



I.I.A.A.

BUILDING A BETTER HEMISPHERE SERIES NO. 3

Agricultural Assistance

THROUGH CAPITAL INVESTMENT

By

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The Institute of Inter-American Affairs, successfully completed "Ten Years of Point 4 in Action in Latin America" on March 31, 1952. It has been carrying on cooperative technical assistance programs with the other American republics in the fields of health and sanitation with 18 countries, education with 14 countries and food supply with 12 countries.

The Institute of Inter-American Affairs is the Inter-American Regional Office for the Technical Cooperation Administration and has the responsibility of directing the Point Four program in one or more fields of technical and economic assistance in 19 Latin American republics. Forty-four United States agencies participate and cooperate with the IIAA in point four activities in Latin America.

Now that the Technical Cooperation Administration has been set up by the United States Congress to render technical assistance to many other countries of the world, the pioneer experience acquired in the American republics is being applied on a world-wide scale.



Principal problem of agriculture in Costa Rica is lack of sufficient moisture for growing crops in the dry season. STICA technicians have encouraged local farmers to discard customary practice of using ditches to bring irrigation water to the fields for more efficient system of contour beds. Here, onions have been planted on the contour to facilitate more economical use of irrigation water and to prevent loss of valuable top soil from erosion.

AGRICULTURAL ASSISTANCE THROUGH CAPITAL INVESTMENT

By REY M. HILL
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Although Latin America is an important source for such staples as sugar, coffee, grain, and meat, hunger still exists in many of its areas. Among the basic causes for this condition are low productivity of labor and under-utilization of natural resources. While more than two-thirds of the population is agricultural, the productivity of agricultural labor is less than one-fifth, and the cropland under cultivation is less than one-third that of the United States.

Livestock is heavily concentrated in a few countries, and the dairy industry is relatively undeveloped. The yield per acre and per animal is on the whole extremely low in comparison with yields in the United States and other areas with more advanced techniques. Primitive practices, lack of tools and equipment, and lack of knowledge, rather than soil and climatic conditions, are largely responsible for the low yields.

In some regions, considerable capital investment is required for development of new areas of cultivation. Some areas require extensive improvement in health conditions before large numbers of people can be induced to settle in them. In some, extensive land clearing or the development of irrigation systems is required. In many areas, uneconomic land tenure prevails, land is held in large blocks and either remains idle or is operated under labor arrangements which discourage increased productivity. The generally low level of income results in lack of stimulus to food production, which, in turn, tends to perpetuate subsistence living.

During the past 9 years, the Food Supply Division of the Institute of Inter-American Affairs (IIAA), an agency of the United States Government, has been conducting cooperative food supply programs in Latin America. To assist the Latin American countries with their agricultural problems, as well as with related problems in the fields of public health and education, the Institute has developed a technical cooperative agency known as the "servicio." The food supply servicio, which is established through a cooperative agreement between the IIAA and the Ministry of Agriculture of the Latin American country, is in fact a semi-autonomous executive agency organized under the laws of the host government. It operates under the leadership and direction

of an IIAA Chief of Field Party, who is aided by a small group of administrative and technical specialists, and employs a large number of nationals.

Cooperative agricultural servicios are currently operating in Costa Rica, Honduras, Peru, Chile, Haiti, Paraguay, and Uruguay. These servicios, jointly financed by the government of the country in which they operate and by the IIAA, carry out a variety of agricultural activities that help to stimulate the production of food, improve agricultural production generally, and raise the living and health standards of farm people.

The Servicio Program in Peru

In Peru, through the food supply servicio known as SCIPA (Servicio Cooperativo Inter-Americano de Produccion de Alimentos), The Institute of American Affairs has brought to a million Peruvian farm people the benefits of American agricultural techniques.

The IIAA and the Ministry of Agriculture of Peru jointly sponsor, finance, and operate the servicio. Peruvian technicians serve as supervisors and directors of SCIPA projects, and U. S. technicians as program leaders, who train and assist the nationals. Thirty-five field offices with around 300 Peruvian Servicio employees, not counting laborers and other part-time workers, carry on a country-wide program covering an area equal in size to the combined States of California, Oregon, Washington, and Idaho with a population of around eight million.

The basic activity is an extension agent system, which is supplemented by engineering services, economic surveys and planning, and facilities for farmers such as machinery pools, et cetera. SCIPA activities are primarily of a pioneering nature; they introduce new ideas and adaptations of successful operations in the United States or elsewhere.



Field of corn grown from selected seed under improved tillage practices in Peru in a United States-Peruvian cooperative food supply program demonstration. (Right: SCIPA's Extension Service Inspector Abelardo Baracco.)



A field of the same variety of corn grown under poor tillage practices. (Left: Extension Agent for Northern Peru Mauro Valderrama and SCIPA's Extension Inspector Abelardo Baracco.)



An engineer with the food supply servicio in Costa Rica (STICA) explains an overhead irrigation system to coffee producers during a field day demonstration. STICA imported a small, portable, aluminum irrigation system and conducted experiments in cooperation with progressive coffee growers which demonstrated that coffee production can be increased 30 to 40 percent under irrigation.

Over 100 extension technicians, all Peruvians, staff the 32 extension offices. They work through 307 community committees formed to promote farmer cooperation and reach the maximum number of farmers. Last year, the extension agents and community committees reached 200,000 farm families (1,120,000 people). Rural agents conducted 4,700 meetings and demonstrations, which were attended by 43,000 farmers, visited 15,000 farms, and received office calls from 45,000 farmers. Here are a few things these agents accomplished in 1950:

- (1) They collected 12,000 bushels of improved varieties of wheat, inspected, cleaned, and disinfected it, and then exchanged it with farmers for common varieties. This resulted in the planting of 7,300 acres with better seed and an increased yield of 25 percent, or 1,500 tons.
- (2) They distributed 96,000 pounds of pesticides and showed the farmers how to use them. The imports of U. S. insecticide and fungicide concentrate increased from 1,150 to 2,216 tons, with the increase valued at \$500,000. Results obtained with the potato crop are a striking example of the benefits of this project. In the past, the soilworm and other insects and diseases caused abandonment of potato production in many areas. By the use of modern insecticides and fungicides, which SCIPA made available through the farmer committees, potato growers increased their acreage from 350,000 acres in 1947 to 530,000 in 1950, and production from 633,000 tons to 1,300,000 tons.
- (3) They gave guidance to 70 clubs of the 4-H type with a membership of 1,200 boys and girls, which SCIPA helped to organize.

Machinery Pools are Popular

No servicio project has created more enthusiasm than the machinery pools and related activities. In 1950, seventeen pools operated, tilling 40,000 acres of land, threshing 162,000 bushels of wheat, and performing other operations, such as spraying, opening irrigation ditches, leveling, contouring, et cetera--all on a pay-as-you-go basis. The servicio's operation

of two rice mills resulted in the milling of 1,160 tons of rice and the selection of 100,000 pounds of improved seed.

Other important pioneering activities under this project include: (1) the initiation of two model live-stock production units involving the development of a 35,000 acre sheep ranch in the high Sierra and a 20,000 acre cattle ranch in the jungle to demonstrate pasture rotation and supplementary feeding, and to provide breeding stock in order to help meet Peru's increasing meat deficit; (2) a crop dehydration investigation and operations unit which conducted investigations and demonstrations in the drying of hay, yuca, (mandioc) potatoes, platanos and other products.

Survey and Reporting Services

The widespread development work of SCIPA required establishment of a service for making surveys and reports on areas or products. The service includes the compilation and monthly publication of information on crop and price conditions in all parts of the country; farm management studies to strengthen the rural agent's work; special studies to provide basic data on development possibilities in the country for consideration by the International Bank, or the Export-Import Bank.



Threshing wheat at Huancayo, Peru, with a thresher made available through the machinery pool operated as part of the food supply program conducted by SCIPA

The Resettlement Program in Paraguay

In Paraguay, 9 years of participation by The Institute of Inter-American Affairs in the food supply servicio known as STICA has produced services and a background of experience that is enabling Paraguay to begin a resettlement program which eventually may affect 100,000 farm families. The Bank of Paraguay finances resettlement, and STICA provides the demonstrations and training.

Pilot colonization began several years ago with 57 picked families. Last year, a new and larger colony, building on the experience of the first, resettled 570 penniless farmers. These families were provided a proportionate share of 78,000 acres of land and money to build a home, buy implements, live-stock, seed, and fertilizer and were given adequate time to pay



Juan de la Cruz Caballero and his family—the first to be established in the Misiones Model Colony in southern Paraguay. This agricultural settlement project has been developed as a joint enterprise of the Paraguayan Ministry of Agriculture and Economy, the National Bank of Paraguay, and The Institute of Inter-American Affairs as part of the United States-Paraguayan cooperative agricultural program.

off their loans. The Bank of Paraguay furnished the money; the security was in STICA's trained supervision and its agricultural projects which provide better seed, better breeding stock, and instruction in modern methods.

In Costa Rica, Haiti, Honduras, Chile, and Uruguay, similar agricultural development programs are being carried on and developed through the servicios established by the IIAA in cooperation with those countries.

The agricultural programs which the United States and the United Nations have carried on in Latin America have involved three major steps: (1) Examination of problems through surveys, studies, and conferences; (2) Research and experimentation and their adaptation to local environments; and (3) Dissemination of the results of research to farmers through agricultural extension agents and the programs they develop, such as club work, working with women in home-making, and nutrition improvement, and through method and result demonstrations in farm communities. All three of these steps are helpful. They are carried on simultaneously, and each contributes to the other. They build up the strength of government organization and a nucleus of trained technicians, and create a desire among farmers

for improved techniques. Above all, they create in many areas the beginning of popular support and demand for progressive governmental agricultural assistance.

A Fourth Step is Needed

But in themselves, these three steps are not enough. A fourth step which is vitally required for the agricultural development of underdeveloped areas is the initiating of partially or completely self-perpetuating agricultural developments. This fourth step requires assistance in economic development that will give the people confidence in the opportunities for investment in their own country. The people who have wealth frequently lack the vision or the technical comprehension to invest their money in their own country in safe and productive enterprises. There is probably no nation, however backward, that does not have a substantial block of lazy capital invested in some other apparently more stabilized country. The problem of keeping local money at home in underdeveloped areas or of bringing it out of hiding so that it can be put to work in ways which will contribute to the economic develop-

ment of the country, must be regarded as a very important step in future technical aid.

Investment Development Demonstrations

The programs described in this article have included activities which have definitely demonstrated the possibilities in economic development through investment.

In Peru, for example, there have been several kinds of such demonstrations. A year and a half ago, the Government of Peru gave the food supply servicio in that country a special contribution of about \$135,000 to carry out a demonstration in sound jungle farm development and management. Approximately 60 percent of Peru's land area is jungle, lying in the Upper Amazon Basin and on the eastern slopes of the Andes Mountain ranges. This jungle area is about the size of the State of Texas, but at present, it has a population estimated at less than 400,000, as compared to 7,000,000 in Texas. Despite



A well drilling rig transferred to SCIPA, the food supply servicio, by the Ministry of Agriculture in 1949 to tap sources of underground water for irrigation purposes in coastal areas in Peru. Since SCIPA has successfully pioneered in this field, private capital from the United States has been attracted to Peru to organize several companies to supply water at reasonable rates for commercial and private enterprises.

stories to the contrary, much of this jungle land offers splendid opportunities for settlement and development. It contains areas particularly promising for the production of livestock.

The money donated by the Peruvian Government for the demonstration project was to be treated as if it were the funds of a private enterprise, and the servicio was to invest it in the development of a cattle farm in the jungle. The development would not be for the purpose of trying out new methods or doing experimental work, but would make use of the best managerial practices known and, insofar as possible, of modern techniques.

The servicio acquired an area of 20,000 acres of jungle land, and a year ago, men with machetes and axes started clearing it. During the 4 months ending October 1950, 365 acres of jungle were felled and burned. With the advent of the rainy season, in October, clearing was discontinued and planting to corn, yuca, and grass was started. At the same time, servicio representatives went to Texas and Florida to acquire a herd of good American-Brahman cattle. Recently, 30 tons of high-quality corn were harvested and stored, and 250 tons of mandioc, are ready for harvesting. Enough pasture is available to care for 100 head of cattle. The servicio is constructing permanent buildings. It has installed on the farm a small but modern, sawmill in order to assure that all the necessary construction materials will be available there for the farm buildings and also to provide some income from the sale of lumber. The value of crops produced from the jungle even in this first year of operation exceeds 50 percent of the total cost of clearing and planting.

For generations, poor people have been carrying on subsistence farming in jungle areas, but such farming has contributed nothing to the over-all wealth of Peru, for these people have been unable to produce anything on their tiny farms over and above their own needs, or even to attain anything approaching a decent standard of living. Peruvians with capital have watched the servicio project with great interest. This big farm development is expected to demonstrate to them that substantial capital investment must be made if reasonable production is to be obtained from jungle lands.

Sheep Farming In The Sierras

Another demonstration project which the Peruvian Government has financed is the development of a sheep farm in the high Sierras of Peru. The servicio received an additional \$135,000 to carry out this undertaking, which was started this year. Here the problems are different from those of the jungle project, but the objectives are identical--to demonstrate that such developments represent not only a sound and paying investment for substantial blocks of capital, but that they result in benefits to the country itself through the increased over-all production of fiber crops, wools, meats, animal products, et cetera.

On this Sierra farm, which comprises 35,000 acres, there are approximately 300 Indian families. The ancestors of these people lived -- or rather, existed -- in this area for hundreds of years. Now, for the first time in 350 years, this large farm may be expected to produce an income that will permit

of the economic employment of these Indian families and still provide them with opportunity to subsist from production on allocated plots of land on the farm. After the first 8 months of operation by the servicio, the rate of income from the farm was three times greater than it had been under the previous management.

Similar demonstrations of land development involving substantial capital investment are being carried out in connection with the food supply programs in Honduras and Paraguay as well as in Peru. Other important development projects, financed through loans or local agricultural banks, the International Bank, and the Export-Import Bank, are being carried on in Paraguay, Peru, and Haiti under the management or with the assistance of the servicios.

These projects have provided opportunities for trying out a wide variety of measures designed to improve the economy of the country. The experience of the servicios in carrying out food supply programs has shown that it is useless to recommend improved practices, unless at the same time, farmers are assisted by making available to them the equipment, materials, and supplies that will make those practices effective. It has also pointed up the need to be realistic in the matter of capital investment. If the low-income people in any country are to be helped, it is necessary to convince those who control the capital in that country that by making investments that will help to raise the standard of living of the low-income groups, they will help to increase their own and their nation's prosperity.

In the programs of technical agricultural assistance to other countries which the United States Government and various private and public American institutions have carried on in the past, emphasis has been placed on promoting the use of modern methods and techniques. U. S. technicians have been sent abroad to advise, assist, and train the nationals of other countries in carrying on programs designed to improve the economy of the country. The ultimate goal of this technical assistance is to enable the peoples of the countries receiving it to carry on by themselves the programs initiated through cooperative effort. In the future, U. S. technicians can make still further contributions toward the establishment of partially or completely self-perpetuating agricultural development programs by providing leadership in initiating in underdeveloped areas throughout the world more demonstration projects of the types, that have proved effective in Latin American countries in encouraging investment of local capital in enterprises which promote economic development.

"Such economic programs look toward the creation of sound government finances and public services, and toward more stable economic and political foundations for raising living standards and creating broader opportunities."
- - President Truman



PERU—Three fine yearling wethers, product of the application of modern techniques on SCIPA-operated sheep ranch in the northern highland region of Peru. Hacienda "Porcon" was purchased in September, 1950 to demonstrate that the highland area could support a paying livestock industry. During the past year considerable progress has been made; 2500 head of sheep were purchased and established on the 35,000 acre hacienda with an ultimate goal of 8 to 10,000 head. The project is not being conducted as an experimental or research project, but is carried out in such a manner as to be a practical example of the investment of funds for the development of a backward area. By the end of the second year of operation, it is expected that the wool will pay for the original investment in the sheep.



COSTA RICA—A STICA Agent demonstrates the use of root dusters on potato plants. In the Cartago area especially, the use of root dusters has become very popular, applying Dithane-Z76 mixed with an adhering agent (Diatomita).



PERU—Periodic inspections and repairs save time and money in the field. Here Delbert Thornton, Agricultural Machinery Specialist, with Miguel Horvath, Peruvian technician, check a disk plow brought in for repair.



Farmers line up at SCIPA extension office, Palmares, Costa Rica to purchase fertilizer.

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