History of Technical Assistance in Peru 1942-1962

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I INTRODUCTION

The involvement of the United States government in cooperative technical and economic programs in Peru grew out of two distinct chains of events which converged in 1939. The first started with the election of Franklin D. Roosevelt in 1933 and his announcement of a "good neighbor" policy which inspired a number of inter-American conferences in the late 1930's aimed at strengthening the ties between the United States and the rest of the hemisphere. This resulted in invitations and requests from Latin American governments to the United States for technological interchange. The second was the outbreak of war in Europe in September 1939, which gave added weight in the United States to the growing view that a friendly and prospering Latin America was in our national interest.

In May, 1939, Congress adopted a statute which authorized the President to detail "for temporary service not exceeding one year at a time" any person in the employ of the United States to give advice and assistance on requests to the government of any American nation. In August of the same year, a broader statute was adopted "to render closer and more effective the relationship between the American republics" and it authorized the President to use the services of any government department to carry into effect "the reciprocal undertakings and cooperative purposes

enunciated in the treaties, resolutions, declarations and recommendations signed by all of the twenty-one American republics at the Inter-American Conference for the Maintenance of Peace held at Buenos Aires, Argentina in 1936 and at the Eighth International Conference of American States held at Lima, Peru in 1938."

To administer the activities expected to grow out of these laws, the President established in 1939, the Interdepartmental Committee on Scientific and Cultural Cooperation. More than twenty-five bureaus of eighteen government departments and agencies were members of the Interdepartmental Committee. The Assistant Secretary of State for Public Affairs was its chairman. No single agency was made responsible for administering the provisions of these laws. Each member of the Committee was considered to be fully responsible for every project assigned to it within the program. The Department of State, through its chairmanship of the Committee and through a small staff which it provided as the secretariate of the Committee, was responsible for providing general coordination of all committee activities. The Committee began its operation in 1940 and continued until it was incorporated in 1950 into the Technical Cooperation Administration (Point IV). During its years of operation, it approved projects in a broad spectrum of cultural, technological and scientific fields. Most were in agriculture, geologic investigation, civil aviation, child welfare and the improvement of statistical services, but also included such

activities as railway and highway transportation, national income and balance of payments research, industrial research, public administration, tidal observation and weather investigation. It was under this program that the Department of Agriculture established agricultural research stations in fifteen Latin American countries (including Peru). In addition, substantial sums were spent on training grants, cultural centers (bi-national centers), translations of publications for distribution in Latin America and grants for United States sponsored schools. During its lifetime the program spent $26 million. Its principal objective was to maintain and improve friendly relations between the government of the United States and the governments of Latin America. Only toward the end of the program did the Department of State come to believe that it could be geared to the promotion of economic growth in Latin America.

Most of the technical missions sponsored by the Committee were small, consisting of one or two experts for short periods of time, usually less than one year. The missions were advisory in character and funds of the participating agencies for the most part went to pay salaries and expenses of technicians.

The outbreak of hostilities in Europe called for stepped-up activities in Latin America. In April, 1940, President Roosevelt by Executive Order established the Office of the Coordinator of Inter-American Affairs and appointed Nelson Rockefeller as coordinator to improve

cultural and commercial relations between the United States and other American nations. In 1942, Mr. Rockefeller established the "Institute of Inter-American Affairs" (IIAA), a government owned corporation, which was authorized to conduct cooperative programs with Latin American governments in the promotion of public health and agricultural development. In 1944 a similar corporation was organized called the Inter-American Education Foundation Inc. (IEF) with the authority to give similar cooperation in elementary and vocational education. IEF was subsequently incorporated into the Institute of Inter-American Affairs in 1947.

With United States entry into World War II on December 7, 1941, IIAA's initial work was oriented toward supporting the war effort. United States personnel were already at work in the jungle areas of Latin America stimulating increased production of rubber and chinchona for quinine (at that time the only known remedy for malaria) barbasco, balsa wood, etc. American armed forces began establishing bases in friendly hemispheric countries. Shipping lanes had become endangered because of German U boat activity and most United States bottoms had been commandeered for war duty, so normal shipping of foodstuffs to Latin America had been curtailed. This constellation of circumstances dictated the activities which IIAA would undertake in the countries it entered. The principal officers of IIAA were technician-administrators in public health and sanitary engineering, including its Executive Vice President George C. Dunham on

loan from the Army Medical Corp. Naturally, the highest priority was given to programs in health and sanitation. By the end of the war there were health programs in eighteen Latin American countries, education programs in fourteen and food supply programs in ten.

The major characteristic of the IIAA operations was that they were carried out jointly with the host government. Unlike the activities sponsored by the Interdepartmental Committee, which provided technical advisory services, for the most part, much as UNDP does today. IIAA entered into joint projects. The instrument for this was an IIAA invention, the Servicio. Each IIAA program in health, education or agriculture was embodied in an international agreement between the government of the United States and the government of the cooperating country. They were known as program agreements and signed by the American Ambassador and the Minister of Foreign Affairs. In some Latin American countries, these agreements required approval of the national legislatures. The agreements required the host governments to establish Servicios as integral parts of the respective ministries. The Servicio was intended to function as a bureau of the ministry but with special semiautonomous status. The director of the Servicio was the chief of IIAA's technical mission. He served simultaneously as director of the Servicio, responsible to the Minister, and chief of the mission, responsible to the president of IIAA. His principle staff members in the Servicio were mostly nationals of the host country

augmented by members of the field mission. The Servicio was financed by a joint fund made up of a contribution by IIAA and an appropriation from the host country. In addition IIAA paid the salaries and expenses of United States technicians members of the mission. The specific work to be undertaken and the specific expenditures to be made were then defined in project agreements entered into between the minister and the director of the Servicio. The architects of the Servicio concept wanted a mechanism that was agile, flexible and capable of achieving fast results. They felt that the serious shortage of competent technicians and administrators in the Latin America made it imperative that the technicians and administrators sent to Latin America by IIAA be able to go well beyond the giving of advice and the conduct of demonstration projects. They thought it was essential, instead, to offer to participate with the host government in operations that would be jointly planned, jointly financed, jointly administered and jointly defended against criticism.

The structure of the Servicio as it finally emerged was the result of a process of gradual growth. The flexibility of the mechanism meant inevitably that there would be wide variation from Servicio to Servicio and from country to country. Some countries were more in tune with this type of joint operation than others. In Peru the concept prospered.

II OVERVIEW OF PERU PROGRAM 1942-1962

A. Beginning of United States Government Activities in Peru

As part of a hemisphere-wide effort, the Department of Agriculture, as early as 1940, had already dispatched technicians to the tropical areas of Latin America to search out alternative sources of plant materials that would be of strategic interest to the United States if the flow of these materials from Asia were cut off as a consequence of the war in Europe. Using the mechanism of the Inter-Departmental Committee, the Department of Agriculture's Office of Foreign Agricultural Research (OFAR) and its Bureau of Plant Industry entered into an agreement with the Peruvian Government in 1940 to establish a rubber research program at a recently established Peruvian colonization station at Tingo Maria on the eastern slope of the Andes in the high jungle. In 1942, OFAR's activities were broadened to include advisory services in tropical agricultural research and Tingo Maria was established as an agricultural experiment station.

By 1942, the United States had entered the war and the United States Army Air Corp established an air base on the northwest Peruvian coast at Talara and the United States Rubber Development Commission had assigned technicians to Iquitos to expand rubber plantations in the Amazon. The Institute of Inter-American Affairs had also begun

establishing medical assistance programs in the hemisphere to provide medical and preventative health services to workers engaged in work related to the war effort. In July, 1942, the first agreement between IIAA and the GOP was signed creating a Servicio. It was the Servicio Cooperativo Interamericano de Salud (SCISP). It was to build hospitals, establish medical posts and provide medical and health services in the jungle area from Tingo Maria to Iquitos and on the north coast around Chiclayo.

It was not for another nine months, May, 1943, until the second agreement was signed establishing the food production servicio, Servicio Cooperativo Interamericano de Produccion de Alimentos (SCIPA). One of the factors taken into account in determining the projects the new Servicio would undertake was the need for fresh vegetables and other foodstuffs for the Talara airbase and for the Rubber Development Commission staff at Iquitos. The third in the triad of Servicios, which formed the core of the United States technical assistance activities in Peru was established eleven months after SCIPA. In April, 1944 the Inter-American Educational Foundation (IEF) signed an agreement with the government of Peru establishing the educational servicio, Servicio Cooperative Peruano Norteamericano de Educaion (SECPANE). The Ministry of Education was particularly interested in United States assistance in vocational and rural education. So initial emphasis was placed on these two areas. Also, in 1944, the United States Department of Labor sent advisors to

the Peruvian School of Social Welfare as a follow on to training of Peruvians done earlier in the United States. This activity was later incorporated into the Health Servicio.

In 1945, toward the end of the war, the Peruvian Mining Bank requested the United States Geological Survey to send an advisory mission to Peru to evaluate lead and zinc resources of the country. This request coincided with United States interest in developing sources of strategic minerals.

When the war came to an end in September 1945, the question arose about whether or not all these war-related activities should not also be ended. It took the Congress two years to decide to give the program a short extension. In 1947, IIAA's charter was renewed through 1950. In the meantime, in December, 1946, the United States Civil Aviation Administration of the Department of Commerce had established an advisory mission to the Peruvian Civil Aviation Administration.

Also, the Exim Bank made its first loan to the Peruvian Government Santa Corporation to finance the purchase of electrical equipment..

While the initiation of these early programs was directly related to the United States war effort, from the outset they responded to the needs of Peru and its people. A quick look at the early projects confirms this conclusion. Of the three original Servicios, SCISP probably stayed closer, at least geographically, to the original war-time priorities.

But even SCISP, within those geographical confines, carried out a program of construction of hospitals and expanding health service which greatly improved the Peruvian government's ability to provide basic health services to its entire population. The SECPANE program appears to have been only marginally influenced by United States wartime needs and oriented entirely by Peruvian priorities. SCIPA's program was the widest ranging, both geographically (it covered the entire country) and conceptually (it included all aspects of increased food production). It responded to United States interests of helping Peru become self-sufficient in food production and this coincided with Peru's own objectives. Because of the limited nature of the original United States commitment, specifically related to bringing United States participation in the war to a successful conclusion, long-term planning for joint Peru-United States technical cooperation was not officially encouraged. Nevertheless, the establishment of the Servicios and the joint planning for projects created a momentum which engaged them in a continuing and ongoing process that couldn't be shut off from one day to the next.

From 1942 to 1950, all Servicio agreements were subject to annual review, negotiation and renewal. This gave the Peruvian government the option to not renew if it were not satisfied with the results and put the Servicios very much on trial. The Servicio mechanism was still evolving and being tested. In IIAA/Washington three different staffs

provided backstopping to the three Servicios, the Health and Sanitation Division for SCISP, the Food Supply Division for SCIPA and the Education Division for SECPANE after the IEF became part of IIAA. Each Servicio developed at its own pace within the requirements, priorities and idiosyncracies of the three different Peruvian Ministries. Each depended upon the skill and experience that the American technicians could bring to bear and the rapport they could build in dealing with their counterparts on the problems the Peruvians thought were important.

It should be stressed that these were technical assistance missions. The Servicio was a means of making technical assistance effective. The projects were viewed as stimulating technology transfer, of applying scientific methods to problems, of modernizing procedures. The idea of broad economic development was not yet current. Social and political problems related to development were addressed only in the context of making the technology transfer effective within the project. Practically all of the technicians had an abiding faith in the belief that the application of modern, scientific techniques would eventually raise living standards and probably resolve social and political problems. For the Peruvians, the Servicio was a new way of providing government services. The government wanted the Servicio to undertake programs which the Ministries were not engaged in themselves, but for which there was a recognized need. Thus, the Servicio did not compete with the Ministries but

complimented them.

Each Servicio formed an elite staff of young highly motivated, energetic Peruvian professionals who worked as equals with their United States counterparts and who took great pride in the Servicio and its operations. Each developed projects requested by the Ministries which responded to immediate needs and problems. The joint fund arrangement assured that projects would have the necessary supplies and equipment and would not face the inevitable delays of the established bureaucracy. That meant that the "know-how" of United States technicians could be utilized in a project context and results could be demonstrated. The Servicios soon earned a reputation for being able to make things happen and professionalism became their hallmark. Another characteristic that was shared by IIAA operations throughout the hemisphere was their emphasis on host government commitment through maximum financial contributions. In Peru, the early servicio joint funds were financed at least two to one by Peru. Special projects had a much higher Peruvian government financial participation. After the first two or three years, the annual signing of Servicio agreements became routine, as far as the Peruvians were concerned. The Servicio was accepted as a useful instrument for the government.

B. THE SERVICIO YEARS 1942 - 1962

While there was some technical assistance carried out in Peru between 1942 and 1962, outside the Servicios, most activities were Servicio projects. Many started outside the

Servicios were eventually incorporated into them, even those such as Tingo Maria, which had operated successfully over an extended period in a different form. There were a number of factors responsible for this. First, by 1945, the Servicios had proved themselves. They were congenial to the Peruvian melieu and they were successful. Second, in 1952, IIAA became the regional arm of the new TCA and responsible for all technical assistance in Latin America; and third, John R. Neale, a strong believer in the potential of the Servicio mechanism, became the first Director of the TCA IIAA mission in Peru.

Just as George Dunham and his health technicians were the dominant figures in Washington in the beginning years of the IIAA, John R. Neale and his agricultural technicians gradually came to dominate the Servicio scene in Peru. Within a few years, SCIPA emerged as the best known, fastest growing and most innovative of the three Servicios. Mr. Neale arrived in Peru in 1943, as a livestock adviser in IIAA's Food Supply Mission and took over as its Chief of Party and SCIPA Director the following year. He fashioned SCIPA into a responsive, agile and flexible instrument for stimulating increased agricultural production in Peru. He used the Servicio to try, to test and to experiment with new ideas, concepts and approaches to Peru's agricultural problems. SCIPA worked as a single unit, each division cooperating with and depending on the others to carry out its projects. While it completed inumerable projects over the years, it

cannot be understood solely by examining its projects or the organization of its individual divisions. It was a research and development company trying out new ideas, discarding the ones that didn't work and promoting, touting and pedaling the ones that did. If a project failed, it was examined to see what lessons could be learned. These lessons were sometimes more valuable to future project planning and selection than were the lessons learned from successful projects. Eventually, formulas for successful projects were developed and applied over and over.

The most successful SCIPA projects all reflected the same fundamentals: make them financially self-contained and self-supporting; where possible operate on a commercial basis; get the private sector involved and supporting early; keep the projects manageable; when they get too large to be well managed, break them down into smaller units. This emphasis was combined with a good measure of frugality in making expenditures. SCIPA devised a number of ways to reward thrift and efficient use of resources. Even taking into account a ten-fold increase in the cost of doing business since those times, one is impressed by how much was done with so small an investment.

Overall, SCIPA's operations reflected a belief that the private sector was the engine of growth; that government, in this case the Servicio, should look for ways to stimulate and assist the private sector. As soon as a project started by SCIPA had attracted enough private operators, it left it

to them and moved on. SCIPA became in the agricultural sector of Peru what many Latin American governments tried to set up on a broader basis, with mixed results, a very successful development corporation. One writer refers to SCIPA as a holding company. While it had some aspects of a holding company, it was much too activist for that appelation.

While SCIPA may have been the best known of the Servicios, the other two had established themselves with their respective ministries and were going through their own period of testing, innovation and growth. SCISP successfully made the transition from war time to peace time priorities, putting all its emphasis on preventative medicine and public health. Health centers, medical posts and health units multiplied in Tingo Maria, Loreto and San Martin Departments. A Center for Preventative Medicine in the Rimac district of Lima grew into a large city health center. It also became a center for training public health nurses and sanitary inspectors. The rapport between the SCISP and the Ministry of Health was excellent and the Ministry turned more and more to the Servicio to assist it in expanding its own activities. Besides the continued expansion of health unit activities in the jungle and on the north coast, the Ministry asked the Servicio to provide assistance in health education, nutrition and vital and health statistics. A separate unit in industrial hygiene was also established.

In education, SECPANE's rural education program had caught the imagination of Ministry personnel. The

Interamerican Education Foundation staff in Washington succeeded, by a series of meetings, to get Bolivia and Peru to jointly focus on what was to become a twenty year endeavor so improve the educational opportunities of the poor Indian families on the altiplano through an innovative approach called the nuclear school system. The first five years of that effort were filled with activity and promise. SECPANE's other activities in vocational education were also responsive to the Ministry's interests in a greatly expanded program in this area.

C. TCA/IIAA, Point IV

On January 21, 1949, President Harry Truman in his inaugural address pledged the United States to "make available to peace-loving peoples the benefits of technical knowledge, in order to help them realize their aspirations for a better life." On September 3, 1949, IIAA's charter was renewed until June 1955. On June 5, 1950, the President's pledge was voted into law. In October, the Technical Cooperation Administration (TCA) was established within the Department of State to administer the new program which came to be called Point IV. IIAA became responsible for the TCA program in Latin America, which included the activities of the Department of Agriculture and most other technical assistance programs. TCA/IIAA Mission Directors were to be appointed to bring about greater coordination of activities at the field level.

These developments in Washington were reflected in

changes in the organization in Peru. OFAR agricultural research at Tingo Maria now became IIAA's responsibility. In 1952, John R. Neale became the Director of Technical Cooperation in Peru, responsible for coordinating the activities of the three IIAA field parties, OFAR and USGS. The CAA had terminated its mission in 1951. An Executive Officer, a Program Officer and a Training Officer were assigned to the Directors office to manage funds, supervise administration, prepare programs and budgets and process documents. A small local staff was employed to assist in these functions.

In 1953, with the inauguration of Dwight D. Eisenhower as President, the United States foreign assistance program took another turn which had its effects on the program in Peru. The Marshall Plan in Europe (MSA) was winding down its operations. A new United States foreign assistance entity was formed which absorbed both the recently organized TCA and MSA. It was called the Foreign Operations Administration (FOA). Within two years, another change was made which organized FOA into the International Cooperation Agency (ICA). The field position created by TCA of Director of Technical Cooperation was strengthened and turned into Director of the United States Operation Mission (USOM).

There was a basic incompatibility between the centralized mission organization and the already established, individual Ministry-related Servicio operation. This was minimized and papered over in Peru and other Latin American countries by naming as Mission Directors individuals who were

Servicio Directors, allowing them to wear two hats. Contrary to Washington expectations, however, these Mission Directors functioned first as Servicio Directors responsible to a Ministry of the host country, and second as Mission Directors, coordinating, in a very tentative way, the programs of the other Servicio Directors who were also responsible to host government Ministries. Nevertheless, the advent of the Mission Director was the first in long series of Washington actions which led to the eventual demise of the Servicio. In 1954, Mr. Neale stepped aside as SCIPA Director as his responsibilities as Mission Director grew.

These long-range effects were not visible, at the time, in Peru, however. The Servicio idea was thriving. In 1952, Mr. Neale created a fourth Servicio (PCEA) to administer the Tingo Maria experiment station and to add the La Molina station near Lima. In 1954, The Employment Servicio (SCEP) was formed in the Ministry of Labor to create a government-operated employment service. In 1955, another Servicio SCIF came into existence under the Ministry of Fomento to carry out irrigation, land development and feeder road projects for small farmers. In 1957, the Southern Peru Planning Servicio (SCIPS) was established to carry out the studies for the Southern Peru Regional Development Program.

D. FOA, ICA

The fusing of TCA and MSA into one organization brought about a fundamental change in the way technical assistance came to be viewed. Most of the policy making

positions in ICA were filled by former MSA officials who had little knowledge or understanding of the problems of the under-develop countries (as they were then called). They thought in terms of the rehabilitation of basic industries and macro-economic transfers of resources. Technical divisions, such as transportation, industry and public administration, which had been part of MSA, sprung up in the new ICA. Field missions were urged to broaden their horizons and expand into these new areas. Budgets for country programs were increased and representatives of the new ICA offices visited the missions selling their wares. Funds for training host country technicians abroad were also increased. The existing Servicio programs were tolerated, but not understood. The IIAA in Washington was reorganized along geographic lines, rather than around technical divisions. Country desks were established and technical backstopping became the responsibility of centrally-organized technical divisions with world-wide responsibility.

In Peru, the immediate effect of these changes was minimal on the Servicios, since they were well-established and highly regarded. However, the increase in availability of resources and the new activities promoted by ICA/W technical divisions did encourage a proliferation of projects. John R. Neale, forever a Servicio proponent, resisted isolated projects and tried to channel the proliferation into a Servicio mold. SCIF, for example, became responsible for industry projects.

E. University Contracts

One of the Washington initiatives hit a responsive cord in Peru, the university contract. Within a couple of years, two contracts were signed with North Carolina State in agricultural research and textile engineering, and one with the University of North Carolina in sanitary engineering. A fourth was signed with the University of New Hampshire in chemistry instrumentation. The agricultural research contract was a follow-on to the PCEA program with Tingo Maria and La Molina. After two years, PCEA was absorbed into SCIPA and North Carolina was contracted to provide technical advisers and scientific backstopping to both stations. This contract was in the Servicio mold. The others were outside it.

The sanitary engineering, the textile engineering and the chemistry instrumentation contracts were new endeavors in the field of technical education at the university level. Also in 1955, a non-university contract was signed with World Mining Consultants to assist the Banco Minero in coal engineering and the United States Bureau of Mines provided the Banco Minero with additional technical assistance in metalurgy. The former was terminated in 1957, while the latter was extended to the University of Engineering in 1958. Also, modest projects in public administration, outside the Servicio mold, were begun in 1956, one in records management, one in shipping and another in census preparation. In the same year, ICA/W began providing direct short-term assistance

to private groups to initiate the savings and loan system as a mechanism for accellerating home construction. In 1957, CAA reestablished a mission in Lima and a tax consultant was added to the USOM staff. Later, short-term consultants were used to help improve government budget procedures and customs' code revisions. In 1959, a public safety program was initiated in traffic control and accident prevention.

F. Programming

ICA instituted a system of programming and priority setting to try to rationalize the disjointed activities it was promoting. The first ideas in development economics began to filter to the field missions, but most program decisions were made on the basis of what the country asked for, what ICA/W was promoting and what the Mission Director thought was feasible. Program officers in Latin America broke their heads trying to invent rationale to cover an ever-expanding portfolio of activities. But the attention of ICA's top policy makers was on macro-economic programs in other parts of the world. Latin America got only passing notice.

G. Southern Peru Regional Development

The drought in southern Peru in 1955 and 1956 gave USOM Peru its first opportunity to become acquainted with large-scale assistance. Neither Peru nor the USOM was prepared for it. ICA opened the PL 480 Title II spigot and in three years $14 million worth of foodstuffs poured into

Peru. The Peruvian government, which had responsibility for receiving and distributing the commodities had neither the facilities nor the organization to handle them. Nevertheless, the projects and programs growing out of that effort permanently changed the way Peru and USOM/Peru perceived development. The original IIAA approach of straightforward transfer of technology, which had been slowly changing, was transformed into the consideration of the complex socio-economic issues underlying poverty and slow development in Peru. USOM promoted the systematic study of social and economic structures. The Southern Peru Regional Development program produced a massive thirty volume study of the characteristics of both the human and natural resources of the region. The government of Peru initiated its own National Fund for Economic Development (FNDE).

But the Servicio was still the chosen instrument. The Southern Peru Planning Servicio (SCIPS) was formed to coordinate and supervise the long-term development planning. The SCIPA extension service, supervised credit and machinery operations were put to work in southern Peru. SCIF did engineering studies and field work for SCIPS' economic studies. It also contracted to and supervised projects carried out by SCIPA machinery pool and the Ministry of Public Works. A forestry program was initiated in SCIPA to help make surveys of the wood resources of the eastern jungle in preparation for colonization. SCISP shifted its attention from its traditional areas to help the Ministry of Health in southern

Peru. However, the new health units that were formed stayed in the Ministry. SECPANE continued with its nuclear school program in the drought area, but was so preoccupied with construction problems in its normal school program that little new impetus was provided to the nuclear school system in spite of the possibility of access to new and expanded resources. In 1957, additional capital assistance was made available to the Southern Peru program in the form of a $2 million loan (MSA Smathers funds) to build a road from the Lake Titicaca basin into the high jungle area. This road was seen as the beginning step in a long-term program to encourage migration from the altiplano to the eastern slopes of the Andes.

H. Phasing Down Servicios

It was about this time that the Servicios reached the crest of their growth. ICA policy makers continued to question their efficacy as a development tool. From 1952 oward, every study or evaluation of the Latin American program contained a critique of the Servico as an administrative unit, listing advantages and disadvantages of the arrangement. Even though most of the studies concluded that there were more advantages than disadvantages to Servicio operation, ICA central staff remained unconvinced. Also, the centralized mission undermined the concept of the Servicios as a part of the Ministry, and the lack of detailed technical backstopping and support for specific fields of activity in Washington had fundamentally changed the orientation of individual Servicio

directors. All these factors combined, translated themselves to the Peruvians as the end of an era. Mr. Neale and his Servicio directors encouraged the ministries to take over Servicio activities.

There had always been some interchange of projects between the Servicios and the Ministries. All three of the original Servicios had done specific jobs for the Ministries, turning them over when they were finished. But the major Servicio projects were kept intact. In 1954, SECPANE discontinued its vocational education project and SCISP returned the Loreto Health unit to the Ministry. This was the beginning of a trend. By 1957, the Servicios were turning more activities back to the Ministries than they were acquiring. In 1956, SCISP turned the Santa health unit at Chiclayo back to the Ministry. In 1957 and 1958, it made plans to return all the remaining health units. SCIPA continued to grow, but mostly by absorbing PCEA in 1954 and part of SCIF in 1961. Plans for the Ministry of Agriculture to absorb the extension service had been put on hold.

Servicio Phase Out

In 1958, John R. Neale retired and was replaced by another IIAA veteran, Vance Rogers. He, like Mr. Neale, had experimented with many different types of Servicio arrangements, but he also realized that their days were numbered. He persuaded the Ministry of Agriculture not to take SCIPA back peacemeal, project-by-project, but as a unit. It took two years of negotiation and preparation of

legislation before it happened. SCISP, which by that time had already made arrangements for most of its operating projects to return, worked out an arrangement similar to SCIPA's for its Lima technical staff. This change was affected the year following SCIPA's transfer. SCIPS wound up its work in 1960 and SCIF went out of business as a Servicio in 1961. SECPANE continued into 1962. Other projects were winding down as well. USGS terminated its program in 1959, the University of New Hampshire project ended in 1960. The Sanitary engineering contract with the University of North Carolina ended in 1961.

But the transfer of the Servicios to the government of Peru was by no means the end of the ICA programs in Peru. New agreements for technical assistance were signed with the Ministries to provide many of the same kind of services, either with driect-hire technicians or through contract arrangements. Health technicians were getting ready to launch a new program of community water supply development. Most other activities continued in one form or another. The InterAmerican Development Bank and the Alliance for Progress were in their formative stages. A new phase in U.S.-Peruvian technical and economic cooperation was beginning.

I. Training

Training, as a separate and definable activity, transcended the debate over the Servicios. It existed before the Servicios were created. It existed within the

Servicios and apart from them. It never became controversial as a technical assistance tool and it was unreservedly supported by all who believed in stimulating economic and social progress.

Every aspect of all U.S. technical assistance efforts were viewed as training in one form or another. Most of this training took place in-country as a routine part of the projects. In addition to that, funds were set aside for training in the United States or third countries. Some of the early Inter-Departmental Committee projects provided funds specifically designated to be used for training. CAA was one of the first units in the U.S. government to organize a formalized training program for foreign nationals in all phases of civil aeronautics. The IIAA, in its beginning years, had a central training office which helped make arrangements for training programs and academic study in the United States for advanced training of individuals chosen by the country field parties. IIAA paid the dollar costs of the U.S. training including maintenance, the Servicios or the host government paid travel costs and local currency maintenance expenses.

Records of formalized training activities during those early years in Peru are spotty. One gets the impression that SCIPA concentrated heavily on local training and was very selective in the number of people chosen for advance training in the United States. On the other hand, SCISP (like health servicios in other countries) sent a substantial

number of Peruvians to the United States to study public health.

However, once IIAA became part of TCA, larger sums of money were made available for training of foreign nationals abroad. The number of Peruvians being sent to the United States and third countries increased considerably after 1952. The largest numbers in 1952 and 1953 were in the fields of education, health and agriculture, in that order. A total of 63 participants were funded for training outside Peru in 1952 at a cost of $226,884; 57 in 1953 at a cost of $158,681; 58 in 1954 at a cost of $144,002 and 66 in 1955 at a cost of $258,101. By FY/1961, the participant budget had grown to $401,000 with 21% of the total going for agricultural training, 18% for education, 14% for health and 13% for labor. The rest was divided among industry and mining, transportation, public administration and housing.

Training was almost always directly related to operating programs. Very few participants were sent abroad who came from fields of activity not related to on-going projects. However, from time to time, Washington specifically promoted training which was not directly connected with the country program. In Peru, as a result of Washington promotion, funds were budgeted in FY/1959, FY/1960, and FY/1961 for labor leader training. Also, from FY/1957 through FY/1961, funds were budgeted to train Peruvians in the peaceful uses of atomic energy. The goal was to train 15 nuclear scientists and engineers in atomic

science by 1964.

The ICA evaluation of the Peru program in 1957 deemed the participant training program one of the most effective tools in ICA's kit and recommended its continuance and expansion. Other reports also give high marks to the program. Unfortunately, the records available for this paper are too sketchy to even draw a full picture of the program, let alone come to any conclusions about it.

III. DESCRIPTION OF UNITED STATES GOVERNMENT ACTIVITIES 1942-1962

A. Agricultural Research, OFAR

Tingo Maria

The modern development and growth of Tingo Maria can be traced to 1936, when a road from the town of Haunuco reached the junction of the Huallaga and the Monson rivers, the present site of Tingo Maria. This road gave the area its first overland contact with Lima and the Peruvian coast. With the coming of the road, the growth of agriculture in the area became possible. In 1938, the Peruvian government established a station to explore the agricultural potential of the area. A year later, as an aid to prospective settlers, the Division of Colonization of Peru's Ministry of Agriculture set up a Centro Oficial de Colonizacion in Tingo Maria. At that time the town consisted of few more than ten buildings, all of palm-thatch, one of which was a church and two or three were called hotels. In 1940, the United States government initiated its Cooperative Rubber Plantation Development Program with Peru. In November of that year, a letter of agreement was signed between the two governments providing for a rubber research program and establishing Tingo Maria as a suitable site for carrying out research. Shortly thereafter in 1941, negotiations started between the

United States and Peru to initiate a cooperative program of tropical agricultural research and advisory services. An agreement was signed on April 21, 1942, establishing an agricultural experiment station in Tingo Maria. Under the agreement, the United States Department of Agriculture committed itself to assigning to the station a small staff of scientists and technicians and furnish needed scientific and technical equipment. The Peruvian government undertook to staff the facility with its own agricultural specialists as well as to provide land, buildings and laborers and meet all general costs of keeping the station operating. The Office of Foreign Agricultural Relations (OFAR) of the Department of Agriculture was given the responsibility for carrying out the United States commitments for the general research program and the Bureau of Plant Industry for the rubber program.

During the next ten years, 23 United States technicians worked at the station as advisors, teachers and trainers. At any given time, an average of five Americans worked with approximately 18 Peruvian agronomists, horticulturists, animal husbandmen, soils specialists, plant pathologists, rubber specialists, foresters and engineers.

The lure of new lands brought thousands of new people to Tingo Maria from the sierra and the coast as well as a number of European immigrants. The station from the beginning tried to balance its experimental work between research on strategic crops, vital to the United States war

effort, such as rubber, chinchona for quinine and barbasco for insecticide and food crops for local consumption. It offered advice to the new colonists who were clearing land and establishing small farms on such crops as corn, beans, cowpeas, soybeans, rice, sweet potatoes, yuca, barbasco, bananas, abaca, kenaf, tea, citrus fruits, cacao, coffee, papaya, avocados, mangos, pineapple, garden vegetables, oil palm and rubber. It provided information on reforestation, cultivation methods, crop processing and storage, grass and legume pastures, dairying, livestock and poultry production, disease and insect control and soil analysis. Settlers learned without costly trial and error how to make their land produce for them. New varieties of corn, beans and rice were introduced which doubled and tripled yields. By 1952, the small village of ten huts had been transformed into a bustling town of more than 6000 inhabitants with many more living on farms within the radius of the station.

Tingo Maria was the principal, and for a number of years, the only tropical research station in Peru. There was only one other government research station which had more Peruvian technicians assigned to it, that was La Molina near Lima. The Peruvian government did not request OFAR to co-operate with La Molina and since OFAR's primary interest was in strategic tropical products, it made no overtures to Peru about La Molina.

However, in 1952, IIAA was assigned responsibility under TCA for all technical assistance activities in Latin

America and absorbed the OFAR program. In Peru a new Servicio was formed, Programa Cooperativa de Experimentacion Agricola (PCEA), to continue the work at Tingo Maria. At the same time discussions were conducted with the Peruvian government to broaden the research activities under the new Servicio to include La Molina, as well. However, opposition to this idea from La Molina staff delayed this transition. In 1954, PCEA was incorporated into SCIPA as a semi-autonomous project. A contract was entered into between the USOM and North Carolina State College to provide technical assistance in agricultural research to PCEA. Under this new arrangement, La Molina, Peru's primary agricultural research facility, was included for the first time.

North Carolina State

North Carolina assigned seven technicians to work in Peru, four at Tingo Maria and three at La Molina. The work at Tingo Maria prospered under the new contract, but the first two years of association between La Molina and North Carolina was a trial for both sides. Rivalry between La Molina Experiment Station, financed by the Ministry of Agriculture, and the La Molina National Agricultural School, an autonomous agricultural college, created obstacles to the full collaboration and information interchange between research and education that North Carolina sought to promote. This slowed down the development of the La Molina research capability. Nevertheless, North Carolina helped develop a proposed reorganization of all agricultural research

resources in Peru and was rewarded in 1957 when the plan was approved. Substantial funds were appropriated by the Peruvian government and PCEA was designated responsible for the program.

The new program was organized along commodity lines oriented to basic food crops of Peru. The Ministry's Division of Experimental Planning and the Potato Research Program were turned over to PCEA. PCEA also took full responsibility for organizing and carrying out research in corn, small grains, poastures and livestock. Regional experiment stations at Lambayeque and Junin were incorporated into the structure and three other stations were to be rehabilitated and added. North Carolina reorganized its staff, bringing into Lima those previously residing at Tingo Maria and assigning them responsibilities in support of the national commodity research effort. North Carolina also began to work informally with the La Molina Agricultural College. The continuing shortage of trained personnel to carry out the national research program forced even closer collaboration between PCEA and the college and North Carolina encouraged it, providing training funds for advanced studies for selected agricultural school graduates.

The national commodity research program continued for three years but was disrupted by the return of SCIPA to the Ministry at the end of 1960. The new organization, SIPA, had four divisions, extension, research, crop development

and livestock development. Peru was divided into 12 agricultural zones, the directors of which had control over research, extension and agricultural development in their zone. Research funds were allocated to the zone directors. The confusion resulting from these changes set back the commodity research program.

At the same time, however, North Carolina was working more closely with the agricultural college, recently designated The Agrarian University, and USOM was expressing interest in expanding the North Carolina role to work with SIPA in extension as well as research. In 1962 the contract was amended to provide assistance in the areas of teaching, extension and research.

B. Health Servicio SCISP, IIAA

The objectives of the IIAA for establishing health programs in Latin America were:

1. To improve health conditions in strategic areas particularly with relation to the requirements of the armed forces of the United States and those of its American allies.
2. To carry out the obligations of the United States government with relation to the health and sanitation program assumed by it under Resolution 30, adopted by the Rio de Janeiro Conference.
3. To make possible increased production of critical materials in areas where bad health conditions

exist.

4. To demonstrate by deeds as well as words the tangible benefits of democracy in action and to win active support of the civilian population.

The two areas of Peru which had strategic interest for the United States were the upper Amazon basin from whence came tropical products necessary to the war effort and the northern coastal area where there were producing oil wells to help supply the United States pacific fleet and the beginnings of a United States air base.

The cooperative health program basic agreement signed July 14, 1942, creating the Servicio Cooperativeo Interamericano de Salud Publica SCISP, reflected the above objectives and priorities by concentrating its initial projects in the Peruvian Amazon Departments of San Martin and Loreto and in the high jungle at Tingo Maria, and along the north coast near Chimbote, at the time a village of some 4000 souls. The agreement was also responsive to Peruvian needs because it provided medical and curative facilities in areas of the country which the Ministry of Health had not been able to cover with its limited resources. In the planning, construction and operation of these facilities, the Peruvian government concern for increasing medical facilities was combined with IIAA's interest in preventative medicine and public health.

The original project agreements called for medical dispensaries at Barranca, Puerto Maldonado, Caballocha and

Contamana and hospitals at Satipo, Tingo Maria, Chimbote, Yurimaguas, Pucallpa and Iquitos. In 1943, the Ministry of Health requested the Servicio to construct and operate a Center of Preventative Medicine in Lima in the Rimac district. Also, during the same period, a health center was established in rented quarters in Iquitos to begin a preventative medicine program on the Amazon. In addition, two launches were purchased by SCISP to carry medical and health services to the communities along the river.

To carry out its extensive construction program, SCISP recruited local engineers for supervisory functions and contracted out much of the construction work. For the health activities it recruited local physicians and other technical personnel to staff the hospitals, health centers and headquarters positions in Lima. Construction and equipping of hospitals continued into 1945, with the Tarapoto hospital being added in that year.

Health Units

With the end of the war, SCISP gave primary emphasis to preventative medicine. It combined the services provided by the existing hospitals with greatly expanded preventative medical facilities including health centers in the larger communities and medical posts and health posts in outlying areas. The preventative health units offered such services as sanitary engineering, public health nursing, dental service, x-ray service, laboratory analysis, milk distribution and out-patient service. The Servicio's construction

activities were reoriented to the construction of medical posts and health posts. Since the medical posts were staffed with a physician, they performed a limited amount of curative medicine, but their primary function was to extend public health activities into the remote areas. The health posts, not having a physician, were exclusively preventative medical posts. The purpose was to give the population of San Martin and Loreto Departments, Tingo Maria and Chimbote access to the basic public health services.

In San Martin Department, health centers were constructed, equipped and staffed at Tarapoto and Moyabamba. Medical posts were built at Juanjui, Rioja, Saposa and Lomas. Health posts were established at Siza, Tabalozas, Yurecyacu, Posic, Calzada, Gabana, Soritor, Jepelacio, Yantalo and Pucaca.

At Tingo Maria a health center was built and staffed. It provided the most extensive public health services in Peru outside of Lima including maternal hygiene, infant and preschool hygiene, school and adult hygiene, communicable disease control, venereal disease control, public health nursing, midwifery, dental hygiene and contageous disease control. It had an environmental health unit which included sanitary engineering, vector control, rodent control, water supply, sewage disposal and health education. This was in addition to the services provided by the hospital which included out-patient service, medicine, surgery, maternity, pediatrics and tuberculosis. Also, an extensive rural

health service was established providing the same general services as the health center. The service consisted of a mobil rural service plus eleven health posts.

At Chimbote, in addition to constructing, equipping and staffing a hospital, an extensive water supply and sewage disposal program was undertaken. A malaria control program was initiated, swamps were drained, a public health program was started and a health center was built. These services were eventually expanded to cover the entire province of Santa. Also, specialized services such as maritime quarantine, legal medicine and the administration of a plant to iodize salt were part of the operation.

In Lima at the Rimac Health Center, the public health activities were rapidly expanded to include maternal hygiene, infant and pre-school hygiene, school hygiene, adult hygiene, venereal disease control, tuberculosis control and dental hygiene. It also offered services in laboratory, x-ray, sanitary engineering, public-health nursing, nutrition, public health education and statistics.

In effect, SCISP provided the totality of the public health services to the population of the areas in which it operated. These services were far more extensive than those provided by the Ministry in other areas of the country. Its programs were viewed as demonstrations which the Ministry was encouraged to imitate on a nation-wide basis. The units in Iquitos, San Martin, Tingo Maria and Chimbote were small Ministries of Public Health for their areas. The

Ministry continued to run nation-wide disease control programs and other activities for which it enlisted the cooperation of the SCISP local offices, but day-to-day public health work was in the hands of the Servicio in those areas.

In addition to expanding the public health activities in its initial geographic zones of concentration, SCISP was requested by the Ministry to provide assistance or to take over a number of its substantive activities. Beginning in 1946, SCISP provided short-term consultants from the United States Federal Security Agency (predecessor of HEW) to the School of Social Service which was established in the Rimac Health Center. In 1952, at the request of the Ministry, a full-time United States specialist in welfare and social work was added to SCISP's staff. In 1947, a project agreement was signed in Health Education. In 1948, the yellow fever department in Iquitos was incorporated into the SCISP health activities in Loreto Department. In the same year SCISP was requested to initiate an industrial hygiene program and a biostatics program. In 1949, SCISP began to give technical assistance to the nutrition program and it was later absorbed by the Servicio. In 1952, at the request of the Ministry, SCISP took over the San Pablo Leprosorium and also assumed responsibility for carrying out an intensive anti-leprosy campaign in the Departments of Loreto and San Martin. An architect was added to the staff in 1952 to help plan health centers. At Washington's urging he was also designated housing officer although the Servicio had no

housing projects. Expansion continued into 1954, when SCISP entered into a five-year agreement to operate the National Institute of Health, a dependent organization of the Ministry of Health, charged with the production of vaccines and other biological products. Also, in 1954, SCISP activities on the north coast were expanded to include the Department of La Libertad, which consisted of health centers at Trujillo, Pacasmayo and Chepen and medical posts at Huamachuco, Santiago de Chuco, Otuza, Pataz, Ascape, Usquil, San Pedro Lloc, Salaverry and Bolivar. In addition, the health unit at Trujillo ran a tuberculosis dispensary, the tuberculosis section of the Belen hospital, a day nursery and preventative medical station.

By late 1954, SCISP had reached what was to be its maximum size and diversity. Shortly after acquiring La Libertad Health unit, the Loreto unit including yellow fever and leprosy programs, were turned back to the Ministry. In 1955, SCISP's organization consisted of the director's office, an administrative unit and three technical divisions: (1) Local Health Service which included the health units at Rimac, Tingo Maria, Chimbote, San Martin, La Libertad and the Satipo Medical Post; (2) professional services, which included Medicine, Sanitary Engineering, Nursing, Social Services, Veterinary Public Health, Statistics, Planning and Housing and Health Education; (3) Special Programs, which included Industrial Hygiene, Nutrition and the Institute of Public Health.

The division of Professional Services was organized primarily to backstop the activities of the public health units operating under SCISP. Both United States and Peruvian technical personnel made up the professional staff. In many instances a Peruvian was in charge of the specialized service. There were some activities under Professional Services, such as veterinary public health, nursing, and social services which were involved in national programs as well as backstopping services. Also, under Professional Services, the Servicio budgeted for and operated the Ministry's health education program and the statistics program. The health education program was primarily a training program. The statistics program consisted of organizing and improving the gathering and analysis of epediomological, mortality and demographic statistics.

The Special Programs were operated by SCISP as separate units, each having its own source of funding which the Servicio received and administered.

Industrial Hygiene

In 1948, the Peruvian government requested SCISP to take over its nascent program in industrial hygiene. It was to be financed by a special tax on mining. The program was to consist of conducting studies of health hazards in the nation's mines, performing medical examinations on miners seeking compensation under Peruvian law for disabilities caused while working in the mines and doing laboratory work analyzing concentrations of dust, gases, fumes and other

vapors which miners breathe or to which they are otherwise exposed. Until 1956, the industrial hygiene unit functioned in the SCISP headquarters building in Lima. In that year, it constructed a separate facility which provided for expanded activities. By that time also, industries other than mining were included under the law and the services of the program were broadened to include the new industries. Three regional offices were established, one on the north coast, one in the central sierra and one in the south. In 1957, the name was changed to National Institute of Occupational Health and it was given responsibility for providing technical and professional services to industries and mines throughout the country in the area of occupational disease.

Within five years after the Servicio assumed responsibility for its operations, the industrial hygiene program was recognized by both the Peruvian government and the private mining industry as an outstanding success serving both the interests of workers and industry. It gained international recognition as one of the best such operations in Latin America and was soon used by neighboring countries for training purposes.

Department of Nutrition

SCISP began its collaboration with the Ministry's Department of Nutrition in 1949. It helped install a laboratory for food analysis and provided technical assistance to prepare and carry out surveys on food habits in Peru. In 1956, the department was transferred to SCISP and the

Ministry increased its contribution to cover its operations. Nutrition studies continued on Peruvian foods and dietary habits. New studies in the development of a low-cost high-nutrition food supplement for weaning children, studies of the effects of vitamins and iron therapy on parasite anemia and studies on the influence of nutrition upon growth and development of school children on the coast were begun. Also, activities in the field of dietetics were expanded and a program in nutrition education was initiated. Under a contract with Harvard University's Department of Nutrition both long-term and short-term technical assistance from the United States was provided. SCISP continued to operate the Nutrition Department until all SCISP activities were reincorporated in the Ministry at the end of 1961.

National Institute of Health

The National Institute of Health was the principal diagnostic and vaccine production center in Peru. In 1954, the Ministry requested SCISP to take over its operation to help improve its organization and its standards of production. The United States was to provide the Services of one United States technician to serve as the Institute's director. The Servicio returned the Institute to the Ministry at the end of 1960. During the six years that SCISP had responsibility for the laboratory, it completely reorganized its internal administrative structure. It strengthened and expanded its technical program, introducing modern techniques for the production of vaccine and standard laboratory

diagnostic procedures. It developed new biological products, initiated studies on new diseases of public health importance. It introduced national control of narcotics importation and storage and revised laboratory operations and support facilities. During the time SCISP operated the Institute, confidence in Peruvian produced vaccines was created. A high quality small-pox vaccine was sold widely in the country and other vaccines such as whooping cough, tetanus and rabies began to substitute imported vaccines. Before SCISP returned the Institute to the Ministry, it was also producing for export, thereby improving its financial status and earning foreign exchange for the country. The agreement terminated at the end of 1960 and the Ministry once again assumed operational responsibility. All the costs of operating the Institute were paid by the Ministry through a special contribution to SCISP.

Sanitary Engineering Education

In 1954, at the request of the National Engineering School, ICA signed a 3-year contract with the University of North Carolina, School of Public Health to provide technical assistance to the National School of Engineering in the field of sanitary engineering teaching and research. In 1957, the contract was renewed for another two years. The SCISP Director was given responsibility for contract supervision. The objectives of the contract were to design and equip laboratories for sanitary engineering teaching and research, train personnel in laboratory teaching, plan curriculum and

course content, organize field training and develop research and service functions for the laboratory. It was determined by U.S.O.M. that all but the last objective had been accomplished by the end of the contract period. It was terminated on December 31, 1959. The total cost of the contract to the United States was $201,000.

Chemistry and Instrumentation Program

The Industrial Hygiene program produced one spin-off program in the form of a university contract to improve and modernize chemistry instruction at San Marcos University. In December 1955, a contract was signed between ICA and the University of New Hampshire to strengthen the training of professors and students in analytical chemistry by instrumentation and micro techniques. The objectives of the program were to train a nucleous of professors in modern chemistry and analytical procedures and to increase the number of qualified chemists for work in Peruvian industry, mines and pharmaceutical laboratories. The contract provided one full-time advisor, participant training and selected laboratory equipment for specialized demonstrations. The contract was terminated in 1960, having achieved its objective. The total United States contribution to the project was $198,000.

Phase Down, Phase Out

By 1957, SCISP had established or operated seven general hospitals, one maternity hospital, one child care center, one tuburculosis preventorium, eight health centers,

thirty-five medical or health posts and nine dispensary launches in mobile operations along the Amazon River. Between 1957 and 1959, additional public health demonstration projects were added at Jaen-Bajua, Lucanas and Oxapampa. But the trend of ever-expanding servicio operations was reversed with the return to the Ministry, at the beinning of 1957, of the Chimbote health unit including the 50 bed hospital and all of the public health services. Also, in the same year the Health Education program became a division in the Ministry. By 1959, both the servicio and the Ministry believed the Ministry should operate all the country's public health programs, so the demonstration programs in San Martin, La Libertad, Tingo Maria, Lucanas, Jaen Bagua, and the medical posts at Satipo and Oxapampa were returned to the Ministry at the end of 1959. The Servicio continued to provide backstopping assistance as requested, but all operational control of the programs passed to the Ministry. The Servicio continued a limited program of construction of medical and health posts which was funded separately by the Ministry.

These public health demonstration programs, which were a part of the Servicio's operation for almost its entire lifetime, provided Peru with working models of public health techniques adapted to the Peruvian environment. Initially, they provided the only health services available in the areas where they operated. Later, as they expanded, they were organized into public health units which offered a full array

of coordinated health services. Servicio units were copied by the Ministry for organizing services in other parts of the country. The self-contained Servicio units provided an ideal base for the Ministry to organize a decentralized regional health program.

Each one of these health units was its own success story. But, for SCISP, perhaps the most satisfying and dramatic of these success stories was the Santa Health unit. SCISP had participated from the beginning in the transformation of a forlorn village of 4000 souls on the edge of a malaria-ridden swamp into one of Peru's fastest growing industrial complexes. It couldn't have happened if SCISP had not controlled the malaria and improved the health conditions.

In 1956 and 1957 when the Peruvian government gave high priority to southern Peru because of the drought, the Servicio helped the Ministry expand its own services in the area, but by that time neither the Ministry nor SCISP believed it was appropriate for SCISP to begin operating on its own in southern Peru as it had done as recently as 1954 when it organized the La Libertad health unit at Trujillo.

By 1960, the Ministry was very receptive to the idea of taking over Servicio operated projects and discussions for a turning back to the Ministry of the Institute of Public Health and the Institute of Occupational Health were beginning. The Institute of Occupational Health had been headed by a Peruvian since 1954 and functioned, more or less autonomously. In 1960, a Peruvian director was named for the National

Institute of Health and plans were made to return it to the government at the end of the year. At the same time it was agreed that the Institute of Occupational Health would return to the Ministry during 1961. Plans were also made to appoint a Peruvian to assume technical and administrative responsibility for the Statistical Division in 1960 in preparation for returning it to the Ministry of Health for operation.

With these transfers to the Ministry, SCISP would be left with the Institute of Nutrition and its Peruvian technical staff in Lima. There was no indication that the Ministry wanted SCISP to develop new programs, but rather to limit its role to providing advisory assistance. Under the circumstances, further discussions concluded that what remained of the Servicio should function within the Ministry and not apart from it. So legislation was drafted to terminate Servicio operations as a joint United States, Peruvian activity and place it within the Ministry of Health. The United States would continue to provide technical assistance to the Ministry as requested. On December 31, 1961, SCISP ceased to function as a Servicio and was absorbed into the Ministry of Health.

Financing

United States financing for SCISP included three categories: technician costs, participant training costs and contributions to the joint Servicio fund. From 1942 to the end of FY/1961, the United States had contributed

$3,668,000 for the technicians and participant costs plus $4 million to the joint fund. This amounts to an average annual contribution of $200,000. The Peruvian government had contributed $12,304,655 plus over contributions of $986,691 for a grand total of $13,290,346 which amounts to an average annual contribution of $665,000. The total joint fund contributions from both governments for the twenty-year period amounted to $17,290,346. The United States contribution as a proportion of the total was 23%. If United States direct costs, i.e., technicians and participants are added in, the United States proportion of the total increases to 36%. The contract costs for the University of North Carolina and the University of New Hampshire are not included in the figures because neither contract functioned as a servicio project.

Staffing

Throughout its life, SCISP had a United States director and a United States business manager. It had six different directors from 1942 to 1961, each staying an average of three years. Some SCISP divisions were begun with Peruvians in charge, others started with United States personnel in charge and then were taken over by Peruvians. All of the health units were run by Peruvians from the beginning and all of the technical staffs were Peruvian. In the beginning years the SCISP United States technical staff numbered from eight to ten persons. Later on as the Servicio expanded its activities the number increased to

twelve and then to fourteen. In FY/ 1958, SCISP was authorized 17 positions for United States staff. At that time the Servicio had 711 Peruvian employees, 162 of which were laborers, 179 administrative and 370 professional and technical. In addition to the United States technicians assigned to the Servicio, there were always four or five regional health technicians assigned to Lima to which the Servicio had easy access. At the time the Servicio was turned over to the Peruvian government, the health program had sixteen approved United States technician positions.

C. Agriculture Servicio SCIPA-IIAA

John R. Neale participated in the founding of SCIPA and remained its guiding spirit for fifteen years, first as its director from 1944 to 1954, then as Director of USOM/ Peru. Though he had many loyal collaborators to whom he would attribute whatever success SCIPA had, its structure, its operation, its philosophy and its image reflected his personality and his views on agricultural development and on how government should stimulate it.

The Basic Agreement signed by the governments of the United States and Peru on May 19, 1943, which created the Servicio established not only the substantive areas in which SCIPA would be active, but provided the foundation upon which its subsequent projects and organizational structure would be based. It also, importantly, set no geographic limits for its operation and therefore by implication encouraged a

countrywide program. SCIPA was mandated "to increase the production if foodstuffs of vegetable and animal origin... develop new acreage, including colonization...soil conversion...dry farming, soil surveys for new irrigation...supply tools, equipment, insecticides, seeds, livestock and other materials...develop extension work, provide loans for small producers and develop studies in the fields of nutrition and diet."

From this beginning, within a year, SCIPA's basic organizational structure evolved and remained largely unchanged throughout its existence. Though it carried out myriad activities within this structure, they all related to the general categories of activities covered in the first Basic Agreement and to John R. Neale's view of organization and priorities.

SCIPA was organized with an Office of the Director, an administrative division and four operating divisions: Economic Studies, Extension Service, Reimbursable Services and Facilities and Engineering. By July 1943, project agreements had been signed for the activities in each of these categories. Other projects undertaken in the first year, such as seed production and distribution, victory gardens, guarantine stations construction, machinery operations, irrigation, hog and poultry improvement, land use, dairy production, fisheries, warehouse construction, statistical studies, marketing and food crop development for Talara and Iquitos were all subsumed under one of the four basic

projects. This was to be the pattern throughout SCIPA's life.

Economic Studies

The Economic Studies project was established in June 1943, primarily to do studies such as the "Food Situation in Peru" to help orient SCIPA's own programs, but it also undertook a limited number of studies for the Ministry and for farmers associations needing economic data for decision making. Thus, early studies on costs of production of milk in the Chiclayo, Trujillo, Lima and Arequipa area were undertaken. In later years, the unit settled down to producing on a regular basis agricultural economic surveys, statistical studies and analysis, crop and market reporting, costs of production studies, community surveys and an occasional special study when SCIPA was considering moving into a new and uncharted area of endeavor. Though the unit was never large, its periodic reports on Peruvian Agriculture were considered the most reliable and authoritative of any then produced and were widely quoted.

Extension Service

Organizationally, the establishment of an Extension Service within SCIPA was given first priority. Realizing the long-term nature of agricultural development, it was concluded that increased food production could come only if there was a concerted effort to educate the farmer and introduce new technical knowledge through extension. John R.

Neale in a letter to the Minister of Agriculture stated: "Our greatest hope for the solution of all the basic problems of agriculture lies in development of an intelligent and efficient field service." IIAA/Washington, acutely aware of the temporary nature of the program, cautioned against long-term commitments and emphsized the desirability of one-year projects. Only reluctantly did IIAA accept the extension project.

The extension service established offices in the most important food producing areas of the country and organized to carry out a program of general education for farmers introducing scientific practices and using the results of agricultural research where available. Extension agents were to introduce improved seeds and livestock, and provide guidance in marketing, processing and warehousing. Eleven offices were established in 1945, each having an extension agent, a clerk and a vehicle. In addition, farm agents carrying out special programs such as dairy production, swine and poultry production, disease control, etc. were to be assigned to extension offices as required. A small corps of specialists in Lima were to backstop the operation. United States technicians paid by IIAA were assigned as specialists working with Peruvian counterparts. In addition, women and youth activities were given emphasis. Home demonstrations and 4-H type activities became a permanent part of the extension program. An information section was created to produce promotional material for the extension campaigns

and to inform the public on SCIPA's activities. From eleven field offices in 1943, the field service grew to sixty-five offices in 1961. The number of Peruvians in the extension service increased from 23 in 1943 to 152 in 1959. There were five divisions: field service, specialists and program development, nutrition and home management, information and juvenile clubs.

The extension service was the core and antenae of SCIPA. It gave it representation throughout Peru, which made it aware of agricultural problems on a nationwide basis and enabled all divisions of SCIPA to communicate with farmers regularly. The extension agents were the purveyors of SCIPA's wares: service by its specialists, engineering services, economic studies, reimbursable services; and the gatherers of information and data for general use and for the economic studies unit. A mutual dependance and cooperation developed between the extension service and the other SCIPA divisions. It was also recognized by both the Ministry of Agriculture and SCIPA that of all SCIPA activities, the extension service was the institutional core which would become a permanent part of the Ministry at a later date. As early as 1948 and again in 1952, Mr. Neale made proposals for a transfer of extension to the Ministry which were not acted upon. Nevertheless, in order to assure that the government of Peru would have the resources to absorb the extension service whenever it was demed convenient, it was decided that the extension service budget should never exceed the annual

Peruvian contribution to SCIPA. This provision, while eminently realistic, slowed the growth of the number of field offices. Throughout SCIPA's life, the primary criticism of the extension service was that it didn't have enough field offices, that it didn't reach enough of the farm population. In other words, its effectiveness created a greater demand for its services than the government had budget to provide.

A brief look at the SCIPA plant insect and disease control program provides a good insight into how both the extension service and SCIPA worked:

Plant Insect & Disease Control

As part of its program to modernize Peruvian agriculture, SCIPA initiated a plant insect and disease control program under its extension service when it was formed in 1943. At the time, relatively small amounts of insecticides and fungicides were used in the country. Even though SCIPA bought these products and sold them to farmers at cost, it had few takers. Successful demonstrations began to convince a limited number of farmers, but most of the early requests for assistance from SCIPA were calls of desperation when 25% to 50% of a crop was already lost and a farmer feared he might lose his entire crop. Under such circumstances the possibilities of solving the problem were very limited. Nevertheless even these desperation calls gave SCIPA agents and technicians an opportunity to acquaint farmers with the application of pest control substance. In some cases, more of the crop was saved than the farmer could reasonably have expected, in

others, even though the expected losses were sustained, the farmer was impressed with the possibilities for future crops. Through such a process, the SCIPA plant insect and control program worked through the extension service to introduce chemical insecticides and fungicides to Peruvian agriculture and to create an ever expanding market for these substances.

Between 1943 and 1953 SCIPA technicians carried out insecticide programs to control the variety of crop pests as follows:

1. Control of fruit fly on tomatoes
2. Control of late blights on potatoes
3. Control of soil worms and foliage insects on potatoes
4. Control of five different kinds of insects including boll weavil on cotton,
5. Control of soil worms and cut worms on corn
6. Control of insects in stored grains
7. Use of 2-4-D to control weeds in wheat and corn
8. Control of snails
9. Control of ants
10. Control of rats

The results of these programs made an impressive contribution to increasing Peruvian agricultural production as well as achieving many positive side effects. One of its early successes was on potatoes in the Sierra where farmers had struggled to produce just enough potatoes for home consumption from season to season. After a few farmers worked

with SCIPA technicians on insect control for a season, their yields jumped dramatically, giving them surpluses which could be put into commercial channels. In some instances, yields increased threefold. These results convinced others to follow suit and within a few years insecticides were a permanent part of the potato growing cycle, the hectares devoted to potatoes increased and yields continued to grow. Similar results were obtained with cotton on the coast through the boll-weavil control program. Prior to 1951, there was no control for boll-weavil in Peru. By 1952, SCIPA was supervising applications of aldrin dust in all the major cotton producing areas of the country. Cotton yields rose wherever the program operated, in some areas by as much as 60 and 70%. The imitative effect of the program was the same as in the case of potatoes.

As the program became known and accepted it provided an effective vehicle for extension agents to gain the confidence of farmers and acquaint them with other services SCIPA could provide.

From the beginning, the extension service and rural extension offices maintained stocksof insecticides, fungicides, sprayers and dusters which were sold at cost to farmers. Gradually, as a market was created, prices were adjusted to profitmaking levels, and local dealers were encouraged to take over the business. By 1953, there were few important agricultural centers in the country that did not have commercial distributors for pesticides and spraying

equipment. SCIPA under its Reimbursable Services project continued to stock a limited supply of such materials for those areas in which the low demand did not justify a commercial dealership.

Once the benefits of controlled use of pesticides became apparent, imports, primarily from the United States, showed dramatic increases. Between 1946 and 1949, imports of basic ingredients for pesticides doubled and by 1952, it was running at $1 million a year. American companies began to invest in mixing plants in Peru and as a result, pesticide prices to the Peruvian farmer were reduced. Mixing plants and farmer associations, recognizing the need for technical personnel to diagnose pesticide needs and give advice on application, began hiring agronomists and entomologists trained by SCIPA so that a multiplier effect was achieved in terms of program effectiveness.

By 1952, SCIPA confidently asserted that wherever potatoes or tomatoes are grown in Peru, producers are using pesticides. Otherwise they would not grow the crop at all. The same was true for alfalfa when produced below 7,000 feet altitude. Considering that potatoes are the primary staple throughout Peru and alfalfa is such an important forage and fodder crop, this was an impressive accomplishment.

Reimbursable Services and Facilities

The establishment of the Reimbursable Services and Facilities project grew out of Mr. Neale's view that lasting

agricultural development takes place largely through self-financed activities. It was also a neat way of gathering under one roof a number of disparate projects requested by the Peruvian government which had nothing in common except SCIPA's desire to make them self-financing. Thus projects for machinery operations, procurement and distribution of hand tools, seeds, pesticides, spray equipment and vaccines, fisheries assistance, livestock development and demonstration farms hog and poultry importation, and distribution operation of two rice mills and special projects all became part of Project D, "Reimbursable Services and Facilities." This project became the most dynamic and fastest growing of the SCIPA activities. One of the first areas to receive attention was livestock improvement.

Livestock Improvement

Preliminary studies carried out by the Economics Studies Unit asserted that "Peru did not produce enough livestock for domestic consumption; not enough beef cattle for meat nor dairy cattle for milk, butter or cheese; not enough hogs for meat or lard; not enough chickens for eggs and not enough sheep for lamb or mutton." It concluded that "neither climatic conditions nor diseases were responsible for the inadequate livestock production and that there were no insurmountable problems connected with substantially increasing that production."

In mid-1943, before SCIPA had prepared a general livestock program, a severe outbreak of foot-and-mouth disease

resulted in the initiation on October 1, 1943, of the first livestock project. It provided for the construction of a quarantine station for livestock at Arequipa. Later the same month a countrywide hog and poultry project was approved and in December a dairy project for Tingo Maria was approved. In January 1944, a general livestock project was approved which incorporated the earlier agreements. It included another quarantine station at Callao and initiated a cattle importation program. At the beginning of 1945, the project was further expanded to increase lamb and mutton production. A third quarantine station was built at the port of Eten, near Chiclayo in 1945. Under the livestock importation program, 226 head of cattle were imported over a three-year period. They were acclimatized, immunized and sold to farmers at cost as breeding stock. This activity provided SCIPA an entree to the entire field of livestock management, feeding and disease control. The quarantine stations, which were equipped to handle cattle, sheep and hogs at the same time, were intended to increase production by reducing the loss from disease.

As a result of the hog project, small farmers on the coast began raising pigs for the first time as some of the large producers cut back production because of the high feed costs. The lamb project proved that lamb production on the coast could be profitable and helped increase availability in coastal cities. The poultry project was so successful that within a short time private operators took over the

importation and distribution of baby chicks and SCIPA phased out its project. The Tingo Maria dairy project increased milk production at the station and had a continuing influence on the development of the dairy industry in the area.

As a result of these activities, the government of Peru asked SCIPA in 1949, to establish and operate two livestock demonstration farms and made a special appropriation of $260,000 for this purpose. One of these was a sheep farm, Porcon, in the northern highlands. The other was a cattle farm, Granja San Jorge, in the Amazon basin. Hacienda Porcon, at an average elevation of 13,000 feet, formally was home to 300 Indians living as nomads grazing their flocks. Porcon achieved two important results in its early years of operation. First, it established the principle of enclosure, which was unknown in this area of the Sierra. With enclosure came controlled grazing, a fundamental of scientific livestock raising. Second, it increased wool production. From the first full year of operation to the third year, the number of sheep sheared increased from 2000 to over 5000, and average clip yield increased from 2.6 lbs. to over 51 lbs. Besides increasing the amount of wool and mutton produced, 60 families could manage and tend an enterprise that formerly required 300 families with the consequent rise in income for them.

The purpose of the Granja San Jorge at Pucallpa was to demonstrate what level of beef production could be achieved in a jungle setting by scientific management. Within three years enough land had been cleared to carry 400

head of cattle. Normal jungle growth was replaced by improved pasture grasses. Silos were introduced to preserve fodder for the annual dry season. The effects of supplementary feed and minerals was being studied. There was almost from the beginning heavy demand from local cattlemen for all cattle produced by the San Jorge farm for breeding stock and for advice on improved methods of feeding and pasture management. In 1952, the Ministry of Agriculture, impressed by the results of San Jorge and Porcon, asked SCIPA to take over a demonstration farm called Porvenir, which it had started at Tarapoto in the high jungle. SCIPA set out to make the farm into a commercial supplier of beef for the Lima market.

These farms were both experimental and demonstration in practice. Managed on commercial principles, their demonstration effect could be immediately translated to the requirements of local operators, the Indians around Porcon, and the numerous colonists moving into the Pucalpa and Tarapoto areas from the coast and sierra.

Machinery Program

When SCIPA was begun in 1943, all agriculture, except for the large commercial plantations on the coast, was extremely primitive, relying on practices and impliments introduced centuries before. Mechanization, the use of fertilizer, pesticides and improved seeds was just beginning when World War II severely restricted the availability of these items in international trade. Under the circumstances, it was decided in 1943 that SCIPA would try to alleviate this problem

by providing machinery on a rental basis to farmers.

The project tried initially to operate through farm cooperatives, but soon abandoned the effort because of the lack of cultural and institutional supports and because cooperatives were completely foreign to the experience of the farmer members. Favoritism and inability to collect from officers of the cooperatives led to a search for alternatives. So it was that toward the end of 1944 and early 1945, SCIPA organized a machinery operating pool in the valley of northern Chancay province near Huacho. The pool offered machinery services on a cost basis for plowing, leveling and cultivating land. This experiment was so successful that it led to a rapid expansion of machinery pools and equipment throughout 1945 and 1946 and eventually became one of SCIPA's outstanding success stories. By 1947, there were machinery pools in Huacho, Pativilca, Huarmey, Casma, Santa, Trujillo and even in Lima province and the valleys south of Lima.

Because machinery was expensive and not easy to procure in large quantities, SCIPA devised an ingenious system of machinery operation which got maximum use out of the machinery and simultaneously assured top maintenance. Since the operation was initiated on the coast, it took advantage of the coastal climate that permits farmers to plow, prepare seed beds, plant, cultivate and harvest over a comparatively long period. This made possible the shifting of tractors and equipment over the entire fourteen hundred miles of Peruvian

coast as the seasons progressed, allowing for many more hours of work per year for each piece of equipment. In addition, maximum daily use of the equipment was achieved by assigning an operator and an assistant to each individual tractor and giving them full responsibility for its upkeep and maintenance. The operator and his assistant received a basic wage equivalent to the charges for 48 hours per week of work. But each man could earn overtime for operating the tractors up to 22 hours of any 24 hour period. (Two hours of daily maintenance was obligatory.) If a tractor or piece of equipment was immobilized for repairs, the operator or his assistant was denied the possibility of making attractive overtime pay. As a result of this system, there were always large numbers of qualified candidates for operator positions, night work was introduced, areas under cultivation were expanded, production increased and tractors logged the unusually high average of 2000 hours of field work a year. At the time, this was a much higher utilization rate than that achieved in the United States and possibly as high as anywhere in the world. Prior to the introduction of the machinery pools, it was estimated that individual farmers got approximately 700 hours from their own machinery. This meant that as much as three times as many hectares could be worked with the SCIPA operators. It also provided machinery services at reasonable rates to farmers who could not afford to own their machines.

The pools proved so popular that in 1947, the Minister of Agriculture turned over $200,000 above its regular

contribution to the Servicio to capitalize and expand the machinery pools. It also turned over other machinery and equipment which the Ministry had acquired over the years. This provided for further expansion so that by 1950, the pools were working 25,000 hectares of land a year. In 1952, SCIPA interested IBRD in providing a loan of $1.3 million to the Ministry of Agriculture for the importation of agricultural machinery and equipment. This machinery was turned over to Project D for operation. With the addition of 102 tractors and other equipment financed by the loan, a further expansion of service resulted. Provisions were made to amortize the loan from the machinery pool operations so that it would be a self-financing loan.

As the machinery operation continued to grow, SCIPA requested another loan from IBRD which was made in April 1954, for $1.7 million. At that time, the project was administratively separated from other SCIPA activities and operated on a strictly commercial basis. On July 1, 1958, the machinery pool project was incorporated into a new project called "Land Development and Conservation" to be operated as a semi-autonomous activity and a commercial enterprise. The new project was to provide engineering aid in land survey, soil analysis and water use. The machinery pool facilities were to be available to governmental or private groups or individuals for agricultural development in such activities as irrigation, drainage, reclamation and colonization. It was estimated at that time the machinery

operation had placed 50,000 hectares of land in productive operation.

The machinery pool project had its most impressive successes on the coast. Although it was extended to the sierra, the landholding patterns and the terrain limited its achievements there. The sierra pools were considered primarily for demonstration purposes. Most required a subsidy to operate. The coastal pools subsidized the sierra operation. Also, there was a rather rapid transition in the type of work done by the coastal pools. When they began, the equipment was used in plowing and cultivation. As private farmers saw the benefits to be derived from mechanized operation, they began to buy light tractors suitable for normal plowing and cultivation and the pools shifted to land clearing and leveling. As private farmers acquired heavier equipment, the pools shifted again into very heavy equipment suitable for land leveling and irrigation.

There is no doubt that the machinery pool project provided a stimulus to the mechanization of Peruvian agriculture, especially on the coast. It also greatly accelerated the importation of farm machinery from the United States, not only through its own purchases but through the demonstration effect of the program. It expanded the areas of land under cultivation. It trained operators and mechanics in the use, maintenance and repair of ever heavier and more complicated equipment. It provided experience and training for a large number of Peruvians in the administration of an enterprise,

including procurement and warehousing of equipment and spare parts. It also inspired and encouraged many small operators to begin to do custom work for their neighbors, allowing the machinery pool to continually move to other areas not yet being serviced.

In 1958, the Reimbursible Facilities project was terminated. Based on a SCIPA study called "National Plan to Promote Meat Production," the livestock development program was reorganized in a new servicio project (Project "R"). The principal objectives of the new project were "to develop a program for increasing livestock production, in the jungle areas of Huallaga, Pucallpa and Jaen-Baqua and to implement a program to increase production in traditional producing areas." By the time the new project was initiated, SCIPA had, under the previous project, imported and sold at cost approximately 23,000 head of improved livestock. The cattle at San Jorge had increased to 1,786 head, even though the farm sold or slaughtered over 100 animals a year. It had become the established supplier of purebred Braham breeding stock of producers in several regions of the country. Thirty-five new investors were attracted to the vicinity of the farm to produce beef cattle.

By 1960, however, it was decided by SCIPA and the Ministry of Agriculture that the machinery program should be scaled down and incorporated into the Ministry since it had accomplished its primary purposes. The following rationale was given for the decision. It had:

(1) Proven the feasibility of commercially operating machinery pools in Peru.

(2) Mechanized farming had been successfully demonstrated to Peruvian farmers.

(3) In the large farming areas, farmers had purchased their own machinery for routine farming operations. There was less demand for machinery pool services. However, there was an increased demand for heavy machinery for land development.

(4) The Peruvian government would address this demand by incorporating the skilled personnel of the machinery project into a land development operation.

On December 31, 1960, the machinery operation was transferred to the Peruvian government. The two loans to IBRD were paid off in full, about half coming from proceeds of the machinery pool operations, the other half from Peruvian government.

Engineering Service

Similar to the Reimbursable Services project, the Engineering Services project evolved from a number of disparate Peruvian government requests for projects that had only one thing in common, they were construction projects and required engineering service. There were projects for the construction of warehouses for the storage of potatoes, beans, rice and other cereals in 1943, quarantine stations

in 1943 and 1944, construction of twelve fishing boats for the Ministry of Agriculture in 1944, repair of storage facilities and later requests for assistance in land use and irrigation. Many of these projects were financed by special contributions from the Ministry. In 1948, the Engineering project was established, incorporating the earlier projects but expanding it to include land improvement and irrigation. Its purpose was to provide design and supervisory services for construction on SCIPA and Ministry of Agriculture projects and to provide technical services of irrigation and drainage engineers and soil rehabilitation specialists to farmers and communities through the extension service. SCIPA irrigation projects were limited to those too small for the Ministry of Public Works or were otherwise outside the scope of the other Ministries. Land rehabilitation activities included dams, irrigation, canals, pumping, contour lines, intake for canals, gradient lines, roads, hydrological studies, underground drainage, water regulation, soil-washing prevention and water distribution systems. In the early years, engineering services were provided to farmers free of charge. It was found, however, that farmers were requesting engineering and design work for projects which were not carried out. Also, projects requested by one Minister of Agriculture were sometimes not accepted by his successor.

SCIPA resolved these problems in 1952, by limiting the construction work of its engineering division to its own facilities and by attaching land rehabilitation engineers

to the extension staff to train rural agents in simple engineering skills. The rural agents were to pass these skills on to the farmers. All other services provided by the engineering division would be on a reimbursable basis.

In 1949, SCIPA initiated a well drilling program to demonstrate techniques for the location and utilization of underground water and to stimulate the organization of private drilling companies. A large number of wells were drilled in various parts of the country and at least three private firms began similar operations as a result of the SCIPA project. Some large farms bought their own equipment and SCIPA conducted a demonstration program for small farmers to teach them how to do shallow drilling to draw water from strata close to the surface. By 1959, 380 wells drilled by SCIPA were producing water for irrigation and farm use.

In 1958, the engineering division was incorporated into a new Land Development and Conservation project, along with the machinery program. The purpose of the new project was to promote better utilization and development of land and water resources. Activities were to be undertaken in soil and water conservation, land reclamation, irrigation, colonization and ground water evaluation, development and use. Its objective was to create a permanent Peruvian government entity to carry out a long-term program. Its initial activities were under contract to the Peruvian government on a variety of projects such as the second phase of the Quiroz irrigation project which had received P.L. 480,

Title I financing, the Tumbes agricultural development program, the Lambayeque research station (operating under SCIPA), and the Pampas de Noco drainage project in southern Peru which was partially financed by P.L. 480, Title II.

Mantaro Valley Development

The Mantaro Valley is situated in the Andes in the Department of Junin. It extends from the town of Jauja to about ten miles south of Huancayo, the economic capital of the area. It is 45 miles long and about five miles wide. In late 1954, the Ministry of Agriculture and SCIPA decided to undertake a joint project to develop the agricultural potential of the valley and bring the approximately 600,000 Indians who lived in the vicinity into the money economy of the country. This was the first project which SCIPA had undertaken to bring all its resources to bear on a well-defined area of the country. It set up projects in improved farming techniques using fertilizer insecticides and higher yielding crops; improved irrigation methods and conservation of water resources; erosion control by contour plowing and terracing, improved livestock management and control, establishment of community centers and youth programs and experimental work in storage of farm products. It expanded the extension service in the region and introduced a machinery pool. Cooperation from SCISP and SECPANE was also sought to provide additional health and education services.

By 1957, SCIPA was recording impressive increases in crop yields. Production per hectare had increased for:

potatoes, from 7,844 kilograms to 10,000 kilograms; corn, from 1,292 to 2000; barley, from 1,284 to 1500; wheat, from 1,102 to 1,500. It was estimated that annual per-capita income had been increased from $70 to $240. This was at a time when the national per-capita figure was $140. Special emphasis was given to the Mantaro Valley until SCIPA was absorbed into the Ministry in 1961. The Ministry continued supporting the expanded extension program there.

Fisheries

From SCIPA's inception the Ministry of Agriculture was interested in receiving United States help in one aspect or other of fisheries. In 1943, SCIPA agreed to build a small fleet of fishing boats for the Ministry. Later it built a large fish terminal, at the Ministries request, in Callao. It was in 1949, however, that a formal arrangement was worked out with the United States Fish and Wildlife Service of the U.S. Department of Interior to provide a full-time fisheries specialist to the SCIPA staff to advise the Ministry. From 1949 to 1954, this technician helped organize the Directorate of Fisheries of the Ministry of Agriculture, participated in a survey of the fresh waters of Peru with recommendations for their development, introduced brook trout into small lakes and streams, advised on the building of a technical laboratory in Callao, participated in the planning of a 75 foot fishery research vessel and the wholesale fishery terminal in Callao and designed training courses for Ministry personnel.

Supervised Agricultural Credit

Supervised credit in Peru was started in the Mantaro Valley in 1953, as a joint activity of SCIPA extension service and the Agricultural Development Bank of Peru. This activity was extended to southern Peru as a result of the emergency drought relief program undertaken there in 1956 and 1957. The Agricultural Bank using proceeds from P.L. 480 made available 4 million Soles, (lending at approximately 9%). After the first year's program, permanent field offices were established at four locations with headquarters in Puno. During the 1957-1958 crop year 3 million Soles were lent to 6500 campesinos. (For additional information on the Puno program see Southern Peru Regional Development).
In 1958, the Ministry of Agriculture decided to establish a nationwide program of agricultural credit and asked SCIPA to develop it in close collaboration with the Agricultural Bank. The project agreement called for SCIPA to carry out the following activities:

(a) Conduct survey studies of the agricultural credit situation, facilities, and needs of the three geographic regions of the country;

(b) Develop plans in cooperation with the Agricultural Development Bank of Peru and carry out demonstrations of functional credit systems to determine an appropriate supervised agricultural credit system for Peru;

(c) Organize a national "Supervised Agricultural Credit Service", utilizing such services of the Agricultural Extension Service and Regional Services of the Ministry of Agriculture as available for providing technical guidance to borrowers;

(d) Develop agricultural cooperatives and marketing facilities;

(e) Train Peruvian personnel, both in administration and agricultural credit techniques;

(f) Establish field offices in all regions of Peru within limits of available funds and trained personnel; and

(g) Assist in drafting basic legislation necessary to establish the Supervised Agricultural Credit Service as a permanent agency of the Peruvian Government.

The program began May 1, 1958. Five offices in Puno started under the Agricultural Bank were the first incorporated into the national service and four additional offices were opened. Shortage of funds from the government of Peru delayed the opening of new offices in 1959, although plans had been made to open 17.

Forestry

The drought in southern Peru in 1955 and 1956

brought attention to the need for a national forestry program and an expanded effort on the part of the Peruvian government in forestry management and reforestation. In 1956 the Ministry of Agriculture signed an agreement transferring its forestry staff to a new unit in SCIPA. The purpose of the unit was to organize an expanded program in all aspects of forestry development and to form the nucleus of a new Peruvian government entity, a National Forest Service. It was anticipated that it would take five years before it could be transferred back to the government. In the first years of its operation, the SCIPA Forestry Resources Development Program (Project L) carried out forest reconnaissance surveys in five selected areas. As a result of this work, three national forest areas were established by the government. Nursery production of planting stock to distribute to farmers in southern Peru affected by the drought was expanded. Legislation was prepared to create a National Forest Service. It was anticipated that once the law was enacted the service would function for one year under SCIPA and then be turned over to the government at the end of 1960.

Phase Out

John R. Neale had been the Director and guiding spirit of SCIPA since its beginning days. In the early 1950s he left Peru for about a year to head the IIAA Food Supply Division in Washington. During that time SCIPA had an acting United States Director from the Food Supply field party

in Peru. Upon Mr. Neale's return he once again assumed the Directorship. However, he was also named the first IIAA coordinator of Technical Cooperation responsible for all IIAA activities in Peru. In 1954, after he was designated Director of USOM under the new FOA/ICA, he stepped aside as SCIPA Director. However, from this position he continued to play a guiding role in SCIPA's activities. He had moved from President of the company to chairman of the board. In early 1958, he retired and was accorded the highest honors by the Peruvian government. With his retirement, the curtain was coming down on an illustrious period in United States-Peruvian relations. The Servicio concept had lost its support in Washington. The Peruvian government sensed that there had been a fundamental change in the United States government's approach to technical assistance. Even prior to Neale's retirement, active discussions were begun with the Ministry of Agriculture to transfer individual SCIPA activities back to the Ministry. These conversations continued and intensified after his retirement. Even though agreement had been reached on the return of some projects on specific dates, it became evident that part of the effectiveness of the various SCIPA activities came from being a part of the organization and that effectiveness could be lost if the transfer of projects to the Ministry were piecemeal. Therefore it was decided that SCIPA as an organization would be transferred to the Ministry. Legislation was prepared and approved by the Peruvian congress. A new organization within

the Ministry was created called Servicio de Investigaciones y Promocion Agraria (SIPA) to take over all the SCIPA activities. It went into operation at the end of 1960. New project agreements were signed with the USOM in 1961, providing technical assistance to the various SIPA projects. The new extension project called for a dramatic increase in the number of field offices increasing them from 65 in 1961 to 102 by 1965. The USOM agreed to provide technical assistance and equipment for thirty additional offices, plus twelve vehicles, to be established by June 30, 1962. With this and similar agreements a new period in United States-Peruvian development cooperation had begun.

Financing

The United States financing of technical assistance for SCIPA included three categories: technician costs (including contract) participant training costs and contributions to the joint servicio fund. From 1943 to the end of February 1961 the United States had contributed $6,807,728 in direct support, i.e., technician and participant costs plus $4,475,957 to the joint fund. The United States contributions to the joint fund amounts to an average contribution of $236,000 per year over the 19 year period. The Peruvian government had contributed $9,170,431 to the joint fund plus over-contributions of $4,402,415 for a total of $14,572,846, an annual average of $767,000. In addition, the Servicio, itself, generated income of $4,474,557, making a total of joint

funds available including the United States contributions, over the life of the Servicio of $22,523,360. The United States contribution to this total was 20%. If the United States payment for technicians and participants are added the total United States contribution amounts to 38% of the total.

Staffing

SCIPA's organization and staffing was consistent with the classical Servicio pattern. The Director was a United States technician who was also the chief of the Food Supply Mission field party. In the early years some of the chiefs of SCIPA divisions were also United States technicians. As competent local staff was trained or acquired, the technical divisions all were headed by Peruvians. From then on, only the Director and the head of the administrative unit were Americans. United States technical staff were advisors in the divisions to which they were assigned. The original Food Supply field party consisted of three United States technicians and an administrative assistant. As SCIPA grew and its activities expanded and diversified, United States technicians assigned to SCIPA increased. In 1952, the number was twelve. In 1956 when SCIPA was at its maximum size with the incorporation of the rubber development program, the agricultural research activities, the Mantaro Valley development program, the forestry development program, agricultural credit, and soils work the number of United States

technicians authorized for SCIPA, including contract, had grown to 42. SCIPA itself had 1,650 at the time. In 1959, the number of United States technicians assigned to SCIPA was 20. At that time the Servicio had 1,629 local employees, 951 of which were laborers.

D. Education Servicio, SECPANE, IIAA

Founded in April 1944, the Education Servicio initiated projects in vocational education, and rural education and later in teacher training. The Servicio also assisted the Ministry of Education in the procurement of school equipment and materials and provided technical assistance in construction of schools and the installation of equipment.

Vocational Education

The Peruvian government had recognized the need for a greatly expanded program of vocational education before the Servicio was established. It decided that SECPANE could play a demonstration and leadership role in this area by having Peruvian and American vocational education teachers plan and execute a joint project which would include machine shops, carpentry, auto-mechanics, plumbing, domestic science and agriculture. Mechanical and woodworking shops were introduced into selected schools which already had a vocational component in their curriculum. Special courses were set up to train directors, teaching and administrative staff for the program. New teaching plans and programs were elaborated. The Peruvian government initiated an expanded program of

building and equiping vocational schools. SECPANE worked closely with the Peruvian Director of Technical Education in planning for these new schools, helped set up a new technical education division in the Central Normal School and worked closely with the normal school in preparing new teachers in the various vocational specialities which were being introduced. By 1954, it was decided to phase out the vocational education project and concentrate on teacher training.

For the most part, these vocational training programs did not break new ground, but followed models which the United States technicians were familiar with in the United States. SECPANE probably did help accellerate the Peruvian vocational education program along United States lines, but did little to help the government in addressing its problem of long-term skill training. It also had little influence in scaling down the Ministry of Education's proclivity for constructing and equiping overly elaborate vocational schools.

Rural Education

Peruvian educators concerned by the lack of educational opportunity for the large indigenous population living primarily in the rural areas, sought United States assistance through the Servicio to address the problem within the context of a long-range strategy and systematic plan. On the basis of preliminary discussions, SECPANE agreed to establish rural education projects in three distinct rural settings: Tingo Maria, in the high jungle; the Mantaro valley in the central Sierra; and the Departments of Cuzco and Puno in the

southern Sierra. The Tingo Maria project was related closely to the other United States cooperative programs there, the agricultural experiment station and the operations of the Health Servicio. It was started in six schools which had an attendance of approximately one thousand children. The Mantaro valley program was known as "The Industrial Plan for Rural Schools in the Mantaro Valley." Its objective was to encourage primary school education with an emphasis on agriculture and shop. It included 24 schools with an attendance of 7500 students.

Nuclear Schools

SECPANE's most ambitious and also most far reaching program was started in southern Peru. In that area, the rural education needs were overwhelming. The Quechua and Aymara Indian population had practically no opportunity for schooling. The Ministry of Education's desire to focus on the problem presented SECPANE a formidible challenge. Its immediate response and that of IEF staff in Washington was imaginative and full of promise. Bolivia had a similar problem and was also interested in United States assistance. The IEF organized a joint meeting with the Ministers of Education of Peru and Bolivia in Arequipa to work out a long-range program. A follow-up meeting took place a month later in Huarisata, Bolivia, to draw up detailed plans for a general strategy to improve primary education and Indian access to it in both countries.

In addressing the problem, the conferees had to go

beyond the simple and mechanistic transfer of technology which had guided United States technical assistance in other fields. They decided to examine the cultural and economic conditions in which the Indians lived and to devise a program aimed at changing them for the better. The program objectives were ambitious. They aimed at improving the living standard of the Indians using the school system as an agent of change. The rural school would be "extended to the rural home so that improvement in all aspects of life could be affected." The curriculum of the rural school would be fundamentally of an agricultural character. The objectives of the program as stated by the conference at Huarisata were:

1. To raise the standard of living of the Indian, placing at his disposal benefits of civilization.
2. To teach him practical farming methods which would allow him to improve such opportunities as are offered in his environment.
3. To further hygienic practices, so that the collective health could be preserved and to develop a greater physical and spiritual strength in the race.
4. To stimulate and improve the small industries in the rural homes.
5. To further the knowledge of the Spanish language.

Thus began a program that was to continue for eighteen—

years.

Out of the two meetings came agreements between IEF and the Ministries of Education in Bolivia and Peru to establish a program of "Nuclear Schools." The name derived from the concept of a "nucleus" of small rudimentary rural schools grouped around a larger better-equipped and staffed central school. The central school would have teachers with specialized training who would visit the surrounding schools on a regular schedule to give classes and provide supervision to the teachers in the outlaying schools. The teaching program would include social-service work as well as academic subjects so that the needs of the community would be addressed in the classroom. The Indian communities would donate land and labor to building the schools. The director of the central school would have the responsibility for organizing the Indian communities to make their contributions and to stimulate them to become actively involved in the school program. Educational opportunities were to be extended to the entire family.

For the next five years, the two Ministries of Education in Bolivia and Peru and the Education Servicios of the two countries worked together closely developing the program, holding joint conferences, offering training courses and consulting on similar problems. In Peru, training courses for supervisors in agriculture, Indian language reading and health were held, training and teaching materials were prepared, experimental programs were undertaken,

training courses for Directors of Nuclear schools were given, communities were organized, detail plans for "nucleos" were developed and approved, technical personnel were selected and assigned to nuclear schools, construction of buildings and school furniture was begun, booklets prepared in Indian languages were printed, distributed and put into use.

By 1949, in Peru, sixteen central schools with their outlying smaller schools had been constructed. There were twelve in Puno and four in Cuzco. Counting the smaller schools, there were 320 schools, 450 teachers and 32,000 students in the two Departments. Housing for the teachers was in various stages of completion and additions and improvements were beginning on some of the central schools. Kitchens and dining rooms were being built and equipment acquired to establish a school lunch program and studies were being made to extend the nuclear school concept to other areas of the country.

By 1952, the number of central schools had increased to 34. By 1957, it had reached 44, the sectional schools surrounding them to 880, with approximately 40,000 students. Also, in 1957 plans were made to extend the nuclear school concept to the central Sierra at Oxapampa and initial surveys were made in Tingo Maria and Pucallpa for the same purpose.

In 1952, SECPANE began talking to the Ministry of Education of the need for a rural normal school to train teachers for the nuclear school program. It was decided to put the school in Urubamba near Cuzco, with SECPANE

contributing to its construction from the joint fund. The school started in 1954 was not completed until 1959. By that time, most of the enthusiasm for the nuclear school program in the Ministry of Education had dissipated. Nevertheless, SECPANE recruited a United States technician to be codirector of the Urubamba School and two other United States elementary education advisors to live in Cuzco and work with the nuclear school system and carried on a full program of workshops and educational material preparation. Also, a nuclear school system was established at Oxapampa and plans were advancing for Pucallpa and Tingo Maria.

Teacher Training

SECPANE's involvement in rural and vocational education made it aware, almost from the beginning, of the critical need for more and better trained teachers. So in 1949, an agreement was signed with the Minister of Education to reorganize the system of teacher education. SECPANE collaborated with the Ministry in the planning and construction of a new teacher training facility near Lima at Chosica. While the government of Peru paid 90% of the cost of construction, SECPANE supervised the construction. Slow funding, delays in construction, and problems with contractors, first at Chosica and later at Urubamba, absorbed a disproportionate part of the Servicio Director's time and diverted the attention of successive Servicio Directors from the more substantive parts of the teacher education and the rural education projects. The Chosica school started in 1950, finally opened

in 1955, but construction costs had so strained the Ministry's budget that it had great difficulty in paying teachers' salaries and operating costs.

In spite of these problems, SECPANE continued to give high priority to teacher training and entered into expanded agreements with the Ministry and recruited United States technicians in elementary education, home economics, arts and crafts and agricultural education to backstop the projects. In 1956, it agreed to support the salary costs of teaching staff at the Chosica school which came to almost $200,000 a year by 1959. In 1957, a joint Ministry-SECPANE study of Peru's educational needs was completed. SECPANE also entered into a cooperative project with the University of San Marcos Faculty of Education to prepare secondary teachers in the social sciences. Teacher training continued to receive priority attention from SECPANE through 1962.

Financing

The record for SECPANE financing is confused because sole contributions from the government of Peru appear to greatly exceed the dollar equivalancy given to them on the ICA reporting form. Nevertheless, working with sole figures exclusively and an average exchange rate of 20 soles to the dollar (the value of the sole declined from approximately 6.50 to a dollar in 1944 to 27 to a dollar in 1961) the following dollar equivalents were arrived at: total Peruvian contributions to the joint fund, including over-contributions, from 1944 to the end of February 1961, was $3,995,935. United States contributions during the same period were $1,349,000 for a grand total of $5,344,935. The

United States proportion of contributions to the joint fund was 25%. From 1958 to 1961 the United States annual contribution was $115,000, the Peruvian contribution was the equivalent of $215,000.

E. Southern Peru Regional Development

During the years 1955 and 1956, there was a severe drought in southern Peru which greatly reduced the availability of food for the population and feed for livestock. By the end of 1955 there was the beginning of mass migration from the region to both the coast and the high jungle. In February 1956, the Peruvian government officially requested assistance from the United States government to address what was now recognized as an emergency. It was estimated that the first year of the drought had reduced agricultural production by half and that losses could increase to 75% in the second year. Livestock loss was up 25% and climbing.

In April, the Peruvian government formed a "Special Commission" for the drought. It was chaired by the Secretary General of the Ministry of Agriculture and had representatives from the Ministries of Forests and Public Works, Finance and Commerce, and the Technical Manager of the Agricultural Bank. The Commission was given the responsibility to coordinate all government activities related to emergency action for the drought. In May, it requested emergency assistance from the United States in the form of agriculture commodities (Title II P.L. 480). In June, an

agreement was signed with the International Cooperation Administration of the United States (ICA) to carry out a comprehensive economic development program which was to be designated Regional Program for the Development of Southern Peru. In the agreement, the United States agreed to provide a team of technicians to initiate the studies and carry out the program. Four hundred and sixty seven thousand dollars was obligated for that purpose.

Emergency Program P.L. 480 Title II

P.L. 480 corn, flour and powdered milk began arriving at Peruvian ports by the middle of June 1956. Additional shipments arrived in July and September. During the three years the program lasted, 106,000 metric tons of foodstuffs with a value of $14 million (including administration and ocean freight) were delivered. The Peruvian government took responsibility for administering the program and distributing the food. It was decided that instead of distributing the P.L. 480 food free of charge, public works projects would be established in the drought area and that wages would be paid to workers who could then buy the P.L. 480 food. The proceeds would be reinvested in more public works projects.

The Southern Peru railroad which would be the primary means of transport of the P.L. 480 commodities from the ports to the inland railroads did not have either the locomotives or the cars to carry such large quantities of grain, flour and powdered milk, so a loan was arranged through the Export-Import Bank so that the railroad could buy six

locomotives. P.L. 480 title I funds were also lent to the Government of Peru to buy 25 boxcars. There were similar problems in the ports (Mollendo and Matarani), which lacked both warehouses and equipment for handling the large volume of commodities which began to arrive. These problems plagued the emergency program throughout its three years' life.

Regional Plan

The agreement establishing the Southern Peru Regional Development Plan established three distinct bodies: (a) An Inter-Ministerial Committee made up of the Ministers of Finance and Commerce; Fomento and Public Works; Agriculture; Health and Public Assistance; Education and Labor and Indigenous Affairs as well as the Director of the United States Operations Mission (USOM) (b) A Studies Mission made up of both United States technicians, and Peruvians contracted by USOM, (c) A new Servicio to be known as the Servicio Cooperatino Inter American del Plan del Sur (SCIPS) (See following section on SCIPS). The Departments of Southern Peru included in the plan were Ayacucho, Apurimac, Ariquipa, Cuzco, Moquegua, Tacna, Puno and Madre de Dios.

During 1956 and Minister of Finance chaired the Inter Ministerial Committee. In 1957 and 1958 it was chaired by Agriculture. The Committee was responsible for setting the policy direction for the Southern Peru Development Program, to supervise the utilization, in public works programs, the funds generated by P.L. 480 Title II. A general

manager of the committee was appointed to direct day-to-day developments. The Studies Mission didn't begin its work until April 1957 and finished in December 1959. The new Servicio began to function in October 1957. Its primary function was to organize and carry out the regional study program. Under the direction of a United States economist it undertook an extensive and ambitious program which included transport, roads, railroads, ports, airports, etc.; mineral resources; fisheries; irrigation and drainage; power, industrial development, commerce and service industries, as well as a socio-economic study on the human resource potential and requirements of the region. The result of this activity over a two-and-a-half year period was the publication of thirty separate volumes setting forth in detail the characteristics of the Southern Peru Region. (See Annex D for titles of the Studies.)

The Peruvian government initiated the long-term development program before the studies were completed by expanding the programs of the various Ministries working in the region and by establishing a special account for public works in Southern Peru. It also utilized the proceeds from the sale of commodities under P.L. 480 Title II and a new economic development fund FNDE established in 1955. The program in 1956 and 1957 was aimed primarily at the emergency and most of the funds went to pay wages of people hired on public works programs. In 1958 an investment plan was drawn up giving preference to rehabilitation projects according to

agreed upon economic priorities. Proceeds from P.L. 480 (utilized on such projects) during 1957 and 1958 amounted to $45 million soles. The Peruvian government increased the funds in its Special Account from $55 million soles in 1955, to $177 million soles in 1957 and $181 million soles in 1958 (exchange rate: 23 soles to one dollar) and in addition increased budgets of various Ministries so that the total expenditures of the government in Southern Peru reached $600 million soles (12% of the national budget) in 1957. In 1958 this was increased to 627 million soles. Road construction and maintenance received the largest investments, next came agriculture, health and education projects followed by irrigation and miscellaneous projects.

Roads

Road work was the most popular form of emergency activity to provide income to campesinos who had lost their crops in the drought. When the spring rains came in late 1956, and the campesinos returned to the land, the projects continued through 1957 and 1958 adding heavy machinery to finish the construction work already underway. During these two years, approximately 950 kilometers of roads were either constructed or repaired in six of the eight southern Peru departments.

Agriculture

To encourage an energetic recovery from two years of crop failures, a supervised agricultural credit program was established in Puno, the Department hardest hit by the

drought, by SCIPA under an agreement with the Southern Peru Regional Development Committee. Extension activities were intensified and improved seeds for potatoes, oats and quinua were distributed. Fertilizers, insecticides and machinery pool services were part of the credit program under an arrangement with SCIPA's Reimbursable Facilities project. With this help and the cooperation of mother nature there was a bumper crop in Puno in 1957. Yields on the small farmer plots exceeded all earlier experience. The campesinos, who had formed long lines to receive crop loans, now formed long lines to repay them. The Agricultural Bank had put up 4 million soles for the program, lending at 9%. With the success of the first year's program, permanent agricultural credit offices were installed in Ilave, Santo Tomas, Azangaro, Huacane, and Juliaca, with headquarters in Puno. The program was expanded and a home demonstration agent was added to the credit team. During the 1957-1958 crop year three million soles in credit were extended to 6,500 campesinos. After that the program became part of a national program of supervised credit.

As the agriculture program matured in the following years emphasis was placed on family home education and nutrition. Some of the new agronomists who were trained for the supervised credit program in Puno were subsequently assigned to an agricultural credit program in Arequipa which suffered a devastating earthquake in 1958. The credit was directed to an emergency campensino housing program to repair

or replace dwellings destroyed by the earthquake.

In 1958, a livestock project was initiated concentrating primarily on dairy cattle and sheep in the Department of Puno, Ayacucho, Apurimac and Huancavelica to improve breeding stock. This dovetailed with an improved pasture and silage project which had begun in 1957. SCIPA carried out both of these projects under agreements with the SPRDC. Also in 1958 a reforestation project was begun with joint financing from the Ministry of Agriculture, SCIPA, SPRDC and the National Economic Development Fund. Two zone offices were established, one in Cuzco, the other in Arequipa and a campaign was begun to interest private farmers to invest in tree growing on lands considered marginal for crops or grazing. Forty thousand trees for planting were sold the first year. Twenty thousand were given free to stimulate participation in the campaign.

Health

The emergency program had to face up to the centuries-old-condition of the complete lack of professional medical or health personnel among Indian population. It was decided that a preliminary goal of one physician for each 5000 inhabitants would be set. As a first step a plan was drawn up for the establishment of health centers in the more populous communities and health posts in the outlying areas. They would provide both preventive and curative services. Each health center was to be staffed with one physician and one nurse. It would have 10 to 12 beds and basic medical

equipment. The health posts would have a nurse and would preferably be the annex of a school. There, first aid and preventative medicine would be carried out. Cases requiring hospitalization would be referred to the health centers. By the beginning of 1959, 17 health centers had been constructed and were in operation with 16 outlying health posts. Two small twenty-bed hospitals were later added to the plan. The Health Servicio (SCISP) carried out the construction program under an agreement with the SPRDC. It was financed by the SPRDC, the National Health and Social Service Fund, and a grant from USOM. Centers were constructed in Puno, Cuzco, Apurimac, Ayacucho and Tacna. The Ministry of Health incorporated the new facilities into its public health program for the area.

Education

The Ministry of Education working with the SPRDC undertook a program of repair, construction and equipping of schools in the area. Vocational schools were constructed and supplied with tools, agricultural implements and cooking supplies for home economics training in Apurimac, Arequipa, Ayacucho, Cuzco, Madre de Dios, Moquegua, Puno and Tacna. A total 1.5 million soles was invested in the program from 1956 to 1959. In addition, a special grant of 220,000 soles was made to the farm school at Quillabamba, 150 kilometers from Cuzco, run by priests of the Dominican order, to build a canal to irrigate 60 hectares of the school farm land and to buy tools and equipment for the farm and

the school. SECPANE through its nuclear school program assumed responsibility for the distribution of P.L. 480 powdered milk which became a permanent feature of the school lunch program.

Irrigation

Irrigation projects were another way to employ large numbers of people during the emergency. During 1956 projects were started in Puno, Cuzco and Ayacucho. Because Puno was the most populace and the worst hit by the drought most of the funds for irrigation were spent there. Of a total of 6 million soles spent in 1957 and 1958, 5 million went to a major project in Puno which benefited 4000 campesinos. In Cuzco, 15 small irrigation projects benefiting 3,700 families were undertaken for a total investment in 1957-58 of 700,000 soles. Ayacucho received 240,000 soles during the same period for two projects benefiting 1,400 families.

Colonization

The migration from the Puno and Cuzco caused by the drought was merely an accelleration of a process which had begun a number of years earlier. Lima and other coastal cities were already experiencing difficulties because of the large influx of Indians from the Sierra. The entire Sierra region was a marginally productive agricultural area subject to intermittant droughts and frosts, many parts of it denuded of vegetation because of poor cultural practices. Centuries of unreformed landholding patterns had

resulted in uneconomic, miniscule plots of land being farmed where modern agricultural practices were difficult if not impossible to introduce.

The vast jungle lowlands and the mountain slopes of the high jungle offered an attractive alternative to Peruvian planners to relieve population pressures in the Sierra and to accommodate the large numbers of migrants from Puno and Cuzco dislodged by the drought. While the SPRD focused its emergency activities on the provinces of Cuzco and Puno, its longer-term plans centered on Madre de Dios Department and its high jungle area. Preliminary estimates indicated that from 30,000 to 50,000 families would have to be resettled within the course of a generation. The Inambari river with a possible one or two million hectares of arable land was one of the areas of preliminary interest. In 1956, SCIPA's forestry division made initial surveys of the wood resources in the area and SCIF made the first plans for road construction, timber salvage operations and the beginning of land clearing for settlement.

In 1957 Peru received a loan from ICA and $2 million under the Smathers Amendment to the Mutual Security Act. The project agreement provided for assisting the Peruvian government in developing a settlement program in selected areas of the undeveloped eastern jungle. The loan was to be used to build a penetration and access road from Macusani through the eastern cordillera, down the San Gaban Valley to Otorongo connecting there with the Cuzco-Maldonado road

under construction. It was believed that this would establish the shortest connection between areas suitable for colonization in the eastern jungle and the densely populated highlands of the Lake Titicaca basin. The highway department of the Ministry of Public Works was given responsibility for constructing the road.

U.S. Congressional Criticism

The administrative weaknesses of the Peruvian government, P.L. 480 food distribution program were brought to the attention of the United States Congress in 1959. A resulting report issued by the Committee on Government operations of the House of Representatives in July 1961, contained a scathing criticism of the USOM and its director, John R. Neale, blaming the problems encountered by the program on USOM negligence and inefficiency. It also faulted ICA/Washington for lack of close supervision and monitoring. It ignored the fact that the government of Peru had assumed full responsibility for the program on the arrival of the foodstuffs at Peruvian ports. At about the same time the Peruvian government issued its own report, describing the accomplishments of the program and praising the United States for its close collaboration.

The congressional committee report also strongly criticized the lack of planning and preliminary surveys connected with the $2 million Smathers loan and the problems connected with the building of the Urubamba Normal School, quoting mainly from ICA audit reports.

SCIPS

The Servicio Cooperatino Interamericano del Plan del Sur was established by an agreement between the USOM and the Ministry of Finance dated October 10, 1957. It functioned under the Ministry of Agriculture doing resource planning for the Southern Peru Regional Development programs.

The purpose of the studies was to fully utilize the human and natural resources of the Departments of Ariquipa, Apurimac, Ayacucho, Cuzco, Madre de Dios, Moquegua, Puno and Tacna. The studies were intended to stimulate public works, resource development, industry and employment, encourage private investment; improve agriculture; expand health services and educational opportunity and enhance the coordinated economic expansion of the region. United States technical personnel supervised and guided teams of young Peruvian professionals in carrying out specialized studies.

The studies were divided into two major categories: human resources and physical resources. The human resource studies concentrated on the indigenous population of Cuzco, Puno and Apurimac Departments. They examined (1) value systems and their implications for social and economic development; (2) institutional factors related to development programs and (3) methods of changing institutional outlook to facilitate development.

The physical resource studies covered the following fields:

Demography	Minerals
Educational facilities	Energy and fuels
Public & private health facilities	Industry
	Agriculture
Housing & city planning	Forestry
Highways & Transportation	Fisheries
Communications	Manpower
Nutrition	Water resources
Recreational facilities	Finance
Maps	Input-Output
Management of Public land	
Measurement of Economic Dev.	

The studies were finished and published by the end of 1959. With its task completed, SCIPS was phased out in 1960.

Financing

The United States contributed directly to the Servicio joint fund $90,000. The Peruvian government contributed a like amount from the proceeds of the sale of P.L. 480 Title II commodities. In effect, the total Servicio fund was from United States sources. In addition the United States contributed $223,000 in technician, training and commodity costs.

F. Other Programs

Civil Aviation, Department of Commerce

Through the Interdepartmental Committee, the Peruvian government requested technical assistance from the United States Civil Aeronautics Administration of the Department of Commerce in 1945. From 1946 through 1951, the United States CAA helped Peru organize its own civil aviation administration. The mission helped prepare a civil aviation code, established safety rules, airport operation patterns,

an air traffic control system, communications and meteorological services at airports. Assistance was provided in constructing radio and meteorology stations and procuring and installing equipment. Technical assistance was also provided for building the first airports at Cuzco, Talara, Tacna and Pucallpa. Technical and administrative personnel was also trained. The mission was then phased out.

In 1952, the Peruvian Government requested a new mission to provide technical assistance for the construction and operation of the new Lima airport and a proposed new airport for Cusco. The project was subsequently expanded to help the government develop a basic airway system for the country. Assistance was given to develop air traffic control procedures at eighteen Peruvian airports, provide training in control tower operations, develop navigational and air traffic service for international routes, assist in organizing training in radio and electronic aids and advise on modernizing communications equipment. The costs of the project to the United States from 1957 through February 1961 was $219,000.

U.S. Geological Survey

In 1945, the United States Geological Survey was requested by the Banco Minero del Peru through the United States Interdepartmental Committee on Scientific Cooperation to provide them technical assistance in locating mineral deposits. U.S.G.S. assigned two geologists full time to the Bank. The first study was made on mercury deposits of

Huancavelica. This was followed in 1947 by a more extensive study and evaluation of lead and zinc deposits in cooperation with the Instituto Geologico del Peru. In addition, USGS geologists trained Peruvian geologists from the Engineering School and San Marcos University and provided post-graduate training in the United States for young geologists. Thirteen geologists from the Instituto worked with USGS technicians over a period of twelve years. They received practical experience through joint field investigation and preparing geological reports. Nine geologists received advanced training in the United States. The project was terminated in June 1959. The total cost of the project to the United States was $269,000.

Rural Development Servicio SCIF, IIAA

In April 1955, the United States Operation Mission to Peru signed an agreement with the Ministry of Fomento creating a new Servicio. Its objectives were to create an effective organization for planning and engineering of irrigation and road building projects and carrying out selected projects as demonstrations. It was also to evaluate opportunities for economic development of the various regions of Peru. This included industrial development. It was viewed as a counterpart to another entity recently created in the Ministry which was to be the funding source for economically viable projects at the provincial level, the National Fund for Economic Development (FNDE). FNDE had separate sources

of tax revenue to be used exclusively for local development projects. SCIF was to eventually become a permanent part of the Ministry providing engineering planning, project feasibility analysis and economic evaluation service.

The comprehensive nature of the Servicio program did not fit neatly into ICA/Washington's backstopping capabilities, including as it did at least three different ICA technical divisions, agriculture, transportation and industry. The Servicio encountered similar difficulties within the Peruvian Ministry of Public Works, which had parallel functions in some areas such as irrigation, transportation and industry. The difficulties with ICA were further complicated by ICA's inability to recruit United States technicians for key positions in a timely fashion. Important positions were thus left vacant for extended periods. Nevertheless, the Servicio (staffed by Peruvians) embarked on an ambitious program of studies and demonstration projects. Since the organization of the Servicio coincided with the beginning of the drought in southern Peru, its attention and that of the Ministry of Fomento focused first on that region. P.L. 480 funds were provided for the projects. (See section on Southern Peru Regional Development.) From 1955 to 1959, the Servicio did 36 separate economic and engineering studies. It undertook a number of projects in road building and irrigation designed to improve the feasibility of certain other development actions. It also installed 27 meteorological stations. It contracted out most of the road and irrigation work to

SCIPA's machinery operation but retained supervisory responsibility. It also started an industrial research center and a productivity center and provided technical assistance to the newly created Peruvian Institute of Business Administration.

In late 1961, responsibility for irrigation development in Peru was passed from the Ministry of Public Works to the Ministry of Agriculture. With this change, USOM believed that the SCIF irrigation activity could be carried out by SCIPA and that there would not be sufficient justification for a separate Servicio without the irrigation function. The industry division was incorporated into the productivity center and the resource evaluation group was organized as a separate project. The Servicio was phased out at the end of 1961.

Financing

During SCIF's seven-year life the United States contributed $1,300,000 to the Servicio joint fund, the Peruvian government $1,950,000. In addition, the United States provided $647,000 to cover technicians and participant training costs.

Peruvian National Employment Service - SCEP, IIAA

This project grew out of an ILO project to help Peru establish a national employment service. From 1952 to 1954 the United States provided one United States Department of Labor employment specialist to follow up on the ILO initiative. In 1954, the Servicio Cooperatino del Empleo del Peru (SCEP)

was established. This incorporated the nascent employment service office in Lima into a jointly financed endeavor. The United States technician became a codirector of the Servicio. From 1954 to 1961 the Servicio worked developing the basis for a nationwide free public employment system compiling a dictionary of job titles, occupational codes, a labor market information system examining wage trends, doing labor market analysis, testing selection and guidance procedures, orienting the school system in vocational training requirements, establishing a counciling program and setting up the first field offices outside of Lima. The United States contribution to the joint fund from 1954 to 1961 was $236,000 plus $317,000 for technician and participant costs. The Peruvian government contributed $247,000 to the joint fund. This activity continued into 1962.

Mining and Metalurgy, U.S. Bureau of Mines.

On the request of the Banco Minero, USOM contracted the services of World Mining consultants in January 1955, to provide technical assistance on all aspects of coal engineering, including marketing problems. Work was to concentrate on the coal production in the Santa Valley near Chimbote. Technical assistance was provided to commercial coal mines in the Santa Valley as well as to the Banco Minero. Two United States technicians were provided full time under the contract. In addition the United States Bureau of Mines provided one technician full time to work with the Banco Minero to work on metallurgical problems

connected with the operation of the Bank's five custom milling plants. The contract with World Mining was terminated in 1957. From 1958 to 1961, the Bureau of Mines technician worked with both the Banco Minero and the National University of Engineering.

The technician's work with the Bank's custom mills concentrated on improving metalurgical and mining practices through advice and technical training. Four of the five plants were remodeled with his assistance and one new one was constructed. Over the life of the project, 25 engineers were trained (eight in the United States) and supervisors and workmen's skills were upgraded. A new central laboratory for metalurgy, petrography and chemical analysis was also completed. The work at the University was aimed at establishing a metalurgy department. A new building for laboratory and service facilities was constructed and the program initiated on the return of three professor trainers from the United States. Total costs to the United States of this project including technicians, participant training and commodities was $414,000.

Public Administration, IIAA

The United States in its efforts to be responsive to Peruvian requests for assistance provided sporadic assistance in various areas of public administration. In 1951, United States Bureau of the Mint provided technical assistance for four months to the Peruvian Casa Nacional de Moneda to prepare a survey and report on reorganization and

modernization. From 1956 to 1960 a records management technician helped the Ministries of Finance, Public Works and Labor reorganize their filing systems. In 1956 and 1957 a United States census adviser assisted in planning a preliminary test census for 1958 in preparation for the hemispherewide 1960 census. During the same years a shipping adviser gave technical assistance to the Corporacion Peruana de Vapores to develop a merchant marine policy, fleet renovation and training of personnel. From 1958 to 1960 a tax adviser worked with the Ministry of Finance to improve the system of direct taxation. Assistance was provided in redrafting the income tax law, licensing taxes for business, rental income tax, income tax, withholding and improvement in internal tax administration. Short-term consultants were also brought in to assist the Ministry improve its budgetary procedures. In 1961, a custom's adviser provided short-term assistance on custom's code revision. The costs of this project to the United States from 1951 to February 1961 was $286,000.

Textile Engineering, North Carolina State

Because of the importance of fiber production to the Peruvian economy, primarily cotton and wool, the USOM was receptive to a request from the Engineering College in 1954 to provide assistance to establish a textile engineering department. At the time, no Peruvian institution was granting degrees in textile engineering. USOM signed a contract

with Carolina State College of Agriculture and Engineering to establish and equip a textile engineering institute to develop curriculum and a program of instruction for the institute and to train personnel to operate the institute. The original contract signed in December 1954, was extended for two years in 1957 and for another two years in 1959 to operate through December 1961. By 1959, the institute was established and functioning, providing instruction to Peruvian engineers but it had not reached the point where it could grant degrees in textile engineering. The contract extension was to continue to upgrade the level of instruction and bring the institute to the point where degrees could be granted. The total cost of the project to the United States through FY/1961 was $393,000.

Public Safety, IIAA

In 1959, a Public Safety Traffic project was signed to provide technical assistance in all aspects of traffic control and accident prevention. The project also included a survey of requirements in all aspects of police training. Provisions were made for two full-time United States public safety advisers and two short-term consultants. Total United States expenditures for technicians and participants from FY 1959 to FY 1961 was $99,000.

Private Enterprise Housing, IIAA

Peru was the first country in the hemisphere to model its financing of home building on the United States

savings and loan system. This very significant and far-reaching development came about because in 1956, Pedro Beltran, a prominent publisher and later Minister of Finance and Prime Minister, became concerned about the critical shortage of lower and middle-income housing in Peru. He got a sympathetic response from the ICA/W housing office and immediate interest among United States Savings and Loan executives. Two ICA financed housing advisers visited Peru and later three specialists in housing legislation to assist in drafting appropriate legislation. On the basis of this assistance a report was published in January 1958, entitled "Housing in Peru." By February 1959, a group of Peruvian leaders, taking advantage of the new legislation, formed the first savings and loan association in Peru. On this basis, the Peru savings and loan industry was established. ICA and the United States Savings and Loan community recognizing the potential of this development promoted similar activities in other Latin American countries. Within five years, the savings and loan idea had spread throughout the hemisphere. This activity was initiated and carried out without a full-time housing adviser on the USOM staff. The total cost to the United States government was exceedingly small. In 1960 and 1961 the mission budgeted $5,000 one year and $6,000 the next.

Inter American Geodetic Survey, U.S. Army

The Inter American Geodetic Survey was begun as a

project of the United States Army during World War II. After the war it continued in a number of Latin American countries helping the armed forces map their countries. It was financed by the Department of Defense. It carried on a training program for cartographers sending selected members of the armed forces to its headquarters in Panama for advanced training. In 1952, it persuaded TCA/IIAA that its training was development related. It therefore became eligible for participant training funds programmed by the local USOM's. From 1952 through FY/1961, USOM/Peru provided limited funds for IAGS training of military cartographers in Panama.

P.L. 480 Title I

Peru was one of the first countries in the world to take advantage of the new Public Law 480 which had a provision for making long-term loans of funds generated from the sale of surplus United States agricultural commodities. In FY/1955, Peru purchased $7,450,000 worth of United States commodities, $5,366,000 of which was loaned to the government for development purposes. In FY/1956, total purchases were $2,652,000 and loans were $1,872,000. In FY/1957, purchases were $3,638,000 and loans $2,538,000. In FY/1958 purchases were $7,459,000 and loans $3,294,000.

Of the total loan funds available, $13,070,000, the lion's share went to one project: the second phase of the Quiroz Irrigation project. The first phase of this project was carried out from 1948 to 1953. It diverted water from the Quiroz river to irrigate 30,000 hectares of

land in the north coast Department of Piura. The second phase was to consist of the construction of the San Lorenzo dam on the Quiroz in order to irrigate an additional 40,000 hectares. The estimated cost of the project was $28,000,000. In 1955, IBRD made a loan of $18,000,000 to cover the foreign currency costs. P.L. 480 Title I was to cover local currency costs. By FY/1959, $9,901,000 of Title I funds had been obligated for the project. In addition $1,066,000 of Title I funds were loaned to SCIPA for studies and demonstrations on the sound development and utilization of lands benefiting from the Quiroz project.

In addition to the Quiroz project, a limited number of smaller loans were made as follows:

Sante Rosa Irrigation Project	$596,000
El Frayle Dam Arequipa	$123,000
Frigorifico de Productas S.A. (FRIPSA)	$ 92,000
Fishery Production Cooperative "Ayllee"	$ 64,000

The Santa Rosa project was to provide funds through the Agricultural Bank as a loan to a cooperative to construct a dam and a farm to market road to bring 5,500 additional acres of desert land into production. The funds for El Frayle Dam were to finish a dam which would make additional potable and irrigation water available to Arequipa. The Title I funds constituted only 6% of the total cost of the dam. The loan to FRIPSA, a private company, through the Agricultural Bank was to finance the purchase of equipment for a slaughterhouse in Puno area. The loan to

the fishing cooperative through the Agricultural Bank was to purchase and equip two 60 foot fishing vessels to increase the availability of fresh fish in the Chimbote area.

Plans for FY/1960 and FY/1961, contemplated purchases of $6,500,000 in each of the two years and loans of $2,925,000.

Export Import Bank

The great bulk of the activities of the Eximbank during the period was with the private sector. However, it made a number of loans to the Peruvian government at various times. It authorized sizable loans to the Central Bank of Peru in 1940 which were not used for the importation of United States agricultural and industrial products. After that it was not until 1945, that a small loan of $450,000 was made to the Corporacion Peruana del Santa for electrical equipment. From 1950 to 1954, sizable loans were made to the private sector to stimulate the Peruvian-mining industry. In 1950, a $20.8 million loan was made to the Cerro de Pasco Corporation for a zinc refinery. In 1953, a $2.5 million loan was made to Marcona Mining Company to develop iron ore deposits and in 1954, a $100 million loan was made to Southern Peru Copper Corporation to develop its Toquepala copper project.

In 1955, it made another loan to the central bank of $1.3 million for hospital equipment. In 1956, it made a loan of 1.5 million for diesel locomotives for the Southern

Peru Railway. This was in connection with United States emergency assistance to the area.

After that, it wasn't until 1959, that another sizable loan of $40 million was made to the central bank to finance essential imports. Loans contracted in 1960, for equipment for highway construction and agricultural equipment were not used. Only $355,000 was used of another loan of $2.5 million to the Banco Industrial. While the Bank was active in these years making a multitude of small loans to private businesses, it made only one additional large loan for the extractive industries in 1962 to Marcona Mining of $6 million to expand its iron ore operation. (See Annex E for listing of loans.)

IV. COMMENTS AND CONCLUSIONS

The foregoing history is a very general outline of the United States assistance program in Peru from 1942 to 1962. Because of time constraints, it does not include United States private sector efforts which contributed to Peru's process of modernization during those same years. My primary purpose was to establish a chronological framework and fit into it all of the United States government activities which took place during the period. Time limitations did not permit a more extensive and detailed description of the many activities which are mentioned, nor an evaluation of their degree of success or failure in achieving their announced goals. In some cases, records were non-existent

or extremely a spotty. In others, the documents consulted were too vague to venture a judgment on the project's outcome. Such evaluation is for some future researcher who will have more time to search out, sift and weigh evidence. What this history is intended to do (and I think it accomplishes that purpose) is to provide the chronological framework which will facilitate further research and questioning about past programs.

This does not mean to say that I do not have opinions on what I have written nor that I have not reached certain conclusions. My first conclusions have to do with the weaknesses of this paper. It is the result of two months research and writing. Within such a limited timeframe, difficult choices had to be made in terms of time allocation. The one asset that I had which helped me make those choices and complete the work within the allotted time was my previous association with the Peru program. I served in Peru from 1950 to 1953 and was Peru desk officer in Washington from 1955 to 1958. Nevertheless, this work has a number of holes which should be filled by follow-up research.

The first and most obvious hole is the section on Training. It is dealt with only cursorily, yet there is a real story to be told under this heading. The materials I was able to gather unfortunately had practically nothing on the IIAA fellowship program or the subsequent TCA, FOA, ICA participant program. Yet, I know records exist and had I had the time, I would have found them. In spite of the lack

of records, almost every reference I encountered which mentioned training did so in a favorable way. There are hundreds of prominent Peruvians who were beneficiaries of training grants and who returned to Peru to make meaningful contributions to the country's progress. This may very well be the most significant single element in the United States technical cooperation effort in Peru during those years. I regret that I did not have access to the records which could demonstrate it.

The second area of weakness is the section on the education Servicio. I found very few documents which explained the program at any length. An extensive search for documents or a prolonged effort to contact people who had been associated with the program would have run me over my time limit. I was able to put together the section as it is from personal recollection, from various sources of general information and a paper on the nuclear school program written in 1949. The resulting general outline of activities for SECPANE is accurate as far as it goes, but it is not complete. The conclusion that one draws from this very sketchy treatment is that this was probably the least successful of the three original Servicios. Even though a final judgment must rest on more information than this paper provides, I believe that that conclusion is not unwarranted. My personal recollection of SECPANE's activities is a record of mediocrity. The nuclear school program which started with such energy, imagination and promise seemed to lose all of that after the

first five years. Although the program went on as long as the Servicio did, it became just another routine, rural elementary education project ministered to by a succession of United States technicians who only vaguely understood the origins of the project and who were never able to inspire the Ministry of Education to the degree of support and enthusiasm that the original project evoked. Nevertheless, the project was not a failure. Those first five years made nuclear schools a permanent part of the Peruvian scene. It was probably the best thing SECPANE had done in its eighteen years of existence. The vocational education project was wisely dropped in 1954 and the teacher education project, as far as the Chosica and Urubamba normal schools were concerned, was a record of large investments and limited dividends. L. Clark Keeting, the last Servicio Director, says in his end of tour report that the Ministry "ignores the Chosica Normal School because it is a hotbed of leftist agitation" and that, even though Urubamba cannot be similarly classified, it has suffered the same neglect. Thus, the Servicio, in its last years, was working alone with no support from the Ministry to get some payoff for the huge investment in time, money and effort it had put into these two schools and into teacher education. Perhaps subsequent developments in the sixties or seventies may have justified SECPANE's tenacity. The record of the fifties available for this paper does not.

Finally, in terms of limitations of the paper

resulting from time constraints, I decided against trying to reconstruct the total financial record, but rather to include whatever financial information that was readily available and leave it at that. It is possible to reconstruct a fairly accurate and complete financial picture. It would take additional research and some time to reconcile conflicting reports and close possible gaps. Before undertaking this work, it should be determined whether or not a more complete financial record would add anything significant to our understanding of the period. The same can also be said for listing of personnel connected with the programs. I have provided a list of the names of Servicio Directors that I came across in the various documents I consulted or from the limited interviews I conducted. Undoubtedly further research could uncover a much more extensive listing of field party members and Servicio staffs. Whether or not it adds anything to the record is another question.

V. ANSWERS TO SPECIFIC MISSION QUESTIONS

Geographic Concentration

From 1942 until the mid-1950's the Servicios operated within the geographic and functional framework established at the time of their founding. Geographically, SCISP confined its activities to the Amazon jungle, the north coast and Lima; SECPANE to Puno, Cuzco, Mantaro valley, Tingo Maria and Lima; SCIPA through its extension service was nationwide even though the number of offices it had throughout the country was limited. These geographic parameters were the

result of the judgments made in 1942, 1943 and 1944, as to how best to achieve the quite different objectives of each one of the programs. There does not appear to have been any thought given to having all three Servicios concentrate their efforts in the same areas. Each agreement had a technical, rather than a geographic rationale. It was coincidental that all three Servicios had projects at Tingo Maria which complimented the work OFAR was doing there. This is the only location in Peru where there was this kind of concentration until the end of 1954, when the Mantaro valley project was initiated. There, for the first time, SCIPA concentrated its own resources and sought collaboration from SCISP and SECPANE.

After 1948, SCISP widened its geographic confines by taking on new programs such as health education, nutrition industrial hygiene and health statistics which had a nationwide perspective even though most of the work was carried out in Lima. Different divisions of SCIPA concentrated in different geographic areas. The machinery operation concentrated on the coast because it was successful there. But it carried out limited demonstration activities in the sierra. The livestock demonstration program concentrated on the sierra for sheep and the jungle for cattle because those were the zones where it was thought substantial increases in production could be achieved. SECPANE seems to have had its hands full with the rural education, vocational

education and teacher training programs and made no effort to move into other geographic areas.

Neither the Peruvian government nor the United States government sought to change the geographic focus of any of the programs during the first ten to twelve years. It was not until the drought in southern Peru in 1956 attracted attention to that area that an effort was made to concentrate resources of both Peru and the United States on a specific geographic area. Out of that grew two separate initiatives. The southern Peru program stimulated interest in organized colonization of the eastern slopes of the Andes and an interest in regional development planning for other areas of the country.

Point IV Agricultural Strategy

Related to the question of geographic concentration is the question of which areas of the country received the benefits of the Servicio programs. The answer is self-evident in the case of SCISP and SECPANE where they concentrated geographically, but it is less clear for SCIPA which had so many different activities in so many different parts of the country. There is no doubt that coastal agriculture benefited greatly from the machinery pool operation. Also, cotton farming, which was primarily a coastal activity benefited from the insect control program run by the extension service. But the potato farmers in the sierra also benefited from the same program. The sierra also benefited from the

sheep improvement program, the Mantaro valley program and the agricultural credit program. The jungle benefited from the livestock improvement program and demonstration farms at Pucallpa and Tarapoto.

The historical perspective section of the 1980 USAID project paper for Agricultural research, education and extension, Title XII, says that "The pre-1960 period was marked by the existence of institutions that were primarily dedicated to serving the large commercial haciendas of Peru." The institutions it mentions are Peruvian institutions, the Sociedad Nacional Agraria and the National Agrarian University. Most of the commercial haciendas are on the coast. The proposition is that Peruvian institutions were biased in favor of large haciendas on the coast and by association United States programs were similarly biased.

The United States agricultural strategy throughout the 40's and 50's was to help Peru increase its agricultural production. Emphasis was put on modernization and technology transfer. United States supported institutions such as SCIPA and PCEA worked with Peruvian agriculture at all levels. The insect and disease control program, for example, was undoubtedly a great help to large cotton growing haciendas on the coast, but the program was not "dedicated primarily to serving the large commercial haciendas." The record contains many examples of small farmers benefiting, as well. The objective was to get the technology into as many hands as possible. The same is true for Tingo Maria which made a

point of conducting extensive research to help new settlers in the area. SCIPA and PCEA worked within the existing social and economic reality of the time. If Peru, at that time, was dominated by large haciendas, they undoubtedly profited by SCIPA's and PCEA's activities. But it is incorrect to conclude that their work was "dedicated primarily to serving large commercial haciendas."

The La Molina experiment station and the La Molina agricultural school, both on the coast, had a coastal orientation and undoubtedly took advantage of offers from large haciendas for experimental plots. But United States programs had no impact on either of these institutions until 1957. At that time research was organized along commodity lines. Potatoes, small grains, rice, corn, beans, pastures and forage are as much small farmer crops as they are commercial hacienda crops and the program was national in scope. It is too simplistic to conclude that that program existed "primarily to serve the large commercial haciendas of Peru."

Important Contributions to Peruvian Development

All three of the original Servicios made important contributions to Peru's development. Each provided support for and impetus to the nation's desire for modernization. Each provided assistance in addressing critical national problems. Some of their activities provided the institutional base or framework for future government programs. They all accelerated change in Peru.

The education Servicio probably had the smallest impact of the three, but its nuclear school program was the first step in bringing modern educational opportunity to the highland Indians. For eighteen years, it provided a service which probably wouldn't have been provided otherwise. It also left a foundation in public education in the areas where it operated, which the government subsequently built on.

SCISP made two outstanding contributions to Peruvian development. It demonstrated the organization, operation and efficacy of public health services in a country unfamiliar with them. The public health units organized and operated by SCISP became the models for the rest of the country and finally formed the core of the Peruvian public health service organized along regional rather than centralized lines. The SCISP operated industrial hygiene program which eventually became the Institute for Occupational Health was an outstanding success almost from the time it opened its doors. It was the model of a serious, professional, technical unit providing objective scientifically-based data and services to three distinct clients--industry, labor and government. It was free of political interference and manipulation from industry or labor. It gained a hemisphere-wide reputation for its professionalism and became a training center for other Latin American countries.

Other SCISP activities also made contributions to Peruvian development, but they are not as easily identified and measured. The health education program, the nutrition

program, the statistical program, the nursing program and the sanitary engineering program all made a contribution. The National Institute of Health was undoubtedly much improved after five years of SCISP operations. Additional research would permit a more extensive and detailed discussion of these contributions.

There is no doubt that SCIPA had the most profound impact on Peruvian development of any of the Servicios. In terms of introduction of new technology, the machinery and the insect control operations were eminently effective. Though they themselves were not institution-building type projects, they were the visible result of an effective and successful institutional arrangement, which was the SCIPA organization with the extension service at its core. These activities brought measurable increases in the number of acres under cultivation and crop yields. Unfortunately, the record is not well enough documented to make an overall calculation on the total increase in food production, but the data that appears in the sections above illustrate that significant increases were made. These two operations were successful in another way--they worked themselves out of a job. They were so successful that they were absorbed into the private sector. It could be said that they should have been in the private sector from the beginning, so that's not much of an accomplishment. Yet, anyone familiar with developing countries knows that there is no natural division between government and private sectors; that the private sector

doesn't necessarily respond the same way it does in the United States and that once government begins operating what we might consider private sector activity, it continues operating it. SCIPA actively pushed projects into the private sector. All of the activities under the Reimbursable Facilities project were meant to be absorbed by the private sector.

Besides machinery and insect control, the well-drilling and livestock improvement projects were also successful in this regard. Private well-drilling firms completely replaced SCIPA. The poultry importation project was taken over by the private sector within two years. While SCIPA continued to import cattle, sheep and pigs, these were destined for small operators who could not afford to import by themselves. The large operators imitated SCIPA.

The larger question with regard to SCIPA's impact on Peruvian development is, "What is its legacy?" Did it contribute anything enduring to the Peruvian agricultural scene? The last fifteen years have brought such wrenching changes to Peru, especially its agriculture, that it is not easy to answer that question. SCIPA was the extension service of the Peruvian government. It later took charge of all agricultural research. It was, therefore, playing a central and vital role in Peru's agricultural development. It was incorporated into the Ministry of Agriculture as a single entity to continue those functions, which had, themselves, become more closely related to agricultural education. So SCIPA did pass on a viable institutional framework which the

Ministry kept and built on. That this framework was dismantled in the 70's is less a commentary on its effectiveness than on the underlying social and economic problems which still trouble Peruvian agriculture. Perhaps there are vestiges of the old structure which can and should be built on anew. Perhaps the concepts which guided SCIPA and its successor, SIPA, still have validity. The answer as to SCIPA's legacy will depend on whether present and future Peruvian governments choose to take them as models or not.

There was institution building going on outside the Servicio structure, as well. The civil aeronautics mission helped create and guide the Peruvian Civil Aeronautics Administration. The employment Servicio created the Peruvian employment service. USGS helped keep the Peruvian Instituto Geologico functioning. North Carolina State founded the textile engineering department, and the University of North Carolina the Sanitary Engineering departments of the Engineering University. Finally, the Peruvian savings and loan system was created based on assistance of short-term consultants from the United States savings and loan industry.

Success Stories

There are hundreds of success stories related to the activities described in this history. The telling of them will have to be left to a subsequent paper. This one is already too long. However, I will list some of the more obvious and dramatic of such stories:

The Chimbote story	The growth of the town and the critical role played by SCISP in eliminating malaria and providing health servies.
The Tingo Maria story (brought up to date)	The U.S. government was intimately associated with the growth of this area for at least 30 years.
The Pampas de Noco Irrigation Project story	SCIPA encouraged and supported this pick and shovel project of a small farmers' association until it was completed. A great human interest story.
The Machinery Operations story	This paper provides the foundation for such a story. How Peruvian agriculture was mechanized.
The Insect and Disease Control story	How insecticides and fungicides were introduced into Peru and how crop yields increased as a result. Also, how the insecticide and fungicide industry began in Peru. There are both general interest and human interest stories in this one.
The Pucallpa story	Introducing livestock to the deep jungle area.
The Porcon story	Introducing modern practices to sheep raising in the sierra.
The Public Health story	How public health practices were introduced into Peru through SCISP operated public health units.
The Nuclear School story	Introducing an educational system to the sierra Indians aimed at integrating them into society.
The Savings and Loan story	A truly spectacular achievement which cost the U.S. government next to nothing.

Failures

One hesitates to call any project a failure. Certainly those connected with it would be able to point out some of

its redeeming features. Since this record is far from complete, any judgments based on it are subject to revision on the basis of additional information. Also, since the term failure is so absolute, I shall address myself here to projects that were troubled or did not seem to have achieved any particular success.

All of the Servicios had projects that failed. Since the Servicios were viewed as experimental, to some extent, failures were to be expected. SCIPA probably experimented more than the other two Servicios did, so it would not be surprising if it had a larger failure rate. Yet, the record available for this study does not indicate that. What the record does show however is the problems the engineering division had in some of the engineering studies it did which were not used by those who had requested them. This was remedied by cutting down on the types of studies it performed and charging for them. Also, it had problems with construction projects requested by one Minister of Agriculture and not accepted by his successor. This resulted in the engineering division limiting its activities to SCIPA related projects.

As discussed in a previous section of this paper, SECPANE also had problems with construction projects. The construction of the Chosica and the Urubamba normal schools got SECPANE into an activity it was ill-prepared to administer and detracted from its primary function.

SCISP seem to have escaped major problems growing out of construction projects. In the beginning years,

construction accounted for a large part of its budget and to the very end of its existence it had a construction capacity. If it did not have construction problems, it did have problems related to maintenance. It finally employed a full-time United States maintenance engineer to help improve the Ministry's capacity to run a large-scale maintenance program. An example of the maintenance problem was the medical launches on the Amazon. They were forever breaking down and out of service. The mobile health program suffered as a result.

SCIF was a troubled Servicio from the beginning. ICA/W couldn't provide it with the most essential element for technical cooperation, qualified United States personnel. On the Peruvian side, SCIF duplicated, in some ways, the work of SCIPA's engineering division, later its land development and conservation project. The Ministry of Public Works perceived that it was in competition with it. It was part of the Ministry of Fomento, which was looking for a role to play. All of these factors doomed it to an early death. It probably would have ceased to exist even if the other Servicios had continued. As it was, its demise coincided with the end of all Servicio operations.

The employment Servicio, having created a national employment service, could not command a budget sufficient to make it operational on a national basis. Up until 1962, it had offices only in the Lima area. Its impact on mobilizing labor for employment was marginal.

With regard to the non-servicio projects, there do

not seem to have been any outright failures, but with the exception of savings and loan, there were no spectacular successes, either. One gets the feeling on examining these projects that no satisfactory system of priorities was ever established in the allocation of funds. Why, for example, were the projects in textile engineering, sanitary engineering, chemistry instrumentation and coal engineering chosen? Were these projects the most critical to Peru's development? Did the public administration projects make any difference? In fairness to the USOM, almost all of these activities were the result of ICA/W pressure to expand beyond the original triad of agriculture, education and health.

Finally, in spite of the congressional criticism, the southern Peru emergency program cannot be viewed as a failure. There is no doubt that it was disorganized and that its record-keeping was deficient. But it accomplished its purpose. The main issue of the congressional report had to do with the sale of grain and the use of the proceeds for other than feeding programs. This was a violation of the intent of Title II.

Annex A

Bibliography

The foregoing history is based upon personal recollection, interviews with a few people who were associated with the Peru program at some time between 1942 and 1962, and the following written material. Though I consulted a great many sources, I have drawn most of the information in this history from the following documents. All financial data on ICA and predecessor agency funding comes from one source for consistency, the February 1961 ICA Country Program Book.

General

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SCIF

Completion of Assignment Report, C.H. Zondag TOAID A 758, 1-18-63.

Metalurgy

End of Tour Report, Richard N. Spencer TOAID A-82, 12/1/61.

Interviews

Juan Bazo, Peruvian, with SCIPA from 1943 until 1961.

Margaret Bazo, American, with original IIAA food supply field party, worked with IIAA and successor agencies in Peru from 1943 to 1962.

Clifford Pease, American, with IIAA health field party, 1949-1951.

Charles Williams, American, Chief of health field party and director SCISP, 1959-1962.

Annex B

Servicio Directors

SCIPA

1943-1944	Joseph Smart
1944-1954	John R. Neale
1954-1959	Freeman Smith
1959-1962	George V. Bowers

SCISP

1942-1944	Major Westfall
1944-1946	Burke Howard
1946-1951	Fred Wampler
1951-1953	F. Harley Paul
1953-1959	Fred Vintinner
1959-1962	Charles Williams

SECPANE

1945-1949	Lyle W. Pember
1949-1952	Raymond Gibson
1952-1955	Richard Smith
1955-1959	George Greco
1959-1961	L. Clark Keeting

PCEA

1952-1954	Homer Henney

SCIF

1956-1958	Charles Whipple
1959-1961	C.H. Zondag

SCIPS

1956-1959	William Schenk

Annex C

TIME LINES

	United States	Peru
1939	First U.S. law authorizes gov't employees to provide assistance to Latin American countries.	
	Inter-Departmental Committee on Scientific and cultural Cooperation established.	
1940	Office of Coordinator of Inter American affairs established.	Joint U.S.-Peru surveys for rubber. Letter of agreement for rubber research.
1942	Institute of Inter American Affairs (IIAA) established as government-owned corporation. Rio Conference-Latin American countries ask for technical assistance in health, agriculture and education.	USDA and gov't Peru sign agreement on tropical research at Tingo Maria. SCISP founded.
1943		SCIPA founded.
1944	Inter American Education Foundation (IEF) established.	SECPANE founded.
1946		U.S. Dept. Labor sends social welfare advisor to Peru.
1947	IEF incorporated into IIAA. IIAA charter extended three years.	U.S. Civil Aeronautics Administration establishes mission.
1948	Marshall Plan (MSA) started in Europe.	
1949	IIAA charter extended to 1955. Truman inaugural mentions Point IV.	
1950	Act for International Development establishes Technical Cooperation Administration (TCA).	
1951		CAA mission terminated.
1952	IIAA becomes responsible for all technical assistance in Latin America under TCA.	Neale named Director of Technical Cooperation. PCEA founded.
1953	Foreign Operations Administration established absorbing TCA and MSA.	

	United States	Peru
1954		PCEA incorporated into SCIPA. SCIPA signs research contract with North Carolina State. Employment Servicio (SCEP) founded. North Carolina State-Peru School of Engineering contract in Textile engineering signed.
		University of North Carolina-Peru School of Engineering Sanitary Engineering contract signed. SECPANE drops its vocational education project. SCISP returns Loreto health unit to Ministry and acquires La Libertad health unit. Neale resigns as SCIPA Director.
1955	International Cooperation Administration (ICA) replaces FOA.	Rural development Servicio, SCIF founded. Chemistry Instrumentation contract sign with University of New Hampshire, San Marcos. P.L. 480 Title I initiated. Coal Engineering contract signed with World Mining Consultants.
1956		Southern Peru Regional Development program begins. EXIM LOAN for six locomotives P.L. 480 Title II begins. Records management started.
1957		CAA reestablished. Tax Consultant added to USOM staff. Smathers loan $2 million for road construction.
1958		Neale retires. Vance Rogers replaces him.
1959		Public Safety project started. USGS phases out. Sanitary Engineering contract terminated. SCISP returns remaining health units to Ministry of Health.
1960		SCIPA incorporated into Ministry of Agriculture as SIPA. New Hampshire project terminated.
1961	Alliance for Progress begins. Agency for International Development (AID) replaces ICA.	SCISP incorporated into Ministry of Health.

Annex D

List of Titles of Southern Peru Development Studies

ESTUDIOS

LA "Misión de Estudios" del Plan Regional para el Desarrollo del Sur del Perú está realizando los estudios económicos de los recursos humanos y naturales de la Región del Sur del Perú. Con los resultados que se obtengan de estos estudios se formularán los planes necesarios para:

1.—Desarrollar técnica y económicamente la Región a fin de asegurarla contra futuras catástrofes naturales.

2.—Propiciar el desarrollo de obras públicas necesarias.

3.—Alentar y asesorar al capital privado para el desarrollo económico de la Región.

4.—Estimular la industria y la ocupación.

5.—Introducir y desarrollar la técnica agrícola.

6.—Ampliar los servicios de salubridad.

7.—Expandir los servicios educacionales.

8.—Contribuir plena y coordinadamente al mayor desarrollo económico posible de la Región.

ESTUDIOS SOBRE LA CAPACIDAD HUMANA

Los objetivos principales son, llevar a cabo un estudio de los recursos, capacitación y limitación de las comunidades indígenas de Cuzco, Puno, Apurímac y demás Departamentos del Sur del Perú realizando una rápida investigación de los incentivos y obstáculos existentes para lograr el desarrollo social y económico, y en segundo término para determinar y aplicar los resultados que se deriven de estos estudios.

ESTUDIO DE LOS RECURSOS NATURALES

Comprende la determinación de los recursos económicos de la Región a fin de sentar las bases para el desarrollo de:

a) transporte: carreteras, aeropuertos, etc.
b) potencial de energía para el desarrollo industrial.
c) industrias.
d) minería.
e) pesquería.
f) potencialidad agrícola: irrigaciones, etc.

Este estudio se está haciendo para encontrar debida lication a las más promisoras perspectivas existentes desarrollo económico de la Región.

Los estudios realizados hasta la fecha han sido:

Estudios estadísticos de la Región del Sur; análisis, por Departamentos y provincias, de producción y consumo; estudios de posibilidades de irrigación hidroeléctricas y desarrollo industrial de la Región; planeamiento urbano y de construcción de viviendas y fábricas; informes estadísticos y estudios sobre las necesidades sanitarias de la Región; informes sobre la situación demográfica; informes sobre las facilidades para el entrenamiento del personal técnico; situación industrial y comercial de Arequipa; estudio sobre producción agrícola y mercadeo; estudios sobre las inversiones del Gobierno en la Región del Sur; informe sobre situación forestal; informe sobre recursos de pesquería y su probable desarrollo.

Para facilitar el trabajo y tener zonas representativas de la Región se seleccionaron 7 zonas, que fueron las siguientes:

1.—El valle de Moquegua, como un ejemplo de los valles del Oeste de los Andes.

2.—Una zona ganadera en el Altiplano, teniendo como centro el pueblo de Nuñoa a 4,000-4,800 mts. de altura, en la provincia de Melgar.

3.—La Pampa de Ilave, en el Altiplano como un exponente de la producción agrícola de la Región.

4.—La población de Maras, en Cuzco, a 3,300 mts. de altura, entre la Pampa de Anta y el Valle de Vilcanota.

5.—El área de Quillabamba a 900-1,600 mts., como representativo de la zona de los Andes Orientales (ceja de montaña).

6.—La zona de Sicuani, a 3,350-400 mts., al noroeste de Puno, que cuenta con ganadería, comercio e irrigación. Tiene también posibilidades de electrificación.

7.—Puerto Maldonado y zonas vecinas, como la región representativa de la Selva.

El resultado de los estudios se va a publicar en 30 volúmenes, agrupando los informes por temas afines:

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„ XXIV

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„ XXV

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¿A Quién Consultar sobre Problemas de la Industria y el Comercio en el Perú?

„ XXVI

Los Recursos del Sur del Perú.

„ XXVII

Los Recursos del Sur del Perú: Recomendaciones para su Desarrollo.

„ XXVIII

Manual de Datos Estadísticos del Sur del Perú.

„ XXIX

Fuentes de Datos Estadísticos: Un Manual para Investigadores.

„ XXX

Memoria de Actividades del Plan Regional para el Desarrollo del Sur del Perú (1957-58).

Annex E

Export-Import Bank Loans 1940-1963

SUMMARY OF
EXPORT-IMPORT BANK LOANS TO PERU
As Of 1956

	Purpose of Loan	Date	Amount	Balance not yet Disbursed	Amount Disbursed
Corp. Peruana del Santa (Republic of Peru)	Electrical Equipment (Westinghouse Elec.)	6-12-45	$ 450,000	$	$ 444,158.84
Cerro de Pasco	Zinc Refinery	8-3-50	20,800,000	4,300,000.00	16,500,000.00
Southern Peru Copper Corp.	Toquepala Copper Project	11-4-54	100,000,000	95,000,000.00	5,000,000.00
Marcona Mining Company	Development of Iron Ore Deposits	7-15-53	2,500,000		1,000,000.00
Banco Central de Reserva del Peru (Republic of Peru)	Hospital Equipment	3-11-55	1,330,000	81,200.00	1,248,800.00
Carrocerias Metalicas, S. A.	Bus Body Parts	2-28-56	32,000		31,971.42
Peruvian Corp., Ltd.	Diesel Locomotives	6-21-56	1,550,000		1,550,000.00
Rayon Peruana, S. A.	Fertilizer Producing Machinery	6-28-56	66,000	750.00	65,250.00
" " "	Sulphuric Acid Plant	12-3-56	17,400	17,400.00	
Servicio del Agua Potable de Lima	Water Meters	8-30-56	141,200		
Cia. Industrial Filotex, S. A.	Yarn Dyeing Machinery	8-31-56	4,600		3,052.80

	Purpose of Loan	Date	Amount	Balance not yet Disbursed	Amount Disbursed
A.y F. Wiese, S. A.	Asphalt plant and related equip. units	9-6-56	$ 3,120	$ 3,120.00	$
Universal Textil, S.A.	Textile Machinery	9-27-56	11,000	11,000.00	
Sociedad Quimica Industrial Lima, Ltda	Oxygen prod. mach. (Air Products, Inc.)	10-4-56	7,800	7,800.00	
Consorcio de Equipos de Construccion, SA (Banco Gibson, SA)	Concrete batching plant (Meltzal Steel Form & Iron Co.)	11-16-56	33,200	33,200.00	
Empresa Inca. S. A. (Banco Internacional del Peru)	Bus chassis with diesel engines (White Motor	12-3-56	16,500.	16,500.00	
Empresa Inca, S.A. (Banco Internacional del Peru)	Bus bodies (Superior Coach)	12-3-56	7,500	7,500.00	
Juan Magot, S. A.	Agricultural mach. (Minn.-Moline Co.)	4-5-56	86,068	43,126.53	
Commercial Industrial Peruana (Banco Continental)	Tournapulls (LeTourneau-West.)	6-28-56	16,000	558.91	15,441.09
Sociedad Agricola "Pucala" Ltda., S.A.	Power plant ext. (Worthington Co.)	9-29-55	225,000	420.00	
Consorcio de Equipos de Construccion, S.A.	Concrete mixers on trucks (Worthington Co.)	10-4-56	51,700	40.00	51,660.00
Corporacion Peruana del Santa	(Harnschfeger Corp.)	7-14-55	24,000		
Compania Peruana de Cemento Portland	Power shovels (Harnschfeger	11-12-55	63,000	63,000.00	
Enrique Ferreyros & Cia. SA (Carlos Ferreyros)	Tractors & generat. (Caterpillar Tractor Co.)	3-8-56	500,854	451,075.76	49,778.91
TOTAL			$127,936,942	$100,036,691.20	$25,960,113.06

Annex D

List of Titles of Southern Peru Development Studies

ESTUDIOS

LA "Misión de Estudios" del Plan Regional para el Desarrollo del Sur del Perú está realizando los estudios económicos de los recursos humanos y naturales de la Región del Sur del Perú. Con los resultados que se obtengan de estos estudios se formularán los planes necesarios para:

1.—Desarrollar técnica y económicamente la Región a fin de asegurarla contra futuras catástrofes naturales.

2.—Propiciar el desarrollo de obras públicas necesarias.

3.—Alentar y asesorar al capital privado para el desarrollo económico de la Región.

4.—Estimular la industria y la ocupación.

5.—Introducir y desarrollar la técnica agrícola.

6.—Ampliar los servicios de salubridad.

7.—Expandir los servicios educacionales.

8.—Contribuir plena y coordinadamente al mayor desarrollo económico posible de la Región.

ESTUDIOS SOBRE LA CAPACIDAD HUMANA

Los objetivos principales son, llevar a cabo un estudio de los recursos, capacitación y limitación de las comunidades indígenas de Cuzco, Puno, Apurímac y demás Departamentos del Sur del Perú realizando una rápida investigación de los incentivos y obstáculos existentes para lograr el desarrollo social y económico, y en segundo término para determinar y aplicar los resultados que se deriven de estos estudios.

ESTUDIO DE LOS RECURSOS NATURALES

Comprende la determinación de los recursos económicos de la Región a fin de sentar las bases para el desarrollo de:

a) transporte: carreteras, aeropuertos, etc.
b) potencial de energía para el desarrollo industrial.
c) industrias.
d) minería.
e) pesquería.
f) potencialidad agrícola: irrigaciones, etc.

Este estudio se está haciendo para encontrar debida licación a las más promisoras perspectivas existentes desarrollo económico de la Región.

Los estudios realizados hasta la fecha han sido:

Estudios estadísticos de la Región del Sur; análisis, por Departamentos y provincias, de producción y consumo; estudios de posibilidades de irrigación hidroeléctricas y desarrollo industrial de la Región; planeamiento urbano y de construcción de viviendas y fábricas; informes estadísticos y estudios sobre las necesidades sanitarias de la Región; informes sobre la situación demográfica; informes sobre las facilidades para el entrenamiento del personal técnico; situación industrial y comercial de Arequipa; estudio sobre producción agrícola y mercadeo; estudios sobre las inversiones del Gobierno en la Región del Sur; informe sobre situación forestal; informe sobre recursos de pesquería y su probable desarrollo.

Para facilitar el trabajo y tener zonas representativas de la Región se seleccionaron 7 zonas, que fueron las siguientes:

1.—El valle de Moquegua, como un ejemplo de los valles del Oeste de los Andes.

2.—Una zona ganadera en el Altiplano, teniendo como centro el pueblo de Nuñoa a 4,000-4,800 mts. de altura, en la provincia de Melgar.

3.—La Pampa de Ilave, en el Altiplano como un exponente de la producción agrícola de la Región.

4.—La población de Maras, en Cuzco, a 3,300 mts. de altura, entre la Pampa de Anta y el Valle de Vilcanota.

5.—El área de Quillabamba a 900-1,600 mts., como representativo de la zona de los Andes Orientales (ceja de montaña).

6.—La zona de Sicuani, a 3,350-400 mts., al noroeste de Puno, que cuenta con ganadería, comercio e irrigación. Tiene también posibilidades de electrificación.

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Memoria de Actividades del Plan Regional para el Desarrollo del Sur del Perú (1957-58).

COUNTRY AND OBLIGOR A/	U. S. PRODUCTS AND SERVICES FINANCED	AUTHORIZATIONS	LAPSES, ETC.	DISBURSEMENTS BY BIRD/IBANK	DISBURSEMENTS BY OTHERS AT OWN RISK	REPAYMENTS	INTEREST AND FEES COLLECTED	LOAN NO.	AUTHORIZED DATE	REPAYMENTS--REMARKS	REPAYMENT TERMS	
PANAMA (CONTINUED)												
0019 CON DE OBRAS EDILICIAS MARITI-	3 DIPPER DREDGE-ELLICOTT MACH	1,530,000.00	42,075.00	1,487,925.00		1,487,925.00	264,674.01	2048	08-30-62	03-29-68	S	
0022 REPUBLIC OF PANAMA	REFUSE COLLECTION EQUIPMENT	481,000.00	481,000.00					2465	09-07-67	01-27-69	S	
7001 HEURTEMATTE & ARIAS S A	TRACT & EQUIP-MASSEY-HARRIS	30,000.00	30,000.00					609-2	04-26-56	LOAN NOT USED	S	
7002 EMPRESAS PANAMENAS S A	4 TOURNAPULLS-LETOURNEAU-WEST	23,000.00	3,530.84	19,469.16		19,469.16	1,044.38	580-9	09-26-57	11-16-59	S	
7003 BLOKMIGON S A	CONCRETE MACHINERY-BESSER CO	40,000.00	6,850.00	33,150.00		33,150.00	2,002.35	886-3	03-16-61	01-07-63	M	
	COUNTRY TOTAL	13,221,000.00	3,031,664.63	10,189,335.37		10,189,335.37	1,554,897.70					
555 PARAGUAY												
0001 BANCO DE LA REPUBLICA	AGRIC & IND PROD & MATERIAL	500,000.00	300,000.00		200,000.00	200,000.00	7,196.87	228	06-01-39	05-23-42	S	
0002 REPUBLIC OF PARAGUAY	HIGHWAY CONSTRUCTION	3,400,000.00	400,000.00	3,000,000.00		3,000,000.00	866,819.91	228-A	06-01-39	06-10-53	S	
0003 REPUBLIC OF PARAGUAY	MANDIOCA PROD	400,000.00	400,000.00					292	03-03-41	LOAN NOT USED	S	
0004 REPUBLIC OF PARAGUAY	PUBLIC WORKS PROJECTS	500,000.00	500,000.00					304	12-10-41	LOAN NOT USED	S	
0005 REPUBLIC OF PARAGUAY	HIGHWAY CONSTRUCTION	3,000,000.00		3,000,000.00		3,000,000.00	1,071,895.96	337	05-18-42	11-05-58	S	
0007 REPUBLIC OF PARAGUAY	RECONSTRUCTION OF AIRPORT	1,120,000.00	633.74	1,119,366.26		1,119,366.26	241,817.02	691	06-09-55	05-05-65	S	
0008 MANUFACTURA DE PILAR S-A	6 EXPAN OF COTTON PLANT	1,000,000.00		1,000,000.00		1,000,000.00	202,879.61	1084	07-09-59	06-15-65	S	
0009 MANUFACTURA DE PILAR	PNEUMASTOR EQUIP-PNEUMAFIL CORP	3,500.00	142.19	3,357.81		3,357.81	337.07	1652	06-28-61	12-01-64	S	
	COUNTRY TOTAL	9,923,500.00	1,600,775.93	8,122,724.07	200,000.00	8,322,724.07	2,392,946.24					
557 PERU												
0001 CENTRAL BANK OF PERU	U S AGRIC & IND PRODUCTS	2,000,000.00	2,000,000.00					244	06-07-40	LOAN NOT USED	Q	
0002 BANCO CENTRAL RESERVA DEL PERU	U S AGRIC & IND PRODUCTS	10,000,000.00	10,000,000.00					288	12-09-40	LOAN NOT USED	S	
0003 BANCO CENTRAL RESERVA DEL PERU	U S AGRIC & IND PRODUCTS	25,000,000.00	25,000,000.00					329	04-22-42	LOAN NOT USED		
0004 CORP PERUANA DEL SANTA	1 ELEC EQUIP-WESTINGHOUSE ELEC	450,000.00	5,841.16	444,158.84		444,158.84	85,153.08	368	08-12-46	08-15-56	Q	
0005 CERRO DE PASCO CORP	4 ZINC REFINERY & POWER EQUIPMENT	20,800,000.00	1,550,000.00	19,250,000.00		19,250,000.00	7,061,441.61	486	08-03-50	01-15-67	S	
0006 FERMIN MALCA S E HIJOS	TUNGSTEN MINING	650,000.00	796.60	649,203.40		649,203.40	69,515.96	498	07-05-51	07-26-55	A	
0008 MARCONA MINING COMPANY	IRON ORE MINING EQUIPMENT	2,500,000.00	1,500,000.00	1,000,000.00		1,000,000.00	109,742.65	548	07-15-53	07-16-56	S	
0009 BANCO CENTRAL RESERVA DEL PERU	1 HOSPITAL EQUIP-AMER HOSPITAL	1,330,000.00	81,200.00	1,248,800.00		1,248,800.00	108,310.54	627	03-11-55	07-08-60	Q	
0010 CARROCERIAS METALICAS S A	3 BUS BODY PARTS	32,000.00	28.58	31,971.42		31,971.42	2,289.80	774	02-28-56	01-30-59	Q	
0011 THE PERUVIAN CORPORATION LTD	DIESAL ELECTRIC LOCOMOTIVIES	1,550,000.00		1,550,000.00		1,550,000.00	495,915.40	798	06-21-56	09-30-65	S	
0012 RAYON PERUANA S A	3 FERTILIZER MACH-PANAMERICAN CO	66,000.00	250.00	65,250.00		65,250.00	6,448.88	804	06-28-56	07-23-59	S	
0013 SERVICO AGUA POTABLE DE LIMA	WATER METERS-ROCKWELL MFG CO	141,200.00	141,200.00					817	08-30-56	LOAN NOT USED	M	
0014 CIA IND FILOTEX S A	3 YARN DYEING MACH-GASTON MACH	4,600.00	1,547.20	3,052.80		3,052.80	136.96	820	08-31-56	10-21-57	S	
0015 A Y F WIESE S A	ASPHALT PLANT-BARBER-GREENE	3,120.00	964.56	2,155.44		2,155.44	82.67	825	09-06-56	01-06-58	S	

TERMINATED AS OF JULY 1, 1969.

COUNTRY AND OBLIGOR A/	U. S. PRODUCTS AND SERVICES FINANCED	AUTHORIZATIONS	LAPSES, ETC.	DISBURSEMENTS BY EXIMBANK	DISBURSEMENTS BY OTHERS AT EIB RISK	REPAYMENTS	INTEREST AND FEES COLLECTED	LOAN NO.	AUTHORIZED DATE	REPAYMENTS--REMARKS	REPAYMENT TERMS	I
PERU	(CONTINUED)											
0016 UNIVERSAL-TEXTILE S A	TEXTILE MACH-SACO-LOWELL	11,000.00	11,000.00					833	09-27-56	LOAN NOT USED	Q	
0017 SOCIEDAD QUIMICO IND LIMA LTDA	OXYGEN PROD MACH-AIR PROD INC	7,800.00	7,800.00					837	10-04-56	LOAN NOT USED	Q	
0018 CONSORCIO DE EQUIPOS CONST S A	3 CONCRETE PLANT-HELTZEL STEEL CO	33,200.00	66.80	33,133.20		33,133.20	4,204.08	860	11-16-56	12-22-60	S	
0019 RAYON PERUANA S A	3 SULPHURIC ACID-PANAMERICAN CO	19,000.00	613.07	18,386.93		18,386.93	2,061.35	867	12-03-56	06-10-59	S	
0020 EMPRESA INCA S A	3 BUS CHASSIS-WHITE MOTOR	16,500.00	.30	16,499.70		16,499.70	1,175.10	868	12-03-56	02-04-58	Q	
0021 EMPRESA INCA S A	3 BUS BODIES-SUPERIOR COACH CORP	7,500.00	1,552.58	5,947.42		5,947.42	411.26	869	12-03-56	03-24-58	Q	
0022 A Y F WIESE S A	3 ASPHALT PLANT-BARBER-GREENE	17,000.00	17,000.00					877	01-11-57	LOAN NOT USED	Q	
0023 MFG METALES ALUMINIO RECORD	4 EXTRUSION EQUIP-LOMBARD CO	91,000.00	7,883.31	83,116.69		83,116.69	8,211.51	889	02-08-57	04-19-60	Q	
0024 NICOLINI HERMANOS S A	3 WHEAT	2,250,000.00	2,250,000.00					891	02-14-57	LOAN NOT USED		
0025 ENRIQUE FERREYROS Y CIA S A	4 MACH TRAILERS-MARTIN CO	6,000.00	6,000.00					894	02-19-57	LOAN NOT USED	S	
0026 FABRITEX PERUANA S A	4 LOOMS-CROMPTON & KNOWLES	11,280.00	11,280.00					899	03-01-57	LOAN NOT USED	M	
0027 SOCIEDAD AGRICOLA PUCALA LTDA	4 EQUIP FOR SUGAR MILL-SQUIER CO	731,000.00	210.20	730,789.80		730,789.80	89,779.31	907	03-28-57	04-16-62	S	
0028 CIA NACIONAL DE CERVEZA	BOTTLE MACH-BARRY-WEHMILLER	30,000.00	30,000.00					910	04-18-57	LOAN NOT USED	Q	
0029 CIA NACIONAL DE CERVEZA	BOTTLE MACH-CROWN CORK & SEAL	7,500.00	7,500.00					911	04-18-57	LOAN NOT USED	Q	
0030 REPUBLIC OF PERU	HOSPITAL EQUIP-AMER HOSP SUPPLY	280,000.00	24,820.00	255,180.00		255,180.00	32,764.98	935	08-01-57	12-04-62	S	
0031 FABRICA NAC TEXT EL AMAZONAS	3 TEXTILE MACH-WHITIN MACH WORKS	9,800.00	3.87	9,796.13		9,796.13	744.77	938	08-15-57	12-07-60	S	
0032 ENRIQUE FERREYROS & CIA S A	4 FISH MEAL PLANT-STANDARD STEEL	48,000.00	48,000.00					946	09-13-57	LOAN NOT USED	Q	
0033 SERVICIO DEL AGUA POTABLE LIMA	WATER METERS	135,000.00	135,000.00					A-3	02-09-56	LOAN NOT USED	M	
0034 CARROCERIAS METALICAS S A	3 BUS BODY PARTS-DIVCO-WAYNE	36,000.00	853.62	35,146.38		35,146.38	2,689.42	948	10-03-57	03-01-60	S	
0036 LANIFICIO DEL PERU S A	SPINNING EQUIP-WHITIN MACH	222,000.00	1,490.33	220,509.67		220,509.67	26,076.04	994	03-06-58	11-27-62	S	
0037 A Y F WIESE S A	3 CONCRETE MIXERS-CHAIN BELT CO	14,000.00	324.91	13,675.09		13,675.09	692.38	1031	08-07-58	06-30-60	S	
0038 BANCO CENTRAL RESERVA DEL PERU	1 FINANCE ESSENTIAL IMPORTS	40,000,000.00	24,500,000.00	15,500,000.00		15,500,000.00	580,369.86	1035	08-27-58	05-04-60	S	
0039 A Y F WIESE S A	3 FIRE FIGHTING EQUIP-LA FRANCE	9,100.00	15.40	9,084.60		9,084.60	1,067.37	1070	03-10-59	01-17-63	S	
0040 A Y F WIESE S A	3 CONCRETE MIXERS-CHAIN BELT CO	15,000.00	2,427.49	12,572.51		12,572.51	233.57	1075	04-07-59	09-23-60	S	
0041 ALCALIS PERUANOS S A	4 ELECTROLYTIC CAUSTIC SODA PLANT	840,000.00	35,600.00	804,400.00		804,400.00	136,042.31	1081	06-04-59	12-20-65	S	
0042 A Y F WIESE S A	3 CONCRETE MIXERS ETC-CHAIN BELT	19,000.00		19,000.00		19,000.00	1,770.87	1092	08-06-59	07-16-62	S	
0043 CONSORCIO DE INGENIEROS ET AL	3 CONCRETE EQUIP-SILLCOX ASSOC	102,000.00	102,000.00					1112	12-01-59	LOAN NOT USED	S	
0044 A Y F WIESE S A	3 HIGHWAY CONSTR EQUIP-CHAIN BELT	22,000.00	515.68	21,484.32		21,484.32	1,890.63	1124	01-26-60	11-13-62	S	
0045 COMERCIAL IND PERUANA S A	3 CARRIER-CRANE-SHIELD BANTAM CO	15,900.00	1,509.16	14,390.84		14,390.84	1,296.96	1130	02-09-60	05-15-63	Q	
0046 A Y F WIESE S A	3 FIRE TRUCK-LA FRANCE EXPORT	5,900.00	98.24	5,801.76		5,801.76	659.71	1142	03-11-60	12-02-63	S	
0047 BACKUS & JOHNSTON BREWERY-PERU	PASTEURIZERS-BARRY-WEHMILLER	295,000.00	20,668.45	274,331.55		274,331.55	43,124.91	1150	04-12-60	07-30-65	S	
0048 FABRICACIONES METALICAS S A	3 DIESEL MARINE ENG-G M C	46,000.00	1,809.97	44,190.03		44,190.03	1,873.27	1160	05-10-60	12-21-61	Q	
0049 CIA NACIONAL DE CERVEZA CALLAO	BOTTLE WASH EQUIP-BARRY-EXPORT	67,000.00	67,000.00					1166	05-17-60	LOAN NOT USED	S	
0050 MINISTERIO DE FOMENTO	3 EUCLID TRUCKS-G M C	77,000.00	77,000.00					1169	05-19-60	LOAN NOT USED	S	
0051 TEXTILE ALGONQUINERA S A	LOOMS-CROMPTON & KNOWLES	39,600.00		39,600.00		39,600.00	3,996.30	1175	06-09-60	05-25-64	S	
0052 BANCO INDUSTRIAL DEL PERU	1 MACH EQUIP CONSTR MTLS & SERV	2,500,000.00	2,144,691.66	355,308.34		355,308.34	72,138.13	1177	06-09-60	12-16-68	S	
0053 SERVICIO AEROFOTOG NACIONAL-	1 AIRCRAFT & PHOTOGRAPHIC EQUIP	700,000.00	360,856.48	339,143.52		339,143.52	35,916.37	1196	06-30-60	04-13-64	S	
MINUS - ADVANCES BY PARTICIPANTS		113,047.84		113,047.84		113,047.84	5,224.11					
NET E I B		586,952.16	360,856.48	226,095.68		226,095.68	30,692.26					
0054 CIA IMPIDA TECNICO COMERCIAL-	3 STEAM BOILERS-STRUTHERS WELLS	17,500.00	2,340.63	15,159.37		15,159.37	851.11	1207	07-14-60	07-27-62	Q	
0055 REPUBLIC OF PERU	EQUIP FOR HIGHWAY CONSTRUCTION	12,000,000.00	12,000,000.00					1220	07-21-60	LOAN NOT USED	S	
0057 BANCO DE FOMENTO DEL PERU	1 AGRICULTURAL EQUIPMENT	5,000,000.00	5,000,000.00					1222	07-21-60	LOAN NOT USED	S	
0058 VIDRIOS PLANOS DEL PERU S A-	3 EQUIP FOR GLASS PLANT-GEN GLASS	220,000.00	22,773.44	197,226.56		197,226.56	33,136.68	1232	08-05-60	01-21-66	S	
0059 VICTOR A RIVERA-LA CONCORDIA	MCHY MFG SOFT DRINK-CROWN CORK	59,400.00	5,219.96	54,180.04		54,180.04	3,800.37	1293	10-06-60	09-17-62	M	

TERMINATED AS OF JULY 1, 1969

A/			AUTHORIZATIONS	LAPSES, ETC.	DISBURSEMENTS BY EXIMBANK	DISBURSEMENTS BY OTHERS AT EIB RISK	REPAYMENTS	INTEREST AND FEES COLLECTED	LOAN NO.	AUTHORIZED DATE	REPAYMENTS--REMARKS	REPAYMENT TERMS
PERU		(CONTINUED)										
0060	A Y F WIESE S A	4 FIRE TRUCKS & ACC-LAFRANCE CORP	50,000.00	6.40	49,993.60		49,993.60	5,805.09	T316	10-25-60	07-20-64	S
0061	A Y F WIESE S A	4 ROAD PAV MACHY-CHAIN BELT CO	4,100.00	85.96	4,014.04		4,014.04	503.08	1320	10-28-60	09-06-63	S
0062	A Y F WIESE S A-	3 GARAGE EQUIP-SYMINGTON WAYNE	27,500.00	.34	27,499.66		27,499.66	1,747.09	1351	11-25-60	07-22-63	Q
0063	PEDRO MARTINTO S A	CRANES-THE THEW SHOVEL CO	27,500.00	1,962.40	25,537.60		25,537.60	1,969.66	1382	12-20-60	01-16-63	S
0065	TODOS S A	SUPERMARKET EQUIP-INTL BASIC	41,250.00		41,250.00		41,250.00	4,319.30	1452	02-02-61	04-20-64	S
0066	SOCIEDAD AGRIC PUCALA LTDA S A	EVAPORATOR-BUFFALO FORGE CO	8,500.00	8,500.00					1464	02-17-61	LOAN NOT USED	S
0067	SOC MERCANTIL INTERNACIONAL-	3 TURBINE PUMPS-BERKELEY PUMP CO	31,700.00	23,891.01	7,848.99		7,848.99	863.17	1465	02-17-61	09-14-64	S
0068	PEDRO M ARANDA C FABRICA C P-	3 SOFT DRINK MCHY-CROWN CORK-SEAL	13,000.00	3,267.07	9,732.93		9,732.93	1,143.21	1507	03-21-61	12-23-63	Q
0070	SOC AGRICOLA PUCALA LTDA S A-	3 MOTOR GRADER-ALLIS-CHALMERS	12,000.00	181.87	11,818.13		11,818.13	1,038.02	1522	04-04-61	04-14-66	S
0071	PERIODISTICA PERU S A-	3 PRINTING EQUIP-TROPEX GRAPHIC	16,500.00		16,500.00		16,500.00	2,876.09	1533	04-13-61	07-29-64	Q
0072	A Y F WIESE S A-	3 DRY CLEANING PLANTS-D PRICE & CO	4,800.00	257.60	4,542.40		4,542.40	330.10	1576	05-12-61	01-22-63	Q
0073	MANUFACTURA ALGO SANTA MARIA-	3 TEXTILE EQUIP-BALLINRALL ENGR	63,800.00	8,198.42	55,601.58		55,601.58	4,205.67	1549	05-23-61	10-02-63	
0074	GROSS EQUIPMENT S A	4 AGRIC EQUIP-FOOD MCHRY & CHEM	34,000.00	13,424.28	20,575.72		20,575.72	998.43	1600	05-23-61	02-13-63	S
0075	SOCIEDAD AGRIC PUCALA LTDA S A	TRACTORS-TRUCK ACCEPTANCE CORP	42,000.00	42,000.00					1609	06-02-61	LOAN NOT USED	S
0076	PERIODISTICA PERU S A	4 PRINTING EQUIP-TROPEX GRAPHIC	7,500.00		7,500.00		7,500.00	1,314.10	1633	06-16-61	08-19-64	Q
0077	FABRICACIONES METALICAS S A	3 MARINE DIESEL ENG-G M C	10,200.00	140.48	10,059.52		10,059.52	267.83	1653	06-30-61	05-02-62	Q
0078	COMERCIAL INDUSTRIAL PERUANA-	3 CRAWLER TRACTOR-SCHIELD BANTAM	10,600.00	10,600.00					1657	07-06-61	02-15-63	Q
0079	FABRICACIONES METALICAS S A	3 MARINE DIESEL ENG-G M C	24,000.00	24,000.00					1686	07-20-61	LOAN NOT USED	Q
0080	LA COMERCIAL IMPORTADORA S A-	3 AGRI EQUIP & ACCES-OLIVER CORP	100,000.00	100,000.00					1688	07-25-61	LOAN NOT USED	S
0081	LA COMERCIAL IMPORTADORA S A-	3 TAXICABS-STUDEBAKER-PACKARD	58,000.00	58,000.00					1689	07-25-61	LOAN NOT USED	S
0082	LA COMERCIAL IMPORTADORA S A-	3 MACK TRUCKS-MACK TRUCKS INC	145,000.00	52,107.37	92,892.63		92,892.63	12,259.32	1690	07-25-61	06-15-65	S
0084	CARROCERIAS METALICAS S A-	3 BUS BODIES-WAYNE EXPORTS INC	50,000.00	111.88	49,888.12		49,888.12	3,600.25	1706	08-01-61	11-08-63	S
0085	CEMENTOS ESP Y DERIVADOS S A-	3 GAS PUMPS-A O SMITH	41,000.00	7,023.12	33,976.88		33,976.88	2,739.16	1726	08-10-61	09-02-64	Q
0086	FRANCISCO CORBETTO-	3 AIRPLANE-MOONEY AIRCRAFT	11,500.00	399.38	11,100.62		11,100.62	1,088.76	1792	09-20-61	03-11-65	Q
0087	IND QUIMICAS BASICAS-	2 EQUIP TO PRODUCE FERTILIZER ETC	508,300.00	158,300.00	350,000.00		350,000.00	49,892.33	1807	09-28-61	08-20-68	S
0088	TODOS S A	SUPER MKT EQUIP-INTL BASIC	52,250.00	687.50	51,562.50		51,562.50	6,957.08	1815	10-05-61	12-28-66	S
0089	ERNESTO GUZMAN E-	3 AIRPLANE-MOONEY AIRCRAFT	7,000.00	40.00	6,960.00		6,960.00	595.08	1816	10-05-61	10-05-64	Q
0090	TALLERES GRAFICO VILLANUEVA	TYPESET MACH-HARRIS-INTERTYPE	10,500.00	10,500.00					1821	10-06-61	LOAN NOT USED	Q
0091	VIVANCO BRAVO ING ASOCIADOS-	3 CONCRETE MIXERS-WORTHINGTON	4,037.16	1.36	4,035.80		4,035.80	726.48	1830	10-12-61	08-18-65	S
0092	CIA EMBOTELLADORA DE PACIFICO	3 BOTTLING EQUIP-MEYER MFG CO	77,500.00	77,500.00					1842	10-13-61	LOAN NOT USED	S
0093	JOSE VALLE PESQUERA SORI-	3 AIRPLANE-MOONEY AIRCRAFT	11,500.00	65.85	11,434.15		11,434.15	1,187.12	1879	10-31-61	09-08-64	Q
0094	ASPILLAGA ANDERSON HERMANOS	SUGAR PROCESS EQUIP-DORR-OLIVER	7,900.00	129.59	7,770.41		7,770.41	509.40	1887	11-09-61	06-23-64	S
0095	BELPAL S A-	3 AIRPLANE-MOONEY AIRCRAFT	9,300.00	835.50	8,464.50		8,464.50	782.57	1925	11-21-61	11-16-64	Q
0096	CIA IMP EXP NAC S A-	3 PUMPS ETC-WORTHINGTON CORP	100,000.00	93,074.04	6,925.96		6,925.96	656.17	1929	11-22-61	08-23-65	S
0098	CEMENTO SUR S A	CRANE-H R JAHN & SON	18,500.00	3,154.10	15,345.90		15,345.90	2,779.29	5-3	01-03-62	04-19-65	S
0100	FABRICA ALUMINIO METALES S A	4 EQUIP FOR ALUM FABRICATING FAC	611,300.00	611,300.00					1964	01-11-62	LOAN NOT USED	S
0107	MARCONA MINING CO	EXPANSION IRON ORE FACILITIES	6,000,000.00		6,000,000.00		6,000,000.00	1,071,213.06	1973	02-12-62	06-30-68	S
0112	JAVIER MELGUERO CHECA-	3 AIRPLANE-MOONEY AIRCRAFT	13,000.00	250.00	12,750.00		12,750.00	1,279.25	1989	03-12-62	04-13-66	S
0114	LA FLORIDA POULTRY FARM	INCUBATOR-E HOLZER INC	4,259.35		4,259.35		4,259.35	926.91	5-10	03-29-62	01-31-66	S
0128	BIBACO S A	STEAM BOILER-AMER RADIATOR	12,000.00	525.00	11,475.00		11,475.00	760.18	2023	06-07-62	06-11-64	Q
0140	CONSORCIO DE INGENIEROS CONSI-	3 ROCK CRUSHERS-BARBER GREENE	42,250.00	608.50	41,641.50		41,641.50	6,421.57	2047	08-27-62	09-22-65	S
0141	JOSE R LINDLEY E HIJOS S A-	3 BOTTLING EQUIP-CROWN CORK&SEAL	55,781.25	55,781.25					7-9	08-29-62	LOAN NOT USED	S
0142	AVICOLA HANNAN S A	INCUBATOR-CHICK MASTER INTL	4,400.00	59.90	4,340.10		4,340.10	830.23	5-19	10-08-62	10-11-65	Q
0143	PESQUERA SUR PERUANA	4 GENERATORS-IRON FIREMAN MFG	48,600.00	18,236.55	30,363.45		30,363.45	970.36	7-12	11-06-62	09-16-63	S
0144	AVICOLA HANNAN S A	FEED MILL ETC-CHICK MASTER INTL	1,825.00	40.00	1,785.00		1,785.00	361.75	5-31	02-19-63	05-10-66	S

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