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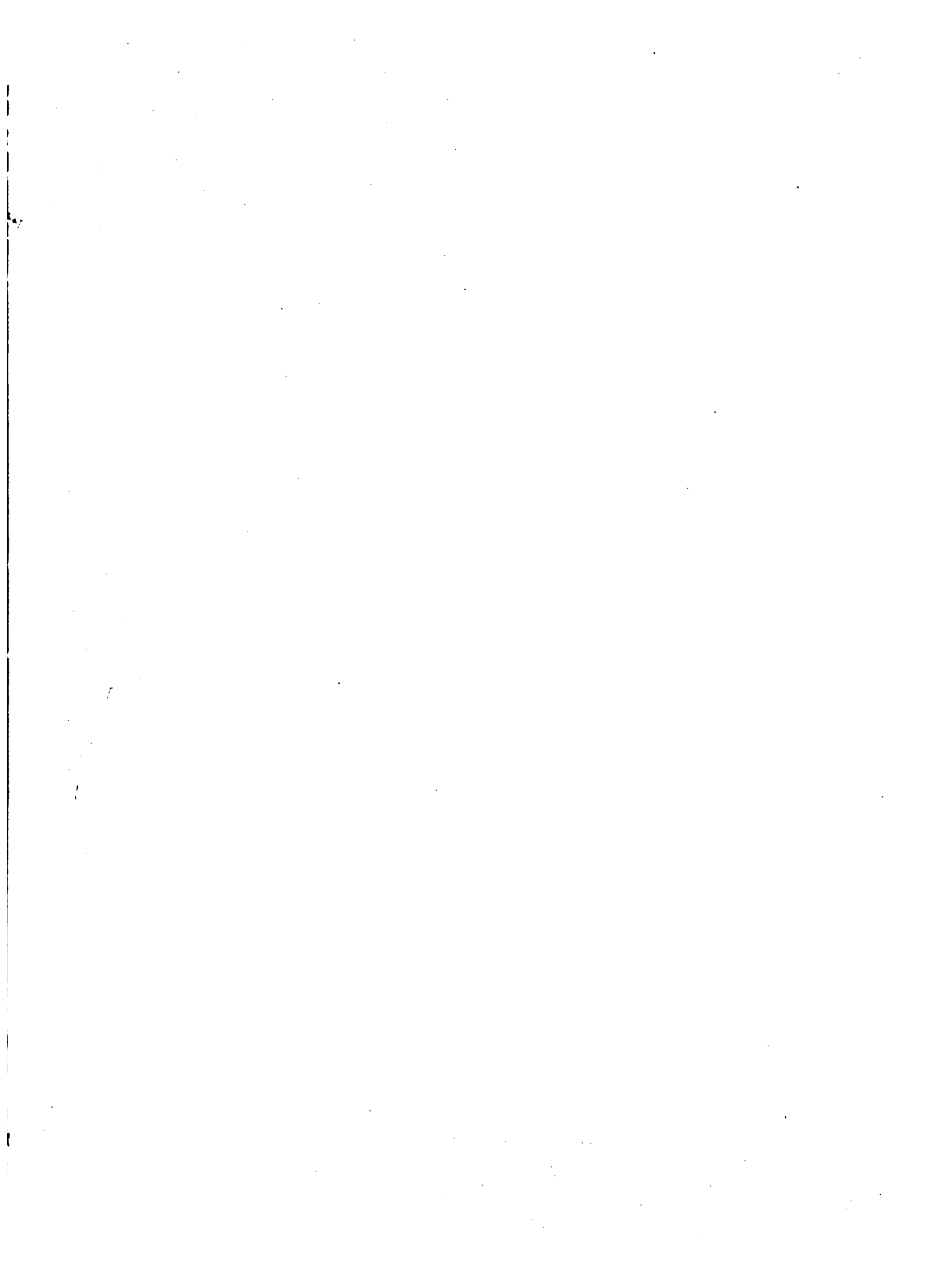
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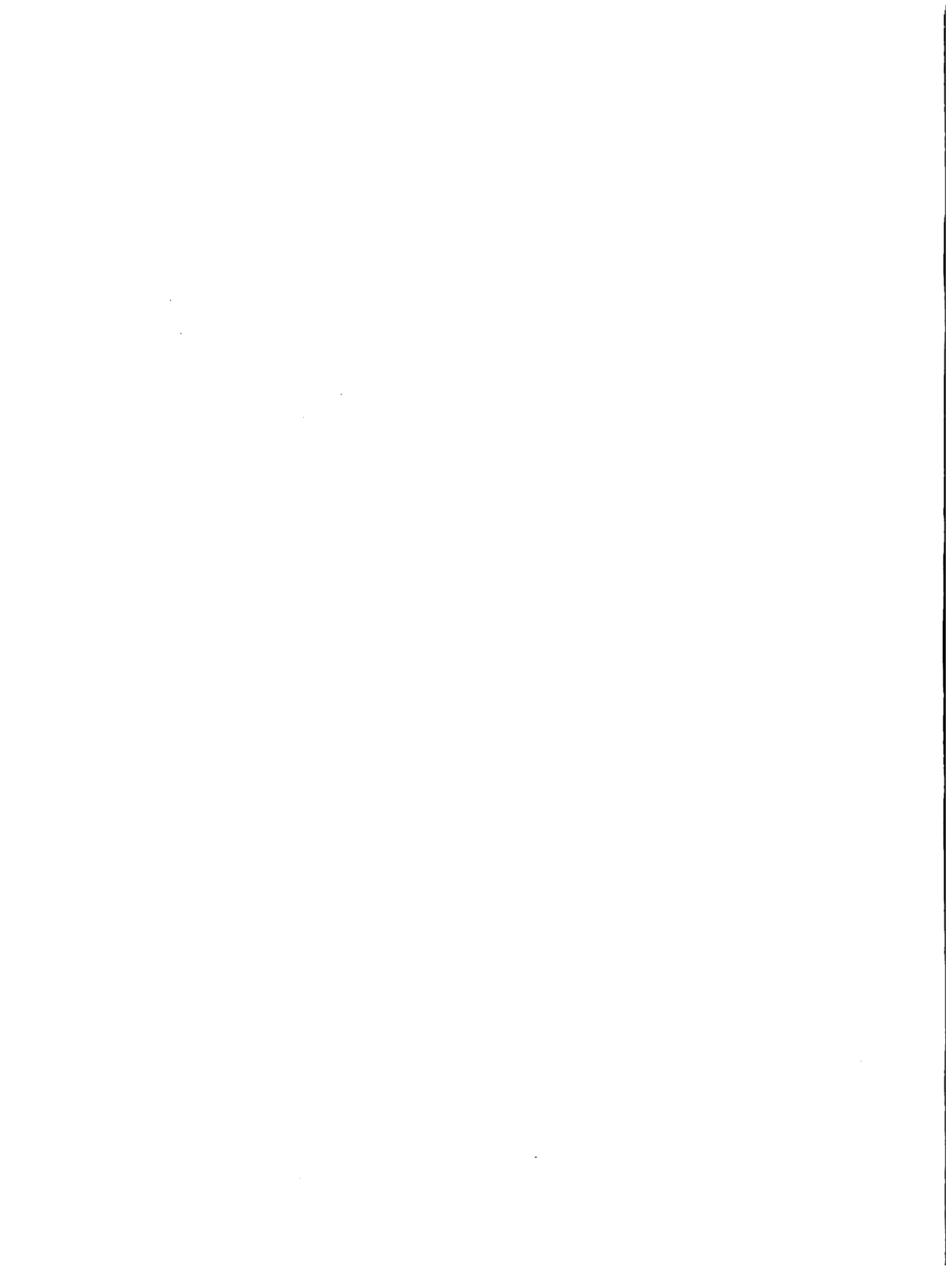


IICA



UNLESS THE CHILDREN IN THE RURAL AREAS OF LATIN AMERICA ARE
PROPERLY EDUCATED . . .





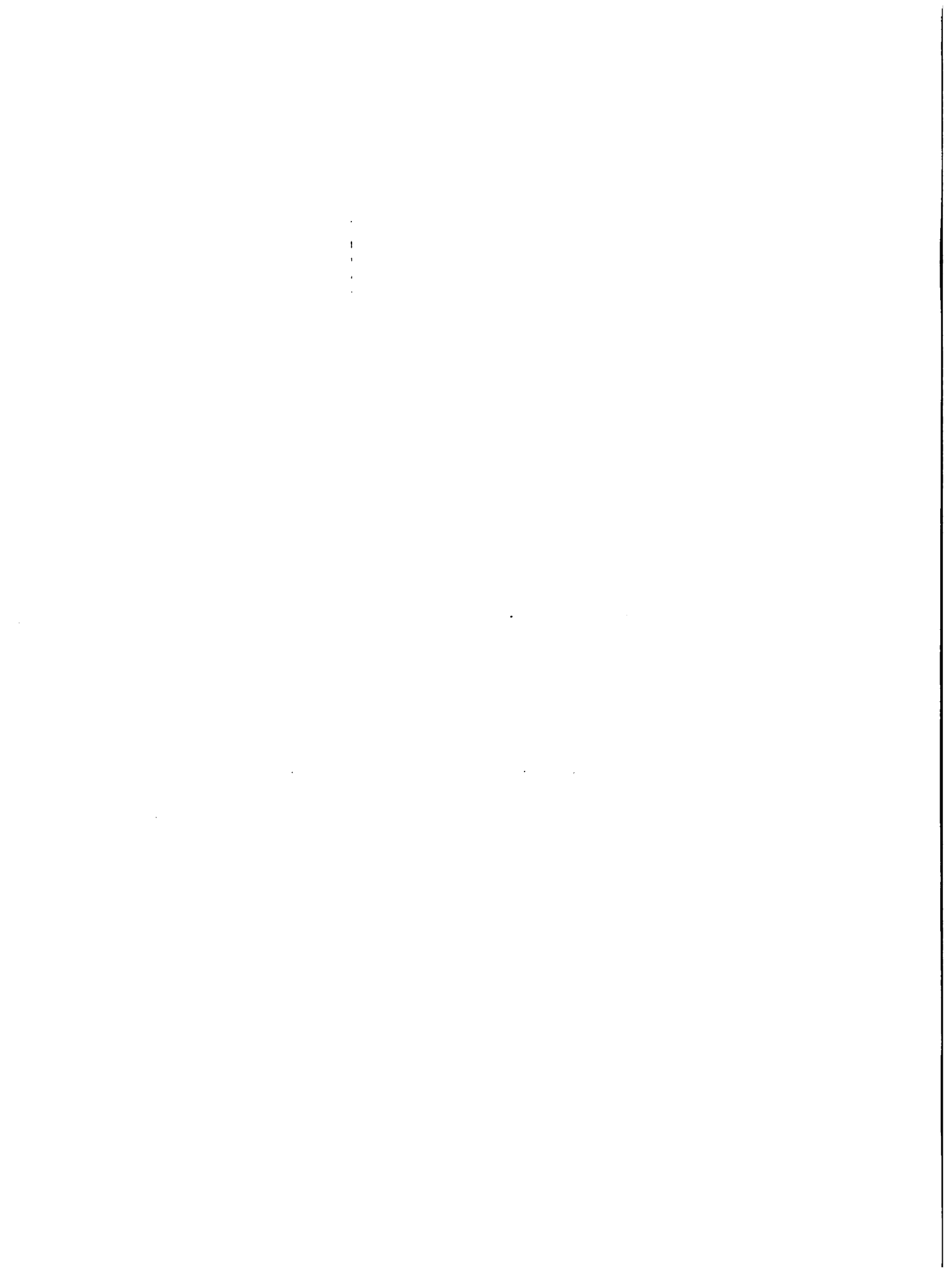
INTER-AMERICAN INSTITUTE OF AGRICULTURAL SCIENCES OF THE OAS



ANNUAL REPORT 1972

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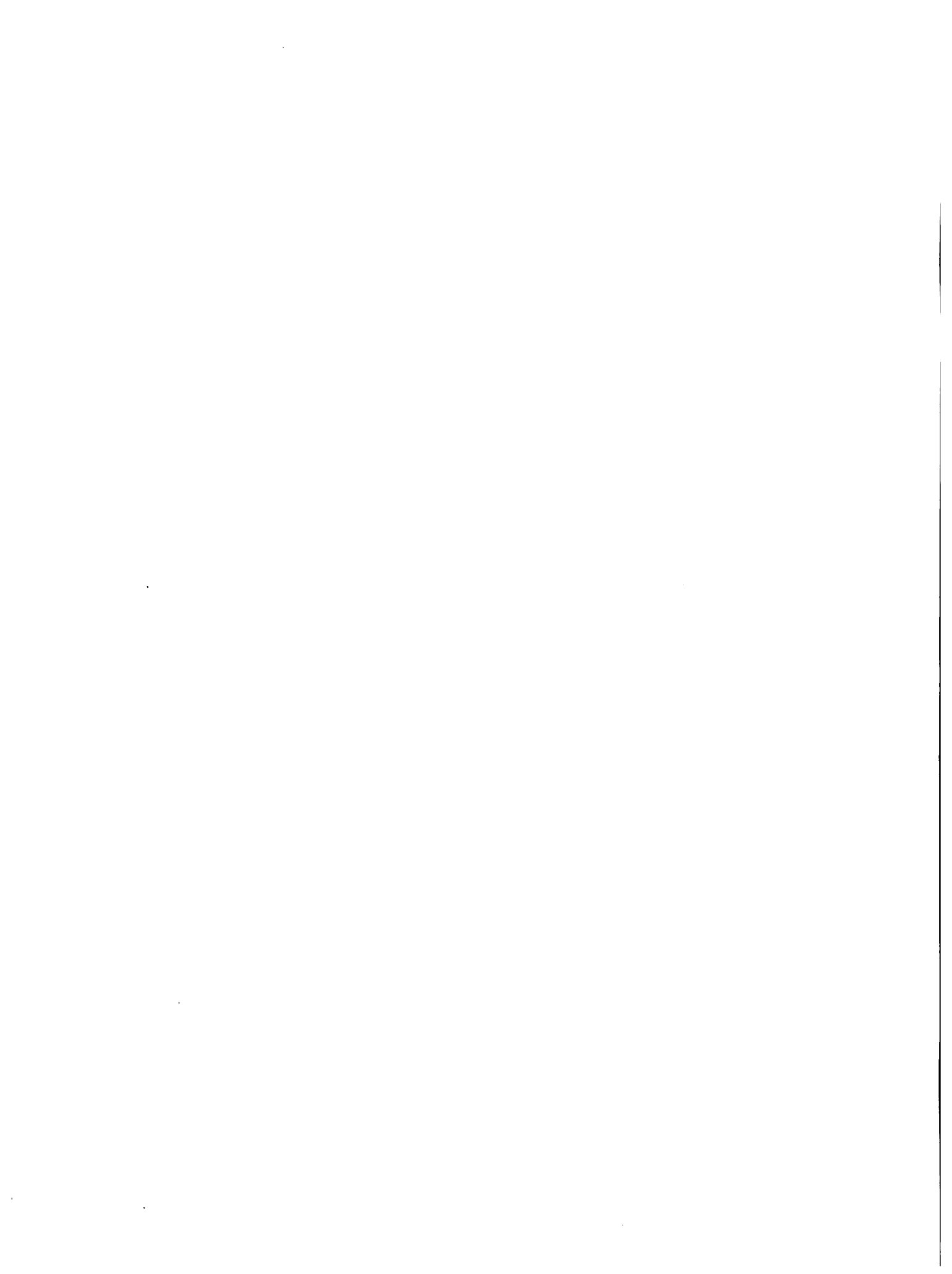
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INTRODUCTION

First Report by Lines of Action

In compliance with the mandate established in the Convention of this organization, I hereby submit to the honorable members of the Board of Directors and to the consideration of the Governments of the States Members of the Inter-American Institute of Agricultural Sciences, the following Annual Report of Activities, covering the period 1 July 1971 through 30 June 1972.

Since my appointment by the Board of Directors and my assumption of the duties of Director General in 1970, this is the first report to be submitted according to the Lines of Action set forth in the General Plan, with which the Institute put underway its policy of a hemispheric and humanistic projection in its work relating to the rural sector of the member countries.

The previous report was the last one in which the format based on the former three basic programs was followed. Those programs, i.e., agricultural education, agricultural research and rural development and agrarian reform, were in force until June 1971.

The General Plan establishing a program based on seven Lines of Action was endorsed by the honorable Board of Directors at a meeting held in Washington, D.C., in November 1970.

At the Tenth Annual Meeting, held in May 1971 in Lima, Peru, with the participation of high-level delegates from the ministries or secretariats of agriculture and special representatives of the Governments of the Member States, the Board issued Resolution IICA/JD-740-28, by which it authorized the Institute to put underway the General Plan and thereby the program based on the seven Lines of Action.

These Lines of Action, covering the various fields listed below, have been outlined as follows:

1. Analysis of and information on rural development.
2. Strengthening of institutions of agricultural education that are essential for the dissemination of available knowledge in agriculture, forestry, the socio-economic sciences and home management.

3. Strengthening of research institutions responsible for increasing the knowledge available in the physical-biological and the socio-economic fields.
4. Strengthening of agricultural promotion institutions.
5. Support to regional integration organizations.
6. Strengthening of institutions responsible for carrying out structural changes designed to promote and implement policies relating to the distribution of productive resources and of political, social and economic power, and for eliminating conditions affecting rural marginality.
7. Strengthening of institutions responsible for the administration and formulation of agricultural policies, which are in charge of planning, organizing and coordinating Government efforts to achieve rural development.

In defining these Lines of Action, within the framework of the General Plan, special care was taken to take into account the policies and programs of other international agencies. A special effort was also made to find ways to avoid duplication of efforts and facilitate coordination of activities in areas relating to rural development.

With the approval of the Board of Directors, certain structural changes considered necessary in the organization of IICA have been put underway with a view to ensuring the effective implementation of the General Plan. These changes have enabled IICA to achieve its goal of having a physical presence in all the countries it serves.

The Institute's capacity for service through its continent-wide operational units is fundamentally based on the decentralization of its technical staff. At present, 15 per cent of the technical staff is working from the Executive Offices, while 85 per cent is stationed in the aforementioned units.

IICA's Efforts to Strengthen Itself

An objective analysis of the realities of rural development will show that if our present efforts are to

have the necessary scope, they must be institutionalized, both nationally and regionally. This would enable us to contribute more directly and effectively to the development of the institutions working in the rural sector of Latin America, the strengthening and improvement of which is the basic objective of IICA's action in its member countries.

It is worthwhile, at this point, to stress certain concepts we have previously explained to the Board of Directors. By attaching such importance to the strengthening of our own organization, we are merely responding to the demands of development itself; we are not trying simply to expand the Institute and its field of service.

We are engaged in an effort to place the Institute in the position it deserves in light of its present and future responsibilities as the specialized agency of the inter-American system for the rural sector.

Appreciation for the Support Given by Governments to IICA

Having defined the Lines of Action we are pursuing in our work, and explained how we are meeting the challenge of rural development, I wish to express our sincere appreciation to the Governments of Member States for their positive support for our agricultural programs in their countries.

It is important to stress that this governmental support has enabled IICA to place itself in a position of continuous service to the countries, a fact we can now point out with immense satisfaction. At the same time, we have been able to put underway the technical machinery and tools we deemed most appropriate in order to make the Institute more flexible and expedite the implementation of the plans we have drawn up to meet the national and regional needs of the rural sector of the American countries.

The support of these countries has also enabled us to make progress in cooperative efforts and in the coordination of our action with that of other agencies and institutions. We feel certain that as long as we continue to receive such support, without which we would not be engaged along the lines presently envisaged, we will be able to make even greater progress and to achieve our established goals.

Our Work in the Sector

In view of the nature of this statement, we will not at this point make a detailed explanation of the work done during the fiscal year covered by this report. Since all

the necessary information regarding the Institute's work may be found in the following chapters, we will confine ourselves to a statement of principles and guidelines.

The purpose of this introduction has, in fact, been none other than to offer a concise synthesis of the background against which our present and planned action should be viewed. We are guided by the desire to contribute more and more directly towards a more rational expansion of economic growth and to help improve the economic and social living conditions of the people of Latin America for whom we are working.

In other words, we want more and more effectively to help promote more rational means of production and productivity and, above all, to help ensure that they bring about a more equitable distribution of wealth for the benefit of those who generate it. This is in line with the high concept of social justice expressed by the representatives of the American countries at the VI Inter-American Conference on Agriculture, which shed so much light on the complex problem of rural development.

Other Important Aspects of our Development Efforts

I do not wish to conclude this brief introduction to the Annual Report for 1972 without mentioning other important aspects of the increased efforts of IICA to fulfill its mission.

I wish to refer, in the first place, to the Special Programs, in the implementation of which we are using technical and financial resources in response to the demands of the countries involved. All these countries, as a general rule, have very serious needs in these fields.

The Special Programs consist of the following:

1. Management for Development
2. Irrigation in the Temperate Zone of South America
3. Cooperative Program for the Development of the American Tropics
4. Regional Cooperative Project for the High Andes
5. Inter-American Rural Youth Program.

In view of its direct bearing on our efforts to achieve our basic objective, I must also mention the question of coordination and cooperation with other international and regional agencies working in fields related to agriculture.

In this regard, it is worthwhile mentioning the coordination of the Institute's activities with those of the OAS. An Agreement will soon be signed, as required by the Charter of the Organization of American States.

Another important aspect is the Protocol of Amendments to the Convention of IICA, which is presently under consideration by the Governments. We look forward with confidence to the success of such consultations. The adoption of the Protocol is obviously very important to the future work of this organization.

Mention should also be made of our relations with the United Nations Food and Agriculture Organization (FAO). It is expected that coordination will soon be achieved for the benefit of all Latin American countries.



The Director General of IICA shows that IICA is familiar with the realities of the rural areas of Latin America.

More Regarding the VI Inter-American Conference on Agriculture

Finally, even though I have referred to this subject in previous reports, I cannot help mentioning once again the conclusions of the Sixth Inter-American Conference on Agriculture.

I wish to stress the fact that this American forum, held in Lima in 1971, stated, on the basis of a realistic diagnosis of the development problems of the rural sector of Latin America, that said development had taken place too slowly during the past ten years; that the achievements to date were not commensurate with the aims endorsed by the countries of the American regional system; and that the situation, which was difficult in 1961, had now become critical, thus making it absolutely essential promptly to expedite the achievement of the agreed changes.

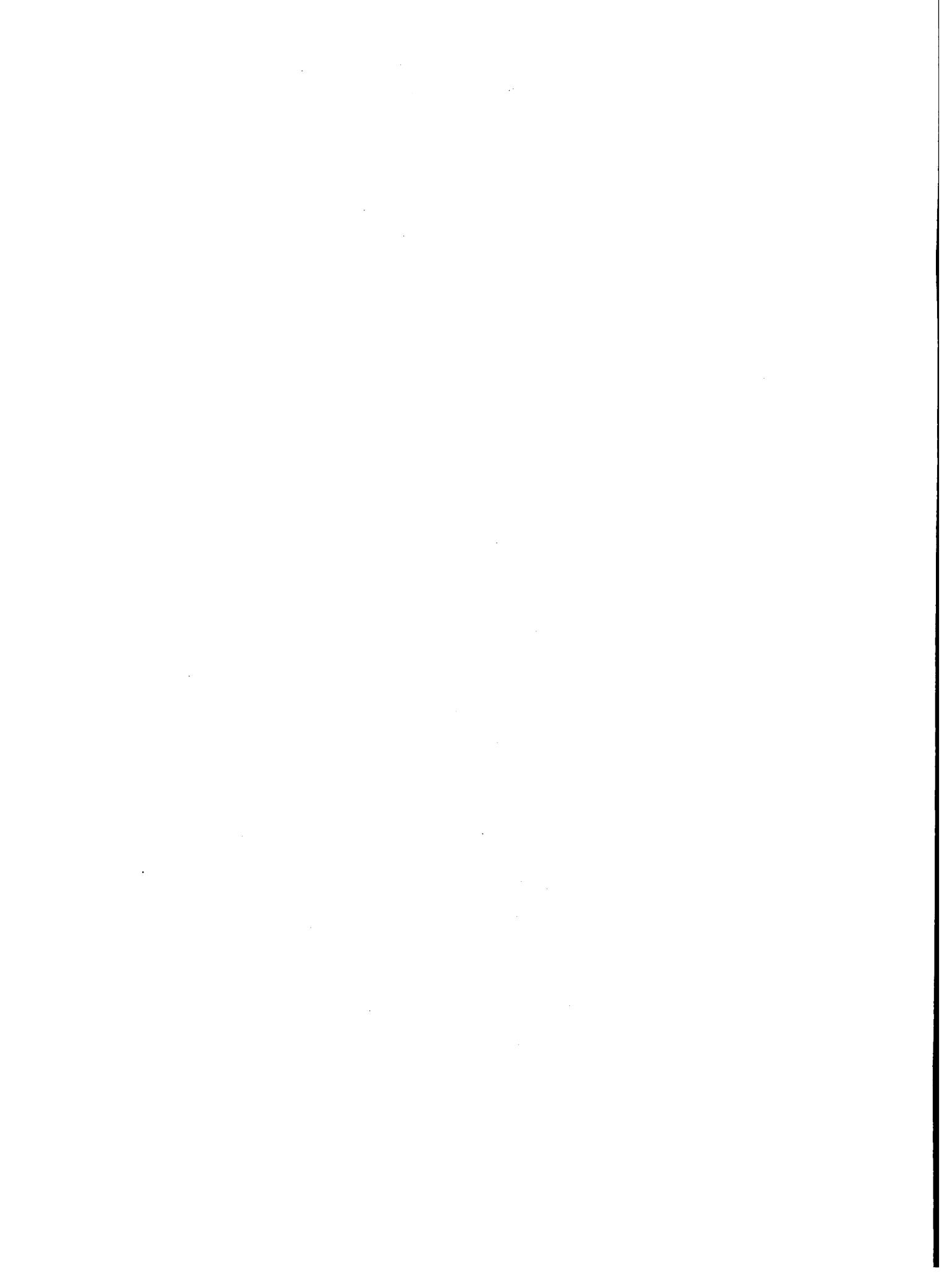
It also stated that it was essential for the countries to reaffirm their express intentions by drawing up forthwith an explicit political commitment to the transformation of rural society. This commitment should envisage both the social problems and the production aspects of agricultural exports as a means of improving the quality of rural life.

Finally, stating that it would not suffice to increase production without achieving an equitable distribution of wealth among those who help generate it, the Conference declared the forthcoming decade the Decade for Social Justice.

The Institute played a major role in the organization and conduct of the VI Inter-American Conference on Agriculture. It fully supports the agreements adopted therein, as well as the declaration issued at the conclusion of the discussions and the recommendations made to the American Governments regarding rural problems and their solution, which must be sought most urgently. We therefore consider it our responsibility to stress the importance of the measures proposed.

We firmly believe that if these measures are adopted, either totally or in part, they will provide positive support to the views we have expressed regarding the need to speed up the machinery of rural development in Latin America.

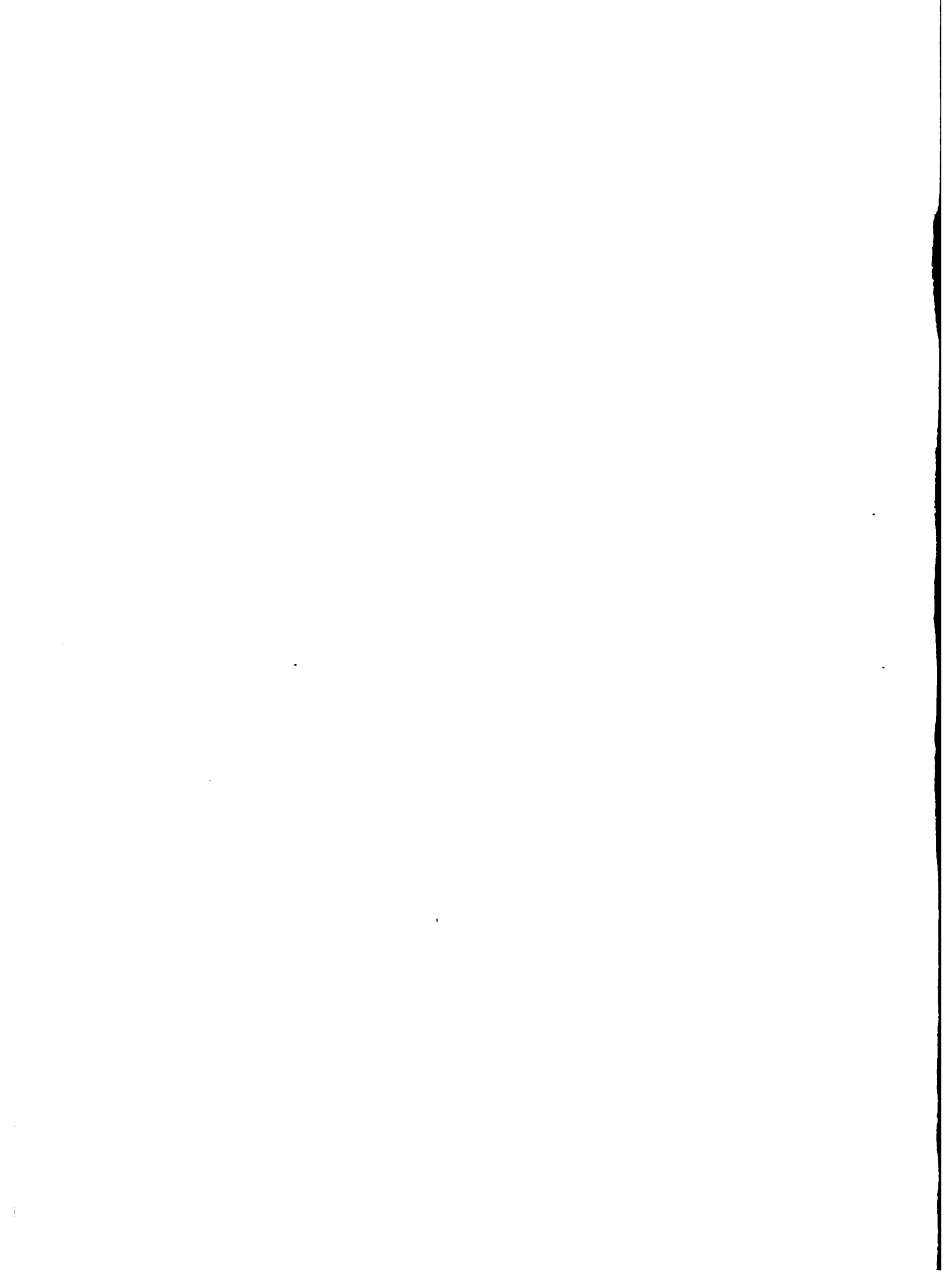
José Emilio G. Araujo
Director General



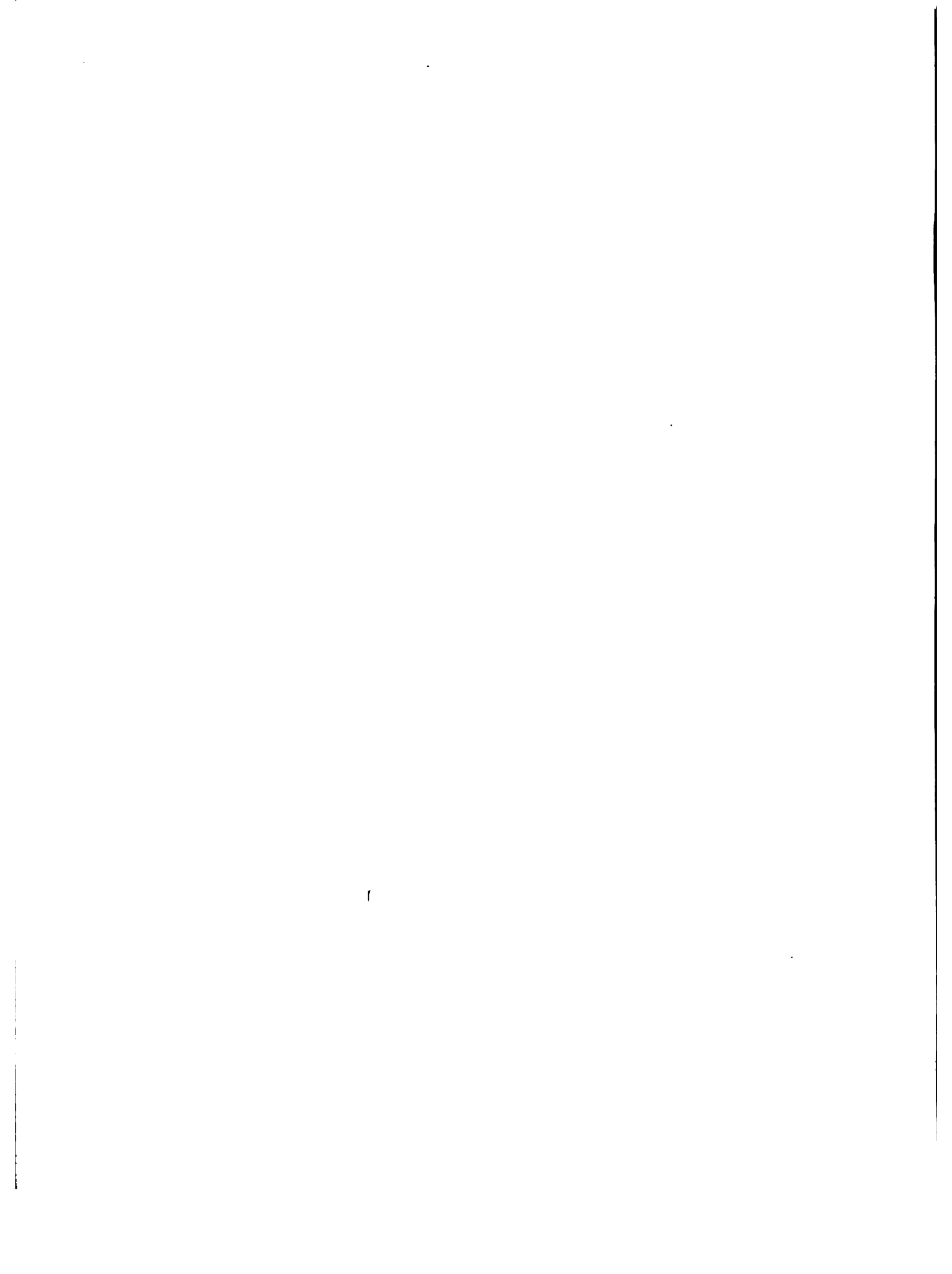


Chapter I

THE SITUATION OF THE AGRICULTURAL SECTOR IN LATIN AMERICA







Chapter I

STATUS OF THE AGRICULTURAL SECTOR IN LATIN AMERICA

In April 1967 in Punta del Este, Uruguay, the Latin American Presidents specifically agreed:

- to perfect the drawing up and implementation of agricultural policies through projects of agricultural development, agrarian reform and colonization, connected with the economic development plans, in accordance with the interests of each country;
- to improve credit systems, including those designed to resettle farmers benefitting from agrarian reform; and to establish greater facilities for marketing products;
- to provide adequate incentives, including price incentives, to further agricultural production in economical conditions;
- to encourage and to finance the acquisition and the intensive use of technological inputs as well as the establishment and expansion of Latin American industries producing these goods;
- to adapt the tax systems affecting the agricultural sector for purposes of increasing productivity, production and a better distribution of land;
- to substantially expand the programs of education, research, agricultural extension, vegetal and animal sanitation, to improve training of the field worker and training of technical personnel;
- to offer incentives and to provide financial resources for the industrialization of agricultural production;
- to facilitate the establishment of multilateral or international programs permitting Latin America to provide a greater proportion of the supply of the world's food requirements;
- to further national programs for community development and of self-aid for the small farmers and to promote the establishment and strengthening of agricultural cooperatives.

The scope of these agreements through the middle of 1971 and their most important limitations bring us to the following conclusions:



The Latin American campesino needs immediate and positive solutions to his problems.

Drawing up Policies and Implementation of Projects of Agricultural Development, Agrarian Reform and Colonization

Thanks to the efforts of most of the Latin American countries, at times receiving professional advice from multinational or regional organizations, it has been possible to progressively improve the drawing up of development policies of the agrarian sector. In several countries, the objectives of said policy reflect the concern to face the need of increasing the levels of rural employment. Also evident is the emphasis put on a strategy combining aspects of production and productivity growth with aspects of social improvement and intensification of participation of marginated masses in the decisions on policies of the sector and in the enjoyment of their benefits. In some ways these advancements surpass the objectives set forth by the Presidents in 1967.

The transformation of these policies into specific plans, programs and projects has created some problems. On the one hand, there is not enough trained personnel for the preparation and evaluation of projects for the agrarian sector. On the other hand, due to the high level of foreign indebtedness, some countries abstain from furthering the drawing up or the submission of projects requiring foreign financing. Finally, the deficiencies in coordination among institutions of the sector and the absence of agencies to orient and to stimulate said collaboration, limit the success of many projects.

Notwithstanding this situation, institutions such as the Inter-American Development Bank have made important disbursements for projects directed towards the agrarian sector. The Agency for International Development of the United States has financed integral plans in Costa Rica and Guatemala and IDB has done this in Venezuela.

The need for radical changes in the systems of land holdings is clearly acknowledged. This acknowledgment is responsible for the legislation on agrarian reform which has been adopted and put into practice in many Latin American countries. It seems, however, that the imperative need to accelerate the process and to make it more profound has not been adequately understood. The colonization and expansion of the area under irrigation has received special attention in several countries.

Improvement of Agricultural Credit and Marketing and Establishment of Price Incentives

In general, the relative credit availabilities for the agricultural sector in Latin America reveal their conformity with the relative importance of that sector in the economy. Thus, in most of the countries where agriculture contributes more than twenty per cent to the

Gross National Product (GNP), the relative agricultural credit availability has kept itself constant (as compared with the first years of the decade of the sixties). In the other countries, where the GIP generated in agriculture is less than twenty per cent, the relative availabilities have decreased with only slight exceptions.

In several countries, among these Colombia, Chile, Peru and Venezuela, lines of credit directed towards the beneficiaries of the agrarian reform processes have been created and improved.

In many countries the application of credit for agriculture has been qualitatively improved upon linking it in some cases to technical assistance and marketing. To a great extent this has been a result of the conditions linked to the external credits for agriculture, which have increased from a 5.4 per cent of the total external aid in 1956-60 to a percentage slightly higher than twenty per cent in 1968-70. In Colombia, the improvement of personnel training has been intensified in agricultural credit organizations, in cooperation with the Inter-American Institute of Agricultural Sciences.

Towards the end of the decade of the sixties, all the countries, to a higher or lesser degree, had policies of price intervention for agricultural products, and the most common instrument of this intervention was the fixing of sustenance prices (minimum prices) for all agricultural goods considered basic for the supply of the population or for the external market.

The improvement of marketing of agricultural products and the efficient application of the price policies are still being hindered by insufficient storage capacity and by a shortage of financial resources of the official marketing agencies. There is furthermore a scarcity of processing facilities and a lack of classification and control of the qualities of perishable products.

For example, the insufficient storage capacity is evident at the farm level as well as at the factory or government level. It can be shown that while Argentina expanded the grain production during the 1964-69 period by 35.0 per cent, its storage capacity increased 12.0 per cent. In Central America the grain storage capacity reaches 4.0 per cent of its production. In the countries of tropical agriculture with a high percentage of subsistence agriculture (countries of Central America and Panama, Colombia, Venezuela and Ecuador), the main storage problems are present at the farm level, due to difficulties in the access of the products to the supply terminal centers. As regards availabilities of financial resources for the purchase of the agricultural production, these resources reached 30.0 per cent in Costa Rica in 1971, considering only the value of the production of basic grains.

As far as processing facilities are concerned, Argentina is the country which has devoted greater efforts to modernize its facilities for the slaughtering and export of beef. In 1969 an investment program was started in Uruguay to substitute the obsolete cold-storage rooms for medium-sized units. In the case of milk, in the tropical countries the lack of collecting and cooling facilities to preserve the quality of the product,

is generally common at the ranch level. The lack of installations, especially cold-storage rooms, provokes in the case of fruits and vegetables, very short marketing periods which cause drastic fluctuations in prices. Perhaps with the exception of Mexico, technical and financial resources devoted to classification and control of the qualities of perishable products are scarce.



Project evaluation is an important step in policy-making.

Production and Use of Technological Inputs

The capacity of Latin American countries to rapidly increase agricultural production and rural income depends to some extent on the possibility of using modern cultivating techniques. Nevertheless, the introduction of some of these techniques, especially mechanization based on the use of tractors, can imply high social costs in countries with a high unemployment level, although it may mean benefits at the firm's

level. Something similar may be said about the use of improved crop varieties or species and livestock and in general of technological packages which considerably increase productivity, when they are applied preferentially in commercial exploitations, with the support of credit and technical assistance from the public sector. Under these conditions, even though the production is increased and the unit cost lowered, the income gap existing between the big and the small farmers is widened even more. This political and social cost can be

reduced if the State orients the incentives, services and investments linked to the use of improved technology towards the benefit of the small producer.

In this improved technology, the use of fertilizers has considerably increased in Latin America, if comparison is made of the yearly average in kilograms per hectare used in 1957-59 with that used in 1967-71. In almost every country this increase has been over 10.0 per cent per year. In the case of Venezuela, Bolivia, Ecuador, El Salvador and Nicaragua the increase has been over 20.0 per cent yearly. In the United States the corresponding figure is 5.5 per cent.

There is no data available on the proportion of increase on the use of improved seeds. Latin American countries, however, among these Brazil, Colombia and Venezuela, implement programs to increase the use of improved seeds. Brazil is improving the physical facilities, training personnel and establishing incentives for its production. In Colombia, where industrial products such as barley, soy bean and cotton cover a high proportion of the planted surface, using improved seeds, the private sector has established efficient systems for seed production.

Amendment of Tax—Systems

Tax systems may be used as incentives to increase production, productivity and, at high rates, to try to influence distribution of land.

Its application previously requires an adequate rural cadastral system. The rural cadastral office exists in detailed form in Chile and Panama and in a semi-detailed form, or only covering portions of the national territory, in countries like Argentina and Colombia among others. That there were no major changes in the tax systems from the period covering April 1967 to date, must have been the result of the influence of this situation together with the political decision of many countries of not radically altering the structure of production costs—which would mean higher prices for agricultural goods. Chile seems to be an exception to this situation if we take into account the studies made and the recently adopted rules on agricultural tax payments. Both Argentina and Uruguay assessed taxes in 1969 on the potential rent to be generated from the land.

Expansion of Services Covering Education, Research, Agricultural Extension and Vegetal and Animal Sanitation

During the decade of the sixties and especially during its latter years, the formation of human resources for the agricultural sector improved considerably, mainly at a medium and superior level. Registration in agricultural schools at intermediate levels increased in eighteen countries, at an annual rate of 13.5 per cent and the number of graduates 17.3 per cent per year.

Scientific research has also expanded and among its outstanding achievements we can mention the establishment of twenty-five new experimental stations in the Andean countries.

The agricultural extension activities have increased in some countries as a result of internal efforts or financial loans that also link those services with credit and marketing. At the end of the decade an interest is noted to have agricultural extension overcome the traditional philosophy of being an organization charged with technological diffusion, and to have it transformed into a supporting instrument for the structural changes and the awareness of the marginated rural population.

In the field of animal sanitation, some countries like Argentina, Brazil, Colombia, Chile and Paraguay have started large-scale action intended to control cattle diseases. These efforts have been supported by external financial resources from the Inter-American Development Bank.

Industrialization of the Agricultural Production

The information available in this respect refers to the countries of the Andean zone of Latin America. In all of them, the governmental development agencies fulfill an important technical assistance and financial task for the industrialization of the agricultural production. Thus, in Bolivia, the "Corporación Boliviana de Fomento" (the Bolivian Development Corporation) has promoted the establishment of milk processing plants in La Paz and Cochabamba; it has made investments in sugar mills in Santa Cruz, and promoted the establishment of a plant for the industrial exploitation of cocoa. In turn, the "Comisión Nacional de Oleaginosas" (The National Oleaginous Commission) has set up plants for the processing of industrial derivatives of said production.

In Colombia the industrialization of soy and sorghum has been increased considerably, due to an increasing demand from the concentrate factories. Based on maize the production of starches for human consumption and for use in the textile industry has been increased. With the support of the "Instituto de Fomento Industrial" (Industrial Development Institute), the manufacture of corrugated cardboard boxes has been increased, obtained from the industrialization of cane bagasse. The industrial transformation of pita fibers has also received backing.

Ecuador has formed mixed enterprises, with public and private capital, for financing of the planting of African Palm and its subsequent industrial transformation.

In Peru a program has been set up for the industrialization of oleaginous products. In the last few years the industrial processing of juices and fruit slices has been considerably increased, especially for export.

Venezuela, with the aid of the "Corporación Venezolana de Fomento" (the Venezuelan Development Corporation) expects to take care in a recently established industrial center, the processing of fruits, vegetables, dairy products, beef, fish, cereals, oils, fats and yeasts.

Establishment of Multilateral and International Programs to Increase the Supply of Food Products

Available evidence shows that the region has maintained or has slightly increased the proportion in which it contributes to the supply of the world's food requirements. In the last few years, in a promising manner, several multilateral or international programs have been started, and they may supply the technical base for the increase of food supplies.

Although the production of food products has maintained itself during the last years of the decade of the sixties at a higher rate than that of other countries in the process of development, the population increase reduced the availabilities of food products per person to only 0.1 per cent yearly.

The proportion of the main agricultural exports of Latin America in the volume of world exports has remained constant or has slightly increased, if comparison is made of the 1961-65 with the 1965-69 periods. The proportion of wheat and flour exported in the first period made up 7.6 per cent of the world's exports in comparison to 8.4 per cent in 1965-69. The proportion for maize was 17.8 and 21.0 per cent in 1961-65 and 1965-69 respectively. The proportion of sugar exported in 1961-65 was 55.9 per cent of the world's exports and 55.0 per cent in 1965-69. In beef the proportion was reduced from 38.0 per cent to 34.6 per cent.

In the last few years some international or multinational programs have been set up and intensified for the promotion of production of food products. Such is the case of the association between the "Instituto Nacional Agrario de México" (Mexican National Agrarian Institute) and the Rockefeller Foundation where new wheat varieties have been developed, permitting an extraordinary increase in the grain production in Mexico, Africa and Asia.

With the aid of the Mexican Government, the Ford and Rockefeller Foundations and the Inter-American Development Bank, the "Centro Internacional para el Mejoramiento del Maíz y el Trigo" (CIMMYT) (The International Center for the Improvement of Maize and Wheat) was founded to improve the basic grains. The "Centro Internacional de Agricultura Tropical" (CIAT) (International Center of Tropical Agriculture) located in Colombia has also been established under the sponsorship of the Colombian Government, several private foundations and of IDB. CIAT takes part in activities concerning beef cattle, maize, cassava and other food products.

The Inter-American Institute of Agricultural Sciences carries out a successful development program on the production of beans in Central America, which has enabled several countries, especially El Salvador, to reduce the dependency on supplies from outside the area.

Encouragement of Community and Cooperative Development

The Latin American countries have given a great impulse to the promotion and the mobilization of human resources and, in a higher or lesser degree, to the start of a group of activities intended to further the participation of the population in development processes in its double capacity as agent and beneficiary of that development.

Depending upon the characteristics of each country and their political and administrative systems which are in force, services for community development have been placed in the public administration as agencies at a ministerial level in themselves, as autonomous bodies or as dependencies of the ministries more directly related to activities of integral or sectorial development. Frequently this position is due to reasons of a political nature rather than to an analysis of the operativeness of the program.

Activities recently carried out in the sphere of community development in several countries point out the use of these programs as an instrument of social change and of modification of the rural structures, especially economic and power changes. In some way this approach has compensated the partial emphasis of the development effort towards urban or industrial profiles, which characterized the decade of the fifties.

Among programs which have notoriously extended their coverage and impact in recent years it is worth while mentioning those of Bolivia, Colombia, Chile, Ecuador, Guatemala, Peru, Dominican Republic, Uruguay and Venezuela. As a common feat they basically direct the action in favor of integration and participation of the marginated sectors, although at an operational level we do not always observe a connection and coordination with all other programs and efforts for socio-economic improvement of the rural sector, especially with the processes of agrarian reform or colonization, or with programs for urban development and for the rehabilitation of marginated quarters or districts. In this group, Bolivia, Ecuador and Peru have mainly made use of external credit to finance the activities. In Argentina, Brazil and Mexico, the geographical vastness, the different socio-cultural conditions by regions and the political and administrative federal structure have aided in favouring planning of community development programs of a state or regional type and significant efforts have been made to coordinate activities with the other organizations of socio-economic promotion and development.

In some Central American countries and the Antilles, the community development impact does not yet seem to have greater projections than at the local level.

The impression remains that no sufficient progress has been made. On the one hand certain vagueness subsists in the use of the concept "popular participation" and this has led community development to very diverse approaches. On the other hand there is a weak relation between the community development programs and the basic socio-economic processes of the rural and urban sectors and all other development efforts. Furthermore, in many cases the idea that the community development programs should basically serve as promoters and catalyzers of efforts of the community itself becoming autonomous groups has been sacrificed to give way to strategies which could be defined as of state paternalism.

According to statistics compiled by the Technical Unit of Cooperatives of the Department of Social Affairs of the OAS, in Latin America there are close to 7,600 agricultural cooperatives grouping 1,600,000 associates. The following, are a few examples concerning the way they are contributing to rural development.

In Argentina there are 1,360 agricultural cooperatives with half a million affiliates. There are eighteen associations or federations and one main organization, the Inter-Cooperative Agrarian Confederation (CONINAGRO). The Argentinean cooperatives marked 40 per cent of the cereal production, 20 per cent of the cheese, 92 per cent of the casein, 70 per cent of the butter and 20 per cent of the powdered milk.

The Federation of Cooperatives of Costa Rican Coffee Growers is the most important individual exporter of the country, having exported more than ten per cent of the total 1968-69 crop. In Peru the coffee growers cooperatives export in turn close to 20 per cent. In Chile, 20 per cent of the ovine production and 40 per cent of the milk are controlled by cooperatives; in this same country, the cooperative import of agricultural machinery has succeeded in reducing 30 per cent of the market prices nowadays.

The "Cotia" Cooperative of the State of Sao Paulo, Brazil, grouping over 14,000 members, covers almost all fronts of agricultural activities. It exports coffee, tea, bananas and other products; it imports a great variety of inputs (raw materials) and in general renders all kinds of services to its members.

In the last few years great progress has been made in matters concerning cooperative credit in various forms: cooperative banks (in Argentina, Peru and Ecuador); cooperative financing institutes (in Chile and Colombia); and credit programs for production (in Ecuador, Bolivia and other countries).

Cooperative insurance is very much developed in Argentina and is progressing considerably in Chile, Peru and Colombia. Generation and distribution of electric power in a cooperative manner has progressed a lot in rural zones of Chile, Argentina, Brazil, Costa Rica and in other countries.

As regards services in the social area, we can mention the 140 cooperatives for drinking water distribution which in Chile serve 10,000 associates and the eighty Colombian cooperatives especially devoted to the service of lower income sectors in the rural zones. The cooperatives organized in the agro-industrial complexes of Peru have not only assumed the responsibility of handling the establishments, but also of substantially improving living conditions, and for this purpose supermarkets and markets are being established to obtain a better yield from the income. According to official data supplied by the Peruvian General Bureau for Agrarian Reform and Rural Settlement these cooperatives benefit over 26,000 families, cover close to 330,000 hectares and produce approximately 16,500 quintals of sugar and 7,000 quintals of tea; as far as livestock is concerned they have about 12,000 ovines, 3,300 bovines and 1,000 equines.

Final Comments

The progress achieved by various countries of Latin America is evident, as regards lines of action concordant with the postulates on agrarian development adopted by the Presidents of America at their April 1967 meeting in Uruguay. However, it is not possible to foresee whether these changes and progresses have been of the magnitude needed to attenuate or to surpass the problems they are trying to attack.

Let us take the case of the agrarian reform for countries which consider it a necessary instrument for economic and social progress. In the majority of the cases, the progress achieved has been more institutional than structural in nature. Although almost all these countries have passed laws or started programs to transform the structure of land holdings, the number of beneficiaries turned out to be a very low percentage of the potential ones, except in Bolivia and Venezuela and perhaps in Chile and Peru.

On the other hand, considerable achievements are observed in the improvement of the formation of agricultural policies, although not so much in their implementation. Many credit and marketing services had to adjust themselves to the requirements concerning multinational financial assistance, at the same time improving the internal structure and the training of personnel. Notwithstanding all this, serious limitations subsist in the marketing processes, since they were not taken care of commensurably with the efforts in the field of production.

The use of agricultural inputs, desirable in itself, has opened the doors to greater income unbalance between large and small producers. The tax systems for the rural sector intended to improve the efficiency of production have been applied in a reduced number of countries.

Educational and research programs have been expanded in almost all the countries. Agricultural extension is suffering from an orientation crisis which is limiting its efficiency. The animal sanitation campaigns.

mainly in South America, have received the efforts of external credits and technical assistance.

Through development corporations, several countries advance actions to promote industrialization of agricultural production. Thus, institutionalizing the assistance to industrialization has been achieved, although the amount of progress achieved in comparison to the existing possibilities is not known.

Latin America has maintained its percentual contribution to the physical volume of the world trade of certain food products relatively stable. The efforts of the countries, united to multilateral or international programs which have been prepared, may furnish the technical basis to increase such contribution.

The national community development programs have been increased in almost all the countries, although with different objectives depending upon the political

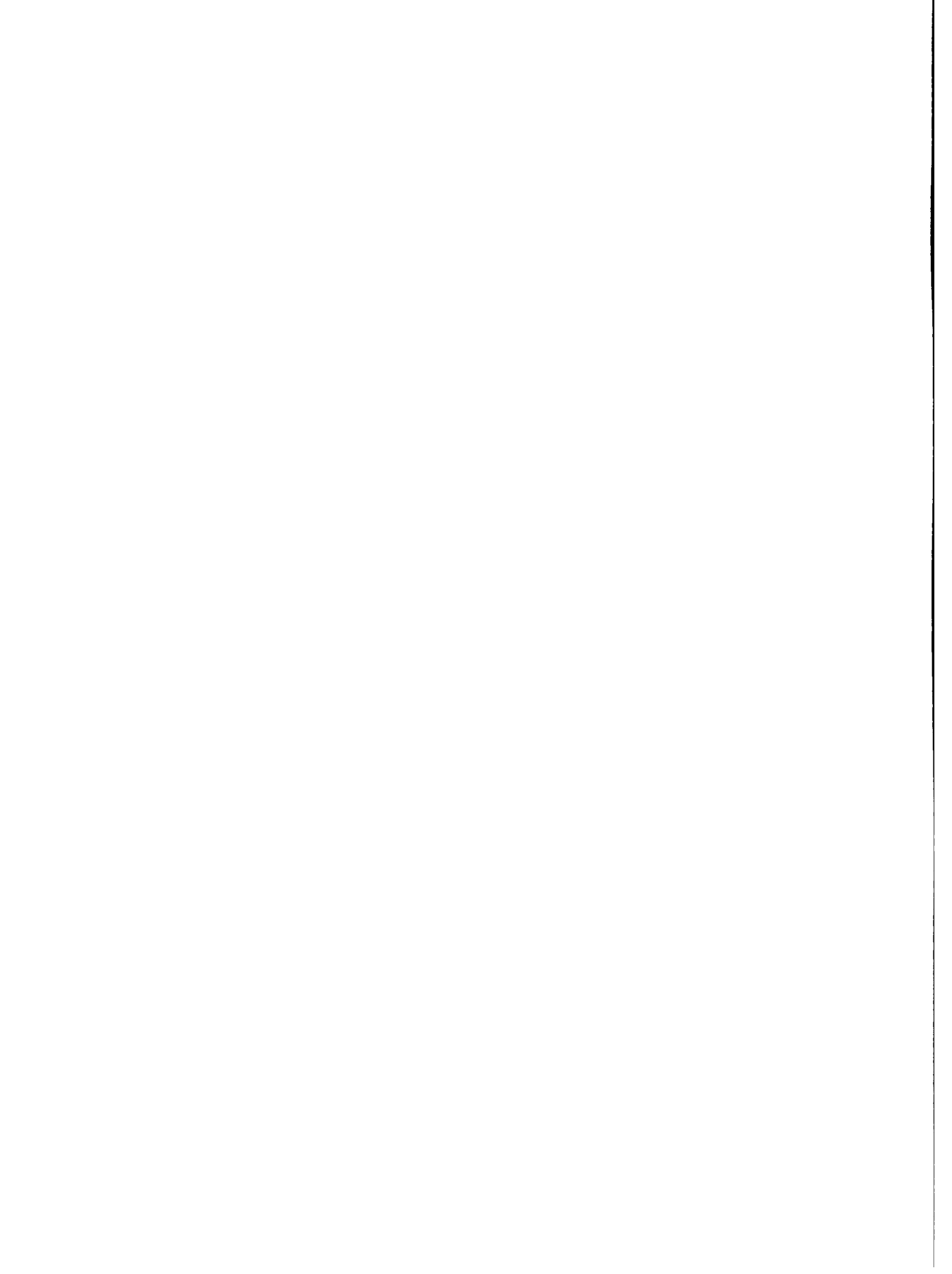
structure and the socio-economic conditions. Cooperativism is an increasing force in several countries, although in other countries it is merely in its initial stages.

The magnitude of problems such as rural unemployment will demand that the countries reevaluate the nature and the importance of the instruments used to promote development of the rural sector. This is one of the great challenges Latin America is facing in the decade of the seventies.

Within this present framework of socio-economic-political references for the agricultural sector of Latin America, the work of the specialized international organizations is carried out in general and especially that of the Inter-American Institute of Agricultural Sciences. The following chapters describe the work carried out by IICA in the countries of America, within each of its lines of action.



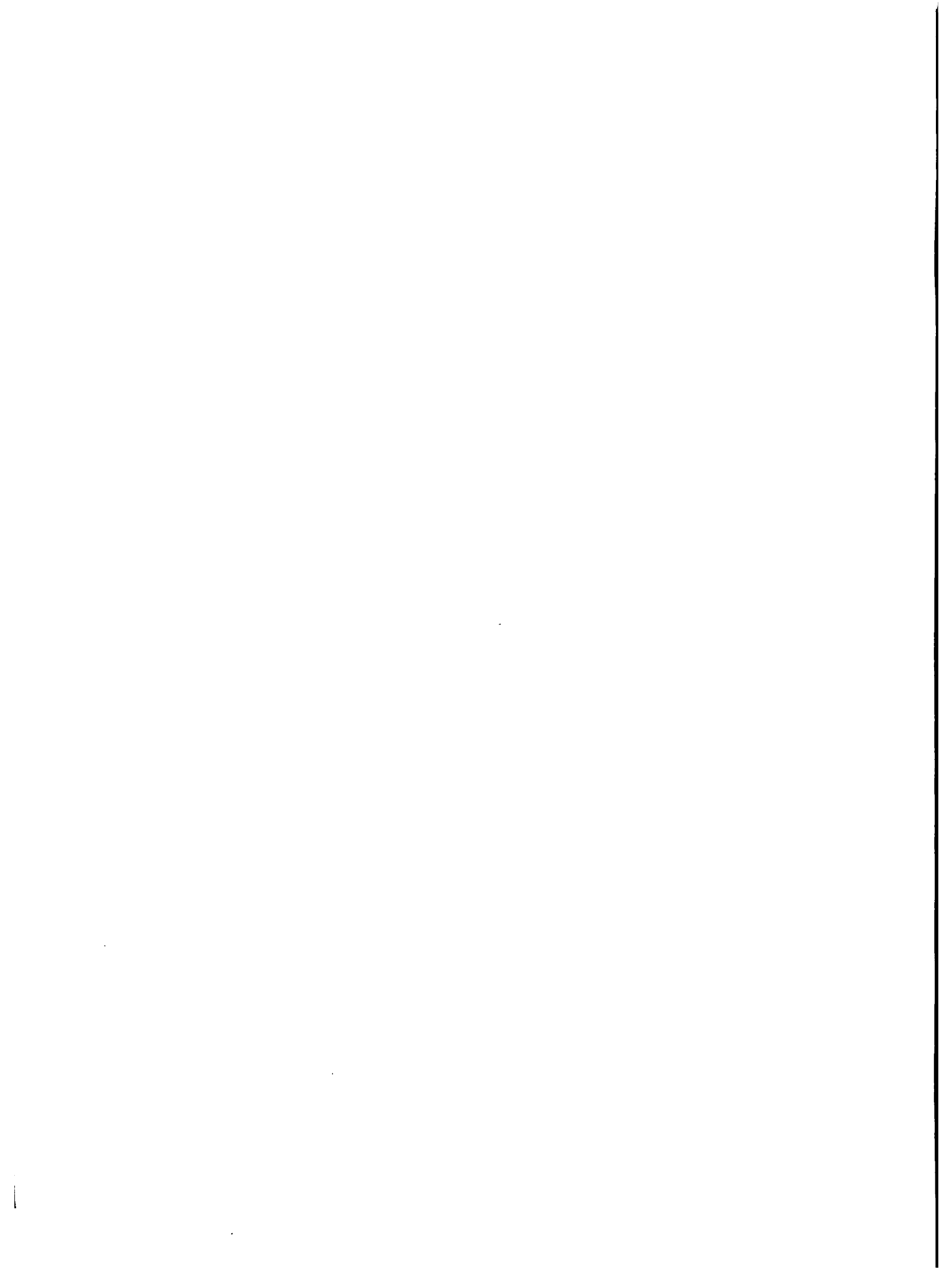
Legislation on the various aspects of production plays a vital role in the use of national resources.





Chapter II

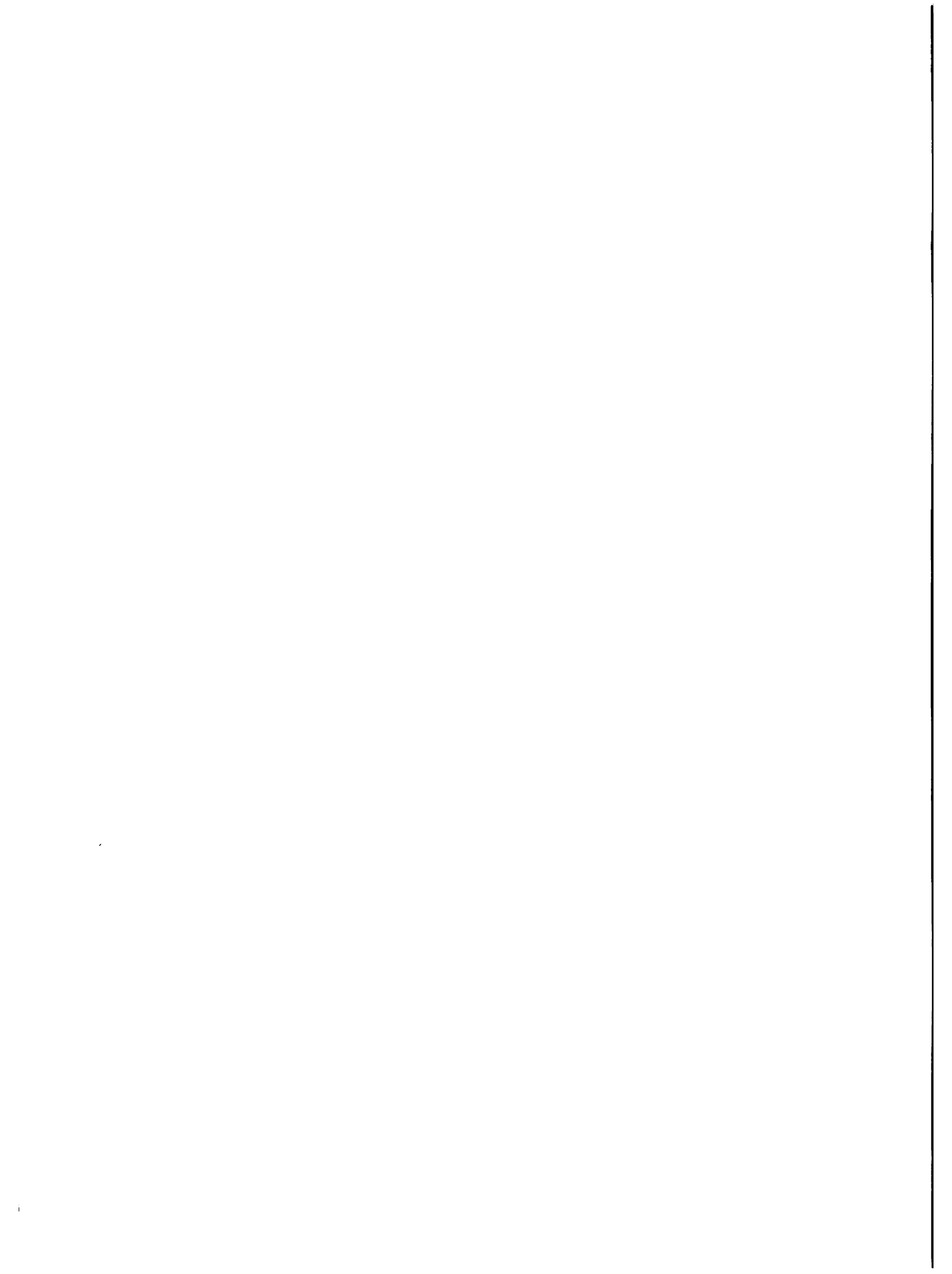
IICA IN AMERICA



HEMISPHERIC PROJECTION OF IICA



1942:	1 Unit	(Turrialba)
1955:	4 Units	(Havana, Lima, Montevideo, Turrialba)
1964:	10 Units	(Bogota, Guatemala, Lima, Mexico, Montevideo, Rio de Janeiro, San Jose, Santiago, Turrialba, Washington)
1969:	15 Units	(Asuncion, Bogota, Buenos Aires, Caracas, Guatemala, La Paz, Lima, Mexico, Montevideo, Quito, Rio de Janeiro, San Jose, Santiago, Turrialba, Washington)
1972:	23 Units	(Asuncion, Bogota, Buenos Aires, Caracas, Guatemala, La Paz, Lima, Managua, Mexico, Montevideo, Panama, Port-au-Prince, Quito, Rio de Janeiro, San Jose (Executive offices & Representation), San Salvador, Santiago, Santo Domingo, Tegucigalpa, Turrialba (2), Washington)



Chapter II

IICA IN THE AMERICAS

Institutional Growth

As a result of recent developments in the economic and social situation of the American nations and the increasingly serious problems arising from the need for profound changes that will give some hope to the developing nations, the need for international institutions capable of positive growth towards the achievement of their main goal—to help their member countries in their specific spheres of competence—has become increasingly evident.

The Inter-American Institute of Agricultural Sciences is a good example of an international institution which has developed in such a way as to be able, with increasing confidence and efficiency, to meet the demand for more and better services to its Members.

In 1972, as we celebrate our thirtieth anniversary, we can say with legitimate pride that IICA is physically and intellectually present in 20 American countries. While its headquarters are in San Jose, Costa Rica, it also has three Regional Offices in as many countries, and three Centers providing support for its activities at the national level, as well as several groups working on

specific projects, associated programs and other activities.

Since its foundation, our organization has come a long way; it has at all times had a very clear notion of the needs of the countries it serves. This has led to the development of an institution with a high degree of operational flexibility which is able to work on a wide range of activities pertaining to the agricultural sector.

Our philosophy has evolved from the experimental—academic concept of the type of action to be carried out, to the hemispheric and humanistic concept which now leads us to view our action within the context of the over—all process of agricultural and social development. This implies a serious commitment to the policy of institutional strengthening we advocate; to programs of a temporary nature, which are discontinued once the countries are able to carry them out on their own; to programs of multinational scope, which contribute to regional integration efforts; to specific programs with concrete action and well—defined goals; and, last but not least, to innovative programs aimed at providing alternative approaches and opening new avenues of action.



Through Round Tables and symposia, national technicians explain the work of IICA in their countries.

IICA's Concept of International Technical Assistance

The General Plan approved by the Board of Directors in November, 1970, is the primary element through which IICA aims, in order better to serve the countries, to establish an ethics of international technical assistance. Through its humanistic projection, IICA defines international technical assistance as the strengthening of the national institutions of the agrarian sector with a view to enabling the peoples of the developing nations to attain personal dignity and freedom in order that they may play their part in the social order.

IICA wishes to assure the American countries that its technical staff is concerned with values aimed at humanistic development and value systems compatible with humanism. We do not want our staff members to lose sight of the fact that even though they are working as scientists and their raw materials are handled in chemistry or biology laboratories, the ultimate purpose of all our efforts is to serve the people of the agricultural sector and, particularly, as was reaffirmed by our Board of Directors, the farmers of limited economic means.

This has led us to develop a strategy oriented toward the achievement of a policy coherent with our purpose. We must stress the fact that our policy of action has been widely supported by the countries. We are now in the process of adjusting the policies outlined in the General Plan to the institutional tools available to us. In this context, therefore, the Protocol of Amendments to the Convention and the Agreement with the General Secretariat of the OAS are two strategic and essential elements in the Institute's ethics of international assistance and its General Plan of action.

The Physical Presence of IICA in America

In order to put underway the General Plan and the humanistic conception of our assistance, we needed to have our staff working directly in each of the countries that make up the family of our organization.

We have taken important steps in this direction during the past fiscal year; when we set up offices in Haiti, Honduras, El Salvador and Nicaragua. This means that we are now physically present in almost 100 per cent of the countries of Central America, Mexico and South America. We look forward with confidence to the entry into IICA, during the forthcoming fiscal year, of the English-speaking countries of the Caribbean, such as Jamaica, Trinidad and Tobago, and Barbados. It is expected that Canada, in North America, and Guyana, in South America, will also become members during this period.

One of our most important purposes in establishing a physical presence of IICA in every American country is to show that we are perhaps the only international

organization that does not suffer from the traditional macrocephaly of this type of institution. Our organization, with a truly modern and practical view of the meaning of international technical assistance, has only fifteen per cent (15%) of its professional staff at headquarters in San José, Costa Rica, while it offers the Latin American countries eighty-five per cent of its working capacity (85%) in the decentralized units in each and every one of them.

It is worthwhile stressing and reflecting seriously on the full significance of this fact. Our technical staff members do not belong to the large group of professionals recruited by international agencies for the specific purpose of carrying out short—often very short—term projects who then leave behind them another study, another report, a few persons who have become familiar with their work, and, on occasions, one more source of frustration for the country.

Our system of work, which is based on the diagnosis and analysis of the situation of the agricultural sector in each country and the transmittal of the relevant information (Line of Action I) enables us at all times to advise countries on the weaknesses of their national institutional systems and to determine priorities as regards the needs for national action in the fields of training, research, planning, organization and management.

We must emphasize that our work in the countries does not imply any degree of competition. We are not trying to compete, but rather to help. This is why we are discontinuing the direct training of graduate-level specialists—there are already 18 graduate schools for the agricultural sciences in the Latin American countries. This is also why we are not supporting basic research in international institutions the findings of which are not immediately applicable—since every country has specialized centers which do such work on their own.

In view of the above, we are able to state emphatically our intention of continually strengthening our offices in the various countries; we strongly and sincerely believe that this is the best way to serve them. Close daily contact with the realities in each country, its technicians, its problems, will enable us, with increasing capacity and knowledge, to act positively for the benefit of the countries whose mandate we are committed to fulfill.

IICA's Action in America

The past fiscal year, which is the period covered by this report, has been one of great accomplishments for our organization. Not only have we consolidated our physical presence in almost every country of the

hemisphere, but we have also made substantial progress in the implementation of our programs, projects and activities.

In order more effectively to serve the Member States, IICA has decided to make certain internal changes in its structure aimed at helping it achieve this end. One of the main changes is the establishment of the Office of the Deputy Director General for Technical Affairs and Planning, which is giving special emphasis to such aspects as: a) the improvement of the Institute's internal planning system; b) better adjustment of the Lines of Action to the rural development needs of the countries, as expressly requested by the Board of Directors; c) adjustments in the operational structure in order to give IICA greater operational flexibility and strengthen its activities at the country level; and d) the initiation of activities in new fields which, after the necessary trial period, may be transferred to the operational units.

With regard to the improvement of the coordination and external relations system, our institutional action has been strengthened with the upgrading of the office in Washington, which has become the Office of the Deputy Director General for External Coordination.

This has made it possible substantially to improve the coordination of the Institute's activities with those of other international organizations working in the same field. This matter has particularly concerned IICA ever since the General Assembly of the OAS, in April 1972, approved the standards for the application and coordination of the Charter provisions relating to the specialized agencies of the inter-American system.

We have also strengthened our work in such fields as the special programs, which include the program on management for rural development, the program on irrigation in the temperate zone of South America, the cooperative program for the development of the American tropics, the regional cooperative project for the high Andes, and the Inter-American Rural Youth Program.

The Inter-American Centre for Agricultural Documentation and Information has also been considerably strengthened, and has been chosen as the regional center for the worldwide system of agricultural information (AGRIS). At the same time, our efforts to coordinate agricultural education at the graduate level have been complemented by the increased assistance given to educational programs at the undergraduate, middle and intermediate levels. We have thus been able to extend our scope of action in the field of agricultural education with a view to assisting the agricultural schools in the region, which provide an effective means for training intermediate level professionals.

Both the special programs and the Inter-American Centre for Agricultural Documentation and Information are dealt with in specific chapters later on in this report.

Action in the Southern Zone

With regard to the action of IICA in the various zones it covers, it may be said, in general terms, that in the Southern Zone (Argentina, Brazil, Chile, Paraguay and Uruguay), its strategy for the development of the institutions of the agricultural sector has been that of promoting institutional action with a view to attacking problems with which several organizations are concerned and which IICA can assist by encouraging joint action to achieve the established goals. This has the advantage of helping to eliminate the isolation and barriers which had separated certain institutions, both at the national and regional levels, thus mobilizing resources in a more productive manner.

With regard to Line of Action I, a systematic analysis was made of the agricultural sector in Argentina and Uruguay, with a view to getting a picture of the trends in this sector over a thirty-year period. The methodology developed during this study will help in carrying out similar studies in other countries of the area. The suggested methodology has been followed in the analysis of the institutional systems of the various countries in the zone, and the necessary data are now being collected.

With regard to information and documentation centers, efforts have been made to promote these programs by providing support to two national centers with resources for such work: in Argentina, the Center for Documentation on Agricultural Research and Higher Education in the Southern Zone (Centro de Documentación sobre Investigación y Enseñanza Superior Agropecuaria de la Zona Sur - CEDIE) and in Brazil, through an agreement with the Faculty of Agronomy of the Federal University of Viçosa. Through these centers, a program of documentation and training which complements and supplements the work of CEDIE is being carried out.

The objectives of Line of Action II, in the field of education, have been achieved to a large extent. For example, during 1971-72, 900 professionals were enrolled in formal graduate courses in Argentina, Brazil and Chile. Considerable impact has been made in specialized fields through the inclusion of five graduate courses in agricultural economics, three in Brazil, one in Argentina and one in Chile.

Work in the Southern Zone in connection with Line of Action III, on research, has been carried out through a multinational program with an advisory committee and two specific programs: a) the regional cooperative program on agricultural research; and b) the program on the organization and administration of agricultural research. The former takes an over-all approach to the development of agricultural research, enlisting the cooperation and participation of the research directors of each country. A first directory of 84 agricultural research institutions in Argentina, Chile, Paraguay and Uruguay has already been published. It is designed to improve the effectiveness of agricultural research

through improved planning of available resources. Work is now underway on the promotion of methodologies for the diagnosis and evaluation, at the country, zone or regional levels, of the efficiency of agricultural research institutions in handling the problems to which they have addressed themselves.

The purpose is therefore to ensure that specific research projects should not be restricted to theoretical schemes with no economic basis and without due regard for the interactions which condition the so-called "systems of production".

With regard to Line of Action IV, concerning promotion of agricultural production, the Southern Zone has based its work on programs of technical and credit assistance, marketing, settlements, irrigation and animal industry. All these programs are designed as multinational and national activities and are in some cases supported by an advisory committee made up of high executives of the institutions concerned. In the case of irrigation, for example, the advisory committee on irrigation programs was set up in November 1971, in order to solve the problems involved in the development of irrigation. These problems are of a structural nature, as in the case of the private ownership of waters; this situation is being changed through new legislation which, with a humanistic approach to socio-economic problems, recognizes State ownership of this resource.

In the field of animal industry, intensive work is being carried out on the study of the development of animal industry in the River Plate basin. A map of livestock regionalization based on management systems has been drawn up.

With respect to credit, considerable impact has been made in Brazil, where progress has been made in promoting the use of agricultural credit as a basic instrument for development policies.

The aspects of regional integration envisaged under Line of Action V have been the subject of a study, carried out in coordination with the Regional Office for the Andean Zone, concerning the institutional system of Chile in relation with intrazonal marketing.

With regard to the structural changes we are studying and supporting under our Line of Action VI, the Southern Zone has worked intensively with the Chilean Agrarian Reform Corporation (Corporación de Reforma Agraria - CORA), the Brazilian National Institute for Settlement and Agrarian Reform (Instituto Nacional de Colonización y Reforma Agraria - INCRA), and the Paraguayan Rural Welfare Institute (Instituto de Bienestar Rural - IBR).

Essentially, this work has been carried out in response to the need for national personnel trained in the planning, organization and administration of agrarian reform, so as to orient such efforts towards integrated programs of planning and rural development. Project 206 of the OAS, which is administered by IICA, has played an important role in this connection.

Work relating to our Line of Action VII, on administration of agricultural policies, has involved planning, organization and coordination of agricultural policies, as well as work on the cooperative program for the development of the humid tropics. We have worked together with the Inter-American Development Bank (IDB) in providing training for the elaboration of agricultural projects. Other activities include the IICA/CEPLAC project for the socio-economic diagnosis of the cocoa-growing region of Bahia, Brazil; the IICA/INCRA (Brazil) project for an integrated diagnosis of the natural and socio-economic resources of the State of Rio Grande do Sul, and the project for the regional development of the province of Santiago del Estero, Argentina.

Action in the Andean Zone

The Andean Zone of IICA, composed of Bolivia, Ecuador, Colombia, Peru and Venezuela, is virtually a mosaic of the most varied agricultural and social conditions. From the torrid zones of the coast to the icy-cold highlands; from the humid tropical forests to the desolate sand deserts, this zone has all kinds of ecological conditions and human situations.

In this region may be found the most highly developed agricultural techniques, as in the agro-industrial complexes of Peru, to the most primitive farming methods in the remote inter-Andean valleys. Here also are the best examples of the prosperity man can achieve through agriculture and the most pathetic examples of rural poverty.

IICA is addressing itself to these problems with a dynamic and highly qualified technical team in each country in the area. Two comparatively large nuclei are concentrated in Peru and Colombia, which are the host countries to the IICA Regional Office and to the Inter-American Center for Rural Development and Agrarian Reform, in that order. The Offices in Bolivia, Ecuador and Venezuela have been strengthened with an increase in the technical staff, which is chosen with a view to providing these countries with the personnel best suited to their needs.

In keeping with the policy of replacing activities that the countries are able to carry out on their own, IICA has eliminated all direct research activities in the Andean Zone, as well as some of the graduate courses designed for specialists. Agricultural marketing activities have, on the other hand, been strengthened, as well as work relating to institutional administration, animal industry and planning.

The basis for this positive development in the activities of IICA in the Andean Zone has been our systematic and continuing analysis of the realities of the countries and of the Institute's programs, in an effort to adjust the latter to the needs and aspirations of the countries. Along these lines, the following studies have been made:

- a. The situation with regard to agricultural education in Bolivia and Ecuador.
- b. The situation with regard to teaching in the field of animal industry in the five countries of the Zone.
- c. The situation with regard to the teaching of forestry in the five countries.
- d. The institutional structure with regard to agricultural marketing in the Andean Zone and Chile.
- e. The situation with regard to agricultural libraries in the five countries.
- f. Status of the IICA research programs in the five countries.

On the basis of these studies, under Lines II and III, on agricultural education and research, we have begun to place greater and greater emphasis on the programs concerning animal industry and forestry. There is great potential for these fields in the Andean Zone, in view of the excellent conditions of large areas of these countries and the increasing demand for the products concerned.

Work has also begun on the expansion (under Line III) of support to socio-economic research and the need for introducing this component in agricultural research has been underscored.

It is important to mention the changes that have taken place in programs concerning teaching methodology at the university level. Instead of merely offering courses to college professors in the five countries, the Institute is now training national personnel to take over the task of improving teaching methods in each country. Serious work is also being done in the strengthening of national associations of higher agricultural education.

Another important matter on which considerable work is being done in the Andean Zone is that relating to agrarian reform programs, with their complementary programs on rural organization (*organización campesina*) and the emphasis on the humanistic approach.

The agricultural marketing projects fit very well into this field, since inadequate marketing of farm products seriously affects the lower income groups, in both rural and urban areas. All our efforts to support the improvement of marketing institutions are therefore guided by a highly humanistic approach and are reflected in social progress, since they represent an effective contribution to the efforts being made to deal with the serious problem of the inadequate distribution of income. In the Andean Zone, work is being carried out through producers cooperatives, in collaboration with the national institutions concerned with this problem.

Following this same approach, IICA has intensified its work in the field of planning, including that regarding

the training, in cooperation with the Inter-American Development Bank, of national interdisciplinary teams responsible for directing, promoting and participating in the drawing up and evaluation of agricultural projects.

Action in the Northern Zone

The Northern Zone of IICA is made up of the Central American countries, Mexico and—for reasons of proximity and support—the Caribbean countries, including Haiti and the Dominican Republic, which are Members of the Institute. This zone presents a true challenge to the capacity of an international institution such as ours for helping to solve the great diversity of problems being faced by these countries.

Although from the ecological standpoint, there is a certain degree of uniformity in the region, with the exception of the middle and northern regions of Mexico and certain highlands of Guatemala, the social problems and the different degrees of agricultural and social development make it impossible to draw up a comfortable scheme for the similar treatment of all problems. Instead, programs must be designed at the country level and provision must be made for complementary regional action, particularly in Central America.

With this in mind, IICA has considerably expanded its work in the Northern Zone, having established offices in Haiti, Honduras, El Salvador, Panama and Nicaragua. Although as yet there is no official representative in Nicaragua, it is expected that the vacancy will be filled before the end of the calendar year.*

With regard to the specific objectives for the Lines of Action of IICA, the Northern Zone has been working actively on the analysis of the rural and institutional development of the countries in the area. To this end, it is carrying out two specific projects: the analysis of rural and institutional development, as a multinational project covering all the countries in the area, and the analysis of the agrarian reform agencies, with a specific project in Panama.

A sound methodological basis has been established for these studies. The study on Guatemala has already been published, data collection is underway in Costa Rica, and it is expected that the studies for El Salvador, Nicaragua and Honduras will be completed during fiscal year 1972-73.

In the field of information, an interesting study has been carried out in collaboration with ROCAP (Regional Office of the Alliance for Progress for Central America and Panama). Under a specific agreement with ROCAP, the situation of agricultural information in the Central American isthmus has been studied, a directory of experimental stations in the area has been published and agricultural bibliographies of the Central American countries are being prepared in cooperation with the

* Please note that this report covers the fiscal year of IICA (July 1° - June 30, 1971-72)

Inter-American Centre for Agricultural Documentation and Information.

The Graduate School at Chapingo, Mexico, has offered its support for the training of Central American technicians in agricultural communications and information, some of whom are doing work at the Master's level and others in refresher courses.

The INIA, in Mexico, and the Latin American Institute for Educational Communications (Instituto Latinoamericano de la Comunicación Educativa - ILCE), also with headquarters in Mexico, are also collaborating.

With regard to agricultural education, the Northern Zone of IICA has worked constantly on programs concerning teaching methodology and has done pioneer work in this field in Central America, the Caribbean and Mexico. Specific seminars for professors in certain subject areas have been continued and have led to the updating of curricula, the revision of techniques and the standardization of curricula.

In research, much has been done in connection with livestock production and pastures, as well as the coordination of agricultural research throughout Central America, where the program on grain legumes continues to hold a position of leadership.

Work is continuing on the promotion of technological innovations aimed at achieving better yields from beans and other grain legumes, as this would in turn generate increased income for the small and medium-sized farms which account for the major portion of the production of these crops. In the case of Guatemala, its development plan includes suggestions for the use of three varieties of beans, of which two (Turrialba-1 and Jamapa) were introduced by the Northern Zone program. In Honduras, the Col. 1-63-A variety, introduced by the program, produces as much or more than the traditional varieties, as is also the case in Nicaragua, where it is being introduced. The case of El Salvador is even more remarkable, as it is already achieving self-sufficiency in a much shorter time than had been anticipated.

Line of Action IV, regarding promotion of production, has been completely successful and the regionalization programs in Costa Rica and El Salvador have been completed according to schedule. The excellent coordination between the units in Turrialba, Costa Rica, and in Guatemala, has made it possible to make much more efficient use of the Institute's resources, both human and physical, in the area.

The results of the work accomplished in the Northern Zone should be analyzed in light of the structural changes produced in the agricultural sector of the area.

IICA works in cooperation with the program on training and studies on agrarian reform and rural development in the Central American isthmus (Programa

de Adiestramiento y Estudios sobre Reforma Agraria y Desarrollo Rural en el Istmo Centroamericano). Through PRACA, it has been possible to organize courses for officials responsible for supervising and promoting agrarian reform programs, administrators of settlements (IAN, Nicaragua) and other national officials concerned with such work. Specific advisory services (ITCO, Costa Rica) and special seminars (Panama) have also been given.

Efficient collaboration has also been possible in carrying out basic studies on agrarian reform and rural organization (*organización campesina*).

The agreement with PRACA will be in force until December 1976. If it is extended when the agreement with the Central American countries expires, it will be continued for the duration of such extension.

Action through the Support Centers

The three support centers of IICA (IICA-CTEI and IICA-CIDIA in Turrialba, Costa Rica, and IICA-CIRA in Bogota, Colombia) will continue providing their share of training and research, with the corresponding multiplying effects, to the countries of Latin America.

With the exception of IICA-CIDIA, which will be discussed in greater detail in the chapter on documentation and information, the centers have continued with the process of eliminating graduate level teaching, as requested by our Board of Directors. They are now taking up the challenge of short courses with considerable success.

Their daily work consists of such activities as seminars for livestock producers, for persons studying soils derived from volcanic ash, which are so important in the countries on the Western coast of America, for information specialists, for physiologists, for planners, for social researchers, for persons concerned with structural change and for any number of professionals working in the various branches of the agricultural and related sciences.

These activities are in such great demand that the physical facilities of the centers are sometimes filled to overflowing by the large number of technicians receiving some kind of training. The physical facilities of CTEI will therefore be expanded as part of the program to be carried out by the civil association which will soon take over its management.

Biological and social research has increased substantially. Special attention is being given to work on meat cattle, forestry production, cacao, coffee, planning and others.

Substantial progress has been made in studies on agrarian reform, where the emphasis has been changed so as to study the problems involved in the sub-process of reorganizing land tenure and production. In this regard,

an over-all study was made in four countries on the new associative tenure systems which have arisen from the agrarian reform process. With regard to rural organization (*organización campesina*), it may be said that, along with the studies on rural community enterprise, the activities promoting the renewal of rural education (*educación campesina*) represented one of the most interesting and useful efforts of IICA-CIRA.

In planning, it was decided to place greater emphasis on planning at the regional level.

Both CTEI, which has considerable influence in the Northern Zone countries, and CIRA, have given priority to those projects which provide support to the activities of the other units of IICA operating at the country level. This has meant an efficient contribution to the better utilization of institutional resources.



The meetings of the Board of Directors and the Technical Advisory Council enable the executive staff of IICA to maintain close contact with the authorities of the countries it serves.

The Protocol of Amendments to the Convention of IICA

During the past year, IICA has been particularly concerned with obtaining the approval of the preliminary draft Protocol of Amendments to its Convention, which would enable it to provide more effective services to its member countries.

The Board of Directors suggested that it would be

advisable to consider amending the Convention now in force. In compliance with this request (Resolution IICA/JD-730-6 Rev. 3), the Executive Offices submitted to the Board of Directors a preliminary draft Protocol of Amendments, which was subsequently reviewed by the Permanent Committee of the Board of Directors.

In document IICA/JD-754, the Permanent Committee submitted a report which was considered by

the Board of Directors during January, 1972, and circulated to the Governments of Member States. The comments of these Governments will provide the basis for the Draft Protocol of Amendments, which will be drawn up by the Permanent Committee of the Board of Directors. The Board will then take a final decision on the matter.

We feel that the amendment of the Convention is a matter of the utmost importance for the Member States, who want our organization to be a flexible and effective institution of technical assistance capable of encouraging and supporting national plans for agricultural and rural development, in keeping with the humanistic conception of development advocated by IICA.

With this in mind, therefore, the main amendments proposed may be summarized as follows:

- a. That the name of the Inter-American Institute of Agricultural Sciences should be changed to Inter-American Agricultural Organization, so as better to reflect the expanded purposes of the institution and its hemispheric projection.
- b. That the purposes and functions of the Institute, which have been changed by the Board of Directors on several occasions, should be consolidated.
- c. That membership should be defined so as to allow for the admission of the American States and for the participation of dependent territories, in a spirit of inter-American solidarity.
- d. That the directive bodies should be reformulated so as to simplify their structure and allow for more direct and active participation in the leadership of the organization on the part of the agricultural authorities of Member States.
- e. That the percentage quota system of the States Members of the OAS, which has been used by the Institute since 1962, pursuant to Resolution IICA/JD-282 of 18 May 1962, should be consolidated.
- f. That a biennial budget system should be adopted so as to enable IICA to establish a system of coordination with the OAS, with a view to carrying out joint or complementary activities relating to the agricultural sector.

It is worthwhile stressing, in this report, the importance which the Executive Offices of IICA attach to the continued strengthening of its relations with the OAS. At the same time, it is felt that IICA must be truly and effectively recognized and used as the regional specialized agency for agriculture.

We are confident that our member countries will fully support our efforts to achieve and implement these amendments, which will make IICA a much more efficient institution. This, at the same time, will have a bearing on the type of services we are able to provide.

Relations with FAO

During the tenure of Dr. Juan Felipe Yriart as Regional Director for Latin America, our relations with FAO began slowly and surely to progress to the point where we were able to carry out complementary activities, to help each other and to eliminate projects which represented overlapping and increased costs in the efforts to attain agricultural development and better orient our activities in other matters of common interest.

With the appointment of Ing. Armando Samper, former Director General of IICA, to the post held by Dr. Yriart, our hopes for greater coordination and closer relations have been substantially enhanced.

It is worthwhile quoting here from the address delivered by Ing. Samper when he greeted the members of our Technical Advisory Board and our Board of Directors in San Salvador. He said that our two organizations, IICA at the regional level for the American continent, and FAO at the worldwide level, had a common objective: to give men a sense of dignity—to give them dignity by eliminating famine, poverty and injustice from America.

He further stated that in the case of our two organizations, there was only one way to do this: through cooperation with the Governments of the Member States in order substantially to improve the productivity of the people and of the land. Not so that a few might produce more, earn more and have a higher standard of living, but rather so that everyone, especially the farmers who have traditionally been left out of national life, might produce more and more efficiently and, through their own efforts and with their own means, achieve increased incomes that would enable them to raise their standards of living. All the rest was a matter of strategies, means and methods of action leading to that end.

Ing. Samper's statement has been substantiated by the reality of such accomplishments as the designation of IICA-CIDIA as the main input center for AGRIS; the progress made in plans for the establishment of CERDAC, which will assist the Central American countries in their agricultural documentation and information centers; the fact that we continue to benefit from the assistance of FAO experts in IICA-CIRA and in other programs, regions or countries. The means, as Samper has so aptly stated, may be different, as may the strategies, but the common denominator is the desire to be of service in implementing the development plans of our member countries.

Relations with Other International Organizations

Contacts and activities with international organizations, both at the hemispheric and at the regional or local levels, have continued to increase.

In the Northern Zone we are working in close connection with ROCAP, CSUCA, SIECA, GAFICA, INCAP, ICAITI, AID and many others. In the Andean Zone, we are working with LAFTA, AID, FAO and others; in the Southern Zone, with other organizations. The effect, however, is the same, since the efforts carried out jointly with BID, FAO, AID or any other agency all result in the improvement of our capacity of service and enable us to put the resources of those institutions to work for the benefit of our Member States.

The degree to which we have been able to improve coordination with the Organization of American States is remarkable. A joint unit will be established as a result of the approval of an agreement between the two organizations. This unit will inevitably enhance coordination and help eliminate duplication and overlapping in specific fields. The Office of the Deputy Director General for External Coordination has played, and will continue to play, an important role in these efforts to achieve coordination with the General Secretariat of the OAS.

Future Projections for IICA

The development of our institution and the acceptance of its programs evidenced by the wide

support of the Member States at the most recent meeting of the Board of Directors of IICA (Eleventh Meeting, San Salvador, May, 1972), give us grounds for anticipating with confidence that we will be able to contribute to the agricultural development of Latin America to the largest extent possible in light of our human and physical resources and our capacity of service.

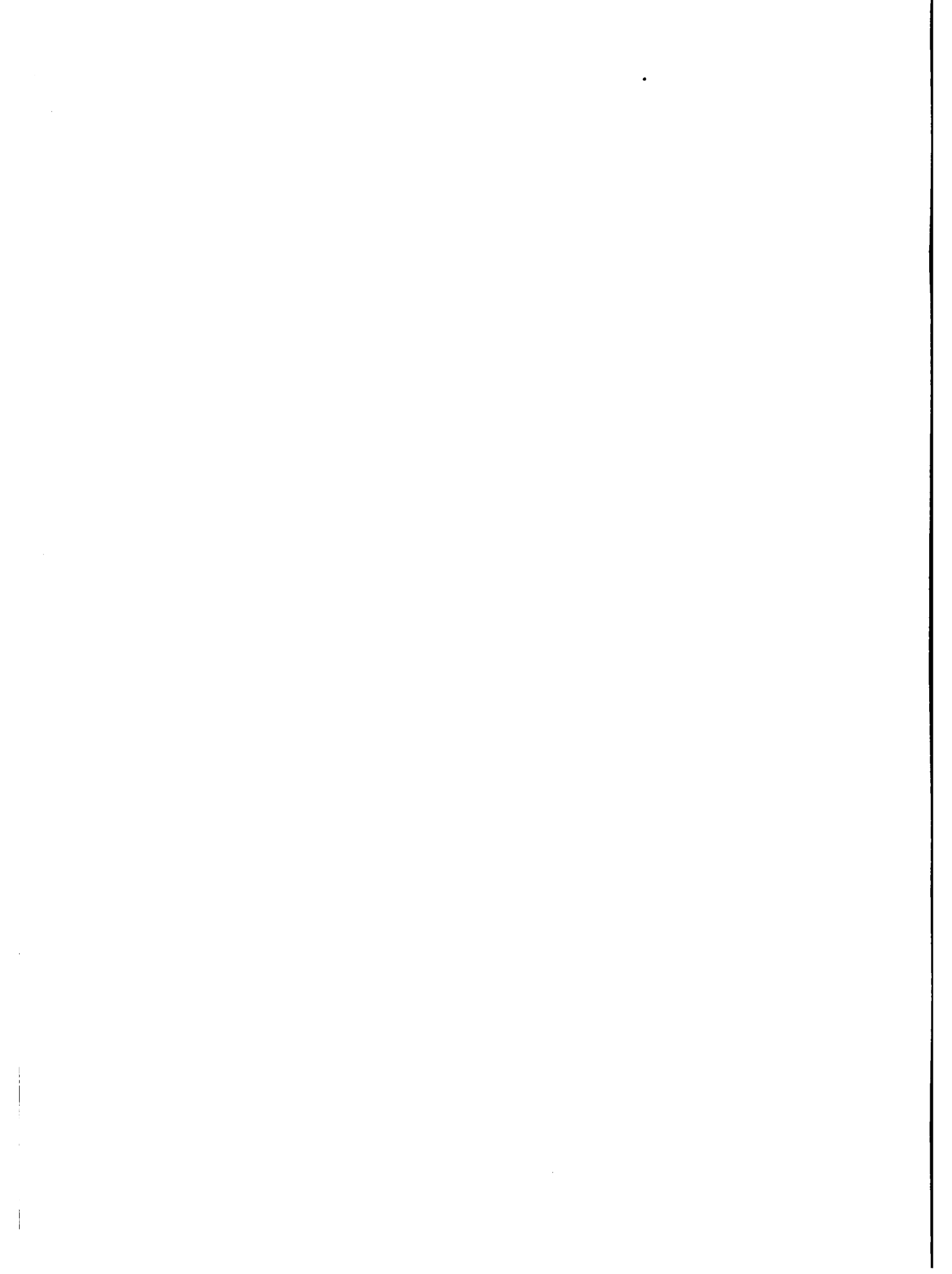
We firmly believe that our strategy of support to national institutions on a system-wide rather than an individual basis is an enlightened one which is already bearing fruit.

Our ideas regarding the new forms and trends in agricultural education, research and planning, our position with respect to structural change and administration of agricultural policies, as well as our concepts concerning management, marketing and rural industrialization, coincide with those of the national officials responsible for this work. We are determined to help them.

In the following chapters may be found a more complete summary, emphasizing the work carried out at the country level, of the achievements of our institution in each Line of Action. The results of our work to date are indicative of what can be expected in the future.



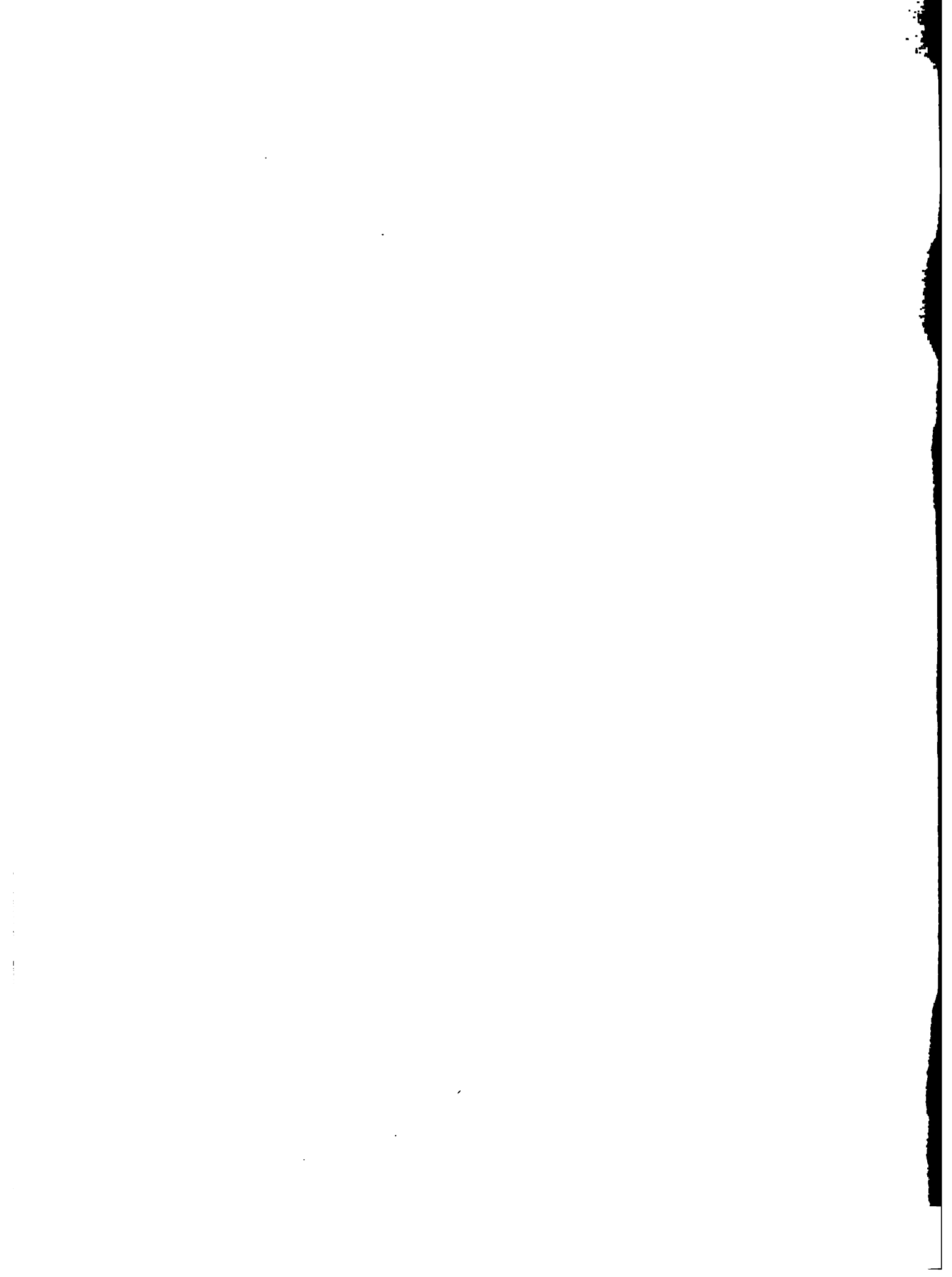
Dr. Adrien Raymond, Secretary of State for Foreign Affairs and Worship of Haiti, at the ceremony of the signing of the Basic Agreement with IICA, shakes hands with Director General Araujo. Also present is Mr. Julio Silva, OAS Representative in Haiti.



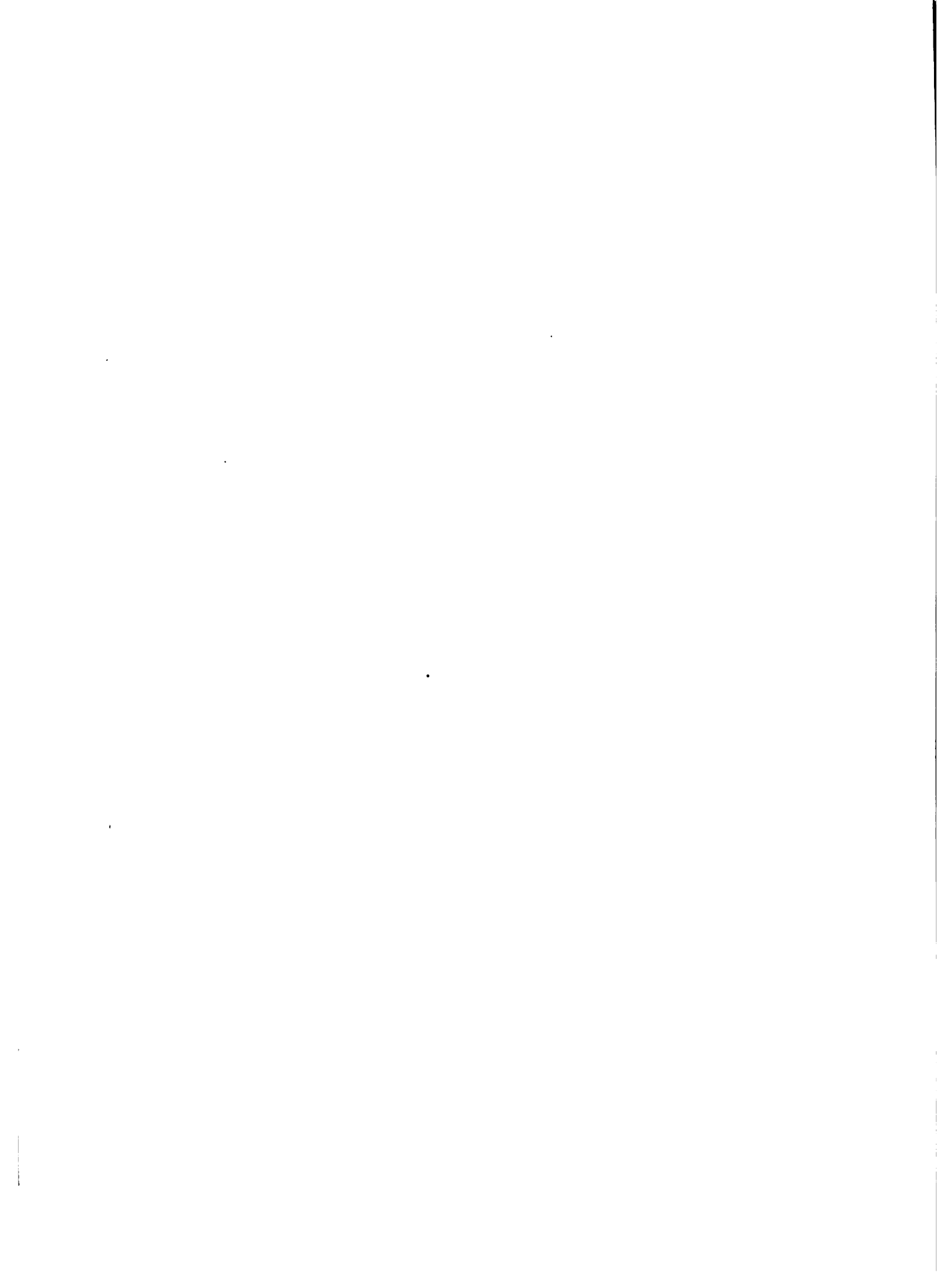


Chapter III

IICA AND AGRICULTURAL POLICY







Chapter III

IICA AND AGRICULTURAL POLICY



The Directors General of the two most important agencies in the agricultural field agree on how to attack the problems of the sector. (The photograph shows Dr. A. H. Boerma, Director General of FAO and Dr. Jose Emilio G. Araujo, Director General of IICA).

This chapter contains information on the work carried out by IICA at the project and country levels, through its Lines of Action I, V and VII.

Line of Action I. Analysis of and Information on Rural Development was designed to solve, in a systematic and up-to-date fashion, the problem of the limited availability of sources of information on the status and trends of rural development in Latin America and on the relevant institutional systems.

In drawing up the guidelines for this work, it was felt that this situation seriously hindered the establishment of national development programs and greatly limited

the efficiency of the technical assistance and financial services provided by international organizations.

This Line of Action is therefore designed to solve the problem to the greatest possible extent. IICA plans to implement a series of programs for the systematic collection and analysis of available information. It will try to make use of existing information and encourage national institutions to update their research studies, carrying out complementary research and analysis organized and conducted by the institution's technical staff.

Line of Action V. Multinational Integration. As stated in the goals for this Line of Action, agricultural products play a very important part in the efforts being

made by the Latin American countries to achieve economic integration.

In view of the close relationship between the development of the agricultural sector and the multinational integration programs, IICA feels it must play a part in these processes, primarily by collaborating with the integration agencies and national institutions, helping them to deal with the problems and realities of the agricultural sector in a suitable and timely fashion, both in the individual countries and in the region as a whole. IICA plans to participate, within the limits of its possibilities, in the analysis of those aspects in which it is most qualified and which have a bearing on its own work. In drawing up and implementing its own programs, IICA will at the same time take into

consideration the objectives and trends of multinational integration processes.

Line of Action VII. Administration of Agricultural Policies. The main consideration in establishing this Line of Action was the fact that while in the past IICA had concentrated its institutional strengthening efforts almost entirely on improving the technical aspects of the organizations concerned, experience had shown the need for complementary action aimed at improving the administration of each individual institution and of the institutional system to which it belonged. During the past few years, therefore, IICA has included the element of institutional administration in more and more of its programs. This Line of Action will therefore deal specifically with the analysis and study of organizations considered jointly as components of the institutional systems of the sector as a whole.



The presence of the rural population . . .



... in the high-level political decisions of the countries represents a positive change in Latin America.

Following is a country by country summary of the projects undertaken in the aforementioned Lines of Action.

The following activities were carried out under Line of Action I:

Argentina

Important progress was made in the analysis of institutional development, the coordination of activities in the Documentation Center for University Research and Higher Education (Centro de Documentación sobre

Investigación y Enseñanza Superior Universitarias) and in assistance to activities relating to scientific communication and documentation.

As part of the multinational projects which include Argentina, advisory services were provided to agricultural publications and support was given to the associations of agricultural librarians and documentalists (Asociaciones de Bibliotecarios y Documentalistas Agrícolas).

We are able to say with satisfaction that in general the action of IICA in Argentina during this period was substantially strengthened.

Definite progress was made in the preparation of a document on the status of and trends in agricultural development, which will soon be submitted for discussion to the national organizations concerned. Work will be continued on the analysis of the institutional system of the agricultural sector in Argentina.

Furthermore, the priorities assigned to the activities and projects already underway, such as the Graduate School and CEDIE, have been confirmed. Formal and informal contacts with national technical staff have also increased.

The National Committee of IICA has expanded its operations and has increased its collaboration with the various national institutions mentioned later on in this report.

With regard to the assistance given by IICA to multinational activities in the field of scientific communication and documentation, fully satisfactory results were obtained in Argentina in the following activities: advisory services to the Buenos Aires Documentation Committee (Comisión de Documentación de Buenos Aires), the seminar on communications held in Resistencia in collaboration with the University of the Northeast, the course on scientific communication for professors of the Faculty of Agronomy and Animal Industry of Tucumán. The specific activities carried out in this connection are listed in the relevant Appendix.

Work was begun on institutionalizing the teaching of scientific communication in Argentina. In this regard, a meeting of communications specialists in the Southern Zone (Reunión de Comunicadores) was held with technical staff members of the Faculty of Agronomy and Animal Industry of the National University of Tucumán. The details of this meeting are also listed in the aforementioned Appendix.

The following activities are also worth mentioning: the course on scientific communication for graduate students in livestock production, held at INTA in Balcarce, and the seminar on written communication for the participants in the IICA/BID course on the preparation and evaluation of agricultural projects, held in Buenos Aires.

Bolivia

At the project level, the Institute's action in this country consisted of advisory services to the depository library on pastures of the High Andes, advisory services to the communications unit of the Ministry of Farmer Affairs and Agriculture, and work on the improvement of agricultural communications.

Brazil

Activities under Line of Action I in this country included the following projects: Status of and trends in

the agricultural sector, in cooperation with the Central Office of Planning and Control of the Ministry of Agriculture, the Ministry of Planning, and the State Secretariats of Agriculture and Planning in Rio de Janeiro and Brasilia; registry of institutions responsible for rural development in Brazil; training in the organization and administration of agricultural libraries; in-service training for agricultural librarians and advisory services to national institutions; collaboration in connection with the national meeting of agricultural libraries; course on scientific communication in Porto Alegre, in the Faculty of Agronomy and Veterinary Sciences, Federal University of Rio Grande do Sul; strengthening of agricultural information services; technical advisory services to EIGRA in the planning of research on rural communications; collaboration with the national council on rural communications (CONCOR) regarding mechanisms for institutional coordination of agricultural information; assistance to EIGRA in the establishment of information methods in rural communications.

Progress was also made on the quantitative evaluation of national and socio-economic resources of the state of Rio Grande do Sul (ACIIRS).

The basic purpose of this project is the establishment of a sound diagnostic methodology that can be adjusted to Latin American conditions and will make it possible to conduct an integrated survey of the socio-economic, natural and institutional resources of a given region, in this case, of the state of Rio Grande do Sul.

Experience has shown that in any process of agricultural development, there is interaction among the socio-economic and the institutional factors, as well as those relating to natural resources. All these must therefore be considered jointly in the preparation of a survey of the status of geographical areas which are the subject of any planning effort.

The ACIIRS project was established through a cooperative agreement between the National Institute for Settlement and Agrarian Reform (Instituto Nacional de Colonización y Reforma Agraria), the Government of the state of Rio Grande do Sul, and IICA. The objectives of this agreement are: a) to draw up a plan for the agricultural regionalization of the State; b) to study the relationship between the physical factors which condition land use and socio-economic and institutional factors; c) to train national interdisciplinary technical teams in the planning and elaboration of rural development and agrarian reform projects; d) to draw up maps of the natural resources potential of the state of Rio Grande do Sul, at the reconnaissance level.

The progress made on this project during the period covered by this report consisted of the following: with regard to natural resources, identification of agroclimatic regions on the basis of climate and hydrology; grouping of soils, on the basis of lithology, surveys and geomorphology of large subgroups of soils; regions with similar potential use; present land use; suitability of land use. Photointerpretation and field observations were

used in all these studies, with the exception of the first and the last. Socio-economic and institutional resources were studied on the basis of a preliminary physical regionalization followed by a statistical demonstration; questionnaires were filled out by 6,000 salaried producers of institutions concerned with the agricultural sector, particularly technical assistance, credit and fishery unions. The corresponding data were transferred to 400,000 IBM cards for processing.

With regard to the integrated analysis of socio-economic and institutional resources, it is worth mentioning the following: subsidies used in the elaboration of the development policies of the state of Rio Grande do Sul; formulation of programs and projects for agrarian reform and regional development; definition of agricultural and forest zones; and orientation of technical assistance programs relating to rural credit.

To summarize, the project has led, among other things, to the establishment of a sound methodology for an integrated survey of natural, socio-economic and institutional resources; the training of interdisciplinary teams in the methodology used (approximately 85 technicians, including professionals and higher level students and assistants working on the project); and the establishment of bases for the identification of forest zones in the state, subsidies to the rural electrification program, the formulation of a program of investments in "critical areas" of development, and the extension of the methodology to other areas of the country.

Colombia

The following projects were carried out in this country under Line of Action I: training in library science and documentation; basic training in bibliography and documentation at the international level; basic training in bibliography and documentation at the national level; dissemination of scientific information; international service on specialized bibliographical documentation; institutional information; publication of a descriptive pamphlet on CIRA; dissemination of information on rural development and agrarian reform; publication of the theoretical framework of IICA/FAO with regard to agrarian reform; publication of the magazine *Desarrollo Rural en las Américas* (Rural Development in the Americas), publication of the *Boletín de Noticias sobre Reforma Agraria* (Agrarian Reform News Bulletin).

Costa Rica

In the case of this country, certain special circumstances must be borne in mind, inasmuch as Costa Rica is host to the Executive Offices, the Tropical Center for Training and Research in Turrialba and the Inter-American Centre for Agricultural Documentation and Information. This accounts for the large number of projects that are underway in this country. It must also be borne in mind that Costa Rica is one of the countries covered by the program of the Northern Zone.

References to programs do not specifically mention the unit involved. Programs are mentioned in general terms, in order to simplify description. The following were carried out:

With regard to the analysis of rural and institutional development, it must be pointed out that the Northern Zone is responsible for this project in the Central American isthmus. In the case of Costa Rica, however, the work was done by the Office of the Deputy Director General for Planning. This work provided the guidelines for that subsequently carried out by the Northern Zone staff in other countries. Other projects in Costa Rica were: analysis of the forestry sector; analysis of documentation and agricultural information institutions of Latin America; coordination and cooperation in the establishment, development and change of national agricultural information structures; integration and development of an inter-American system of agricultural information; incorporation of the American continent into the worldwide agricultural information system; training of specialists as users and providers of agricultural literature; training of agricultural librarians and documentalists in Latin America; strengthening of the associations of agricultural librarians and documentalists; improvement of the technical level of Latin American scientific literature; organization of agricultural information for its projection throughout the hemisphere; transmittal of agricultural information for Latin America; recovery and dissemination of information for the agricultural development of Latin America; introduction to agricultural information; standardization of agricultural documentation and information; dissemination of documents through macro- and micro-formats at the hemispheric level; production of supporting teaching material for agricultural education; printing of various types of material.

The following projects were carried out through the Tropical Center for Training and Research (CTEI), which is one of the support centers under the Institute's policy of hemispheric and humanistic projection:

Analysis of the forestry sector. Under this project, preliminary contacts were established with the ministries of agriculture and the forestry services and current work on forestry was reviewed. Efforts were made to arouse greater interest in forestry problems, in order to encourage the initiation of work in areas where no systematic compilation has yet been carried out. Work on the gathering of data suitable for compilation was carried out in all the Central American countries except Nicaragua.

Chile

Considerable support was given to the project on the analysis of rural and institutional development. Work on this project was carried out by the national advisory committee and the technical team of the IICA Office, with the full and understanding cooperation of the national institutions. The profound changes that have taken place in the rural development and institutional

processes have evidently brought about a significant reorganization, in which IICA has played an important cooperative role. In order to obtain the necessary information for its analysis, the Institute has found it necessary to acquaint itself thoroughly with the processes of change.

Ecuador

The Institute's main efforts were concentrated on the following projects: evaluation of the activities of the IICA Office in Ecuador and improvement of agricultural communications. The specific activities carried out are mentioned in the chapter on general activities during the period.

El Salvador

Considerable importance was attached to the project on the analysis of rural and institutional development. This was carried out in cooperation with the agricultural organizations and with the firm support of the Ministry of Agriculture.

Guatemala

The major thrust, as throughout the Central American area, was on the project concerning the analysis of rural and institutional development and on the publications project under the program on scientific institutional information and documentation. In regard to the latter, efficient work was done in the publication of informative bulletins and the dissemination of information by press and radio.

Haiti

The work carried out under the project on rural and institutional analysis has basically consisted of the collection of information concerning this country. IICA has only recently begun direct work in Haiti, through its Office in Port-au-Prince and its Office for the Antilles.

Honduras

In keeping with the objectives of the project on analysis of rural and institutional development, the study in this country is in the preliminary stage. It is expected that it will be completed during the early part of the 1972-73 period. The institutions of the agricultural sector of Honduras have cooperated at all times in the work carried out. In each of the countries where this project is underway, a consultant has been appointed to collect the data to be disseminated once the relevant statistics are complete. In general terms, approximately one hundred persons have participated in this project.

In connection with the project on scientific and

institutional information and documentation, as in all the Northern Zone countries, a thorough analysis was made of the progress of the over-all program in Honduras. Many publications were distributed and substantial information was disseminated by press and radio. On the occasion of the signing of the Basic Agreement between the Government of Honduras and IICA, an exhibit of the work and publications of the Institute was set up. This exhibit contributed greatly to projecting the image of the Institute among the people of the country.

Mexico

Under the project on analysis of rural and institutional development, which is a multinational project covering all the countries of the Northern Zone, constant work was carried out in Mexico with a view to completing and updating the existing information and analyzing the institutional system as a whole. The national institutions cooperated fully and efficiently in this effort.

The experience gained during the implementation of this project has led to the conclusion that these analyses cannot be carried out according to a rigid pattern. The staff in charge of the work is therefore following a more flexible system which will expedite the completion of the work. Considerable progress has also been made on the publications project.

It is worthwhile mentioning the substantial cooperation of several Mexican institutions with regard to the training of personnel. These institutions included the Graduate School of the National School of Agriculture at Chapingo, where fellowship holders carry out their studies for the Master's degree in agricultural information sciences; the National Agricultural Research Institute (Instituto Nacional de Investigaciones Agrícolas) of the Secretariat of Agriculture and Livestock, which cooperated by providing in-service training to certain selected technicians; the Latin American Institute for Educational Communications (Instituto Latinoamericano de la Comunicación Educativa - ILCE), which provided its facilities in order to increase the efficiency of in-service training; the Agricultural Extension Service of Mexico, which also collaborated with in-service training activities.

This cooperation has made it possible to train the personnel of some of the Central American ministries of agriculture and of institutions working in the field of agricultural information.

Nicaragua

As has already been noted, the project on analysis of rural and institutional development is a multinational one, covering all the countries of the Northern Zone. In Nicaragua, considerable progress was made in the collection of available information with a view to completing it and analyzing the institutional system of the country.

According to the plan of work, the analysis in Nicaragua will be completed during fiscal 1972-73. The data in figures that will allow for the necessary comparison among the countries of the region are still incomplete.

Work on the projects carried out under the program on agricultural communications and documentation, which also covers all the countries of the Northern Zone, continues at a normal pace. Satisfactory progress was also made on the project on training of personnel.

Panama

In this country, a project entitled analysis of the organization of the agrarian reform agencies was established. In keeping with its specific objectives, the foundations were laid for a methodology to be followed in the relevant studies. This methodology and the experience gained by the technical staff concerned should make it relatively easy to complete work on this project. The aforementioned analysis was planned for the forthcoming fiscal period of IICA because priority had already been given to other activities, as may be seen in the summary of work done under other Lines of Action.

Work on the other Zone-wide projects was intensified during the final months of the period. Some of these projects were those on scientific and institutional information and documentation, training of personnel, coordination and advisory services and publications.

Paraguay

The analysis of rural and institutional development in Paraguay was concentrated mainly on the study of the status of and trends in the agricultural sector. This was carried out in cooperation with the Technical and Planning Secretariat of the Ministry of Agriculture, the Rural Welfare Institute (Instituto de Bienestar Rural), the Agricultural Extension Service and the National Development Bank (Banco Nacional de Fomento).

Under the project on methodological trials for institutional analysis, work was done on a specific case for this country, in cooperation with the Rural Welfare Institute.

Peru

IICA's work in Peru under Line I consisted of the following projects: information on the institutional system and development of the agricultural sector, which included a study on the evolution of agriculture and the institutions of the agricultural sector of Peru; research on the status of higher agricultural education in the countries of the Andean Zone, the main activity of which was the meeting of the Advisory Committee of Deans; improvement of the libraries of the Andean Zone, which made it possible to carry out a diagnostic

study and make recommendations on the agricultural libraries and agricultural documentation services of the Andean Zone.

With regard to the progress achieved in the diagnosis of the rural sector and the institutions thereof, a preliminary analysis of the agricultural sector was made. This work is underway; the process of diagnosis is a difficult one, since it calls for greater in-depth study of the characteristics unique to each country. However, once certain measures, such as the restructuring of the agricultural sector, are crystallized, it will be possible to further clarify many aspects of the diagnosis.

Dominican Republic

IICA's work in this country, with regard to rural and institutional analysis, aimed at collecting and updating the necessary information, has moved forward with the cooperation of the State Secretariat of Agriculture, the Technical Secretariat of the Presidency of the Republic, the National Planning Office, the Agricultural Bank (Banco Agrícola) and other national institutions concerned with the rural sector.

Uruguay

The emphasis of IICA's action in this country, under Line I, has been on the analysis of the evolution of rural development in the countries of the Southern Zone, which led to an analysis of the rural and institutional development of Uruguay. This work was carried out in cooperation with the Office of Agricultural Planning and Policies, the Department of Rural Economics of the Ministry of Livestock and Agriculture, and the Central Bank of Uruguay.

Work was also done on the project on methodological trials for institutional analysis, the project on dissemination of information, as part of the program on information, libraries and documentation services, and development of agricultural libraries.

Venezuela

Under Line of Action I, IICA worked on the following projects: a report on the evolution of the agricultural sector and its institutions; advisory services in communications to IAN, and the preparation of a tentative model, at this institution's request, of an internal information bulletin; advisory services regarding the organization and functions of the Office of Agricultural Communications of the Research Service of the Ministry of Agriculture and Livestock.

At the same time, plans were made for courses to be offered and meetings to be held, bearing in mind the future activities of the staff. Educational material on the use and preparation of visual aids was contributed for the courses on techniques of communications for agricultural extension workers.

An evaluation showed that these courses had increased the use of visual aids in the service, improved communications with farmers and helped in the preparation of national training staff.

With regard to the projects included under Line of Action V, the information on the progress of this work in the countries is presented as a whole. In general terms, this work was done mainly at the regional level. References to countries are made in specific cases in order to point out aspects in which activities were carried out at the national level.

In the Southern Zone, work was mainly based on the agricultural regionalization project, as part of the regional integration program.

It is worthwhile mentioning the case of Chile, where a project on marketing of specific products was carried out with a view to achieving the economic integration of the Andean Zone.

During the period covered by this report, the studies leading to an analysis of the potential for increased trade between this country and the Andean Pact countries were put underway.

As part of the project concerning Chile and the Andean Pact countries, new organizations for the marketing of agricultural export products from Chile were identified. Their external marketing activities were analyzed, as were the governmental incentives for agricultural exports.

In the other countries of the Zone, efforts were made to begin studies on certain products considered important for all trading partners. The meeting of directors of the agricultural planning offices in the Zone, under Line of Action VII, will be used as a forum for arousing interest in such studies and promoting reciprocal cooperation, with the support of IICA. Particular efforts are also being made to make LAFTA aware of the advisability of supporting this program.

In Colombia, increasing success was achieved in the elaboration of planning methodologies; training in communications; training in rural agricultural credit, especially at the Inter-American Center for Rural Development and Agrarian Reform; the elaboration of methodologies for forest development and the elaboration of manuals on legislation concerning natural resources. Three seminars—on water law, hunting and fishing law and forest law—were given under this project, in cooperation with the Institute for the Development of Renewable Natural Resources (Instituto de Desarrollo de los Recursos Naturales Renovables—INDERENA).

In the Northern Zone countries, work under Line of Action V was carried out at the regional level and, in particular, on the program for the regional integration of

the agricultural sector and on the projects on advisory services and coordination in the agricultural regionalization of Central America and ecological zoning of potential export crops of Central America. Both these projects are of a multinational nature.

In implementing the above, the work on the regionalization of Costa Rica and El Salvador was completed and progress was made towards the completion of activities carried out in cooperation with SIECA.

Substantial progress was made in all these activities, mainly through the Northern Zone Office and partly with the cooperation of the Tropical Center for Training and Research in Turrialba.

The Zone also played an important part in the project on advisory services and coordination in the elaboration of the document on the integration of the countries of the Central American isthmus, all the objectives and goals of which were achieved.

The Tropical Center for Training and Research in Turrialba (CTEI) cooperated most efficiently in the project on ecological zoning of potential export crops mentioned above.

At the end of the fiscal year, fifty maps had been completed, ten for each Central American country.

Since Line of Action VII is mainly multinational in scope, the report on the relevant projects is presented similarly to that for Line V. It must be noted, however, that specific reference is sometimes made to individual countries, in order to give a better idea of the work done.

In the Andean Zone, considerable work was done on the project on improvement of administration in the agricultural sector. This work was multinational in scope.

The Regional Office for the Andean Zone and the Office in Ecuador, with the cooperation of national technicians of the National Planning Office of the Ministry of Production, the National Planning Board and other agencies in the sector, carried out a study on the institutions of the agricultural sector. This included an analysis of 66 organizations, among which were centralized public agencies, autonomous public agencies, private, related and international agencies. This represented the first diagnosis of the institutional structure of the country and provided guidelines for the restructuring and regionalization of the agricultural institutions created as a result of the transformation of the former Ministry of Agriculture into the present Ministry of Production.

During this period, a study was also made of information concerning the evolution of agriculture and the institutions of the agricultural sector of Ecuador.

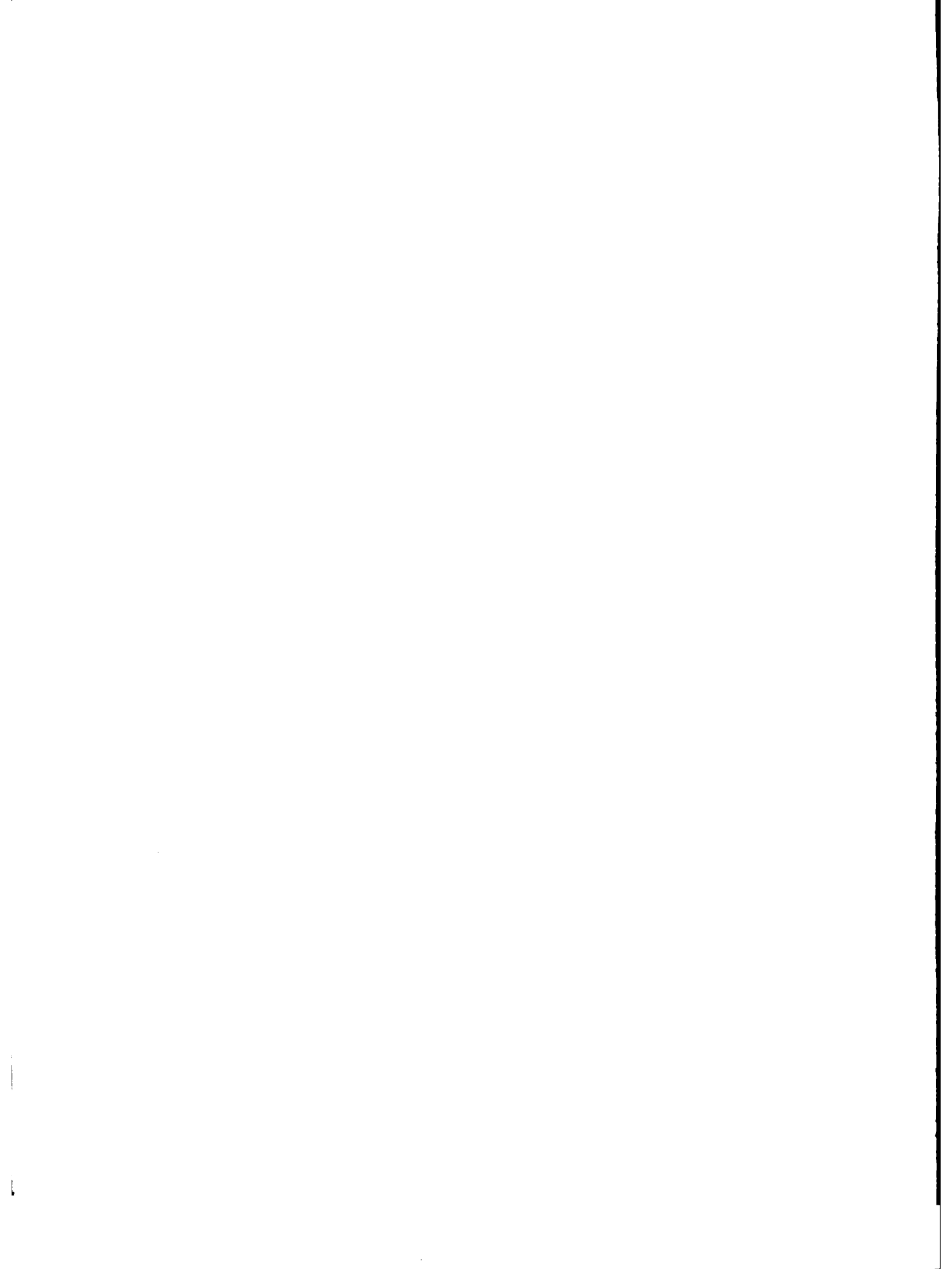
which falls within the regional project of the Andean Zone on this subject. The study represents as complete an analysis as was possible in light of the scarcity of statistical material.

The project on the improvement of agricultural planning in Peru was also actively in progress, as was the project on agricultural planning in Venezuela.

In Peru, the multinational project on improvement of the administration of the agricultural sector was especially significant.

In the Southern Zone, progress was made with regard to the projects on mechanisms for cooperation among agricultural planning units of the countries in the region; training in the elaboration and evaluation of agricultural

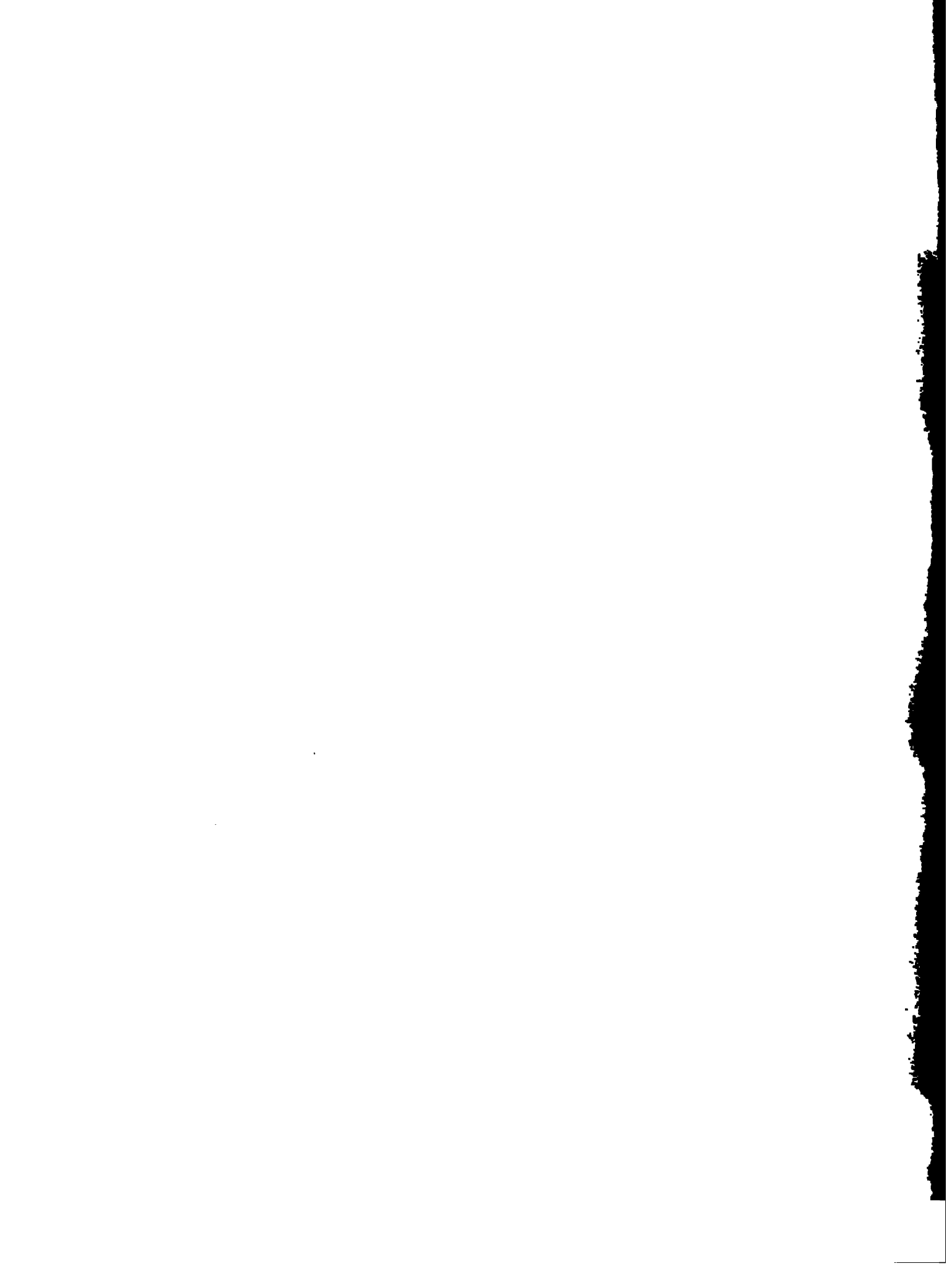
projects (IICA/BID agreement); advisory services on regional development programs and projects in Argentina; advisory services on the planning of regional agricultural development in Rio Grande do Sul; socio-economic diagnosis of the Cacaueira region of Bahia (agreement with CEPLAC); advisory services to the Assistant Secretariat for Planning of the Ministry of Agriculture of Brazil; advisory services on socio-economic studies and formulation of policies, programs and projects in Paraguay; advisory services to the technical planning secretariat of Paraguay on the formulation of a program for the development of settlements in the Eje Norte, and on problems of minifundia in the area; collaboration with the sectoral planning office of the Ministry of Agriculture of Uruguay in connection with methodology of sectoral planning; and promotion of regional planning in Sao Paulo, Brazil.





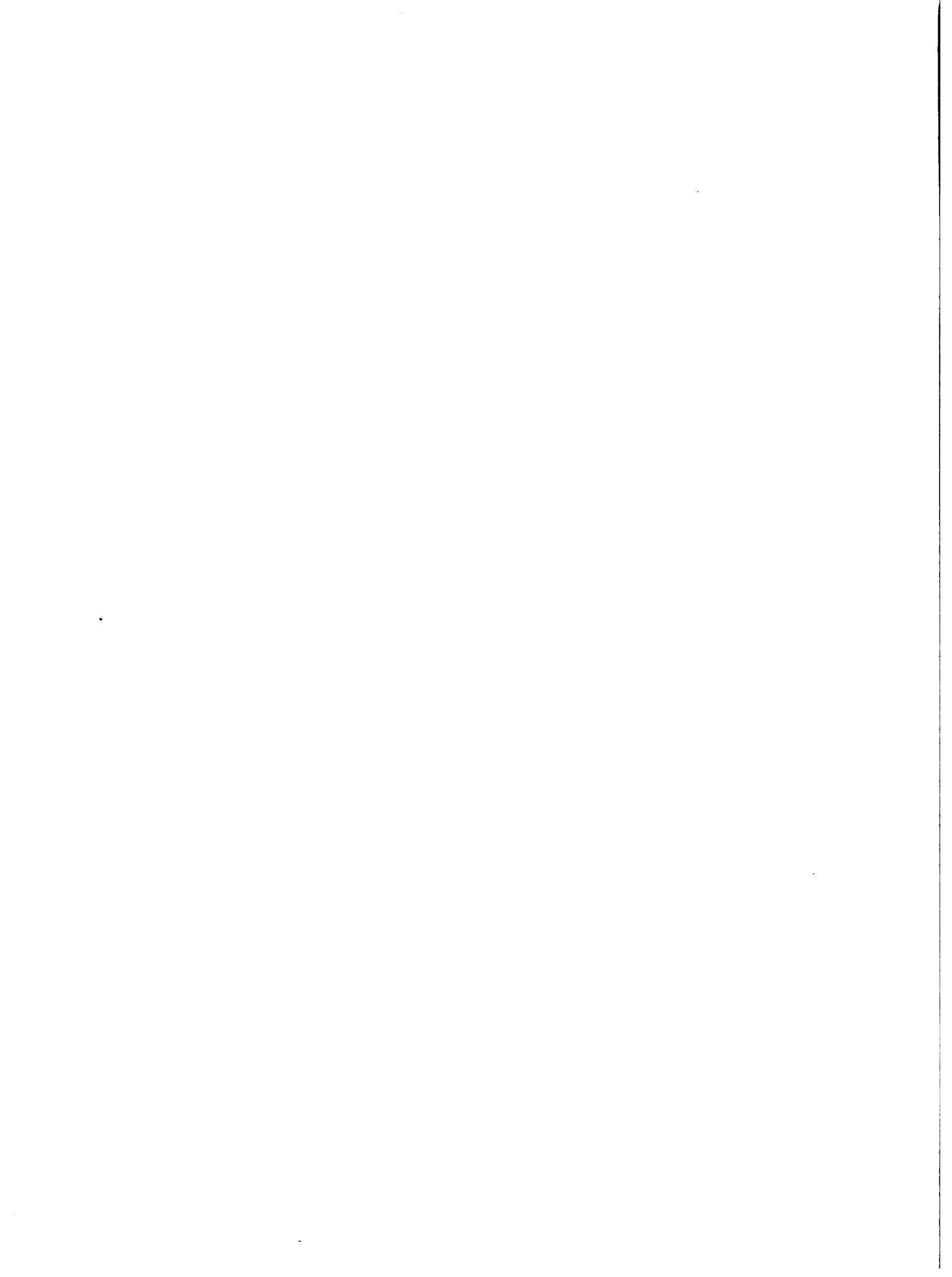
Chapter IV

IICA AND AGRICULTURAL EDUCATION



I.C.A. "4" C.I.R.A.





Chapter IV

IICA AND AGRICULTURAL EDUCATION



Agricultural education is the basis for rural change

The Advisory Committee of IICA recommended that the institution should assume leadership in the conception, elaboration and initiation of a vast agricultural education program for the decade 1971–80, covering intermediate, college and graduate level training. In a program of this nature, because of its magnitude and complexity, other organizations, such as UNESCO, IDB, FAO, AID, World Bank and the Foundations should participate. IICA would be the executive agency and would operate with the assistance of an executive committee formed by representatives of the different participating agencies.

The Advisory Committee further requested IICA to dedicate more resources to the task of assistance in the agricultural education field. With regard to higher education, the Committee recommended that IICA

should promote the formation of a Latin American Council integrated by representatives of the agricultural graduate schools, similar to the Council of Graduate Schools in the United States. Some of its functions would be: coordination of programs, course accreditation, technical assistance to the programs, preparation of expansion plans, and assistance for its financing. IICA would be in charge of the Secretariat of this Latin American Council.

Recognizing the urgency of dealing with these problems regarding agricultural education in our countries, IICA realizes that progress, in a modern sense, can only be achieved through the production of knowledge and its use under the conditions prevailing in each member country. At the same time, the Institute's efforts to promote and transmit knowledge and

encourage the innovative application thereof can be significant only to the extent that they can be locally and permanently institutionalized in each country or region.

The final objective of the institution is not so much to make it grow or improve its services as such, but rather to contribute to the development and improvement of the national institutions by strengthening them gradually, according to a pre-established plan for transferring all the responsibilities originally held by the Institute.

To the extent that any project can be completed in the short period of one year, it may be said that this is one of the Institute's concerns that has been most widely supported by the countries. Our Board of Directors has fully understood that we must move from direct action in the formal training of specialists in a few specific fields and go on to other methods better designed to encourage the transfer of direct responsibilities to the member countries. One of the elements in this approach is the new concept of short courses or refresher courses, which have been held with considerable success at IICA-CTEI in Turrialba, Costa Rica; the studies in animal industry leading to a Master's degree "in stages" at the Agrarian University of Lima, Peru; support to the Graduate School at Chapingo, Mexico, in teaching of agricultural information; the graduate programs in Chile and Argentina; the agreement with the Universities of Porto Alegre, Pelotas and Santa Maria, in Brazil, for advisory services on the establishment and subsequent coordination of the graduate program in the agricultural sciences under a common program in the three universities; the discontinuation of formal graduate courses in IICA-CIRA and their replacement by short courses in planning, organization and structural change; advisory services on the reorganization of the curricula of the faculties of agronomy of the Central American area and the interior of Mexico, with special reference to Panama, where a complete plan for agricultural education has been drawn up, and intensive advisory services to the faculties of agronomy of the Dominican Republic and Haiti.

During 1971, therefore, Line of Action II, on Agricultural Education, has involved 13 programs in the hemisphere, 50 projects within those programs, and a total of 171 activities. These seemingly cut-and-dried figures reflect the implementation of a hemispheric concept of the strengthening of institutions of agricultural education through feasibility studies and promotion, as in Venezuela, or support to organizations already existing in the various countries, which needed to be strengthened in order better to accomplish their task in accordance with the objectives of the Line of Action.

In the Northern Zone, we have always carried out multinational projects for the improvement of teaching staff (Mexico and the Central American countries). Our aim has been to provide the professors of the faculties of agronomy in the area with the necessary motivation and opportunities to improve themselves professionally, and

to promote the updating of courses within specific disciplines. Thus, fellowships have been granted for graduate studies, the courses on methodology for university-level agricultural education have been continued, seminars have been offered on specific subjects relating to soils and parasitology, and great progress has been made in the teaching of scientific communications and audiovisual aids as a means for improving the capacity for transmitting knowledge of the professors in the area.

Work has also been done in the Northern Zone, and more particularly in El Salvador and Panama, on the improvement of the teaching methods used by the agricultural extension services, in an effort to help improve training in extension by strengthening its educational approach with greater emphasis on the rural family as the subject of action.

In Mexico, work has been done on strengthening the academic and administrative organization of the bodies engaged in agricultural education. The purpose here is to provide guidance to the professors of these agencies with regard to the functional academic organization that should characterize all university teaching and to make suggestions on the evaluation and administration of institutions of higher agricultural education.

The Institute has continued to provide advisory services to the Permanent Committee on Higher Agricultural Education of CSUCA in connection with its study of the problems affecting institutions of higher agricultural education. Coordination of the CSUCA/CAAM/ROCAP/IICA program has continued and Central American professors have been sent to study in Puerto Rico, being replaced in their duties by Puerto Rican professors.

The above activities are undoubtedly contributing to the strengthening of teaching staffs in the Central American faculties of agronomy. Six (6) Central American professors are currently doing graduate work at the University of Puerto Rico and six (6) Puerto Rican professors (2 in Guatemala, 2 in El Salvador and 2 in Nicaragua) are teaching courses in Central America. We feel that the objectives established for this program have been achieved.

With regard to the professional associations of the area, we have collaborated with the Mexican Association of Higher Agricultural Education (Asociación Mexicana de Educación Agrícola Superior - AMEAS), established at the suggestion of IICA in 1971, and have encouraged the creation of the Central American Association of Higher Agricultural Education (Asociación Centroamericana de Educación Agrícola Superior - ACEAS).

In the Andean Zone of IICA, we have made considerable progress in the area of agricultural education in Venezuela, where we have carried out a feasibility study on graduate education. We are providing

advisory services to the Faculty of Agronomy of the Central University of Venezuela with regard to its development program in Los Andes; a study was made of the Faculty of Forestry in the University of Los Andes; advisory services were provided to the Faculty of Animal Industry of the University of Oriente and support was given to CIARA in connection with classes and lectures for technicians in the sector.

In the case of Ecuador, intensive work has been done in providing support and training in agricultural extension, with a view to analyzing the progress and impact of the Ecuadorean extension services and improving their organization and working methods. Various activities in this field made it possible to detect problems, outline future action and train technicians.

In animal industry and pastures, a good deal of training has been carried out and effective advisory and supporting services have been provided to national organizations and associations such as ALEAS. It is also important to mention the in-service training offered to six professors of farm management, a field which deserves full institutional support.

In Peru, particular importance was attached to the training of professionals in technical and human aspects in order to encourage them to participate more actively in the development process. This was done through fellowships which enabled three Peruvian professionals to receive training in out-of-school rural education (*educación campesina*); 16 other professionals pursued various graduate studies at the Training and Research Center in Turrialba.

In general terms, training was provided in areas such as agrarian reform, teaching methodology, and farm management and marketing.

In the area, Colombia is perhaps the country where greater efforts were made in the field of agricultural education. Through IICA-CIRA, training was provided in library science and documentation, agricultural information, institutional information, dissemination of information on rural development and agrarian reform, graduate courses in agricultural planning, farmer education and methods of rural social organization.



IICA collaborates with the national and international Associations of Higher Agricultural Education.



IICA trains specialists in various areas related with the agricultural sciences . . .



... which subsequently establish direct contact with the rural populations, thus creating an invaluable multiplying factor.

IICA-CIRA has trained a total of 827 students during the various courses. It carries out two main types of activities: those pertaining to its own operational program and those pertaining to its function as a support center.

In the case of Bolivia, the educational activities provided firm support to the Bolivian Association of Higher Agricultural Education (Asociación de Educación Agrícola Superior) and the study of the Bolivian agricultural extension service which was expressly recommended in a resolution of the Board of Directors of IICA (1971) which was reiterated by another resolution at the XI Annual Meeting in San Salvador, El Salvador.

In the Caribbean Zone, IICA's activities in the field of education have consisted of intensive work in teaching methodology, particularly at the intermediate level schools, as in the Dominican Republic seminars on

evaluation and administration of institutions of higher agricultural education and advisory services to the Dominican Association of Directors of Agricultural Education. In the case of Haiti, special advisory services were provided in October 1971 to the Faculty of Agronomy of Port-au-Prince. A more complete program of work will be put underway in Haiti once the Permanent Representative in that country is appointed.

In the Southern Zone we are reaching the culmination of years of hard work in the field of education. On the one hand, we have initiated work in teaching at the graduate level, as in Chile and Brazil, and on the other, we can point with pride and satisfaction to the success of our pioneer work and to the appreciation of the countries, as in the case of Argentina and Uruguay.

The Board of Directors of IICA, at its XI Annual Meeting, held in May 1972 in San Salvador, El Salvador,

adopted resolution IICA/JD-810/72-15, by which considering that the structure originally proposed for the Regional Cooperative Training Program for Graduate Education of the Southern Zone had been superseded by the development of the Program itself, and that IICA's activities must be fundamentally oriented towards the gradual transfer of its original responsibilities to the national institutions, the Board of Directors decided to express its appreciation to the persons who had acted as advisors to the program, and to consider the resolutions by which the Board had created it as having been fulfilled.

This was done in view of the creation of the Permanent Graduate Program for Agricultural Sciences and Forestry of Chile, the work carried out in Brazil, especially at the Luiz de Queiroz Higher School of Agriculture of the University of Sao Paulo, the creation of the Reciprocal Cooperation Program which involves the participation of the Faculties of Agronomy and Veterinary Sciences of the Federal University of Rio Grande do Sul, the Federal University of Santa Maria, the Federal University of Pelotas, the Pontifical Catholic University, and the State Secretariat of Agriculture and the Southern Institute of Agricultural Research and Experimentation, all in Brazil.

Special courses have been offered for professionals in the area, as well as fellowships for professors wishing to pursue higher studies. Support has also been given to professional associations in the field of education.

The work being carried out in Paraguay is well worth mentioning. Assistance has been provided in the development of education and the agricultural extension services, through advisory services to the Faculty of Agronomy and Veterinary Sciences of the National University of Asunción, courses for staff members of the

agricultural extension service and the organization of the Center for the Training of Field Staff and Rural Leaders (Centro de Adiestramiento de Personal de Campò y Dirigentes Rurales) of the SEAG.

Finally, concerning educational programs, we wish to mention the work carried out by CTEI (Tropical Center for Training and Research) in Turrialba, Costa Rica.

Although the activities of CTEI in the field of graduate training with emphasis on the *Magister* degree will be decreasing over the next few years, IICA has envisaged certain activities in substitution thereof which we feel should have great impact on Latin America. These are the short refresher courses through which Latin American professionals engaged in teaching will be able, without leaving their own institutions for extended periods, to receive training in their special fields.

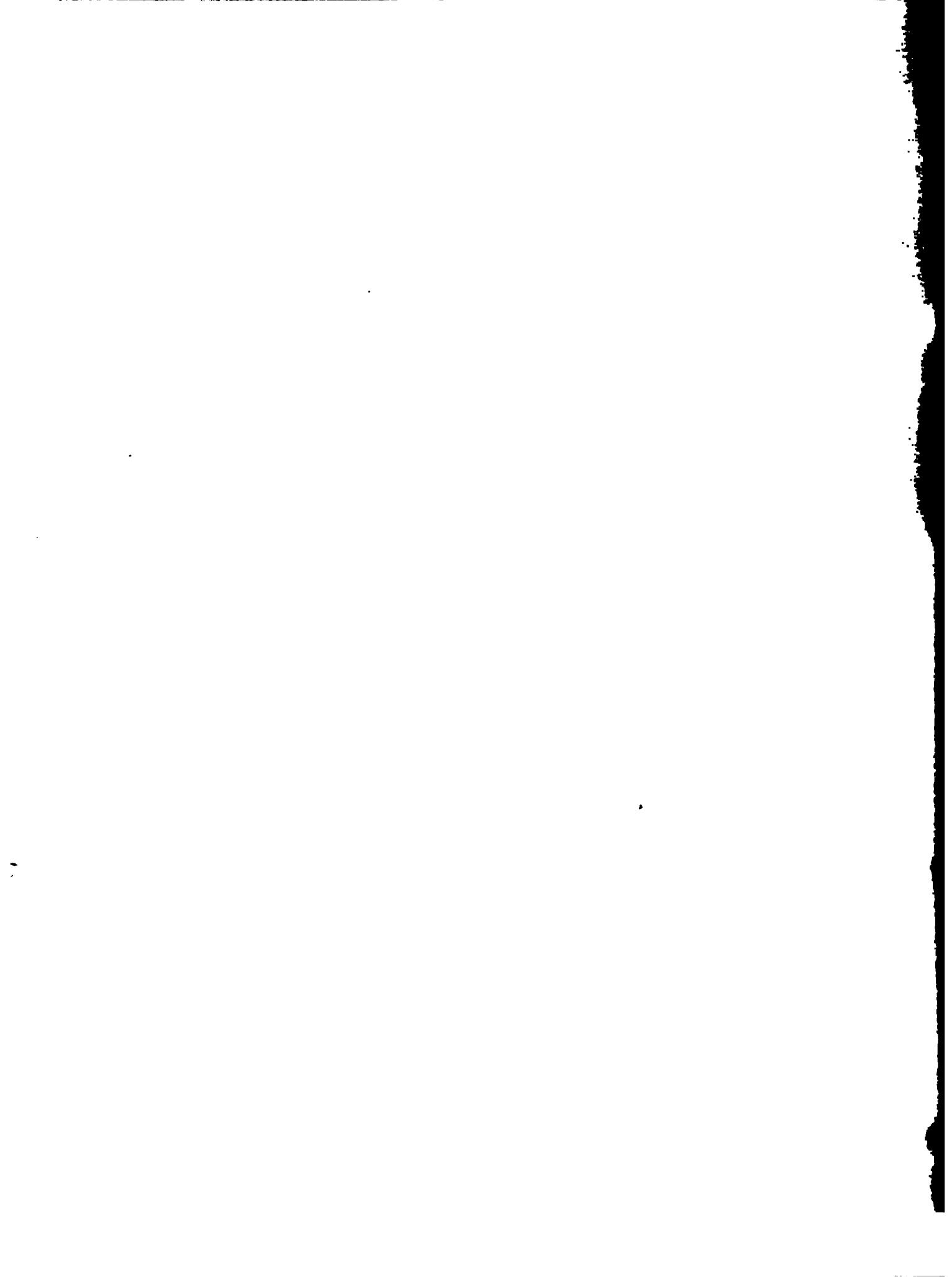
These courses will be provided in three basic fields: tropical livestock, with emphasis on animal production and nutrition; tropical forestry, with emphasis on management of tropical forests, short-term production of timber with fast-growing trees, and the study of phytosanitary problems of groves; and tropical soils and crops, with emphasis on physical and chemical aspects of soils, the utilization of nuclear energy in agriculture, cacao and coffee genetics, plant physiology and phytopathological aspects of coffee, with emphasis on the coffee rust.

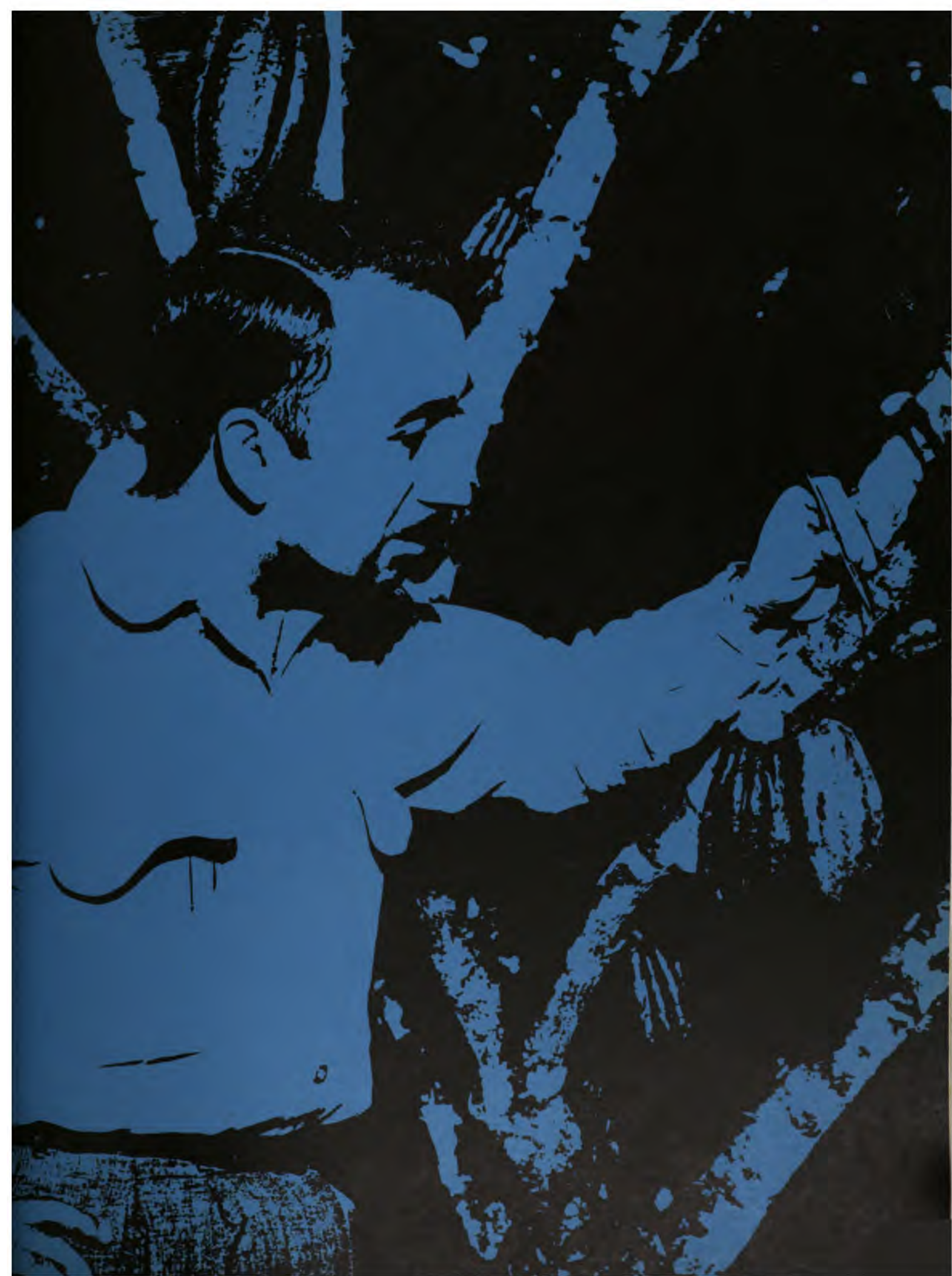
We feel that the utilization of CTEI through its new teaching programs will make it possible to achieve a higher performance and a higher cost/benefit ratio than at present, with the resulting benefits to member countries. Furthermore, better and greater use will be made of its physical facilities, thus increasing the multiplying effect represented by the large number of short-term students.



Chapter V

IICA AND AGRICULTURAL RESEARCH





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Practical research is very important for the advancement of technology.

Agricultural research is recognized as one of the fundamental factors in the economic and social development of our countries, particularly from the standpoint of improving the standard of living of the rural populations.

The role played by research in development is seriously curtailed, however, by the absence of a clearcut relationship between national development plans and the type of research carried out in each country. Many directors of research programs complain that they do not have appropriate terms of reference to guide them in

their projects; that their resources are scarce; and that economic and political factors deprive them of the minimum stability they need for their work. The low technical qualifications of research personnel, inadequate administration systems, the lack of articulation between research programs and training and extension programs, and the lack of feasible projects are all factors limiting the development of agricultural research institutions.

Add to this the high degree of duplication of efforts and the pretentious ambitions of some who prefer to do "pure" or "basic" research (neither term adequately explains the phenomenon) merely to enhance the personal prestige of some famous research scientist or to absurdly imitate the large research centers of the developed countries, and it will be seen that agricultural research in our countries is going through a critical stage. It is therefore essential to strengthen the national organizations responsible for conducting such research and to improve their administrative systems as well as their technical personnel.

This is where we feel the Institute, with its approach, must make itself felt. We advocate practical research the results of which can be immediately applied to the solution of problems affecting production, productivity and the improvement of the standard of living of farmers. We want to do this by strengthening national research institutions through the improvement of their administrative systems; training their staffs; increasing their informative work at the national, regional and hemisphere-wide levels; establishing programs that will promote zoning and regionalization; and strengthening socio-economic research that will throw light on the environment within which physical and biological research is conducted.

We will present a brief and by no means exhaustive analysis of IICA's action in the field of agricultural research by beginning with a description of the work done in the support centers, where a major portion of the Institute's research is carried out.

During the fiscal year covered by this report, the Tropical Center for Training and Research in Turrialba, Costa Rica, conducted twelve research projects, eleven of which were national in scope and one of which was multinational. It must be remembered that the research carried out in this Center can in fact be considered

multinational in nature because the results are used by graduate students representing all the member countries.

More specifically, emphasis was placed on research concerning cacao genetics and breeding. Seven clones were selected on the basis of their usefulness in the production of hybrids and high-yielding descendents and their resistance to *Phytophthora palmivora* and *Ceratocystis fimbriata*. The clones selected in Turrialba produced higher yields than clones produced in some other American countries, producing from 2,000 to 2,700 kilos per hectare.

Work with coffee has been directed mainly at obtaining cultivars with low caffeine content and intensive work has been done with 438 progenies considered resistant to coffee rust. Of these, 131 samples sent to the Federal University of Viçosa, Brazil, proved to be completely resistant to strain II of the rust. Studies on 733 hybrid progenies and on the introduction of germ plasm have been continued.

With regard to beans, seeds have been sent to the Nutrition Institute for Central America and Panama (Instituto de Nutrición de Centroamérica y Panamá—INCAP, Guatemala) for studies to be made of their nutritional value. These studies have shown that because of the lower percentage of toxins found in white beans, animals fed with this type gained more weight than those fed on black beans. An analysis showed that the protein content of white beans is slightly higher than that of black beans.

Experiments have continued with macadamia, peji-baye and yuca (manihot), as well as entomological experiments on *Hypsipyla grandella*, which attacks certain trees in tropical forests. It has been possible to control this insect somewhat with certain bacterias and continued efforts are being made to find bacterias that are resistant to sunlight.

Work has also continued on water-soil-plant relationships, on mineralization of nitrogen, the effect of various salts on the growth and production of beans, the status of sulphur in soils derived from volcanic ash, and the use of fertilizers, both for beans and sugar cane.

In the field of forestry, work has continued on the control of plagues attacking forest species, studies on fast-growing forest species, on the physical-mechanical properties of wood and on economic studies of certain factors in forest production. In the latter case, a method was devised for the rapid determination of whether the growth of trees is annual or not. This makes it possible to draw up yield tables which are not available in the forestry services of most member countries.

With regard to animal industry, special mention must be made of the work done on cattle nutrition, since the existing methodology does not provide for sufficient accuracy in determining the nutritional value of fodder obtained through grazing. These studies have shown that

a combination of chromic oxide and undigestible vegetable protein used as indicators in trials of digestibility and consumption provide a potentially more reliable method.

The research findings on factors affecting the utilization of grass by cattle show that tropical grasses only provide food enough for maintenance energy requirements and for a very low rate of production. It has also been found that these grasses have a high fiber content but that with proper management and adequate conditions of humidity, suitable amounts of protein can be obtained. Supplementary research has shown that the production of grazing cattle can be increased by providing them with molasses and by-products of banana plants. Similar studies are being made with regard to agro-industrial by-products such as fish flour, cotton cake, animal fat and others.

All the research work has benefitted from the full advisory services of the Computer and Statistical Unit at CTEI. The importance of inter-departmental teamwork has been stressed, as has been the need for a better definition of projects in order to establish objectives that can be applied directly to the service, mainly, of the Central American and Caribbean countries.

In the case of IICA-CIRA, with headquarters in Bogota, Colombia, the socio-economic research work has been considerably reduced because of the emphasis on teaching and direct advisory services to other units of the institution.

It is worth noting, however, that an automated mechanism was set up for the compilation and management of data. It was first used for a bibliography on agrarian reform which has been of great value to researchers in this field, and for in-service training with a view to extending the system among national institutions.

With regard to agrarian reform *per se*, which is the subject of another chapter of this report, the main task of CIRA during the period covered by this report has been to carry out a general study, in four countries, of the new associative systems of land tenure which have been developed as a result of the agrarian reform process. For several years, CIRA had held the conviction (which was shared by many countries) that these intermediate forms provided a promising means for breaking up latifundia without causing an unproductive atomization of property and production.

The five studies carried out (four monographs and one in-depth case study), complemented by two summaries, provided the first systematic over-all picture of these American experiments. As such, this group of studies is extremely useful as a basis for more precise and detailed research. Since each one calls for an interdisciplinary team to remain at the place of the study for an extended period, CIRA does not feel it is in

a position to carry out such research in greater detail. The country offices of IICA are better equipped for this work, and will be responsible for continuing it in the future.

It has become increasingly evident that IICA—CIRA, because of its limited budget and staff, must devote greater efforts to the establishment of methodologies that will be useful to other units of IICA. These may, with the collaboration of national technicians and institutions interested in this type of studies, carry out such research as will be most helpful to the countries in their efforts to improve the standards of living of the rural populations.

The work of IICA, by Zones and countries, in the field of socio-economic and physical-biological research, may be summarized as follows:

In the Northern Zone (Central America, Mexico and the Caribbean countries), intensive work has been carried out on such subjects as livestock production and studies of pastures and fodder in Mexico and Central America, through demonstrations of more efficient systems of fodder utilization, studies of the composition of dairy herds in Panama, Nicaragua, Honduras and Guatemala, and the application in dairy herds of the most modern practices in the artificial breeding of dairy cattle.

Special emphasis has also been placed, in these same countries, on advisory services to the national programs of research on and promotion of livestock production, through assistance to national technicians in defining, measuring and evaluating the main factors affecting beef cattle production and the production and utilization of tropical fodder. The program has also been extended to southeastern Mexico and the northern region of Chihuahua and Monterrey.



Good research work can be done without extremely complex and costly equipment.

The Northern Zone has also made special efforts to improve legume production in Central America, where it has coordinated at the regional levels the efforts carried out by governments and the promotion of technological innovations aimed at obtaining higher yields.

In this regard, in addition to studies of population per surface unit, work has been started on the control of certain fungus diseases, thus going beyond the stage where it was felt that the only important aspect was the genetic resistance of plants. It must also be pointed out that this work has been coordinated so as to avoid duplication of efforts, since researchers in the area are concentrating on specific activities and the quality of work has considerably increased.

It is important to note that the Northern Zone continues to provide advisory services to the Central American Cooperative Program for the Improvement of Food Crops (Programa Cooperativo Centroamericano para el Mejoramiento de Cultivos Alimenticios -PCCMCA), which is very important since work has been underway in this connection for many years and the annual meetings are financed by the researchers themselves. Some 100 research papers are presented each year at these meetings and common problems of the countries in the area are discussed by experts from Mexico, Colombia, Venezuela, Peru and the United States. IICA is responsible for coordinating the discussions on beans, and acts as the secretariat for the entire meeting.



Adequate equipment is essential for certain specific kinds of work.

The work of IICA in the Andean Zone also consists of research studies which benefit several or all the countries in the area and studies which are carried out purely at the national level.

An example of multinational research in the Andean Zone is the work being done to support the regionalization of research in the High Andes, which goes beyond the area covered by the Zone and reaches

into Argentina. This work in the High Andes is discussed under the section on the special programs of IICA.

In Bolivia, support has been provided for research in animal industry and Andean pastures. Advisory services have been provided to the Bolivian Development Corporation (Corporación Boliviana de Fomento) and the United Nations Subterranean Waters Project, in connection with the preparation and implementation of

demonstration fodder fields. Work has been done on the improvement of seedbeds for Andean pastures, in order to increase, in ideal ecological locations, the number of nuclei of fodder seed of species, cultivars or selections that are well adapted to the strenuous conditions of the **altiplano** and have survived for long periods (8 years).

Most of the work in Peru has consisted of advisory services and training in agricultural research through such activities as seminars, courses and others. Since the Regional Office is in this country, many of the research activities have been of a multinational nature; an example is the inventory and analysis of forestry research in the Andean Zone and the meeting of forestry researchers in this zone. The same applies to the meeting of researchers on pastures and fodder, the seminar on volcanic soils carried out in Colombia (Pasto), the meeting of the technical committee of the Germ Plasm Bank for Tropical Grasses and Legumes (Banco de Germoplasma de Pastos y Leguminosas Tropicales) and the regional seminar on the utilization of animals in the evaluation of grazing lands.

Work in Ecuador has been directed, basically, at providing advisory services in research programming and in training in animal industry and pastures. In the former case, work has included advisory services for the selection of research goals and priorities, the establishment of annual crop and animal industry programs, and coordination of project programming and implementation. With regard to livestock programs, methodologies emphasizing economic aspects with immediate application to the development of the sub-sector have been devised.

In Venezuela, considerable emphasis has been placed on training in research methodology for officials of MAC and the universities.

An interesting research program is being carried out in the Southern Zone countries. Several of these activities are multinational in scope, such as the coordination of corn and wheat research in Argentina and Brazil; coordination of livestock research with emphasis on animal production in Argentina, Brazil, Chile, Paraguay and Uruguay; exchange of technicians; inventory of research institutions and coordination of economic analyses.

Other aspects worth mentioning are the publication of a directory of 84 agricultural research institutions of Argentina, Chile, Paraguay and Uruguay, containing the most relevant information on each one; an exchange among 14 researchers in the countries of the Zone; the identification, analysis and publication of 562 livestock research projects, constituting around 80 per cent of the efforts of the countries in the area; the high-level seminar for the introduction into the Zone of the concept of research planning systems; and the publication of a book on economic analysis of livestock research data.

Cooperation and exchange, which are the basis of the Regional Cooperative Program for Agricultural Research, have undoubtedly been strengthened by the action of IICA. Considering that the long standing experience of other countries and regions with more sophisticated scientific development has shown the desirability and advantages of interinstitutional and interpersonal relationships in the field of research, it may easily be seen that the part played by this Program in the Zone is of particular significance.

In the specific case of economic analysis, the Institute's aim has been to promote greater interest and help achieve greater knowledge of the economic and social aspects involved in the discovery and application of technology in the countries of the Zone.

Some of the most outstanding activities in the area have been the following:

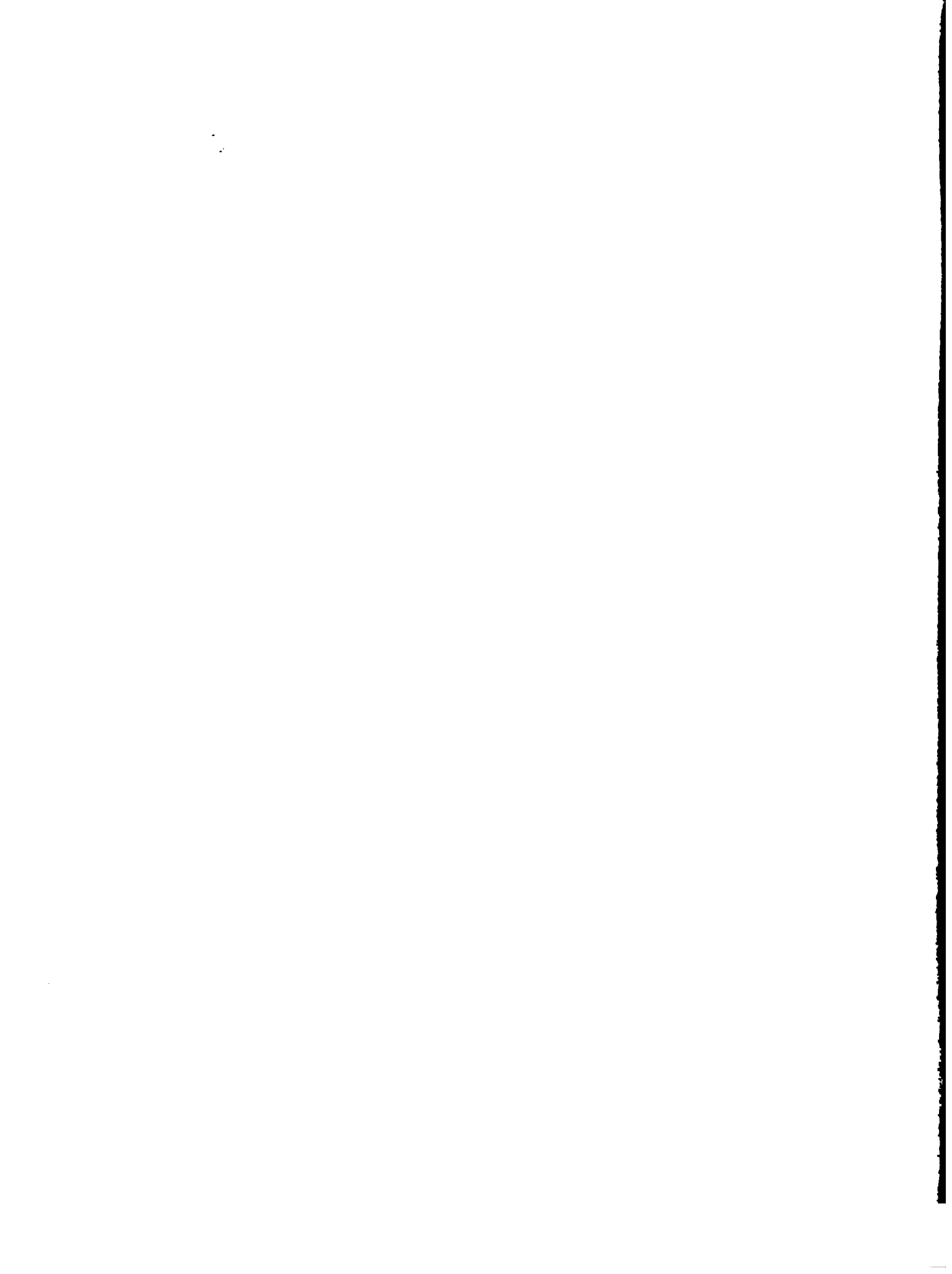
In Brazil, for example, substantial progress has been made in the programming of agricultural research in the southern region of the country, through advisory services concerning the diagnostic studies of the agricultural sectors of Rio Grande do Sul and Santa Catarina.

In Paraguay, work has been done through the programs on soybeans, rice and economics. Advisory services have been provided in connection with program formulation and the design of specific research studies in each field, as well as in the training of national technicians.

In Uruguay, work is underway in collaboration with the Alberto Boerger Agricultural Research Center at La Estanzuela. New approaches have been advocated for the analysis of agricultural experiments by including economic criteria in order to facilitate the adoption of research findings. This work is closely related with that on the economic analysis of agricultural research in Uruguay and the collection of socio-economic data. The IICA technical staff has worked with substantial success in this field.

In Chile, in collaboration with the Agricultural Research Institute (Instituto de Investigaciones Agropecuarias), advisory services are being offered, with positive results, to the unit on economics. This work concerns the economic analysis of research in Chile and the inventory of socio-economic research institutions.

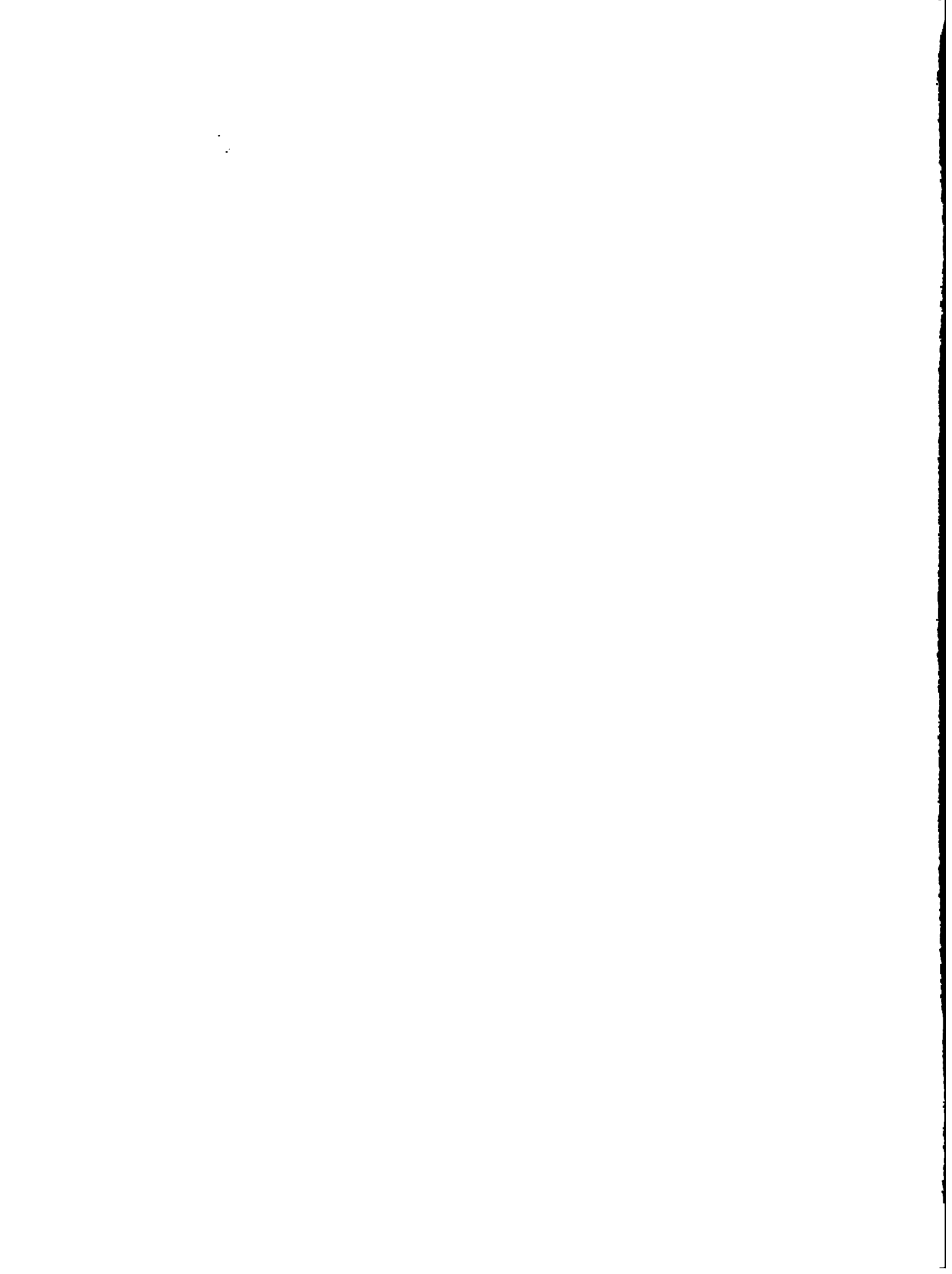
In Argentina, research is being conducted in connection with multinational programs as well as certain activities in the field of animal industry and irrigation. Emphasis has been placed on the strengthening of projects such as those relating to marketing and the economic analysis of production techniques and systems and studies concerning institutional consolidation.





Chapter VI

**IICA AND THE DEVELOPMENT OF
PRODUCTION**



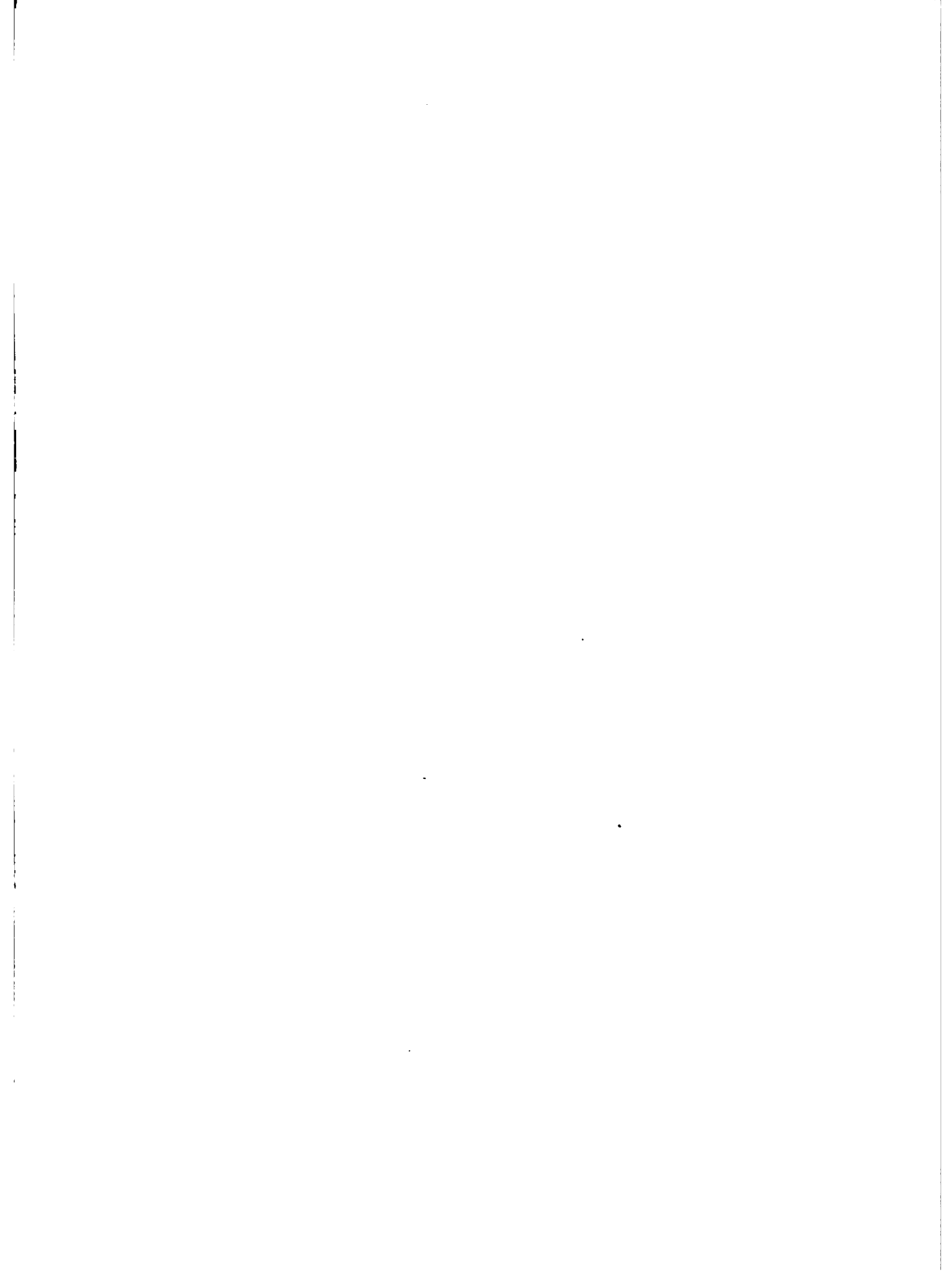


Chapter VI

**IICA AND THE DEVELOPMENT OF
PRODUCTION**







Chapter VI

IICA AND THE DEVELOPMENT OF PRODUCTION

As set forth in the General Plan, Line of Action IV on promotion of agricultural production is designed to assist countries in their efforts to achieve sustained increases in their agricultural production by establishing liaison between national planning agencies and those concerned with physical-biological and socio-economic research, the provision of inputs, extension, technical assistance, credit and marketing.

In keeping with IICA policy, this Line of Action was developed in order to attack the problems arising from the rapid population growth in Latin America and in view of the pressing need to increase agricultural production and foods so as to prevent the economic and social problems which are easily foreseeable in light of the aforementioned population growth and the rate of increase in production.



Technological advances bring about increased production.

At the project level, IICA's work under this Line of Action may be summarized as follows:

Work of regional scope has been carried out in connection with strengthening the agricultural marketing

organizations of the Andean Zone countries (Bolivia, Colombia, Ecuador, Peru and Venezuela); training in agricultural extension for increased agricultural production (multinational project) has been provided in the Northern Zone. Advisory services were also provided to the Northern Zone countries in connection with national plans and projects for the promotion of production, as in the cases of Costa Rica, Nicaragua, Honduras, El Salvador and Panama.

In the Southern Zone countries, work consisted basically of training for technical and credit assistance, as in the specific cases of Argentina, Brazil, Chile, Paraguay and Uruguay.

In connection with the Institute's work in Chile, it is worth stressing that as a result of the closer links established with the Agricultural and Livestock Service (Servicio Agrícola Ganadero) and its Production Division, under a recent specific agreement, it has been possible to extend at the nation-wide level the experience gained from the Maipu Area development program, and its subsequent expansion to the IV Zone of the Agricultural and Livestock Service (SAG).

It is also worth pointing out that, with due regard to the terms of reference of IICA's work in Chile, the objectives of both agreements were merged so as to enable the two technical teams to join their efforts in the program now underway, with its two basic aspects.

The first of these concerns the approach to technical assistance, its orientation and implementation. The emphasis here is on a modern, humanistic, essentially educational program which will be reflected in the content of the advisory and training services to be provided.

The second concerns the procedure for providing advisory services under the agreement to the institutions, with a view to delivering the program content so as to achieve the over-all objectives. It was felt that the advisory services and training should be of such a nature as to enable professionals and technicians at the rural level to understand and apply the necessary know-how in concrete working situations.

All these efforts have been organized in a program of inductive methodological trials relating to training and rural technical assistance.

Training is provided, through team work, in the fields of farm management, irrigation and soil use, since these are the most likely to develop decision-making skills, over a wider range of problems, among farmers, and they have a potentially greater multiplying effect.

Successful work was also done in connection with training and advisory services concerning settlements in the Southern Zone countries; strengthening of institutions responsible for irrigation in the temperate zone of South America; advisory services concerning irrigation in

Argentina, Brazil, Chile, Peru and Uruguay; animal industry, especially studies of livestock development in the River Plate Basin; technical assistance to national institutions; advisory services to development institutions and national and international programs in the Andean and Northern Zones; technical assistance to the agricultural sector and advisory services and computer and statistical services to national institutions.

Also worth mentioning are the courses on the preparation and evaluation of agricultural projects carried out under an agreement between IICA and the Inter-American Development Bank (IDB).

The purpose of this agreement is to train national teams in order to enable them to draw up agricultural projects to be financed by external sources.

The courses, according to their goals, are given in three phases: organization, theoretical-practical course, and in-service training.

During the period covered by this report, the first three of nine courses that have been planned were carried out according to the approved plan of work.

The IICA/IDB agreement has made it possible to develop a methodology for these courses, which have been designed to produce specific projects. This is extremely important, from the standpoint of the projects available which can be presented to the international financing agencies engaged in assistance to agricultural development.

From the standpoint of personnel training, the courses have been and will continue to be of great benefit to the countries in drawing up their own development projects.

An example of this is the project on advisory services in the preparation of a request for international credit to support the five-year coffee development plan in Haiti.

During the period covered by this report, preliminary background studies were made on Haitian coffee production and its high and low points in the country's economy.

The technical staff assigned by IICA to carry out the study produced a report on the causes of the serious decrease in Haitian coffee production, the importance of coffee to the Haitian economy, and the problems relating thereto, not only as regards the amount available for export but also concerning its incidence on the gross national product. Reference is also made to the national coffee-growing plan drawn up by the Haitian Coffee Promotion Institute, which contemplates certain activities that have been underway since 1970 and have been projected into 1974. These activities are aimed at regaining the favorable position previously held by coffee production in the national economy.

Among other things, the IICA report on Haiti states that in view of the above action and the importance of the national coffee-growing plan within the five-year plan for the development of the agricultural sector, coffee is considered to be one of the basic items of action and production for the country. This report was prepared by the National Planning Council (CONADEP).

Under the program on the promotion of agricultural production in the Antilles, and as part of its program of operations for 1972-73, the IICA Office in the Antilles

prepared the project on advisory services for the five-year coffee development plan of Haiti, which included activity IV-L-152 - Advisory services in the preparation of a request for international credit to support the Haitian five-year coffee development plan.

The IICA Office in Haiti thus expects to help the Haitian Institute for promotion of coffee and other export products with an international financing project which will enable the country to obtain additional resources for the plan envisaged.



Increased production must bring about an improved standard of living for the campesino.

In line with the above, the Office in Haiti asked the Regional Office for the Northern Zone for the services of the Agricultural Programmer, who would carry out

this work within the context of the collaboration between the Regional Office for the Northern Zone and the offices in the Antilles, this case, specifically, the Office in Haiti.



The countries must also benefit from the increase in agricultural production by obtaining better prices for their export products.

The Agricultural Programmer travelled to Haiti in order to put this activity underway. He has submitted a report which has the following objectives:

1. To work in collaboration with the Haitian Institute for the promotion of coffee and other export products in preparing the list of information required to draw up an international credit project to support the five-year coffee development plan.
2. He visited the coffee-growing zones of Haiti in order to gather the necessary field information to supplement the studies made by the aforementioned institution, with a view to preparing the financial and economic analysis for the credit application.

The work accomplished to date may be summarized as follows:

1. Conversations with officials concerning the industry. These officials also provided information on the national coffee-growing plan they had draw up, production statistics and other general data on national coffee production, with a view to providing the necessary background for this important task.
2. The work was divided among technical groups: one made up of Dr. Sylvain and Ing. Dadaille, Director-General of the Haitian Institute, who are in charge of drawing up a tentative outline of requirements for programming and improving the model farms to be analyzed as part of the financial and economic analysis. The other group is in charge of discussion and elaboration of guidelines for the agricultural project. This group also travelled to the

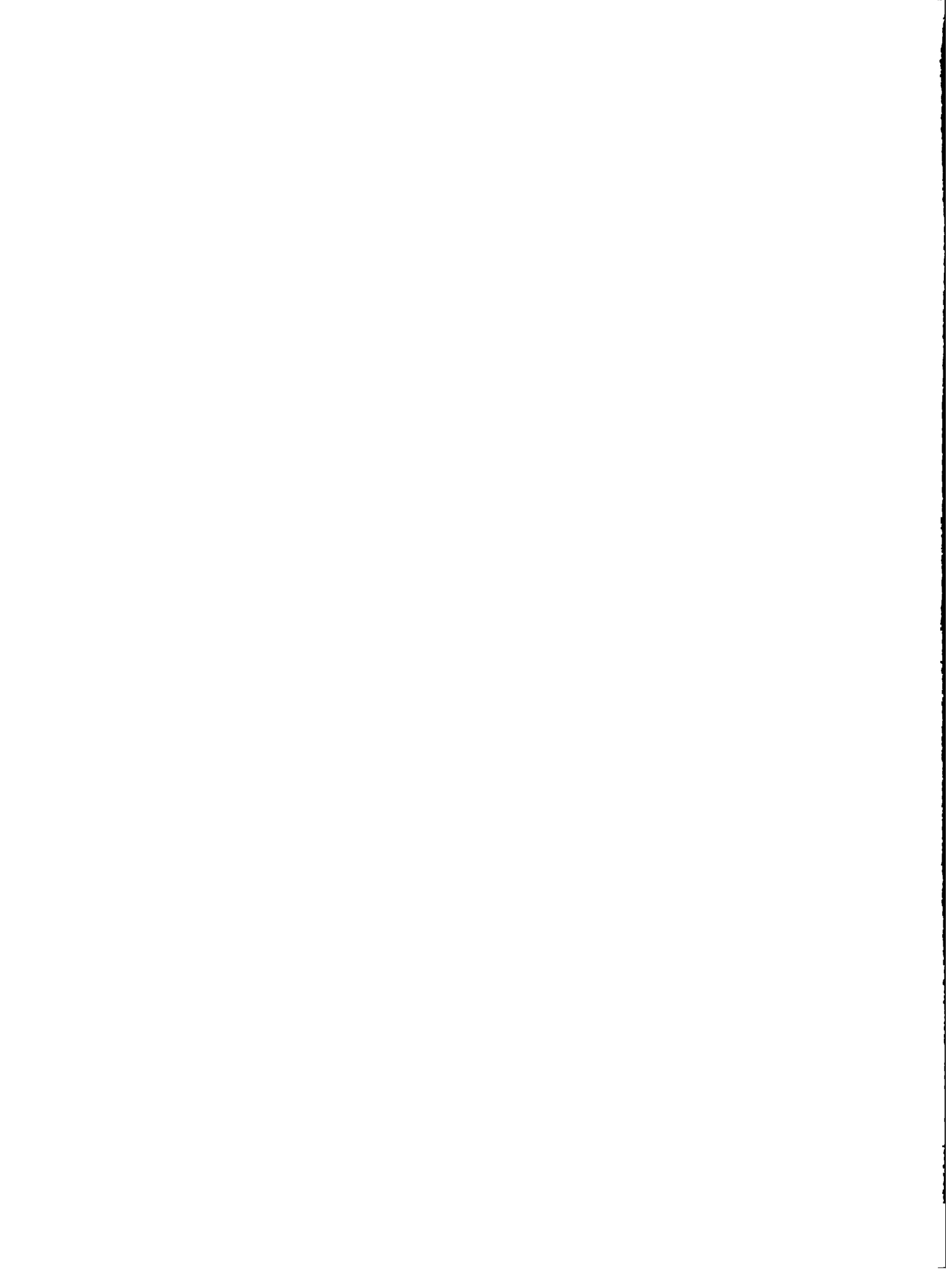
coffee-growing zones in order to gather data at the farm level to supplement the work of the first group.

It is important to note that at its Eleventh Annual Meeting in San Salvador, El Salvador (May, 1972), the Board of Directors of IICA adopted resolution IICA/JD-810/72-11, referring to the creation of the Program for the Marketing of Agricultural Products, after having studied the report entitled "Draft for an Hemispheric Agricultural Marketing Program" submitted by the Director General in compliance with resolution IICA/JD-740-26, adopted at the Tenth Annual Meeting in Lima, Peru.

Through this resolution it was agreed to establish the program at the hemispheric level, as outlined by the Director General. The Board recommended that the Director General should initiate the measures necessary for obtaining economic and technical cooperation from the international organisms and institutions in order to strengthen the implementation of the Program.

As this report goes to press, IICA has made progress in the recruitment of the technician who will be in charge of the Program. The necessary steps are being taken to implement it during the forthcoming fiscal year.

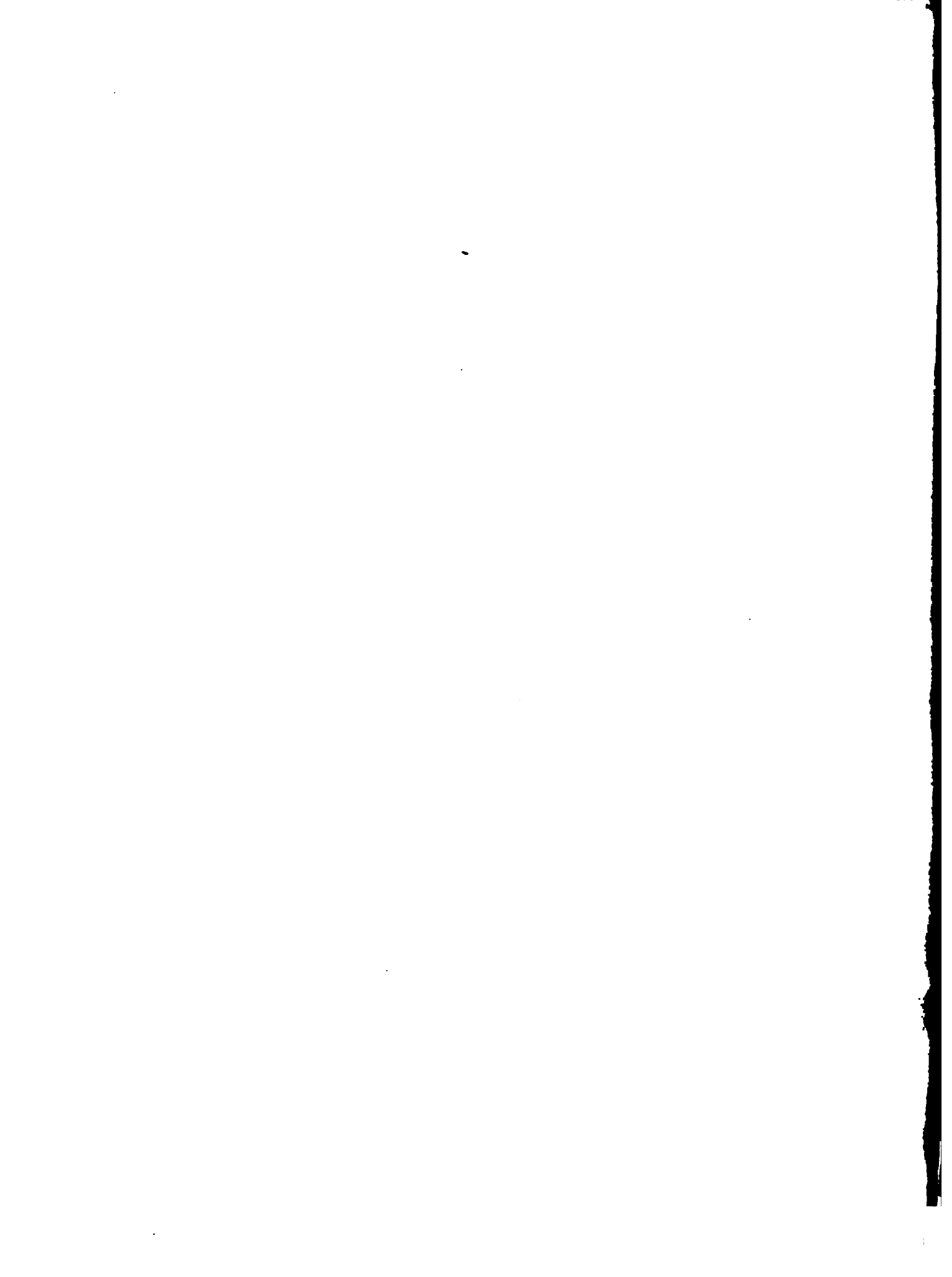
The following projects were carried out under the technical assistance program of CTEI: technical assistance to national institutions; advisory services to development institutions; advisory services to national and international programs; technical assistance to the agricultural sector, and advisory services and computer and statistical services to national institutions. All these projects were international in scope.



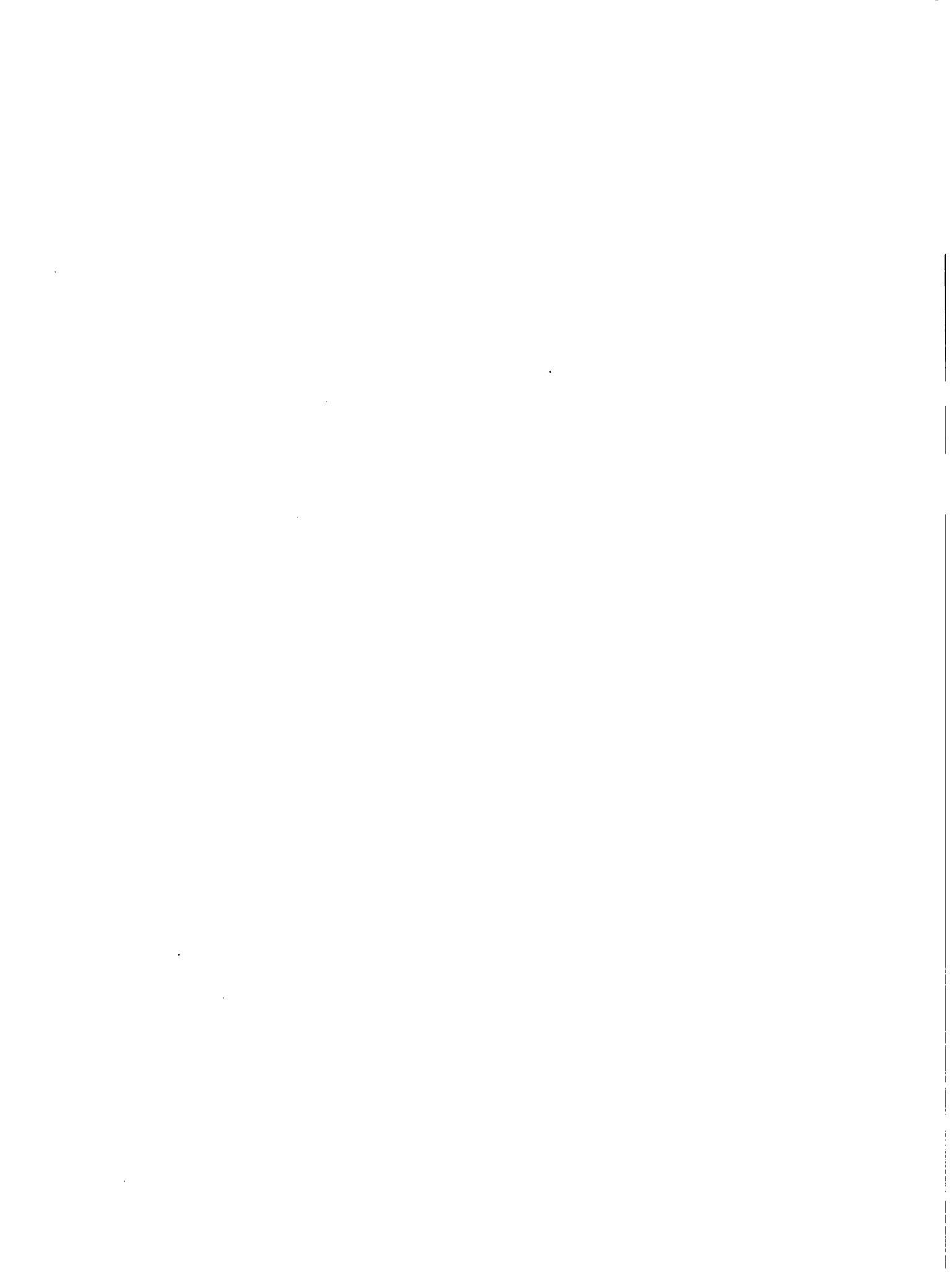


Chapter VII

IICA AND STRUCTURAL CHANGE







Chapter VII
IICA AND STRUCTURAL CHANGE



Governments are in duty bound to produce the conditions necessary for change.

The information submitted in this chapter refers to the action of IICA under Line VI on the strengthening of institutions responsible for implementing and promoting structural change.

IICA is engaged in two fundamental programs in this field, namely, agrarian reform and rural organization (**organización campesina**). In keeping with the purposes of this institutional line of action, IICA has been absorbing to a large extent the activities of OAS Project

206 (Rural Development and Agrarian Reform) some of the activities of which have been incorporated under Line IV, on promotion of agricultural production.

Under its humanistic projection in the field of structural change, IICA advocates the formulation and implementation of action likely to promote systems of land tenure, production and distribution in order gradually to eliminate all forms of private ownership of the means of production that might involve the exploitation of the peasant masses.



Structural change comes about after knowledge is acquired.

At the same time, we find it necessary to promote associative forms of ownership and to ensure that community units of production are of such a size as to make use of the advantages of a scaled economy. It is

also important to promote agricultural policies that will allow for the social capitalization of the economic surpluses generated under the new structure, in order to create productive activities aimed at making development more dynamic.

Another way of contributing to the process of structural change in our countries is to work with them in promoting community enterprises run by farmers (**campesinos**) with low incomes. These enterprises should have an efficient combination of productive factors and should make rational use of natural resources. The property should belong jointly to the group of individuals involved in the enterprise. Under this concept of community enterprise, profits are redistributed according to the work done and the economic surplus is used for social purposes. Thus, profits are used not only for the benefit of the workers directly concerned, but also for the development of the rural sector as a whole.

Within this frame of reference, and with due regard for each country's policy decisions, IICA has been implementing its programs in this Line through training courses, national and international seminars, research work, scientific publications and advisory services. These activities have been characterized by an innovative approach, as they have always been aimed at searching new formulas and procedures for helping to make the structural changes advocated by all the political bodies of the Inter-American system more flexible. Some of

the main work in this connection has consisted of the following:

At the Inter-American Center for Rural Development and Agrarian Reform of IICA (CIRA), located in Bogota, Colombia, work has basically been concentrated on comparative studies of community enterprises; the study of the status of agrarian reform in America; training in rural education (**educación campesina**); and training in methods of rural social organization (**organización social campesina**).

All these activities, supported by those carried out in connection with education, research, information and planning, make up the contributions of this important Center. The Center also publishes the magazine **Desarrollo Rural en las Américas** (Rural Development in the Americas), which is now being issued on a regular basis with a larger circulation and more sophisticated contents. The Center publishes the **Boletín de Noticias de Reforma Agraria** (Agrarian Reform News Bulletin), which has once more been placed in circulation. The editorial policy now is to publish only information directly concerned with the process of agrarian reform in the region.



Changes are reflected in many ways, each with its own significance.

IICA-CIRA has collaborated with the IICA Offices in the various countries on agrarian reform activities which have been mentioned, in one context or another, in other sections of this report. With regard to the program on rural (**campesino**) organization, the difficulties inherent in research and teaching in this field are evident but so is the interest of certain countries in receiving support for their efforts to change out-of-school rural (**campesino**) education. It may well be that, along with the studies on rural community enterprises, the activities aimed at promoting a renewal of **campesino** education represent one of the major and most useful efforts of CIRA during the past fiscal year. It is felt, however, that this first experience of CIRA must be capitalized before these activities are transferred to the IICA Offices in individual countries.

It was most interesting to find evidence of the close link between the need for **economic organization** of the rural society, the need for **social reorganization** and the need for **cultural reorganization**.

This threefold focus will make it possible to develop an integrated strategy for the achievement of a profound structural change which will go beyond the mere distribution of land and will therefore lead to true rural development in a rational and productive manner.

As part of the rural (**campesino**) organization program, IICA-CIRA carried out three international activities, which were, in fact, experimental in nature. The results obtained were very encouraging.

In the Northern Zone of IICA, there have been two well-defined types of action: advisory services and training in rural (**campesino**) organization and technical assistance, which is carried out in Mexico, and the program on training and studies on agrarian reform and rural development of the Central American isthmus (PRACA - Programa de Adiestramiento y Estudios sobre Reforma Agraria y Desarrollo Rural del Istmo Centroamericano), which is carried out in Central America and Panama.

The main objectives of the project in Mexico have been to make the officials of rural programs aware of the present situation of **campesino** organization; to collaborate in training national technicians in the preparation and implementation of plans for the pooling of efforts; in developing concepts regarding the best methods to be used; and in promoting and coordinating the work of the various institutions involved.

Advisory services have been provided to the Mexican rural productivity program (Programa Campesino de Productividad) and an international course has been given on **campesino** organization and technical assistance in development; both of these activities were quite successful. The Institute has also cooperated in the preparation of reports on institutional action in "La Begonia"; institutional action in the area of Texcoco; social organization in the area of Texcoco; technological

levels of agriculture in Texcoco; information use and media in Texcoco.

This project will be expanded so as to carry out a general study of the status of rural organization in Mexico and to promote the coordination of activities in this field, extending the action of IICA to other development agencies, either directly or through the Programa Campesino.

In Central America, PRACA carried out the following activities: annual meeting of agrarian reform executives of the Central American isthmus; advisory services in the implementation of activities; national course on agrarian reform for promoters and supervisors of the Rural Settlement Institute (Instituto de Colonización Rural) of El Salvador; national course on administration of agricultural colonies and rural settlements (**asentamientos campesinos**) in Nicaragua; national seminar on rural development for government officials in the agricultural sector, in Panama; five basic courses on cooperatives for rural leaders of the cooperative farms of the Guatemalan National Institute for Agrarian Change (Instituto Nacional de Transformación Agraria); technical meeting to review the draft agreement on the establishment of a Central American fund for the financing of agrarian reform programs; and an international seminar on planning of agrarian reform. As part of this large number of activities in Central America, PRACA has trained or been of direct benefit to 435 officials and technicians in the countries of the isthmus and 26 officials of international agencies working in Central America.

PRACA has been one of the most successful programs undertaken by IICA from the standpoint of the work done and the support offered by the countries, in terms of financing and of the confidence it inspires in those who feel the training and promotion are achieving the desired results.

The work in agrarian reform and **campesino** organization has constituted another important basis of action in the Andean Zone as well. Emphasis and support is being given to the national institutions the strengthening of which will be of positive benefit to the more underprivileged sections of the population.

The marketing projects are particularly well suited to this sphere of action. The inadequate marketing of agricultural products throughout the five countries of the Zone is seriously affecting the lower-income strata of the population. The Andean Zone has therefore assigned high priority to agricultural marketing and is working with the producer cooperatives, in cooperation also with the national institutions engaged in promoting social change in the agricultural sector.

In Venezuela, work has been done in strengthening the agrarian reform agencies through the improvement of the administrative aspects of the National Agrarian Institute (Instituto Agrario Nacional -IAN) and

promotion and participation in economic, social and technical studies aimed at improving the orientation of programs and projects. Some of these activities have included the training of technical staff of IAN on assessment of farms; advisory services to the rural cadastre unit of IAN; and in-service training of Venezuelan technicians in Peru.

In Ecuador, state action will be aimed at achieving compatibility with the new strategy for making the development of the sector more dynamic, according to the purposes outlined in the Plan of Action of the Revolutionary and Nationalist Government. With regard to rural development policy, this Plan states that the Revolutionary Nationalist Government's social and labor policy will place special emphasis on the solution of the problems of the rural population (*campesinado*), since it realizes that the largest portion of the population of Ecuador consists of persons who live in the country or are concerned with it.

According to this statement of the Government's position, the rural development process will be strengthened through the application of a strategy based on a well-defined policy of regionalization and positive participation of the rural population. As part of its program for strengthening the agrarian reform agencies of Ecuador through training and advisory services to the national institutions with a view to improving their systems of planning, organization and methods of work, IICA carried out the following activities: national courses, in-service training, advisory sessions and others.

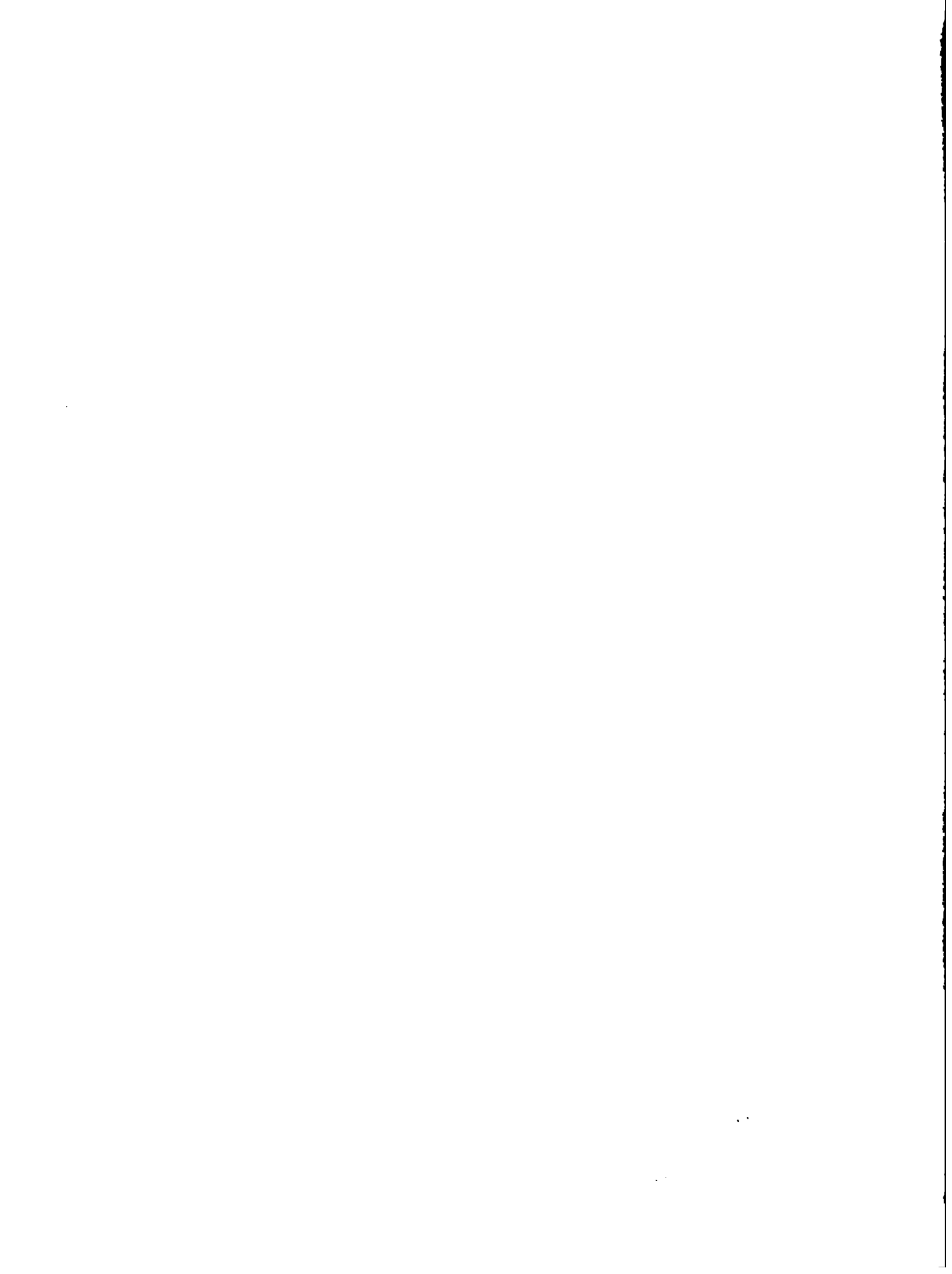
It was thus possible to increase the training provided to national officials and to achieve effective improvements in the organizations.

In Peru, the Government has continued with its programs on agrarian reform and social mobilization and the development of agricultural cooperatives, agro-industrial complexes and *campesino* organization.

IICA has worked side by side with the Peruvian Government by establishing close coordination with agencies such as CENCIRA, SINAMOS and the agrarian reform program, where it has provided support through courses, direct advice, seminars and training of personnel.

In the Southern Zone, IICA has done intensive work in Chile, where its support regarding the elaboration of plans for agricultural operations and its active participation in the formulation of the development plan (reformed subsector) have been especially important. This work will also be carried out at the university and *campesino* levels.

In Argentina, work has basically been aimed at organizing the agrarian structure of the country; in Uruguay, it has concerned the settlement program; and in Brazil, the state agrarian reform and settlement efforts. In the case of Paraguay, the most important work has been that carried out in colonies and *asentamientos* (settlements), such as "Repatriación", "Mallorquín" and others.





Chapter VIII

SPECIAL PROGRAMS





Chapter VIII

SPECIAL PROGRAMS

In addition to its regular work programs, IICA has undertaken certain specific projects upon the recommendation of or pursuant to express resolutions of the Board of Directors, or as a result of real needs discovered in certain regions or countries.

This involves organizing, preparing and implementing projects for which we normally recruit highly specialized personnel, or appoint regular staff members whose special field of competence is appropriate for the action involved.

On some occasions, the programs are the subject of agreements with other international organizations; in other cases, we finance the projects with our own funds, and, in others, we simply act on behalf of the member countries.

This type of institutional action often enables us, without disregarding our basic lines of action, to carry out other activities of special interest to the countries. Some of these programs are worth stressing in view of their importance and the substantial achievements they have made possible. They are the following:

a. Cooperative Program for the Development of the American Tropics

By Resolution IICA/JD-626-2 (Ap.1), adopted at its VII Annual Meeting in San Jose, Costa Rica, in April and May, 1968, the Board of Directors of IICA approved the establishment of a technical committee to study the objectives, organization, financing and operation of a cooperative program for the development of the American tropics.

During the following year, having heard the report of the Committee, the Board of Directors, meeting in Quito, Ecuador, adopted Resolution IICA/JD-658-28, approving the gradual implementation of the Program.

A working group made up of representatives of the countries where the Program would operate defined its objectives, identifying short-term and medium-term activities to be carried out, and on this basis, drew up the general plan of action.

The Board of Directors of IICA approved a budget of US\$114,000 for the fiscal year covered by this report. This appropriation has been used for the following activities under the program:



New technology produces surprising results in the tropics.

Fellowships to national specialists in the Southern Zone; fellowships to national specialists in the Andean Zone; inventory of institutions in the area; advisory services to the School of Agronomy of the Amazons, in Belem, Para, Brazil; advisory services to the School of Agronomy of Barquisimeto, Venezuela; organization of an information and documentation unit in Turrialba, Costa Rica; meeting of research directors in Itabuna, Brazil; seminar on settlements in the tropics; in-service training on production of garden vegetables in the tropics, in Venezuela; symposium on economically important plants of the Amazons; course on tropical ecology, in Itabuna, Brazil; advisory services to the schools of agronomy of Esmeraldas, Ecuador and Jusepin, Venezuela, and the IV Regional Meeting on Grasses.

In addition to these activities in various countries, the Program has carried out others which were financed by other agencies, such as the following: course on classification of soils, Brazil; diagnosis of the schools of agronomy of Belem and Goiania, Brazil; seminar on credit strategy, in Brazil; advisory services to INCRA, Brazil, in the establishment of a mechanism for leader-personnel executive-settler communications and feasibility study for the establishment of a center for training in project administration.

At present, the Advisory Committee of the Cooperative Program for the Development of the American Tropics is composed of the following persons: Ing. Segundo Alandia (Bolivia), Dr. José Alfinito (Brazil), Ing. Esteban Rico (Colombia), Ing. Gonzalo Gambaroti (Ecuador), Ing. José Muro (Peru), Ing. George Casas (Venezuela), Ing. Fernando Suárez de Castro (IICA, Andean Zone), Ing. Manuel Rodríguez (IICA, Southern Zone) and Dr. Luis Montoya, Executive Secretary of the Program.

At the III Meeting of the Advisory Committee, held in Guayaquil, Ecuador, from 26-29 June, 1972, the Minister of Production of Ecuador, Felipe Orellana Albán, made the following statement: "This meeting is truly an important one. It concerns the development of the American tropics and the development of the tropics throughout the world, from the Tropic of Cancer to the Tropic of Capricorn; the tropics account for one fourth of the land area of the earth and one third of the world population. These figures are enough to give us an idea of the importance of developing this region. While it is true that the tropics throughout the world have great potential, we must realize the difficulties that are to be found in taking advantage of these opportunities, because, as a matter of fact, the basic features of this great region are disease, poverty and other negative characteristics which explain why we appear before the world as underdeveloped peoples. Now, therefore, with the opportunities that have traditionally given the people of the tropics a reputation for being carefree, a new attitude is developing: the people of the American tropics are prepared to overcome all the obstacles of their environment . . ."

As the Minister of Production of Ecuador has said, the Cooperative Program for the Development of the American Tropics has an important mission in the agricultural sector. We feel it is fulfilling this mission efficiently and confidently, with the support of the countries involved.

b. The Program on Irrigation in the Temperate Zone of South America

Since 1 July, 1971, the Program on Irrigation in the Temperate Zone of South America has been carrying out a considerable number of activities in Argentina, Brazil, Chile, Peru and Uruguay. All these are aimed at filling the needs of the countries with regard to the

management, transportation, utilization and administration of irrigation waters.

The demand for water is increasing throughout the world. The more technically advanced farming operations in most countries depend to a large extent on the proper use and administration of this resource. If this is true of the more advanced countries, it is equally true of the developing countries, where the problem has been complicated by the existence of legislation on water use that is not responsive to social needs and has generally worked to the detriment of lower-income farmers with little or no access to advanced irrigation technology.

This explains the importance of this program at a time when the water legislation of the countries is bringing to the great rural masses of our countries a vital resource for producing more and better crops and calling for a more rational and technical use of this common property.

Through its various activities, the Program has advocated systems that will allow for better multinational integration in the solution of problems. To this end, it promoted the attendance of a distinguished group of professionals at the VI Latin American Seminar on Irrigation and Drainage held in Montevideo, Uruguay, in September 1971. In Santiago, Chile, it sponsored an International Seminar on Irrigation, which approved the establishment of the Advisory Committee on the Program and its rules of procedure, as well as an agreement for the exchange of technicians and information among participating countries.

Contacts have been established with the officers of the Inter-American Center for the Integral Development of Waters and Land of the OAS (CIDIAT). The Institute also participated in the first Latin American seminar on the disposition of watersheds (Primer Seminario Latinoamericano sobre Ordenación de Cuencas Hidrográficas), carried out under the sponsorship of FAO and UNDP in La Plata, Argentina.

Work has also been done in Argentina in connection with the programming of activities relating to irrigation systems, the determination of losses during transportation and distribution in irrigation canals, washing away of sediments, crop plans and water distribution, updating of user censuses, improvement of irrigation infrastructure at the farm level, optimum use of available resources and socio-economic studies of irrigating producers.

In Brazil, an agreement was signed with the Federal University of Pelotas for the strengthening of the Rural Engineering Department of the Eliseu Maciel Faculty of Agronomy. Brazil was also chosen as the host country for the VII Latin American Seminar on Irrigation.

In Chile, work is being done on the formulation of regulations and standards regarding irrigation waters, systematizing irrigation lands, design of infrastructures at the farm level, inventories of resources of irrigation systems, calculation of rates for the various uses of

water, and training programs. The first national course was given on the operation, maintenance and development of irrigation waters.

In Peru, the foundations have been laid for several

courses and for the first meeting of the Advisory Committee of the Program. In Uruguay, an agreement was signed between the Ministry of Public Works and IICA for a program of technical advisory services and training, which is already underway.



The high yield of this cacao plant shows the effect of agricultural technology in the tropics.

c. Regional Cooperative Program for the High Andes

In view of the high degree of awareness, among the institutions and technicians of the countries of the High Andes, regarding the realities of everyday life for the population of these regions, ways have been sought to define their problems and find an adequate solution to them. The scarcity of fodder for the maintenance of economically feasible livestock enterprises, for instance, calls for solutions based on the determination of the ecosystems and the features of the regions.

Through the Program, work has begun on a phenological study and a study on the economic potential of native grasses, both of which are essential for the proper production of fodder. Work has begun on the production of fodder seeds as well as on teaching farmers how to grow and manage fodder crops, as in Bolivia.

Experiments with quinoa have been carried out in Puno, Peru, using material from Bolivia with successful results. The cultivar used is Sajama, from the Experimental Station in Patacamaya, Bolivia, which has a high yield (four tons per hectare) and high protein content, making it recommendable for a source of income and nutrition for the Andean population.

Two annual meetings of the Program have also been held; the resulting decisions will be implemented by national technicians of the participating countries. The courses on pastures and ecosystems have provided these technicians with the necessary bases for their work.

It will eventually be necessary to extend the effective study of native and introduced grasses applied to animal production, to studies with native cattle, llamas and alpacas. We must extend our research on Andean crops such as quinoa, pointing out their range of growth so as to improve the nutrition of the population. Maximum use must be made of existing research as well.

The **Bibliography of the High Andes** has been promoted as part of this process. This publication has shown the technicians themselves how much research has already been done on the ecosystem and production of the region. The first book on native grasses of the Andes highlands was also published.

It is evident, however, that this information is not available in the language of the rural population of the high Andes. Emphasis has therefore been placed on a physical-biological research study, with economic projections, for the social development of the rural population. This integration of studies and research offers the people alternatives which they choose freely and which commit them to make serious efforts towards their own development.

d. The Inter-American Rural Youth Program

The main purpose of this program is to cooperate with governments and private institutions and organizations in the implementation of effective programs of informal education aimed at enabling the rural youth of the Americas to contribute more efficiently to increased agricultural production and the improvement of rural living conditions.

In 1971, this program, which has been underway for several years, entered into a new phase as a result of two grants made by the W. K. Kellogg Foundation in order to provide new opportunities for the development programs for rural youth in the Americas. One of the grants, for US\$606,700, was given to IICA to be used over a four-year period, for a new project whose main purpose is to use the potential of rural youth in a coordinated effort to increase production and improve nutrition among the rural communities of Latin America.



National rural youth programs help tomorrow's adults become aware of agrosocial problems.

The program is being carried out through a cooperative association between IICA and the National 4-H Club Foundation, Inc. The Inter-American Rural Youth Program, PIJR, with headquarters in San Jose, Costa Rica, is in charge of its implementation.

One of the most important accomplishments made possible by the Kellogg Foundation grant and the cooperation of the technical staff of the Program and of IICA's regular program has been the preparation of country projects for Brazil, Costa Rica, Guatemala and Paraguay. It is also important to mention the creation of the Inter-American Advisory Council on Rural Youth (Consejo Asesor Interamericano para la Juventud Rural), the appointment of its first members and the meeting of the Executive Committee *ad interim*.

The signing of the third agreement between IICA and PIJR marked the beginning of a new era in the relations between the two institutions, since it assigned rural youth an important part in the Institute's hemispheric and humanistic projection. The Kellogg Foundation grant of US\$606,700 for the implementation of this project over a four-year period therefore represents a significant development.

During the early part of the year, the PIJR staff drew up a new long-term projection of objectives and activities for the mobilization of rural youth during the seventies. This document is presently being used as the basis for the programming and development of the Program activities. Technicians of the 4-H Foundation, IICA and FAO took part in the drafting of the projection, the objectives of which were taken into account in the Plan of Work for the fiscal year.

Each of the countries in which the Program is working is free to establish its own goals as well as the objectives of the relevant national project, within the framework of the over-all project and with the advice of IICA and PIJR. Work is presently underway on the selection of pilot areas where national projects will be carried out, with emphasis on the methods required to achieve the desired goals.

e. The Program on Management for Rural Development.

In order to promote and stimulate rural development, IICA has chosen as its basic strategy of action the strengthening of the institutional systems that work in the field of rural development in the countries.

According to this general objective and strategy, the Institute, with its own resources and an AID donation, has undertaken a program designed to offer technical assistance and support to the public and private agencies of the agrarian sector of Latin America in order to improve their management techniques so as to ensure that the agrarian programs will have maximum impact in the rural areas.

The Program concentrates and specializes on management understood as the art and science of carrying out, within the framework of an organization, the processes necessary to achieve as effectively as possible the objectives and policies established by the administration.

The Program therefore studies organizational alternatives; methods and procedures for decision-making during implementation; effectiveness and timeliness of the delivery of essential public and private products to the client, both rural and urban.

Naturally, as the program gets underway, certain contradictions, deficiencies or incompetence in policies and objectives may be detected, as well as shortcomings in the organizations responsible for implementing the policies and achieving the objectives of rural development.

The Program takes note of these shortcomings and in due course passes on the information to those who are in a position to remedy them. It may eventually promote the creation of other specialized administration programs which may help better determine the objectives and select special policies and programs on organizational structures.

The following methodology is presently being tested in Costa Rica and Guatemala:

1. Research on and evaluation of specific problems in agricultural development programs. The purpose of this first phase is to train the program staff while at the same time assisting the countries involved.
2. Gathering of material for case studies and formulation of typologies and models.
3. Design of the appropriate methodology and of the contents of a personnel training program.
4. Implementation of the training program.
5. Application of the methodology.
6. Collection and analysis of data.
7. Development of a source of references for IICA and other institutions.

Through this program, we are attempting to take a new approach to the training of personnel responsible for the management of national rural development programs by combining training with practical technical assistance.

Once the main team has gained the necessary management experience, through research and assistance to the development programs of Costa Rica and

Guatemala, and has succeeded in having other IICA professionals participate in this experience, the latter will try, in cooperation with the central team, to assist other Latin American countries with regard to the management of plans and specific projects of agrarian development. The experience gained through this assistance, both by the program staff and by the staff

trained in the various units of IICA, will be analyzed and applied to the dynamic process of in-service training.

The content, techniques and other factors being studied as part of this training will be subject to continuous modification and improvement as new experience is accumulated and assimilated.

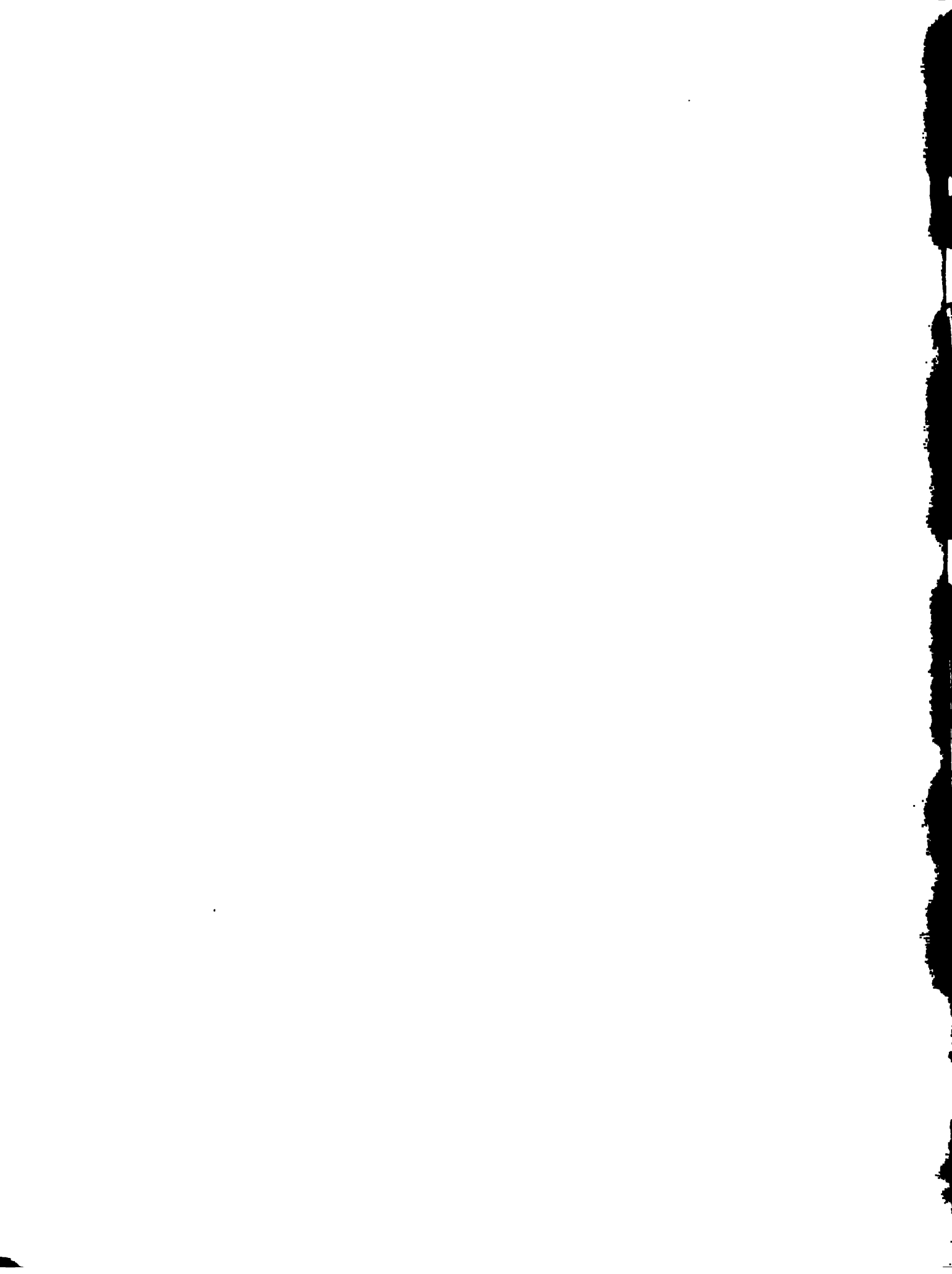


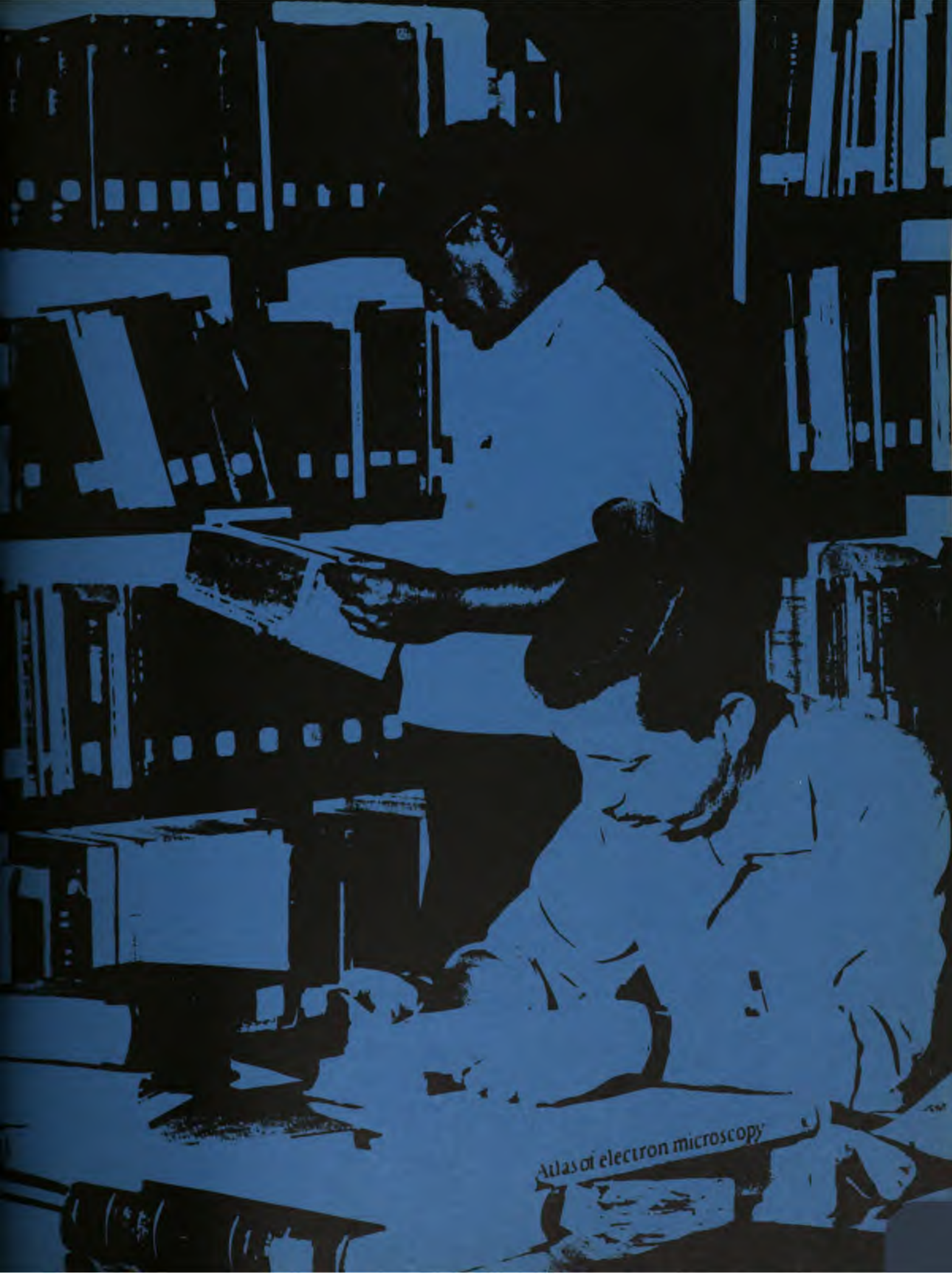
Practical courses on the operation and administration of irrigation districts provide a useful tool for the transfer of knowledge



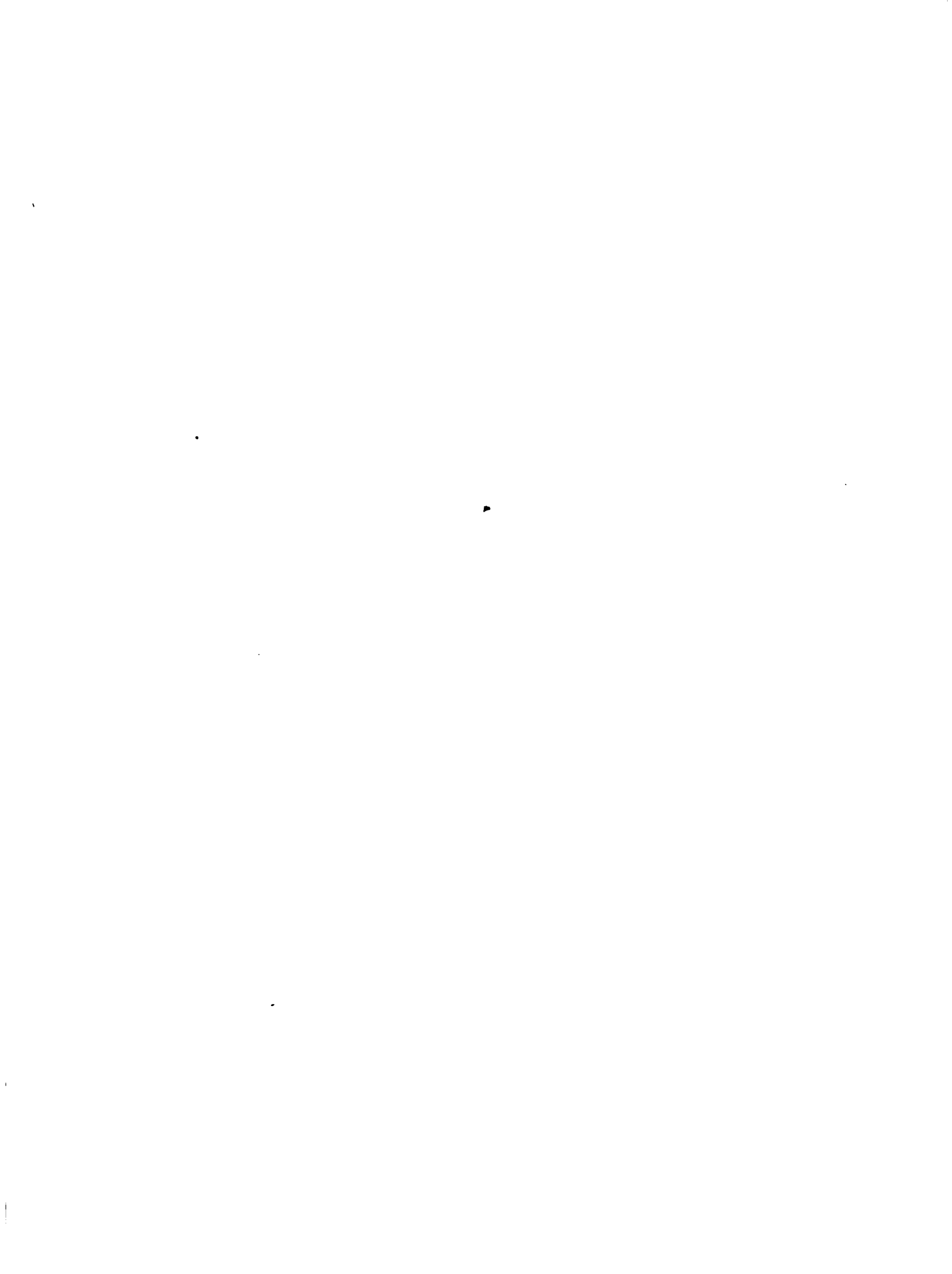
Chapter IX

INFORMATION AND DOCUMENTATION





Atlas of electron microscopy



CHAPTER IX

IICA AND AGRICULTURAL INFORMATION AND DOCUMENTATION



International meetings on certain aspects of documentation and information help create an awareness of this important work in the agricultural sector.

The Inter-American Institute of Agricultural Sciences is a pioneer institution in the field of agricultural information and documentation in Latin America. From its initial efforts, beginning with the foundation of a magazine on the agricultural sciences which is already in its twenty-second year and is considered one of the eleven best in the world, to the creation of the former Scientific Communication Service (SIC), to the present integrated information system under which the former Orton Commemorative Library has been transformed into the foundation for the Inter-American Centre for Agricultural Documentation and Information, many important events have shown that we continue to play a leading role in the field of information and documentation.

After many painstaking studies, we have designed an information system composed of four subsystems, three

of which are part of an on-going process and the fourth, with specific functions, which while not being completely removed from the system, does have certain special features.

We are referring to the subsystems of diagnosis, internal information and evaluation, and public information. The fourth system is CIDIA.

This perhaps is not the place to make a complete presentation of the three subsystems which make up the Institute's information process, which is itself presently undergoing a review aimed at defining specific policies. It is worthwhile, however, to remark on the progress of the Inter-American Centre for Agricultural Documentation and Information (CIDIA), which is very important.

The reorganization of CIDIA as a support center acting in line with the hemispheric and humanistic projection of IICA was based on a widely recognized reality: whether at the national, regional or worldwide level, it is essential to have a coordinating center which can promote and encourage the consolidation of the agricultural information structures in the countries, in order to pave the way for the coherent development of information throughout the hemisphere.

Furthermore, the processing of large volumes of information and the application of new management techniques made it necessary to establish a coordinating body capable of expediting these efforts. It was essential to have a system for organizing the production of information, based on the implementation of cooperative agreements, in order for such efforts to be economically feasible for the Latin American countries.

To this end, CIDIA has been engaged in an on-going program of training and education for librarians and documentalists; education of information users; diagnosis, planning and development of national information and documentation structures, and all other possible means in order to achieve the goals proposed for this unit of IICA.

Since one of the objectives of CIDIA has been to contribute to the integration of agricultural information in Latin America, efforts have been made to advance the collective establishment of bibliographies with computers. An example of this is the collective agrarian reform catalog (*Catálogo Colectivo de Reforma Agraria*) compiled by the IICA-CIRA Library and INCORA (Colombia).

Another effort in this field of automation of information has been the publication of the Latin American Index of Agricultural Theses (*Indice Latinoamericano de Tesis Agrícolas*) based on a multinational cooperative project.

It is also important to mention the efforts made in the field of national agricultural bibliographies, which represent a valuable contribution to the knowledge and utilization of literature produced by technicians in the countries. This literature would otherwise be lost because it would remain unknown or be scattered. This work, at the Central American level, has been supported by the IICA/Northern Zone/ROCAP Agreement.



Future documentation specialists are trained by IICA in the most advanced automation techniques.



IICA makes every effort to offer the best information through its own publications.

Through the Program for the Development of Libraries and Documentation, CIDIA promotes, encourages or participates in (depending on the particular method of operation) the development of libraries and documentation centers, in coordination with the Regional Offices of IICA and the Offices in Argentina, Bolivia, Brazil, Colombia, Ecuador, El Salvador, Haiti, Honduras, Mexico, Nicaragua, Peru and Venezuela.

Studies and diagnoses have been carried out, as well as coordination activities, with a view to establishing the Inter-American Agricultural Documentation and Information System, which would be linked to other multinational systems such as the Latin American Centre for Information in the Social and Economic Sciences of ECLA and the World System of Information in the Agricultural Sciences (AGRIS), operated by FAO.

CIDIA also collaborates in and supports associative efforts of professionals in this field. Thus, the Executive Secretariat of the Inter-American Association of Agricultural Librarians and Documentalists (AIBDA) has its headquarters in CIDIA in Turrialba, Costa Rica, and edits the main publications of this association. AIBDA

organized the III Inter-American Meeting of Agricultural Librarians and Documentalists held in Buenos Aires, Argentina in April, 1972.

Another field in which CIDIA has been active has been in providing support to the special programs of IICA. In this regard, it is worthwhile stressing the support given to the Cooperative Program for the Development of the American Tropics, which is doing important work in documentation of tropical agriculture and, with the help of CIDIA, is sponsoring the publication of a bulletin on the subject.

Parallel to the work done by CIDIA in the field of information and documentation, IICA is doing an important job in the member countries, through its communications and information specialists.

The technicians in this field provide a good deal of support and maintain close contact with the national agricultural information services and work very closely with the agronomy schools of the area, teaching courses in technical writing, communications, agricultural information and journalism.

An interesting outcome of this work has been the inclusion of courses on technical writing and library use in the curricula of the schools of agriculture in certain countries. This is very important for students preparing their theses, as well as for other future researchers.

In brief, we may say that the Institute's activities in this line of action have been many and varied. It is one of the priority fields with which IICA is concerned and will continue to expand, in view of the importance of this work at the hemispheric level.



FINANCIAL SUMMARY

Chapter X

FINANCIAL SUMMARY

Centralization of Financial Controls

During 1970, after much study, the Director General decided that the system of decentralized accounting and financial control of the Institute then in effect could be improved upon. In August of 1970, instructions were issued to the then new Director of Administrative and Financial Affairs – Treasurer to study the feasibility of a centralized accounting system which would bring together all accounting and financial control in the Executive Offices in San Jose, Costa Rica. This study revealed that such a system offered great economic and efficiency advantages over the decentralized system.

Accounting Manual for Centralization

Upon the initiative and under the leadership of the Director of Administrative and Financial Affairs, a new accounting manual for centralized accounting was published; it was ready to be put into effect for the fiscal period beginning 1 July 1971. The work plan for training the staff and centralizing the accounting system was begun immediately. This entailed a reorganization of the administrative and accounting procedures in all the Operating Units. IICA–CIRA in Bogota, Colombia, was centralized on 1 July 1971. The staffs in all the offices in the Southern Zone were trained, and these offices were centralized on 1 February, 1972; the Andean and Northern Zones were centralized on 1 March, 1972. The Inter–American Centre for Agricultural Documentation and Information (CIDIA) in Turrialba was centralized on 1 April, 1972. This included the reorganization of accounting and administrative functions and the creation of a cost system for the printing plant.

The reorganization of the Accounting Division in the Executive Offices to absorb the influx of information was accomplished with only a slight increase in personnel and expenditures. At the present time, the centralized accounting system controls and processes all financial data for twenty–two Operating Units in twenty countries, as well as thirty–five different Contracts, Agreements and Donations.

Electronic Data Processing

The centralization of all this financial data was mechanized in order to obtain maximum savings and efficiency. With the help of IBM analysts and programmers, EDP programming was accomplished for the IBM 1130 system through the Computer Unit of the Office of the Associate Deputy Director General for Technical Affairs and Planning. The programs for the

Financial Statements and Operating Budget Controls were completed during March, 1972, in time to publish computerized statements for all the Zones and Offices, with the exception of CIDIA, for the period ending 31 March, 1972. These statements were published for the period ending 31 May, 1972.

The analysis of operations for purposes of information and simplification will be continuous and is contemplated in the Accounting Manual. A priority list has been established for programming and publishing additional reports and statistics during the next fiscal year.

Financial Documentation

The present IBM programs produce the following statements:

1. Financial Statements for each Operating Unit, with a final Consolidated Statement for the Institute as a whole.
2. Operating Budget Control Statements as follows:
 - a) Budget control by type of expense for the Executive Offices, National Offices, IICA–CIRA and IICA–CIDIA. A consolidated statement is also prepared.
 - b) Budget control for Programs, Projects and Activities for each Office and Zone. This is accumulated to present a consolidation by Lines of Action.

These statements are available for publication no later than the eighth working day of each month, as compared with a time lapse of thirty to sixty days under the previous decentralized system, which offered only a small part of the information now available.

Objectives

The centralized, computerized system of accounting and statistics was designed to reduce administrative expenditures, especially in the areas of salaries, travel, communications expenses, and external auditing. Important savings have already been realized as a result of the reduction in accounting staff and operating expenses in the Zones, as well as the total elimination of all international travel for accounting problems by the Department of Administrative and Financial Affairs of

the Executive Offices. As has already been mentioned, the centralization and simplification of accounting in the Executive Offices has reduced the time and cost of external auditing.

Analysis of the Financial Statements for the Period ending 30 June, 1972 (Table 1)

Cash in Banks

The cash position on 30 June, 1972 was slightly lower than the previous year. More than half the available cash, however, was on short-term notes earning interest.

Interest income has increased considerably as the result of a new system of cash control and distribution allowing maximum income on a revolving short-term interest plan. New interest-earning plans are being studied.

Accounts Receivable – Quotas of Member States (Tables 2, 3 and 4 and Figure 1)

During the year, quota collections totalled US\$3,901,013.00. This represents 88 per cent of quotas due for the year and is the lowest percentage collected over the past four years (Table 4).

It must be pointed out that during the period under consideration, 6 of the 20 Contracting States –not counting Cuba, for well-known reasons– made no payment at all.

Only three countries were not in arrears at the beginning of the fiscal period. The total amount paid by these three countries represents 85 per cent of the total collected during the period. Another three countries paid more than their annual quota, thus reducing but not eliminating their outstanding balance. Nine countries paid less than their quota, thus increasing their outstanding balance.

Quota collections during the present fiscal year amounted to only 75 per cent of the approved budget (Table 3), creating a shortage of US\$524,196.00 in operating funds.

Accounts Receivable – Others

The balance of this account is too high mainly because of slow reimbursement from Contracts and Agreements, with 34 per cent of the total balance in CTEI. During 1971–72 with the help of the Director of Project 206, we were able to eliminate the large amounts due from this Project.

After the end of the 1971–72 period, US\$120,727.00 was reimbursed to IICA from the Nuclear Energy Program and Agency for International Development Contracts, the BID–PEPA Agreement and the Agreement between IICA and the Ministry of Agriculture of Costa Rica. This considerably reduced the account.

We hope to maintain the balance of outstanding accounts at approximately 3 per cent of total assets, compared to 8 per cent at 30 June, 1972, by an account control system included in the new organizational structure of the Accounting Division.

Deferred Charges

This account includes the bank loan with the American Security and Trust Company for the construction of residences in Turrialba, with a payment this year of US\$23,275.00 including interest. Partial amortization of this loan was made through rental income from the residences. As a result of staff reductions during the past two years, rental income has decreased and made it impossible to cover the amortization with this income. This year the Director General permitted the use of income from the commercial operations in Turrialba to compensate for the loan payment not covered by rental income. This amounted to US\$13,194.00.

The remaining balance of Deferred Charges is made up of payments made by CTEI to IBM for the 1130 Computer Unit and accessory equipment but not charged against the Operating Budget. This irregular accounting practice has been prohibited and the account is to be eliminated from the accounting system.

The outstanding balance owed to IBM has been paid in full, as have the payments that were due for rental of accessory equipment.

As of 1 July, 1972, the Computer Division was transferred to the Office of the Associate Deputy Director for Technical Affairs and Planning of the Executive Offices.

Other Assets

This account was temporarily inflated at the end of the period by some US\$11,000.00 as a result of inter-office balances remaining between CTEI and various National Offices. CTEI still functions with a manual accounting system which entails a communication time lapse that creates balances between offices. The computerized accounting system for the rest of the Institute eliminates the creation of this balances. The aforementioned balances were included in this account by the External Auditor so as not to delay the final audit report. The balances will be processed out of the account early in the next fiscal period.

Special Note on Fixed Assets

The asset accounts of the Institute do not reflect the value of its land, buildings, crops, vehicles and other properties, inasmuch as expenditures for the acquisition of such assets are considered as charges against the budgets of the periods in which the payments are made or the corresponding liability is recorded. Certain construction and furniture costs, financed with loans, are deferred and partially amortized with income from the rental of residences, dormitories and furniture.

Accounts Payable

The purchasing system, supply inventory control and strict purchase order liquidation controls established in the Accounting Manual provide controls of purchasing methods and allow for efficient payment of outstanding commitments. During the next period, these tight controls and the speed with which reports are received will preclude the accumulation of unpaid bills and substantially reduce any such balances. At the same time, it will allow the elimination of the Outstanding Commitments account.

Third Party Funds

The increase in this account was due to the receipt of funds at the close of the period from the Ford Foundation, ROCAP and the Inter-American Foundation.

This transitory account fluctuates during the year, depending upon the receipt of funds from specific Contracts and Agreements, which in turn are transferred to the Operating Units when required.

Outstanding Commitments

With the more controlled system of accounting and Purchase Order controls, it has been possible to eliminate this account. The immediate payment of Purchase Orders and the coordinated presentation of weekly financial data by all Operating Units eliminates the time lag previously required to register outstanding obligations against the present year's budget, therefore making the account unnecessary.

Reserves

The increase in this account was due to additional amounts designated for expenditures, i.e., US\$20,014.00 in CIDIA and US\$8,961.00 in the Southern Zone. This is in addition to those amounts usually assigned to CTEI

from miscellaneous incomes, which this year amounted to US\$21,587.00.

General Working Fund (Table 5, Figure 2)

During fiscal year 1971-72, the General Working Fund, which originally showed a balance of US\$2,394,305.00, was increased by US\$65,000.00 from the amount earmarked for this purpose in the Budget of Expenditures, and US\$343,579.00 from the surplus of income over expenditures for the year.

At the end of the fiscal period, therefore, the Fund showed a balance of US\$2,802,884.00, representing an increase of 17 per cent over the original balance.

As may be seen in Figure 2, the major portion of the General Working Fund is made up of unpaid quotas. The importance of this component cannot be overemphasized, as it has been increasing annually. As has already been noted, the reason for this is that it has not been possible to improve quota collections and the increase of US\$524,196.00 in this area had a significant impact on this account.

Review of Income and Disbursements of the General Working Fund (Table 6)

The income consists of the following:

1. Quotas approved by the Board of Directors on 26 May, 1971 (Res. IICA/JD-740-21), which total—excluding the Cuban quota—US\$4,425,209.00.
2. Reimbursement for administrative expenses by the United States Atomic Energy Commission, under the terms of the relevant contract, for the amount of US\$12,500.00.
3. Surplus of income over expenditures for commercial operations of the Tropical Center for Training and Research in Turrialba, amounting to US\$74,571.00, and the difference from foreign exchange transactions, amounting to US\$86,990.00. Other miscellaneous income totalled US\$15,776.00.

Disbursements include expenses charged against the approved Quota Budget, totalling US\$4,086,349.00 and represent 92.3 per cent of the total authorized. To this must be added the surplus of income of IICA-CTEI, the use of funds representing reimbursement of administrative expenses for Agreements, and disbursements charged to special activities carried out pursuant to resolutions of the Board of Directors, as follows: Study

Group on Agricultural Extension and Agrarian Reform in Bolivia (IICA/JD-740-27) and Agricultural Marketing Program (IICA/JD-740-26). The latter totalled US\$11,057.00, all together.

The balance of US\$343,579.00 represents the surplus of income over expenditures for the fiscal year under consideration.

The actual expenses during the past five years, as compared with the corresponding approved budgets, may be found in Table 7.

Cost Distribution by Line of Action (Table 8, Figures 3, 4 and 5)

Table 8 shows the breakdown by units (Regional Offices and Centers; External Coordination; Technical Affairs and Planning; and Executive Offices) of expenses charged against the regular Quota Budget. The heading "Other Activities and Services" shows expenses made under the seven Lines of Action but which cannot be broken down or attributed specifically to any one particular Line.

In relative figures, the comparison of expenses made during the five-year period 1967-68/1971-72, appearing in Figure 4, shows an upward trend in the portion for Lines of Action as compared with those for the Executive Offices, Administration and General Services and General Costs and Supplies.

This reflects the continued expansion of IICA's services to Member States and its untiring efforts to increase administrative efficiency and improve the use of resources through new systems that are both modern and efficient.

As in previous years, the Board of Directors, in paragraph 5 of its Resolution IICA/JD-740-20, decided that if in the course of the year it should be estimated that the Institute's revenue was less than what had been budgeted, the Director General should make adequate adjustment in the expenditures authorized and report to the Board of Directors (Figure 5).

As a result of this sound administrative practice, the level of expenditures during the year was kept at US\$4,086,349.00, an amount slightly higher (5 per cent) than the total quota collections.

Review of Funds Received for Specific Purposes (Tables 9 and 10, and Appendix)

The fiscal periods for the expense budgets of the funds received for specific purposes usually do not

coincide with the period for the quota budget. A table is therefore presented to show income and expenses during the period from 1 July, 1971 to 30 June, 1972. Table 9 shows the use of such funds including Project 206 of the OAS Technical Cooperation Administration. The relevant Appendix shows a breakdown of funds from agreements with Governments and national and international institutions.

Expenditures from funds received for specific purposes were made in accordance with the budgets approved under the relevant contracts and agreements.

The balance of quota funds received for specific purposes and others, as of 30 June, 1972, amounted to US\$3,018,609.00 (Table 10). The final balance showed an increase of US\$487,101.00, or 19.2 per cent, as a result of low quota collections from Contracting States, making very few funds available for expenditures. The increased balance during the 1970/71 period was US\$116,854.00, i.e., an increase of 4.8 per cent.

Final Comments

The payment of quotas continues to be the major financial problem of the Institute. It was even more evident this year in spite of the new procedures for collecting quotas included in the Operating Manual placed in effect on 1 July, 1971. The result of this was an even larger increase in the General Working Fund. Last year's increase amounted to 13.7 per cent as compared to this year's 17.0 per cent. This situation was due mainly to the lower proportion of quotas paid.

The necessary measures were taken to adapt the Operating Budget to the cash flow situation by executing economic restraints with a minimum of interference with major objectives.

If the outstanding quota balance, now amounting to US\$2,063,025.00 —excluding Cuba— could be collected, the General Working Fund would be backed by solvent capital and allow an uninterrupted flow of funds to the Operating Units. Under present conditions, cash flow levels drop periodically during the year to a point which prevents the distribution of funds requested by the Offices, thereby hindering their operations.

The over-all financial situation of the Institute, with the exception of unpaid quotas and their effect on the General Working Fund, has improved slightly, with a comparatively lower liability situation. A greater improvement in balances and savings is planned for the coming year, when the new accounting systems and controls will have been in effect for a full fiscal year.

TABLE 1. Quota Funds. Financial Statement as of 30 June 1972 compared with statement as of 30 June 1971.

(UNITED STATES DOLLARS)

ASSETS	30.6.72	30.6.71	LIABILITIES	30.6.72	30.6.71
Cash on Hand and in Banks	329,536	833,669	Loans Payable	76,000	95,000
Short-term deposits	400,000		Accounts Payable	19,882	22,710
Quotas Receivable			Third Party Funds	65,642	33,764
Contracting States	2,063,025	1,538,829	Outstanding Commitments		87,063
Accounts Receivable	251,450	253,027	Rotating Funds	224,461	173,862
Inventories	89,143	86,559	Reserves	50,562	22,105
Prepaid Expenses	27,276	28,156	SUB-TOTAL	436,547	434,504
Deferred Charges	9,908	18,507	Funds and Donations Received		
Amortizable Investments	76,000	95,000	for Specific Purposes	25,010	32,241
Other Assets	18,103	7,303	General Working Fund	2,802,884	2,394,305
	<u>3,264,441</u>	<u>2,861,050</u>		<u>3,264,441</u>	<u>2,861,050</u>

TABLE 2. Quota Operations by Contracting States for fiscal year ending 30 June 1972.

(UNITED STATES DOLLARS)

Contracting States	Quotas for year 1971-1972	Receivable Balances as of 30 June 1971	Total owed as of 1 July 1971	Total collections for year 1971-1972	Total owed as of 30 June 1972	Increase (or decrease) of balance owed from 30 June, '71 to 30 June, '72
Argentina	316,630	294,789	611,419	294,789	316,630	21,841
Bolivia	15,249	60,166	75,415		75,415	15,249
Brazil	297,794	408,812	706,606		706,606	297,794
Chile	74,000	197,978	271,978	65,359	206,619	8,641
Colombia	70,412	69,224	139,636	66,467	73,169	3,945
Costa Rica	15,249	17,983	33,232	16,877	16,355	(1,628)
Dominican Republic	15,249	69,229	84,478		84,478	15,249
Ecuador	15,249	25,157	40,406	9,978	30,428	5,271
El Salvador	15,249	24,512	39,761	11,447	28,314	3,802
Guatemala	18,387	(3,185)*	15,202	15,202		3,185
Haiti	15,249	92,371	107,620		107,620	15,249
Honduras	15,249	13,065	28,314	27,210	1,104	(11,961)
Mexico	327,394		327,394	327,394		
Nicaragua	15,249	49,085	64,334	49,243	15,091	(33,994)
Panama	15,249	14,002	29,251	14,002	15,249	1,247
Paraguay	15,249	67,161	82,410		82,410	15,249
Peru	37,224	60,497	97,721	31,030	66,691	6,194
United States of America	2 960,006		2,960,006	2,960,006		
Uruguay	25,563	77,983	103,546	12,009	91,537	13,554
Venezuela	145,309		145,309		145,309	145,309
SUB-TOTAL	4,425,209	1,538,829	5,964,038	3,901,013	2,063,025	524,196
Cuba	59,649	414,586	474,235		474,235	59,649
TOTAL	<u>4,484,858</u>	<u>1,953,415</u>	<u>6,438,273</u>	<u>3,901,013</u>	<u>2,537,260</u>	<u>583,845</u>

* Applicable to the quota for 1971/1972.

TABLE 3. Status of Quotas. Comparison between periods ending 30 June 1971 and 30 June 1972.

	SITUATION AS OF 30/6/71		SITUATION AS OF 30/6/72	
Overdue quotas	1,295,685		1,538,829	
Quotas assigned for the period	4,022,918		4,425,209	
Total due	5,318,603		5,964,038	
Payments received during the year:				
a) For previous years	656,815	(50.7%)	584,108	(38.0%)
b) For the current period	<u>3,122,959</u>	<u>(77.6%)</u>	<u>3,316,905</u>	<u>(75.0%)</u>
		<u>3,779,774</u>		<u>3,901,013</u>
				<u>(65.4%)</u>

Percentage of Collections in relation with Budget Approved by the Board of Directors

SITUATION AS OF 30/6/71		SITUATION AS OF 30/6/72	
a) Quota collections for the 1970-1971 period represented 77.6% of the approved budget.		a) Quota collections for the 1971-1972 period represented 75.0% of the approved budget.	
b) Total quota collections (both overdue and for the current period) represented 94.0% of the approved budget.		b) Total quota collections (both overdue and for the current period) represented 88.1% of the approved budget.	

NOTE: The figures and percentages shown in this table do not include the quota for CUBA, either as regards quotas assigned for each period or balances outstanding at the end of same.

TABLE 4. Comparison of Quota Budget with Collections for the Years 1967-68 through 1971-72.

Years	Quotas for the year*	Total collections for the year	Percentage
1967-1968	3,059	2,584	84.5
1968-1969	3,305	3,504	106.0
1969-1970	3,624	3,559	98.2
1970-1971	4,023	3,780	94.0
1971-1972	4,425	3,901	88.1

* Does not include quotas chargeable to Cuba.

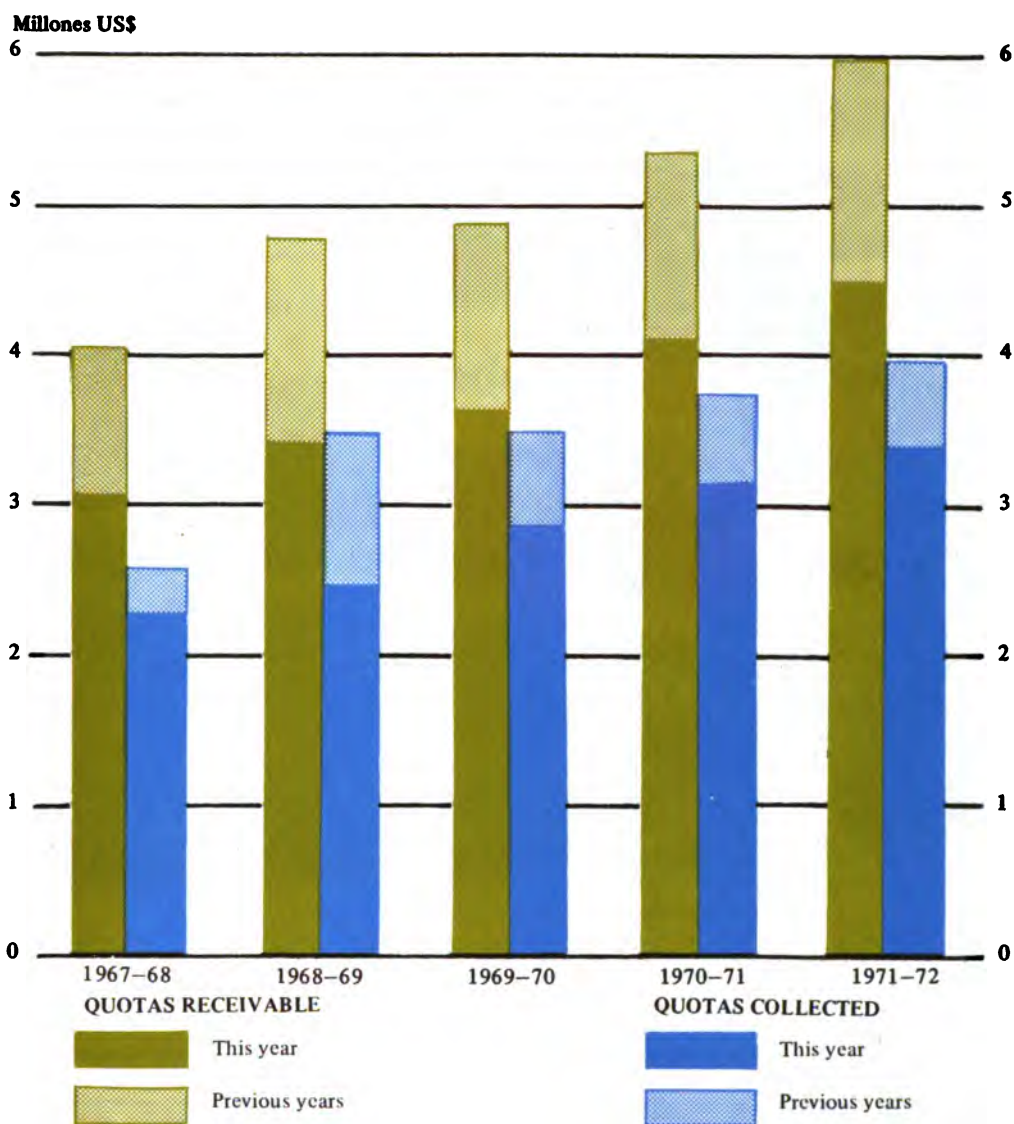


FIGURE 1. QUOTAS OF CONTRACTING STATES

TABLE 5. Statement of the General Working Fund

(UNITED STATES DOLLARS)

Balances at the beginning of the year		
Quotas Receivable	1,538,829	
Other balances	855,476	2,394,305
Refund to the General Working Fund		
		65,000
Surplus of income over expenditures for the year		
Income	4,615,046	
Disbursements	(4,271,467)	343,579
Balances at the end of the year		
Quotas Receivable	2,063,025	
Other balances	739,859	2,802,884

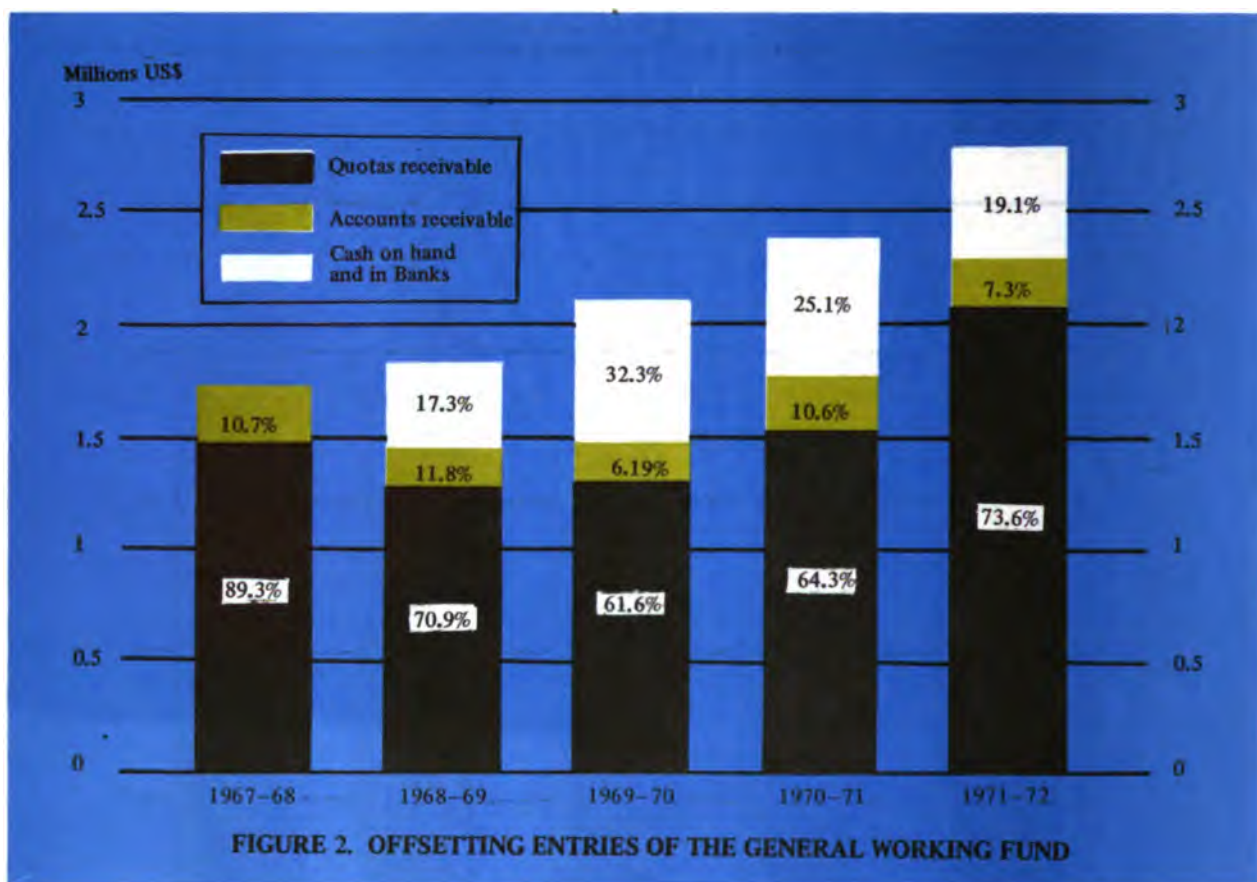


TABLE 6. Summary of Income and Disbursements of the General Working Fund – 1 July 1971 – 30 June 1972.

(UNITED STATES DOLLARS)

INCOME		DISBURSEMENTS	
Quotas from Contracting States	4,425,209	Expense Budget	
Reimbursement of Administrative Expenses on Agreements	12,500	Line of Action I	458,755
Surplus of Income over Disbursements on Commercial Transactions and Miscellaneous Items – CTEI	161,561	Line of Action II	966,333
Others	15,776	Line of Action III	599,101
		Line of Action IV	306,974
		Line of Action V	41,635
		Line of Action VI	137,299
		Line of Action VII	214,248
		Other Activities and Services	313,777
		Direction, Administration and General Services	888,174
		General Costs and Supplies	160,053
			4,086,349
		Use of Surplus of Income on Commercial Transactions and Miscellaneous Items—CTEI	161,561
		Use of Reimbursement of Administrative Expenses on Agreements	12,500
		Special Disbursements pursuant to Resolutions of the Board of Directors	11,057
Total Income	4,615,046	Total Disbursements	4,271,467
		Transferred to the General Working Fund	343,579
			4,615,046

TABLE 7. Implementation of the Budget.

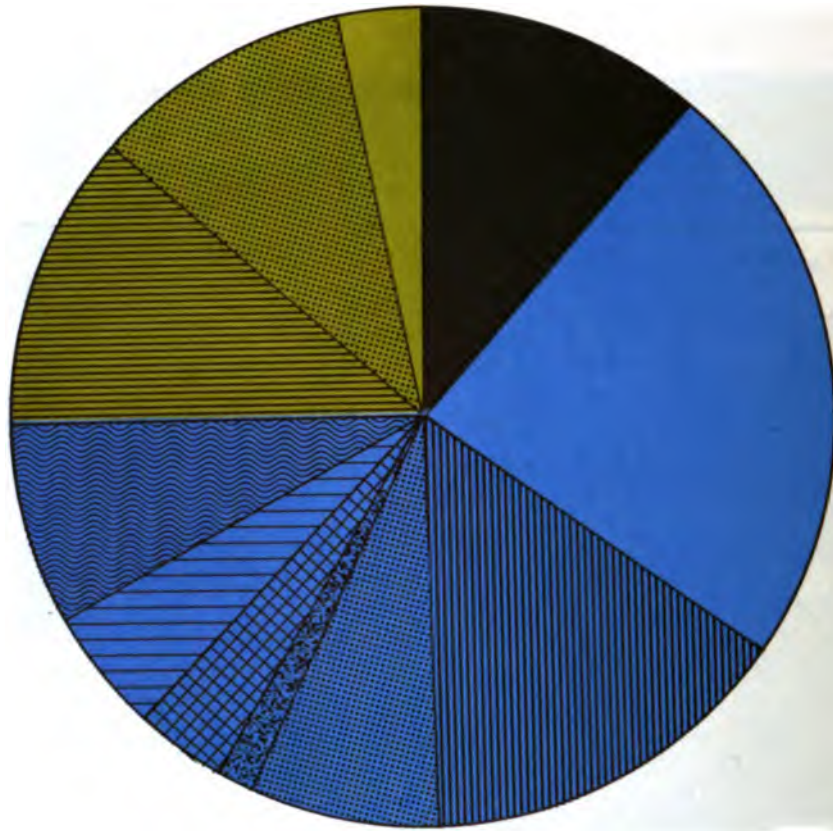
(IN THOUSANDS OF DOLLARS)

Fiscal Year	Approved Budget	Actual Expenses	Percentage
1967-68	3,107	2,925	94.1
1968-69	3,368	3,126	92.8
1969-70	3,693	3,330	90.2
1970-71	4,023	3,849	95.7
1971-72	4,425	4,086	92.3

TABLE 8. Cost Distribution to Action Lines.

(UNITED STATES DOLLARS)

	Andean Zone	Northern Zone	Office in the Antilles	Southern Zone	IICA- CTEI	Graduate School	IICA- CIDIA	IICA- CIRA	External Coordin.	Tech. Asst. & Plan	Executive Offices	TOTAL
Line of Action I	77,522	68,129	14,966	82,840	10,920		166,845	37,533				458,755
Line of Action II	193,617	149,670	18,575	309,236	186,835	69,161		39,239				966,333
Line of Action III	126,379	91,019	28,821	65,117	287,765							599,101
Line of Action IV	41,771	27,387		171,389	66,427							306,974
Line of Action V	12,274	23,090		6,271								41,635
Line of Action VI	38,526	56,257		11,544				30,972				137,299
Line of Action VII	24,706	46,523		120,021				22,998				214,248
Other Activities and Services	8,317	8,897		7,578					132,620	156,365		313,777
Direction Administration and General Services	95,293	96,170		126,907	106,037		24,867	28,136			410,764	888,174
General Costs and Supplies												160,053
TOTAL	618,405	567,142	62,362	900,903	657,984	69,161	191,712	158,878	132,620	156,365	410,764	4,086,349














LINES OF ACTION		\$	%
	Line I	458,755	11.23
	Line II	966,333	23.65
	Line III	599,101	14.66
	Line IV	306,974	7.51
	Line V	41,635	1.02
	Line VI	137,299	3.36
	Line VII	214,248	5.24
	Other Activities and Services	313,777	7.68
DIRECTION, ADMINISTRATION AND GENERAL SERVICES			
	Operating Units	477,410	11.68
	Executive Offices	410,764	10.5
	General Costs and Supplies	<u>160,053</u>	<u>3.92</u>
TOTALS		4,086,349	100.0%

FIGURE 3. ACTUAL EXPENSES UNDER QUOTA BUDGET

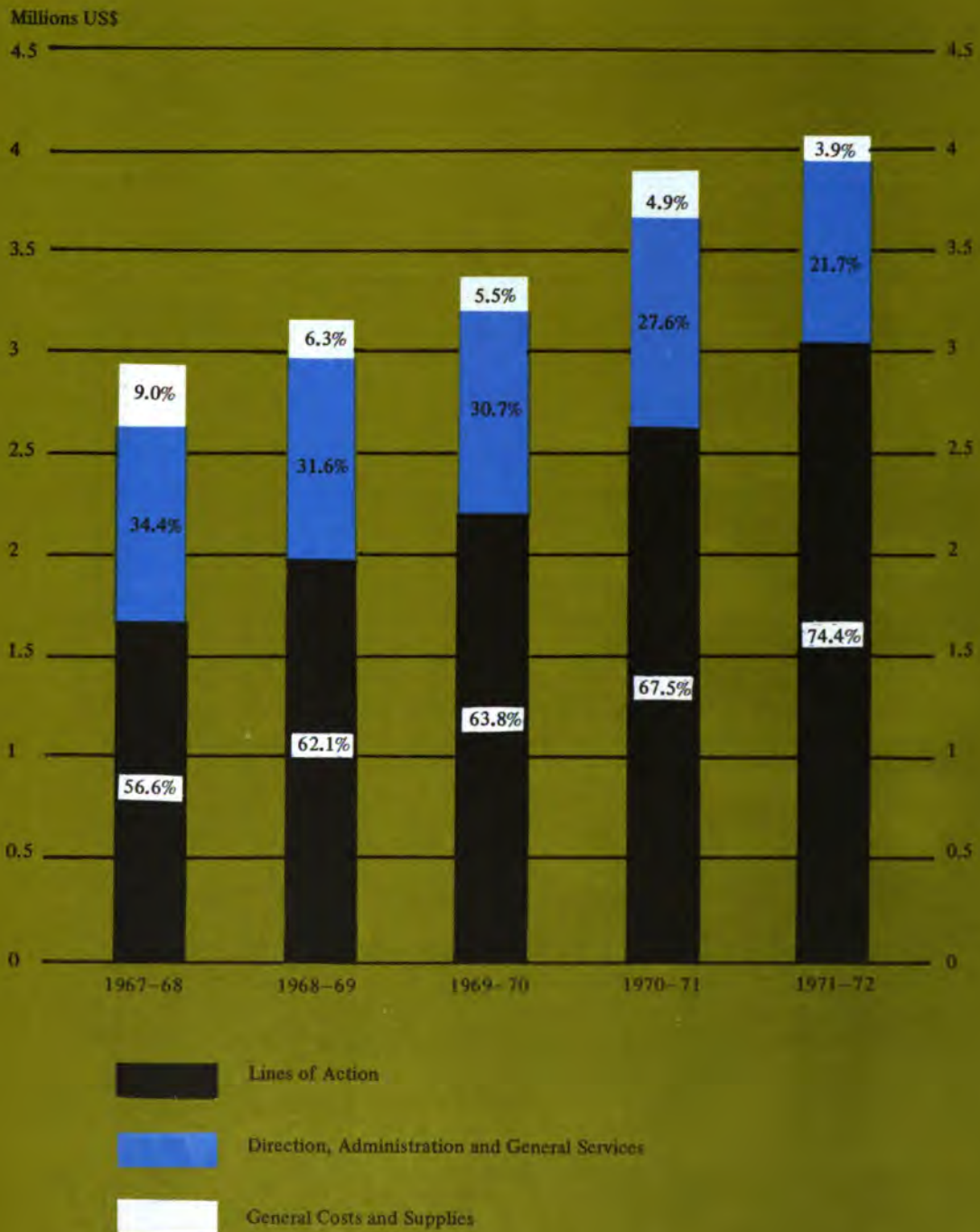


FIGURE 4. ACTUAL EXPENSES UNDER QUOTA BUDGET

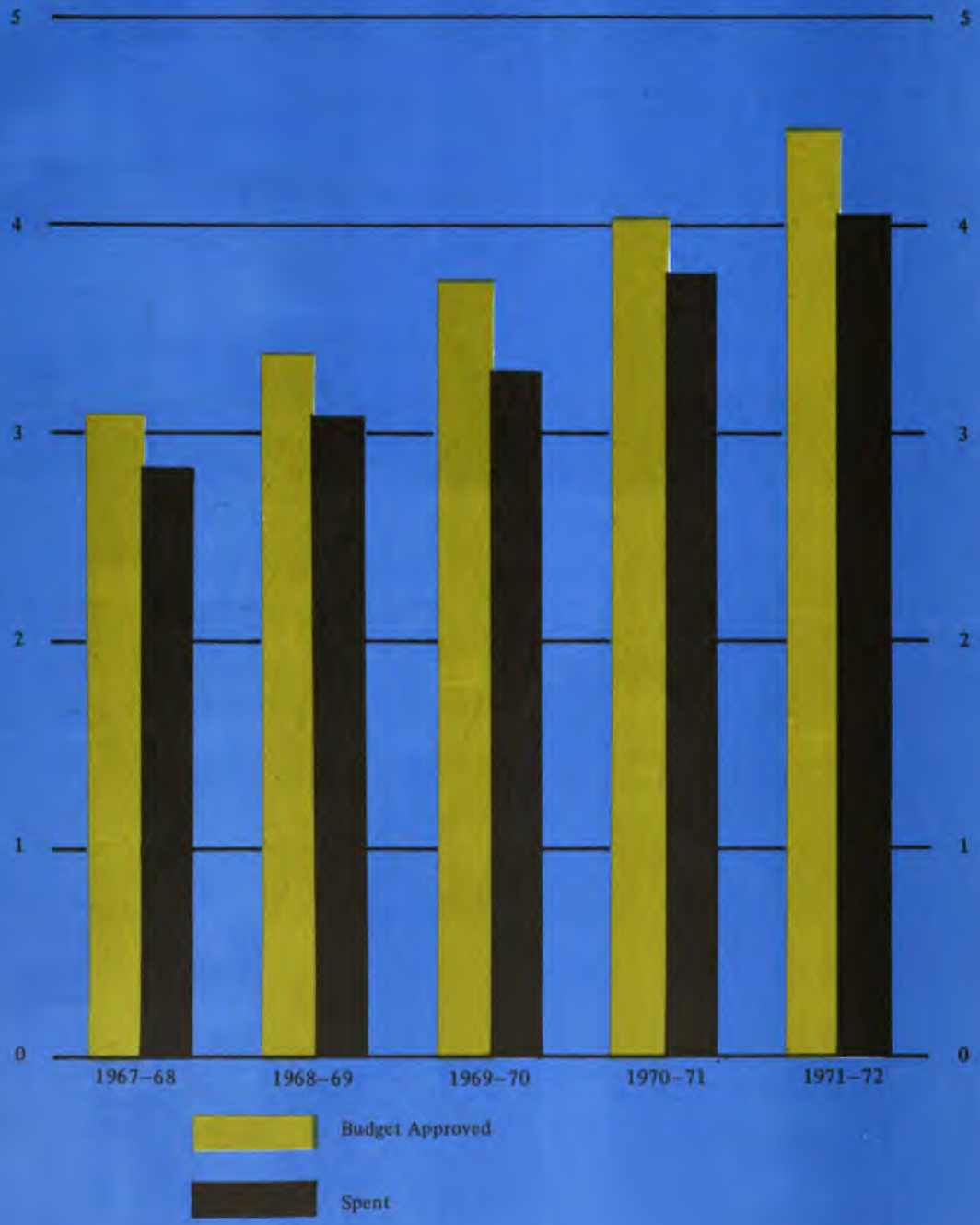


FIGURE 5. IMPLEMENTATION OF THE PROGRAM BUDGET

TABLE 9. Income and Disbursements of Funds Received for Specific Purposes.

(UNITED STATES DOLLARS)

	Balance as of 30 June 1971	Operations during the year		Balance as of 30 June 1972
		Income	Disbursements	
Funds Deposited in Special Accounts:				
U.S. Atomic Energy Commission	41,557	12,484	113,630	(59,589)
Project 206 of the OAS Technical Cooperation Administration –Inter–American Program for Rural Development and Agrarian Reform	(68,617)	387,832	262,468	56,747
Agreement between the Institute and various Governments and institutions (see Appendix)	132,022	482,186	420,651	193,557
SUB–TOTAL	104,962	882,502	796,749	190,715
Funds Included in General Accounts:				
American Cocoa Research Institute	(3,244)	25,000	26,315	(4,559)
The Rockefeller Foundation –Inter–American Association of Librarians	7,946		7,946	
The Rockefeller Foundation –Promotion of ALAF in Latin America	2,707	7,500	7,208	2,999
The Rockefeller Foundation –Libraries in Brazil	553		553	
Council on Higher Education in the American Republics	10,458		3,504	6,954
Co–operative Program for the study and control of coffee rust	3,885	2,507	4,584	1,808
Donation from the Government of The Netherlands	144	924	304	764
Donation from the Government of Venezuela	1,141			1,141
Dow Chemical N.V. Latin America	387		158	229
Inter–American Association of Agricultural Librarians and Documentalists (AIBDA)	8,264	3,195	578	10,881
The Ford Foundation –Promotion of ALAF in Latin America		5,000	207	4,793*
SUB–TOTAL	32,241	44,126	51,357	25,010
TOTAL	137,203	926,628	848,106	215,725

* This project entered into effect during the fiscal year ending 30 June 1972.

TABLE 9. (Appendix). Income and Disbursements for Agreements with Governments and Institutions.

(UNITED STATES DOLLARS)

DESCRIPTION	Balance as of 30 June 1971	Operations during the year		Balance as of 30 June 1972
		Income	Disbursements	
Agreement between the Agrarian Reform and colonization Agencies of the Central American Isthmus and the Institute on the establishment of a program for training and studies in Agrarian Reform (PRACA/IICA).	22,434	22,000	32,350	12,084
Agreement with the Ministry of Agriculture of the Government of Chile and the School of Agronomy of the University of Chile, for the implementation of the Maipu Development Area project.	8,570	10,178	14,396	4,352
Operational Agreement between the Agrarian Reform Corporation of Chile and the Regional Office for the Southern Zone of IICA (CORA/IICA).	12,139	134,999	96,525	50,613
Operational Agreement between the Ministry of Agriculture of Chile and the Institute for a technical advisory and teaching program (SAG/IICA).	(5,221)	20,404	388	14,795
Agreement between the Inter-American Development Bank and the Institute for the teaching of courses on Agricultural Credit and Agrarian Reform (BID/IICA).	(3,528)	3,528		
Agreement between the National University of Colombia and the Colombian Agrarian Reform Institute to enter into relations with the Institute with a view to establishing an Agrarian Reform Center (INCORA/IICA).	(8,643)	55,639	52,813	(5,817)
Agreement between the Government of Ecuador and the Institute.	3,108	40,640	42,867	881
Agreement between the Ministry of Agriculture and Livestock and the Ministry of Public Works of Venezuela with the Institute.	18,589	29,680	31,985	16,284
Agreement between the Government of Colombia and the Institute on the National Agricultural Training Program.	5,201	57,984	60,260	2,925
Memorandum of Understanding between the Ministry of Agriculture of Brazil and the Director General of the Institute.	785	42,508	21,485	21,808
Agreement between the Executive Committee of the Plan for the Economic-Rural Recovery of the Cocoa Industry (CEPLAC) and the Institute.	78,588	64,626	67,582	75,632
	<u>132,022</u>	<u>482,186</u>	<u>420,651</u>	<u>193,557</u>

TABLE 10. Consolidated Statement of Income and Disbursement Account.

(UNITED STATES DOLLARS)

	Balance as of 30 June 1971	Operations during the year		Balance as of 30 June 1972
		Income	Disbursements	
Funds from Quotas and others	2,394,305	4,680,046*	4,271,467	2,802,884
Funds received for specific purposes	137,203	926,628	848,106	215,725
	<u>2,531,508</u>	<u>5,606,674</u>	<u>5,119,573</u>	<u>3,018,609</u>

* Includes US\$65 from Program-Budget.

**SUMMARY OF THE REPORT BY PRICE WATERHOUSE & CO.
ON THE FINANCIAL STATEMENTS OF IICA**

We have examined the accompanying financial statements (Exhibits 1 to 8, inclusive) of the Inter-American Institute of Agricultural Sciences for the year ended June 30, 1972. Our examination was made in accordance with generally accepted auditing standards and accordingly included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances. In accordance with the instructions of the Director General of the Institute, we did not request direct confirmation from the Member States of the uncollected quotas as at June 30, 1972; however, we were able to satisfy ourselves as to the amounts of these quotas by other auditing procedures.

In our opinion, subject to the matters mentioned in the preceding paragraphs, the accompanying financial statements present fairly the assets and liabilities of the Inter-American Institute of Agricultural Sciences as at June 30, 1972 and the results of its operations for the year then ended, in accordance with the accounting principles explained in Note 1 which were applied on a basis consistent with that of the preceding year.

Price Waterhouse & Co.



APPENDICES



Appendix I

IICA'S ACTIVITIES DURING THE 1971-72 PERIOD

The total number of activities shown in Table 11 and described in the following pages does not represent the total number of activities carried out by the Institute (over 800), many of which are included as part of others and some of which had not been completed at the end of the period covered by this report. Even with these exceptions, however, the total number of activities carried out by the Institute is considerably greater than the total for last year (650).

TABLE 11. Summary of IICA Activities Carried out by Lines of Action and by Countries

	LINES OF ACTION							Total per country	
	I	II	III	IV	V	VI	VII		
Argentina	13	16	—	12	—	1	1	43	
Bolivia	3	4	4	3	—	—	—	14	
Brazil	3	12	20	13	—	1	3	52	
Colombia	14	22	1	5	—	13	27	82	
Costa Rica	51	54	74	13	1	1	1	195	
Chile	3	12	2	3	2	8	—	30	
Dominican Republic	1	2	4	3	—	2	—	12	
Ecuador	4	5	1	2	—	—	1	13	
El Salvador	3	—	6	1	—	3	—	13	
Guatemala	10	8	3	3	3	3	—	30	
Haiti	2	—	—	2	—	—	—	4	
Honduras	1	2	1	2	—	1	3	10	
Jamaica	—	—	—	1	—	—	—	1	
Mexico	4	14	3	1	—	3	—	25	
Nicaragua	1	2	2	3	—	1	—	9	
Panama	3	4	1	4	—	4	—	16	
Paraguay	2	8	4	5	—	1	4	24	
Peru	9	10	2	1	—	4	2	28	
Trinidad and Tobago	—	1	1	1	—	—	—	3	
United States	—	—	3	4	—	—	—	7	
Uruguay	16	2	6	6	2	1	4	37	
Venezuela	3	8	5	3	—	3	1	23	
Multinational Activities	11	3	16	3	2	5	—	40	
Activities Carried in Countries outside the Area								4	
TOTALS	157	189	159	94	10	55	47	711	715

ARGENTINA

LINE I. Analysis of and Information on Rural Development

1. V Meeting of the Advisory Committee on Education (16 May 1972 – La Plata).
2. Third Inter-American Meeting of Agricultural Librarians and Documentalists (10–14 April 1972, Buenos Aires).
3. Graduate Course on Scientific Communications (5–10 December 1971, Balcarce, Buenos Aires Province).
4. Course on Scientific Communications for Professionals at the Tucumán School of Agronomy and Animal Industry (October–November, 1971, Tucumán).
5. Seminar on Communications at Resistencia (May, 1972, Resistencia).

6. Training in Agricultural Documentation and Communications (October 1971 – January 1972, Buenos Aires).
7. Assistance with Activities in Scientific Communications and Documentation
8. Advisory Services to the Documentation Committee (July 1971 – June 1972, Buenos Aires).
9. Methodological Trials on Institutional Analysis for a Case in Argentina (September–October 1971, Buenos Aires).
10. Status and Trends of Agricultural Development in Argentina (Permanently – Buenos Aires).
11. Publication of Information on Teaching in Animal Industry (August 1971, Buenos Aires).
12. Publication of the Directory of Agricultural Research Institutions of the Southern Zone

(Argentina, Chile, Paraguay and Uruguay)
(1 July, 1971 – 30 June, 1972, Buenos Aires).

13. Directory of Institutions of Higher Agricultural Education
(June, 1972, Buenos Aires).

LINE II. Agricultural Education

1. Collaboration in the Graduate Course on Rural Extension at the Graduate School of Agricultural Sciences
(13 September – 23 October 1971, Castelar, Buenos Aires).
2. Seminar on Regional Agricultural Development
(24 April – 19 May, 1972, Castelar, Buenos Aires).
3. Seminar on Curricular Planning
(16–20 May, 1972, La Plata).
4. Study of the Status of Teaching in the Veterinary Sciences in the Southern Zone
(September 1971 – June 1972, Buenos Aires).
5. Review of the Status of Teaching in Home Economics in Brazil (Complementary visit to Argentina)
(25 November – 1 December 1971, Buenos Aires).
6. Development and Consolidation of Graduate Teaching in Argentina
(1 July, 1971 – 30 June, 1972, Castelar, Balcarce).
7. Advisory Services to Graduate Students in Agricultural Economics on the drafting of their theses
(October, 1971 – June, 1972).
8. Advisory Services to Graduate Students in Agricultural Extension on the drafting of their theses
(Since May, 1971).
9. Advisory Services to the Institutions of Higher Agricultural Education of Argentina
(1 July, 1971 – 30 June 1972, Buenos Aires).
10. Advisory Services and Assistance to the Teaching Support Unit at La Plata
(December, 1971 – June, 1972, La Plata).
11. Advisory Services and Coordination of the Development and Consolidation of the Graduate Education Programs of the Southern Zone
(1 July, 1971 – 30 June, 1972, Buenos Aires).

12. Publication of Information on the Teaching of Animal Industry
(August, 1971, Buenos Aires).

13. Publication of Information on Planning for Higher Agricultural Education
(1 July, 1971 – 30 June, 1972, Buenos Aires).

14. Publication of Information on Institutions of Agricultural Research of the Southern Zone
(January, 1972, Buenos Aires).

15. Permanent Secretariat of ALEAS
(1 July, 1971 – 30 June, 1972, Buenos Aires).

16. Exchange of Teaching Staffs
(15 – 19 November 1971, Buenos Aires).

LINE IV. Promotion of Agricultural Production

1. Seminar on Farm Programming and Guided Credit
(6 December, 1971 – 10 December, 1971, Resistencia).

2. II National Course on the Operation, Conservation and Development of Irrigation Systems
(22 May – 15 June, 1972, Catamarca).

3. Training in the Preparation of Plans of Operation at the Farm Level
(2–6 August and 16–20 August, 1971, Buenos Aires and Mercedes).

4. Training of Technicians and Advisory Services in the Formulation of the Development Program of the East–Central Zone of Santiago del Estero
(July, 1971 – June, 1972, Buenos Aires and Santiago del Estero).

5. Study of Livestock Enterprises in Region A–5 of the Livestock Regionalization Atlas in the River Plate Basin
(17 March – 30 June, 1972).

6. Socioeconomic study of irrigating producers of the Water and Power Company
(July, 1971 – June, 1972).

7. Homologation and Updating of Studies of Livestock Enterprises in the River Plate Basin –In-depth Characterization of Area A–7 of the Regionalization Atlas
(October, 1971 – June, 1972).

8. Study of Livestock Enterprises in Region A–5, Province of Buenos Aires
(17 April – December, 1972).

9. **Advisory Services in Programming of Guided Credit**
(13 December, 1971 – December, 1972, Buenos Aires).
10. **Advisory Services to National Authorities in Argentina**
(Permanent activity).
11. **Promotion of Attendance of Argentine Representatives to the VI Latin American Seminar on Irrigation and Drainage**
(1 July, 1971 – 18 July, 1972).
12. **Study of Livestock Enterprises in Entre Ríos**
(November, 1971 – June, 1972, Entre Ríos and Buenos Aires).

LINE VI. Promotion and Implementation of Structural Change

1. **Seminar on the Identification and Analysis of the Minifundio Problem in Argentina**
(26–30 June, 1972, Famailla, Tucumán).

LINE VII. Administration of Agricultural Policies

1. **Training Course on the Elaboration and Evaluation of Agricultural Projects**
(May, 1971 – June, 1972, Buenos Aires).

BOLIVIA

LINE I. Analysis of and Information on Rural Development

1. **Research on the Technical Administrative Organization of the Agricultural Sector of Bolivia**
(July, 1971 – June, 1972).
2. **Analysis of the Institutions of the Agricultural Sector**
(December, 1971 – La Paz).
3. **Course on Technical Writing**
(26 – 30 June, 1972, Cochabamba)

LINE II. Agricultural Education

1. **Collaboration in the Study of the Agricultural Extension Service in the Agrarian Reform Areas of Bolivia**
(October–December, 1971, La Paz).
2. **Study on Extension and Agrarian Reform in Bolivia**

(18 October, 1971 – 10 February, 1972, Santa Cruz, Cochabamba, La Paz).

3. **Advisory Services to the Schools of Animal Industry of Bolivia** (José Ballivian Technical University of Beni; Gabriel René Moreno University and University of San Simón)
(1 July, 1971 – 30 June, 1972).
4. **Advisory Services and Support to ABIEAS**
(9 – 14 August, 1971).

LINE III. Agricultural Research

1. **Inventory and Diagnosis of Andean Grasses. Study of Ecosystems. Supervision of the Project**
(3 May – 30 June, 1972, Central Altiplano of Bolivia).
2. **Collaboration with the Depository Library for Andean Pastures: Publication of the Bulletin (Bibliography on Grasses and Fodders of the High Andes)**
(19 July, 1971 – 30 June, 1972, La Paz).
3. **Support to Research Studies on Introduced Pastures**
(2 September, 1971 – 30 June, 1972, Patacamaya).
4. **Support to National Projects on Seedbeds for Fodders in the Andean Zone Countries**
(9 September, 1971 – 19 February, 1972, Sorata and Totorá).

LINE IV. Promotion of Agricultural Production

1. **National Course on Agricultural Marketing in Bolivia**
(10–21 April, 1972, Santa Cruz).
2. **First Seminar on Marketing of Agricultural Products of Official Agencies**
(8 November, 1971, La Paz).
3. **Research on the National Agencies for Agricultural Marketing in Bolivia**
(July, 1971 – June, 1972, La Paz).

BRAZIL

LINE I. Analysis of and Information on Rural Development

1. **Diagnosis of the Status of Libraries and Documentation for the Program on the American Tropics**
(28 June – 11 July, 1971, Belém, Manaus)

2. Strengthening of the Rural Communications Service of the Secretariat of Agriculture of Sao Paulo
3. Strengthening of Coordination of Agricultural Information, Ministry of Agriculture (1971).

LINE II. Agricultural Education

1. Processing and Signature of an Operational Agreement with the Agreement on Graduate Education of Rio Grande do Sul (15 October, 1971, Pelotas).
2. Technical Administration at CEPEC and participation in International Meetings (1971-72, Itabuna, Bahia).
3. Meeting of Directors and Coordinators of Graduate Programs in the Agrarian Sciences (19 - 21 June, 1972, Rio de Janeiro).
4. Meeting of Directors of Graduate Schools and Programs in the Southern Zone (29 February - 2 March, 1972, Viçosa, MG).
5. International Technical Meeting of Professors of Animal Industry (9 - 11 September, 1971, Belo Horizonte, MG).
6. Course on Methodology of Higher Education (17 February - 2 March, 1972, Belo Horizonte, MG).
7. Course on Methodology of Higher Education (17 - 28 January, 1972, Salvador, Bahia).
8. Graduate Courses in Brazil (1 July, 1971 - 30 June, 1972, Piracicaba and Viçosa)
9. Review of the Status of the Teaching of Home Economics in Brazil (2 - 23 November, 1971).
10. Technical Advisory Services to National Education Institutions (16 February - 5 March, 1972, Porto Alegre).
11. Advisory Services and Assistance to the Teaching Support Unit of the School of Veterinary Science of UFMG (1971, Belo Horizonte).
12. Support for the Coordination of Higher Agricultural Education in Brazil, through the ABEAS-IICA Agreement (1971, Rio de Janeiro).

LINE III. Agricultural Research

1. Course on the Planning of Agricultural Experiments in Irrigated Areas, Segment on Dissemination of Results (22 - 26 May, 1972, Petrolina, Pe.).
2. Compilation of Information on Brazil (November, 1971, Pelotas, RGS).
3. Economic Analysis of the Results of Cacao Research (6 - 13 November, 1971, Itabuna, Bahia).
4. Inventory of the Agricultural Research Institutions of Brazil (July, 1971 - June, 1972, Brasilia).
5. Advisory Services on the Analysis of the Agricultural Situation in Southern Brazil (February-May, 1972, Pelotas, RGS).
6. Advisory Services on the Organization and Programming of Research in Southern Brazil (October, 1971 - June, 1972).
7. Advisory Services to the Secretariat of Agriculture of Minas Gerais on the Organization, Programming and Coordination of Agricultural Research (August, 1971 - May, 1972, Belo Horizonte, MG).
8. Advisory Services on the Programming of Research at the Brasilia Experiment Station (August, 1971, Brasilia).
9. Advisory Services on the Economic Analysis of a Milk Production System (July-October, 1971, Bage, RGS).
10. Advisory Services on a Survey of the Status of Agricultural Research in Southern Brazil (July-December, 1971, Pelotas).
11. Advisory Services on the Economic Analysis of a Peach Production System (September, 1971, Pelotas, RGS).
12. Advisory Services on the Survey of the Diagnosis of the Agricultural Sectors of Rio Grande do Sul and Santa Catarina (February-May, 1972, Porto Alegre and Pelotas, RGS).
13. Advisory Services to the Soil Physics Laboratory -CEPEC (February, 1972, Itabuna, Bahia).
14. Advisory Services to the Technical Directorate of CEPEC on Aspects of Organization and Administration (November, 1971 - June, 1972, Itabuna, Bahia).

15. Advisory Services to CEPEC on the Planning of the Drainage System of the Cacao Experimental Field (1971 – Itabuna, Ba.).
16. Advisory Services on the Collection and Filing of Economic Data in Southern Brazil (July, 1971 – June, 1972, Pelotas, RGS).
17. Advisory Services on the Analysis of Experiments (July, 1971 – June, 1972, Pelotas, RGS).
18. Technical Advice to National Research Institutions –CEPEC (23 January – 12 February, 1972, Itabuna, Bahia).
19. Advisory Services on the Formulation and Economic Analysis of a System for the Production of Beef Cattle and Sheep (July, 1971, Bage and Pelotas).
20. Training of Five Technicians in Economic Analysis (August, 1971 – May, 1972, Bage and Pelotas).

LINE IV. Promotion of Agricultural Production

1. Course for High-Level Technicians on the Systematization of Lands for Irrigation (19 July - 7 August, 1971, Petrolina, Pe.).
2. I Course on Irrigation for Extension Workers (4 October – 14 December, 1971, Petrolina, Pe.).
3. International Symposium on Economically Important Plants of the Amazons (29 May – 3 June, 1972, Belém, Pará).
4. I Course on Management of Irrigated Areas (3 – 29 April, 1972, Petrolina, Pe.).
5. Course for High-Level Technicians on the Systematization of Lands for Irrigation (6 – 25 March, 1972, Petrolina, Pe.).
6. Comparative Study of Technical Assistance Strategies in Brazil (1971).
7. Mechanism for the Coordination of Rural Credit in Minas Gerais (23 October, 1970 – 15 May, 1972, Belo Horizonte, MG).
8. Coordination of Rural Credit in Río Grande do Sul (2 August, 1971 – 25 February, 1972, Porto Alegre).
9. Rural Credit Strategy in the Agencies of the ABCAR System in Northern Brazil

(28 May – 15 June, 1972, Río Branso, Acre; Porto Velho, Bondonia, Manaus, Amazonas; Belém, Pará).

10. System for the Evaluation of the BIC/256 Program (10 – 14 April, 1972, Brasilia).
11. Advisory Services on Pre-service Training to ABCAR (15 – 21 June, 1972, Río de Janeiro).
12. Technical Assistance to National Institutions through the Regional Offices: Participation in the First Brazilian Symposium on Beans and Advisory Services to Edible Grain Legume Programs (23 August – 2 September, 1971).
13. Support to the Consultative Committee on Rural Credit (7 February – 9 May, 1972, Brasilia).

LINE VI. Promotion and Implementation of Structural Change

1. Attendance at the First Latin American Congress on Agrarian Law (22 October – 1 November, 1971, Porto Alegre).

LINE VII. Administration of Agricultural Policies

1. Short Courses and In-service Training on Agricultural Projects (19 – 30 June, 1972, Brasilia).
2. Seminar on Socioeconomic Diagnosis and Diagnosis of Natural Resources (29 May – 2 June, 1972, Porto Alegre).
3. Conclusion of the Project (ACIIRS) on Socioeconomic Diagnosis and Diagnosis of Natural Resources, State of Río Grande do Sul (July, 1971 – April, 1972, Porto Alegre).

CHILE

LINE I. Analysis of and Information of Rural Development

1. Status and Trends of the Agricultural Sector in Chile (July, 1971 – June, 1972, Santiago).
2. Register of Institutions Responsible for Rural Development in Chile (1 July, 1971 – 30 June, 1972).
3. Collaboration with the Forestry Institute of Chile on the Reorganization of its Publications Program (20 – 25 March, 1972, Santiago).

LINE II. Agricultural Education

1. Participation in the FAO/IICA-PIJR Consultation Meeting on Rural Youth Programs (23 September - 2 October, 1971, Santiago).
2. International Technical Meeting of Professors of Plant Genetics and Breeding in Professional Courses in Agriculture (March, 1972, Santiago).
3. National Meeting of Professors of Animal Industry of the Chilean Universities (15 - 17 June, 1972, Chillán).
4. National Meeting of Professors of Botany, Plant Physiology and Ecology of the Chilean Universities (22 - 23 June, 1972, Santiago).
5. Collaboration with the School of Agronomy of the Catholic University of Chile on the Teaching of Horticulture Seminars (22 September, 1971, Santiago).
6. Collaboration with the University of Chile (School of Agronomy) in Teaching the Course on General Plant Science (1 August, 1971 - 15 April, 1972, Antumapu, Santiago).
7. International Technical Meeting of Professors of Plant Genetics and Breeding for Professional Courses in Agriculture (29 May - 3 June, 1972, Santiago).
8. Graduate Course on Poultry Production, under the Graduate Education Program (1 October, 1970 - 30 April, 1972, Santiago).
9. Graduate Courses under the Permanent Program for Graduates in the Agricultural Sciences and Forestry of the Republic of Chile: III Course on Agrarian Economics, IV Course on Agrarian Economics, Fruit Production and Animal Production (January, 1971 - June, 1973, Santiago).
10. Advisory Services to the Library of the School of Agronomy of the Catholic University of Chile (25 - 30 September, 1971, Santiago).
11. Advisory Services to the Teaching Support Units of Chile (1 July, 1971 - 18 May, 1972, Valdivia).
12. Support in the Coordination of Higher Agricultural Education in Chile through the Committee of Deans of Chile (1971/1972, Valdivia, Chillán, Santiago and Quillotán).

LINE III. Agricultural Research

1. Compilation of Information on Chile (October, 1971, Santiago).
2. Advisory Services for the Economic Analysis of Integral Systems of Animal Production (July, 1971 - May, 1972, Santiago).

LINE IV. Promotion of Agricultural Production

1. International Irrigation Seminar (15 - 17 November, 1971, Santiago).
2. Courses and Advisory Services on Management Training and Technical Assistance in the Reformed Sector of Chile (1 July, 1971 - 30 June, 1972).
3. Institutional Irrigation Survey (Permanent activity, Santiago).

LINE V. Multinational Integration

1. Initiation of the Study on the Marketing of Selected Products in Chile in order to analyze the Advisability of Intensifying Trade (1971-1972, Santiago).
2. Study on the Status of Regionalization and Agricultural Zoning in Chile (10 - 15 April, 1972, Santiago).

LINE VI. Promotion and Implementation of Structural Change

1. Extension I Course - School of Extension in the Rural Community, School of Agronomy, University of Chile (1 April, 1971 - 15 August, 1971, Antumapu, Santiago).
2. Extension II Course - School of Extension in the Rural Community, School of Agronomy, University of Chile (October 1971 - January 1972, Antumapu, Santiago).
3. Course on Methodology of Technical Assistance, School of Agronomy of the University of Chile (April - August, 1971, Antumapu, Santiago).
4. Project on Consumer Education (July, 1971 - June, 1972, Talagante).
5. Elaboration of a Methodology for the Definition of Soil Use (2 May - 20 October, 1971, Santiago).

6. Elaboration of Methodologies for Control and Evaluation
(1 March – 30 June, 1972, Santiago and provincial capitals between Zones II and XIII).
7. Elaboration of Methodologies for Production Alternatives
(2 November, 1971 – 31 March, 1972, Santiago).
8. Elaboration of the Plan for the Reformed Subsector 72-76
(1 March – 30 June, 1972, Santiago).

COLOMBIA

LINE I. Analysis of and Information on Rural Development

1. Round Tables on the Paulo Freire Method
(15, 22 and 30 June, 1972, Bogotá).
2. Course – In-service training in Automation
(12 – 17 June, 1972, Bogotá).
3. Collaboration in a Course on Journalism, Publicity and Public Relations
(7 September, 1971, Medellín).
4. Collaboration in Seminar on Agricultural Communications
(1 June, 1972, Pereira).
5. Collaboration in Training in Scientific Communications
(17 – 26 January, 1972).
6. In-Service Training in Library Organization
(January–February, 1972, Bogotá).
7. In-Service Training in Bibliographic Automation
(10 January – 4 February, 1972, and 24 April – 12 May, 1972, Bogotá).
8. Coordination between Rural Extension, Agricultural Credit and Agricultural Research
(September, 1971 – June, 1972, Bogotá).
9. International Specialized Bibliographic Documentation Service
(1 July, 1971 – 30 June, 1972).
10. Basic Training in Bibliographies and Documentation at the National Level
(July, 1971 – 30 June, 1972, Bogotá).
11. Basic Education in Bibliographies and Documentation at the International Level
(1 July, 1971 – 30 June, 1972, Bogotá).
12. Publication of the magazine *Desarrollo Rural en las Américas* (Rural Development in the Americas)
(1 July, 1971 – 25 June, 1972).
13. Publication of the Bulletin *Noticias sobre Reforma Agraria* (Agrarian Reform News)
(1 July, 1971 – 25 June, 1972, Bogotá).
14. Orientation for an Information Campaign
(21 August, 11–12 September, 7 October–6 November, 1971; 4 March and 5 April, 1972; Bogotá, Pasto, Bucaramanga, Bogotá).

LINE II. Agricultural Education

1. II Panel on Soils Derived from Volcanic Ash of America
(18 – 24 June, 1972, Pasto).
2. National Course on Methodology of Higher Education in the Agricultural Sciences for Professors of the University of Nariño
(19 – 31 July, 1971, Pasto).
3. National Course on Methodology of Higher Education in the Agricultural Sciences for Professors of the Graduate School of ICA
(20 September – 1 October, 1971, Bogotá).
4. Collaboration in Course for Promoters of Rural Youth Organizations (ICCE)
(22 October, 1971, Bogotá).
5. Pre-seminar on Academic Programming in Veterinary Medicine and Animal Industry in Colombia
(26 – 29 January, 1972, Medellín).
6. Participation in Operational Seminar on Functional Literacy
(13 – 31 August, 1971, Barranquilla and Sevilla).
7. Collaboration in National Seminar on Rural Radio Broadcasts
(28 November – 11 December, 1971, Bogotá).
8. Graduate Training in Agricultural Planning
(1 July, 1971 – 30 June, 1972, Bogotá).
9. Teaching of Agricultural Marketing for Graduate Students
(1 July, 1971 – 8 October, 1971, Bogotá).
10. Teaching of Development Planning for Graduate Students
(1 July – 8 October, 1971, Bogotá).
11. Teaching of Agricultural Credit for Graduate Students
(1 July – 8 October, 1971, Bogotá).
12. Teaching of Physical Planning for Graduate Students
(12 June – 24 December, 1971, Bogotá).
13. Teaching of Organization of Services, for Graduate Students
(6 September – 31 December, 1971, Bogotá).

14. Teaching of Research Methodology for Graduate Students (6 September – 31 December, 1971, Bogotá).
15. Teaching of Elaboration and Evaluation of Projects, for Graduate Students (6 September – 31 December, 1971, Bogotá).
16. Guidance on Thesis on Planning of Rural Development (3 January – 31 June, 1972, Bogotá).
17. Study of the Institutions of Education in Forestry in Colombia (15 – 19 October, 1971, and 1 – 6 February, 1972, Colombia).
18. Collaboration with the IICA Andean Zone in the Study on Coordination of the Organizations of Rural Extension, Agricultural Research of ICA and Agricultural Credit of the Bank for Agrarian, Industrial and Mining Credit in Colombia (July, 1971 – June, 1972).
19. Advisory Services to the Colombian Association of Institutions of Higher Agricultural Education (ACIEAS) for a self-examination (12 – 13 December, 1971 and 23 – 26 May, 1972, Bogotá).
20. Advisory Services to the Faculty of Animal Industry (University of Antioquia and National University of Colombia) (1 July, 1971 – 30 June, 1972).
21. Lectures on Liberating Education (12 July, 1971 and 4 January, 1972, Bogotá).
22. Lectures for Students of the Peace Corps (6 September, 1971, Bogotá).

LINE III. Agricultural Research

1. Lecture on Thematic Research and Social Work (8 April, 1972, Bogotá).

LINE IV. Promotion of Agricultural Production

1. Program of In-Service Training for Bolivian Technicians (27 November – 16 December, 1971).
2. Collaboration with the Andean Zone regarding In-Service Training in Marketing (12 June – 1 July, 1972, Bogotá).
3. In-Service Training for two Ecuadorean Technicians regarding specific aspects of marketing

in Colombia
(27 November – 16 December, 1971).

4. In-Service Training for Four Peruvian Technicians regarding specific aspects of marketing in Colombia (2 – 31 May, 1972, Bogotá).
5. Participation in the IV FAO Special Conference on Pastures and Fodders of Tropical America (17 – 22 January, 1972, Cali).

LINE VI. Promotion and Implementation of Structural Change

1. Joint Meeting of FAO and IICA Experts to prepare the Latin American section of the World Study on Changes in Agrarian Structure (25 – 30 May, 1972, Bogotá).
2. Collaboration in the Continental Congress on Agrarian Reform and Colonization (18 – 24 June, 1972, Bogotá).
3. Collaboration in the General Assembly of the Central of Agrarian Reform Cooperatives (5 – 7 April, 1972, Bogotá).
4. Andean Regional Course on Out-of-School Rural (Campesino) Education (6 March – 14 April, 1972, Bogotá).
5. Regional Course on Organization of Campesino Participation (8 May – 2 June, 1972, Bogotá).
6. Regional Andean Seminar on Out-of-School Rural (Campesino) Education (24 – 30 October, 1971, Bogotá).
7. International Seminar on the Incorporation of the Rural (Campesina) Woman into her Community (25 January – 7 February, 1972, Bogotá).
8. Collaboration on the National Course for Campesino Leaders sponsored by FANAL (17 April, 1972, Fusagasuga).
9. Collaboration on the Latin American Course for Campesino Leaders sponsored by FANAL (8, 10 and 12 November, 1971, Fusagasuga).
10. Collaboration on the Seminar on Social Communications in the Community Development Program (15 October, 1971, Bogotá).
11. Collaboration on the Latin American Course on Consciousness: Raising in Social Service (11 – 19 November, 1971, Pereira).
12. Lectures on Agrarian Reform at the University of Santo Tomás (15 October, 1971, Bogotá).

13. Informative Statement on Research regarding the La Trinidad Community Enterprise (26 April, 1972, Paipa).

LINE VII. Administration of Agricultural Policies

1. Short Course on Techniques of Social Communication for officials of INDERENA (8 – 12 May, 1972, Bogotá).
2. First Course on Control in the Processing of Rice for officials of IDEMA (3 – 14 April, 1972, El Espinal, Tolima).
3. Course for Plant Laboratory Technicians (8 February – 19 July, 1971, Bogotá).
4. Training Course for Plant Laboratory Technicians of IDEMA (9 February – 17 June, 1972, Bogotá).
5. Course for Supermarket Administrators (13 September – 3 December, 1971, Bogotá).
6. Seminar on Regional Agricultural Planning (5 – 10 June, 1972, Bogotá).
7. Seminar on the Updating and Application of Water Legislation (15 – 20 November, 1971, Bogotá).
8. Seminar on Social Communication for officials of INDERENA (12 – 14 May, 1972, Bogotá).
9. Seminar on Basic Agrarian Reform Philosophy for officials of INCORA (13 – 14 December, 1971, Bogotá).
10. Seminar on Agrarian Reform for Directors of INCORA (18 – 22 October, 1971, Bogotá).
11. Seminar on Analysis and Projection of the Information Office of INCORA (2 – 4 August, 1971, Bogotá).
12. Collaboration in the Course on Marketing at the National University of Colombia (November, 1971 – June, 1972, Bogotá).
13. Collaboration in the Course for Silo Plant Mechanics, organized by the National Training Service (Servicio Nacional de Aprendizaje – SENA) (2 – 12 May, 1972, Bogotá).
14. Collaboration in the Extension Course of the School of Agronomy of the National University of Colombia (13, 15, 17 and 20 March, 1972, Bogotá).

15. Collaboration in the Seminars on Motivation and Information in Public Administration, Colombia (20 January – 14 March, 1972, Bogotá).
16. Collaboration on the Subject of Planning and Participation of Women, in the Seminar on the Incorporation of Campesina Women in Community Development, organized by the Rural Housewives Association and the INCORA Project Magdalena 1–2 (22 March, 1972, Claro de Sevilla, Magdalena).
17. Collaboration in the Structuring of an Intermediate Course on Farm Management (*Administración de Haciendas*) (1–2 December, 1971, Bogotá).
18. In-Service Training in the Preparation of a Manual on Rice Threshing (April – August, 1971, Bogotá, Espinal and Saldaña).
19. In-Service Training on Physical Planning Research (1 January – 31 March, 1972, Bogotá).
20. Advisory Services in the Management of Laboratory Equipment for Seed Certification (19 – 30 June, 1972, Bogotá).
21. Preparation of a Manual on Administrative Operation of a Grain Storage Plant (1 November – 30 December, 1971, Bogotá).
22. Control of Rice Threshing (3 – 14 April, 1972, Espinal).
23. Preparation of a Manual on Control of Rice Threshing (1 April and 1 – 3 July, 1972, Bogotá).
24. Methodology for the Application of Physical Planning in Agricultural Plans (10 March – 26 May, 1972, Bogotá).
25. Lectures on Communication Techniques for INDERENA officials (25 – 29 April, 1972, Bogotá).
26. Community Enterprise on the Atlantic Coast of Colombia (July – December, 1971).
27. Research on Water Legislation (1 May – 15 December, 1972, Bogotá).

COSTA RICA

LINE I. Analysis of and Information on Rural Development

1. Regular Course: Use of Scientific Literature (IICA–CTEI Students) (4 October – 22 December, 1971, Turrialba).

2. **Regular Course: Technical Writing (IICA-CTEI Students)**
(April – June, 1972, Turrialba).
3. **International Training Course on Agricultural Libraries**
(1 February – 31 July, 1972, Turrialba).
4. **Training in Scientific Communications**
(10 – 12 January, 1972 – Turrialba; 13 March – 18 April, San José).
5. **Training in the Use of Scientific Literature**
(Turrialba, January – May, 1972).
6. **Training in Modern Techniques in Graphic Arts**
(1 – 5 May, 1972, Turrialba).
7. **Training and Updating of Librarians and Documentalists (3 technicians: Haiti, Mexico and Peru)**
(August, 1971 – July, 1972 –on different dates during this period, Turrialba).
8. **Manual for the Preparation of Projections in the Forestry Sector**
(8 February, 1972, Turrialba).
9. **Inventory of Resources of Documentation and Information Institutions of Latin America**
(September, 1971 – June, 1972, Turrialba).
10. **Diagnosis of the Status of Libraries and Documentation for the Program on the American Tropics**
(1 May – 14 June, 1972, Turrialba).
11. **Participation in the World Survey of Agricultural Information Services – Latin America and the Caribbean**
(June – August, 1972, Turrialba).
12. **Translation of the Agriculture Section of the OECD Common List of Descriptions for CLADES/CEPAL**
(1 March – 31 December, 1971, Turrialba).
13. **Translation into Spanish and Adaptation of the FAO Vocabulary**
(July, 1971 – June, 1972, Turrialba).
14. **Translation of Guidelines for the Establishment and Development of Monolingual Scientific and Technical Thesauri for Information Retrieval**
(July – October, 1971, Turrialba).
15. **Support and Promotion of the Inter-American Association of Agricultural Librarians and Documentalists (AIBDA)**
(1 July, 1971 – 30 June, 1972, Turrialba).
16. **Publication of 4 issues of the magazine Turrialba and 33 issues of the Reprint Series**
(July, 1971 – June, 1972, Turrialba).
17. **Publication of 4 issues of Materiales de Enseñanza en Comunicaciones**
(Training Materials in Communications)
(1 July, 1971 – 30 June, 1972, Turrialba).
18. **Publication of 4 issues of Boletín para Bibliotecas Agrícolas** (Bulletin for Agricultural Libraries)
(1 July, 1971 – 30 June, 1972, Turrialba).
19. **Preparation and publication of 4 issues of the Bibliografía Agrícola Latinoamericana** (Latin American Agricultural Bibliography)
(1 July, 1971 – 30 June, 1972, Turrialba).
20. **Storage and Analysis of 3,000 Documents**
(July, 1971 – June, 1972, Turrialba).
21. **Preparation and Development of Collections**
(1 July, 1971 – 30 June, 1972, Turrialba).
22. **Exchange of Documents for the Development of Bibliographical Resources in Latin America**
(1 July, 1971 – 30 June, 1972, Turrialba).
23. **Organization of Literature on Forestry** (Oxford)
(July, 1971 – June, 1972, Turrialba).
24. **Periodic Distribution of new Documents to Agricultural Specialists**
(July, 1971 – June, 1972, Turrialba).
25. **Distribution of Publications to the Countries of the Hemisphere**
(1 July, 1971 – 30 June, 1972).
26. **Preparation of the Bibliografía de Bibliografías de América Latina**
(Bibliography of Bibliographies of Latin America).
27. **Directory for the Forestry Industries of Central America**
(June, 1972, Turrialba).
28. **Publication of the Directorio de Siglas en Ciencias Agrícolas**
(Directory of Abbreviations and Initials in the Agricultural Sciences)
(July, 1971 – June, 1972, Turrialba).
29. **Publication of 3,000 Libros Agrícolas en Español**
(3,000 Books on Agriculture in Spanish)
(1 July, 1971 – 30 June, 1972).
30. **Publications in the press: Hágalo con Madera**
(Make it with Wood)
(July – September, 1971, San José).
31. **Projection of the Forestry Sector of the Central American Common Market to 1990**
(24 April, 1972, Turrialba).
32. **Coffee Bibliography**
(1 July, 1971 – 30 June, 1972, Turrialba).

33. **Cacao Bibliography**
(1 July, 1971 – 30 June, 1972, Turrialba).
34. **Cumulative Bibliography on Beans**
(1 August, 1971 – 28 February, 1972, Turrialba).
35. **Corn Bibliography**
(1 July, 1971 – 30 June, 1972, Turrialba).
36. **Bibliography on Tropical Grasses and Legumes**
(4 January, 1971 – 30 June, 1972, Turrialba).
37. **Compilation of Short Bibliographies**
(1 July, 1971 – 30 June, 1972, Turrialba).
38. **Literature on Agricultural Libraries and Documentation**
(1 July, 1971 – 30 June, 1972, Turrialba).
39. **Literature on Meliáceas**
(1 July, 1971 – 30 June, 1972, Turrialba).
40. **Inventory of Periodical and Serial Publications on Agriculture in Latin America**
(1 February – 30 October, 1971, Turrialba).
41. **Documentation Services for Central America**
(Not completed as yet)
42. **Coordination of Agricultural Bibliographies of the Central American Isthmus**
(1 July, 1971 – 30 June, 1972, Turrialba).
43. **Collective Catalog of Periodical Publications of Agricultural Libraries in Latin America**
(1 July, 1971 – 30 June, 1972).
44. **Latin American Index of Agricultural Theses**
(1 September, 1971 – 30 March, 1972, Turrialba).
45. **Research for the Computerized Production of IICA Catalogs**
(10 October, 1971 – 30 June, 1972, Turrialba).
46. **Research and Application of Automated Systems**
(1 July, 1971 – 30 June, 1972, Turrialba).
47. **Agrarian Reform and Land Tenure: Collective Catalog**
(1 January – 30 March, 1972, Turrialba).
48. **Analysis and Development of Bibliographical and Documentary Formats**
(1 July, 1971 – 30 June, 1972, Turrialba).
49. **Repographic Service at the Hemispheric Level**
(July, 1971 – June, 1972).
50. **Production of Printed Material**
(1 July, 1971 – 30 June, 1972, Turrialba).
51. **Preparation of Photographic and Artistic Materials**
(1 July, 1971 – 30 June, 1972, Turrialba).

LINE II. Agricultural Education

1. **Regular Course: Administration and Conservation**
(IICA–CTEI Students)
(July – September, 1971, Turrialba).
2. **Regular Course: Forest Operations** (IICA–CTEI Students)
(July – September, 1971, Turrialba).
3. **Regular Course: Tropical Dendrology** (IICA–CTEI Students)
(4 October – 22 December, 1971, Turrialba).
4. **Regular Course: Silviculture** (IICA–CTEI Students)
(4 October – 22 December, 1971, Turrialba).
5. **Regular Course: Wood Technology** (IICA–CTEI Students)
(3 January – 24 March, 1972, Turrialba).
6. **Regular Course: Basic Forest Economics** (IICA–CTEI Students)
(3 January – 24 March, 1972, Turrialba).
7. **Regular Course: Basic Forest Management** (IICA–CTEI Students)
(3 January – 24 March, 1972, Turrialba).
8. **Regular Course: Tropical Forest Management** (IICA–CTEI Students)
(3 April – 23 June, 1972, Turrialba).
9. **Regular Course: Basic Ecology** (IICA–CTEI Students)
(3 April – 23 June, 1972, Turrialba).
10. **Regular Course: Utilization of Forest Products** (IICA–CTEI Students)
(3 April – 23 June, 1972, Turrialba).
11. **Regular Course: Forest Administration** (IICA–CTEI Students)
(3 April – 23 June, 1972, Turrialba).
12. **Regular Course: Applied Forest Economics** (IICA–CTEI Students)
(3 April – 23 June, 1972, Turrialba).
13. **Regular Course: Cytogenetics** (IICA–CTEI Students)
(1 October – 22 December, 1971, Turrialba).
14. **Regular Course: Principles of Biochemistry** (IICA–CTEI Students)
(1 October – 22 December, 1971, Turrialba).
15. **Regular Course: Mineralogy of Clays** (IICA–CTEI Students)
(1 October – 22 December, 1971, Turrialba).
16. **Regular Course: Tropical Soils** (IICA–CTEI Students)
(4 October – 22 December, 1971, Turrialba).

17. Regular Course: Advanced General Genetics (IICA-CTEI Students)
(2 January – 24 March, 1972, Turrialba).
18. Regular Course: Soil Chemistry (IICA-CTEI Students)
(3 January – 24 June, 1972, Turrialba).
19. Regular Course: Soil Microbiology (IICA-CTEI Students)
(3 January – 24 June, 1972, Turrialba).
20. Regular Course: Tropical Agriculture – Annual Crops (IICA-CTEI Students)
(3 April – 23 June, 1972, Turrialba).
21. Regular Course: Principles of Entomology (IICA-CTEI Students)
(3 April – 23 June, 1972, Turrialba).
22. Regular Course: Soil Physics (IICA-CTEI Students)
(3 April – 23 June, 1972, Turrialba).
23. Regular Course: Ecophysiology (IICA-CTEI Students)
(3 April – 23 June, 1972, Turrialba).
24. Regular Course: Tropical Agriculture – Perennial Crops (IICA-CTEI Students)
(5 July – 24 September, 1971, Turrialba).
25. Regular Course: Plant Breeding (IICA-CTEI Students)
(5 July – 24 September, 1971, Turrialba).
26. Regular Course: Soil Fertility and Fertilizers (IICA-CTEI Students)
(5 July – 24 September, 1971, Turrialba).
27. Regular Course: Special Problems in Animal Industry (IICA-CTEI Students)
(1 – 30 July, 1971, Turrialba).
28. Regular Course: Animal Breeding (IICA-CTEI Students)
(2 June – 20 September, 1971, Turrialba).
29. Regular Course: Animal Nutrition (IICA-CTEI Students)
(5 July – 24 September, 1971, Turrialba).
30. Regular Course: Livestock Management (IICA-CTEI Students)
(September – December, 1971, Turrialba).
31. Regular Course: Animal Physiology (IICA-CTEI Students)
(January – March, 1972, Turrialba).
32. Regular Course: Quantitative Genetics (IICA-CTEI Students)
(6 April – 28 June, 1972, Turrialba).
33. Regular Course: Physiology of Reproduction (IICA-CTEI Students)
(6 April – 28 June, 1972, Turrialba).
34. Regular Course: Introduction to Statistics (IICA-CTEI Students)
(4 October – 22 December, 1972, Turrialba).
35. Regular Course: Experimental Design and Analysis (IICA-CTEI Students)
(3 January – 24 March, 1972, Turrialba).
36. Regular Course: Sampling Techniques (IICA-CTEI Students)
(3 January – 24 March, 1972, Turrialba).
37. English Courses (IICA-CTEI Students)
(4 October – 22 December, 1971; and 3 April – 23 June, 1972, Turrialba).
38. Course on Animal Genetics AZ 303 for Students of the University of Costa Rica
(August – November, 1971, San José).
39. Intensive Course on the Production and Utilization of Fodder
(9 – 13 May, 1972, Turrialba).
40. Regional Seminar on Basic Sciences in Agronomy
(14 – 18 February, 1972, San José).
41. Seminar on the Safe, Effective and Efficient Use of Plague Killers in Agriculture and Public Health in Central America and the Caribbean
(20 – 28 March, 1972, Turrialba).
42. Training in Beans and other Edible Grain Legumes for two Brazilian and one Venezuelan technician
(5 January – 5 March, 1972, Turrialba).
43. In-Service Library Training for a Costa Rican technician
(6 – 17 December, 1971, Turrialba).
44. In-Service training in soils for a Haitian technician
(3 April – 31 July, 1972, Turrialba).
45. In-Service Training in computers and statistics
(1 October, 1971 – 20 March, 1972, Turrialba).
46. In-Service Training in Wood Classification for a Bolivian and a Mexican technician
(3 January – 31 March, 1972, San José).
47. Practical Training on Integral Research on *Hypsipyla grandella* (Zeller)
(1 July – 30 September, 1971, Turrialba).
48. Technical Training on Forest and National Park Management for members of Peace Corps XIV
(30 August – 18 September, 1971, Turrialba).
49. Programming and Supervision of Training
(1 July, 1971 – 30 June, 1972, Turrialba).

50. Coordination of the CSUCA/ROCAP/CAAM/IICA Cooperative Program (17 – 18 April, 1972, Turrialba).
51. Graduate Fellowships for Professors of Schools of Agronomy and Technicians of Experiment Stations (1 July, 1971 – 30 June, 1972, Turrialba).
52. Formal Training at the Undergraduate Level for Students of the Statistics Department of the University of Costa Rica (San José).
53. Technical Advisory Services to National Institutions of Agricultural Education (5 September – 18 December, 1971, San José).
54. Radiosensitivity of Species of Tropical Plants (1 July, 1971 – 30 June, 1972, Turrialba).
55. The Present Status of Tropical Forests and their Relation with Plantations (27 August, 1971, Turrialba).
12. Genetics and Genetic Breeding of Crops: Beans (1 July, 1971 – 30 June, 1972).
13. Genetics and Genetic Breeding of Crops: Cacao (June, 1971 – May, 1972, Turrialba).
14. Genetics and Genetic Breeding of Crops: Pejibaye, Macadamia, Naranjilla (1 July, 1971 – 30 June, 1972, Turrialba).
15. Programming and Supervision of Research (1 July, 1971 – 30 June, 1972, Turrialba).
16. Coffee Breeding. Rust-Resistant Material. (1 July, 1971 – 30 June, 1972, Turrialba).
17. Production and Publication of Teaching Materials on Animal Production (September, 1971 – June, 1972, Turrialba).
18. Studies on the Improved Utilization of Tropical Fodders (September, 1971 – June, 1972).

LINE III. Agricultural Research

1. Regular Course: Management and New Techniques in Animal Production (IICA-CTEI Students) (2 September – 15 December, 1971, Turrialba).
2. Regular Course: Animal Breeding – Genetics (IICA-CTEI Students) (5 July – 3 September, 1971, Turrialba).
3. In-Service Training for Northern Zone Personnel (September, 1971 – June, 1972, Turrialba).
4. Training of the Technical Staff of CEPLAC (September, 1971 – June, 1972, Turrialba).
5. Techniques for the Establishment and Management of Pastures (1 July, 1971 – 30 June, 1972, Turrialba).
6. Legumes and Association of Legumes and Grasses (1 July, 1971 – 30 June, 1972, Turrialba).
7. Induction of Mutations in Yuca (Manihot) (1 July, 1971 – 30 June, 1972, Turrialba).
8. Selection of Compact Mutants in Coffee (Permanent, Turrialba).
9. Selection of Economically Valuable Characteristics in Cattle (1 July, 1971 – 30 June, 1972, Turrialba).
10. Crossbreeding Systems in Dairy Cattle (1 July, 1971 – 30 June, 1972, Turrialba).
11. Crossbreeding Systems in Beef Cattle (1 July, 1971 – 30 June, 1972, Turrialba).
19. Preliminary Study of the Influence of Fertilization on the Establishment of Fodder Legumes (Not yet completed, Turrialba).
20. Characterization of Physical Properties of Tropical Soils (1 July, 1971 – 30 June, 1972, Turrialba).
21. Characterization of Chemical Properties of Tropical Soils (1 August, 1971 – 30 July, 1972, Turrialba).
22. Mineralogical Characterization of Tropical Soils (1 July, 1971 – 14 January, 1972, Turrialba).
23. Biochemical Transformations of Agriculturally Important Compounds and Elements (1 July, 1971 – 12 July, 1972, Turrialba).
24. Mineral Composition of Plants (20 November, 1971 – 30 June, 1972, Turrialba).
25. Effect of Five Levels of Nitrogenated Fertilization in Bean Production (*P. vulgaris* L.) (December, 1970 – May, 1972, Turrialba).
26. Effect of Six Frequencies of Application of Nitrogen in Bean Production (*P. vulgaris* L.) (December, 1971 – May, 1972).
27. Effect of Five Levels of Phosphorous on Bean Production (December, 1971 – April, 1972, Turrialba).
28. Effect of Five Levels of Lime Application on Bean Production (*P. vulgaris* L. var. R-27).
29. Effect of Plant Density and Fertilization Levels on Bean Production (*P. vulgaris* L., var. R-27).

30. Effects of Levels of K, Ca and Mg on Bean Production (*P. vulgaris* L.) in Two Soils of Costa Rica
(December, 1971 – April, 1972, Guanacaste).
31. Effects of Five Levels of N–P–K–Ca on Sugar Cane Production and Quality
(Permanent, Turrialba).
32. Effect of Two Sources of Nitrogenated Fertilization on Pasture Production (1) Pangola (*D. decumbens* Stent); (2) German (*E. polystachia*)
(April, 1971 – April, 1972, Turrialba).
33. Effect of Frequencies of Cutting, and Frequency, Levels and Sources of Fertilization in the Production and Composition of German Grass (*E. polystachia*)
(April, 1971 – April, 1972, Turrialba).
34. Effect of Micro–nutrients on the Continuous Production and Composition of grasses: (1) Pangola (*D. decumbens* Stent); (2) Estrella (*C. plestostachius*)
(Not yet completed, Turrialba).
35. Effect of Fertilization Levels in the Production of: (1) Pejibaye; (2) Macadamia
(November, 1971, Turrialba).
36. Study on Methodology for Measuring Resistance to *Phytophthora palmivora* in Cacao
(October, 1971 – June, 1972, Turrialba).
37. Improvement of Management Practices in Food Crops (Edible Grain Legumes)
(1 July, 1971 – 30 June, 1972, Turrialba).
38. Control of the Mediterranean Fruit Fly (*Ceratitidis capitata* Wied), in Central America, through the Gamma Ray Sterilization Technique
(1 July, 1971 – 30 June, 1972, Turrialba).
39. Biology and Sterilization of the Meliaceous Borer *Hypsipyla grandella* Zeller
(1 July, 1971 – 30 June, 1972, Turrialba).
40. Control of Eradication of the Coffee Borer *Leucoptera coffeella* (Guérin–Menéville) through the Gamma Ray Sterilization Technique
(1 July, 1971 – 30 June, 1972, Turrialba).
41. Improvement of Practices with Perennial Crops
(1 July, 1971 – 30 June, 1972, Turrialba).
42. Technical Assistance: Supplying of Seeds, Vegetative Materials for Propagation
(Permanent, Turrialba).
43. Use of Radiation in Insect Pathology
(1 July, 1971 – 30 June, 1972, Turrialba).
44. Sensitivity of Insects to Entomopathogenic Bodies
(1 July, 1971 – 30 June, 1972, Turrialba).
45. Determination of Physiological Characteristics associated with Resistance to Rust in Coffee Plants
(1 July, 1971 – 30 June, 1972, Turrialba).
46. Determination of Mineral Nutrition Habits of Beans
(1 July, 1971 – 30 June, 1972, Turrialba).
47. Tolerance of Beans to Water Shortage
(1 July, 1971 – 30 June, 1972, Turrialba).
48. Periodicity of Tropical Plants and their Relation with Environmental Factors
(Turrialba).
49. Technical Advisory Services to Institutions concerning Research; Participation in the National Bean Committee (Comisión Nacional del Frijol) in Costa Rica
(July, 1971 – June, 1972).
50. Advisory Services to Cacao Programs at CEPLAC (Brazil), INIAP (Ecuador), Ministry of Agriculture of the Dominican Republic, and Ministry of Agriculture and Livestock of Venezuela
(June, 1971 – May, 1972, Turrialba).
51. Development of Information Processing Methods
(1 July, 1971 – 30 June, 1972, Turrialba).
52. A New Method for Obtaining *Hypsipyla grandella* Eggs in Captivity
(March – June, 1972, Turrialba).
53. New Registries of Parasites of the *Hypsipyla grandella* Larva and Eggs
(February, 1972, Turrialba).
54. Resistance of Australian Cedar (*Toona ciliata* var. *australis*) to Attacks of *Hypsipyla grandella*
(November, 1971, Turrialba).
55. Research on the *Erythrina poeppigiana* Borer (Waap) O. F. Cook
(September–December, 1971, Turrialba).
56. Economic Studies of Forest Production Factors
(May, 1972, Turrialba).
57. Comparative Trial of Three Methods for Bare Root Planting of *Toona ciliata* var. *australis*
(October–December, 1971, Turrialba).
58. Classification of Locations for *Eucalyptus deglupta* in Turrialba
(March–July, 1972).
59. Evaluation of the Administrative Success of Three Programs for the Introduction of Forest Species in Costa Rica
(July, 1971 – May, 1972, Turrialba).
60. Development of a Computer Program for Testing the Normalcy of the Population
(17 July – 22 October, 1971, San José).

61. **Methods for Evaluating the Efficiency of Grass Utilization by Cattle**
(1 July, 1971 – 30 June, 1972, Turrialba).
62. **Utilization of Agroindustrial By-Products in Cattle Feeding**
(1 July, 1971 – 30 June, 1972, Turrialba).
63. **Publication of Progress and Studies made in Animal Production and Pastures in the Central American Area**
(Turrialba).
64. **Factors Affecting Pasture Utilization by Cattle**
(Turrialba and Los Diamantes Experimental Station).
65. **Development of a Model for Estimating the Commercial Volume of an Inventoried Commercial Forest**
(October, 1971 – February, 1972, Limón).
66. **Evaluation of the Increase and Yield of Commercial Species in Tropical Natural Forests**
(Permanent, Turrialba and Guanacaste).
67. **Study of the Behavior of Valuable Species in Humid Forest Soils of Costa Rica**
(Permanent, Turrialba).
68. **Classification of Locations for *Pinus caribaea***
(August, 1971 – February, 1972, Turrialba).
69. **Study of the Subplantation Method with Highly Valuable Species** (1 July, 1971 – 30 June, 1972, Turrialba).
70. **Operational Research**
(24 March, 1972, Turrialba).
71. **Analysis of Haulage Costs in Natural Homogeneous Forests of Costa Rica**
(10 April, 1972, Turrialba).
72. **Cost of Establishing Plantations of *Toona ciliata* in Turrialba, under Three Site Preparation Methods**
(17 February, 1972, Turrialba).
73. **Publication of *Comentario de Maderas* (Commentary on Woods)**
(March, 1972, Turrialba).
74. **Publication of *Maderas Latinoamericanas* (Latin American Woods)**
(July – September, 1971, San José).
2. **Technical Assistance: Supply of Seeds of the Coffee Collection Plants**
(1 July, 1971 – 12 June, 1972, Turrialba).
3. **Zoning of Crops in Central America and the Caribbean**
(1 July, 1971 – 30 June, 1972, Turrialba).
4. **National Course on Programming of Agricultural Extension**
(20 – 23 June, 1972, San José).
5. **Participation in the OIRSA Meeting on preventing the entry of coffee rust**
(6–7 September, 1971, San José and Turrialba).
6. **Evaluation of Selected Forest Species (FAO – NIC)**
(January–June, 1972, San José).
7. **Latin American Forest Seed Bank**
(June, 1972, Turrialba).
8. **Advisory Services to the Computer and Statistical Service of National Institutions**
(July, 1971, Turrialba).
9. **Floor Woods**
(March–April, 1972, San José).
10. **Wooden Supports**
(5 May – 18 June, 1972, Guápiles and San Carlos).
11. **Physical–Mechanical Properties of Papaw Wood (*Brosimum utile*)**
(15 September, 1971 – 12 January, 1972, San José).
12. **Study of Jaúl Light Posts for the Instituto Costarricense de Electricidad (Costa Rican Electricity Institute –ICE)**
(January – March, 1972, San José).
13. **Assistance to the Nutrition Program of INIAP (Ecuador) through the training of an official of the institution**
(July, 1971 – June, 1972, Turrialba).

LINE V. Multinational Integration

1. **Subjects for Multinational Aid**
(24 April, 1972, Turrialba).

LINE VI. Promotion and Implementation of Structural Change

1. **International Seminar on Regional Planning of Agrarian Reform**
(24 – 28 April, 1972, San José).

LINE IV. Promotion of Agricultural Production

1. **Production of Hybrid Cacao Seed for Promotion Programs in Various Countries**
(July, 1971 – May, 1972, Turrialba).

LINE VII. Administration of Agricultural Policies

1. Attendance at the Seminar on Evaluation of Attitudes - I Inter-American Workshop on Educational Research (6 - 24 March, 1972, San José).

DOMINICAN REPUBLIC

LINE I. Analysis of and Information on Rural Development

1. Compilation and Updating of Information on the Dominican Republic.

LINE II. Agricultural Education

1. National Forestry Course (2 - 21 January, 1971, Santo Domingo).
2. Advisory Services to the School of Agronomy and Veterinary Sciences of the UASD (15 - 23 August, 1971, Santo Domingo).

LINE III. Agricultural Research

1. Advisory Services and Lectures on the Coffee Rust (21 - 27 October, 1971).
2. Advisory Services to the Legume Research Program and Promotion of the Creation of the National Bean Program (15 - 20 August, 1971).
3. Advisory Services to the Edible Grain Legume Program of the Dominican Republic (4 - 7 June, 1972).
4. Compilation of Background Data and Analysis of Campesino Settlements for the Programming of a Training Course for Administrators (July - August, 1971).

LINE IV. Promotion of Agricultural Production

1. Collaboration with the IICA Office in the Dominican Republic (8 - 15 June, 1972).
2. Advisory Services to the Dominican Republic in connection with Coffee Production (25 - 28 January and 12 - 28 February, 1972).
3. Technical Assistance to the IICA Office in the Dominican Republic (22 - 27 June, 1972).

LINE VI. Promotion and Implementation of Structural Change

1. Evaluation of Campesino Settlements (21 - 29 July, 1971).
2. Diagnostic Study and Promotion of Agrarian Reform in the Dominican Republic (July, 1971 - June, 1972).

ECUADOR

LINE I. Analysis of and Information on Rural Development

1. Evaluative Study of the Activities of the IICA Office in Ecuador (15 - 26 November, 1971, Quito).
2. Advisory Services and Coordination for the Establishment of a Network of Agricultural Libraries in Ecuador and Peru (I Meeting of Agricultural Librarians of Ecuador) (13 - 15 September, 1971, Quito).
3. Advisory Services in Communications (4 October, 1971, Quito).
4. Support and Promotion of the Inter-American Association of Agricultural Librarians and Documentalists (AIBDA), through the financing of its Executive Secretariat (13 - 15 September, 1971, Quito).

LINE II. Agricultural Education

1. First National Seminar for Professors of Animal Industry (7 - 9 March, 1972, Guayaquil).
2. Collaboration in International Course on Communications (23 - 30 September, 1971, Quito).
3. Study of Forestry Education Institutions in Ecuador (10 - 15 October, 1971 and 24 - 28 January, 1972).
4. Advisory Services to the School of Animal Industry (Technical University of Esmeraldas and University of Guayaquil) (July, 1971 - June, 1972).
5. Collaboration and Support to the Association of Institutions of Higher Agricultural Education (July, 1971 - June, 1972).

LINE III. Agricultural Research

1. I Meeting of Forestry Research Workers of the Andean Zone (19 – 23 June, 1972, Quito).

LINE IV. Promotion of Agricultural Production

1. National Course on Agricultural Marketing (17 – 29 January, 1972, Quito).
2. Advisory Services in Agricultural Marketing to the Ministry of Production and Directorate of Agricultural Cooperatives (July, 1971 – June, 1972, Quito).

LINE VII. Administration of Agricultural Policies

1. Training Course on the Preparation and Evaluation of Agricultural Projects in Ecuador (PEPA) (2 August, 1971 – 30 June, 1972, Quito).

EL SALVADOR

LINE I. Analysis and Information on Rural Development

1. Analysis of the Rural and Institutional Development of El Salvador (May – June, 1972, San Salvador).
2. Short Course on Communications in Extension (3 – 21 January, 1972, San Andrés).
3. Advisory Services to the National Agricultural Extension Service of El Salvador on Teaching Methodology in Home Management, with Projection to Community Improvement (12 – 23 July, 1971, San Salvador).

LINE III. Agricultural Research

1. Technical Meeting on Evaluation and Programming of Activities in Edible Grain Legumes (9 – 14 April, 1972).
2. Meeting on the Evaluation and Programming of Activities of the Bean Program (April, 1972, Santa Tecla).
3. Advisory Services to the Bean Program in connection with the carrying out of socio-economic studies (MAG) (July, 1971 – June, 1972, San Salvador).
4. Advisory Services to the Bean Program in connection with physical-biological research (MAG) (July, 1971 – June, 1972).

5. Advisory Services to the Seed and Plant Department in connection with the production of certified bean seeds (MAG) (September, 1971 – March, 1972).
6. Study of Insect Plagues in El Salvador (10 – 13 January, 1972).

LINE IV. Promotion of Agricultural Production

1. National Course on Extension Administration in El Salvador (17 – 29 April, 1972, San Salvador).

LINE VI. Promotion and Implementation of Structural Change

1. National Course on Agrarian Reform for Promoters and Supervisors of the Rural Colonization Institute (4 – 15 October, 1971, San Salvador).
2. Advisory Services in the Orientation and Evaluation of the Development of a Settlement of the Rural Colonization Institute (ICR) (1 July, 1971 – 30 June, 1972).
3. Advisory Services in the Planning of Agrarian Reform in El Salvador (July, 1971 – June, 1972).

GUATEMALA

LINE I. Analysis of and Information on Rural Development

1. Planning Meeting (27 – 30 June, 1972, Guatemala City).
2. Instruction Subject No. 10. Preparation of Reports (1 May – 25 June, 1972, Guatemala City).
3. Analysis of the Rural and Institutional Development of Guatemala (February – June, 1972).
4. Publication of the Information Bulletin: Services to the Countries, 1971 (1 February, 1971 – 30 June, 1972, Guatemala City).
5. Publication of Bulletins: La Zona Norte del IICA Informa (Report from the Northern Zone of IICA) (October, 1971 – January-June, 1972).
6. Publication of Information Bulletins: Information of Interest to IICA Technicians (Northern Zone countries) (1 August, 1971 – 15 January, 1972, Guatemala City).

7. Distribution of Publications (July, 1971 – June, 1972, Guatemala City).
8. Editorial Services to Agricultural Research and Extension Projects (Permanent).
9. Publication of the Directory of Central American Professionals (Not yet completed).
10. Press and Radio Information (1 July, 1971 – 30 June, 1972).

LINE II. Agricultural Education

1. Meeting of Directors of Secondary Agricultural Schools of Central America (19 – 23 June, 1972, Guatemala City).
2. Intensive Course on Technical Assistance for Livestock Development (27 – 29 September, 1971, Guatemala).
3. Short Course on Techniques for the Assessment and Evaluation of Rural Properties (13 – 17 December, 1971).
4. Course on Soils, Management and Fertilization (22 – 24 May, 1972, Guatemala City).
5. International Seminar on the Teaching of Parasitology for Professors of the Schools of Agronomy of Central America (20 – 23 March, 1972, Guatemala City).
6. International Seminar on the Teaching of Parasitology in the Schools of Agronomy of Central America (19 – 24 March, 1972, Guatemala City).
7. Advisory Services to the School of Agronomy in connection with the Design and Implementation of a Plant Physiology Laboratory (3 – 8 August, 1971, Guatemala City).

LINE III. Agricultural Research

1. Meetings (Technical Advisory Services) (29 – 30 July, 1971, Antigua).
2. II International Meeting on the Production and Utilization of Fodder (15 – 18 March, 1972, Antigua).
3. National Course on Livestock Production and on Pasture Production and Utilization (28 February – 4 March, 1972, Guatemala City).

LINE IV. Promotion of Agricultural Production

1. Central American Seminar on the Physical Environment and Development (25 – 30 July, 1971, Antigua).
2. National Course on Extension and Farm Management (31 January – 18 February, 1972, Guatemala City).
3. National Course on Extension Administration (13 – 18 March, 1972, Guatemala City).

LINE V. Multinational Integration

1. IICA/SIECA Coordination (Permanent)
2. Preparation of the Document on the Regionalization of Costa Rica (1 July, 1971 – 30 June, 1972, Guatemala).
3. Study Trip to the Central American Common Market (SIECA) (12 – 19 December, 1971).

LINE VI. Promotion and Implementation of Structural Change

1. Study and Technical Meeting to Discuss the Preliminary Draft Agreement on the Central American Fund for the Financing of Agrarian Reform Programs (27 – 28 September, 1971, Guatemala City).
2. Basic Courses on Cooperatives for Campesino Leaders of the Cooperative Farms of the National Institute of Agrarian Transformation (Instituto Nacional de Transformación Agraria) (6 – 11 March and 17 April – 13 May, 1972).
3. Advisory Services, Training and Promotion in Campesino Organization in the Implementation of the Development Plan of Guatemala (15 July, 1971 – 30 June, 1972).

HAITI

LINE III. Agricultural Research

1. Advisory Services to the IICA Office in Haiti (May, 1972).
2. Advisory to the Edible Grain Legume Program in Haiti (19 June – 3 July, 1972, Port-au-Prince).

LINE IV. Promotion of Agricultural Production

1. Technical Assistance in Forestry Matters to the IICA Office in Haiti (June, 1972).
2. Advisory Services to the Haitian Government in connection with the Five-Year Coffee Plan (28 January – 13 February, 1972).

HONDURAS

LINE I. Analysis of and Information on Rural Development

1. Analysis of Rural and Institutional Development of Honduras (15 January – 30 June, 1972, Tegucigalpa).

LINE II. Agricultural Education

1. Advisory Services to the Permanent Committee on Higher Agricultural Education of CSUCA, according to Agreement (8 – 12 August, 1971, La Ceiba).
2. Multiplication of Legume Seeds for Trials by PCCMCA (December, 1971 – April, 1972, El Zamorano).

LINE III. Agricultural Research

1. Technical Meeting to Program the Activities of the Edible Grain Legume Program (19 – 20 April, 1972, Comayagua).

LINE IV. Promotion of Agricultural Production

1. Advisory Services to DESARRURAL in Extension (March 20 – 23, 1972).
2. Technical Assistance, requested by UNDP, to determine potential areas for cacao-growing in Honduras (February and May, 1972).

LINE VI. Promotion and Implementation of Structural Change

1. Reciprocal Training in Agrarian Reform with Mexican Technicians (21 – 22 August, 1971, Honduras).

LINE VII. Administration of Agricultural Policies

1. Training Course in Preparation and Evaluation of Agricultural Development Projects (PEPA) (1 July, 1971 – 30 August, 1972, Tegucigalpa).
2. Advisory Services in connection with the Review and Restructuring of the Agricultural Sector in Honduras (February – June, 1972, Tegucigalpa).
3. Advisory Services in Communications to the Basic Grains Program (11 – 15 May, 1972, Tegucigalpa).

JAMAICA

LINE IV. Promotion of Agricultural Production

1. Advisory Services to the Jamaican Government on Problems of Coffee Production (18 – 22 April, 1972).

MEXICO

LINE I. Analysis of and Information on Rural Development

1. Analysis of the Rural and Institutional Development of Mexico (January – June, 1972).
2. Editorial Review of Publications of the Northern Zone and Coordination of the Miscellaneous Publications Series (1 July, 1971 – 30 June, 1972).
3. Training, through a Graduate Education and Research Program, of Central American Professionals, in Agricultural Diversification (Permanent).
4. In-Service Training of Central American Technical Personnel in Technical Communications (Permanent).

LINE II. Agricultural Education

1. International Technical Meeting on Rural Education and Development (25 – 31 October, 1971, Mexico).
2. Short Course on Methodology of Teaching in the Agricultural Sciences (14 – 18 February, 1972, Roque, Guanajuato).

3. Short Course on Teaching Methodology in the Agricultural Sciences (2 – 9 May, 1972, Chihuahua).
4. Short Course on Teaching Methodology in the Agricultural Sciences (18 – 29 November, 1971, Hermosillo, Sonora).
5. Short Course on Teaching Methodology in the Agricultural Sciences (1 – 7 February, 1972, Chapingo).
6. Short Course on Teaching Methodology in the Agricultural Sciences (12 – 17 June, 1972, Monterrey).
7. Advisory Services and Teaching Methodology Course (19 – 23 July, 1971, Monterrey).
8. Intensive Course on Scientific Communications (28 September – 1 October, 1971, Ciudad Victoria, Tamaulipas).
9. Seminar on Special Teaching in Soils for Professors of Higher Schools of Agriculture of Mexico (25 – 30 July, 1971, Monterrey).
10. International Seminar on Planning and Production of Audiovisual Aids (13 – 21 October, 1971, Mexico, D.F.).
11. Seminar on the Evaluation and Administration of Schools of Agronomy and Higher Schools of Agriculture of Mexico (24 – 28 April, 1972, Mexico, D.F.).
12. Participation in the Intensive Course on Nutrition (16 – 23 April, 1972, Uruapán, Michoacán).
13. Advisory Services to the Mexican Association of Higher Agricultural Education (AMEAS) (15 – 17 November, 1971, Hermosillo).
14. Creation of the Department of Agricultural Extension in the School of Agronomy of the Autonomous University of Chihuahua (3 – 6 May, 1972, Chihuahua).

LINE III. Agricultural Research

1. Training of Technicians of the Bean Program, through in-service training in the various phases of assistance to farmers (1 April, 1972).
2. Training of Central American Technicians on Legume Production, through in-service training (1 July, 1971 – 30 June, 1972).
3. Advisory Services to Programs of Teaching, Research and Extension for Livestock Production

in Mexico
(1 July, 1971 – 30 June, 1972).

LINE IV. Promotion of Agricultural Production

1. Promotion and Advisory Services in the Training of Staff for Courses and In-Service Training for Development Plans (1 September – 30 November, 1971).

LINE VI. Promotion and Implementation of Structural Change

1. International Course on Campesino Organization and Technical Assistance in Rural Development (8 – 31 May, 1972).
2. Advisory Services to the Mexican Productivity Program (1 July, 1971 – 30 June, 1972).
3. Reciprocal Training in Agrarian Reform with Honduran Technicians (20 – 31 July, 1971, Mexico City).

NICARAGUA

LINE I. Analysis of and Information on Rural Development

1. Analysis of the Rural and Institutional Development of Nicaragua (May – June, 1972, Managua).

LINE II. Agricultural Education

1. National Plan on Higher Agricultural Education, Research and Extension (5 July, 1971 – 15 November, 1972, Managua).
2. The Use of Sugar Cane Molasses in Cattle Feeding (28 June, 1972, Managua).

LINE III. Agricultural Research

1. Participation in the XVIII Meeting of PMCCMCA (6 – 10 March, 1972, Managua).
2. Organization of the Legumes Discussion at the XVIII Meeting of PCCMCA (September, 1971 – March, 1972, Managua).

LINE IV. Promotion of Agricultural Production

1. Participation in the I Meeting of the Committee for Protection against the Coffee Rust of the

International Regional Agricultural Sanitation Agency (OIRSA)
(16 – 21 May, 1972, Managua).

2. Preliminary Feasibility Study of the Forest Resources of the Río Escondido Basin (Nicaragua) (January – July, 1972).
3. Advisory Services to the Livestock Development Project of the Central Bank of Nicaragua (10 – 14 January, 1972, Managua).

LINE VI. Promotion and Implementation of Structural Change

1. National Course on the Administration of Agricultural Colonies and Campesino Settlements (18 – 30 October, 1971, La Borgofia).

PANAMA

LINE I. Analysis of and Information on Rural Development

1. Advisory Services to the Library of the Planning Office of the President of the Republic of Panama (15 – 19 November, 1971, Panama).
2. Analysis of Rural and Institutional Development of Panama (June – July, 1972).
3. Analysis of the Organization of the Agrarian Reform Committee (July, 1971 – June, 1972).

LINE II. Agricultural Education

1. Scientific Communications Course at the School of Agronomy of the University of Panama (6 – 17 December, 1971).
2. Course on Teaching Methodology in the Agricultural Sciences (29 May – 3 June, 1972, Panama City).
3. Advisory Services to the Ministry of Education of Panama, on the Diagnosis of the Needs in the Area of Agricultural Education and Review of the Study Plans of the Middle Level Schools (1 July, 1971 – 30 June, 1972).
4. Advisory Services to the Agricultural Extension Service of Panama on Teaching Methodology in Home Management with Projections to Community Improvement (16 – 20 November, 1971).

LINE III. Agricultural Research

1. Programming Meeting on Research in Grain Legumes (19 – 23 March, 1972, Panama City).

LINE IV. Promotion of Agricultural Production

1. National Course on Extension Administration (2 – 8 April, 1972).
2. Advisory Services to the Government of Panama on the Administration and Policies of the Forestry Department of Panama (October – November, 1971).
3. Assistance to the Pastures Program of MAG–FAO (David, Panama).
4. Technical Assistance to the Schools of Agronomy of the University of Panama to recommend crops for the area surrounding Gatun Lake (9 – 10 June, 1972).

LINE VI. Promotion and Implementation of Structural Change

1. VI Meeting of Agrarian Reform Executives of the Central American Isthmus (22 – 26 November, 1971, Panama City).
2. National Seminar on Rural Development for Government Officials of the Agricultural Sector (15 – 19 November, 1971, Panama City).
3. Advisory Services on the Orientation and Evaluation of the Development of a Settlement (Asentamiento) of the Agrarian Reform Committee (July, 1971 – June, 1972).
4. Advisory Services on the Restructuring and Programming of the Agrarian Reform Committee (July, 1971 – June, 1972).

PARAGUAY

LINE I. Analysis of and Information on Rural Development

1. Methodological Trial of Institutional Analysis for a Case in Paraguay (15 August – 15 October, 1971, Asunción).
2. Status and Trends of the Agricultural Sector of Paraguay (1 June, 1972, Asunción).

LINE II. Agricultural Education

1. International Technical Meeting of Professors of Plant Pathology, Entomology and Plant Therapeutics in Professional Agricultural Courses (17 – 22 April, 1972, Asunción).
2. Short Course on Development of Rural Communications for Students of the 5th Course of the School of Social Service, Dr. Andrés Barbero Institute of the National University of Asunción (6 September – 1 October, 1971, Asunción).
3. Short Course on Rural Extension for Directive Professional Personnel of the National Service for Combatting Foot and Mouth Disease –SENALFA (10 June, 1971, San Lorenzo).
4. Agricultural Extension Course for Personnel of the Agricultural Extension Service of Paraguay (18 February – 8 April, 1972, San Lorenzo).
5. Applied Short Course in Agricultural Extension for the Technical Field Staff of the National Service for Combatting Foot and Mouth Disease –SENALFA (15 October – 19 November, 1971, Villarrica, Cnel. Oviedo, Caaguazú).
6. Advisory Services for the Consolidation of the Economics and Statistics Center of the School of Agronomy and Veterinary Sciences of Asunción (1 – 5 December, 1971, and September, 1971 – May, 1972).
7. Advisory Services and Assistance to the School of Agronomy and Veterinary Sciences of the National University of Asunción (August – October, 1971, San Lorenzo).
8. Exchange of Teaching Staffs (6 September – 29 October, 1971, Asunción).

LINE III. Agricultural Research

1. Advisory Services to the Rice Program (August – October, 1971, Asunción).
2. Advisory Services to the Wheat Program (August, 1971 – March, 1972, Asunción).
3. Advisory Services to the Economics Program (Asunción).
4. Compilation of Information on Paraguay (August, 1971, Asunción).

LINE IV. Promotion of Agricultural Production

1. Short Course on Agricultural Credit and Technical Assistance (26 – 30 June, 1972, Asunción).

2. Socio-economic Study of the Caraguatay Zone (September, 1971 – June, 1972, Asunción and Caraguatay).
3. Collaboration with the Ministry of Agriculture and Livestock in connection with Agricultural Insurance (19 – 31 July, 1971, Asunción and Rural Zone).
4. Advisory Services to the National Development Bank and the Agricultural Credit Bank (Crédito Agrícola de Habilitación), on the Evaluation of Credit Programs (28 November – 5 December, 1971, Asunción).
5. Advisory Services for the Establishment of an Agreement between the Agricultural Extension Service and the National Development Bank (1 June – 30 July, 1971, Asunción).

LINE VI. Promotion and Implementation of Structural Change

1. Training and Advisory Services on Aspects of Campesino Organization and Technical and Social Assistance for the Consolidation of Settlements (Asentamientos) in the Colonies of the Eje Este (July, 1971 – June, 1972, Colonias del Eje Este).
2. Training in Campesino Organization for Marketing (July, 1971 – June, 1972, Colonias del Eje Este).

LINE VII. Administration of Agricultural Policies

1. Socio-economic Study of the Cane-Growing Zone of Paraguay with a view to formulating a program of production diversification (August, 1971 – June, 1972, Asunción).
2. Advisory Services on the Reorganization of the Department of Economics of the Ministry of Agriculture (October, 1971 – May, 1972, Asunción)
3. Advisory Services to the Technical Planning Secretariat for the formulation of the development program of Colonias del Eje Norte combined with problems of minifundio areas (15 July – 30 November, 1971, Asunción).
4. Advisory Services to the Technical Planning Secretariat for the formulation of an evaluation scheme for the Paraguayan Integral Agricultural Development Plan (PIDAP) (10 April – 30 June, 1972, Asunción).

PERU

LINE I. Analysis of and Information on Rural Development

1. Meeting of the Deans Advisory Committee of the Andean Zone (30 May – 1 June, 1972, Lima).
2. Advisory Services to the Communications Office of the National Center for Training and Research on Agrarian Reform –CENCIRA (20 – 22 September, 1971 and 7 – 8 October, 1971, Lima).
3. Book: *Cultivo de Raíces y Tubérculos Tropicales* (Growing Tropical Roots and Tubers) (December, 1971 – June, 1972, Lima).
4. Publication of Information Bulletin and Bulletin on Services to Countries (March – June, October and December, 1972, Lima).
5. Book: *Extensión Agrícola. Dinámica del Desarrollo Rural* (Agricultural Extension. Dynamics of Rural Development) (March – November, 1971).
6. Book: *Primer Libro de las Gramíneas* (First Book on Grasses) (November, 1971 – May, 1972, Lima).
7. Development of Agriculture and the Institutions of the Agricultural Sector (December, 1971 – May, 1972, Lima).
8. Exchange and Cooperation with the Inter-American Documentation Federation–FID/CLA (participation in the Refresher Course on Documentation for Peruvian Librarians and in the III Regional Congress on Documentation) (16 – 18 September, 1971 and 20 – 24 September, 1971, respectively, Lima).
9. Support and Promotion for the Inter-American Association of Agricultural Librarians and Documentalists (AIBDA) through the Financing of its Executive Secretariat (participation in the Annual Meeting of the Executive Council of AIBDA and in the Regional Congress on Documentation of the FID/CLA) (16 – 18 September, 1971 and 20 – 24 September, 1971, respectively, Lima).

LINE II. Agricultural Education

1. III National Meeting on Higher Agricultural Education (23 – 26 November, 1971, Cuzco).
2. Round Table with questions on Some Experiences in the Teaching of Olive Growing in the University (20 November, 1971, Chiclayo).

3. Round Table with questions on Some Experiences in the Teaching of Plant Physiology (IV. Latin American Symposium on Plant Physiology) (20 – 26 September, 1971, Lima).
4. Second Graduate Course in Stages on Livestock Production (6 April – 30 June, 1972, Lima).
5. Course on Methodology of University Teaching for Professors of the Agricultural Sciences Program of the Pedro Ruiz Gallo National University (3 – 14 January, 1972, Chiclayo).
6. Seminar on Methodology for a Liberating Pedagogy (8 – 14 October, 1971, Lima).
7. First Regional Seminar on the Training of Professors of Methodology of University Teaching (2 – 27 May, 1972, Lima).
8. Study of the Forestry Education Institutions of Peru (1 – 30 October, 1971, Lima).
9. Advisory Services on the Graduate Program of the La Molina National Agrarian University (1 July, 1971 – 30 June, 1972).
10. Advisory Services to the School of Animal Industry (La Molina National Agrarian University, Universidad Agraria de La Selva and Universidad Técnica de Piura) (June, 1971 – June, 1972).

LINE III. Agricultural Research

1. II Regional Meeting of Agrostologist of the High Andes (3 – 5 April, 1972, Puno).
2. Technical Advisory Services on the Recognition of Virus Diseases in certain Edible Legumes in Peru (11 – 27 July, 1971, Lima).

LINE IV. Promotion of Agricultural Production

1. Basic Course on Agricultural Marketing for Assistant Directors of Marketing in the Agrarian Zones (17 – 27 November, 1971, Lima).

LINE VI. Promotion and Implementation of Structural Changes

1. Advisory Services in Communication to the Ministry of Agriculture (31 January – 28 November, 1971, Lima).

2. **Advisory Services to the Rural Cadastre Unit of the National Agrarian Institute of Venezuela in Peru**
(6 February – 16 March, 1972, Lima).
3. **In-Service Training for Venezuelan Technicians in Agrarian Reform, in Peru**
(7 February – 18 March, 1972, Lima).
4. **In-Service Training for Ecuadoran Technicians, In Peru**
(6 February – 18 March, 1972).

LINE VII. Administration of Agricultural Policies

1. **Regional Intensive Course on Administration of the Agricultural Sector**
(18 October – 12 November, 1971, Lima).
2. **Participation in the Latin American Seminar on Agrarian Reform and Colonization**
(29 November – 5 December, 1971, Chiclayo).

TRINIDAD AND TOBAGO

LINE II. Agricultural Education

1. **Technical Advisory Services to National Institutions of Agricultural Education**
(11 – 16 January, 1972, St. Augustine).

LINE III. Agricultural Research

1. **II International Conference on Cacao Research**
(9 – 18 January, 1972, Port of Spain).

LINE IV. Promotion of Agricultural Production

1. **Breeding of Parasites of *Hypsipyla* for Distribution in Latin America**
(December, 1971 – February, 1972).

UNITED STATES

LINE III. Agricultural Research

1. **Participation in the VI Latin American Conference on Livestock Production**
(6 – 10 May, 1972, Gainesville, Florida).
2. **Review of the Forestry Introduction Program of the Institute of Pacific Islands Forestry**
(11 August, 1971, Hilo, Hawaii).
3. **Mutation Breeding Workshop**
(17 – 18 January, 1972, Oak Ridge, Tenn.).

LINE IV. Promotion of Agricultural Production

1. **Meeting of the *Ad-hoc* Working Group on the Collection, Evaluation and Conservation of Genetic Resources of Plants**
(20 – 25 March, 1972, Beltsville).
2. **Participation in the Panel of High-Level Consultants on the Prevention of Coffee Rust (UNDP)**
(1 – 5 February, 1972, New York).
3. **Inter-American Symposium on the Scientific and Technological Gap in Latin America**
(17 – 19 April, 1972, Lincoln, Nebraska).
4. **Signature of the Agreement on the II Agricultural Credit Project of Costa Rica**
(16 May, 1972, Washington, D.C.).

URUGUAY

LINE I. Analysis of and Information on Rural Development

1. **Meeting of Directors of Agricultural Magazines**
(26 – 27 June, 1972, Montevideo).
2. **Organization of a National Seminar on Bibliographic Research in Montevideo**
(November, 1971 – 17–19 April, 1972).
3. **Seminar on Analysis of Institutional Development**
(11 – 13 October, 1971, Montevideo).
4. **Methodological Trial on Institutional Analysis for a Case in Argentina**
(12 October, 1971, Montevideo).
5. **Methodological Trial on Institutional Analysis for a Case in Uruguay**
(August – September, 1971, Montevideo).
6. **Status and Trends of the Agricultural Sector in Uruguay**
(January – June, 1972, Montevideo).
7. **Consolidation of the Status and Trends of the Agricultural Sector in the Southern Zone**
(April – June, 1972, Montevideo).
8. **Registry of Institutions responsible for Rural Development in Uruguay**
(June, 1971 – July, 1972, Montevideo).
9. **Review of Methodologies for the Analysis of Rural Development**
(June, 1971 – June, 1972, Montevideo).
10. **Support for the Activities of the Uruguayan Division of AIBDA**
(1 July, 1971 – 30 June, 1972, Montevideo).

11. **Preparation and Dissemination of Bibliographic Notes on New Publications of IICA** (1 July, 1971 – 30 June, 1972, Montevideo).
12. **Drafting of National and International Press Releases on Activities of the Southern Zone** (1 July, 1971 – 30 June, 1972, Montevideo).
13. **Publication of the Manual on Comunicación Escrita (Written communications)** by Ing. Alejandro MacLean y Estenós (1 July, 1971 – 31 December, 1972, Montevideo).
14. **Drafting of the Information Bulletin on the Southern Zone** (July, 1971 – December, 1972, Montevideo).
15. **Promotion of Bibliographic Research and Preparation of Collective Catalogs.**
16. **Publication of the Revised Edition of the Collective Catalog of Periodical Publications existing in Uruguay** (1 July, 1971 – January, 1972).

LINE II. Agricultural Education

1. **Meeting of the Education Council of the Southern Zone** (19 October, 1971, Montevideo).
2. **National Course for Teachers (Teaching Methods)** (6 – 18 March, 1972, Montevideo).

LINE III. Agricultural Research

1. **Technical Meeting on Animal Industry** (25 – 28 April, 1972, Montevideo).
2. **Analysis of the Status of Research in Animal Industry in the Zone** (August, 1971 – March, 1972, Montevideo).
3. **Advisory Services on the Collection and Filing of Economic Data in Uruguay** (July, 1971 – June, 1972, La Estanzuela, Colonia).
4. **Advisory Services on Analysis of Meat Production Systems** (October, 1971 – May, 1972, La Estanzuela, Colonia).
5. **Advisory Services on Experimental Analysis** (July, 1971 – June, 1972, La Estanzuela, Colonia).
6. **Advisory Services on the Determination of Costs** (July, 1971 – June, 1972, La Estanzuela, Colonia).

LINE IV. Promotion of Agricultural Production

1. **National Course of Technical Assistance for Officials of the Uruguayan National Colonization Institute** (13 September – 8 October, 1971, Montevideo).
2. **Compilation and Analysis of Background Data for the Operation of Rural Technical Assistance in Uruguay** (September, 1971 – April, 1972, Montevideo).
3. **National Advisory Services in Uruguay to the Ministry of Public Works and to the National Colonization Institute** (24 February – 30 June, 1972, Montevideo).
4. **In-Service Training for the Elaboration of Plans for Operations in Technical Assistance Programs in Colonies of the INC** (September, 1971 – May, 1972).
5. **In-Service Training in Agroeconomic Studies of Colonization** (July – November, 1971, Montevideo).
6. **Training in Agricultural Economics** (July, 1971, Trinidad).

LINE V. Multinational Integration

1. **Promotion with LAFTA and Agricultural Planning Units of Interest in Studies on Regionalization in the Zone** (July, 1971 – June, 1972, Montevideo).
2. **Elaboration of a Methodology for Obtaining Costs and Return Studies through Balances of Inputs and Income for Possible Trade Items** (July, 1971 – June, 1972, Montevideo).

LINE VI. Promotion and Implementation of Structural Change

1. **Study of Livestock Enterprises in Region B-2 of the Livestock Regionalization Atlas** (15 March – 30 June, 1972).

LINE VII. Administration of Agricultural Policies

1. **Collaboration in the Definition and Programming of Regional Studies in Uruguay** (July, 1971 – June, 1972, Montevideo).
2. **Preparation of a Teaching Subject on Planning at the Production University Level, for the IICA/BID Manual** (December, 1971 – March, 1972, Montevideo).

3. Preparation of the Teaching Subject on Evaluation of Agricultural Projects for the IICA/BID Manual (December, 1971 – March, 1972, Montevideo).
4. Collaboration in the Definition and Programming of Regional Studies in Uruguay (October, 1971 – June, 1972, Montevideo).
5. Meeting of Directors of Agricultural Planning Units of the Zone (July, 1971 – June, 1972, Montevideo).

VENEZUELA

LINE I. Analysis of and Information on Rural Development

1. Advisory Services in Communications (October, 1971 – June, 1972, Caracas and Maracay).
2. Development of Agriculture and of Institutions (20 October, 1971 – 27 January, 1972).
3. Report on IICA in Venezuela 1966–1971 (20 – 27 August, 1971, San Felipe).

LINE II. Agricultural Education

1. Second Meeting of the Venezuelan Association of Institutions of Higher Agricultural Education (AVIEAS) (8 – 10 December, 1971, Maturín).
2. Course on University Teaching Methodology for Professors of the School of Veterinary Medicine of the University of Zulia (6 – 17 December, 1971, Maracaibo).
3. Feasibility Study on Graduate Teaching in Venezuela (Occasionally, Caracas and Maracay).
4. Study of the Forestry Education Institutions of Venezuela (20 – 26 October, 1971 and 6 – 10 February, 1972).
5. Advisory Services to the Venezuelan Association of Institutions of Higher Agricultural Education (AVIEAS) concerning a Self-Study (Maracay).
6. Advisory Services to the School of Animal Industry of the University of Oriente (July, 1971 – June, 1972, Jusepín, Monagas).
7. Advisory Services in Regional Development to the School of Agronomy of the Central University of Venezuela (October, 1971, State of Merida).

8. Cooperation with the Ministry of Agriculture and Livestock in the organization of a Center for Extension Workers (September, 1971 – June, 1972, Caracas and Turnero).

LINE III. Agricultural Research

1. National Course on Technical Writing (8 – 20 November, 1971, Jusepín, Monagas).
2. National Course on Technical Writing (10 – 14 January, 1972, Maracay, Aragua).
3. National Course on Technical Writing (22 – 26 May, 1972, Maracay, Aragua).
4. Short Course on Communications in Organizations for Officials of the Venezuelan Petroleum Institute (23 – 24 January, 1972, Maracaibo, Zulia).
5. Evaluation of the Five Years of the Agreement on the Yaracuy Development Area (1966–1971). (2 August – 29 September, 1971, Caracas and San Felipe).

LINE IV. Promotion of Agricultural Production

1. First National Seminar of Official Agencies on the Marketing of Agricultural Products (7 – 8 October, 1971, Caracas).
2. In-Service Training in Marketing for two Technicians of the Venezuelan Marketing Corporation (June – August, 1972, Caracas).
3. Coordination with the Inter-American Center for the Integral Development of Waters and Land (Centro Interamericano de Desarrollo Integral de Aguas y Tierras –CIDIAT) (14 – 17 March, 1972, Merida).

LINE VI. Promotion and Implementation of Structural Change

1. Diagnosis and Advisory Services on the Administration of the National Agrarian Institute (IAN) (2 – 30 August, 1971, Caracas).
2. Advisory Services on the Drafting of an Agricultural Tax Project for the National Agrarian Institute (IAN). (October, 1971 – June, 1972).
3. Advisory Services to the Cadastre Unit of the National Agrarian Institute (IAN) (June, 1971 – June, 1972).

LINE VII. Administration of Agricultural Policies

1. **Integrated Programs of PRIDA (Dairy Cattle Project)**
(November, 1971, States of Merida and Aragua).

MULTINATIONAL ACTIVITIES

Line I.

1. **Diagnosis of the Status of Libraries and Documentation**
(1 - 27 June, 1971, various countries of the Andean Zone).
2. **Research on Methods of Dissemination of Information and Evaluation of Dissemination Programs in the countries of the Central American Isthmus**
(1971 - 1973, Central American countries).
3. **Diagnostic Studies and Recommendations on the Libraries and Agricultural Documentation Services**
(1 May - 28 July, 1971, Andean Zone countries).
4. **Evaluative Study of the Agricultural Research Activities of the Andean Zone**
(24 - 30 June, 1972, Andean Zone Countries).
5. **Advisory Services to the Agricultural Research and Extension Units of Central America, on the Establishment and Operation of Departments of Technical Diversification**
(Central American countries).
6. **Advisory Services and Participation in the Organization and Secretariat of the International Regional Meetings on Agricultural Research and Extension of Central America**
(Central American countries).
7. **Initiation of Work Leading to the Institutionalization of the Teaching of Scientific Communications in Schools of Agronomy and Veterinary Science of the Argentine Republic**
(April - June, 1972, Tucuman, Argentina, and Montevideo, Uruguay).
8. **Preparation of List of Communications of the Southern Zone; List of Subscribers and Purchase of Books**
(1 July, 1971 - 30 June, 1972, Montevideo, Uruguay and Buenos Aires, Argentina).
9. **Technical Publications Series**
(Not yet completed, Costa Rica and Guatemala).
10. **Miscellaneous Publications**
(Not yet completed, Costa Rica and Guatemala).

11. **National Agricultural Bibliographies of the Countries of Central America**
(Not yet completed, Central American countries).

Line II.

1. **Coordination of the CSUCA/ROCAP/CAAM/IICA Program**
(July, 1971 - June, 1972, Central American countries).
2. **Training of Directors of the School of Agronomy of the Catholic University of Valparaiso**
(23 August - 6 September, 1971, Argentina, Brazil and Uruguay).
3. **Study of the Nutritional Value of a Mutant White Bean**
(July, 1971 - June, 1972, Turrialba and Guatemala).

Line III.

1. **Coordination of Activities with Legume Programs in Countries outside Central America**
(August - October, 1971, Mexico, Puerto Rico and Colombia).
2. **Exchange of Technicians**
(July, 1971, Southern Zone countries).
3. **Exchange of Information**
(July, 1971 - June, 1972, Southern Zone countries).
4. **Advisory Services to the Office of Agricultural Research and Extension (DIEA), Paraguay, on the formulation of a national research program**
(August, 1971 - March, 1972, Paraguay and Uruguay).
5. **Inventory of Agricultural Research Institutions**
(July - December, 1971, Argentina and Uruguay).
6. **Inventory and Analysis of Forestry Research in the Andean Zone**
(September, 1971 - May, 1972, Andean Zone countries).
7. **Diagnosis of the Status of Libraries and Documentation**
(1 - 27 June, 1972, Andean Zone countries).
8. **Short Course on Ecology and Pastures of the High Andes**
(20 - 31 March, 1972, Bolivia and Peru).
9. **Coffee Breeding. Production of Low-Caffein Cultivars**
(1 July, 1971 - 30 June, 1972, Turrialba and Tarrytown, USA).

10. Development of Systems for Economic Production of Dairy Cows (October, 1971 – June, 1972, Turrialba and Buena Vista, Guatemala).
11. Selection of Economically Valuable Characteristics of Dairy Cattle (1 July, 1971 – 30 June, 1972, Turrialba and Guatemala).
12. Study of the Genetic Resources for Cattle Breeding in the countries of the Northern Zone of IICA (March – June, 1972, Northern Zone countries).
13. Coordination of Activities of the Central American Program for the Improvement of Animal Production and Pastures (July, 1971 – June, 1972, Central American countries).
14. Advisory Services to National Programs for Research and Promotion of Production with Beef Cattle and Fodder in Central America (1 July, 1971 – 30 June, 1972, Central American countries).
15. Coordination of Studies on Legume Sanitation in Latin America (1 July, 1971 – 30 June, 1972, Central America and Panama).
16. Coordination of Work on Varietal Improvement and Growing Practices with Legumes in Central America (1 March, 1971 – 30 June, 1972, Central America and Panama).

Line IV.

1. Completion of the Livestock Regionalization Atlas (1 July, 1971 – 30 June, 1972, Buenos Aires and Montevideo).
2. Institutional Survey (1 July, 1971 – 30 June, 1972, Argentina, Brazil, Chile, Uruguay and Peru).
3. Technical Assistance to the Regional Program on the Production and Utilization of Fodder (March – June, 1972, Central American countries).

Line V.

1. Study on the Status of the Regionalization and Zoning of the Andean Zone Countries

(31 January – 25 February, 1972, Andean Zone countries).

2. Advisory Services in the Preparation of the Regionalization Report of El Salvador (5 July, 1971 – 31 December, 1972, El Salvador and Guatemala).

Line VI.

1. Regional Studies on Agrarian Structure and Rural Development (1 July, 1971 – 30 June, 1972, Central American countries).
2. Pine Sampling in Nicaragua (23 December, 1971, Puerto Cabezas, Nicaragua, and San José, Costa Rica).
3. Preparation and Publication of the Guidelines for Agrarian Reform Programming (1970 – 1972, El Salvador and Panama).
4. Study of Certain Aspects of Agrarian Reform Legislation in Peru (February – June, 1972, Colombia and Peru).
5. Organization and Operation of Community Enterprises in Chile and Colombia (1 September, 1971 – 1 May, 1972, Colombia, Venezuela, Panama and Chile).

ACTIVITIES CARRIED OUT BY IICA IN COUNTRIES OUTSIDE THE AREA

1. Official Visit of the Director General, in response to a special invitation (August – September, 1971, Spain and Israel).
2. Participation in the FAO Panel on the Creation of AGRIS (International Information System for the Agricultural Sciences and Technology) (28 – 30 October, 1971, Rome, Italy).
3. Participation in the FAO Conference (7 – 18 November, 1971, Rome, Italy).
4. Collaboration in Scientific Events representing IICA (4 – 15 September, 1971 and 6 – 14 November, 1971, Geneva, Switzerland, Vienna, Austria, and Rome, Italy).





Appendix II

INSTITUTIONS WITH WHICH IICA COOPERATED IN THE 1971-72 PERIOD

ARGENTINA

Consejo Federal de Inversiones (CFI)

Gobierno de la Provincia de La Rioja

Subsecretaría de Recursos Hídricos de la Nación

Corporación de Fomento del Río Colorado
(CORFORID COLORADO)

Empresa Agua y Energía

Instituto Nacional de Tecnología Agropecuaria (INTA)

Estación Experimental Agropecuaria de Balcarce

Escuela de Graduados en Ciencias Agropecuarias

Ministerio de Agricultura y Ganadería de la Nación
(MAG)

Ministerio de Asuntos Agrarios, Provincia de Córdoba

Ministerio de Economía, Provincia de Buenos Aires

Dirección de Estadística, Provincia de la Pampa

Instituto Provincial Estadística y Censos, Provincia de Santa Fe

Banco de la Nación

Estación Experimental Regional del INTA

Gobierno de la Provincia de Santiago del Estero

Estación Experimental Agropecuaria de la Banda y de Castelar

Comité Organizador del VI Seminario Latino Americano de Irrigación y Drenaje

Facultad de Agronomía y Veterinaria de la Universidad de Buenos Aires

Escuela de Posgrado en Ciencias Agropecuarias del INTA

Escuela para Graduados en Ciencias Agropecuarias de la República Argentina

Facultad de Ciencias Agrarias, Pontificia Universidad Católica Argentina

Facultad de Agronomía y Zootecnia, Universidad Nacional de Tucumán

Facultad de Agronomía y Ciencias Veterinarias de la Universidad de La Plata

Instituto Nacional de la Actividad Hípica

La Fundación Bolsa de Comercio

Cámara de Martilleros y Consignatarios

Sociedad Rural Argentina

Bolsa de Cereales

Fundación Ford

Comisión de Documentación (IRAM)

Biblioteca Central de la Facultad de Agronomía y Veterinaria de la Universidad de Buenos Aires

Universidad del Nordeste

Consejo Nacional de Investigación Científica y Técnica

Estación Experimental de Famailla en Tucumán

Instituto Nacional de Colonización

Banco de la República

BOLIVIA

Ministerio de Asuntos Campesinos y Agricultura

Ministerio de Planificación y Coordinación

Ministerio de Finanzas

Banco Agrícola de Bolivia

Estación Experimental "La Tamborada"

Planta de Leche

Centro de Investigaciones

Central de Cooperativas, Provincia Arona

Confederación Nacional de Campesinos de Bolivia

Confederación de Trabajadores Campesinos

Juventud Campesina de Bolivia

Federación Departamental de Campesinos de La Paz

Asociación Provincial de Jóvenes Campesinos de Ingavi

Centro de Promoción y Coordinación Campesina "Minkha"

Misión de la Universidad de Utah en Bolivia

Biblioteca del Ministerio de Asuntos Campesinos y Agricultura

Corporación Boliviana de Fomento con Fertilizantes e Implementos

YFPB con Fertilizantes

Aguas Subterráneas, Implementos, Pozos y Riego

Banco Mundial de Semillas

Northrup King

División de Certificación de Semillas y Estación Experimental de Belén

Estación Experimental de Patacamaya del MACA

La Granja Modelo de Chuquibambilla de la Universidad Nacional Técnica del Altiplano

Universidad Técnica de Beni "José Ballivian", Facultad de Zootecnia

Universidad Mayor y Autónoma "Gabriel René Moreno", Facultad de Medicina Veterinaria

Universidad Mayor de San Simón, Facultad de Ciencias Agronómicas

Dirección de Economía Agrícola y Comercialización

Ministerio de Industria y Comercio

Departamento de Comercio Interno

Comité de Obras Públicas

Servicio Nacional de Desarrollo de la Juventud

Misión Británica de Agricultura Tropical

Misión Suiza

Misión Israelí

BRAZIL

Associação Brasileira de Crédito e Assistência Rural (ABCAR)

Coordinación de Asistencia Técnica Integral (CATT)

Secretaría de Agricultura

Secretaría de Coordenação e Planejamento do Rio Grande do Sul

Instituto Nacional de Colonização e Reforma Agraria
Ministério da Agricultura
Superintendência para o Desenvolvimento do Nordeste (SUDENE)
Superintendência do Vale de Sao Francisco (SUVALE)
GEIDA
CANESA
Facultad de Ciências Agrarias do Pará
Comissão Executiva para o Desenvolvimento Econômico Rural da Lavoura Cacaueira (CEPLAC)
IPEAN
DNCCS
Escola de Agronomia da Amazônia
Instituto de Desenvolvimento Econômico Social do Pará (IDESP)
Museo Paraense "Emilio Goeldi"
Instituto de Pesquisas e Experimentação Agropecuárias do Norte (IPEAN)
Instituto Nacional de Pesquisas da Amazônia (INPA)
Faculdade de Agronomia da Universidade de Rio Grande do Sul
Associação Brasileira de Educação Agrícola Superior (ABEAS)
Coordenação do Aperfeiçoamento do Pessoal de Nível Superior (CAPES)
MEC
DNPEA/MA
CNRH/MPCG
Coordinación de Asistencia Técnica Integral (CATI)
Coordinación de Información Agrícola
Departamento de Comunicaciones Culturales, Universidad de Brasilia
División del Levantamiento del III Ejército de Brasil
INCRA
Coordenação de Treinamento do Ministério da Agricultura (COTREMA)
Universidade Federal de Santa Maria

Universidade Federal de Pelotas
Pontifícia Universidade Católica de R. S.
Faculdade de Veterinária da Universidade Federal de Minas Gerais
Faculdade de Educação, Universidade Federal de Minas Gerais
Faculdade de Medicina Veterinária de Belo Horizonte
Universidade Federal de Viçosa
Escola de Medicina Veterinária da Universidade Federal de Bahia
Faculdade de Educação da Universidade Federal de Bahia
Universidade de Sao Paulo
Universidade de Pôrto Alegre
Universidade de Santa Maria
Estação Experimental de Bage (Cinco Cruzes)
Escritorio de Análisis Económico y Política Agrícola (EAPA)
Instituto Brasileiro de Bibliografia e Documentação

COLOMBIA

Ministerio de Agricultura de Colombia
Instituto Colombiano de la Reforma Agraria (INCORA)
Federación Nacional de Cafeteros de Colombia
Acción Cultural Popular de Colombia
Ministerio de Educación de Colombia
Ministerio de Agricultura de Colombia
Escuela Superior de Administración Pública
Caja de Crédito Agrario, Industrial y Minero
Banco de Datos del DANE
Universidad Nacional de Colombia
Centro de Cómputo Electrónico
Instituto de Mercadeo Agropecuario (IDEMA)
Corporación de Abastos de Bogotá (CORABASTOS)
Corporación Financiera de Fomento Agropecuario y de Exportaciones (COFIAGARO)
Oficina de Planeamiento del Sector Agrícola (OPSA)

Central de Abastecimientos
Corporación Autónoma Regional del Valle del Cauca
Almacenes Generales de Depósito (INAGRARIO)
Cooperativa Central Cafetera de Distribución y Consumo
Empresas Varias de Medellín
Mercados Satélites
Planta Procesadora
Plaza de Ferias de Ganado
Secretaría de Agricultura
Federación Nacional de Arroceros (FEDEARROZ)
Corporación de Abastos (CORABASTOS)
Supermercados Carulla
CRESEMILLAS
Almacenes de Depósito, ALMAGRAN–ALMACENAR
–ALPOPULAR
Universidad de Nariño
Molinos El Tolima
Molinos La María
Programa Nacional de Capacitación Agraria (PNCA)
Instituto de Desarrollo de los Recursos Naturales
Renovables (INDERENA)
Universidad de Antioquia
Facultad de Ingeniería Forestal, Universidad Distrital
“Francisco José de Caldas”
Facultad de Ingeniería Forestal, Universidad de Tolima
Asociación Colombiana de Instituciones de Educación
Agrícola Superior (ACIEAS)
CIAT (Centro Internacional de Agricultura Tropical)

COSTA RICA

Centros de Documentación, Bibliotecas y Especialistas
Agrícolas
Gobierno de España e Instituto del Libro Español a
través de su Embajada
Gobierno de Holanda a través de su Embajada

Facultad de Agronomía, Universidad de Costa Rica
Servicios Forestales de Costa Rica
Asociación Fundación Rockefeller
Ministerio de Agricultura y Ganadería (MAG)
OTS (Organization for Tropical Studies)
Gobierno de Inglaterra a través de su Embajada
Consejo Agropecuario Nacional (CAN)
Colegio de Ingenieros Agrónomos
Facultad de Economía, Universidad de Costa Rica
Facultad de Microbiología, Universidad de Costa Rica
Oficina del Café (CAFESA)
Laboratorio de Tecnología de Maderas, Universidad de
Costa Rica
Finca Bremen
Cuerpo de Paz de Costa Rica
JAPDEVA
Propietarios de Hacienda la Pacífica
Laboratorio de Productos Forestales
Instituto de Tierras y Colonización (ITCO)
Oficina Nacional de Planificación de Costa Rica
Ferrocarril Eléctrico al Pacífico
Laboratorio de Maderas San Cristóbal, S.A.
Servicio de Extensión de Costa Rica
Municipalidad de Tres Ríos
Laboratorio del Centro de Cálculo Electrónico de la
Facultad de Ingeniería de la Universidad de Costa Rica
Limon Lumber Company
Sistema Bancario Nacional
Consejo Nacional de la Producción
Diversificación Agrícola Cantonal de Turrialba
Finca Agua Tibia (el Castillo)
Instituto de Fomento y Asesoría Municipal (IFAM)
Dirección Nacional de Desarrollo de la Comunidad
(DINADECO)

CHILE

Ministerio de Agricultura
Universidad de Chile
Ministerio de Obras Públicas de Chile
Servicio Agrícola Ganadero (DICOREN)
Oficina Nacional de Planificación
Universidad de Concepción
Ministerio de Obras Públicas y Transportes
Gobierno de Chile
Gerencia de Producción de la CORA, Corporación de Reforma Agraria
ODEPLAN
ODEPA
Universidad Católica de Chile
Organización Internacional de Consumidores
Empresa Nacional de Frigoríficos (ENAFRI)
Sociedad de Comercialización de la Reforma Agraria (SOCORA)
Comité de Decanos de las Facultades Relacionadas con el Agro
Servicio Agrícola y Ganadero (SAG)
INDAP
Banco del Estado
CORFO
Comisión Permanente de Ciencias Silvo-Agropecuarias del Consejo de Rectores, Universidades de Chile
Programa de Posgrado en Economía Agraria (PPEA)
Instituto de Investigaciones Agropecuarias (INIA)
Universidad Austral de Chile

DOMINICAN REPUBLIC

Instituto Agrario Dominicano
Facultad de Agronomía y Ciencias Veterinarias (UASD)
Secretaría de Agricultura y Departamento de Café y

Cacao

Facultad de Agronomía (UNPHU)
Universidad Autónoma de Santo Domingo
Centro Nacional de Investigaciones Agropecuarias (CNIA)
Centro Dominicano de Promoción y Exportación (CEDOPEX)
Federación Nacional de Cooperativas de Productores Agrícolas (FENACOOOP)
Banco Agrícola (BA)
Universidad Madre y Maestra
Instituto Superior de Agricultura (ISA)
Centro de Investigación Agrícola de San Cristóbal

ECUADOR

Ministerio de la Producción
Banco Nacional de Fomento
Junta Nacional de Planificación y Coordinación
Servicio Forestal del Ecuador
INIAP
Dirección de Empresas e Instituto Nacional de Investigaciones Agrícolas y Pecuarias
Banco Central del Ecuador
Instituto Nacional de Evaluación y Recursos Hidráulicos
Universidad Central
Facultad de Ingeniería Agronómica y Medicina Veterinaria de la Universidad Central
Universidad de Guayaquil
Escuela de Ingeniería Forestal
Universidad Técnica "Luis Torres"

EL SALVADOR

Ministerio de Agricultura y Ganadería
Consejo Nacional de Planificación y Coordinación Económica (CONAPLAN)

Centro Nacional de Tecnología Agrícola (CENTA)
Administración de Bienestar Campesino (ABC)
Promoción y Defensa de Cultivos Específicos
Facultad de Ciencias Agronómicas de la Universidad de El Salvador
Instituto de Colonización Rural (ICR)
Centro de Tecnología Agropecuaria
Escuela de Agricultura de San Andrés

GUATEMALA

ICAITI
Ministero de Agricultura
ROCAP
Facultad de Agronomía, Universidad de San Carlos
Instituto Nacional de Comercialización Agrícola (INDECA)
GAFICA
Universidad de San Carlos
ANACAFE
Unidad de Servicios Técnicos, M. A.
Facultad de Medicina Veterinaria y Zootecnia, Universidad de San Carlos
Banco Centroamericano de Integración Económica (BCIE)
Instituto Nacional de Transformación Agraria (INTA)
Banco Nacional de Desarrollo Agrícola (BANDESA)
Dirección General de Desarrollo Agrícola (DIGESA)
Secretaría Centroamericana de Integración Económica (SIECA)
Instituto de Nutrición de Centroamérica y Panamá (INCAP)
Instituto Centroamericano de Tecnología Industrial (ICAITI)
Fundación de El Centavo

HAITI

Hospital "Albert Schweitzer" (HAS)

DARNDR
IDAI
Proyecto Integrado de Bas-Boen (PIBB)
Banco Latinoamericano de Semillas Forestales
IHPCADE

HONDURAS

DESARRURAL
Escuela Agrícola Panamericana
Proyecto de Desarrollo y Diversificación de Cultivos
Banco Nacional de Fomento
Instituto Nacional Agrario
Banco Central de Honduras
Secretaría de Recursos Naturales
Consejo Nacional de Planificación Económica

INTERNATIONAL ORGANIZATIONS AND INTER-AMERICAN CENTERS

CICAP (Centro Interamericano de Capacitación en Administración Pública)
BID (Banco Interamericano de Desarrollo)
OEA (Organización de los Estados Americanos)
AID (Agency for International Development)
AIBDA (Asociación Interamericana de Bibliotecarios y Documentalistas Agrícolas)
FAO (Organización de las Naciones Unidas para la Agricultura y la Alimentación)
UNESCO (Organización de las Naciones Unidas para la Educación, la Ciencia y la Cultura)
CIMMYT (Centro Internacional para el Mejoramiento del Maíz y el Trigo)
SIECA (Secretaría de Integración Económica Centroamericana)
GAFICA (Grupo Asesor de FAO para Centroamérica)
UNICEF (Fondo de las Naciones Unidas para la Infancia)
CSUCA (Consejo Superior Universitario Centroamericano)

ROCAP (Regional Office of the Alliance for Progress for Central America and Panama)

CIAT (Centro Internacional de Agricultura Tropical)

ALALC (Asociación Latinoamericana de Libre Comercio)

CIMPEC (Centro Interamericano para la Producción de Material Educativo y Científico)

CIESPAL (Centro Internacional de Estudios Superiores de Periodismo para América Latina)

OMS (Organización Mundial de la Salud)

OTS (Organization for Tropical Studies)

RTAC (Centro Regional de Ayuda Técnica)

OSP (Oficina Sanitaria Panamericana)

SID (Sociedad Internacional para el Desarrollo)

ALAF (Asociación Latinoamericana de Fitotecnia)

ALEAS (Asociación Latinoamericana de Educación Agrícola Superior)

PRACA (Programa de Adiestramiento y Estudios sobre Reforma Agraria y Desarrollo Rural en el Istmo Centroamericano)

OIT (Organización Internacional del Trabajo)

MEXICO

Asociación Nacional de Universidades de México (ANUIES)

Instituto Nacional de Investigaciones Agrícolas (INIA)

Colegio de Posgraduados de Chapingo

Instituto Tecnológico de Monterrey

Unión Ganadera Regional de Chihuahua

Dirección General de Sanidad Vegetal de la SAG

Unión Ganadera Regional de Tamaulipas

Escuela Nacional de Agricultura de Chapingo

Instituto Latinoamericano de la Comunicación Educativa

Servicio Nacional de Extensión Agrícola

Facultad de Ganadería de la Universidad de Chihuahua (Autónoma)

Escuela de Agricultura y Ganadería de la Universidad de Sonora

División de Ciencias Agropecuarias y Marítimas del Instituto Tecnológico y de Estudios Superiores de Monterrey (ITESM)

Facultad de Agronomía de la Universidad de Tamaulipas

Instituto Tecnológico Autónomo de México

Universidad de las Américas

Universidad Iberoamericana

Centro de Estudios Educativos

Consejo Nacional de Ciencia y Tecnología (CONCYT)

Universidad Nacional Autónoma de México

Centro Nacional de Productividad

Departamento de Asuntos Agrarios y Colonización

Secretaría General de Organización y Fomento

Banco Nacional Agropecuario

Confederación Nacional Campesina

Fundación Mexicana para el Desarrollo

Plan Puebla

Plan Tlaxcala

NICARAGUA

Departamento de Investigaciones Tecnológicas, Banco Central de Nicaragua

Ministerio de Agricultura

Universidad Centroamericana

Centro Experimental "La Calera"

Escuela Nacional de Agricultura y Ganadería

Instituto Agrario Nacional

Catastro e Inventario de Recursos Naturales

Tahal Consulting Engineers, Ltd.

Banco Nacional de Nicaragua

Latinoconsult, S. A.

PANAMA

Ministerio de Agricultura y Ganadería (MAG)

Facultad de Agronomía, Universidad de Panamá

Dirección General de Agricultura
Dirección General de Crédito
Departamento de Parques Nacionales de Recursos Renovables de Panamá
Comisión de Reforma Agraria
CRA
IFE
Ministerio de Salud
Comisión de Reforma Educativa
Instituto de Formación y Aprovechamiento de Recursos Humanos (IFARHU)

PARAGUAY

Secretaría Técnica de Planificación
Banco Nacional de Fomento
Ministerio de Agricultura y Ganadería (MAG)
División de Comercialización y Economía Agropecuaria
BNF
Secretaría Técnica de Planificación
Instituto de Bienestar Rural
Escuela de Servicio Social
Crédito Agrícola de Habilitación
Consejo de Progreso Social
Facultad de Agronomía y Veterinaria de la Universidad Nacional de Asunción
SENALFA
Facultad de Veterinaria de la Universidad Oriental

PERU

Universidad Nacional Técnica del Altiplano (UNTA)
CENCIRA
Escuela Superior de Administración Pública del Perú
Dirección General de Reforma Agraria
Dirección de Catastro Rural de Perú
Instituto Agrario Nacional (IAN)

Oficina Nacional de Evaluación de Recursos Naturales
Ministerio de Agricultura
Universidad Nacional Agraria La Molina
Universidad Agraria de La Selva
Universidad Técnica de Piura
Universidad "Pedro Ruiz Gallo"
Universidad Nacional San Antonio Abad
Programa Académico de Posgrado y de Zootecnia
Instituto Nacional para el Desarrollo
Consejo Nacional de la Universidad Peruana (CONUP)
Oficina Nacional de Estadística y Censos
Banco de Fomento Agropecuario
Fundación Kellogg
Asociación Peruana de Bibliotecarios
Escuela Nacional de Bibliotecarios de Lima
SINAMOS

TRINIDAD AND TOBAGO

Colegio de Agricultura
Commonwealth Institute of Biological Control (CIBC)
University of the West Indies

UNITED STATES

University of California
University of Florida
Inter-American Foundation
Plant Introduction Station (USDA)
Forest Products Laboratory
United States Department of Agriculture (USDA)
United States Forest Service
Institute of Pacific Islands Forestry
United States Atomic Energy Commission
Michigan State University

National Academy of Science

Technical Advisory Committee (TAC)

International Agricultural Research

Crop Ecology and Genetic Resources Unit

North Carolina State University

University of Missouri

United Nations Development Program (UNDP)

URUGUAY

Unidades de Planificación Agrícola de la Zona

ALALC

Ministerio de Agricultura y Ganadería

Centro de Investigaciones Agrícolas "Alberto Boerger"
(La Estanzuela)

Instituto Nacional de Colonización

Universidad del Trabajo

Oficinas Nacionales de Planeamiento Agrícola

Bibliotecas Agrícolas del Uruguay

Comisión Nacional de Fomento Rural

Movimiento de la Juventud Agraria

Agrupación Universitaria

Plan Agropecuario

Centro de Investigaciones Agropecuarias "Miguel C.
Rubino"

Centro de Productividad

Asociación de Ingenieros Agrónomos

Sociedad de Medicina Veterinaria

Universidad de la República

Banco Central

VENEZUELA

Colegio de Ingenieros de Venezuela

Universidad Central de Venezuela

Corporación Financiera de Fomento Agropecuario y de
Exportadores (COFIAGRO)

Federación Nacional de Cafeteros

Instituto de Mercadeo Agropecuario

Ministerio de Agricultura y Cría

Centro Interamericano de Desarrollo Integral de Aguas y
Tierras (CIDIAT)

Fundación para la Capacitación e Investigación Aplicada
a la Reforma Agraria (CIARA)

Oficina de Comunicaciones Agrícolas (OCA)

Universidad de Los Andes, Facultad de Ciencias
Forestales

Universidad de Oriente

Servicio Shell para el Agricultor

MISCELLANEOUS

AUSTRALIA

Division of Plant Industry

ENGLAND

The Grassland Research Institute

JAMAICA

Coffee Industry Board

Ministerio de Agricultura

PUERTO RICO

Regional Pulse Improvement Project

Estación Experimental de Río Piedras

Universidad de Puerto Rico. Recinto Universitario de
Mayagüez





Appendix III

PARTICIPANTS IN IICA'S ACTIVITIES

TABLE 12.

Country	1970	1971	1972
Argentina	87	80	217
Bolivia	43	89	102
Brazil	299	206	432
Colombia	315	324	523
Costa Rica	35	27	261
Chile	139	118	471
Dominican Republic	102	73	34
Ecuador	351	290	82
El Salvador	62	54	32
Guatemala	68	102	295
Haiti	4	2	—
Honduras	13	40	—
Mexico	95	135	237
Nicaragua	69	34	36
Panama	43	45	126
Paraguay	54	71	74
Peru	218	33	119
United States	4	14	—
Uruguay	29	16	147
Venezuela	157	207	169
TOTAL	2.187	1.960	3.357



Appendix IV

PUBLICATIONS

Following is the list of publications by IICA technicians or their students and of publications resulting from the cooperative efforts of IICA and certain national institutions. These publications are listed as follows: alphabetical index; theses by graduate students of IICA; proceedings of conferences, meetings and seminars, and periodical publications. The latter include magazines and bulletins published regularly by the Institute.

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2. ————. Papel de los campesinos en la ejecución de la reforma agraria. IICA-CIRA. Material Didáctico no. 175. 1972. 18 p.
3. ————. Movimiento histórico campesino chileno. IICA-CIRA. Material Didáctico no. 188. 1972. 45 p.
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37. SUAREZ, J. G. Estudio de las fracciones y volatilización del nitrógeno en dos suelos de Turrialba, Costa Rica. Tesis Mag.Sc. Turrialba, Costa Rica, IICA, 1972. 81 p.
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39. VALENTE, C. Efeito de três fontes nitrogenadas no crescimento e engorda de bovinos de corte a base de melaço. Tesis Mag.Sc. Turrialba, Costa Rica, IICA, 1972. 62 p.

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3. REUNION DE BIBLIOTECARIOS Y DOCUMENTALISTAS AGRICOLAS DEL ECUADOR, 1a, QUITO, ECUADOR, 1971. Quito, IICA, Zona Andina, 1971. 48 p.
4. REUNION DE DIRECTORES DE ESCUELAS Y PROGRAMAS DE ENSEÑANZA PARA GRADUADOS DE LA ZONA SUR, VICOSA, BRASIL, 1972. Informe final. Vicosá, Minas Gerais, Brasil, IICA, Zona Sur, 1972. 29 p.
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Ed.: Luis Salinas

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Nos. 3 y 4, 1971 y 1 y 2, 1972

Ed.: Alejandro MacLean

Appendix V



INTERNATIONAL PROFESSIONAL PERSONNEL

Name	Country of origin	Academic Degree	Position	Location
Acosta, Jaime	Colombia	Economista	Economist	San José, Costa Rica
Aguirre, Juan A.	Cuba	Ph.D.	Agricultural Programmer	Guatemala, Guatemala
Alán, Juan J.	Costa Rica	M.S.	Citogeneticist	Turrialba, Costa Rica
Albertín, Waldemar ¹	Germany	Ph.D.	Forester	Turrialba, Costa Rica
Alvarez, Hugo	Bolivia	M.A.	Forester	Lima, Perú
Alvear, Gualberto	Ecuador	Licenciado	Librarian	Turrialba, Costa Rica
Alvim, Paulo de T. ²	Brazil	Ph.D.	Plant Physiologist	Itabuna, Brazil
Amaral, Nelson	Uruguay	M.S.	Agricultural Economist	Buenos Aires, Argentina
Ansorena, Ignacio	Uruguay	Ph.D.	Extensionist	Bogotá, Colombia
Araujo, José Emilio	Brazil	Dr. Agr.	Director General	San José, Costa Rica
Arboleda, Orlando	Colombia	M.L.S.	Documentalist	Turrialba, Costa Rica
Arce, Antonio M. ³	Costa Rica	Ph.D.	Assistant of the Dean	San José, Costa Rica
Arias, Carlos Luis	Costa Rica	M.A.	Communicator	México, D.F., México
Barrios, José	Chile	M.S.	Irrigation Specialist	Río de Janeiro, Brazil
Barros, Mario Paes de	Brazil	M.S.	Rural Sociologist	Asunción, Paraguay
Bazán, Rufo	Bolivia	Ph.D.	Soils Specialist	Turrialba, Costa Rica
Bello, Eduardo	Uruguay	M.S.	Research Specialist	Montevideo, Uruguay
Beltrán, Luis R.	Brazil	Ph.D.	Director IICA-CIRA	Bogotá, Colombia
Blair, Enrique	Colombia	Ing. Agr.	Director P-206, PIDR y RA	San José, Costa Rica
Blasco, Mario	Spain	Ph.D.	Soils Microbiologist	Turrialba, Costa Rica
Bornemisza, Elemer	Costa Rica	Ph.D.	Educator	Lima, Perú
Buitrón, Víctor Hugo	Ecuador	M.A.	Representative	Asunción, Paraguay
Buresch, Osvaldo	Argentina	Ing. Agr.	Office Assistant	Washington, D.C., USA
Caballero, Hernán	Chile	Ph.D.	Director, Graduate School	Buenos Aires, Argentina
Cabral, José Irineu ⁴	Brazil	Economista	Representative	Río de Janeiro, Brazil
Cáceres, Hugo	Colombia	M.L.S.	Documentalist	Turrialba, Costa Rica
Camacho Saa, Carlos ⁵	Ecuador	Ph.D.	Agricultural Economist	Guatemala, Guatemala
Camacho, Edilberto	Costa Rica	M.A.	Horticulturist	Turrialba, Costa Rica
Cardozo, Armando	Bolivia	Ph.D.	Animal Husbandman	Quito, Ecuador
Carrera, Hernán	Ecuador	Economista	Economist-Agric.-Plan	Quito, Ecuador
Cáseres, Ernesto	Costa Rica	Ph.D.	Coordinator for the Graduate Program on Agricultural Sciences	Santiago, Chile
Castronovo, Alfonso	Argentina	M.S.	Educator	Buenos Aires, Argentina
Clifford, Roy A.	United States	Ph.D.	Rural Sociologist	Guatemala, Guatemala
Cohan, Hugo ⁶	Argentina	Ph.D.	Agricultural Economist	Montevideo, Uruguay
Coto, Rogelio	Costa Rica	Comunicador	Executive Secretary (CAN)	San José, Costa Rica
Cruz, Levy	Brazil	M.S.	Rural Sociologist	Itabuna, Brazil
Cruz, Luis C. ⁷	Colombia	M.Ed.	Extensionist	Itabuna, Brazil
Cubillo, Gustavo ⁸	Chile	Ph.D.	Agrostologist	Turrialba, Costa Rica
Cusicanqui, Jaime	Bolivia	Comunicador	Communicator	Bogotá, Colombia
Chaves, Osvaldo ⁹	Perú	Ing. Agr.	Irrigation Specialist	Santiago, Chile
Deaton, Oliver	United States	Ph.D.	Animal Husbandman	Turrialba, Costa Rica
De la Cruz, Matilde	Costa Rica	Editora	Editor (Textbooks)	Turrialba, Costa Rica
Díaz Bordenave, Juan	Paraguay	Ph.D.	Communicator	Río de Janeiro, Brazil
Dufour, Jules ¹⁰	Canada	M.A.	Physical Geography (Geo-morphologist)	Turrialba, Costa Rica
Donoso, Augusto	Chile	Ing. Agr.	Regional Planning Specialist	Bogotá, Colombia
Elgueta, Manuel	Chile	Ing. Agr.	Director IICA-CTEI	Turrialba, Costa Rica
Elvir, Miguel A.	Honduras	B.S.A.	Extensionist	Guatemala, Guatemala

1. Effective March 1, 1972
2. Address. Centro de Pesquisas do Cacau. Caixa Postal 7. Itabuna, Brasil
3. Until June 30, 1972
4. Effective January 14, 1972
5. Until October 27, 1971
6. Effective May 17, 1972
7. Until June 30, 1972
8. Effective April 12, 1972
9. Effective January 3, 1972
10. Until July 15, 1971

Name	Country of origin	Academic Degree	Position	Location
Erickson, Ana María de	Guatemala	Bibliotecaria	Executive Secretary AIBDA	Turrialba, Costa Rica
Erickson, Arnold L.	United States	M.S.	Secretary of Research	Turrialba, Costa Rica
Escoto, Claudio ¹	Costa Rica	Lic. Leyes	Administration Specialist	San José, Costa Rica
Esquivel, Oscar	Costa Rica	Ing. Agr.	Geneticists	Turrialba, Costa Rica
Fargas, José	Ecuador	Ph.D.	Plant Physiologist	Turrialba, Costa Rica
Fernández, Angel ²	Argentina	Bibliotecario	In charge of Documentation	Buenos Aires, Argentina
Fernández, Hortensia	Colombia	Lic. en Artes	Information Editor	San José, Costa Rica
Fernández, Carlos E.	Guatemala	Ph.D.	Representative	México, D.F., México
Ferreiro, Carlos A.	Uruguay	Contador	Head, Administrative Division	San José, Costa Rica
Forsythe, Warren	Jamaica	Ph.D.	Soils Specialist	Turrialba, Costa Rica
Franco, Alberto	Colombia	M.S.	Planning Specialist	San José, Costa Rica
Franco Ortega, José M. ³	Colombia	Espec. en Inf.	Head of Information Secretary and Official Representative	Bogotá, Colombia
Frías, Hernán ⁴	Chile	Ing. Agr.	Extensionist	Guatemala, Guatemala
Fuentes, Raúl ⁵	México	Ing. Agr.	Soils Specialist	Turrialba, Costa Rica
Galrao, María José	Brazil	Bibliotecóloga	Documentalist	Turrialba, Costa Rica
Garcés, Carlos ⁶	Colombia	Ph.D.	Dean, ICA Graduate School	Bogotá, Colombia
García, Javier ⁷	Venezuela	Ing. Hidrom.	Agroclimatologist	Turrialba, Costa Rica
García, Ubaldo ⁸	Argentina	Ing. Agr.	Head, Perspective Planning Division	San José, Costa Rica
Gardner, Andrew L.	Reino Unido	Ph.D.	Agrostologist	Balcarce, Argentina
Gastal, Edmundo ⁹	Brazil	M.S.	Agricultural Economist	Montevideo, Uruguay
Genis, Marigold	Reino Unido	B.A.	Registrar	Turrialba, Costa Rica
Gorbitz, Adalberto	Perú	Ing. Agr.	Communicator	Turrialba, Costa Rica
Grajales, Guillermo ¹⁰	Colombia	Ing. Com.	Agricultural Projects Espec.	Quito, Ecuador
Granados, Hernán	Costa Rica	Litógrafo	Head, Print Shop	Turrialba, Costa Rica
Grijpma, Pieter ¹¹	Holland	M.S.	Forester	Turrialba, Costa Rica
Grove, Hiram ¹²	Chile	Ph.D.	IICA Representative for the Southern Andean Zone	Santiago, Chile
Guerra, Guillermo	Colombia	M.S.	Agricultural Economist Specialist	Lima, Perú
Hepp, Ricardo	Chile	Ing. Agr.	Representative	Santiago, Chile
Herrera J., Eugenio ¹³	Chile	M.P.I.P.	Administration Specialist	San José, Costa Rica
Herrero, Federico	Costa Rica	M.S.	Representative	Panamá, Panamá
Hernández, Aurelio J.	Cuba	C.P.A.	Administrative Assistant	Guatemala, Guatemala
Hidalgo, Oscar	Nicaragua	Ph.D.	Physiologist	Turrialba, Costa Rica
Hutchins, Lee M. ¹⁴	United States	Ph.D.	Plant Pathologist	Turrialba, Costa Rica
Igue, Kozen ¹⁵	Brazil	Ph.D.	Soils Chemist	Turrialba, Costa Rica
Katiyar, Kamta P.	India	Ph.D.	Entomologist	Turrialba, Costa Rica
Laporte, Gilbert ¹⁶	Costa Rica	Lic. Econ.	General Accountant	San José, Costa Rica
Lackington, H. Thomas	Chile	M.A.	Sectorial Economist	Bogotá, Colombia
Lawrence, Jeremy ¹⁷	Reino Unido	Ph.D.		Turrialba, Costa Rica
Leiva, Joaquín	Chile	Ing. Agr.	Representative	Quito, Ecuador
Lizarazo, Luis J.	Colombia	Pedagogo	Professor	Bogotá, Colombia

1. Effective January 1, 1972
2. Associate Personnel
3. Until February 28, 1972
4. Effective December 9, 1971
5. Until November 5, 1971
6. Agreement between the Regional Office for the Andean Zone and the Colombian Agricultural Institute (ICA)
7. Until November 30, 1971
8. Effective October 23, 1971
9. Headquarters: Centro de Investigaciones Agrícolas "Alberto Boerger". La Estanzuela, Uruguay
10. Effective August 1, 1971
11. Assigned by the Government of Holland
12. Ad-honorem
13. Effective March 14, 1972
14. Scientific resident
15. Until February 7, 1972
16. Until May 31, 1972
17. Scientific Resident, effective October 13, 1971. Assigned by the Government of Great Britain.

Name	Country of origin	Academic Degree	Position	Location
Lombardo, Heraclio A.	Panamá	Ph.D.	Technical Assistant	San José, Costa Rica
Llach, Luis ¹	Costa Rica	Ing.Civil	Head of Laboratory	San José, Costa Rica
MacDonald, Malcolm H.	United States	Ph.D.	Senior Deputy Director General for Technical Affairs and Planning	San José, Costa Rica
Mac Lean, Alejandro	Perú	Ing. Agr.	Communicator	Montevideo, Uruguay
Madrid, Carlos	Colombia	M.S.	Deputy Director General	San José, Costa Rica
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Phillips, John ¹⁰	Canada	M.For.	Silviculturist	Turrialba, Costa Rica

1. Services Contract
2. Address: Escola Superior de Agricultura "Luiz de Queiroz". Piracicaba, Sao Paulo, Brasil. Ad-honorem.
3. Ad-honorem
4. Effective January 1, 1972
5. Effective November 4, 1971
6. Effective March 4, 1972
7. Until August 16, 1971
8. Until September 15, 1971
9. Effective May 11, 1972
10. Until October 16, 1971

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Rodríguez, Manuel	Chile	Ing. Agr.	Director Regional	Montevideo, Uruguay
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Rosero, Pablo	Ecuador	M.A.	Forester	Turrialba, Costa Rica
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Soria, Jorge	Ecuador	Ph.D.	Geneticists	Turrialba, Costa Rica
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Urizar, Marco T. ⁶	Guatemala	Ing. Agr.	Representative	Tegucigalpa, Honduras
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1. Until June 30, 1972
2. Until December 31, 1971
3. Scientific resident. Effective October 27, 1971. Assigned by the Government of the Netherlands
4. Until May 15, 1972
5. Effective May 1, 1972
6. Until June 30, 1972
7. Until December 31, 1971

Note:

In this annual report, an effort has been made to present the information according to programs. Thus, the first two chapters reflect work done at the program level, the remaining chapters at the project level, and the appendices at the activity level.

It would not, of course, be in keeping with the purposes of this report to make an exhaustive description of all the work done; nevertheless, more complete information on specific projects or activities is available at the Office of the IICA Representative in each country.



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