources Specialist	Brazil
Bogantes, Maria del Rosario	B.A.	Analysis Assistant, Program I Directorate	Headquarters
Borbón, Erick	B.A.	Agricultural Economics Specialist, CIAT	Headquarters
Braganca, Augusto	Ph.D.	Hydrology Specialist	Brazil
Brathwaite, Chelston	Ph.D.	Representative	Trinidad and Tobago
Bresciani, Juan Carlos	M.Sc.	Seed Production Specialist	Brazil
Brevis, Omar	B.Sc.	Project Evaluation Specialist	Brazil
Browne, Joan	M.A.	Administrator	Jamaica
Brun, Julio Osmar	M.Sc.	Farmers' Organization Specialist	Paraguay
Buckmire, George	M.Sc.	Representative	Guyana
Budhram, Dowlat	Ph.D.	Agricultural Policy Analysis and Planning Specialist	Barbados
Buitrón, Hugo	M.Sc.	Project Management Specialist	Ecuador
Burle, Marilia	B.Sc.	Agronomist	Brazil
Bustamante, Mario	M.Sc.	Research Assistant	Honduras
Caballero, Hernán	Ph.D.	Technology Generation and Transfer Specialist	Ecuador
Cáceres, Ricardo	M.Sc.	Agricultural Policy Analysis and Planning Specialist	Nicaragua
Camacho, Fanor †	Lic.	Production Planning Specialist	Brazil
Campos, Alfonso	Lic.	Documentalist, CIDIA	Headquarters
Campos, Héctor	D.V.M.	Deputy Director for Animal Health	Headquarters
Cantalice, María José	B.Sc.	Irrigated Agriculture Specialist	Brazil
Caracciolo, Mercedes	Lic.	Rural Development Specialist	Argentina
Caricati, Adhemar	B.Sc.	Alcohol Distillation Specialist	Brazil
Caro, Jorge	Lic.	Marketing and Agroindustry Specialist	Venezuela
Casás, Roberto	M.Sc.	Project Design and Management Specialist, CEPI	Headquarters
Castagnino, Dante	D.V.M.	Animal Health Specialist	Venezuela
Castro, Marco Tulio	M.Sc.	Entomologist	Honduras
Castro, Rodolfo	M.Sc.	Agricultural Production Specialist	Bolivia
Cavalcante, Genny	Lic.	Designer	Brazil
Cavalcanti, Fernando R.	B.Sc.	Irrigation and Drainage Specialist	Brazil

Name	Academic Title	Position at IICA	Duty Station
Cetrángolo, Miguel	M.Sc.	Technology Generation and Transfer Specialist	Peru
Chacón, José A.	B.A.	Head, Division of Professional Personnel, Human Resources	Headquarters
Chanto, Xenia	B.Sc.	Human Resources Specialist, Human Resources	Headquarters
Chaquilla, Oscar	M.Sc.	Agricultural Policy Analysis Specialist	Peru
Cháves, Oswaldo	Ag.Egr.	Irrigation Specialist	Brazil
Chin, Vivian	M.Sc.	Agricultural Research Specialist	Jamaica
Chirinos, Alfonso	M.Sc.	Representative	Nicaragua
Cirio, Félix	M.Sc.	Advisor to the Director General	Headquarters
Colmenares, Humberto	Ph.D.	Project Specialist	Mexico
Coltro, Adolfo	M.D.	Nutritionist	Brazil
Condines, Luis Alberto	Lic.	Administrator	Uruguay
Cordero, Mario		Rural Development Specialist	Bolivia
Coto, Daniel	Dr.	Doctor, Human Resources	Headquarters
Coto, Laura	B.A.	Head, Orton Library, CIDIA	Headquarters
Cubillos, Gustavo	Ph.D.	Agricultural Research Specialist	Guatemala
Dall'Acqua, Fernando	Ph.D.	Director, CEPI	Headquarters
Dancourt, Susana	B.Sc.	Administrator, Swine Reproduction Project	Haiti
Daneri, Josefina	B.A.	Administrator	Dominican Republic
Dao, Federico	Ph.D.	Deputy Director for Plant Protection	Headquarters
Davis, L. Harlan	Ph.D.	Deputy Director General	Headquarters
De Abreu, Raimundo	Lic.	Irrigation Management Specialist	Brazil
De Aguiar, Julio César	B.Sc.	Irrigated Areas Management Specialist	Brazil
De Albuquerque, Germano	B.Sc.	Irrigation Maintenance Specialist	Brazil
De Albuquerque, Marconi	B.A.	Planning Specialist	Brazil
De Brito, Glauco	B.Sc.	Farm Action Specialist	Brazil
De Castro, María E.	M.Sc.	Public Policy Evaluation Specialist	Brazil
De Farías, Renato	B.Sc.	Forest Management Specialist	Brazil
De Freitas, Ednardo	Lic.	Farmers' Organization Specialist	Brazil
De las Casas, Lizardo	Ph.D.	Agricultural Policy Analysis and Planning Specialist, Program I	Headquarters
De León, Eberto	Lic.	Forestry Economics Specialist	Guatemala
De León, José	D.E.A.	Data Base Specialist, Computerized Information Service	Headquarters
De León, Ricardo	M.Sc.	Seed Production Specialist	Costa Rica
De Lima, Edinair	Lic.	Computer Specialist	Brazil

Name	Academic Title	Position at IICA	Duty Station
De Lima, Luiz Carlos	B.Sc.	Irrigated Agriculture Specialist	Panama
De los Santos, Laureano	Lic.	Administrator	Headquarters
De Miranda, Carlos L.	B.A.	Rural Development Specialist	Brazil
De Moraes, José W.	B.Sc.	Irrigation Specialist	Brazil
De Novaes, Marcia Luiza	B.Sc.	Management Specialist	Brazil
De Oliveira, Manoel	B.S.	Rural Extension Specialist	Guatemala
Del Aguila, Carlos	Ph.D.	Laboratory Diagnosis Specialist	
Del Risco, Fernando	M.Sc.	Head, Programming Division, Programming and Evaluation	Headquarters Uruguay
Delgado, Julio	Ph.D.	Regional Plant Protection Specialist	Brazil
Detzortis, Maristela	Lic.	Data Center Specialist	Colombia
Diago, Miguel	B.Sc.	Rural Development Specialist	Brazil
Do Carmo, Ascanio	B.Sc.	Operations Specialist	Brazil
Doherty, Miguel John	B.Sc.	Irrigated Agriculture Specialist	Grenada
Dominique, Cyril	Ph.D.	Entomologist	Headquarters
Donoso, Augusto	B.Sc.	Director, Human Resources	Brazil
Dos Santos, Ma. Goretti	Lic.	Geographer	Haiti
Drew, Robert	B.Sc.	Coordinador, Swine Reproduction Program	Brazil
Dubois, Jean	Ag.Egr	Tropical Development Specialist	Argentina
Dugas, Raymond	D.V.M.	Regional Animal Health Specialist	Brazil
E Souza, Paulo Marcos	Lic.	Project Supervision Specialist	
Echeverri, Jorge Hernán	M.Sc.	Technology Generation and Transfer Specialist	Costa Rica Colombia
Echeverri, María Olga	Lic.	IICA/AID Coordinator	Chile
Esparza, Javier	B.Sc.	Plant Protection Specialist	Headquarters
Espinoza, Nelson	B.Sc.	Project Preparation Specialist, CEPI	Brazil
Espinoza, Waldo	Ph.D.	Soil Fertility Specialist	Barbados
Estefanell, Gonzalo	M.Sc.	Regional Project Specialist	Headquarters
Fallas, Helio	M.Sc.	Agricultural Policy Analysis Specialist	
Farías, Osvaldo	M.A.	Head, Division of General Services Personnel, Human Resources	Headquarters Bolivia
Febres, Abraham	M.Sc.	Project Specialist	
Fernández, Angel	Lic.	Documentation and Public Information Specialist	Argentina
Fernández, Carlos E.	Ph.D.	Director of Central Area Operations, ADDGO	Headquarters Headquarters
Fernández, Rodrigo	Pub.Acct.	Assistant Comptroller, Finances	Brazil

Name	Academic Title	Position at IICA	Duty Station
Ferreira, Nelson	Lic.	Project Funding Specialist	Brazil
Ferreira, Rubem	B.Sc.	Plant Nutrition Specialist	Brazil
Figueroa, Carlos E.	B.Sc.	National Coordinator, MADELEÑA Project	Guatemala
Filho, Antonio J.	B.Sc.	Cadastre Specialist	Brazil
Fiori, Ernani	M.Sc.	Representative	Canada
Fletcher, Lystra	Ph.D.	Evaluation and Research Specialist	Trinidad and Tobago
Flores, María Inés	Lic.	Internal Auditor, CATIE	Costa Rica
Flores, Luis	Lic.	Rural Development Specialist	Haiti
Flores, Roberto	Ag.Egr.	Assistant, Program II Directorate	Headquarters
Fonseca, Carlos A.	Lic.	Head, Internal Audit Division	Headquarters
Fontes, Luiz Carlos	B.A.	Head, Accounting	Brazil
Forsythe, Warren	Ph.D.	Soil Specialist	Trinidad and Tobago
França, Mario	M.Sc.	Representative	Suriname
Fuentes, Rafael	Lic.	Organization and Management Specialist	Venezuela
Gallegos, Benjamín	M.Sc.	Crop Production Specialist	El Salvador
Galrao, María José		Documentation and Information Specialist, CIDIA	Headquarters
Gálvez, Gloria Cecilia	Lic.	Plant Pathologist	El Salvador
Ganen, Nadir	Lic.	Agricultural Management Specialist	Brazil
García, Alfonso	Ph.D.	Plant Protection Specialist	Mexico
García, Francisco	Lic.	Epidemiologist	Venezuela
Garramón, Carlos	M.Sc.	Representative	Argentina
Gastal, Edmundo	Ph.D.	Director, PROCISUR	Uruguay
Gil de Muro, Julio	D.V.M.	Rural Development Specialist	Paraguay
Goic, Yanko	M.B.A.	Budgetary Programming Specialist, Programming and Evaluation	Headquarters
Gómez, Joel	Lic.	Swine Pathology Specialist	Venezuela
González, Leonel	Ph.D.	Agricultural Policy Analysis and Planning Specialist	Ecuador
González, Roberto	M.Sc.	Rural Development Specialist	Ecuador
González, Sergio	Ag.Egr.	Representative	Paraguay
González, Tomás Backer	M.Sc.	Agricultural Project Specialist	Brazil
Grajales, Guillermo	B.Sc.	Agricultural Project Specialist	Ecuador
Granizo, Tarcisio	M.A.	Project Management Specialist	Ecuador
Guerra, Guillermo	M.Sc.	Deputy Director for Operations, ADDGO	Headquarters
Guillén, Róger	M.Sc.	Technical Coordinator, CORECA	Headquarters
Gutiérrez, Jorge	M.Sc.	Technical Director, PROTECA	Ecuador

Name	Academic Title	Position at IICA	Duty Station
Guzmán, Juan M.	B.Sc.	Rural Education Specialist	Brazil
Harris, Jaime	B.Sc.	Agricultural Planning Specialist	Chile
Hernández, Guillermo	B.Sc.	Coordinator, Legume Subprogram	Ecuador
Hernández, Ivette	M.B.A.	Human Resources Specialist, Human Resources	Headquarters
Herrera, José Eugenio	M.A.	Management for Development Specialist	El Salvador
Holguín, José	M.A.	Coordinator, Costa Rica Plan of Action	Costa Rica
Hurwitch, Jan	B.A.	Representative	Jamaica
Ibarra, Edgar L.	M.Sc.	Technology Generation and Transfer Specialist	Honduras
Indarte, Eduardo	Ph.D.	Technology Generation and Transfer Specialist	Dominican Republic
Infante, Mario	M.Sc.	Project Specialist	Argentina
Isaza, Jaime	Ph.D.	Rural Development Specialist	Honduras
Jaffe, Walter	M.Sc.	Technology Generation and Transfer Specialist	Headquarters
Jara, Benjamín	D.V.M.	Representative	Bolivia
Jara-Almonte, Marcial	Ph.D.	Animal Production Specialist	Honduras
Jauregui, Beatriz	Lic.	Editor, External Relations	Headquarters
Jean-Louis, Raoul	B.Sc.	Extension Specialist	Haiti
Jordán, Fausto	B.Sc.	Director Program III, Organization and Management for Rural Development	Headquarters
Joseph, Cosmos	B.Sc.	Agronomist	Grenada
Jova, Henry	M.A.	Assistant to the Representative	United States
Juárez, Modesto	B.Sc.	Economist	El Salvador
Junior, Diomedes	B.Sc.	Marketing Specialist	Brazil
Kaminsky, Mario	Ph.D.	Agricultural Policy Analysis and Planning Specialist	Mexico
La Gra, Jerry	M.A.	Marketing and Agroindustry Specialist	St. Lucia
Lamprea, Pablo	B.Sc.	Project Management Specialist	Brazil
Lamur, Willy	B.Sc.	Coordinator, Extension Agents	Haiti
Larios, Joaquín	B.Sc.	Coordinator, Pest Management Project	El Salvador
Lassig, Ricardo S.	Lic.	Administrator	Argentina
Lewis, Elizabeth	M.A.	Advisor, Human Resources	Headquarters
Lima, Geraldo Alfonso	B.Sc.	Biomass Management Specialist	Brazil
Linares, César	Lic.	Project Specialist	Guatemala
Linares, Mary	Lic.	Librarian	Colombia
Lindarte, Eduardo	Ph.D.	Technology Generation and Transfer Specialist	Headquarters

Name	Academic Title	Position at IICA	Duty Station
Little, Vincent	Ph.D.	Member, Young Professionals Project in the Caribbean	Headquarters
Lizarazo, Luis	B.Sc.	Marketing and Agroindustry Specialist	Nicaragua
Lizarraga, Gustavo	B.Sc.	Small-scale Irrigation Specialist	Brazil
Londoño, Diego	Ph.D.	Director, Programming and Evaluation	Headquarters
López, Xinia V.	Lic.	Assistant, External Relations	Headquarters
Lopezlage, Manuel	Lic.	Comptroller, Finances	Headquarters
Lordan, Elizabeth	M.A.	Translator, Institutional Coordination	Headquarters
Loza, Eduardo	Lic.	Administrator	Bolivia
Lleras, Eduardo	Ph.D.	Specialist, Botany of Amazon Flora	Brazil
Luiselli, Cassio	Ph.D.	Assistant Deputy Director General for Operations	Headquarters
MacDonald, Alexander	B.A.	Agricultural Production Specialist	Jamaica
Macedo, Luiz Dielson	B.Sc.	Micro-hydraulic Plants Specialist	Brazil
Magalhaes, Waleska	Lic.	Translator	Brazil
Marambio, Juan L.	B.Sc.	Rural Development Specialist	Uruguay
Marín, Jaime	B.Sc.	Coordinator, Irrigated Areas Project	Brazil
Marte, Rafael	M.Sc.	Fruit Crop Specialist	Barbados
Martí, Miguel	Lic.	Head, Communications Division, External Relations	Headquarters
Martín, Urban	M.Sc.	Plant Pathologist	Dominican Republic
Martins, Milton	B.A.	Graphic Artist	Brazil
Martínez, Alejandro		Rural Development Technician	Costa Rica
Martínez, Rodolfo	B.Sc.	Advisor to the Director General for Special Affairs	Headquarters
Mascary, Michelet	B.Sc.	Extension Specialist	Haiti
Matute, Enrique	B.Sc.	Irrigation Specialist	Brazil
Mayorga, Róger	M.Sc.	Systems Analyst, Computerized Information Service	Headquarters
Melamed, Ricardo	B.Sc.	Productions Systems Specialist	Brazil
Mena, Alfredo	M.Sc.	Hog Nutrition Specialist	Haiti
Méndez, Juan Carlos	M.Sc.	Project Management Specialist	Guatemala
Méndez, Judith	Lic.	Administrator	Honduras
Mendoza, Gilberto	B.Sc.	Marketing and Agroindustry Specialist	Bolivia
Mendoza, Luis	Ph.D.	Management for Rural Development Specialist	Headquarters
Mendoza, Pablo	M.Sc.	Advisor to the Secretary for Rural Development	Ecuador

Name	Academic Title	Position at IICA	Duty Station
Millar, Agustín	Ph.D.	Irrigation and Drainage Specialist	Brazil
Molestina, Carlos	M.Sc.	Head, CIDIA	Headquarters
Monnerat, João Bosco	Ph.D.	Project Specialist, CEPI	Headquarters
Montoya, Ramón	M.Sc.	Representative	El Salvador
Morales, Domingo	Ind.Eng.	Computer Specialist, CIDIA	Headquarters
Morales, Héctor	M.Sc.	Representative	Mexico
Moran, Michael	M.A.	Agricultural Marketing Specialist	United States
Moreano, Marco	Lic.	Director, PROTECA Office	Ecuador
Moreno, Guillermo	B.Sc.	Rural Development Specialist	Chile
Moulthrop, James	Ph.D.	Coordinator, Information and Data Monitoring Specialist	Headquarters
Moutelik, Alena	Lic.	Animal Health and Plant Protection Project Supervision Specialist	Brazil
Mulleady, Tomás	Ph.D.	Rural Development Specialist	Jamaica
Muñoz, Alberto	Lic.	Head, General Services Division, Finances	Headquarters
Muñoz, Héctor	Ph.D.	Animal Production Specialist	Guyana
Murillo, Roxana	B.A.	Systems Analyst, Computerized Information Service	Headquarters
Murta, José	B.Sc.	Hydrologist	Brazil
Mussman, Harry	Ph.D.	Director Program V, Animal Health and Plant Protection	Headquarters
Nonone, Carlos	M.Sc.	Irrigation Specialist	Brazil
Ojeda, Víctor	M.Sc.	Agricultural Economist	Bolivia
Olazabal, Mariano	M.Sc.	Project Specialist	Colombia
Oliveira, Sergio	Ph.D.	Instrumentation Specialist	Brazil
Ordóñez, Rolando Arturo	B.A.	Coordinator, MADELEÑA Project	Honduras
Orna, Jesús	B.A.	Administrator	Peru
Ortiz, Jaime	M.Sc.	Rural Development Specialist	El Salvador
Osorto, Juan Carlos	M.Sc.	Head, PROMECAFE	Guatemala
Otero, Manuel	M.Sc.	Representative	Brazil
Ouellette, J. André	M.Sc.	Director, Coordination of Institutional Affairs	Headquarters
Padilla, Arturo	Ph.D.	Marketing and Agroindustry Specialist	Headquarters
Padilla, Jaime	B.Sc.	Irrigation Specialist	Brazil
Páez, Gilberto	Ph.D.	Representative	Dominican Republic
Palma, Víctor	Ph.D.	Director, PROCIANDINO	Ecuador
Pando, José Luis	M.Sc.	Marketing and Agroindustry Specialist	Mexico
Pannunzio, Luiz Carlos	B.Sc.	Representative	Paraguay

Name	Academic Title	Position at IICA	Duty Station
Pasten, Waldo Héctor	B.Sc.	Agricultural Production Specialist	Bolivia
Pastora, Juan Francisco	Lic.	Economist	Honduras
Paulet, Manuel	Ph.D.	Land and Water Conservation and Management Specialist	Brazil
Peinado, Marcelo	Ph.D.	Planning and Credit Specialist	Honduras
Peña, Ismael	Lic.	Head, Marketing Unit	Colombia
Perdomo, Alberto	Ph.D.	Plant Protection Specialist	Guatemala
Pérez, Edwin	D.V.M.	Animal Health Specialist	Guatemala
Pérez, Reynaldo	D.V.M.	Secretary Coordinator, CORECA	Headquarters
Pérez, Ricardo	B.Sc.	National Project Coordinator	Honduras
Phillips, Ronnie	M.Sc.	Agricultural Economist	Brazil
Picado, José A.	Lic.	Head, Official Relations and Protocol, External Relations	Headquarters
Pierre, Reginald	Ph.D.	Director, Caribbean Area Operations	Headquarters
Pinchinat, Antonio	Ph.D.	Regional Technology Generation and Transfer Specialist	St. Lucia
Pira, Lars	Ph.D.	Economist, General Directorate	Headquarters
Pizarro, Humberto	M.Sc.	Agricultural Projects Specialist	Haiti
Planella, Isidro	M.Sc.	Agroindustry Specialist	Colombia
Poitevien, Ghislaine	M.Sc.	Head, Documentation Services, CIDIA	Headquarters
Pomareda, Carlos	Ph.D.	Director Program I, Agricultural Policy Analysis and Planning	Headquarters
Pozo, José	Acct.	Administrator	Nicaragua
Puignau, Pedro	Lic.	Comunications Support Specialist	Uruguay
Quiroga, Víctor	M.Sc.	Information Specialist	Barbados
Quirós, Rodolfo	Ph.D.	Director Program IV, Marketing and Agroindustry	Headquarters
Raine-Najarro, Susana	M.A.	Head, Language Services, Institutional Coordination	Headquarters
Ramakrishna, Bommathanahalli	M.Sc.	Technology Generation and Transfer Specialist	Ecuador
Ramos, Eduardo	Ph.D.	Director, National Agricultural Training Program (PNCA)	Colombia
Ramos, Francisco	Lic.	Marketing and Agroindustry Specialist	Peru
Ramsammy, Peter	B.A.	Farm Management Specialist	Guyana
Rebolledo, Alejandro	Pub.Acct.	Comptroller, Finances	Headquarters

Name	Academic Title	Position at IICA	Duty Station
Rego, João Emanuel	B.Sc.	Pisciculture Specialist	Brazil
Rego, Manuel	B.Sc.	Rural Development Specialist	Costa Rica
Reyes, Armando	Ph.D.	Representative	Guatemala
Reyes, Jesús	M.A.	Irrigation and Drainage Specialist	Brazil
Reyes, Rafael	B.Sc.	Research Assistant	El Salvador
Rieger, Enrique	Ph.D.	Animal Health Specialist	Ecuador
Robinson, Harold	M.Sc.	Technical Cooperation Projects Analysis Specialist, Programming and Evaluation	Headquarters
Rock, Llewyn	M.A.	Member, Young Professionals Project in the Caribbean	Headquarters
Rodríguez, Afonso	B.Sc.	Natural Resources Survey Specialist	Headquarters
Rodríguez, Lupita	Lic.	Documentalist, CIDIA	Headquarters
Rodríguez, Félix	B.Sc.	Irrigated Area Operations and Maintenance Specialist	Brazil
Rodríguez, Rubén	B.Sc.	Germplasm Evaluation Specialist	Brazil
Rojas, Flory	Lic.	Reclassification, Salaries and Classification Specialist, Human Resources	Headquarters
Rojas, Ma. del Rosario	Lic.	Assistant Agronomist, CIAT	Headquarters
Román, Jaime	Ph.D.	Representative	Ecuador
Román, Lina	B.A.	Librarian, CIDIA	Headquarters
Román, Raúl Oliverio	Lic.	Project Management Specialist	Ecuador
Romero, Edgar	Lic.	Epidemiologist	Venezuela
Ruano, Sergio	Ph.D.	Coordinator, PIPA Project	Costa Rica
Rucks, Carlos	Ph.D.	Director, Southern Area Operations, ADDGO	Headquarters
Ruiz, Manuel	Ph.D.	Executive Secretary, RISPAL Project, Program II	Headquarters
Ruiz, Manuel Emilio	M.Sc.	Systems Analyst, Computerized Information Service	Headquarters
Salazar, Ernesto	M.Sc.	Marketing and Agroindustry Specialist	Trinidad and Tobago
Salinas, Luis	B.Sc.	Agricultural Communications Specialist	Peru
Salvadó, Eduardo	Ph.D.	Representative	Panama
Samanez, Benjamín	B.Sc.	Rural Development Specialist	Venezuela
Sánchez, Marcial	M.B.A.	Head, Benefits and Remunerations Division, Human Resources	Headquarters

Name	Academic Title	Position at IICA	Duty Station
Saravia, Antonio	M.Sc.	Technology Generation and Transfer Specialist	Paraguay
Scarsi, Juan C.	Ph.D.	Technology Generation and Transfer Specialist	Argentina Colombia
Schneider, João	Ph.D.	Rural Development Specialist	Venezuela
Segura, Mariano	Ph.D.	Representative	Headquarters
Segura, Mario	B.Sc.	Editor, External Relations	Headquarters
Sepúlveda, Sergio	Ph.D.	Rural Development Specialist	Peru
Sequeira, Julio	Ph.D.	Plant Protection Specialist	El Salvador
Sermeño, Antonia Luisa	Lic.	Administrator	Brazil
Silva, Francisco A.	B.Sc.	Irrigated Agriculture Specialist	Brazil
Silva, Odilson	B.Sc.	Alcohol-producing Crops Specialist	Brazil
Silva, Wagner	B.Sc.	Human Resources Specialist	Headquarters
Sisk, Paul	C.P.A.	Director of Finances	
Snarskis, Michael J.	Ph.D.	Head, Editorial Service, Institutional Coordination	Headquarters
Soikes, Raúl	Ph.D.	Technology Generation and Transfer Specialist	Panama Dominican Republic
Solís, Clara	Lic.	Rural Development Specialist	Brazil
Stagno, Horacio	M.Sc.	Coordinator, EMBRAPA	
Stemshorn, Barry	Ph.D.	Coordinador, Animal and Plant Health Information and Data Monitoring System	Trinidad and Tobago Ecuador
Suárez, Susana	Lic.	Accountant	
Sylvester, Francisco	M.Sc.	Head, Training Division, Human Resources	Costa Rica
Tablada, Gladys	Lic.	Project Specialist	Honduras
Tejero, Luis	B.Sc.	Farmers' Organization Specialist	Brazil
Telfer, Irwin	B.Sc.	Agricultural Economist	Suriname
Terán, Gustavo	M.Sc.	Director of Rural Development	Ecuador
Teruel, Rodolfo	M.B.A.	Project Analyst, CEPI	Headquarters
Tineo, Israel	B.Sc.	Representative	Peru
Tineo, Nelson	B.Sc.	Head, International Cooperation Division, External Relations	Headquarters
Tollini, Paulo Martins	B.Sc.	Specialist, Palm Oil Micro-factories	Brazil
Tona, Claudio	M.Sc.	Agricultural Policy Analysis and Planning Specialist	
Tonina, Teodoro	Ph.D.	Production Systems Specialist	Panama Argentina

Name	Academic Title	Position at IICA	Duty Station
Toro, Guillermo	M.Sc.	Agricultural Planning Specialist	Guatemala
Torres, Hugo	Ph.D.	Deputy Representative	Brazil
Torres, Jorge Eduardo	M.Sc.	Marketing and Agroindustry Specialist	Headquarters
Torres B., Jorge	Ph.D.	Animal Health Specialist	Costa Rica
Tórrico, David	B.Sc.	Agricultural Production Specialist	Bolivia
Trigo, Eduardo	Ph.D.	Director Program II, Technology Generation and Transfer	Headquarters
Tunarosa, Víctor	M.Sc.	Rural Development Specialist	Guatemala
Unda, René	B.Sc.	Rural Development Training Advisor	Ecuador
Urdaneta, Aminta	M.A.	Rural Development Specialist	Brazil
Uribe, María Josefina	Lic.	Documentalist	Colombia
Valdebenito, Alejandro	Lic.	Administrator	Chile
Valdivieso, Carlos	M.Sc.	Irrigation Specialist	Brazil
Vargas, Eduardo	B.Sc.	Systems Programmer, Computerized Information Service	Headquarters
Vargas, Hugo	M.Sc.	Animal Production Specialist	Guatemala
Vartanián, Daniel	B.A.	Assistant, Technology Generation and Transfer	Headquarters
Vásquez, Margarita	Lic.	Administrator	Dominican Republic
Vásquez, Marta	B.A.	Documentalist, CIDIA	Headquarters
Vásquez, Rodolfo	B.A.	Head, Accounting and Information Unit, Finances	Headquarters
Vega, Mayo	M.Sc.	Agricultural Policy Analysis and Planning Specialist	Venezuela
Vega, Rodolfo	B.Sc.	Natural Resources Evaluation Specialist	Brazil
Vejarano, Gilberto	Ph.D.	Coffee Technology and Transfer Specialist	Honduras
Veras, Arnaldo	B.Sc.	Representative	Uruguay
Vergara, Nizar	Lic.	Planning and Management Specialist	Colombia
Vigués, Enrique	Ph.D.	Deputy Director, Operations, ADDGO	Headquarters
Vilar, Roberto	B.Sc.	Rural Extension Specialist	Brazil
Vilas, Andrés T.	Ph.D.	Marketing and Agroindustry Specialist	Chile
Villagómez, José Ricardo	Lic.	Administrator	Ecuador
Villanueva, Guillermo	M.Sc.	Cooordinator, PROCACAO	Headquarters
Waiselfisz, Jacobo	M.A.	Coordinator, IICA/MEC Agreement	Brazil
Wanderley, Mucio	M.A.	Technology Generation and Transfer Specialist	Brazil
Weld, Leisa	Ph.D.	Head, Computerized Information Service	Headquarters

Name	Academic Title	Position at IICA	Duty Station
Werthein, Jorge	Ph.D.	Director, External Relations	Headquarters
Williams, César	B.Sc.	Rural Development Specialist	Brazil
Yang, Sun Jen	Ph.D.	Head, CENICAÑA	Colombia
Zambrana, Hugo	B.Sc.	Forestry Research Specialist	El Salvador
Zeledón, Marianela	B.Sc.	Assistant, Organization and Management, ADDGO	Headquarters
Zúñiga, Jorge	B.Sc.	Irrigation and Drainage Specialist	Brazil

Source: Directorate of Human Resources.



Appendix 2

Publications

Appendix 2 lists all the books and other publications produced by the Editorial Service during 1988. The Editorial Service was also responsible for all aspects of editing, production and distribution of the journal TURRIALBA, as well as producing the AIBDA journal and various other bulletins and brochures describing the activities of IICA and of the Plan of Joint Action for Agricultural Reactivation in Latin America and the Caribbean. 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.

Publications of IICA

Administrative Documents Series

IICA (C.R.). DIRECTORATE OF PROGRAMMING AND EVALUATION. 1988. Evaluation system for IICA technical cooperation, v. 1: Conceptual framework, elements and procedures. San Jose. Administrative Documents Series no. 2. 61 p.

Also in Spanish.

_____. 1988. Evaluation system for IICA technical cooperation, v. 2: Programs. San Jose. Administrative Documents Series no. 2. 27 p.

Also in Spanish.

_____. 1988. Evaluation system for IICA technical cooperation, v. 3: Action at the country level. San Jose. Administrative Documents Series no. 2. 28 p.

Also in Spanish.

_____. 1988. Evaluation system for IICA technical cooperation, v. 4: Project evaluations. San Jose. Administrative Documents Series no. 2. 34 p.

Also in Spanish.

_____. DIRECTORATE OF HUMAN RESOURCES. Performance appraisal for general services personnel. San Jose. Administrative Documents Series no. 1. 17 p.

Also in Spanish.

Books and Educational Materials Collection

MOLESTINA, C.J.; GORBITZ, A. AND OTHERS. 1988. Fundamentos de comunicación científica y redacción técnica. San Jose, IICA. Books and Educational Materials Collection no. 88. 267 p.

RISCO SALDIVAR, F. DEL; VALVERDE, M.; GUILLEN, R.; MURILLO, R. 1988. Sistema de información de decisiones sectoriales para el desarrollo agropecuario. San Jose, IICA. Books and Educational Materials Collection no. 86. 160 p.

Miscellaneous Publications Series

AGUIRRE, J.A. 1988. La ayuda alimentaria en Honduras. Problemas y perspectivas. Tegucigalpa, IICA. Miscellaneous Publications Series no. A1/HN-88-03. 68 p.

_____. ; TABLADA, G. 1988. Impacto de la sequía en Estados Unidos sobre el costo de los alimentos concentrados en Honduras 1988 y sus implicaciones en el diseño de políticas macro-económicas y agrícolas. Tegucigalpa, IICA. Miscellaneous Publications Series no. A1/HN-88-05. 71 p.

_____. ; TABLADA, G. 1988. Macroanálisis de la producción de granos básicos en Honduras 1976-1987. Tegucigalpa, IICA. Miscellaneous Publications Series no. A1/HN-88-04. 110 p.

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Appendix 3

Extra-quota Agreements and Contracts Signed in 1988

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 instruments by country. It includes distribution of funds by funding source and identifies indirect administrative and technical costs (CATIs).

Distribution of Extra-quota Agreements and Contracts by Country¹

CENTRAL AREA

COUNTRY	RESOURCES			CATIS ²		
	Title of Instrument	Source	Amount US\$	%	Amount US\$	%
COSTA RICA						
	Study to Improve Feeding Technology for Dairy Livestock Using Mowed Forage	MAG (Forages)	22 200	100.00	2 220	10.00
	Technical Cooperation Services for the Program to Increase Agricultural Production (PIPA)	MAG-IDB IICA	185 782 6 000	96.87 3.13	26 009	14.00
		TOTAL	191 782	100.00		
	Administrative Support Action "Evaluation of Corn Technology Adopted in Costa Rica"	MAG (Evaluation Project)	24 600	100.00	1 968	8.00
	Accounting Course for Members of 19 IDA Cooperatives	EEC-FORGE	1 800	100.00	0	0.00
	Support for the Executive Secretariat for Sectoral Planning, Agricultural Development, and Renewable Natural Resources (SEPSA)	MAG-SEPSA	20 081	100.00	1 606	8.00
	Information System of IDA Settlements	PRACA	12 000	100.00	0	0.00
DOMINICAN REPUBLIC						
	Strengthening Management Skills for Rural Development Programs and Projects	SEA IICA	3 000 72 873	3.95 96.05	450	15.00
		TOTAL	75 873	100.00		
	Elaboration of the Nizao- Valdesia Project (Phase II)	INDRHI (Nizao, Phase II)	426 600	100.00	72 226	16.93
	Creating a Follow-Up and Evaluation System for the Nizao-Valdesia Project	INDRHI-World Bank	86 770	100.00	12 217	14.08
	Creating a Follow-Up and Evaluation Unit for the Small-Scale Food Producers Development Project	SEA	68 095	100.00	8 171	12.00

1 The information in this Appendix was prepared by the Directorate of Programming and Evaluation (DIPROE).

2 Indirect Administrative and Technical Costs (CATIs) represent the contribution which is added to the donation of the donor agencies to assumed direct costs.

COUNTRY	RESOURCES			CATIS		
	Title of Instrument	Source	Amount US\$	%	Amount US\$	%
EL SALVADOR						
Planning, Integration and Evaluation of Rural Enterprise Production for Self-Management and Participation	FESACORA-IDB	12 433	16.02	995	8.00	
	IICA	65 188	83.98			
	TOTAL	77 621	100.00			
GUATEMALA						
Improving Double-Purpose Cattle Production Systems (Phase II)	IDRC	25 300	19.80	3 288	13.00	
	IDRC	93 900	73.47			
	IICA	8 600	6.73			
	TOTAL	127 800	100.00			
Technical Cooperation for Institutional Strengthening of Animal Health Programs	MAGA-IDB	469 948	100.00	82 053	17.46	
Cooperation with MAGA in Preparing and Initiating Emergency Programs and Projects	MAGA	43 464	100.00	4 346	10.00	
A Study on the Environmental Impact of the Fruit Fly Program	USAID-MOSCAMED	101 887	100.00	15 140	14.86	
Design, Follow-Up, Evaluation and Dissemination of Emergency Projects for the Public Agricultural and Food Sectors	MAGA-PROESPADA	181 818	100.00	18 182	10.00	
Cooperation with MAGA in Managing the Financial Resources of the Training Program for the National Agricultural Extension System (PROCASNEA), and in Technical Activities in Support of the Program	MAGA (Letter N°3)	159 603	94.34	15 960	10.00	
	IICA	9 576	5.66			
	TOTAL	169 179	100.00			
HONDURAS						
Technical Support for the Reorganization and Strengthening of the Agricultural Research and Extension Program of the Secretariat of Natural Resources	PROFOGASA	71 133	54.75	12 842	18.05	
	IICA	58 800	45.25			
	TOTAL	129 933	100.00			
Support to Personnel Training and Project Elaboration at BANADESA	BANADESA	7 273	100.00	727	10.00	
Training to Improve Managerial Production and Development of AHPROPAPA	PRACA	13 685	100.00	0	0.00	

COUNTRY	RESOURCES			CATIS		
	Title of Instrument	Source	Amount US\$	%	Amount US\$	%
MEXICO						
Strengthening of Animal Health Laboratory Services	SARH (Animal Health)	159 000	79.50	12 720	8.00	
	IICA	41 000	20.5			
	TOTAL	200 000	100.00			
IICA-SARH Technical Cooperation to Strengthen Project Identification, Preparation and Management in the States	SARH	43 081	38.12	3 446	8.00	
	IICA	69 925	61.88			
	TOTAL	113 006	100.00			
NICARAGUA						
Support for the CENIDA Agricultural Information Network	IDRC	44 900	100.00	3 592	8.00	

CARIBBEAN AREA

GUYANA						
IICA/Ministry of Agriculture	MAG	2 672	100.00	0	0.00	
Support to Technology Generation and Transfer for Fruit Production in Barbados and Guyana	MAG-CHC	6 570	5.17	525	7.99	
	IICA	120 564	94.83			
	TOTAL	127 134	100.00			
HAITI						
Swine Repopulation and Extension Services in Animal Health	USAID	1 121 477	98.73	112 148	10.00	
	IICA	14 420	1.27			
	TOTAL	1 135 897	100.00			
Development of Swine Production Systems Using Sugar Cane Juice and High-Protein Forage	IFS	10 526	100.00	0	0.00	
JAMAICA						
Support to Technology Generation and Transfer in Jamaica	IDRC	90 590	52.51	10 100	11.15	
	IICA	81 927	47.49			
	TOTAL	172 517	100.00			

ANDEAN AREA

COUNTRY	RESOURCES			CATIS		
	Title of Instrument	Source	Amount US\$	%	Amount US\$	%
COLOMBIA						
Strengthening the Capacity of OPSA and Affiliated Institutes of the Ministry of Agriculture to Analyze and Manage Priority Programs and Projects in the Agricultural Sector	M.A. (Training)	59 800	23.19	8 970	15.00	
	M.A. (Consultation)	144 868	56.18	23 447	16.19	
	IICA	53 206	20.63			
	TOTAL	257 874	100.00			
Using Mass Media for Technology Transfer and Food Security	USAID	101 800	100.00	8 400	8.25	
Training in Support of Priority Areas of Agricultural Sector Organizations-National Agricultural Training Program (PNCA)	M.A.	9 000	3.28	0	0.00	
	PNCA	149 500	54.47	0	0.00	
	ICA (Training)	17 000	6.19	1 360	8.00	
	ICA (Fruit crops)	34 000	12.39	2 720	8.00	
	CENTA-IDB	64 940	23.67	0	0.00	
TOTAL	274.440	100.00				
Strengthening INCORA's Technical Capacity to Support Campesino Agrarian Reform Enterprises	M.A.	10 400	6.10	0	0.00	
	M.A. (Cooperation)	65 200	38.23	9 780	15.00	
	IICA	94 947	55.67			
	TOTAL	170 547	100.00			
HIMAT Plan of Operation for Technical-Scientific Brokerage	HIMAT-IBRD	135 000	100.00	15 000	11.11	
Administration of Technical Cooperation	M.A.	15 600	4.65	0	0.00	
	IICA	320 134	95.35			
	TOTAL	335 734	100.00			
Supporting the Institutional Model of the National Sugar Cane Research Center (CENICAÑA)	CENICAÑA	28 800	100.00	2 880	10.00	
Supporting the Colombian Agricultural Institute in Providing Technical-Scientific Brokerage and Acquiring Bibliographic Materials	IBRD-BAC	54 000	9.90	6 000	11.11	
	IBRD	470 700	86.30	52 300	11.11	
	IICA	20 727	3.80			
	TOTAL	545 427	100.00			
Support to the Ministry of Agriculture in Strengthening the Planning Information Network	M.A.	47 000	100.00	6 400	13.62	
Technical Consultancy Agreement with DRI-Fund	DRI (Consultation)	101 200	100.00	8 800	8.70	

COUNTRY	RESOURCES			CATIS		
	Title of Instrument	Source	Amount US\$	%	Amount US\$	%
	Technical Support to DRI-Fund	DRI (Cooperation)	48 400	70.98	4 840	10.00
		IICA	19 785	29.02		
		TOTAL	68 185	100.00		
	Training for Agricultural Sector Officials in Sectoral Policy	M.A. (Sectoral Policy)	60 327	100.00	5 246	8.70
ECUADOR						
	Support to the Project to Evaluate Tropical Grasses	IDRC	33 050	100.00	4 297	13.00
	Technical Cooperation for the Integrated Rural Development Program of the Government of Ecuador	MBS-IBRD	336 568	79.13	40 071	11.91
		MBS-CAF	48 994	11.52		
		IICA	39 771	9.35		
		TOTAL	425 333	100.00		
	Technological Options for the Substitutions of Sugar Cane in the Yunguilla Valley	CREA-IDRC	64 880	81.89	4 973	7.66
	Administration of Technical Cooperation	IICA	14 350	18.11	0	0.00
		TOTAL	79 230	100.00		
	Administration of Technical Cooperation	Government of Ecuador	18 287	7.34		
	Actions in Support of PROTECA	IICA	230 938	92.66	23 872	11.96
		TOTAL	249 225	100.00		
		MAG-PROTECA (B)	199 671	90.77		
		MAG-PROTECA (G)	20 309	9.23		
		TOTAL	219 980	100.00	1 625	8.00
	Support to the Administration of the Cayambe-Coca Ecological Reserve, and Mass Environmental Education	CEPE	3 472	95.44	278	8.01
		IICA	166	4.56		
		TOTAL	3 638	100.00		
PERU						
	Institutional Support of the National Food Support Corporation (CONAA) in Formulating Food Assistance and Security Policies, and in the Application of Marketing Instruments	CONAA	237 272	100.00	26 364	11.11
	Institutional Support for the Implementation of Agricultural Sector Projects	MAG	756 463	100.00	75 647	10.00

COUNTRY	RESOURCES			CATIS		
	Title of Instrument	Source	Amount US\$	%	Amount US\$	%
VENEZUELA						
Reinforcing the Animal Health Program of MAC's General Sectoral Directorate for Livestock Development	MAC (Animal Health)	195 500	72.97		15 600	7.98
	IICA	72 417	27.03			
	TOTAL	267 917	100.00			
Administration of Technical Cooperation	MAC (FN)	18 990	11.77		0	0.00
	IICA	142 386	88.23			
	TOTAL	161 376	100.00			
Supporting the FCA's Operating Plan and the Establishment of the National Credit Program for Agricultural Marketing and Agroindustrial Development	FCA	20 970	24.04		2 330	11.11
	IICA	66 252	75.96			
	TOTAL	87 222	100.00			

SOUTHERN AREA

ARGENTINA						
Cooperation for Modernizing Argentina's Agricultural Sector	SAGyP-IBRD-UNDP	556 347	100.00		46 260	8.31
Support of SAGyP in the Formulation and Implementation of Rural Development Projects	SAGyP	22 300	27.35		2 700	12.11
	IICA	59 227	72.65			
	TOTAL	81 527	100.00			
Technical Cooperation to Strengthen INTA's Capacity to Generate and Transfer Technology	INTA (Letter of Understanding)	14 600	3.51		1 168	8.00
	INTA-IDB	290 934	69.96			
	IICA	110 346	26.53			
	TOTAL	415 880	100.00			
Administrative Support Action with INTA	INTA (Letter of Understanding)	571 543	94.30		45 941	8.04
	IICA	34 524	5.70			
	TOTAL	606 067	100.00			

COUNTRY	RESOURCES			CATIS		
	Title of Instrument	Source	Amount US\$	%	Amount US\$	%
	Institutional Strengthening of the National Meat and Grain Board's Information Systems (IICA/JNC-JNG/IBRD/UNDP)	National Meat Board (JNC)	280 922	69.88	24 692	8.79
		National Grain Board (JNG)	75 961	18.90	6 905	9.09
		IICA	45 108	11.22		
		TOTAL	401 991	100.00		
	Support to the Instrumentation of the Analysis and Reorganization of Tobacco-growing Areas of Argentina	SAGyP (Special Tobacco Fund)	75 714	100.00	6 057	8.00
	Support to the Development of Aquaculture and Fruits and Vegetables in the Province of Santa Cruz	Santa Cruz Province	42 100	95.42	3 368	8.00
		IICA	2 020	4.58		
		TOTAL	44 120	100.00		
	Promotion of the Participation of Women in Cachi, Financed by the United Nations "Development Fund for Women	SAGyP	7 828	100.00	636	8.12
BRAZIL						
	Strengthening of the Agricultural Planning System	SUPLAN-SNPA	170 942	100.00	17 094	10.00
	Technical Cooperation for the Executive Commission for Planning Cacao Cultivation (CEPLAC) in its Physical-Biological Research Program	CEPLAC	140 000	100.00	14 000	10.00
	Technical Cooperation for the Development of Support Systems for Agricultural Biotechnology	Biotechnology	100 000	100.00	10 000	10.00
	Technical Cooperation for the Development of Agricultural Research in the South-Central Region of Brazil (PROCENSUL-II)	EMBRAPA-IDB	1 395 000	94.70	125 550	9.00
		IICA	78 113	5.30		
		TOTAL	1 473 113	100.00		
	Technical Cooperation for the Preparation, Implementation, Supervision and Evaluation of Regional Rural Development Programs and Projects in the State of Bahia	SEPLANTEC-CAR	265 256	100.00	26 526	10.00
	Cooperation with the Secretariat of Education of the State of Piaui in the Implementation of the Rural Education Program	Piaui Secretariat of Education	103 858	100.00	10 386	10.00
	Technical Cooperation with the National Program for Irrigated Plains (PROVARZEAS) of the Ministry of Agriculture (MINAGRI) in Irrigated Agriculture Programs	PROVARZEAS	302 216	100.00	30 221	10.00

COUNTRY	RESOURCES			CATIS		
	Title of Instrument	Source	Amount US\$	%	Amount US\$	%
BRAZIL	Technical Cooperation for the National Department of Drought Control (DNOCS) in Operating and Maintaining Irrigation Districts	DNOCS	125 257	100.00	12 526	10.00
	Technical Cooperation with the San Francisco Valley Development Agency (CODEVASF) for Developing Irrigated Agriculture	CODEVASF	507 018	100.00	50 702	10.00
	Cooperation with the Technical Team of the Special Ministry for Irrigation (MEAI/PRONI)	MEAI-PRONI	1 200 336	99.80	120 034	10.00
		IICA	2 410	0.20		
		TOTAL	1 202 746	100.00		
	Support for SUDENE in the Formulation and Implementation of Rural Development Plans, Programs and Projects in the Northeast of Brazil	SUDENE	1 645 051	88.24	164 505	10.00
		IICA	219 142	11.76		
		TOTAL	1 864 193	100.00		
	Cooperation with the Ministry of Education in Defining Strategies and Implementing Policies for Formal and Non-Formal Education in Rural Areas	MEC	280 682	100.00	28 068	10.00
	Cooperation with the Agroenergy Program of the Ministry of Agriculture	SUPLAN (Agroenergy)	182 486	100.00	18 248	10.00
	Technical Cooperation on Animal Health in Brazil	SNAD LANARA	58 900	39.77	5 890	10.00
		IICA	89 218	60.23		
		TOTAL	148 118	100.00		
	Integrated Management System for Plant Protection Problems	M.A. (SDSV)	58 500	39.77	5 850	10.00
		ANDEF	80 000	54.38		
		IICA	8 600	5.85		
		TOTAL	147 100	100.00		
	Administrative Support Actions for the International Research Centers	CIP	21 834	9.01	2 183	10.00
		Univ. of Cornell	34 470	14.22		
CIAT		186 037	76.77			
TOTAL		242 341	100.00			
Administration of Technical Cooperation	CIAT	9 133	1.85	0	0.00	
	IICA	484 555	98.15			
	TOTAL	493 688	100.00			
CHILE						
Administration of Technical Cooperation	Trust Fund	2 334	1.25	0	0.00	
	IICA	184 621	98.75			
	TOTAL	186 955	100.00			

COUNTRY	RESOURCES			CATIS		
	Title of Instrument	Source	Amount US\$	%	Amount US\$	%
	Technical Cooperation for the Agricultural Planning Process of the Ministry of Agriculture	Trust Fund	19 324	44.60	0	0.00
		ODEPA	18 000	41.55	0	0.00
		IICA	6 000	13.85		
		TOTAL	43 324	100.00		
	Support for the Agricultural and Livestock Service in the Preparation of a Pre-investment Study to Strengthen its Plant Protection Surveillance and Diagnostic Programs	SAG	10 052	53.06	1 371	13.64
		IICA	8 893	46.94		
TOTAL		18 945	100.00			
PARAGUAY						
Institutional Support for the National Rural Development Project Coordination Office (ONCPDR)	IBRD-Caazapá	38 500	29.45	5 390	14.00	
	IICA	92 246	70.55			
	TOTAL	130 746	100.00			
Administration of Technical Cooperation	Embassy of Canada	7 744	4.84	929	12.00	
	IICA	152 105	95.16			
	TOTAL	159 849	100.00			
URUGUAY						
Institutional Strengthening in Support of the Granja Subsector	MGAP	19 525	12.95	2 058	10.54	
	IICA	131 286	87.05			
	TOTAL	150 807	100.00			
Institutional Support for the Directorate of Plant Protection of the Ministry of Livestock, Agriculture and Fisheries (MGAYP) of Uruguay	Plant Protection	341 647	99.27	34 165	10.00	
	IICA	2 515	0.73			
	TOTAL	344 162	100.00			
Regional Agricultural Development	CALAGUA-CALPICA	96 500	84.86	11 580	12.00	
	IICA	17 218	15.14			
	TOTAL	113 718	100.00			
Administration of Technical Cooperation	MGAP-CIAAP	130 236	38.71	10 419	8.00	
	Third Fund	892	0.27	0	0.00	
	IICA	205 310	61.02			
	TOTAL	336 438	100.00			
Support for the Management of Financial Resources in Implementing the Technology Generation and Transfer Project Coordinating Unit	MGAP	31 677	100.00	2 534	8.00	

Distribution of Extra-quota Agreements and Contracts by Program

PROGRAM Title of Instrument	RESOURCES			CATIS	
	Source	Amount US\$	%	Amount US\$	%
PROGRAM I					
Analysis and Consultation on Agricultural Policy	EDI-World Bank	12 000	9.30	0	0.00
	IICA	117 078	90.70		
	TOTAL	129 078	100.00		
Structural and Sectoral Adjustment Programs: Implications for Agricultural Reactivation and Development	EDI-World Bank	16 440	100.00	0	0.00
PROGRAM II					
Cooperative Agricultural Research Program for the Southern Cone (PROCISUR)	IDB-PROCISUR	706 746	70.69	0	0.00
	PROCISUR-Countries	18 000	1.80	0	0.00
	IICA	275 000	27.51		
	TOTAL	999 746	100.00		
Cooperative Agricultural Research Program for the Andean Subregion (PROCIANDINO)	ICA-IDB-PROCIANDINO	990 864	91.81	0	0.00
	IICA	88 430	8.19		
	TOTAL	1 079 294	100.00		
Regional Network for Cacao Technology Generation and Transfer (PROCACAO)	USAID-ROCAP	300 600	32.48	48 900	16.27
	USAID-ROCAP-CATIE	323 200	34.92	0	0.00
	USAID-ROCAP-FHIA	281 700	30.44		
	IICA	19 998	2.16		
	TOTAL	925 498	100.00		
Research Network on Animal Production Systems in Latin America (RISPAL)	RISPAL	53 523	49.19	7 622	14.24
	IICA	55 277	50.81		
	TOTAL	108 800	100.00		
Cooperative Program for the Protection and Modernization of Coffee Cultivation (PROMECAFE)	PROMECAFE/ROCAP	919 184	78.91	73 534	8.00
	PROMECAFE-Countries	119 063	10.22	0	0.00
	Government of France	15 917	1.37	1 273	8.00
	IICA	110 628	9.50		
	TOTAL	1 164 792	100.00		
Preparation of Base Studies for the Seminar on the Opportunities and Dangers of Agricultural Biotechnology in Central America	USAID-ROCAP	20 060	100.00	0	0.00
Status Report on Technological Inputs in Agricultural Production in the Central Region	USAID-ROCAP	20 700	100.00	0	0.00

PROGRAM Title of Instrument	RESOURCES			CATIS	
	Source	Amount US\$	%	Amount US\$	%
Preparatory Technical Meeting for the Regional Conference on Technology Transfer, IICA-ROCAP 1989	USAID-ROCAP	28 670	100.00	0	0.00
Formulation of International Guidelines and Recommendations on the Use of Biotechnology	OAS	5 000	6.85	0	0.00
	PAHO	25 000	34.25	0	0.00
	IOE	3 000	4.10	0	0.00
	USDA-APHIS	5 000	6.85	0	0.00
	USDA-ARS	5 000	6.85	0	0.00
	IDB	30 000	41.10	0	0.00
	TOTAL	73 000	100.00		
High-level Seminar on Policies and Mobilization of Resources for Technological Innovation in Latin America and the Caribbean	EDI-World Bank	55 800	100.00	0	0.00
UNDP Preparatory Technical Assistance to IICA for the Project on Technology Generation and Transfer for Small Farmers of Basic Foods in Central America, Panama and the Dominican Republic	UNDP	43 105	100.00	0	0.00
Support for National Systems and International Centers for Decentralizing Wheat-related Research Areas and Training, Sponsored by CGIAR in Latin America	IFAD	8 000	35.87	0	0.00
	IDRC	7 300	32.74	0	0.00
	Rockefeller	7 000	31.39	0	0.00
	TOTAL	22 300	100.00		
Strengthening of IICA Programs within the Framework of the Medium Term Plan	CIDA	219 868	81.75	0	0.00
	IICA	49 100	18.25		
	TOTAL	268 968	100.00		
PROGRAM III					
Seminar on the Role of the Small-Farmer Economy in the Strategy for Agricultural Reactivation and Development	IDB Grant	10 000	25.98	0	0.00
	Friedrich Ebert Grant	6 000	15.58	0	0.00
	Agro Action Grant	12 500	32.47	0	0.00
	IICA	10 000	25.97		
	TOTAL	38 500	100.00		
Training and Study Program on Agrarian Reform and Rural Development for the Central American Isthmus and the Dominican Republic (PRACA)	PRACA	8 021	11.83	0	0.00
	IICA	59 789	88.17		
	TOTAL	67 810	100.00		

PROGRAM Title of Instrument	RESOURCES			CATIS	
	Source	Amount US\$	%	Amount US\$	%
PROGRAM IV					
Trade Information System for Expanding the Intra-regional and International Trade of Agricultural and Agroindustrial Products	CASAR	500	5.98	0	0.00
	IICA	7 864	94.02		
	TOTAL	8 364	100.00		
Collaboration with the Institute for Latin American Integration (INTAL) on the Study of the Intraregional Trade of Staple Products in Central America	INTAL	6 000	100.00	0	0.00
Administration of Technical Cooperation	EDI-World Bank	10 831	5.17	1 625	15
	IICA	198 709	94.83		
	TOTAL	209 540	100.00		
PROGRAM V					
Animal Health and Plant Protection Information and Data Monitoring System for Latin America	USDA-APHIS	26 048	68.46	0	0.00
	IICA	12 000	31.54		
	TOTAL	38 048	100.00		
Environmental Education on the Handling and Appropriate Use of Agricultural Chemical Products in Rural Areas	GIFAP	35 200	100.00	4 800	13.64
Animal Health Actions in Argentina, a National Component of Multinational Project on the Strengthening of Animal Health Laboratory Services and Epidemiological Surveillance in the Central, Andean and Southern Regions	SAGyP-SENASA	28 249	79.62	3 390	12.00
	IICA	7 233	20.38		
	TOTAL	35 482	100.00		
Support to Follow-up Actions Arising from the Seminar on Problems Associated with Pesticide Use in Central America and Panama	USAID-ROCAP	3 931	100.00	315	8.01
Publication of the Procedures of the Meeting on Hormonal Substances, and the Manual on Exotic Diseases	Animal Health Institute	3 193	100.00	0	0.00

Distribution of Extra-quota Agreements and Contracts by Operating Unit

OPERATING UNIT Title of Instrument	RESOURCES			CATIS	
	Source	Amount US\$	%	Amount US\$	%
OFFICE OF THE DIRECTOR GENERAL					
Technical Support for Improving the Effectiveness of the Decision-making Process of the Regional Council for Agricultural Cooperation (CORECA)	CADESCA-EEC	2 000	1.01	0	0.00
	CORECA-Countries	97 605	49.29	0	0.00
	IICA	98 398	49.70		
	TOTAL	198 003	100.00		
Elaboration of the Strategic Plan of Joint Action for Agricultural Reactivation in Latin America and the Caribbean	IDRC	9 106	11.34	0	0.00
	OPEC Funds	16 320	20.33		
	IDB Funds	22 500	28.03		
	IICA	32 358	40.30		
	TOTAL	80 284	100.00		
OFFICE OF THE ASSISTANT DEPUTY DIRECTOR GENERAL FOR OPERATIONS					
Agricultural Policy and Food Security in Mexico	Kellogg-MSU	25 082	100.00	0	0.00
Joint IICA/IFAD Missions	FIDA	15 000	50.00	0	0.00
	IICA	15 000	50.00		
	TOTAL	30 000	100.00		
CEPI					
Project Preparation Unit	IDB(ATN/SF-256)	165 740	94.19	23 670	14.28
	IICA	10 215	5.81		
	TOTAL	175 955	100.00		
Division of Project Training, Identification and Formulation	EDI-World Bank	27 500	20.49	0	0.00
	ICI	1 402	1.04	0	0.00
	IICA	105 321	78.47		
	TOTAL	134 223	100.00		
DIRECTORATE OF EXTERNAL RELATIONS					
Implementation of the Radio Nederland Agreement	Radio Nederland	183 000	100.00	0	0.00

OPERATING UNIT Title of Instrument	RESOURCES			CATIS	
	Source	Amount US\$	%	Amount US\$	%
CIDIA					
Office of the Director	CIDIA-FAO	307	0.33	0	0.00
	IICA	91 376	99.67		
	TOTAL	91 683	100.00		
Support of AIBDA	AIBDA	19 070	79.33	0	0.00
	IICA	5 000	20.77		
	TOTAL	24 070	100.00		
Total of Extra-quota Agreements and Contracts Signed in 1988	EXTRA-QUOTA	22 192 806	81.83	1 907 572	8.60
	IICA	4 926 179	18.17		
	TOTAL	27 118 985			

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Michael J. Snarskis, in addition to collaborating with the editing of the English version, supervised the printing of both versions, together with Juan Mata.

Marcelle Banuett served as production editor. Olman Trigueros was in charge of design and layout.

Alejandro Urbina did the graphics.

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