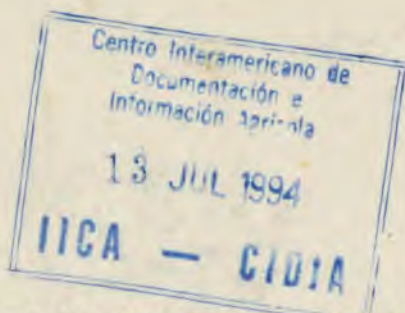


IICA



TECHNICAL ASSISTANCE ON AGRICULTURE: IICA
CIDA PROJECT NUMBER 540/13127

STRENGTHENING OF THE PROGRAMS OF IICA IN THE CONTEXT OF THE MEDIUM TERM PLAN

IICA

Final Report

March 1993

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WHAT IS IICA?

The Inter-American Institute for Cooperation on Agriculture (IICA) is the specialized agency for agriculture of the inter-American system. The Institute was founded on October 7, 1942 when the Council of Directors of the Pan American Union approved the creation of the Inter-American Institute of Agricultural Sciences.

IICA was founded as an institution for agricultural research and graduate training in tropical agriculture. In response to changing needs in the hemisphere, the Institute gradually evolved into an agency for technical cooperation and institutional strengthening in the field of agriculture. These changes were officially recognized through the ratification of a new Convention on December 8, 1980. The Institute's purposes under the new Convention are to encourage, facilitate and support cooperation among its 33 Member States, so as to better promote agricultural development and rural well-being.

With its broader and more flexible mandate and a new structure to facilitate direct participation by the Member States in activities of the Inter-American Board of Agriculture (IABA) and the Executive Committee, the Institute now has a geographic reach that allows it to respond to needs for technical cooperation in all of its Member States.

The contributions provided by the Member States and the ties IICA maintains with its 17 Permanent Observers and numerous international organizations provide the Institute with channels to direct its human and financial resources in support of agricultural development throughout the Americas.

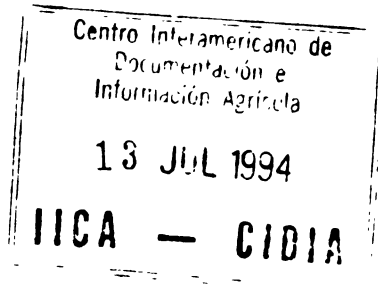
The 1987-1993 Medium Term Plan, the policy document that sets IICA's priorities, stresses the reactivation of the agricultural sector as the key to economic growth. In support of this policy, the Institute is placing special emphasis on the support and promotion of actions to modernize agricultural technology and strengthen the processes of regional and subregional integration. In order to attain these goals, the Institute is concentrating its actions on the following five Programs: Agricultural Policy Analysis and Planning; Technology Generation and Transfer; Organization and Management for Rural Development; Trade and Integration; and Agricultural Health.

The Member States of IICA are: Antigua and Barbuda, Argentina, Barbados, Belize, Bolivia, Brazil, Canada, Chile, Colombia, Costa Rica, Dominica, the Dominican Republic, Ecuador, El Salvador, Grenada, Guatemala, Guyana, Haiti, Honduras, Jamaica, Mexico, Nicaragua, Panama, Paraguay, Peru, St. Kitts and Nevis, St. Lucia, St. Vincent and the Grenadines, Suriname, Trinidad and Tobago, the United States of America, Uruguay and Venezuela. The Permanent Observers of IICA are: Arab Republic of Egypt, Austria, Belgium, European Communities, France, Germany, Hungary, Israel, Italy, Japan, Kingdom of the Netherlands, Portugal, Republic of Korea, Republic of Poland, Romania, Russian Federation and Spain.



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IICA



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As of October 1993, the Inter-American Agricultural Documentation and Information Center (CIDIA) and the Directorate for the Coordination of Institutional Affairs (DICAI) were merged in a new IICA unit, the Directorate for Information, Communications, Training and Institutional Affairs (DICCAI).

The DICCAI through its Editorial Service and Print Shop, was responsible for the layout and printing of this publication.

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INTER-AMERICAN INSTITUTE FOR COOPERATION ON AGRICULTURE/
CANADIAN INTERNATIONAL DEVELOPMENT AGENCY PROJECT

The general objective of the IICA/CIDA Project is to strengthen the conceptual and operational development of IICA's five Programs of action, in the technical areas having high priority in the institute's Medium Term Plan and the PLANLAC. Through the IICA Programs, the IICA/CIDA Project, with the collaboration of Agriculture Canada, supports the efforts of the countries to reactivate and modernize their agricultural sectors, in a framework of ever-improving relations between Canada and the countries of Latin America and the Caribbean.

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FOREWORD

This report describes an important IICA project that began in 1987 and concluded in 1993. It was financed with US\$3.97 million donated to IICA by the Canadian International Development Agency (CIDA), as well as contributions from IICA and the other participating countries, for a total of US\$7.33 million.

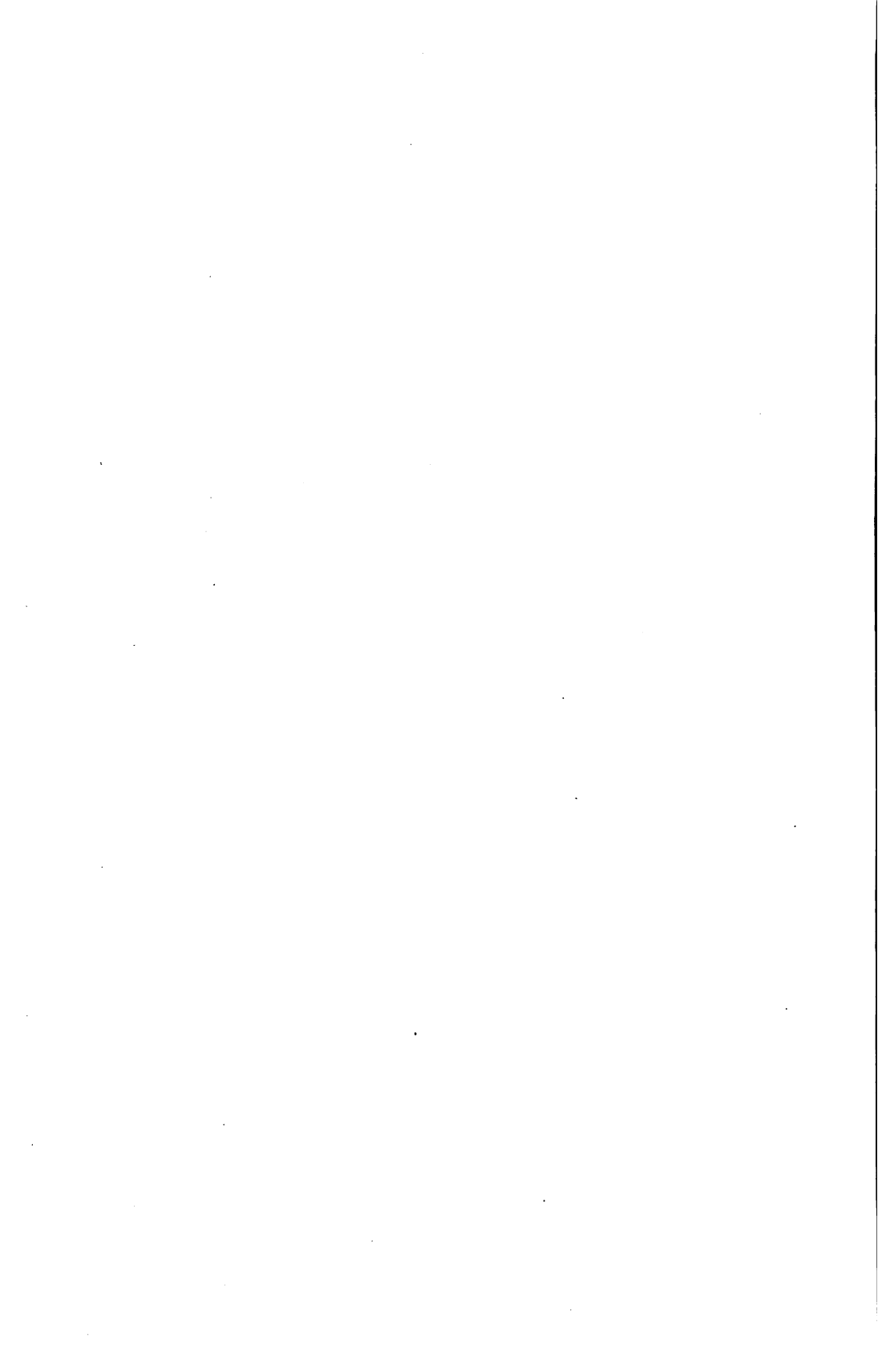
The report provides an overview of the experience gained in executing this project, and of its impact on IICA and in the participating countries. It also offers thoughts on IICA's future actions and commitments on matters that were addressed by the project.

The achievements of the project are the result of the work and dedication of Canadian, Latin American and Caribbean technical personnel and consultants who, together, put into operation an aggressive proposal for action. Their efforts were subject to the many variables present in the changing and dynamic context of the region, which made it necessary to make adjustments in the project while it was under way. Nonetheless, these changes did not alter the final objectives of the project or prevent it from meeting the needs of the beneficiaries: IICA and its member countries. At this time, we want to give special thanks to Agriculture Canada and CIDA for their fundamental role in the execution of this project, both of which ensured the timely use of project resources and carefully followed up on and supported it during its different phases and under varying circumstances.

It is also important to recognize and reiterate the importance this project has had and will continue to have in strengthening exchanges of technology and information between Canada and Latin America and the Caribbean (LAC), in creating and enhancing potential trade linkages in the region, in increasing and strengthening the image of Canada in LAC and vice versa, and in promoting actions in pursuit of the ultimate goal of development: a better world.

Feeling that our mission has been accomplished, we hereby submit this report.

**Ernani Fiori
IICA Representative in
Canada**



1. GENERAL CONTEXT AND ORIGIN OF THE PROJECT

The agricultural sector in Latin America and the Caribbean at the beginning of the project. At the beginning of the 1980s, the agricultural sector and the economies of the countries of Latin America and the Caribbean (LAC) were going through a crisis which was characterized by difficulties in servicing the foreign debt, fiscal deficits, inflationary pressures, among others, and which was rooted in general factors such as the obsolescence of economic development strategies pursued in the region during the previous decades. The slowdown in world economic growth and the drop in export prices for commodities from the region, for example, reflected a more profound reorganization of the world economy driven by geopolitical and technological changes.

Because of the crisis, it became necessary to redesign the development model and the strategies followed up to then. This made it possible to re-examine and redefine the role of agriculture as an expanded sector in the process of social and economic development. It was clear that past strategies had been significantly biased against rural areas. In spite of this, agriculture had maintained, and even increased, its importance vis-a-vis the economy and, in many countries it was the most dynamic sector and the most important source of hard currency. The new model to be defined, and the corresponding strategies and policies, had to take this into account. There was an urgent need to design a new development strategy and, as part of this strategy, the policies required to reactivate agriculture and the economy as a whole. It also became necessary to redefine the role of each sector, in particular of agriculture, in this process.

The major trends in technology and geopolitics that are bringing about changes at the global and regional levels determine agriculture's new role. The increasing globalization of the world economy and, in particular, of trade and investment; greater industrialization of the agricultural sector driven by changes in science and technology and in the markets; and the growing regional and subregional economic integration are some of these trends. Within this context, it became evident that agriculture's role as a source of foreign currency and as a means of meeting the growing domestic demand for foodstuffs would have to be strengthened and expanded. Moreover, it would be necessary to expand agriculture's role as a source of jobs and income for the mass of rural inhabitants so that, in this way, it could contribute more effectively to rural economic and social development.

Agriculture's capacity to stimulate the overall economy will require a strengthening of its horizontal and vertical linkages with the other production sectors, such as manufacturing and services. Moreover, economic opening calls for increased competitiveness of agriculture, and this will depend greatly on the level of agricultural modernization and technological advancement. To be politically and socially viable, these strategies will have to be able to reverse the growing trend of social exclusion and impoverishment affecting large sectors of the rural population in Latin America and the Caribbean. The rural development strategies of the past must be brought into line with the new demands and conditions. The new development model presents novel challenges for export strategies, since it demands ever higher levels of value added, as well as new schemes and strategies for accessing markets, technology and capital. Concurrent with the opening of the economies, and essential for doing so, is the need to develop harmonized systems for quality control as well as for agricultural and environmental protection. Systems and mechanisms that make it possible to rapidly adapt and respond to specific changes and situations are also required. In view of these challenges, the role of a technical cooperation institution such as IICA had to be redefined to respond to the needs of its member countries. This called for a process of profound reflection and research for developing new forms and mechanisms of cooperation in line with the new circumstances.

IICA and its Medium Term Plan

Within this context, a new administration came into office at IICA following the 1986 election by the Inter-American Board of Agriculture (IABA). A strategic planning exercise was undertaken, based on the mandates of the IABA. The 1987-1991 Medium Term Plan (MTP), which was subsequently extended to 1993, articulated and organized the Institute's response to the challenges faced by the region at that time. The MTP proposed, primarily, that agriculture be given a more dynamic role in society and more effectively fulfill its function of generating foreign currency, employment and foodstuffs, through modernization and enhanced competitiveness. The following are some of the guidelines set forth in the MTP, which correspond to each of IICA's Programs:

- a. To create a framework of policies that promote production, encourage the use of new technologies and ensure the active participation of all sectors of society.

- b. To efficiently exploit opportunities created by new technological advances.**
- c. To take into account the sectors of the population that are outside the production process, and to develop mechanisms to integrate them fully into modernization efforts.**
- d. To develop and exploit new markets.**
- e. To facilitate the movement of products, at the national and international levels.**

The design and organization of the IICA/CIDA project followed these guidelines, as can be seen in the areas covered by each of the five Programs.

The IICA/CIDA Project

After an evaluation of its resources and experience, it became evident that, although it was in a good position to address the actions set forth in the MTP, IICA lacked experience in some areas and would have to evaluate and reassess its actions in others. In order to provide cooperation to the countries in those areas, it would be necessary to develop new methodologies, generate novel information and have specialized staff on its team. During the Ninth Inter-American Conference of Ministers of Agriculture (ICMA), the Canadian government offered technical and financial support for institution building at IICA in specific subject areas necessary for complying with the objectives established in the MTP. This support, which took shape in a project funded by the Canadian International Development Agency (CIDA), involved actions under each of IICA's five Programs. The areas and actions were identified through consultation with IICA and CIDA and, subsequently, Agriculture Canada, the Canadian agency that executed the project.

In the case of Program I, Agricultural Policy Analysis and Planning, emphasis was placed on the topic of agricultural modernization as an economic stimulus, and the generation of macroeconomic information for analyzing and designing agricultural policies. The lack of information on the linkages among agriculture and other production sectors made it difficult to clearly conceptualize agriculture's role as an economic stimulus, and to subsequently design policies to maximize this effect.

In the case of Program II, Technology Generation and Transfer, it was determined necessary to enhance the capabilities of the region as concerns the handling and monitoring of new agricultural technologies, especially agrobiotechnology. As mentioned in the MTP, the new agrobiotechnologies would bring about profound changes in the structure of world trade and agricultural production, that this would have a significant impact on agriculture, and that LAC did not have the capabilities to meet this challenge.

As concerns Program III, Organization and Management for Rural Development, it was recognized that rural development in LAC had been constrained by the existence of a great number of projects, some programs and few policies. In other words, rural development activities had not been addressed in agricultural policies, and macroeconomic and sectoral policies had not taken into account the interests of small-scale farmers. This called for a review of accumulated experience related to the formulation of alternative rural development strategies and policies.

Moreover, the expansion of exports had become a top priority for LAC countries. Although the region has comparative advantages and vast experience in exporting agricultural commodities, exports from LAC were basically non-processed commodities (raw materials). Consequently, the work of Program IV, Trade and Agroindustry (whose name was later changed to Trade and Integration), focused on developing methods to support the countries in expanding nontraditional agroindustrial exports to United States and Canadian markets, through the establishment of joint ventures between enterprises in LAC and North America.

Lastly, with regard to Program V, Agricultural Health, one of the objectives established in the MTP was to strengthen animal and plant protection institutions as a mechanism for promoting agricultural trade. To this end, Program V decided to develop, under the IICA/CIDA project, a plant and animal health monitoring and information system for trade in the 14 member countries of the Caribbean Community (CARICOM). This system is an information network designed to generate reliable information to improve decision making for protecting and/or increasing agricultural output, productivity and trade. Although the IICA/CIDA project was not designed to promote closer working relations among IICA's five Programs, coordination structures were set up among them to expedite the development of joint actions.

2. THE PROJECT AND ITS DEVELOPMENT

General description of the project

The project to strengthen IICA's Programs, within the framework of the Medium Term Plan, which is a multinational project of hemispheric scope, was developed from July 1988 to December 1992. It involved an investment of approximately US\$7,330,000, of which US\$3,970,000 was contributed by CIDA, US\$1,690,000 by IICA and US\$1,650,000 as the counterpart from the countries of the region.

Its principal objective was to enhance IICA's capabilities to support the efforts of the countries to modernize and reactivate their agricultural sectors, especially as concerns:

- a. Promoting the development of agriculture as the principal source of economic growth, both as a supplier of foodstuffs and generator of foreign exchange.
- b. Intensifying agricultural modernization while promoting equity, in order to achieve growth and, at the same time, improve the standard of living of the rural poor.
- c. Strengthening regional integration.

Specific objectives

The following were the specific objectives of each Program:

Program I: Agricultural Policy Analysis and Planning

To cooperate with the member countries in developing their strategies and policies for agricultural modernization, by providing technical advice, analytical tools and training, based on the experience of LAC.

Program II: Technology Generation and Transfer

To provide advice and support to the member countries in formulating and implementing technology policies to meet the challenges posed by the new biotechnologies.

Program III: Organization and Management for Rural Development

To formulate and disseminate policy options that integrate rural development and sectoral development and, on this basis, prepare projects and provide training to enhance women and youths' involvement in rural development.

Program IV: Trade and Integration

To develop approaches for expanding nontraditional agroindustrial exports from LAC to North American markets, with emphasis on joint ventures between importing and exporting enterprises.

Program V: Agricultural Health

To develop and establish an ongoing program in the Caribbean to monitor economically important agricultural pests and diseases.

Execution and coordination

The project was executed by IICA's five Programs and by Agriculture Canada, the Canadian executing agency designated by CIDA, with support from the IICA Office in Canada. The project had a steering committee made up of the project coordinators from CIDA, IICA and Agriculture Canada, and a management committee, which brought together the aforementioned coordinators and the persons responsible for carrying out the activities in each of IICA's Programs, as well as the IICA Representative in Canada. This committee met on nine occasions to coordinate project execution and to approve necessary adjustments in project operations.

A year after the outset of the project, an inception report was prepared according to CIDA stipulations for bringing the initial programming into line with the experience gained during the first year of execution. Midway through execution, a medium-term evaluation was conducted by external consultants hired by CIDA. The conclusions and recommendations of this evaluation were incorporated into the programming for the remainder of the period.

Description of activities carried out

Program I: Agricultural Policy Analysis and Planning

For this Program, the project identified two major areas of work: 1) generating knowledge on the determining factors of agricultural modernization and on the multiplier effects of this process; and 2) developing IICA's capabilities to manage information and agricultural policy analysis systems.

Agricultural modernization in Latin America

Program I selected eight countries in order to identify the determining factors and multiplier effects of successful experiences to modernize agriculture. The sectors and countries selected were: grains in Argentina; fruits for export in Chile; poultry for the domestic market in Peru; soybeans for export in Brazil; shrimp in Ecuador; flowers for export in Colombia; dairy products for the domestic market in Costa Rica; and fruits and vegetables for export in Mexico.

The studies were conducted by consultants in each country. A Canadian consultancy firm designed the methodology and participated in monitoring the work carried out by the local consultants. The initial results were presented during a seminar-workshop held in San Jose, Costa Rica in June 1989, at which time the eight case studies were discussed. A book was later written on the work presented during the seminar.

Subsequently, in January 1990, a high-level seminar was held with international experts to discuss models for formulating agricultural policies, based on the new approaches and perspectives gained from the case studies. Then, five of the case studies (Argentina, Costa Rica, Ecuador, Chile and Mexico) were chosen for further analysis of the multiplier effects on the overall economy. A high-level seminar on agricultural modernization in LAC, based on these studies, was held in Chile, in May 1990. The case studies of were selected. The proceedings of the seminar were published and distributed.

In accordance with the objectives established by the project, Program I provided advisory services to the government of Guatemala concerning agricultural modernization. It also provided technical assistance in the same area to the countries of the Caribbean. The Program collaborated in designing a study on information systems on

natural resources and sustainable development. The study is funded with resources from the IICA/GTZ project and will be tested in Costa Rica.

During the final stage of the project, a preliminary review was made of environmental risks associated with the modernization process, and policies that contribute to making modernization more consistent with commitments to the conservation of natural resources have been identified.

The Information System for Agricultural Policy Analysis in Latin America and the Caribbean (SIAPA)

SIAPA is an information system that facilitates the follow up and analysis of agricultural policy. It consists of three basic parts: a data base, instruments for analysis, and data and word processing. Inasmuch as SIAPA makes use of several software packages, it offers a broad range of possibilities for comprehensive handling and analysis of information. For example, data on macroeconomic and agricultural issues can be retrieved from the data bases; subsequently, this information can be processed and analyzed using other packages of the system, without the need to use any other program.

A Canadian consultant was hired to design the program; he also oriented IICA staff members in the area of data processing. SIAPA has been installed in most of the IICA Offices in the countries. Several publications have been written on the system. One of them provides a general description of the system and another, entitled *Diccionario de Variables del SIAPA* (SIAPA Dictionary of Variables), facilitates users' work by defining the variables.

SIAPA has been installed in the ministries of the countries of the Southern Area (Argentina, Chile, Paraguay and Uruguay), as well as in the Andean Area (Bolivia, Colombia, Ecuador, Peru and Venezuela). The ministries of agriculture of the Central Area, with the exception of Mexico and the Dominican Republic, have also received SIAPA. Effective distribution of the system has been limited by the shortage of computer equipment at the ministries and of funds for purchasing the computer programs needed to run the system.

Program I has provided training to specialists from the public and private sectors in how to operate SIAPA. This has included two regional seminars held in Uruguay, attended by two officials from the

ministry of agriculture from each of the member countries of the Southern Area. Two other regional training workshops were also held in Bolivia, involving participants from both the public and private sectors.

Private sector organizations have shown interest in the system. A type of users' group is being set up in each country to promote the enrichment of the SIAPA data bases and their use in conducting analyses and in discussions between the public and private sectors.

Program II: Technology Generation and Transfer

Actions developed by Program II within the framework of the project were programmed in four stages. The purpose of the first was to define the theoretical framework which would serve as the foundation for the subsequent stages: assessment, support in formulating public policy and support in managing the new biotechnologies.

Development of a methodological and conceptual framework

In order to define a methodological and conceptual framework that would make it possible for IICA to support the countries in establishing appropriate policies for developing new agricultural biotechnologies in the region, analytical case studies were conducted on the general outlook for and impact of agrobiotechnologies and on their political and strategic implications. The results of these studies served as the basis for three publications and a seminar.

The seminar, held in Colombia in August 1989, introduced high-level IICA officials and several national agricultural research institutes to the topic of the new biotechnologies. A document containing the discussions and the recommendations of the seminar, as well as three books, were published in Spanish on the following topics: "An analysis of the impact of biotechnologies on agriculture: Conceptual and methodological considerations", "Biotechnology and industry: A theoretical interpretation", and "Outlook for biotechnology."

Assessment of regional capabilities for generating, transferring and using new biotechnologies in agriculture and agroindustry

During the second phase, four parallel activities were carried out to assess the region's capabilities in the area of agrobiotechnologies. First, a meeting of experts was held to identify the most important

regional activities and problems related to the generation and use of agrobiotechnologies, using a methodology prepared by a Canadian expert.

The second activity was a detailed study in Argentina, Costa Rica and Venezuela on investments in biotechnology research and development, the findings of which were published in an international journal. The third activity was the creation of a bibliographic data base, entitled AGROBASE, which contains summaries from "Biological Abstracts" that cover agrobiotechnological research conducted in the region. The data base can be used to construct a series of indicators on agrobiotechnology research and development, and served as the basis for an article published in an international journal.

Lastly, a Latin American directory containing information on the biotechnology industry in the region was generated. Based on methods designed by a Canadian consultant, the first volume of the directory, which covers Mexico, was written and published.

Support to the formulation and implementation of specific strategies on new agricultural technologies

Actions to support the formulation and implementation of new policies focused on five subjects or spheres of action: strategies and policies; intellectual property of technological innovations; biosafety; genetic resources; and information for decision making.

► *Strategies and policies*

In order to identify the basic elements of any policy addressing agrobiotechnology development, experts were consulted with the support of a Canadian consultant. The seminar on the formulation of policies to develop biotechnologies was held in Cuernavaca, Mexico, in April 1991. A group of Canadian consultants conducted a study on technical and organizational requirements for enhancing biotechnology research and development (R&D) capabilities in existing research centers. The corresponding publication has been widely distributed in the region.

Moreover, at the national level, support was provided to the Ministry of Agriculture of Uruguay to define a strategy for developing biotechnology in that country. A group of three national consultants prepared a proposal with support from two international experts. It

was discussed during a workshop which actively involved people working in that subject area in Uruguay. The proposal was also discussed during a meeting with representatives from Ministry of Agriculture units that carry out biotechnology activities. The process concluded with the publication of a document describing the strategy suggested for developing agrobiotechnologies in Uruguay.

► *Intellectual property*

A seminar was held in Caracas, Venezuela in November, 1990, to analyze world trends in intellectual property, its impact in the region, and options in the agricultural sector. The seminar was organized in collaboration with the Regional Biotechnology Program of the United Nations Development Programme (UNDP), with support from the World Intellectual Property Organization (WIPO) and the Polar Foundation of Venezuela. Participants included representatives from the agricultural sector of several countries, who examined problems related to the protection of intellectual property within the context of agricultural technology policies. One of the base documents of the seminar was written by a Canadian consultant.

Recommendations from the seminar describe the type of intellectual property protection that is most appropriate for agriculture, and express a regionwide consensus that has given rise to several national and subregional initiatives on the topic. The proceedings of the event were published and widely distributed. Along these same lines, a study was conducted on the patenting of biotechnology innovations and their impact on agriculture in the region.

► *Biosafety*

Appropriate biosafety systems that reduce biosafety risks to health and the environment are an important element to be considered in addressing the issue of biotechnology. In this line, actions were undertaken on two fronts. Firstly, with a view to defining scientific and operating concepts for implementing biosafety systems, Program II continued to collaborate with the Pan American Health Organization (PAHO), through the inter-American study group on new biotechnology, in preparing general guidelines that draw on experience gained worldwide, adapting it to the general needs of the region.

The issue of releasing genetically engineered organisms into the environment was examined by the study group in a meeting held in

Brazil in 1990. In addition to a manual, which was published and distributed in 1991, a document containing the papers presented during the seminar was published in 1992 (see Appendix 1).

Secondly, support was given for designing and implementing subregional harmonized biosafety systems to the countries of the Southern Area, through the Cooperative Program for the Development of Agricultural Technology in the Southern Cone (PROCISUR). Based on the mandate of the Advisory Council for Agricultural Cooperation in the Countries of the Southern Area (CONASUR), support was also provided for defining harmonized norms for regulating the release of transgenic plants into the environment. A workshop was held in Buenos Aires, Argentina in November 1992, in collaboration with the International Service for the Acquisition of Agri-Biotech Applications (ISAAA) and the Plant Protection Committee for the Southern Area (COSAVE).

► *Genetic resources*

The development of biotechnology has made it possible to assign a value to genetic diversity. Although the best opportunities for using genomes are found in the industrialized countries of the North, biodiversity is heavily concentrated in the South. Efforts to protect biodiversity consider not only the intrinsic value of biodiversity, but also the fact that it is a useful tool for introducing biotechnology into developing countries.

In view of the above, support has been given to establishing subregional networks to administer phylogenetic resources in the Amazon, Caribbean, Andean and Central Areas (the network for the Central Area is called REMERFI and covers Central America and Mexico). For the Caribbean, a seminar was held in Trinidad and Tobago in October 1991 in collaboration with the University of the West Indies to discuss how to assign a value to the genetic resources of that region. Among the recommendations approved was one calling for a diagnostic study of Caribbean capabilities and experiences with the administration of phylogenetic resources. The study was conducted by an expert from the National Agricultural Research Institute (INRA) of France, financed by the project.

► *Information for decision making*

Because of the importance to biotechnology development of providing accurate information on trends and advances to the decision-making bodies of the public and private sectors, IICA set out to define its strategy in this area. Based on the recommendations of a Canadian consultant, IICA collaborated with an international information bulletin, "Biotechnology and Development Monitor," published in the Netherlands, for which it prepares a Latin American section.

Support for improving management in the generation, transfer and use of agricultural biotechnology

The purpose of this activity was to provide support in order to improve management of biotechnology use in production units. The need to improve the management of technology in enterprises led to an in-depth study of managerial processes in agro-biotechnological enterprises. Twenty-one case studies of agrobiotechnology enterprises were conducted in eight countries of Latin America: Argentina, Brazil, Chile, Colombia, Costa Rica, Mexico, Uruguay and Venezuela. Using methods developed by a Canadian expert, national consultants held meetings with executives and managers of these enterprises. The information collected and analyzed was presented in a document.

Program III: Organization and Management for Rural Development

The project for Program III involved five activities:

1. Case studies, to be used in designing a methodology for assisting countries in formulating differentiated policies for rural development.
2. Case studies on experiences related to decentralization and participation in rural development.
3. Preparation of methodological and conceptual guidelines for IICA actions in rural development, based on the results of the preceding activities.
4. Training for rural development professionals in the region.
5. The formulation of two rural development projects based on the conceptual and operating instruments designed.

Differentiated policies, decentralization and participation for rural development

Activities in this subject area were intended to provide inputs for Program III's efforts to formulate a conceptual, methodological and operating framework relevant to:

- a. Differentiated policies for rural development.
- b. Decentralization of the state apparatus, with greater participation of the population.

Differentiated policies are those that take into consideration the specific characteristics of the small-farm economy and small farmers, rural society and the ways in which they are linked to society in general and the economy as a whole. Differentiated policies aim to modernize and change rural society.

With differentiated policies, the aim was to develop criteria and guidelines for harmonizing macroeconomic policy, sectoral policy and the specific instruments that benefit small farmers. As regards decentralization, the potential of these processes for strengthening local governments and boosting the participation of civil society was analyzed.

This was accomplished through research, studies and the systematization of experiences in Argentina, Bolivia, Brazil, Colombia, Ecuador, Guatemala, Honduras, Mexico and Peru. The findings were discussed and enriched in several subregional seminars (See Appendix 2); four publications resulted (See Appendix 1).

These efforts led to the development of a conceptual and methodological framework which was used to support the countries in formulating and evaluating differentiated policies for rural development, and to strengthen the structure, administration and management of institutional systems, using as a basis the decentralization and rural participation experiences of Brazil, Colombia, Ecuador, Paraguay and other countries.

Also, a new space was identified within the Institute for multi-national projects; in this case, for establishing subregional rural development networks for the exchange of know-how, experiences and technical materials produced by the programs and projects of

participating institutions in each country. In addition, draft rural development policies for small farmers were analyzed and formulated, as part of efforts in pursuit of integration and economic opening.

These efforts gave rise to the Cooperative Program for Rural Development in the Southern Area (PROCODER), which brings together 16 institutions in five countries. Moreover, the Training and Study Program on Agrarian Reform and Rural Development for the Central American Isthmus (PRACA) was strengthened. In association with the Caribbean Network for Integrated Rural Development (CNIRD), a rural development project was designed for the Caribbean which brings together a number of governmental organizations, nongovernmental organizations (NGOs) and grassroots groups operating in the subregion.

Also worthy of note was the training provided by the Program in eight international seminars/workshops (See Appendix 2) to validate and disseminate conceptual and methodological advances on new issues such as differentiated policies, equity and gender, decentralization and privatization, and sustainability. These events were attended by almost 300 professionals from governmental and nongovernmental rural development institutions.

Of special importance was the impact of the seminar offered in October 1990 in the Andean Region to train small farmers in participatory methods, and the one held in the Southern Area on participatory training for enterprise management of small-farmer organizations. Participants in both events analyzed training experiences and formulated conclusions and recommendations for orienting the training activities of rural development programs and projects.

Also, the Program prepared a manual for training field technicians to identify, formulate and administer projects having a gender perspective for small rural businesses. This manual was validated in two courses for technical personnel from Central and South America. These activities (studies, research and seminars, workshops, courses and publications) enabled the Program to define a strategy for involving small farmers in the agricultural modernization process, taking advantage of the opportunities created by macroeconomic and institutional changes.

Gender and rural development

IICA's experience in this area dates back to the 1970s. Nevertheless, specific actions were few and a significant impact was not had on Institute activities. With the support of CIDA and UNIFEM, a more systematic and ongoing effort was launched in 1989 which made it possible, on the one hand, to prepare a conceptual, methodological and operating framework for strengthening rural women's participation in programs and projects. In the other, it provided the means to establish IICA's presence in this subject area. The conceptual framework was enhanced with case studies on women's participation in agriculture in Argentina, Brazil, Costa Rica, Ecuador, Mexico and Trinidad and Tobago. This material was the main topic of discussion at a regional seminar of specialists, the results of which were published in the book "Mujer y Modernización Agropecuaria" (Women and Agricultural Modernization).

Program III held several seminars and training workshops (See Appendix 2) on ways to incorporate the gender perspective into rural development policies, programs and projects, attended by national technical personnel and IICA rural development specialists. In addition, it supported several countries in formulating policies and projects to involve rural women (Argentina, Bolivia, Brazil, Chile, Colombia, Ecuador, Paraguay, Trinidad and Tobago and Uruguay); participated in joint assessment and project preparation missions with the Inter-American Development Bank (IDB) and the International Fund for Agricultural Development (IFAD) in Costa Rica, Dominican Republic, Ecuador, Panama and Uruguay, focusing on the incorporation of the gender perspective and the participation of women in development; participated in and held joint seminars and workshops on this topic with other agencies, such as the United Nations Development Fund for Women (UNIFEM), IDB, United Nations Educational, Scientific and Cultural Organization (UNESCO), IFAD, World Conservation Union (IUCN), Economic Commission for Latin America and the Caribbean (ECLAC), Inter-American Commission of Women (IACW); carried out, along with the IDB, a research project on the effect of sectoral policies on women food producers in Central America, which will generate recommendations on policies for this sector and will be expanded to the other three Areas (Southern, Andean and Caribbean); developed working methodologies the countries can use in formulating, executing and evaluating programs and projects that take into account the heterogeneous and differentiated aspects of the female population in rural areas of LAC; and contributed to the formulation of subregional

projects such as the one on women, environment and development in Central America, in conjunction with the Swedish International Development Authority (SIDA).

These actions have made it possible to:

1. Institutionalize the topic as a working area for IICA.
2. Familiarize IICA personnel with the topic and provide them with orientation.
3. Foster discussions on ways for incorporating the gender dimension into IICA's five Programs.
4. Provide training for technical personnel from several countries in the formulation of policies, programs and projects.
5. Develop working methodologies.
6. Demonstrate the Institute's ability to address this issue to the countries and the international community, thus enabling it to attract funds for national and subregional projects.

Program IV: Trade and Integration

Promotion of agroindustry, the search for market niches and joint ventures to foster exports

The Project involved the following activities by Program IV:

1. Selecting promising nontraditional agroindustrial products in LAC, on the basis of market studies and assessments of their production potential.
2. Identifying market profiles for the most promising categories of selected products.
3. Preparing and promoting joint ventures between LAC and North American enterprises for the execution of agroindustrial projects.

Prior to initiating contacts with Latin American, United States and Canadian enterprises, it was necessary to identify potential areas that had shown considerable growth in recent years. Through Agriculture

Canada, a firm was hired to write a report on the topic. Ten areas which represented potential market niches for the countries of LAC were identified, to wit: flavorings and fragrances, dried fruits, pre-cooked foods, delicatessen items, sauces and dressings, snacks, fruit juices, ice cream, yogurt, desserts, specialty beverages, cosmetics and pharmaceuticals. This study was used as the basis for the Program's actions to gather information on enterprises that might be interested in joint ventures.

Another Canadian consulting firm was hired to conduct a study on food processing technologies available on the market which might be of interest to the countries of the region. Thirty-seven technologies were identified and divided into eight groups: packaging, radiation, production of concentrates, texturizing, drying, extraction, fermentation and others. This provided the countries with a wealth of information and facilitated the selection of technologies. A report on tariff, phytosanitary, packaging and labelling regulations affecting the trade and distribution of agroindustrial products in the United States and Canada was also called for under the contract.

The Project used four small-economy countries as pilot cases (Costa Rica, Ecuador, Jamaica and Uruguay), with Trinidad and Tobago being incorporated subsequently. Criteria used in selecting the countries were geographic location, the degree of openness of their economies and their relative level of agroindustrial development. A workshop was held in each of the countries to identify the potential for joint ventures, which included agroindustrialists, government officials and representatives of development agencies among their participants. They provided a starting point for making contacts in the pilot countries with enterprises interested in entering into joint ventures.

Profiles of the enterprises were prepared and the consulting firm gathered information on enterprises in Canada and the United States interested in participating in joint ventures with Latin American enterprises. Some 40 Latin American enterprises capable of and interested in such joint ventures were identified. A total of 20 Canadian enterprises have expressed similar interests. As a result, Latin American enterprises have been paired with Canadian enterprises for exploring the possibilities of joint ventures. Also, the Project provided support in analyzing agroindustrial development strategies and policies in LAC. To this end, a high-level seminar on this topic was held in Brazil, bringing together agroindustrial leaders from different

sectors. The conclusions and recommendations of the seminar were published subsequently.

Program V: Agricultural Health

Establishment and operation of CARAPHIN

Even though IICA had considerable experience in training and technology transfer in support of animal health services prior to the execution of the Project, it had no experience with establishing and operating monitoring and information systems. In order to overcome this limitation, IICA hired specialized consultants and drew on the experience of FAO, other international agencies and the governments of the United States (Animal and Plant Health Inspection Service of the Department of Agriculture) and Canada.

In order to establish the Caribbean Animal and Plant Health Information Network (CARAPHIN), methods were analyzed and adapted to the circumstances of this region. Subsequently, the methodology designed for establishing and operating CARAPHIN was revised to incorporate observations gathered during a seminar on the monitoring of animal and plant diseases and pests, held in November 1988. The two objectives established for this network were:

1. To strengthen capabilities, especially of human resources, in the Caribbean countries to monitor and control pests.
2. To develop a region-wide information system for monitoring pests and diseases of interest to participating countries.

In order to meet the first objective, training was provided in disease-monitoring techniques and the use of microcomputers. As regards the second, a list of the most important diseases in the Caribbean was compiled through interviews with national animal and plant health authorities and regional specialists. The diseases identified are primarily those affecting the trade of agricultural commodities.

CARAPHIN headquarters was established in Port of Spain, Trinidad and Tobago. In order to set up the Network, each of the 14 participating countries was supplied with a microcomputer, a printer and the necessary software. The Network's professional personnel visited the participating countries to supervise installation of the equipment and to train local staff in the use of the computer programs

needed to process and analyze data, including the Caribbean Plant Protection Committee (CPPC) database, developed by FAO. A database on animal health was also developed. Information on the status of agricultural diseases worldwide can be retrieved through this program, which was developed jointly by a FAO consultant and an IICA specialist. This database, known as HandiSTATUS (Help with Animal Disease Status for Trade), provides quick access to information, including maps that show the incidence of diseases and possible restrictions for agricultural trade. HandiSTATUS also includes information on legislation and the recommendations of the International Office of Epizootics (OIE) for the international trade of animals and animal products. All the equipment delivered to the countries was in operation by the second semester of 1990. By 1991, the exchange of information on the countries' monitoring and surveillance activities of animal and plant diseases in the region began through the Network. The countries send a report to the CARAPHIN Coordinator every six months, which are compiled into a single report on all surveillance activities carried out in the region.

HandiSTATUS has been distributed to almost 100 countries around the world, including Asia. The importance of this instrument, which facilitates trade and the monitoring of agricultural diseases and pests, was recognized by the OIE Working Group on Animal Information Systems, which, at its October 19-23, 1991 meeting in Paris, recommended that the member countries of the OIE and FAO adopt HandiSTATUS as a worldwide information system on agricultural diseases. Of special note has been the cooperation with agencies such as USDA/APHIS of the United States, and INRA, CIRAD and IEMVT, of France, which contributed to the development of CARAPHIN in various ways, including by providing articles for CARAPHIN newsletters and reports on their own epidemiological surveillance activities.

Training

As mentioned earlier, to ensure effective operation of CARAPHIN, training was essential for personnel in the countries. To this end, and in collaboration with the Ministry of Food Production and Marine Exploitation of Trinidad and Tobago, the Project held three regional courses: in September 1989, September 1990 and July 1991, at the University of the West Indies (UWI), which provided meeting rooms, computer equipment and other facilities. Also, the Head of Laboratory Services of Jamaica received training at the Animal Diseases Research Institute of Agriculture Canada.

Instructors for the courses were provided by the University of Guelph, in Canada, IICA and the University of California at Davis. The first two courses provided intensive training in epidemiology, which laid the groundwork for the third course, on veterinary economics, evaluation of crop losses and project identification and formulation. The training sessions were complemented with lessons on the use of computers to facilitate data management. Other training events included a short course offered in Tobago by Project personnel on the prevention and diagnosis of animal diseases, and support for the participation of veterinary service personnel from Belize and Barbados in an international seminar on veterinary epidemiology and economics, held in Canada in August 1991. Mention should also be made of in-service training provided to personnel from the Serge Island Dairy in Jamaica, on the use of the programs used to administer dairy production, and training for plant protection personnel in Trinidad on fruit fly management.

In October 1991, CARAPHIN staff took part in a course organized by the IICA Office in Saint Lucia to train plant protection personnel from OECs member countries in the use of the CPPC database and others on quarantine and pesticides. Also, as mentioned above, national animal and plant health personnel received training during the visits of CARAPHIN officials to the countries. The Project's activities were publicized in a newsletter distributed to animal health services, research and academic institutions and international and local cooperation agencies, both in the subregion and beyond it.

Support for the PLANLAC in the area of sustainability

The development of the IICA-CIDA Project was closely related to the formulation of the Plan of Joint Action for Agricultural Reactivation in Latin America and the Caribbean (PLANLAC), completed in 1989. The conclusions and information generated by the Project's analysis and assessment activities provided inputs for the PLANLAC, and many of the Plan's specific actions were based on Project activities. The Project contributed directly to the PLANLAC in the area of sustainability, providing the services of a Canadian consultant and supporting the establishment in 1993 of the Inter-American Study Group for Sustainable Agriculture, a high-level body whose task it is to define policies and strategies for achieving sustainable agriculture in the region.



3. THE PROJECT AND IICA'S CAPABILITIES

The Project has had considerable impact on IICA's capabilities, as well as on the Institute's thinking and strategies, as pertains the development of new topics and the generation of new information and technologies, and its equipment. These capabilities are centered in IICA's Programs at Headquarters in San Jose, and in the IICA Offices in the member countries. Also, given its multi-Program nature, the Project did much to promote inter-Program action.

The Institute as a whole

The IICA-CIDA Project was the first working experience to involve IICA's five Programs. Given its structure and, in particular, its coordination mechanisms, communication and integration among the Programs was improved.

The IICA-CIDA Project and, in particular, efforts to address sustainability, formed the nucleus of the inter-Program activities launched at IICA in 1990, and which have resulted in the institutionalization of the topics of sustainability, competitiveness and equity.

In the Programs

Program I: Agricultural Policy Analysis and Planning

As a result of Project activities, Program I has enhanced its capabilities in new areas of cooperation with the countries. Of particular significance is the political and technical importance of research findings on agricultural modernization. The PLANLAC established the importance of revitalizing and modernizing agriculture in LAC as a prerequisite for renewed development.

Program I's studies on agricultural modernization identified components of this process and the impact of modernization on rural society and the economy as a whole, which served as the foundation for many of the actions taken by the Institute in this area. It is not an overstatement to say that a large part of the institutional "doctrine" developed during this period was based on the results of these activities.

The Project enabled Program I to shore up its leadership position in the region in addressing the topic of agricultural modernization and the

development of a policy analysis information system. The possibility of opening up new cooperation instruments for the countries is envisaged in the Declaration of the Tenth ICMA, held in Madrid in September 1991, which referred to two points relevant to the activities of the IICA-CIDA Project: sustainable modernization and the need for information.

For IICA, the development of the Information System for Agricultural Policy Analysis (SIAPA) is considered to be an important achievement; it is first such effort ever. In addition to being a novel tool for cooperation with the countries, SIAPA is a mechanism that facilitates inter-Program efforts within IICA. At the country level, it becomes a useful tool for the analysis and discussion of policy issues of interest to the public and private sectors.

Acquisition of equipment

In order to install SIAPA at Headquarters and in the IICA Offices in the countries, computers were purchased with funds provided by the IICA-CIDA Project. At Headquarters, Program I received the following equipment: 4 computers, 1 laser printer, 2 printers, 3 UPSs and the necessary software.

The IICA Offices in the following countries received the following: Bolivia, 1 computer; Colombia, 2 computers and 1 laser printer; Costa Rica, 1 computer; Guatemala, 1 computer and 1 printer; Mexico, 1 computer, 1 printer and 1 UPS, Paraguay, 1 computer and 1 printer; and Uruguay, 1 computer and 1 UPS.

Program II: Technology Generation and Transfer

Through the Project, the Institute has developed capabilities for analysis and technical assistance in the area of agrobiotechnology, which it did not have previously. There is now an agrobiotechnology policy specialist on staff, and an increased understanding of the topic by other Program personnel, which has enabled them to become more involved in this subject area. A clear indicator of these capabilities is the international recognition the Institute has earned in the area of agrobiotechnology.

IICA staff are invited frequently to participate on the boards of new international programs addressing policy formulation for biotechnology development, and in international conferences and seminars.

The Director of Program II was invited to represent LAC on the Biotechnology Advisory Committee of the Stockholm Environmental Institute, and to be a member of the Working Group on Biosafety organized by the World Health Organization (WHO), the United Nations Industrial Development Organization (UNIDO) and the United Nations Food and Agriculture Organization (FAO). He was also asked to represent the region on the Steering Committee of the Intermediate Biotechnology Service (IBS) established by the International Service for National Agricultural Research (ISNAR).

These new capabilities of Program II are complemented by and expanded through an informal network of collaborators established during the term of the Project. Through consultancies and studies, ties have been strengthened with groups of researchers and individual experts in Argentina, Brazil, Canada, Chile, Colombia, Costa Rica, Mexico, Peru, Trinidad and Tobago, Uruguay and Venezuela.

These collaborative efforts have contributed to increasing the knowledge and understanding of many of the groups vis-a-vis biotechnology development policy. Finally, five computers, one laser printer and one scanner were acquired under the IICA-CIDA Project, where they are made available to all the technical personnel attached to Program II.

Program III: Organization and Management for Rural Development

As a result of the Project, the philosophy underlying the work of Program III was redefined, a process considered to be its most important activity over the last five years, not because of the amount of funds involved, which was considerable, but rather because of the energy, new subject matters, theoretical instruments and new institutional partners generated through the Project's activities.

A recent external evaluation of Program III underscored the above. This renewal of Program III enabled it to strengthen its relations and influence within IICA, the countries and the donor community through its treatment of new subject areas and use of new methodological tools.

A clear indication of this is the fact that, beginning in 1990 -a year in which the Institute's handling of new approaches and subject areas had matured considerably-, the amount of external resources secured by Program III increased notably. Important achievements were made

through projects in Brazil, Chile, Colombia, Ecuador and Paraguay; through the network of the Cooperative Program for Rural Development in the Southern Area (PROCODER) and through projects carried out with UNIFEM and the IDB addressing women and rural development.

The IICA-CIDA Project enabled Program III to develop a conceptual and operating proposal for rural development that is based on modernizing agriculture in such a way as to involve, comprehensively and equitably, the different sectors of rural poor. In other words, it calls for a modernization that is democratic, comprehensive and participatory. Participants in this endeavor should include, along with the state, all social actors: entrepreneurs, small farmers, trade associations, unions, NGOs, etc. This change in thinking has made it possible to establish rural development programs in several countries and to set up subregional networks.

Progress was also made in addressing the issue of women, moving from an emphasis on women and development to the incorporation of the gender perspective into the modernization process. This also implied a change in IICA's modus operandi; it was no longer simply an activity of Program III, but rather an Institute-wide concern.

These two topics have become an integral part of the Institute's message. Two groups have been set up within IICA's Strategy Development Committee to address: a) guidelines for actions related to gender, and b) modernization and equity. Several of the recommendations of the Tenth ICMA referred to the proposal for comprehensive modernization as developed through the Project.

Program IV: Trade and Integration

The Project has enabled Program IV to branch out into new areas. Addressing the three topics of agroindustry, joint ventures and the search for market niches posed a challenge for IICA and revealed the need to develop new capabilities.

Prior to the IICA-CIDA Project, Program IV had focused its actions on the economics of agriculture, with little attention given to the processing of agricultural output. Some attention had been given to strengthening technological and marketing capabilities in the region, but only for Latin American enterprises.

The potential of the horizontal transfer of technology and marketing through joint ventures with enterprises in industrialized countries was unrecognized at that time. One of the benefits of that approach is the determination of interesting niches for LAC.

Through the Project, Program IV was able to identify specific opportunities on export markets, as well as joint ventures. The documents generated by the Canadian consultants on market niches and new technologies for agroindustry have provided the Institute with a wealth of information. Numerous researchers and entrepreneurs have consulted them at IICA's Inter-American Agricultural Documentation and Information Center (CIDIA) and other institutions.

Program V: Agricultural Health

As a result of the IICA-CIDA Project, IICA has gained considerable experience in the use of animal and plant health databases. Certain aspects of the focus guiding the establishment of CARAPHIN have become a permanent part of Program V's work; for example, that a clear understanding of plant and animal health regulations facilitates the international and interregional trade of agricultural commodities.

This new focus is one of the three bases of Program V's actions, with the other two being to improve food quality and to prevent the introduction of diseases and pests.

In terms of methodology, the approach taken with CARAPHIN has proven to be successful. Its principal characteristics are: training in the use of databases to monitor animal and plant diseases; dissemination of information on surveillance activities carried out in member countries of the Network; and development of specific methodologies for monitoring diseases and pests of special interest to certain countries (for example, the fruit fly and the mango seed weevil).

Also, the equipment installed in the IICA Office in Trinidad and Tobago (Project headquarters) and the office equipment for the Project Coordinator, an epidemiologist and a secretary was purchased through the Project.

4. IMPACT OF THE PROJECT ON IICA'S MEMBER COUNTRIES

The effects of a project such as the one described herein are not felt immediately. New technologies take a long time not only to be developed, but also to be transferred to the countries. Often, institutions need to develop a cadre of professionals trained in the new approaches before they can be applied. Nevertheless, certain effects attributable to the Project can already be perceived in the countries.

Program I: Agricultural Policy Analysis and Planning

The Project has given the countries new tools with which to analyze policies that will contribute to the modernization of agriculture. Also, installation of the SIAPA program in most of the countries has provided increased capabilities for the planning and formulation of agricultural policy.

Program II: Technology Generation and Transfer

As regards technology policy, the principal effects of the Project in the member countries have been:

The creation of agrobiotechnology programs

Seminars and publications were used to communicate the importance of developing capabilities in agrobiotechnology and of analyzing the course of its development and impact. This has assisted the ministries of agriculture and national agricultural research institutes, to mention only those organizations most directly involved in IICA's actions, with decision making related to this topic.

As a result of this greater awareness, agrobiotechnology programs were created in recent years by several institutions. For instance, Argentina's INTA created a Biotechnology Program in 1989, and since then, a center for research in molecular biology. INIA, in Uruguay, also created a biotechnology program.

PROCISUR, a cooperative agricultural technology program, involving Argentina, Brazil, Chile, Paraguay and Uruguay, established a special biotechnology project in 1992. All these initiatives benefitted from Project action because the staff in charge of the initiatives participated actively in many of the events.

Initiatives relevant to planning in biotechnology also received direct support from the Project. Of particular importance were the case of Uruguay mentioned above and the active participation of IICA staff in formulating a national biotechnology plan in Colombia.

The activities have also given rise to additional research on the topic. For example, the Center for Technological Innovation at the National Autonomous University of Mexico has launched a research project on biotechnology, with funding from the International Development Research Centre (IDRC).

Development of a regional consensus on policy issues

The Project has contributed to the development of a regional and subregional consensus on important policy issues related to biotechnology development. In connection with biosafety, the activities of the Latin American Study Group on New Biotechnologies and the preparation of guidelines provided the countries of the region with basic scientific and operating guidelines for implementing biosafety systems.

Regarding the release of transgenic plants, development of a consensus on the need to supervise this process will make it possible to design, in the short term, harmonized regulatory systems for the countries. Concerning the protection of intellectual property rights in agriculture, Project impact is reflected in the broad region-wide consensus on the advisability of using the rights of developers of new plant varieties as the most appropriate system. An example of this was the recent decision of the countries of the Andean Area to create a system of this type.

Creation of policy-setting and organizational mechanisms at the national level

The Project had an impact at the country level through its actions to promote and support initiatives to create policy-setting and organizational mechanisms for implementing the policy issues described above.

In the area of biosafety, Mexico and Argentina recently created policy-setting and organizational mechanisms (Interdepartmental Commission of the SARH, in Mexico, and the National Commission on Biosafety of the Secretariat of Agriculture, in Argentina) that adopted guidelines and recommendations developed by the Project. Also,

Colombia has moved forward in creating a system to protect the rights of the developers of new plant varieties, taking into account Project findings.

Program III: Organization and Management for Rural Development

Technical assistance missions were sent to ten countries to ensure incorporation of the gender dimension into agricultural and rural development policies, programs and projects.

- ▶ In Argentina, women's participation in production projects was systematized.
- ▶ In Brazil, the gender dimension was incorporated into rural development projects; in Bolivia and Colombia, work advanced on including rural women in agricultural policies.
- ▶ In Ecuador, a component on women was incorporated into a national program.
- ▶ In Honduras, training was provided on ways to address gender considerations in the preparation of projects.

The Project also contributed to the formulation of a project on women, environment and development in Central America, in conjunction with the Swedish International Development Authority (SIDA). It also collaborated in the design of a project to promote a rural development strategy in the Caribbean.

Program IV: Trade and Integration

Through the Project, IICA gained experience in identifying important markets for the region's exports, dealing with the entry requirements for agricultural products to these markets, and identifying food processing technologies and promising market segments.

The methodology developed by the Program has served as a guide for the work of governmental agencies and development foundations in the region interested in promoting joint ventures. In addition, a database on local and North American enterprises interested in establishing joint ventures is now available, and a core group of officials and managers in five countries received training through the Project to promote joint ventures for increasing exports.

Program V: Agricultural Health

Thanks to the Project, epidemiological surveillance professionals in the English-speaking Caribbean countries received training and the countries received the computer hardware and software necessary to operate the pertinent databases.

The importance of CARAPHIN's work was underscored in a recommendation issued by the Tenth ICMA, which emphasized the need to harmonize animal and plant health legislation as a means of promoting international agricultural trade.

CARICOM's Standing Committee of Ministers responsible for Agriculture (SCMA) has manifested its support for CARAPHIN's actions. IICA is studying the possibility of institutionalizing CARAPHIN, and has taken the first steps necessary to do so.

5. THE EFFECT OF THE PROJECT ON IICA'S ACTIONS IN THE FUTURE

Although the IICA-CIDA Project formally came to an end in December 1992, a series of IICA activities and, more importantly, lines of action grew out of the Project, are still in effect and will carry on into the future. This demonstrates the Project's impact on the actions of the Institute and on the countries of the region. The most important are described below:

Program I: Agricultural Policy Analysis and Planning

Regarding modernization, the experience gained by Program I now makes it possible to enter into a new and highly important field: the development of proposals for modernizing production, specifically with the aim of maximizing multiplier effects and minimizing ecological damage. Plans also exist to replicate studies on modernization in smaller countries (Central America and the Caribbean, in particular).

The working methodology of SIAPA, its degree of acceptance in the countries, and the need to further develop and update the system open up areas for action in the future. Moreover, this information system can also be installed in other countries. Regarding inter-Program efforts, SIAPA represented a successful first attempt which has enabled Program I to interact with other IICA units. At present, Program I is adding more data on international trade to SIAPA; Program V has considered doing the same with information on pesticides; and Program III is considering including data on the output of small farmers in SIAPA.

Program II: Technology Generation and Transfer

The Project enabled IICA to address the topic of new agrobiotechnologies, for which it increased its human resources and created new instruments of cooperation. The countries' requests for technical cooperation in this field demonstrate the strategic importance of agrobiotechnology and the need for the countries to upgrade their capabilities in that area.

Program II's efforts have thus given rise to the programming of new cooperation actions, including the replication of successful experiences and continued collaboration with the Biotechnology and Development Monitor. Information is being compiled on biotechnological enterprises

operating in the other countries of the region, with a view to preparing a directory similar to the one on Mexico.

A study will be conducted on the experience of Argentina, Chile and Colombia in protecting the rights of plant breeders. Also, actions are planned with the framework of PROCISUR and the Cooperative Agricultural Research and Technology Transfer Program for the Andean Subregion (PROCIANDINO) to develop norms regulating biosafety and the protection of intellectual property rights for technological innovations.

Program III: Organization and Management for Rural Development

As a result of the IICA-CIDA Project, Program III has designed a conceptual, methodological and operating framework for the formulation of rural development policies and the promotion of decentralization and participation as part of an overall process of comprehensive modernization. It has also been successful in ensuring that the problems faced by rural women specifically are given consideration in agricultural policy.

This new view of rural development, seen as a process of modernizing backward rural areas composed primarily of small farmers, has led the Program to initiate a series of actions at the microregional level through rural-regional development programs involving both the public and private sectors.

On the subject of gender, a proposal was drafted for institutional development and programs and projects at the national and subregional levels, such as the IDB-funded project on the role of women in food production in Central America. In addition, a longer-term project (valued at approximately US\$1.2 million) was designed, also financed by the IDB, to study the same subject in all of LAC. The project was approved by the donor and came on line in early 1993.

Program IV: Trade and Integration

Plans are under way to organize a seminar for representatives of enterprises in the United States, Canada and Latin America interested in participating in joint ventures, along with representatives of governments and development agencies which will be in a position to give continuity to the efforts.

In Costa Rica, IICA signed agreements of understanding with the Costa Rican Coalition for Development Initiatives (CINDE) and the Center for the Promotion of Exports and Investments (CENPRO) —the first a private foundation, the second a governmental agency which promotes international trade, investments and development— which will take IICA's place in promoting joint ventures, using the methodology designed by and the baseline information collected during the Project.

Program V: Agricultural Health

The experience gained in establishing the CARAPHIN network, and the support for same in the Caribbean Area, have led Program V to conduct similar actions in other geographic areas. At present, HandiSTATUS is being installed in several Central American countries. This is considered the first step in setting up a network similar to CARAPHIN to operate in Central America. Similar actions are foreseen for the Andean and Southern Areas.



APPENDIX 1: PROJECT PUBLICATIONS

Program I: Agricultural Policy Analysis and Planning

Program Papers Series

PEREZ SALAZAR, M.; TORRES ZORRILLA, J.A. 1993. Diagnóstico del comercio de productos de la agricultura entre ALC-EE.UU. San Jose, C.R., IICA. Program Papers Series.

POMAREDA, C.; NORTON, R.; RECA, L.; TORRES ZORRILLA, J.A. 1989. Las políticas macroeconómicas y la agricultura. San Jose, C.R., IICA. Program Papers Series No. 14. 67 p.

TORRES ZORRILLA, JORGE A. 1991. Transformaciones estructurales y relaciones intersectoriales de la agricultura en América Latina y el Caribe. San Jose, C.R., IICA. Program Papers Series No. 22. 69 p.

Papers, Results and Recommendations from Technical Events

IICA (INTER-AMERICAN INSTITUTE FOR COOPERATION ON AGRICULTURE). 1990. Modernización de la Agricultura de América Latina y el Caribe. San Jose, C.R., 323 p. A1/SC-90-07.

_____. 1990. Proceedings of a High-level seminar on the multiplier effects of agricultural modernization in Latin America and the Caribbean. May 23-25, 1990. Viña del Mar, Chile. San Jose, C.R., IICA. 38 p.

_____. 1989. Proceedings of the seminar on agricultural modernization in Latin America and the Caribbean. July 4-6, 1989. San Jose, C.R., IICA. 60 p. A1/SC-89-09.

_____. 1989. Workshop Proceedings "The Agriculture Modernization Process in Latin America and the Caribbean". July 4-6, 1989. San Jose, C.R., IICA. 40 p.

Miscellaneous Publications Series

IICA (INTER-AMERICAN INSTITUTE FOR COOPERATION ON AGRICULTURE). 1989. SIAPA (Information System for Agricultural Policy Analysis in Latin America and the Caribbean). San Jose, C.R. 10 p.

_____. 1990. Diccionario SIAPA (Information System for Agricultural Policy Analysis in Latin America and the Caribbean). San Jose, C. R., IICA. 10 p. A1/SC-90-11.

_____: 1991. La Agricultura en Guatemala: Relaciones macro e intersectoriales y promoción de exportaciones. Guatemala, IICA. 120 p. A1/GT-91-01.

Documents Presented in Conferences, Seminars or Workshops

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Program III: Organization and Management for Rural Development

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CALDERON, F.; CHIRIBOGA M.; PIÑEIRO D. 1992. Modernización democrática e incluyente de la agricultura en América Latina y el Caribe. San Jose, C.R., IICA. Program Papers Series No. 28. 96 p.

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Program IV: Trade and Integration

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Program V: Agricultural Health

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STEMSHORN, B. (Ed.) 1989. Desert locus in the Caribbean. Proceedings of a Regional Meeting. Tacarigua, Trinidad and Tobago, IICA. 68 p. A2/TT-89-01.

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AMBROSE, E.; DUGAS, R. 1990. Proceedings of the 6th Meeting of the Technical Advisory Commission of Plant Protection Directors (TACPPD) of the Caribbean Region. (Castries, Saint Lucia) 103 p. A2/2C.

DREVES, A. 1989. Instructions for Fruit Fly trappers. Tacarigua, Trinidad and Tobago, IICA. 50 p. A2/TT-89-07.

POLLARD, G.; FRANCIS, H. 1989. A bibliography of crop pests and other insects of the commonwealth Caribbean 1884-1984. Tacarigua, Trinidad and Tobago, IICA. 300 p. A2/TT-89-08.

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APPENDIX 2: TECHNICAL EVENTS CARRIED OUT BY THE PROJECT

Program I: Agricultural Policy Analysis and Planning

Workshop: Agricultural modernization in LAC. San Jose, Costa Rica, July 4-6, 1989.

High-level seminar on models for formulating agricultural policies. San Jose, January 8-19, 1990.

High-level seminar: Multiplier effects of agricultural modernization in Latin America and the Caribbean. Viña del Mar, Chile, May 23-25, 1990.

Seminar-Workshop: Agricultural modernization in LAC. San Jose, Costa Rica, July 4-6, 1990.

Program II: Technology Generation and Transfer

Seminar: General perspectives and impact of agrobiotechnologies in Latin America and the Caribbean: Political and strategic implications. Paipa, Colombia, August 14-17, 1989.

Seminar: Industrial property policies for biotechnology inventions and the use of germ plasm in LAC. Caracas, November 26-29, 1990.

Seminar: Formulation of policies for developing biotechnologies in Latin America and the Caribbean. Cuernavaca, Mexico, April 15-17, 1991.

Meeting of the Inter-American Group on New Biotechnologies. Brasilia, Brazil, May 30-June 1, 1991.

Workshop: Caribbean biotechnology agenda for the valorization of genetic resources. Port of Spain, Trinidad and Tobago, October 15-16, 1991.

Workshop: Harmonization of biosafety in the Southern Cone: Supervision of transgenic plants. Buenos Aires, Argentina, November 14-16, 1992.

Program III: Organization and Management for Rural Development**Differentiated rural development policies**

International seminar: Differentiated policies and decentralized administration for rural development in the Andean Area. Quito, Ecuador, July 25-27, 1990.

Workshop: Differentiated rural development policies for the Southern Area. Santiago, Chile, October 22-26, 1990.

Seminar on economic opening and rural development. Bogota, Colombia, October 1991.

Workshop on rural development strategies in the Caribbean. Dominica, November 25-27, 1991.

Workshop on rural poverty and civil society. April 23-25, 1992. Embú, São Paulo (The project funded the participation of Program III technical experts in the event).

Women and rural development

International seminar-workshop on rural women and agricultural policies in LAC: Perspectives for action in the 1990s. May 1990.

Seminar-Workshop on the formulation of rural development projects with a gender perspective.

Seminar: Guidelines of PROADER and application of same in technical cooperation projects. Paraiba, Brazil (a module on the gender perspective was incorporated into the rural development projects).

Other events

Seminar on agrarian reform and rural development. Asuncion, Paraguay, August 20-24, 1990.

Three seminars were held in 1990 to discuss case studies and a synthesis of the studies: in San Jose, Costa Rica (January); Quito (June) and Chile (December). Events were also held in Brazil and in Dominica.

Program IV: Trade and Integration

High-level seminar on agroindustrial development policies. Brasilia, Brazil, April 4-7, 1989.

Program V: Agricultural Health

Workshop on monitoring plant and animal diseases in the Caribbean. November 1988.

Regional courses (September 1989, September 1990 and July 1991). The University of the West Indies, St. Augustine, Trinidad and Tobago (Co-sponsored by the Ministry of Food Production and Marine Exploitation).

APPENDIX 3: PROJECT CONSULTANTS

Program I: Agricultural Policy Analysis and Planning

Activity 410: Development of methodologies and applied research

Studies on multiplier effects of agricultural modernization

Arnoldo Camacho	Costa Rica	Methodological study on agricultural modernization. Case study: Dairy subsector in Costa Rica
Edith de Obschatko	Argentina	Case study: Grain subsector in Argentina
Ivan Freire de Sousa	Brazil	Case study: Soybean subsector in Brazil
Victor Palomino	Peru	Case Study: Poultry subsector in Peru
Rafael Rios Pintado	Ecuador	Case study: Shrimp subsector in Ecuador
Guillermo Silva	Chile	Case study: Fruit subsector in Chile
Carlos Vidali	Mexico	Case study: Vegetable subsector in Mexico

Studies on multiplier effects of agricultural modernization

Arnoldo Camacho	Costa Rica	Case study: Dairy subsector in Costa Rica
Edith de Obschatko	Argentina	Case study: Grain subsector in Argentina

Rafael Rios Pintado	Ecuador	Case study: Shrimp subsector in Ecuador
Guillermo Silva	Chile	Case study: Fruit subsector in Chile
Jaime Balderrama	Mexico	Case study: Vegetable subsector in Mexico

Studies on the ecological impact of agricultural modernization

Juan David Quintero	Mexico	<p>Essay on agricultural modernization and the risks of ecological degradation in LAC.</p> <p>Development of the second stage of the study on agricultural modernization and the risks of ecological degradation.</p>
Paige Rausser	United States	Research proposal on economic policy, ecology and sustainable development

Studies on agriculture and macroeconomics

Pedro Cussianovich	Peru	Methodological base document on the effects of macroeconomic policies on the agricultural and the agroindustrial complex in Costa Rica.
Federico Herrero	Costa Rica	Document on financing human resource training in the agricultural sector.
Juan Rafael Vargas	Costa Rica	Study on the impact of the liberalization of inter-American trade on trade and production.

Mauricio Perez	Colombia	Diagnostic study of the trends of intraregional and inter-American agricultural and agroindustrial trade in LAC.
Jorge Rodriguez	Costa Rica	Study to assess the value of and describe linkages between tourism and the agri-food sector in the Caribbean.

Activity 420: Training of IICA personnel and human resources in the countries

Joaquin Arias	Costa Rica	Preliminary dictionary of all the social, economic, agricultural and trade variables included in SIAPA.
Alain de Janvry	France	Reading material for a training course for Program I personnel: "Models for Formulating and Evaluating Agricultural Policies."
Tom Kerr	Canada	Support to Program I in aspects related to the design and implementation of SIAPA, for the Central, Andean and Southern Areas. Manual on the use of the policy harmonization model and training Program I personnel. Support to the Program I Directorate in aspects related to the design of SIAPA for the Southern Area; gathering of data for Argentina and Paraguay. Analytical methods and a sample case for evaluating distribution effects of price policies.

Installation of SIAPA in the IICA Offices in Brazil and Uruguay, in the ministries of agriculture, and training for personnel.

Installation of SIAPA in the IICA Offices in Colombia, Guatemala, Paraguay and Uruguay, and training for personnel. Participation in review of progress made in the work plan.

Updating, dissemination and preparation of documents on SIAPA.

Updating of data base for Latin America, preparation of a study on the participation of Latin American in the world market and the creation of an information system to analyze agricultural policy.

Rolando Piskulich

Peru

Adjustment of data from the Central American Area to the original SIAPA standards, and coordination of mechanisms for future updating.

Design of method to incorporate variables and indicators related to sustainable agricultural development into SIAPA.

Program II: Technology Generation and Transfer

Activity 510:

Impact of and perspectives for new biotechnologies in LAC

Gerardo Otero

Mexico

Overall context of the impact of biotechnologies on agriculture.

Rodolfo Quintero	Mexico	Outlook for agrobiotechnologies in LAC.
Ian Efford	Canada	Methods for analyzing agrobiotechnology capabilities in LAC.
Ignacio Avalos	Venezuela	Biotechnology and industry.
Kurt Klein	Canada	Evaluation of the impact of biotechnologies in LAC.

Activity 520: Evaluation of regional agrobiotechnology capabilities in LAC

Rodolfo Quintero Ignacio Porzeklanski Mario Stoll, Roberto Diaz, Carlos Vechi	The first is from México the next three are from Uruguay and the last is from Brazil	Formulation of a strategy to promote agrobiotechnology in Uruguay
Ian Efford	Canada	Methods for analyzing agrobiotechnology capabilities in LAC.
Ricardo Torres	Colombia	Evaluation of agrobiotechnology capabilities in Colombia.
Desmond Ali	Trinidad	Evaluation of agrobiotechnology capabilities in the English-speaking Caribbean.
Alberto Cubillos	Chile	Evaluation of agrobiotechnology capabilities in Chile.
Luiz A. Barreto de Castro; Maria Jose Amstalden	Brazil	Evaluation of agrobiotechnology capabilities in Brazil.
Pastor Montaña	Bolivia	Evaluation of agrobiotechnology capabilities in Bolivia.

Marta de Martinez	Paraguay	Evaluation of agrobiotechnology capabilities in Paraguay.
Eduardo Palma	Argentina	Evaluation of agrobiotechnology capabilities in Argentina.
Walter Toledo	Uruguay	Evaluation of agrobiotechnology capabilities in Uruguay.
Eyla Velasco	Peru	Evaluation of agrobiotechnology capabilities in Peru.
Alberto Ortega	Ecuador	Evaluation of agrobiotechnology capabilities in Ecuador.
Renato Valdivieso	Venezuela	Evaluation of agrobiotechnology capabilities in Venezuela.

Activity 530: Supporting the formulation and implementation of policies on new agricultural biotechnologies

David Redgrave	Canada	Biotechnology development policies.
		Intellectual property and the development of biotechnology.
John Milton	Canada	Framework for disseminating and sharing biotechnology in LAC.
Lucien Degras	Guadaloupe	Diagnostic study of phyto-genetic resource management in the Caribbean.
R.G.E. Downer, E.B. Dumbroff, B.R. Glick J.J. Pasternak K. Winter	Canada	Support to the preparation of guidelines for the release of engineered organisms into the environment

Activity 540: Support to the improving the administration of processes related to the generation, transfer and use of biotechnology

Entrepreneurial strategies in agricultural biotechnology

Jose Luis Solleiro	Mexico	Case study of businesses in Mexico.
Eduardo Doryan	Costa Rica	Case study of businesses in Costa Rica.
Carlos Correa	Argentina	Case study of businesses in Argentina.
Sergio Salles	Brazil	Case study of businesses in Brazil.
Gonzalo Arroyo	Chile	Case study of businesses in Chile.
Felix Moreno	Colombia	Case study of businesses in Colombia.
Michelle Snoeck	Uruguay	Case study of businesses in Uruguay.
Miguel Padron	Venezuela	Case study of businesses in Venezuela.

Latin American Directory of Biotechnology Industries

David Redgrave	Canada	Methods for studying managerial strategies of biotechnology enterprises.
Rodolfo Quintero	Mexico	Preparation of the Directory of the biotechnology industry in Mexico.

Program III: Organization and Management for Rural Development**Activity 610: Proposals for formulating differentiated rural development policies**

Nelson Giordano	Brazil	Case study of Brazil.
Astrid Martinez	Colombia	Case study of Colombia.
Manuel Chiriboga	Ecuador	Case study of Ecuador.
Guillermo Schell	Guatemala	Case study of Guatemala.
Jose Luis Corrales	Honduras	Case study of Honduras.
Alejandro Encinass	Mexico	Case study of Mexico.
Orlando Plaza	Peru	Case study of Peru.

Activity 620: Decentralization and the participation of small-farmers

Enrique Provencio	Mexico	Analysis and systematization of the case study of Mexico.
Jaime Carrera	Guatemala	Analysis and systematization of the case study of Guatemala.
Cesar Pazos	Peru	Analysis and systematization of the case study of Peru.
Diego Piñeiro	Argentina	Analysis and systematization of the case study of Argentina.
Jorge O. Romano	Brazil	Analysis and systematization of the case study of Brazil.
Carlos Carafa	Bolivia	Analysis and systematization of the case study of Bolivia.
Dario Fajardo	Colombia	Analysis and systematization of the case study of Colombia.

Activity 630: Systematization of experiences related to the participation of women and youth in rural development projects

Laura Guzman	Costa Rica	Diagnostic study and analysis of the participation of rural women in Costa Rica.
Ofelia Gomez	Colombia	Diagnostic study and analysis of the participation of rural women in Colombia.
Maria Cuvi	Ecuador	Diagnostic study and analysis of the participation of rural women in Ecuador.
Josefina Miranda	Mexico	Diagnostic study and analysis of the participation of rural women in Mexico.
Rhoda Reddock	Trinidad	Diagnostic study and analysis of the participation of rural women in Trinidad and Tobago.
William Reuben	Costa Rica	Conceptual framework for working with rural youth.

Program IV: Trade and Integration

Activity 710: Market study for selected nontraditional agroindustrial products

Delloite and Touche	Canada	Identification of highly potential market opportunities for the exportation of processed foodstuffs from LAC to Canada and the USA.
Delloite and Touche	Canada	Identification and analysis of promising food technologies.

Activity 740: Identification and promotion of joint ventures**Studies in Canada and the USA**

Delloite and Touche	Canada	Preparation of a strategy for promoting joint ventures between enterprises in Canada and the USA and in LAC.
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Studies to identify agroindustrial enterprises interested in joint ventures in LAC with enterprises in Canada and the USA

Daniel Escarone	Uruguay	Study for Uruguay
Jorge Leiva	Costa Rica	Study for Costa Rica. Support to the Program Directorate for monitoring and methodological support to local consultants.
Fedrison Jagessar	Trinidad	Study for Trinidad and Tobago.
Vernon Smith	Canada	Study for Canada and the USA.
Peter Harrison	Canada	Study for Canada and the USA.

Program V: Agricultural Health**Activity 820: Training local personnel in the Caribbean**

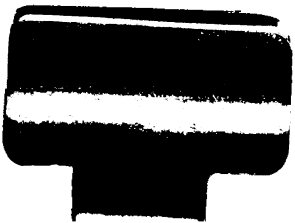
David Waltner-Toews	Canada	Coordination of training activities in the University of Guelph. Training courses on veterinary epidemiology, conducted at the University of the West Indies.
Paul Page	Canada	Training courses on computers, conducted at the University of the West Indies.

Greg Boland	Canada	Training courses on plant epidemiology, conducted at the University of the West Indies.
Tim Carpenter	United States	Training courses on veterinary economics, conducted at the University of the West Indies.

Activity 820: Implementation of processing units in the countries

Charles Schotman	Holland	Programming of the HandiSTATUS prototype.
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