IICA AND THE OAS

ROGELIO COTO

Anniversary of the Foundation of the Inter-American Institute of Agricultural Sciences of the OAS

Inter-American Institute of Agricultural Sciences of the OAS

Executive Offices

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To write about the foundation of the Inter-American Institute of Agricultural Sciences and the first quarter century of its history, is primarily to review the main events in the growth of solidarity among men and, even more important, of solidarity among the peoples of the American continent. This is even more so in the case of the actions carried out within the framework of the Organization of American States. It all began with a romantic and visionary attempt to unite our nations for purposes of protection against common threats. But in time our concepts became altruistic, marking a high point in our civilization, and the efforts of all the American countries were united, each contributing what it could for the basic purpose of increasing the sources of wealth of each and every nation as a means for improving man himself, now considered a fundamental part of the American community.

On these grounds we shall first review the trends in American thinking that brought about the establishment of the Organization of American States and the creation of special mechanisms for promoting the economic and social development of the countries of the Continent; we shall also mention certain accomplishments in the field of agriculture. Secondly, we shall narrate the history of the appearance on the Pan American scene of the Inter-American Institute of Agricultural Sciences. We shall briefly review its growth, from its foundation until 1967, mentioning only such facts and activities as are, in the author's opinion, significant contributions to the economic, agricultural, social and cultural development of the American countries.

Thus, we shall call up sixty-seven years of history, indeed, the entire duration of the XX Century. We shall try to be brief, but will emphasize the efforts made to achieve the well-being of all through the contributions of all nations and we shall review the Institute's contributions, throughout its twenty-five years of life. We trust that it will become

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evident that during this first quarter century of the Institute's existence, the building of an institution that is useful to all the countries of the Continent was truly a feat of social architecture, as once stated by Dr. Ralph H. Allee, the second Director. We trust that the reader will be left with a feeling of confidence that the Americas can expect much of their specialized international agricultural agency during its second quarter century of life.

INTERNATIONAL COOPERATION AND THE CONSTITUTION OF THE OAS

The pioneers

As early as 1810 the Chilean statesman, jurist and writer, Juan Egaña, drew up in Santiago a declaration of rights which included, as one of its fundamental proposals, the establishment of the federation of American nations. In 1815, Simon Bolivar wrote in exile his "Jamaica Letter", in which he expressed his wish to see in America the foundation of the greatest nation in the world. Subsequently, Bolivar himself convoked the Congress of Panama (Panama was still part of the Republic of Colombia), which took place during June and July, 1826. Representatives of Colombia, Mexico, Peru and the Central American Republics (at that time a Confederation), participated in that Congress. The United States accepted Bolivar's invitation, but its representatives were unable to attend; one died during the trip and the other arrived in Panama after the talks had already ended. In the perspective of history, this Congress has been considered the cornerstone of Pan Americanism.

The International Union of the American Republics

In 1881, the U.S. Secretary of State, James E. Blaine, convoked the Latin American countries to a Congress to be held in Washington. The meeting was delayed by the so-called war of the Pacific, among Bolivia, Chile and Peru, and by the assassination of James Garfield, President of the United States. In 1888, another Secretary of State, Thomas F. Bayard, ratified the invitation to the Congress, which finally got started in 1889, under the chairmanship of James E. Blaine, who was again Secretary of State. The Congress began work on October 2, 1889, and ended on April 19, 1890; it was attended by representatives of seventeen American states. On April 14, 1890, they unanimously adopted the historic resolutions that established the International Union of the American Republics and created the Commercial Bureau of the American Republics, both with headquarters in Washington.

This Commercial Bureau of the American Republics began operations with an annual budget of US$36,000 and was responsible for the distribution of commercial information throughout the American countries and for the publication of a monthly bulletin in Spanish, English and Portuguese. It also gathered statistical information and data that were helpful to businessmen and industrialists wishing to open new markets. However, this praiseworthy effort was perhaps a bit premature, because it was soon attacked by those who accused it of being subservient to the government of the host country. Some countries even discontinued their quota payments, some of which —in the case of the smallest ones— did not amount to $100, since the United States covered half the budget. Thus the first attempt at international cooperation with a view to finding solutions to common problems had materialized with genuinely Pan American vision that crossed the frontiers of individual nations.

The Charter of the OAS

Subsequently, at the Fourth International Conference of American States, held in Buenos Aires, Argentina, in 1910, the International Union of the American Republics changed its name to the Union of American Republics and the Commercial Bureau of the American Republics became the Pan American Union. Finally, at the Ninth International Conference of American States, meeting in 1948 in Bogota, Colombia, the Charter of the Organization of American States, by virtue of which the inter-American system was organized, was signed. This represented the consolidation of the currents of thought and the actions of the visionaries who had been promoting American union since 1810. Thus, the former Union of American Republics became the Organization of American States and the Pan American Union its General Secretariat.

Article IV of the Bogota Charter includes the very important provision that the Organization of American States, among other things, is to pursue the essential purpose of promoting economic, social and cultural development through cooperative action. Thus the great step from a simple union of nations for mutual protection against common threats, to an altruistic integration of the efforts of all for the general welfare, is set forth in the Charter itself.

The Alliance for Progress

Once the structure was established and the principle confirmed that the political union of countries through agreements should cooperatively promote economic, social and cultural development, the way was definitely open for more ambitious common ventures, which later became necessary in promoting economic and social development as a means for preventing the problems arising from the progressive impoverishment of the Latin American countries. Thus, in July, 1956, at the Meeting

of the Presidents of the American Republics in Panama, a movement was started that definitely showed the need for strengthening the social and economic life of Latin America. This movement continued with the action of the Inter-American Committee of Presidents' Representatives, which was subsequently ratified at the Economic Conference of the OAS, held in Buenos Aires, Argentina, in August, 1957. One of the recommendations of this Conference led to the foundation of the Inter-American Development Bank, on December 30, 1959. Then followed Brazilian President Kubitshek's Operation Pan America, of August, 1958. The Act of Bogota was approved in September, 1960. Finally, the movement culminated in the approval, in August, 1961, of the Alliance for Progress, at the First Special Meeting of the Inter-American Economic and Social Council at the Finance Ministers Level, in Punta del Este, Uruguay. The Alliance was conceived as the greatest cooperative enterprise ever dreamed of, whereby every country was to mobilize its resources and make the necessary changes in its structure, in order to attain such substantial economic development that the average Latin American would really be able to exercise his right to a better life, to fair distribution of land, to decent housing and to better education and health.

As a complementary provision the Inter-American Committee on the Alliance for Progress (CIAP) was established, to reinforce the Alliance program, at the Second Annual Meeting of the Inter-American Economic and Social Council at the Ministerial Level, held in Sao Paul, Brazil, in 1963. This committee was created to give the Alliance for Progress multilateral representation and to endow it with the operative tools and the powers it needed to function dynamically and effectively. The Assistant Secretariat for Economic and Social Affairs of the Pan American Union was appointed to act as the Secretariat of CIAP.

It is also well to mention here that the Inter-American Committee for Agricultural Development (ICAD-CIDA) was created in Punta del Este in 1961. The General Secretariat of the OAS, ECLA, FAO and the Inter-American Institute of Agricultural Sciences were original members of ICAD, and the Inter-American Development Bank was included later. The Committee was founded for the purpose of attaining the joint realization of a program of studies on Latin American agriculture that would point out and evaluate the principal and most urgent factors retarding the growth of this sector and determine possible solutions within a balanced program of economic development. In December, 1966, the working objectives of this Committee were modified, and it became an advisory group of CIAP, entrusted with the studies on the agricultural sector.

The influence of transportation

The revolution in transportation, especially with the advent of aviation, has been pointed out as one of the main factors in the strengthening of inter-American cooperation, the roots of which go back to the

foundation of the Commercial Bureau of the American Republics. As distances began to become shorter and shorter, and it was easier for national officials, ambassadors and other diplomats to get around, they could more readily attend inter-American conferences and meetings of all kinds. Thus it became increasingly harder for any one country to miss an international meeting for lack of quick and convenient transportation, as had happened in 1826 when the United States representatives were unable to attend the Congress of Panama. The very physical presence of national representatives helped strengthen the incipient regional system, and made their presentations of national problems and needs more convincing. The importance of common action in solving them became more and more evident. This incipient system was assigned new functions beyond the purely commercial and occasionally juridical ones it had originally had. We next see the convocation of an international sanitary conference for the purpose of combatting yellow fever and malaria; such action led to the foundation, in 1902, of the Pan American Sanitary Bureau, the oldest international organization of its kind in the world and the senior inter-American specialized agency, which is now also the regional office for the Americas of the World Health Organization. Likewise, at the turn of the century, new functions of cultural cooperation were established and meetings and activities were begun to benefit children and education, as well as in the fields of science and jurisprudence. All these in time became typical functions of international cooperation.

Action in the agricultural field

Once the Commercial Bureau of the American Republics became, in 1910, the Pan American Union, its responsibilities grew and The House of the Americas in Washington was donated to it for headquarters. Since then, its action in the field of international cooperation has been channeled in four basic fields: economic affairs, social affairs, cultural affairs and juridical affairs. Within these general outlines, and for the purposes of this study, it may be mentioned that for many years its Agricultural Cooperation Office did an outstanding job, giving preferential attention to special studies on different agricultural products. It also carried out a very important information program through its well-known Agricultural Series, long since discontinued. Through its Conservation Section, for many years under the leadership of Dr. William Vogt, whose studies and publications are well known in Latin America, it carried out an intensive and successful educational program.

In 1950, the Technical Cooperation Program was established under the sponsorship of the Inter-American Economic and Social Council; since then several projects relating to agriculture and rural life have been underway. Among these it is worth mentioning the Inter-American Training Center for the Evaluation of Natural Resources (Project 29); Technical Training for the Improvement of Agriculture and Rural Life

(Project 39); Pan American Foot-and-Mouth Disease Center (Project 77); Pan American Zoonosis Center (Project 81); Inter-American Center for Agricultural Credit (Project 201); Inter-American Agrarian Reform Center (Project 206). These projects have been implemented by cooperating agencies, including the Inter-American Institute of Agricultural Sciences, which administered Projects 39, 201 and 206.

At the Fifth Inter-American Conference on Agriculture, which met jointly with the Sixth Regional Conference for Latin America of FAO, from August 8 to 20, 1960, in Mexico City, it was recommended that the group of specialists in economics and agrarian policies be set up in a separate division, under the Department of Economic and Social Affairs of the Pan American Union, thereby granting higher recognition to that field. This was done in consideration of the obvious importance of studies in economics, agriculture and agrarian reform, especially with regard to problems of financing.

In natural resources, it may be said, in general, that work has been done on the inventory of basic information on natural resources in Latin America; technical aid has been provided in the drawing up of plans for research in natural resources; training has been given on the evaluation of natural resources; work has been done on compilation of maps and population distribution. In addition, important studies have been carried out in the social field, and programs for study and training in rural development have been organized.

It is worth noting the activities carried out in the agricultural field by ICAD, of which the General Secretariat of the OAS is a member, as mentioned previously. It has conducted studies in the Latin American countries in fields such as inventories of basic information for agricultural development; land tenancy; agrarian reform; agricultural education, research and extension; agricultural credit, etc. It has sent planning missions to Colombia and Brazil, has cooperated in studies of and provided consultant services to other inter-American organizations, and now, as an advisory group of CIAP, continues working in the agricultural sector.

Within the framework of the inter-American system, we must note the accomplishments, in the field of international cooperation, of the specialized agencies of the Organization of American States. These agencies, and the dates of their creation, are: the Pan American Sanitary Bureau, 1920; the Inter-American Children's Institute, 1927; the Inter-American Commission of Women, 1928; the Inter-American Indian Institute, 1940; the Inter-American Statistical Institute, 1940; the Inter-American Institute of Agricultural Sciences, 1942; and the Pan American Institute of Geography and History, 1954.

THE INSTITUTE AND ITS PARTICIPATION IN THE DEVELOPMENT OF AMERICA

1. THE FOUNDATION

The birth of the idea

The Inter-American Institute of Agricultural Sciences was founded on October 7, 1942, as a product of the currents of thought that internationalized national problems in order to seek solutions through inter-American cooperation based on common support. The idea of creating it was presented by Henry A. Wallace, Secretary of Agriculture of the United States, at the first technical meeting of Section IV, Agriculture and Conservation, of the Eighth American Scientific Congress, held in Washington, D. C., May 10-18, 1940, as part of the activities commemorating the Fiftieth Anniversary of the Pan American Union. The resolution approving the creation of an Inter-American Institute of Tropical Agriculture was presented by Ernesto Molestina-Ordeñana, Director General of Agriculture and Animal Industry of Ecuador. The institution was born during a world war, with such crops as rubber, quinine, hemp, kapoc, rotenone and other insecticides, tea, cocoa, camphor and the production of tropical hardwoods in mind, though always within the concept of attaining the common welfare through the solution of common problems. In this regard, Secretary of Agriculture Wallace said:

> It is our sincere belief that the establishment of an Institute of Tropical Agriculture is vital if Western Hemisphere agriculture is to develop as it should. This proposal, which we in the Department of Agriculture have been considering for a couple of years, has been endorsed by President Roosevelt's Interdepartmental Committee on Cooperation with the American Republics. The Institute would serve as a symbol of amity and of the economic and cultural relations between the Americas. It would lead to a better balanced agricultural economy in the Western Hemisphere. It would be in a position to present comprehensive data on the vital agricultural problems of all the American Republics. It would develop a broad knowledge of pests and diseases common to the great tropical region. In bringing together students in agricultural science, it would promote a mutual understanding between these future leaders in agriculture. Through cooperative research it would work toward the solution of serious problems in crop and animal production such as the Sigatoka disease of bananas, Witchbroom and Manila rot of cacao and animal parasites.

On June 5, 1940, the Governing Board of the Pan American Union appointed an Inter-American Committee on Tropical Agriculture, known as the Organizing Committee, to attend matters relating to the establishment of the Institute. This Committee appointed a Technical Committee in the United States Department of Agriculture, which was composed of Ralph H. Allee, who later became Director of the Institute; Wilson Popenoe and George R. Boyd. In September, 1941, this Committee visited Bolivia, Brazil, Colombia, Costa Rica, the Dominican Republic, Ecuador, El Salvador, Honduras, Mexico, Nicaragua and Venezuela, to study the sites offered for the installation of the Institute. On April 15, 1942, this Technical Committee reported that Turrialba, Costa Rica, was the most suitable location for the Institute.

The foundation

The institution was organized on June 18, 1942, as a non-profit organization, incorporated under the laws of the District of Columbia, United States of America. On October 7, 1942, on the recommendation of the Inter-American Committee on Agriculture (Organizing Committee), the Governing Board of the Pan American Union approved the creation of the Institute and appointed Dr. Earl N. Bressman as Director and Jose L. Colom, Head of the Agricultural Office of the Pan American Union, as Secretary. This date has since been considered the official date of the foundation of the Institute. By then the original specification regarding tropical agriculture had been dropped and the name Inter-American Institute of Agricultural Sciences adopted. On December 5, 1942, Dr. Bressman, as the first Director, and Ing. Mariano R. Montealegre, as Secretary of Agriculture of Costa Rica, signed a contract whereby it was agreed to establish the Institute on the outskirts of the town of Turrialba, 70 kilometers (43 miles) from San Jose, the capital of the Republic, in a sub-tropical zone 610 meters (2,000 feet) above sea level. The contract was approved by the Costa Rican Congress, as Law Nº 29 of 19 December 1942. By virtue of this contract, the Government of Costa Rica donated in perpetuity a one-thousand hectare (2,471-acre) property located in Turrialba; this is now the site of the Training and Research Center, the main center of the Inter-American Institute of Agricultural Sciences.

The multilateral Convention

The Institute was later organized on the basis of a multilateral Convention, which was opened for signature by the American countries at the Pan American Union on January 15, 1944. By virtue of this document, the Contracting States recognized the permanent status of the Inter-American Institute of Agricultural Sciences and also recognized it as a legal entity, in accordance with their own legislation. The Convention

was signed on the aforementioned date by the representatives of Costa Rica, Nicaragua, Panama and the United States; it entered into force on December 1, 1944.

The laying of the cornerstone

The 19th of March, 1943, is a significant date in the history of the Institute. It was then that the President of Costa Rica, Dr. Rafael Angel Calderon-Guardia, and the Vice President of the United States, Henry A. Wallace, laid the cornerstone for the dormitory building, before an audience estimated by the local press at about 10,000 people. Both gave speeches praising the purposes of the Institute and explaining its importance to the Western Hemisphere. The following paragraph is quoted from the speech made by the President of Costa Rica: "... already we carress the fond dream of seeing, in the near future, thousands of young students from the twenty-one American republics, partaking of the friendly comradeship of their youth and the solidarity that scientific disciplines create among those who devote their lives to them, planting in our fertile soils and enjoying our mild climate and Arcadian peace. As regards science, we visualize these youths putting into practice their burning desire for self-improvement, their ambition to return home laden with precious knowledge. As regards continental unity, these new professionals will bring to life the marvelous dreams of the pioneers of our independence."

The following words are taken from the speech of the Vice President of the United States: "Isolated research studies are of very limited value in agriculture. It is absolutely necessary to unite the different research projects being carried out, not only here in the Institute but also in the institutions responsible for such work throughout the hemisphere. An important aspect of this work involves the analysis and coordination of such activities, within the limitations of this Institute. This job of compilation will be more important as time goes on and as the different units advance in their discoveries. These general studies should include the planning of land use, the conservation of natural resources, the utilization of hydraulic power, so abundant here in Turrialba, and the relationship between industrial development and agriculture." Both speeches clearly show the Pan American vision of the dream that was soon to come true.

Agricultural research

After the inaugural ceremony, the President of Costa Rica and the Vice President of the United States toured the farm and saw some of the seedbeds and trials of tropical varieties; they observed the Institute's first efforts in agricultural research, then directed by Joseph Fennell, a former staff member of the United States Department of Agriculture

assigned to the Institute by the Office of the Coordinator of Inter-American Affairs. Mr. Fennell had planted a total of 160 rows, 150 feet long, of several kinds of vegetables, for the purpose of obtaining information on needs and problems, and on materials that are valuable in the production of horticultural crops in the tropics. The first real problem he encountered was the effect of soil fertility on the growth of some horticultural crops. The agricultural research program was thus initiated in Turrialba in 1943.

During that same year it was decided to organize the research program under five divisions. These were the Divisions of Agricultural Engineering, Animal Industry, including animal diseases and parasites, Entomology, Plant Science, and Soils. In May, 1944, the Divisions were reorganized as follows: Animal Industry, Agricultural Engineering, Plant Science and Soils, and Agricultural Economics and Rural Welfare.

Graduate education

On May 4, 1944, the educational program and the corresponding course announcement were approved. The announcement was distributed to the governments of the twenty-one American Republics in June, 1945, with the request that they nominate candidates for the fellowships offered by the Institute. The educational program was officially inaugurated on January 8, 1946, and during the first six months the following students enrolled: Mario Gutierrez, Costa Rica, corn genetics; Rodolfo Lambour, Guatemala, grape culture; Simeon Medina, Dominican Republic, rural engineering; Pedro Trujillo, Mexico, grape culture; Fernando Suarez-de-Castro, Colombia, agricultural engineering; Raul Perez, Bolivia, rubber; Juan M. Muñoz, Mexico, cocoa; Alfonso Uribe, Colombia, rubber. It was decided to grant the degree of Master of Science (M. S.), but only students with an adequate academic background and an interest in research work were admitted as candidates for the degree. A one-year residence requirement was established and the academic year was divided into four quarters of twelve weeks each.

A new Director

Dr. Earl N. Bressman, appointed first Director of the Institute on October 7, 1942, resigned on January 8, 1946, and was replaced by Dr. Ralph H. Allee, who in 1940 had been a member of the Inter-American Committee on Agriculture, known as the Organizing Committee. Dr. Allee took possession on May 1, 1946. This change in the line of command marked the end of the first stage in the history of the Institute. Up to 1946, the foundations of the Institute had been laid; agreement had been reached on its creation and on the site in Turrialba, Costa Rica, and the donation by the Costa Rican Government of the site of the

present Training and Research Center accepted; the multilateral Convention had been approved; the research and educational programs had been initiated; and a good part of the constructions that still stand in Turrialba had been built.

At this point, eight American countries had deposited at the Pan American Union their respective instruments of ratification of the Convention. These countries were: Costa Rica, the Dominican Republic, El Salvador, Guatemala, Honduras, Nicaragua, the United States and Venezuela. The quota income amounted to US$168,728.61 and the total income amounted to US$215,720.53, while total expenditures reached US$231,937.17. At that time, in accordance with the Convention, quotas were calculated at the rate of one dollar per one thousand inhabitants; this amount was later raised to a dollar and a quarter per thousand of the total population.

2. THE BEGINNING OF GRADUATE TRAINING

Concentration in Turrialba

The period between 1946 and 1949 clearly marks the second stage in the development of the Institute. Progress was made in research, the graduate training programs were begun and an intensive effort was made to demonstrate to all the American countries the importance and usefulness of this new institution, especially through its research work and the graduate training offered to special students. These activities were, of course, concentrated in Turrialba. This period was a difficult one, because the pressure of work began to grow out of proportion to the inadequate economic means available.

The Orton Memorial Library

The organization of the library began in August, 1946, and its first acquisition was a collection donated by the Tropical Research Foundation of Yonkers, New York, on April 21, 1943. At that time, the Tropical Research Foundation was considered to have one of the most comprehensive libraries on tropical agriculture in the Western Hemisphere. It consisted of 600 books and 10,000 pamphlets and magazines. From the beginning, the Institute library was named the Orton Memorial Library, in honor of Dr. William Allen Orton, last Director of the Tropical Research Foundation of Yonkers, who did so much for the development of agriculture and forestry in Latin America.

Other collections were either received by donation or bought at a nominal price, including: the F. A. Pearson collection, of nearly 60 books and 300 magazines on economics; the Lic. Francisco Sancho-Jimenez collection, consisting of 103 books on chemistry and related

subjects, donated by his relatives; and the W. I. Myers collection, consisting of 139 volumes on economics and farm management. In 1960, the coffee publications collection, donated by the descendents of Ing. Mariano R. Montealegre, was added. Ing. Montealegre, as Secretary of Agriculture of Costa Rica, had signed the contract for the establishment of the Institute in 1942. Originally the library also received donations of books from the Department of State (through the American Library Association) and the Library of the United States Department of Agriculture. The Library has continued growing through acquisitions made with the Institute's own funds, which have usually been scanty, but most especially with the substantial economic support and technical backing it has received from The Rockefeller Foundation; the United Nations Special Fund Project, referred to elsewhere in this study, has likewise contributed toward the strengthening of the Library.

At the time of this writing, the Library has become an important agricultural library center for Latin America, and is considered by many to be the best of its kind. It now has over 42,000 volumes, over 1,200 titles of current magazines, more than 440 subscriptions and 49 bibliographical indices and magazines of abstracts; it has microfilm and microcard readers and boasts an annual circulation of over 7,000 publications. It provides services to the technical staff and students in Turrialba and consultant services to agricultural libraries of the member states; publishes a bibliographical series that already includes works on coffee, cocoa, corn, beans and communications for development; publishes the Library Science and Documentation series and the Agricultural Bibliography Bulletin; has established an inter-library loan system; promotes the professional association of agricultural librarians and serves as the secretariat of the Inter-American Association of Agricultural Librarians and Documentalists (AIBDA). Since 1960 it has been in charge of the photocopy, microfilm and bibliographical services formerly provided by the Scientific Communications Service. But its outstanding achievement is the training in agricultural library science that it offers each year through regular six-months courses, which is the only training of its kind available in Latin America. More than ten regular courses have already been conducted.

In 1967, thanks to a grant from The Rockefeller Foundation, a program for providing consultant services and assistance to agricultural libraries in Brazil was initiated, and a librarian is now stationed at the office of the Official Representative of the Institute in that country.

Research

To summarize briefly, it may be said that between 1946 and 1949, studies were particularly directed to the solution of problems of the equatorial zone. Work was begun in coffee genetics and physiology, and in nutrition of cacao, potatoes, rice and minor crops. Research was done on food, medicine and fiber crops, and programs on corn breeding, animal industry and rural communities were started. This research work

was, of course, centralized in Turrialba, Costa Rica, and was typically local in scope. But already certain action was underway to overstep the boundaries of the Turrialba Valley and reach the individual countries, in an attempt to directly serve national institutions. The cacao research program is not only an example of this purpose, but may be considered a pioneer effort in cooperative action, with private organizations participating in regional programs. This has since become a standard way to obtain contributions from different sources and put them at the service of the interested countries, under a common objective, thus increasing the institutions' capabilities. This type of cooperative work was started in January of 1948, with the operation of the Inter-American Technical Cacao Committee that met in Turrialba in September and October of 1947. This meeting was attended by representatives of nine cacao-growing countries, the American Cocoa Research Institute, the United States Department of Agriculture and the Atkins Gardens of Cuba. The Center originally received annual grants of US$40,000 from ACRI; these later varied depending on the programs adopted. The United Fruit Company's subsidiary in Costa Rica (Compañia Bananera de Costa Rica) made available to the Institute an experimental farm located on the Atlantic side of Costa Rica, which was later donated outright. The Inter-American Cacao Center has since disappeared, but the association with ACRI was maintained for many years in Turrialba and still continues in Itabuna, Brazil, in cooperation with the Executive Commission of the Plan for the Economic Rural Recovery of the Cacao Crop (Comissao Executiva do Plano da Recuperaçao Economico-Rural da Lavoura Cacaueira-CEPLAC).

Around 1948 and 1949, the Department of Agricultural Economics was already concerned with the promotion of knowledge regarding man's role in agricultural production, considering, on the one hand, how to improve man himself, through a study of community problems; and, on the other, how to increase the effectivity of agricultural enterprises, through a coffee project. Two graduate students participated in this research program, by virtue of which five farms in Costa Rica and 28 in Colombia were studied in detail. The work in Colombia was carried out through a cooperative agreement with the National Federation of Coffee Growers of Colombia, and culminated in the establishment of an Agricultural Economics Section at the Coffee Research Center in Chinchina.

The Graduate School

On November 15, 1949, the Director of the Institute took an important step in the consolidation of the Graduate School, by organizing a Graduate School Council, which was entrusted with the tasks of reviewing the requirements for obtaining the degree of *Magistri Agriculturae* (the degree was later changed to *Magister Agriculturae* and, in 1963, to *Magister Scientiae*); reviewing and making recommendations on the preparation of research projects; making recommendations to the members of the student committee; recommending changes in the Institute's working

plans with regard to the selection of students and the graduate study plan, and preparing an annual prospectus of courses offered. The Committee approved the principles to be followed in appointing student advisory committees and in establishing requirements for obtaining the degree of *Magistri Agriculturae*. During this second stage, from 1946 to 1949, 137 students enrolled in the Departments of Plant Science, Agricultural Engineering, Animal Industry, Agricultural Economics, Rural Economics and Library Science; twelve of them received the degree of *Magistri Agriculturae*.

Rural Sociology

During this stage the Institute had already begun to recognize the importance of social studies in community development. It undertook an important task in rural sociology which could well be considered one of the pioneer activities in this field by an international institution in Latin America. The Department of Economics and Rural Welfare was organized in 1946 and work in rural sociology began in 1947, thanks to a cooperative agreement with Michigan State University for the purpose of conducting joint research work. The emphasis was originally on a Community Development Program, with studies designed to find out how communities develop and how to stimulate such development through education. Research along this line was carried out in the Turrialba area, and covered population characteristics, socio-economic conditions, and health and nutrition among rural families. Subsequently, an Experimental Schools program was begun, with a view to finding ways to stimulate community development through education, considering the school teacher as one of the most important agents of change in the development of a community. The publications made during this period cover economics, education, sociology, health and nutrition.

Later on, with the initiation in 1951 of Project 39 of the Technical Cooperation Program of the OAS (mentioned in the section on the third stage of development of the Institute), priority was given to rural sociology in the three operational zones of the Project: Andean, Northern and Southern. Through this program, training was provided and studies in rural sociology carried out as part of the technical training programs for the improvement of agriculture and rural life.

In 1954 the Department in Turrialba changed its orientation, and devoted its attention mainly to the agricultural extension agent as an agent of change; the work regarding the rural teacher was discontinued. In 1956, graduate training in agricultural extension was initiated as part of the Graduate School program. In 1959, the Department changed its name to Department of Economics and Social Sciences.

In the field of sociological research, it is worth mentioning that in 1953, research was started in Turrialba on social and cultural factors associated with the diffusion and adoption of agricultural practices. This included studies on the adoption of new agricultural practices on coffee

farms and sugar cane plantations in Costa Rica; on the rational introduction of technology on a coffee farm and its socio-economic consequences; and on a community in the Peruvian highlands that was assumed to be undergoing intensive agricultural and rural development. In the field of agricultural extension, a study was made, beginning in 1955, of the professional needs of extension agents in Costa Rica and how they were being met; another was on the usefulness of study circles in community development. In agricultural economics it is important to recall the study of coffee farms mentioned previously, as an example of the Institute's efforts to approach national institutions.

In the field of agricultural extension, since 1956 the Department has graduated around 25 extensionists who in most cases are now holding important positions in the extension services of their countries.

The coffee collection

In 1948 the world collection of coffee varieties was started in Turrialba. It is the largest collection of coffee germ plasm in America. It was established mainly for the purpose of finding types with outstanding productivity and resistance to disease and adverse conditions; the collection has thus contributed greatly to the dissemination of high-yielding seed throughout the coffee-growing countries of America, and contains species that are resistant to both kinds of *Hemileia,* a coffee disease that is non-existent on the American continent. Since 1949, about 600 selections have been introduced to this collection, including *Coffea arabica* and *Canephoroides, Libero-Excelsoides* and others, from thirty-one countries in America, Africa and Asia.

Scientific communications

In view of its positive results, it is important to mention the study on technical and scientific communications conducted in late 1948 in Mexico, Central America and Colombia. The study was made, at the request of the Director of the Institute, by Dr. Ralph R. Shaw, then Librarian of the United States Department of Agriculture, with financial help from The Rockefeller Foundation. In his report, presented on December 12, 1948, Dr. Shaw concluded that the improvement of scientific communications was a prerequisite for an effective program for the progress of technical and scientific research in the tropical regions and suggested that the Institute should experiment to find suitable methods for improving scientific communications. In 1949, on the basis of this report, the Institute established its Scientific Communications Service, for which it received a grant of US$60,000 from The Rockefeller Foundation and the purpose of which was to improve the material available in the Orton Memorial Library and develop a program of scientific communications over a period to end June 30, 1955.

The specialized agricultural agency

To end our brief analysis of the second period, it may be said that during this time the Institute's position as a specialized inter-American agency, as stipulated in Chapter XV of the Charter of the Organization of American States, was confirmed. It was accepted as such by the Council of the Organization at a meeting held on February 16, 1949.

3. THE WAY TO DECENTRALIZATION

The three key activities

The third stage in the development of the institution began in 1950 and ended in 1959. As this period began, the Institute was still financially weak and only two more countries, Mexico and Panama, had ratified the Convention, bringing the number of Member States to ten. Nevertheless, it then began an era of unusual vigor, during which its entire structure changed. Having originally concentrated activities in the Turrialba Valley, it now began to establish direct contacts with national institutions, opening the way to decentralization and making American countries more fully aware of its usefulness. Specifically, three activities had this virtue: the Scientific Communications Service, Project 39 of the Technical Cooperation Program of the OAS, and the Contract with the United States International Cooperation Administration. They will be commented on separately, and the progress of the Graduate School will, of course, be reviewed as well.

The Scientific Communications Service

The Scientific Communications Service was established on the basis of the findings of Dr. Ralph R. Shaw's study of 1948, which was completed in 1951 by Ing. Armando Samper, first Head of the Scientific Communications Service, and Dr. Arthur E. Gropp, Director of the Library of the Pan American Union. As mentioned earlier, from the beginning the Service received financial assistance from The Rockefeller Foundation. Although the Service was founded in 1949, it actually began integrated operations in 1950. It created a new image of the institution, which for the first time had a tool to systematically bring it closer to the American countries, national institutions, professors, researchers and technicians throughout the Continent. The Scientific Communications Service introduced and generalized the use in Latin America of such modern research tools as abstracts, microfilms, photocopies and short bibliographies. Since then, a great amount of scientific literature not previously available in local libraries has been sent to every American country. It is estimated that over 400,000 pages of photocopy, over

90,000 pages of microfilm, and over 125,000 bibliographical references, representing more than 3,500 requests from researchers throughout the Americas, have been sent. On the other hand, the Service established, together with the Orton Memorial Library, training courses for agricultural librarians, the only such ones in Latin America, through which more than 50 librarians have been trained. The magazine *Turrialba* was first published in 1950, providing an inter-American journal of agricultural sciences designed to facilitate and promote the dissemination of the findings of research carried out both in Turrialba and in the member countries. The magazine has also served as a laboratory for the courses in technical writing that were established in the Graduate School and are among the first offered in Latin America. Later on, the Scientific Communications Service started work in agricultural extension information and, through its training programs for agricultural information personnel, introduced into Latin America the integrated concept of communications as a social phenomenon. Thus, the students who received training in publications, visual aids, agricultural radio programming, and journalism, also studied the psychological, sociological, anthropological and linguistic aspects involved in the process of emitting, receiving or interpreting messages in a given situation.

Special reference must be made here to the Train-the-Trainer Program produced by the National Project in Agricultural Communications, East Lansing, Michigan, under the sponsorship of the American Association of Land Grant Colleges and State Universities. In 1958 and 1959, the Scientific Communications Service translated and adapted it, under the name of "Programa de Adiestramiento de Extensionistas en Comunicaciones" (ADECO). The ADECO program was sponsored by the International Cooperation Administration and Proyect 39 of the Technical Cooperation Program of the OAS, as well as the Universities of Costa Rica and Puerto Rico. The materials produced included nine instructors' manuals, six movies, five filmstrips and over twenty flannelgraph sequences. The training was started in January, 1960, with the cooperation of the Inter-American Popular Information Program of the American International Association. This program was a great contribution to communications training in Latin America and was especially significant because of the original method of presenting educational techniques which, in a way, has served as the starting point for the projects on the improvement of teaching methods that the Institute has been carrying out through its Higher Agricultural Education Program.

On April 1, 1958, the Scientific Communications Service, with financial help from the Kellogg Foundation in the United States, initiated a program for the publication of Textbooks and Teaching Materials, the purpose of which is to contribute to the preparation of basic textbooks, laboratory manuals and other training materials in Spanish, in order to promote the development of higher agricultural education in Latin America. It was later transferred to the Regional Office for the Andean Zone as part of the Higher Agricultural Education Program initiated in 1963. Since then, textbooks have been published and many

professors and technicians have received financial assistance to enable them to write or finish manuscripts.

The Scientific Communications Service has received financial assistance from The Rockefeller Foundation and the Kellogg Foundation; it has also worked in cooperation with the Inter-American Popular Information Program of the American International Association and the U.S. International Cooperation Administration (now known as AID).

As a result of the Institute's evolution, the Scientific Communications Service disappeared as a unit and since 1960, the Orton Memorial Library has been in charge of scientific documentation. The communications program, especially as concerns training, has been transferred to the Regional Office for the Andean Zone, in La Molina, Lima, Peru, where, with the cooperation of the Agrarian University, the Inter-American Popular Information Program of the American International Association, and the Consortium of Colleges of the Midwest, it is establishing a graduate communications training program, with formal courses beginning in August, 1967.

Project 39 of the Technical Cooperation Program

As mentioned previously, the Technical Cooperation Program of the Organization of American States was approved by the Inter-American Economic and Social Council in 1950. The General Principles, adopted on April 10 of that year, in a way supplemented, along a Pan American and multilateral line, President Truman's proposals for the improvement of less-developed zones of the continent contained in Point Four of his inaugural speech of January 20, 1949. Principle I of the Technical Cooperation Program states the determination to unite all efforts to solve common problems, expressing the objective of the Program thus: ... that through it, the Member States may cooperate in developing their economies, in order to improve the living standards and promote the social welfare of their peoples, in a comprehensive spirit of benefit for all. In 1951, five projects were authorized for the Program, including Project 39, "Technical Training for the Improvement of Agriculture and Rural Life". Some members of the Turrialba technical staff took part in the planning of this project, contributing the Institute's experience in the field of agricultural research and education, and their own knowledge of Latin American problems. Project 39 began operations in the same year, under the administration of the Institute, and continued until June, 1966, when it was incorporated into the regular program of IICA. Since it was primarily an educational project, during the years it operated it provided training to over 10,000 professionals throughout America, in subjects such as library science, forestry, ecology, agricultural economics, home economics, agricultural extension, plant science, horticulture, agricultural information, agricultural engineering, statistical methods for agricultural research, pastures, animal industry, sociology, soils, etc.

In order to better fulfill its objectives, it was organized on a decentralized basis. In 1951, a Service Unit was established in Turrialba, to serve as liaison with the Regional Offices of the Project, which were to be in the Andean Zone, the Northern Zone and the Southern Zone. In 1952, the Office of the Director of the Technical Cooperation Program was set up to replace the Service Unit. The Andean Zone began work in Lima, Peru, in late 1952, and was responsible for the so-called Bolivarian states: Bolivia, Colombia, Ecuador, Peru and Venezuela. The Northern Zone began operations in 1951 in San Jose, Costa Rica, was transferred to Havana, Cuba, in 1952, and eventually established in early 1965 in Guatemala City, Guatemala. This Office was to serve the Central American countries, Mexico, Panama and the Greater Antilles. The Southern Zone began work on October 5, 1951, in Montevideo, Uruguay. The countries it served were those of the southern part of South America: Argentina, Brazil, Chile, Paraguay and Uruguay. The technical staff members were selected according to the needs of each region and stationed at each Zone's headquarters.

This decentralized structure was highly advantageous to the Institute, especially since it provided a means for establishing closer relationships with the countries and expanding activities to an inter-American dimension. It also enabled the technical staff members to get deeper insight into national problems, thus acquiring greater experience and providing more efficient services. This was quite evident in Project 39, because the training activities in each Zone and even in each individual country emphasized the areas where there was a deficit of knowledge or where needs were most pressing; likewise, the institution was able to objectively demonstrate the usefulness of its services to all the American nations. Finally, it is worth adding that the American countries were also favored because little by little they discovered a nearby, not a remote, institution that was dynamic and flexible enough to provide services directly, speedily and without need of covering great distances.

One of the activities of Project 39 was the establishment of regional development areas, with the Southern Zone as the pioneer in this field. It was there that a philosophy and field methodology for speeding rural development were conceived. Pilot areas were set up where agricultural extension and home economics programs were carried out, on the basis of research done on the economc, social, institutional and natural environment. The Pilot Development Area of San Ramon, Uruguay, was established in 1951, with an area of 64,000 hectares (158,142 acres), containing 1,800 farms with an average size of 35 hectares (86 acres) each.

In this Area, an agricultural extension program based on economic studies produced changes in the farming systems that made it possible for farmers to double their production in six years, while the rest of the country suffered a decrease of 10%. The growth rate of San Ramon came to be 24 times greater than that of the remainder of the country. Each dollar invested in the program, supplemented with a supervised credit program, increased the farmers' investments by 22 dollars. San

Ramon had the additional advantage of providing a training ground for the extension services of the Southern Zone countries, especially Uruguay and Argentina.

Subsequently, the Institute cooperated with national institutions in study and training programs in pilot development areas in the Reventazon River Valley in Costa Rica, O'Higgins in Chile, Rio Grande do Sul in Brazil, and Yaguaron in Paraguay. The program was expanded on the basis of this experience in order to establish regional development areas with the direct participation of the Schools of Agronomy. Thus, in 1964, the Regional Development Area of Maipu was established in Chile, with direct cooperation from the Ministry of Agriculture, the Higher Council of Agricultural Development, and the School of Agronomy of the University of Chile. In Maipu the field work was begun with an inventory of natural, economic and human resources; the productive agricultural structure was also analyzed to determine the characteristics of the different types of enterprise. Twelve studies were conducted, ranging from the water consumption/availability ratio in irrigation, to indicators of living standards of resident producing families. On the basis of these studies, and with the cooperation of national participating agencies, a plan with alternate lines of action has been drawn up; during this stage, changes will be made in land tenancy and use of soils, the sectors of production will be reorganized, and guided credit will be introduced, in order to speed the development of the area. Likewise, training in subjects such as methods for regional rural reconnaissance, teaching methodology and agricultural economic planning have been offered. Chilean professionals from the National Institute of Agricultural Development, the Ministry of Agriculture, the Catholic University and the University of Chile, as well as technicians of other countries, have received in-service training. In Brazil steps have been taken to establish the Regional Development Area of Paraiba, and in 1966 a similar area was established in the Yaracuy River Valley in Venezuela.

It is worth mentioning that the Institute, as a cooperating agency, was responsible for initiating the work in agricultural credit and agrarian reform covered by Projects 201 and 206 of the Technical Cooperation Program of the OAS. Project 201 was initiated in 1961 and began with the establishment of a Latin American Center for Agricultural Credit, which offered training through formal long-term courses, short courses, and seminars. It also provided advisory services. A training program in agrarian reform, developed jointly by FAO, IDB, the Pan American Union and IICA, was initiated on a small-scale basis in 1962, under Project 206. Thus the Institute offered the First International Course on Agrarian Reform taught in Latin America. It was held at the University of Costa Rica in late 1962, and was attended by thirty-two technical leaders of agrarian reform programs from eighteen American countries. In 1963, Project 206 began full-scale operations at the Inter-American Agrarian Reform Center (CIRA), established in Bogota, Colombia, in cooperation with the National University of Colombia and the Colombian Agrarian Reform Institute (INCORA). This Center was inaugurated on the Day

of the Americas, April 14, 1964. It has since provided formal long-term courses and short courses, conducted seminars and provided advisory services. Project 201 was discontinued in 1966 and agricultural credit activities were incorporated into Project 206, which in 1967 began operating under the new name of Inter-American Rural Development and Agrarian Reform Program.

Regional Services

On February 1, 1955, the Institute signed a service contract with the United States International Cooperation Administration (ICA), now the Agency for International Development (AID). This service contract, like the Scientific Communications Service and Project 39 of the Technical Cooperation Program of the OAS, helped project the image of the Institute to the American countries, bringing it closer to national institutions. The contract pursued the following objectives: 1) To provide regional assistance to the bilateral cooperative programs (between U. S. Operations Missions and the Ministries of Agriculture of the countries of the continent) by means of personnel training, exchange of experiences, consultant services, applied research and production of informative materials. 2) To help in the creation of local services and institutions capable of supporting and providing permanent direction for agricultural programs. 3) To strengthen the Institute as a stable regional agency and develop a pattern of permanent regional services as a basis for assisting national programs. In accordance with these objectives, research was done from the beginning in coffee, cacao and rubber, agriculture and home economics information, agricultural extension, and tropical pastures and range management. Training was also provided in various subjects. The financial support provided by this contract enabled the Scientific Communications Service to do important work in the field of agricultural communications. After this Service was reorganized in 1960, the Contract continued to finance decentralized activities in communications in the Discipline of Economics and Social Sciences at the Graduate School in Turrialba; at the Inter-American Agrarian Reform Center in Bogota; and as part of the Higher Agricultural Education Program headquartered at the Regional Office for the Andean Zone.

Intensive work was done under the terms of the contract during the third stage of the Institute's development. Many short courses were given in different subject matters, workshops were conducted and in-service training provided to Latin American professionals. Also, many trips were made to advise national institutions on how to solve technical problems, improve services or establish new ones. Outstanding work was also done in publications. The magazine *Extension in the Americas* was founded; it is still an important organ for the exchange of information among professionals working in extension and development programs. A technical publication entitled *Coffee* was initiated; it is now published by the Regional Office for the Andean Zone. Among many others, the

series entitled *Training Materials in Coffee and Cacao* and the one entitled *Visual Aids for Agricultural Extension* are particularly outstanding.

This contract has been renewed several times. The 1964 renewal provides for the establishment, at the Graduate School of the Turrialba Center, of a new program in Resources for Development, with the cooperation and advisory services of the Natural Resources Unit of the Pan American Union and the Division of Natural Resources of the Inter-American Geodetic Survey. The first students enrolled in 1965. This program is designed to train professionals who will be qualified to participate in the planning, implementation and evaluation of integrated, inter-disciplinary inventories of resources for development. The courses and research work are directed by an interdisciplinary team of geographers, climatologists, photointerpreters, soils specialists, ecologists, sociologists, agricultural economists and agronomists, who also take part in the training of other students in the Graduate School.

The Cooperative Research Programs

During this third period the research programs were designed to emphasize the cooperative aspect and the provision of services to the American countries, initiated in 1948 by the Cacao Center. Some examples may be mentioned: Since 1954 the Institute has participated actively in the Central American Cooperative Corn Improvement Program, initiated under the sponsorship of The Rockefeller Foundation and with the participation of the Governments of Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua and Panama. IICA participated in the planning of the program, provided materials from its own corn breeding project, offered assistance to technical staff and cooperated in the organization of annual meetings. In 1958 a cooperative coffee trial program was initiated for testing Arabian varieties in Costa Rica, Ecuador, El Salvador, Guatemala, Nicaragua, Peru and Venezuela. With financial support from The Rockefeller Foundation, a cooperative project on native food crops was started, for the purpose of studying and evaluating certain high-consumption native plants, about which little was known from the agronomic and dietetic points of view. The study began with three Andean tubers, "oca" *(Oxalis tuberosa)*, "ullucu" *(Ullucus tuberosus)* and "isaño" *(Tropaeolum tuberosum)*, in cooperation with the School of Agronomy of the University of Cochabamba, Bolivia. A survey was later made of varieties grown in Argentina, Bolivia, Colombia, Ecuador and Peru, and hundreds of clones were collected. This program was transferred to the Regional Office for the Andean Zone in 1963. A cooperative potato project was initiated in cooperation with the Costa Rican Ministry of Agriculture for the purpose of introducing and testing varieties and developing new high-yielding, disease-resistant clones. Materials were exchanged with different programs in the hemisphere, particularly with Honduras, Nicaragua and Panama, and resistant materials from Colombia, Mexico and the United States were distributed.

In the field of animal industry it must be mentioned that in 1950 a program for the selection of dairy cattle for the lower tropics was initiated, with fifty head of creole cattle, purchased in Nicaragua in 1947, with resources provided by The Rockefeller Foundation. This program is aimed at developing productive animals in the torrid zones of Latin America, with resistance to the tropical environment and capacity for utilizing rustic pastures. The work of selection carried out indicates that creole tropical dairy cattle, with their average yields, can eventually contribute to the development of a large area of the lower tropics of Latin America. This program, which is of regional scope, has been establishing herds in cooperating centers, one of the most important being the one in the Rio Limon region of Zulia State, Venezuela, operated as part of the animal research program of the Ministry of Agriculture and Animal Industry.

In 1957 the Institute took an important step when it undertook research on the use of atomic energy applied to agriculture. This work was started by virtue of a contract with the United States Atomic Energy Commission, which is still in force, subject to annual renewal. The Gamma Field was inaugurated on Americas Day, April 14, 1958. This field is used for studies of plant mutations and has a radioactive cobalt source of 220 curies, which covers a planted field of twenty-two varieties of coffee, and clones of cacao, bananas and other plants. A radioactive isotope laboratory was also inaugurated, for research in nutrition and other problems. Since then important basic studies have been underway, among which the program for the sterilization of male Mediterranean fruit flies is especially noteworthy, because of its regional importance. It was initiated in 1962 in cooperation with the Regional International Agency for Animal Health (Organismo Internacional Regional de Sanidad Agropecuaria - OIRSA), which serves Central America and Panama. On the basis of these initial studies by the Institute, OIRSA has established an extensive program for controlling the Mediterranean fruit fly in Panama, Costa Rica and Nicaragua, through the massive liberation of males sterilized by irradiation. The United Nations Development Program has provided financial assistance for this project.

Progress in graduate education

During the third stage of the Institute's development, the Graduate School made great progress and laid the groundwork for highly important future advances. Between 1946, when graduate training was started, and 1949, twelve students received the degree of *Magister Agriculturae;* between 1950 and 1959, eighty students received the degree. The Departments of Animal Industry, Plant Science, Economics and Rural Life, and Renewable Resources were in charge of graduate courses.

As mentioned previously, the Department of Economics and Rural Life, later called the Department of Economics and Social Sciences, began training in agricultural extension in 1954. The Renewable Resources

Service was created in 1950; in November, 1957, it became a Department and in 1962 changed its name to Forestry Department. It began graduate courses in 1950-51 and even though at that time it had fewer resources and technical personnel than the other Departments, its training and research work has been widely recognized. Its training services were intensified in 1955, under an agreement signed with FAO, which expired in December, 1959. Its services were increased considerably after 1961, thanks to Project 80 of the United Nations Development Program (formerly United Nations Special Fund), of which FAO acted as the Executing Agency. Since then, more than sixty students have received graduate training in forestry, and a large number of them have gone on to work for their Ph.D.'s. About twenty of the Forestry graduates are university professors; some direct research programs in their own countries, are heads of national forestry services, or are international technicians, including the present Head of the Forestry Department of the Training and Research Center in Turrialba. Meanwhile, the situation in Latin America has also changed: twenty years ago only one Latin American country had a college level school of forestry; in 1966 there were thirteen and two more were being organized. In 1946 only seven countries had forestry services and in 1966 all the Latin American countries had them. Likewise, the need to recognize the fundamental importance of forests as part of national development programs is an indication of the fact that the demand for technicians and research and cooperative programs will continue to grow.

During the third quarter of 1955 an agreement was signed with FAO that provided for a cooperative study on higher agricultural education in Latin America. Project 39 of the Technical Cooperation Program of the OAS, administered by the Institute, cooperated actively in the project. The study was undertaken for the purpose of determining the present situation and the main trends and to find out to what extent agricultural education responded to the facts and achievements of national agriculture. The field work and data analysis were done in 1955, 1956 and part of 1957. On the basis of the findings of this study, the First Latin American Conference on Higher Agricultural Education was held in Santiago, Chile, from March 16 to 26, 1958, with the attendance of Deans of Schools of Agronomy and Directors of Agriculture. The conference was sponsored by the Institute and by FAO, in cooperation with the Chilean government and the University of Chile, and with financial aid from The Rockefeller Foundation. The Second Latin American Conference on Higher Agricultural Education was held for the same purpose as the first in Medellin, Colombia, May 18-19, 1962, and the Third, in Piracicaba, Brazil, in July, 1966. During the fourth stage in the development of the Institute, with the "new dimension" fully underway, this movement culminated in the establishment, in 1963, of the Higher Agricultural Education Program, with headquarters established initially in the Andean Zone. The purpose of this Program is to help improve the training methods and materials used by the Schools of Agronomy and other institutions of higher agricultural education throughout Latin America.

At its second meeting, held in 1957, the Institute's Technical Advisory Council agreed to request the Southern Zone to present a project for taking advantage of the facilities for graduate study that were available in the countries of the Zone. Consequently, with the help of a grant from The Rockefeller Foundation, a study was made to determine the possible utilization of national institutions as centers for graduate study and for regional cooperative research studies. The study was carried out between December, 1957, and December, 1958, and covered Argentina, Brazil, Chile, Peru and Uruguay. Ing. Jose Vallega was in charge of this study, which, although it remained unpublished, was generally known as the Vallega Plan. The report stated that in the countries visited, there were well-established working nuclei, that did advanced research in the agricultural sciences and could well be utilized as centers of graduate education. These proposals were later echoed at various meetings and by several groups and finally, in early 1963, during the fourth stage of the Institute's development, a committee was appointed to evaluate the present and potential capabilities of the institutions of higher agricultural education and the agricultural research centers of the Southern Zone, and to present its recommendations in this regard. On the basis of these recommendations, the Board of Directors, at its Second Annual Meeting, held in Lima, Peru, in May of 1963, approved the Cooperative Graduate Training Program for the Southern Zone, in which the La Estanzuela Center and the Turrialba Graduate School were to participate. Said program was initiated that same year. It started with: a) a Central Unit in Montevideo, as part of IICA's Training and Research Center for the Temperate Zone; b) a Regional Unit in the Department of Specialization of the National Institute of Agricultural Technology (Instituto Nacional de Tecnología Agropecuaria - INTA) in Castelar, Argentina; c) a Regional Unit at the Luiz de Queiroz Higher School of Agriculture of the University of Sao Paulo, in Piracicaba, Brazil; d) a Regional Unit with headquarters in the School of Agronomy of the University of Chile, in Santiago. This has been considered a revolutionary experiment which, in view of its ambitious conception, has helped consolidate the work in graduate education modestly initiated by the Institute in 1946. The sound experience gained by IICA in graduate education has made it a definite leader in this field, and now the efforts to link the Institute ever more closely with national institutions, thus giving it a truly inter-American dimension, happily took on definite shape.

The Building Fund

As a result of the expansion of activities achieved during this third stage, the limitations imposed by the inadequate physical facilities became particularly critical. Up to this time, the laboratories, classrooms, offices, dormitories for students and secretaries, library, dining hall and kitchen, had all been housed in the main building, constructed in 1943 and 1944. Because of this fact, and on the recommendation of the Inter-American Committee of Presidents' Representatives that functioned after

the Meeting of the Presidents of the American Republics in Panama in 1956, the Board of Directors of the Institute decided, in 1957, to set up a Building Fund, to be made up of voluntary contributions from the Member States, with a goal of US$750,000. The following countries contributed to the Fund: El Salvador, $1,000; the United States, $500,000; and Venezuela, $17,400, all totalling US$518,400. Despite the fact that the original goal was not reached, the amount obtained contributed to the solution of the most pressing needs.

Old buildings were remodeled in order to provide space for training in communications. A small dormitory for twenty graduate students was built, as an annex to the main dormitory; the water and electrical facilities were improved; twelve homes for technical staff members were built, and a building for classrooms and laboratories was built for work in the biological sciences, and named after Dr. Ralph H. Allee, the second Director of the Institute. This building was inaugurated on July 10, 1962, in a ceremony attended by the President of Costa Rica, Francisco J. Orlich; the Minister of Agriculture and Animal Industry, Elias Soley; members of the diplomatic corps, and other distinguished national officials.

Plans for new constructions were approved later, in order to expand the facilities, especially for graduate students, but unfortunately it has not yet been possible to obtain the necessary financing.

The Protocol of Amendment to the Convention

We have already seen how the Institute, during its third stage, reached a high degree of development and began to acquire a truly inter-American dimension. However, it was still difficult to increase the funds provided by the quotas from the countries, because of the provision that quotas would be figured at the rate of 1.25 per one thousand inhabitants, based on the stipulations of the Convention. With this paradoxical situation still in force, significant events occurred in the Americas, culminating in the approval of the Alliance for Progress, as mentioned at the beginning of this chapter. After the Meeting of the Presidents of the American Republics, held in Panama in 1956, the Inter-American Committee of Presidents' Representatives was established. This Committee submitted a report in May, 1957, in which it recommended certain ways to strengthen the agricultural activities of the Organization of American States, and suggested, among other things, the advisability of reorganizing the Institute, increasing its budget and expanding its programs. As a result of these recommendations, the Board of Directors of the Institute took the necessary steps to amend the Convention, and approved a Protocol of Amendment, which was opened for signature by the Member States in the Pan American Union on December 1, 1958. This Protocol introduced two fundamental changes, which were eventually to open the way for the definite expansion of the Institute. One of them provided for changing the quotas by adopting the system for determining quotas used by the Pan American Union. The other change was that

the Board of Directors would be made up of high-level officials of the Ministries or Secretariats of Agriculture who were specialists in agricultural subjects.

The United Nations Special Fund

The achievements of this third stage of the Institute culminated in the preparation of more concrete plans for strengthening the Graduate School. In 1959 negotiations began on a project with the United Nations Special Fund (later called the United Nations Development Program, UNDP), especially aimed at the strengthening of graduate training in Turrialba; La Estanzuela, Uruguay; and La Molina, Peru. This project was approved in December of 1960 by the Administrative Board of the Special Fund. In May of 1963 the Member States signed the project, which was put underway in January, 1964, with FAO acting as the executing agency. Over a five-year period, the project increased the resources and facilities of the Institute by a total amount of over four million dollars.

4. THE EXPANSION

The New Dimension

In 1960, when the fourth stage of the Institute's development began, it was still in a weak position financially, despite the fact that the number of member states had increased to sixteen. The quota payment system established by the Convention allowed for relatively small increases in the income, despite the increase in the number of members. Nevertheless, IICA began this decade under very favorable conditions, since it had succeeded in proving its usefulness to the American States, thus strengthening the concept that it was necessary to propitiate its development and expansion. The Scientific Communications Service, Project 39 of the Technical Cooperation Program of the OAS, and the Regional Services sponsored by the United States Government had opened the way to decentralization and thus laid the groundwork for future expansion.

In early 1960, Dr. Ralph H. Allee, second Director of the Institute, voluntarily resigned, leaving an institution that was going through a process of evolution and beginning to work more closely with national organizations. In May of that same year, the Board of Directors elected Ing. Armando Samper as its third Director. He took possession on June 8. In his speech of acceptance, Ing. Samper proposed the policy of the "new dimension", which received the full support of the Board of Directors. This policy was based on a three-point plan, to wit: a) a campaign to get Argentina, Brazil, Bolivia, Paraguay and Peru to ratify

the Convention, thus making all the American nations members of the Institute, and to get all Member States to ratify the Protocol of Amendment to the Convention, which at that time had only been approved by Costa Rica, El Salvador, Guatemala and the United States; b) an overall program review to lay down guidelines for a full-scale reorganization of the institution; c) an administrative review to set up sound financial management and technified administration.

The ratification campaign

The campaign was carried out systematically, country by country, with surprising results. By the end of 1961 all twenty-one American States had signed the Convention and only Cuba had not signed the Protocol of Amendment. The entire ratification process was completed on February 25, 1964, when Brazil deposited in the Pan American Union the instruments of ratification of the Convention and of the Protocol of Amendment, thus making all the Member States of the OAS members of the Institute as well.

The Conference of Ministers of Foreign Relations held in Punta del Este, Uruguay, in 1962, excluded the Government of Cuba from all participation in the activities of the OAS. This eliminated the possibility of having the Protocol of Amendment enter into force because it was impossible to obtain the unanimity stipulated in the Protocol as a prerequisite for its entering into force. This was equivalent to closing the door on the improvement of the very groundwork of the Institute's structure. However, the Board of Directors considered that the outcome of the ratification campaign was ample proof of the will and determination of the Member States to improve the Institute's foundations and propitiate its expansion. Therefore, in May of 1962 it unanimously adopted an executive resolution, by virtue of which it established for the Institute the same system that governs quota payments for the Pan American Union, and provided for an annual meeting of the Board of Directors with the participation of high-level representatives from the Ministries of Agriculture, for the purpose of discussing and approving the program-budget. Thus, the Institute acquired the hemispheric scope it had been working for and obtained from every Member State the financial backing it needed for the expansion of its programs.

The administrative review

The "new dimension" policy advocated the adoption of new fiscal practices, as well as certain changes in the administrative system, in order to set up an efficient and flexible basis for the implementation of truly hemispheric programs, financed with a much larger budget. The administrative review carried out covered three main fields: a) a job evaluation which led to the preparation of a job classification scale for

auxiliary, professional and directive staff, and the adoption of a new salary scale; b) the approval of new staff regulations, which entered into force on July 1, 1962, replacing the former regulations established in 1952; c) the adoption of new fiscal and administrative practices, including the establishment of a decentralized accounting system in the three Regional Offices and the Turrialba Center, with central budget control and auditing, and the establishment of new procedures for purchases and other operations. Likewise, a systematic effort was made to put IICA on a sound financial basis, for which old obligations were liquidated and the working fund reserves increased, in order to maintain a certain rate of operations until such time as the outstanding quotas from Member States were received. Also, a Plan of Expenditures was put into force, in order to make the program budget adhere strictly to actual quota income.

The program review

The program review was carried out in 1961 and 1962. The first step was the appointment of two Review Teams, one for the biological sciences and the other for the social sciences, each one composed of a high Institute official, a Latin American expert and a U. S. expert. These teams worked simultaneously from May 15 to June 30, 1961. During this time they traveled through some of the Latin American countries, gathering information, interviewing national officials, getting impressions from technical personnel, both in the Institute and outside; then they submitted separate reports to the Director General. On July 3, 4 and 5 of the same year, a Review Panel convoked by the Director General met in San Jose, Costa Rica, for the purpose of reviewing the above-mentioned reports and making pertinent recommendations. The Chairman of this Review Panel was the Administrator of the Research Service of the United States Department of Agriculture, who for several years had been his country's representative on the Institute's Technical Advisory Council.

Once he had received the Review Panel's findings, the Director General asked for independent opinions from former high officials of the Institute, distinguished personalities of the United States and Latin America who were familiar with IICA's programs, and the members of the Technical Advisory Council. All in all, twenty-three additional commentaries were produced. With this background material, the Director General proceeded to lay out the reorganization of the Institute's programs, as recorded in a 120-page document entitled "Reorganization of the Institute's Programs for the Decade 1960-1970", which the Institute staff nicknamed "The Bible".

These review activities were possible thanks to the financial assistance of the Ford and Rockefeller Foundations.

Objectives, priorities and programs

In the document on the reorganization, the Director General ratified the long-range objectives of the Institute as established by the Convention, stated two fundamental objectives for the coming decade, and marked the specific goals to be attained during the next five-year period. He also set forth the following basic priorities:

First : training of professional personnel at the graduate level;

Second: research as a function of training, and coordination of research in Latin America;

Third : advisory services to the governments for the purpose of strengthening their institutions of public service to agriculture, planning and evaluating their agricultural development programs, and obtaining Alliance for Progress financing;

Fourth: development of agricultural communications;

Fifth : projection of the image of the Institute to the public, and dynamic official relations with governments and national institutions.

He outlined all the Institute's activities under the following six lines of work: Rural Development; Strengthening of Institutions; Utilization of the Tropics; Agriculture of the Arid and Andean Regions; Regional Cooperative Graduate Training Program and Research in Crop and Animal Breeding; and Agricultural Communications. Also, he grouped the activities under 22 Technical Programs, as follows: Resources for Development; Pilot Development Areas; Agricultural Policies, including Agrarian Reform; Analysis of Institutions and Programs; Agricultural Credit and Marketing; Higher Agricultural Education; Agricultural Extension; Research and Experimentation; Basic Studies; Food Crops, mainly beans; Perennial Crops, mainly coffee and cacao; Forest Development; Animal Production; Agriculture of the Arid Regions; Application of Agricultural Engineering to Rural Development; Andean Food Crops; Cooperative Graduate Education Programs; Animal Research; Plant Research; Scientific Communications and Documentation; Communications in Institutions of Higher Agricultural Education; and Written and Audiovisual Communications for Extension.

At the Sixth Annual Meeting of the Board of Directors, held in April, 1967, in Rio de Janeiro, Brazil, a proposal of the Director General's was approved, whereby the 22 Technical Programs were eliminated and all activities were regrouped under three Basic Programs, thus:

Basic Program 1 - Higher Agricultural Education
Objetive of Program: To strengthen institutions of agricultural education with a view to improving educational programs in the agrarian sciences.

Basic Program 2 - Agricultural Research
Objectives of Program: To improve the training of the personnel of agricultural research institutions.
To work for the development of national agricultural research programs and stimulate coordination with institutions of higher agricultural education and extension services. To promote the exchange of information regarding research studies among countries and strengthen the media of exchange.
To study, either in cooperation with national institutions or independently, specific problems of a continental or regional order that have not received proper attention.

Basic Program 3 - Rural Development and Land Reform
Objective of Program: To promote the improvement of the rural development and land reform institutions of the Member States, as essential instruments for speeding the economic and social development of the Americas.

Each of these programs includes several projects.

The new decentralized structure

In the document mentioned previously, which contains the guidelines of the "new dimension" policy, the Director General reorganized the Institute on a decentralized basis. It definitely became inter-American in nature, thus consolidating the efforts that had long been underway to overcome the concentration of activities in Turrialba and make it more dynamic, by establishing closer, more direct contacts with national problems. IICA's reorganized structure was as follows: a) The Executive Offices for the entire Institute were set up in San Jose, Costa Rica, with an office in Washington headed by an Official Representative. b) The Turrialba Center was invested with operational and technical autonomy; all its activities were concentrated in a Training and Research Center, with a resident Director who was at the same time Dean of the Graduate School. c) Three permanent Regional Offices were established, using the regional organization of Project 39 of the Technical Cooperation Program; these Regional Offices are in charge of the Institute's programs in the countries included in each area, thus: the Andean Zone, with headquarters in La Molina, Lima, Peru (serves Bolivia, Colombia, Ecuador, Peru and Venezuela); the Northern Zone, with headquarters in Guatemala City, Guatemala (serves Mexico, Central America, Panama and the Greater Antilles); and the Southern Zone, with headquarters in Montevideo,

Uruguay (serves Argentina, Brazil, Chile, Paraguay and Uruguay). The Regional Office for the Southern Zone operates the Research and Training Center for the Temperate Zone, established by the Institute at the Alberto Boerger Agricultural Research Center of the Uruguayan Ministry of Animal Industry in La Estanzuela. d) In countries other than those that host the aforementioned headquarters, technical nuclei have been established, under the responsibility of Official Representatives. All together, IICA now has technical staff members stationed in 12 countries, and plans are being made to post technicians in three more. e) In cooperation with the Techincal Cooperation Program of the OAS, an Inter-American Agrarian Reform Center is in operation in Bogota, Colombia.

The first program-budget and the expanded program

Once all the prerequisites of the "new dimension" policy for the expansion of programs had been met, the Director General called the Regional Directors and other members of the Institute's directive staff to a meeting held in San Jose in January of 1962. They were asked to formulate preliminary proposals based on their experience and their idea of the needs and priorities of Latin America, taking into account the background information provided by the Program Review. These proposals, together with an analysis made by the Planning Office (part of the Executive Offices) and all the information produced by the Program Review, were submitted to the Technical Advisory Council at its Seventh Meeting, held in San Jose in March, 1962. The Council analyzed the information received and formulated its own recommendations, based on certain priorities. With all this background information, the Executive Offices prepared the first Program-Budget (1962-1963), which laid the foundations of the Expanded Program, organized as a five-year plan and financed with the increased funds provided by the change in the quota payment system approved by the Board of Directors in May of 1962.

The First Annual Meeting of the Board of Directors with the participation of high-level officials of the Ministries of Agriculture of the Member States, was held in San Jose, September 17-22, 1962. At this Meeting the first Program-Budget, for the amount of US$900,000, was approved for the fiscal year ending June 30, 1963, and the Director General was authorized to carry out an Expanded Program, "as funds become available, which by the end of the fiscal year July 1, 1962-June 30, 1963, shall increase at a rate of expenditures anticipating a budgetary level of US$1,554,915 for the following fiscal year".

Thus the Institute was able to clearly set forth its position as an inter-American agency capable of serving all the Member States and able to grow and become stronger in the future, depending on its own efficiency and the interest aroused among the countries, which is evident from the budgetary figures for different fiscal periods. In 1959-1960 the budget financed with quotas from the Member States totalled US$380,776, whereas the quota budget for 1967-1968 amounted to a

total of US$3,106,845. The total resources of the Institute during the fiscal year 1959-1960 came to US$1,429,000, while during 1967-1968 they totalled US$5,707,000.

Recommendations of the Special Committee

At its Second Annual Meeting, held in Lima, Peru, May 22-28, 1963, the Board of Directors appointed a Special Committee charged with reviewing the Expanded Program as it stood then and as projected for the future, in order to "keep the increase of expenditures within an acceptable rate". The Board of Directors especially recommended that in its analysis the Special Committee take into account the United Nations Special Fund Project.

The Special Committee met in San Jose, Costa Rica, from September 17 to 27, 1963, and recommended a gradual increase in the Institute's regular budget at an average rate of 15% per year, over the following five years. The Committee also proposed a gradual and proportional redistribution of the budget, so that by the end of five years, an orderly, decentralized operation could be underway, according to the following distribution: Director and Administration, 12%; Scientific Communications Service, 2%; Turrialba Center, 32%; Andean Zone, 18%; Northern Zone, 15%; and Southern Zone, 21%. The Special Committee likewise recommended certain important adjustments and changes of emphasis in the United Nations Special Fund Project, and stated that the Graduate School, with its main headquarters at the Turrialba Center in Costa Rica, should become the fundamental activity of the Institute.

The guidelines set forth by the Special Committee served as the basis for drawing up the 1964-1965 Program-Budget and have marked the pace for the progressive increase in the regular budgeted income of the Institute, within a rate of increase acceptable to the Member States. With a view to the future, and in order to provide the countries with terms of reference on possible budgetary levels, at its Sixth Annual Meeting, held in Rio de Janeiro in April, 1967, the Board of Directors decided to take note of the Projection of the Program-Budget of IICA for the period 1969-1970 to 1973-1974, as estimated by the Executive Offices. Thus it may be considered that the expansion of the Institute and the implementation of its Expanded Program, inspired in the "new dimension", have followed a balanced, organic plan that has been fully backed by all the Member States.

The advancement of graduate education

The reorganization of the Turrialba Center in line with the "new dimension" policy went into effect on January 3, 1962. This reorganization was based on the findings of the Program Review and

was the beginning of the progressive strengthening of graduate education. First, the Special Committee appointed by the Board of Directors at its Second Annual Meeting (Lima, Peru, May, 1963), which met in San Jose in September of 1963, made some specific recommendations on the Turrialba Center and the Graduate School. Later, the Director General submitted to the consideration of the Fourth Annual Meeting of the Board of Directors (Antigua, Guatemala, March, 1965), a "Plan for the Future Development of the Turrialba Center and the Graduate School", and the Board of Directors decided to appoint an *ad hoc* Committee to study "how to orient the future evolution of the Turrialba Center". The *ad hoc* Committee submitted an important report to the Fifth Annual Meeting of the Board of Directors, held in Bogota, Colombia, in April, 1966. It stated that "Graduate education is the first priority assigned to IICA by the Board of Directors. Therefore, the Training and Research Center, as the main headquarters of the Graduate School, is one of the pillars of the institution's action and as such, should be maintained and strengthened within an orderly program for the expansion of the entire Institute compatible with the financial capabilities of the Member States."

Thus, the Graduate School is the basic nucleus of the Turrialba Center and, in terms of the institution, is considered a single School with activities in other regional units of IICA. It provides training in forestry, economics and extension, plant science and soils, animal industry, and resources for development. The Director of the Turrialba Center is at the same time Dean of the Graduate School, while the Heads of the Higher Agricultural Education Program of the Andean and Northern Zones and the Head of the Cooperative Graduate Training Program of the Southern Zone, are Assistant Deans. The Graduate School faculty members make up the Academic Council that advises the Dean with regard to the School's standards and requirements; academic policies concerning degrees to be granted; new training programs to be offered; admission requirements and examinations; requirements for obtaining the degree; accreditation and similar matters.

The progress achieved is evident from the statistics on students graduated. From the foundation of the School until 1949, twelve students received the degree of *Magister;* between 1950 and 1959, eighty professionals received the degree; and during the fourth stage, that is, from 1960 to the present, 138 students have graduated. In other words, in a little over six years, more students have graduated than during the previous fourteen years. These figures faithfully reflect the efforts made under the "new dimension" to increase the School's facilities and provide it with the elements necessary to convert it into an instrument for the development of Latin America. It is also important to add that most of the graduates are presently holding key positions in the American countries, especially in teaching jobs in schools of agronomy or agricultural training centers, or as heads of national services, thus emphasizing the multiplying effect of the work being done by the Graduate School.

It is also worth emphasizing and confirming the fact that the Graduate School of the Institute has truly been a pioneer in the field of graduate education in Latin America. When it was founded in 1946, there was no other such center in Latin America. Today there are regular graduate schools in Brazil, Colombia, Mexico, Peru and Puerto Rico, and others are being organized in Chile and Argentina, where the Institute, on June 28, 1967, signed an operational agreement with the University of Buenos Aires, the National University of La Plata and the National Institute of Agricultural Technology, for the establishment of a Graduate School in the Agricultural Sciences.

In this effort to improve agricultural training, the Higher Agricultural Education Program, one of the 22 Technical Programs implemented under the Expanded Program, is being carried out in the three Regional Offices. Its purpose is to help the faculties of agronomy and other agencies of higher agricultural education in the American countries to improve the training of their faculty members, as well as the quality of their teaching methods and materials. This work was started by Project 39 of the Technical Cooperation Program which did an oustanding job of training professional personnel in Latin America. Now greater emphasis is being given to the improvement and strengthening of the higher agricultural education institutions themselves, through seminars for professors; help in the production and publication of training materials (under the program financed partly by the Kellogg Foundation); inter-American meetings of deans, and the improvement of methods of communications and education in the schools of agronomy.

The Program was initiated in the Andean Zone in 1963, when a committee composed of three deans of agronomy schools in the Zone carried out a study on the needs for diagnosing problems and pointing out priorities. The study showed that efforts should be aimed mainly at the improvement of teaching staff, both with regard to their academic training and their teaching methodology. In the Southern Zone, the program was also established in 1963, under the responsibility of the Regional Office and with advisory services from the Graduate School in Turrialba. The objective of the Program in the Southern Zone has been to help the participating agricultural education institutions in Uruguay, Argentina, Brazil and Chile, to organize their own graduate schools and offer their own graduate programs. Since then, 126 students have graduated. In the Northern Zone, the Program was initiated in 1965-1966, in cooperation with the Higher University Council of Central America (Consejo Superior Universitario Centroamericano - CSUCA). There also it began with a study to discover the actual situation, diagnose needs and lay down plans of action. As a result of this study, and with the advisory services of the Head of the Program and the Technological Institute of Higher Studies (Instituto Tecnológico y de Estudios Superiores) of Monterrey, Mexico, the Faculties of Agronomy of Guatemala and El Salvador, as well as the National School of Agriculture and Animal Industry of Nicaragua, have fundamentally improved their curricula. Also, a Permanent Committee on Higher Agricultural Education

has been established under the sponsorhip of CSUCA and with the advisory services of the Institute. At present, discussions are underway regarding a cooperative program between CSUCA, the Regional Office for Central America and Panama (ROCAP), the Mayaguez Center of the University of Puerto Rico, and the Institute, for the improvement of the teaching staffs of the Central American schools of agronomy.

Progress in research and the cooperative programs

Research, as one of the priorities set forth under the "new dimension" policy, has also progressed considerably during the fourth stage of the Institute's history. At the Training and Research Center in Turrialba, research has been done in four basic fields: soils and crops, forestry, animal industry, and social and economic studies. In La Estanzuela, Uruguay, research has been done in animal science, forage crops and cereals; in the Andean Zone, work has been done on breeding of Andean food crops, some aspects of the agriculture of the arid zones, the application of engineering to agricultural development and the improvement of coffee.

Also, because of their regional importance, we shall mention some of the cooperative programs. On October 9, 1964, the Institute signed a contract with the Executive Commission of the Plan for the Economic Rural Recovery of the Cacao Crop (Comissao Executiva do Plan da Recuperaçao Econômico-Rural da Lavoura do Cacaueiro - CEPLAC), in Brazil, for cooperating in the establishment, organization and operation of a cacao research center in Itabuna, Bahia, Brazil. In October and November, 1964, the Central American Subcommittee on Economic Agricultural Development of the Central American Committee on Economic Integration, on the basis of a joint study by ECLA and the Institute on the situation of agricultural research in Central America with regard to economic integration, agreed to initiate a Regional Cooperative Program for Agricultural Research in Central America and Panama. At the Subcommittee's request, the Northern Zone Office took charge of the regional coordination of technical aspects of the national crop and animal research programs in cooperation with the General Secretariat of the Central American Economic Integration Treaty (Secretaría General del Tratado de Integración Económica Centroamericana - SIECA), for which it put underway the Regional Cooperative Agricultural Research Program. In Mexico, the Regional Office for the Northern Zone, in cooperation with the National Agricultural Research Institute of Mexico (Instituto Nacional de Investigaciones Agrícolas - INIA), is operating a training program in breeding of fruit and horticultural crops for professionals throughout Latin America. Under the Food Crop Program, cooperative bean projects are being carried out together with the University and the Ministry of Agriculture of Costa Rica, and various university and government institutions of El Salvador, Guatemala, Honduras, Nicaragua

and Panama. This work is part of the Central American Cooperative Food Crop Program and is coordinated by the Regional Office for the Northern Zone. During the past year, this work has included regional yield trials and the production of certified seed, with the help of the National Production Board of Costa Rica (Consejo Nacional de Producción). Under the Forestry Development Program, cooperative research has been done in Colombia, Nicaragua, Panama, Venezuela and Costa Rica. In the latter, work is being done in cooperation with the Lands and Colonization Institute (Instituto de Tierras y Colonización), the Costa Rican Electricity Institute (Instituto Costarricense de Electricidad) and the Costa Rican Tourism Institute (Instituto Costarricense de Turismo).

It is also important to mention that the Institute carried out a study on education, research and agricultural extension in Central America and Peru, under the sponsorship of the Inter-American Committee for Agricultural Development (ICAD), of which the Institute is a member, along with FAO, IDB, ECLA and the General Secretariat of the OAS.

The network of cooperative agreements

During the lifetime of the new dimension, there has been feverish activity with regard to the signing of agreements and contracts with governments, international organizations and national institutions. Thus, a veritable network of cooperative agreements has been built up that is expanding the scope of the Institute's action. In many cases the resources thus obtained are strengthening its programs and ensuring better connections with the member countries and their institutions.

To date, basic agreements on privileges and immunities for the Institute have been signed with the Governments of Costa Rica, Chile, Guatemala and Venezuela. Others are being negotiated with Argentina, Brazil, Colombia, the Dominican Republic, Ecuador, Paraguay and Peru Agreements of cooperation have been signed with such international organizations as the Agency for International Development (AID); the American International Association for Economic and Social Development (AIA); the Agricultural Development Council (ADC); the United Nations Educational, Scientific and Cultural Organization (UNESCO); the United States Atomic Energy Commission (AEC); the Inter-American Development Bank (IDB); the Inter-American Committee for Agricultural Development (ICAD); the United Nations Food and Agriculture Organization (FAO); and the Higher Council of Central American Universities (CSUCA). Agreements of cooperation have also been signed with such national institutions as the University of Wisconsin, for research programs in cacao entomology; the Ministry of Agriculture of Guatemala, on the operation of the Regional Office for the Northern Zone; the Ministry of Animal Industry and Agriculture of Uruguay, for the establishment of the Research and Training Center for the Temperate Zone; the National University of Colombia and the Colombian Agrarian

Reform Institute, for the establishment of the Inter-American Agrarian Reform Center in Bogotá; the Agrarian Reform and Promotion Institute (Instituto de Reforma y Promoción Agraria) of Peru, for the establishment and operation of a National Center for Training in Agrarian Reform; the Government of the State of Rio Grande do Sul, Brazil, for the preparation of an agrarian reform project; the Government of Ecuador and the Ecuadoran Agrarian Reform and Settlement Institute (Instituto Ecuatoriano de Reforma Agraria y Colonización), for the establishment of a Research and Training Center in Agrarian Reform; the Ministry of Public Works of Venezuela, for the installation and operation of a development area; the University of Costa Rica, for the installation and operation of a wood technology laboratory; the Brazilian Agrarian Reform Institute, for an exploratory survey of natural resources in Rio Grande do Sul; the Universidade Rural do Sul, Brazil, for promoting the improvement of teaching; the Costa Rican Tourism Institute, for carrying out research projects to help plan national reserves and parks; the Agrarian University, La Molina, Lima, Peru, for the operation of a graduate training and research program in agricultural engineering; and the University of Buenos Aires, the National University of La Plata, and the National Institute of Agricultural Technology in Argentina, for the creation and operation of a Graduate School in the Agricultural Sciences. The national institutions contribute resources for the execution of these agreements independently of the quotas paid by the Governments for the support of the Institute.

A final comment

This has been a review of the evolution of the Institute, from the birth of the idea that took shape in the Turrialba Valley to its maturity as an inter-American institution. The Institute has had to travel a rough road, especially because of the inadequacy of its resources. But there is no doubt that, at the same time that an excellent institution of multinational service has developed, much has been learned about international cooperation as an instrument for achieving the social and economic improvement of man, who is the heart of the American community.

Consequently, we confidently hope that, on its Twenty-Fifth Anniversary, October 7, 1967, the Institute, on the foundation of an extraordinary accumulation of experience, will embark on a new stage of activity —more fertile and more effective— in its honorable and altruistic mission of international service for the good of the American peoples.

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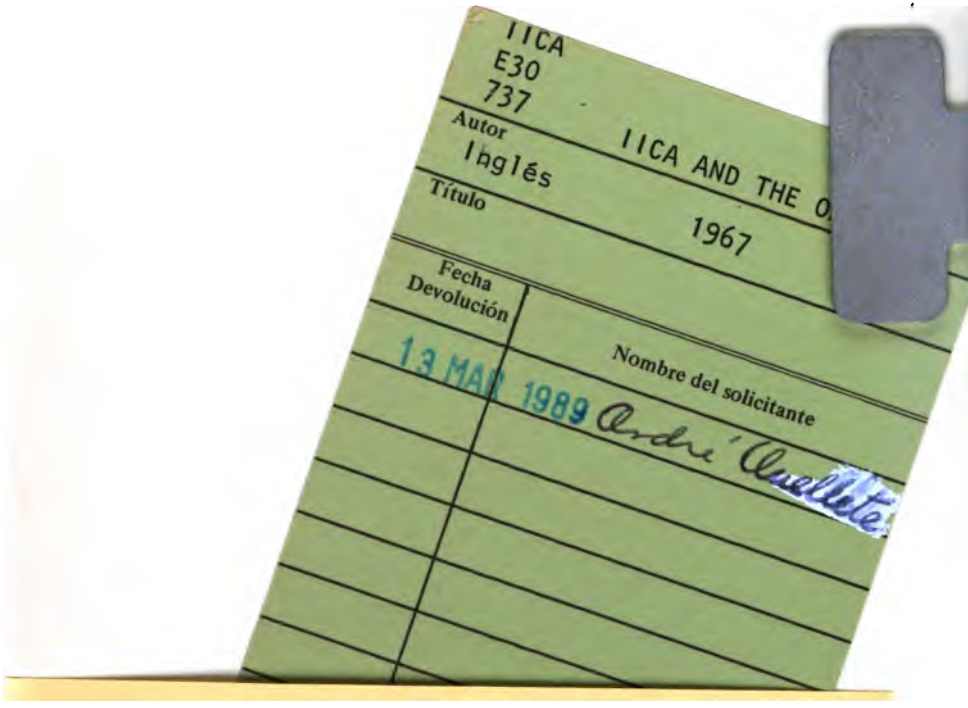

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