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DEVELOPMENT OF THE PERUVIAN EXTENSION SERVICE

BY

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Washington, D. C.

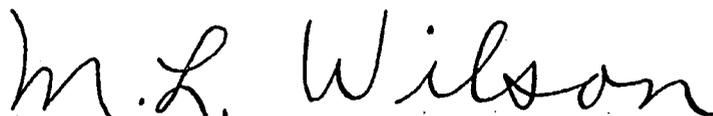
August 1952

FOREWORD

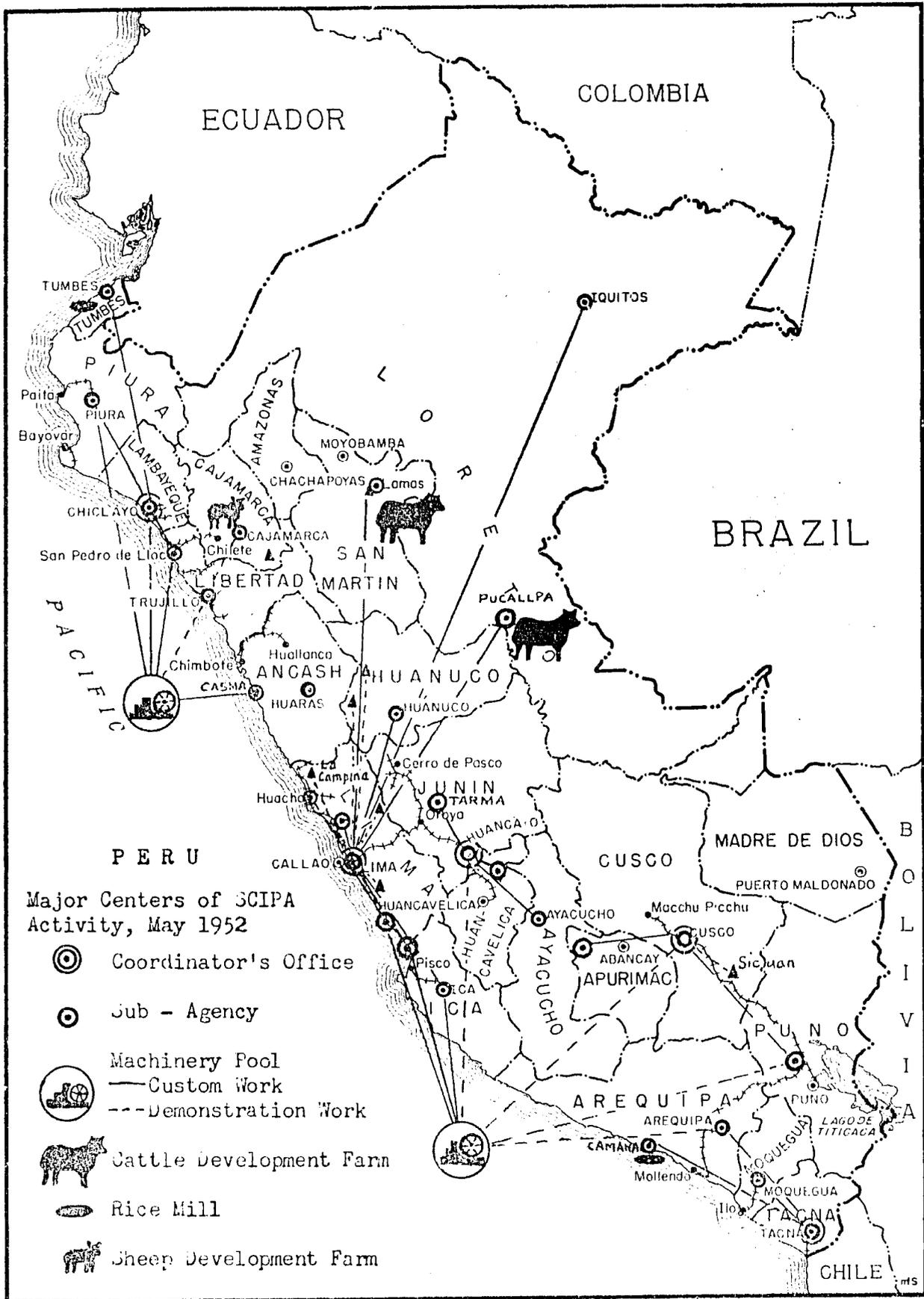
This case study, "The Development of the Peruvian Extension Service," is the first in a series to be developed dealing with technical assistance and social change. The case method of teaching has been used successfully for many years in the fields of law, medicine, business administration, and public administration. It is believed that it will prove to be as effective a tool in the teaching of extension philosophy and principles of education, administration, and cultural change involved in technical assistance work.

The case method of presentation and teaching is a refreshing and convincing one. Here specific examples of situations are faced, solutions tried, results obtained. Experiences come to the reader not as so many abstract generalizations but as lively accounts of actual situations. The case story in itself should not be regarded in terms of an example of either good or poor administration or operational procedure. Rather the solutions should serve as a springboard for further thought and consideration. In these larger case studies, organized on a similar basis, comparison between different situations can be made; and principles will grow out of these stories as their numbers increase. Such types of analysis provide a freshness and a reality that are lacking in the traditional textbook generalizations, most of which, despite their scientific validity, never quite fit any particular situation one meets in actual administration.

It is believed that case studies reflecting the whole environment will be especially useful to extension workers and others who must deal with people living in various cultural milieus, including our own. They demonstrate the importance of the cultural approach in doing extension work and the necessity of gearing the technical aspects of proposed programs into the total culture of the people in the communities within which the extension agent works. There are many lessons to be learned from case studies, lessons that will enable all of us to do a more effective job in carrying out technical assistance and extension activities.



M. L. Wilson
Director of Extension Work
United States Department of Agriculture



Major Centers of SCIPA Activity, May 1952

- ⊙ Coordinator's Office
- Sub - Agency
- ⊙ Machinery Pool
- Custom Work
- Demonstration Work
- 🐮 Cattle Development Farm
- 🌾 Rice Mill
- 🐑 Sheep Development Farm

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INTRODUCTION

This is a description of the genesis, development, and present organization of the Peruvian Agricultural Extension Service. It is also a fragmentary and brief account of the over-all efforts of the Institute of Inter-American Affairs and the Peruvian Ministry of Agriculture to increase food production in Peru. Finally, and perhaps most importantly, it is a story of the successful cooperation of two sovereign nations in pooling funds, personnel, and material to carry out projects of mutual benefit.

You may ask, "Why is this story worth telling?" There are many reasons. Perhaps one of the most important is the organizational philosophy that has dominated and governed the over-all working arrangements of the two Governments concerned. If Governments are to join hands in efforts of mutual endeavor, how should they organize most advantageously? What philosophy and principles of organization and operation should they follow? These questions have great significance in these days of Point Four endeavor.

The experience in Peru brings to the foreground many other questions of vital concern to Point Four workers: (1) What cultural, organizational, and teaching principles are appropriate in programs such as the Peruvian one? (2) How important is leadership in a technical assistance program? (3) What is the role of the foreign technician? (4) How much of the pattern of organization and operation of the American Extension Service is suitable under Peruvian conditions? If you are interested in these questions and others of a similar nature -- and in how they have been met under Peruvian conditions -- it is believed that you will find the reading of this report an interesting one.

In brief, the background of the story is as follows: In the days of the Inca Empire, Peru was self-sufficient in food production. But after the conquest by the Spaniards the economy was changed drastically. Emphasis was placed on mining gold and silver, and consequently many of the agricultural lands and irrigation systems of the Incas fell into disuse. The fall in food production was accompanied by a great decline in the size of the Indian population as the result of new diseases, work in the mines, and the like. Some years after the liberation from Spain the Peruvian population began to grow again. To meet the increased food requirements of the population, food was imported from neighboring countries and from overseas. This procedure continued over the years as the country failed to regain the self-sufficiency of olden days in food production.

The impact of World War II was severe. Food importation was no longer possible on the former scale. The crisis was given momentum by the migration of many rural people to the mining and industrial centers. This was a movement deemed essential to the expanding war effort, but it was one which resulted in the abandonment of extensive areas by small farm operators, as well as one that resulted in an increase in the number of people

in the coastal region, where dependence on imported food was greatest. The seriousness of the situation was accentuated by a lack of adequate credit and agricultural supplies for small growers.

During the autumn of 1942 the Institute of Inter-American Affairs, an agency of the United States Government, at the request of the Peruvian Government, set about developing a program that would bring about an increase in the production of foodstuffs during the critical war period at the same time that it laid a foundation for long-range agricultural improvements. On the recommendation of an advance party of United States technicians, an agreement was signed on May 19, 1943, by the United States Ambassador and the Peruvian Minister of Agriculture, establishing the Servicio Cooperativo Inter-Americano de Producción de Alimentos (SCIPA) as the instrumentality through which this program should be accomplished. Subsequent agreements extending the program were signed in 1944, 1945, 1946, 1948, 1949, 1950, and 1952. One of the objectives of the original agreement was to "aid in developing and expanding an agricultural Extension service."

The account given here is primarily focused on developments relating to the Extension Service. However, to give the reader a better understanding and appreciation of the entire agricultural program and the place of the Extension Service within it, a considerable amount of material dealing with the over-all SCIPA program is presented.^{1/} Likewise it has seemed essential to describe the Peruvian background in some detail to establish the setting of the story.

This paper is divided into several parts: (1) Introduction, (2) geographical and cultural background of Peru, (3) genesis and development of the SCIPA program and organization, (4) genesis and development of the Extension Service within SCIPA, (5) present SCIPA program and organization, (6) present Extension Service, and (7) success of the SCIPA program. Emphasis throughout the paper is in terms of the philosophy and principles of organization and operation rather than in terms of program content. Likewise the account is particularly concerned with culture, and the role of leadership in technical assistance work. And, finally, in the last part of the story, the emphasis is shifted to organizational structure and the relationships and responsibilities of individuals in a going organization.

^{1/} The Institute of Inter-American Affairs has programs also in health and education in Peru.

GEOGRAPHICAL AND CULTURAL BACKGROUND OF PERU

Geography and Climate

Peru lies on the west coast of South America, approximately midway between the northern and southern extremities of the continent. It is bounded on the north by Ecuador, on the northeast and east by Colombia and Brazil, on the southeast by Bolivia, and at its southern tip by Chile. Its coastline on the Pacific is nearly 1500 miles in length; and the extreme width of the country, from coast through eastern jungle, is about 800 miles. Peru has a total area of 482,256 square miles, roughly equivalent to the combined areas of California, Utah, Arizona, and Nevada. Lima, its capital city, is one of the most important centers on the Pacific coast of South America.

The country may be divided into four natural regions of differing climate and topography: the Costa, or coastal plain; the Sierra, or Andean mountain region; the Montaña, or eastern slopes of the Andes mountains; and the Selva, or jungle. The Andes mountains traverse the country from northwest to southeast, in many places reaching a height of 20,000 feet or more within 60 miles of the coast.

In general, the Costa is a narrow strip of land from 10 to 40 miles wide lying between the sea and the western slopes of the Andes. In the far north, however, the width of this coastal zone increases to 100 miles. With the exception of the extreme northern section, which has some rainfall, the area is a desert, broken only by the fertile valleys of numerous short rivers. There are 52 rivers and streams that cross the region in their courses from the mountains to the sea, but only 12 flow the year around. Despite the lack of rainfall, the climate is healthful and the temperature is warm and equable throughout the year, average temperatures ranging from 60° to 70° F. The coastal area holds approximately 2½ million people despite the fact that only 5 percent of the entire area, or scarcely 1 million acres, is under cultivation.

The outstanding topographical feature of Peru is the immense mountain system of the Andes, which comprises the Sierra region. It consists of from 3 to 5 parallel ranges trending from northwest to southeast, connected here and there by traverse ridges. These mountain ranges stand as an impenetrable wall, with many of their thin jagged peaks reaching altitudes of 22,000 feet. Lying at various levels in the midst of the Andean structure, are numerous plateaus and valleys. The Sierra is the most populous of the four regions, having an estimated population of 5 million people. There are no data on annual rainfall, and estimates of 15 to 30 inches are based on the amount and type of vegetation. The climate ranges from cool-temperate to frigid, depending largely upon elevation; the rainy season is from November to May. It is estimated that the cultivated area of the Sierra is approximately 3½ million acres.

The Montaña, largely underdeveloped and partly unexplored, consists of the eastern slopes of the Andes Mountains as well as the smaller ranges that lie in the heavy rainfall zone. The slopes are cut into narrow valleys and canyons by the headwaters of the great rivers that become

tributaries to the Amazon. It is a rough, sparsely settled area. There are no estimates as to the amount of land in cultivation in this region, although there may be as much as half a million acres.

The Montaña merges into the fourth region of Peru, the Selva, or Jungle. This region, comprising 40 percent of the total land area of the country, consists of extensive tracts of flatland cut by numerous rivers, which come together to form the Amazon River. This is a region of heavy rainfall (70 to 150 inches). The climate is humid and warm, and floods are common during the rainy season, which lasts from October to May. Development has been retarded by lack of communication routes. Overland shipments to the west coast are difficult, and shipment via the Amazon River to the Atlantic, over a distance of some 2500 miles, is slow and costly. The Selva is the least populated of the various regions of Peru. Estimates place the total number of inhabitants at approximately 350,000. The cultivated area is thought to be less than half a million acres.

Cultural Background

The cultural heritage of Peru is even more complex than its geography. It is frequently said that there are really three Perus -- the Peru of the dry coastal plain, with its modern cities and ports, vast sugar plantations, and cotton farms; the Peru of the Andes, or the Sierra, with its mineral wealth and Indian traditions; and the Peru of the Montaña and Selva, with its still undeveloped tropical agricultural possibilities and its forest products. Three cities are cited as typical of the three Perus -- Lima, colonial "City of the Kings"; Cuzco, ancient Andean capital of the Incas; and Iquitos, frontier river port on the Amazon, boom town in the day of wild rubber. These three cities are said to represent not only an areal factor in culture but an altitudinal one as well. Such generalizations, of course, tend to oversimplify the actual situation; nevertheless they contain much truth.

It is quite true that no one can hope to understand the Peru of today who is not acquainted to a considerable extent with its cultural past. Unfortunately it is impossible in this short report to give more than cursory and fragmentary treatment to the cultural heritage. The impact of two cultures, the Inca and the Spanish, has produced striking results and at the same time left many problems. In Peru the Indians had built one of the great pre-Columbian civilizations of America -- the empire of the Incas. To this civilization was directed one of the main currents of Spanish colonial conquest. The patterns of the Spanish culture were superimposed upon those of the Inca, but with little blending of the two in some respects. Additional diversity has come to Peru in recent years with the development of an industrial society along its coast, which contrasts with the traditional Spanish society of rural areas.

Recent figures on the composition and distribution of the population give an intimation of the cultural heritage. Estimates by the Peruvian Government as of December 31, 1950, placed the total population of the

country at 8,492,873.^{2/} Of this number, 53 percent were classified as white and mestizo, and 46 percent as Indian. The percentage of people claiming complete European descent was small. The population was distributed as follows: Costa, 27 percent; Sierra, 60 percent; and Selva, 12.5 percent.

A large proportion of the Indian population of Peru continues to reside and live in the Sierra region in much the same manner as in olden days. For this reason as well as to better understand the over-all influence of the Inca culture on present day Peru, a brief review of the outstanding characteristics of Inca culture seems appropriate.

Inca Culture

It is generally agreed that the Incas once surpassed everyone in the New World in agriculture, herding, roadbuilding, metallurgy, weaving, achievements in Government, and in class organization. Inca life was highly organized. Its culture may be compared with those of Mesopotamia, Egypt, India, and China in many respects.

The rise of the Inca civilization was an extraordinary thing. It was extraordinary because, in contrast to the ancient civilizations of the Middle and Far East, it developed in a territory that would seem to be as unsuited to economic prosperity and political unity as any that could be imagined. Other ancient civilizations had begun in highly productive valleys of great rivers. The Inca civilization developed under the hardships of Andean conditions.

Steward has described Inca life briefly: "Intensive farming and herding supported the most dense population and the largest and most permanent communities in South America, and it yielded a surplus which released large portions of the population for manufacturing and for governmental, religious, and other non-survival assignments. Social classes became hereditary, endogamous castes, but the nobility rested on a large base of wealth-producing commoners rather than on a slave class. Warfare was an implement of imperialism, and though commoners could improve their condition through war exploits or becoming special artisans, they could not rise to a higher caste. Religion was organized around a state temple cult and a hierarchy of state and local gods, and it was served by a graded priesthood, the priests being clearly differentiated from shamans, who were curers and magicians. The whole society was highly regimented through a code of laws and regulations which were enforced through a judicial system, and little was left to tribal custom with its less overt sanctions." ^{3/}

^{2/} The last census was taken in 1940.

^{3/} Steward, Julian H. Handbook of South American Indians. Smithsonian Institution, Bureau of American Ethnology 19:9, Bulletin 143, vol. 5, p. 731. Washington. 1949.

The fundamental principle of the Inca system was this: "Every man must serve the state in one way or another according to his age and capacity; the whole purpose of the hierarchy was that of extracting from the land its maximum yield of valuable merchandise." ^{4/} In the state organized by the Incas the individual existed only as part of a household; and the household existed only for the service of the state. The Incas had a long list of general laws governing labor and tribute, laws so inviolable that even the Inca emperor himself might not contravene them. ^{5/} Inca administration had as its chief function the maintenance of production and the distribution of surplus commodities.

The social structure of Inca society was sharply defined. There were three classes: (1) The Inca, or emperor, and the imperial caste, (2) the nobility, and (3) the common people. The social groupings were arranged in a symmetrical administrative pyramid. First there was a person in charge of 10 households. Then there was one in charge of 50 households, then an official in charge of 100 households, and so forth, until finally there was the Sapa Inca at the pinnacle of the pyramid, over every one.

The highest positions of status in Inca society, other than the imperial group, were those of the priesthood, military, and nobility. Rewards for meritorious service were in the forms of extra privileges, jewelry, garments, lands, and women.

Land was divided into three portions: one for the Sun, i.e., the state religion; one for the Inca; and one for the ayllus (the cell of social organization). The theory was that all land in the country belonged by right of eminent domain to the Inca, who graciously distributed the usufruct of parts of it to the Sun and to the ayllus. In practice, land was operated in a collective sense.

The Inca economy was an agricultural one. Its farming was the most intensive in the hemisphere. It employed vast irrigation works, terracing on steep hillsides, and fertilizers. More than 30 different species and innumerable varieties of plants were cultivated. Native crops included corn, yuca, beans, potatoes, sweetpotatoes, squash, tomatoes, cacao, and tomatoes. Llamas, alpacas, guinea pigs, and ducks were tended. Although the land was worked by commoners, only one-third of the produce went for their keep, the other two-thirds being equally divided between the state and church, whose members did not engage directly in production. The practices of agriculture were so ingrained in the people that they still exert a profound influence upon the lives of the present-day Peruvian Indians. Even today, the custom of holding agricultural lands in common is followed in some sections of the country, just as irrigation canals, built thousands of years ago, continue to bring water for crops cultivated according to ancient patterns.

^{4/} Means, P. A. Ancient Civilizations of the Andes, p. 294. New York: 1936.

^{5/} Ibid., p. 299.

Perhaps enough has been said to indicate the paternal and totalitarian nature of the Inca government, the rigidity of class and caste structure, the degree of social discipline, and the agricultural nature of the economy. Means has said that "however much the greatness and splendor of the highly placed may have been served and enhanced, the well-being of the humble was never lost to sight; however much may have been demanded of them in the way of personal labor and of tribute, society as a whole was well compensated by the measure of peace and security, of plenty and of leisure, that was assured to it by the Incaic rule."^{6/}

Conquest by the Spaniards and Impacts of Cultures

The conquest of Peru by Pizarro in the brief period between January 1531 and November 1533, which, like the rest of the Spanish conquests in the New World, was motivated by "Greed, Gold, and God," brought about many changes in Inca life. The Spanish and Indian societies were completely different from one another in traditional ways of living and of doing things, in fundamental attitudes and objectives, and in technical abilities. The impact of the two cultures upon each other was severe.

James, for example, commented on the European impact in these terms: "Immediately after the conquest profound differences began to appear between the Spanish way of living and that of the Indians. These differences were reflected in the complete reorientation of the economic life which took place within a few years. The Spaniards were interested in their overseas connections, and as a result the coastal region was abruptly changed from a place remote from the center of political and economic activities to the place on which these activities focussed. The longitudinal roads of the Incas were abandoned in favor of short transverse roads leading from various parts of the highlands to the nearest ports on the coast. Lima was founded in 1535, and, with its port Callao, assumed pre-eminence as the primary settlement center from which the Spanish culture was spread over almost all of western South America. Lima became the center of political power, the center of social life, the center of commerce -- a city of fabulous wealth."^{7/}

The conquest brought great political and religious changes along with the economic ones. Once the leadership of the ruling Inca group had been removed, the majority of the natives, long accustomed to unquestioning obedience to central authority, quickly accepted the new rulers. The religious change was one requiring more time, a shift from the state temple cult of the Incas in the direction of an acceptance of the Catholic Church. It was essentially an adjustment between the two religions, a modification in the imposed Church making it acceptable to the natives.

The pattern of land tenure and ownership was also to receive attention under the rule of the Spaniards. The concept of communal farmers and collective ownership under the Incas did not fit the ideas of the individualistic Spaniards with their strong sense of property rights.

^{6/} Ibid., p. 350.

^{7/} James, P. E. Latin America, p.143. New York. 1942.

The shift from an agricultural economy to one with great emphasis on the mining of gold and silver brought profound results. The forced movement of great numbers of Indians from agricultural centers to work in the mines resulted in a serious decrease in the food supply. The decrease in the food supply was accompanied by an enormous decline in the Indian population. Great numbers of the natives died from overwork in the mines and from epidemics of smallpox and measles. About 50 years after the arrival of the Spaniards, in 1580, the number of Indian inhabitants had been reduced by about one-third.

Inasmuch as this is a paper dealing with agriculture, it is perhaps well to comment briefly at this point concerning the success and failure of the introduction of various agricultural crops and animals by the Spaniards. The Spaniards brought to Peru many European cereals, fruits, and animals. Some of these introductions were accepted by the natives and others were rejected. Why? The reasons are closely associated. Let us consider wheat. Wheat would grow well at certain altitudes and climates; beyond this point it would not. The same was true of many fruits, such as quinces, olives, and bananas. Steward, in considering this matter, has come to the conclusion that four conditions or principles had to be observed if the introduction was to become a success:

- "1. That it be adaptable to either or both the intermediate and the extremely high zones of altitude.
- "2. That even those species which withstand a variety of altitudes must meet with no close competition from familiar Indian species.
- "3. That the cultivation or care of the imported species must involve neither an excessive surcharge of labor nor any radical change in the Indian habits of farming and husbandry, unless its value, as with beasts of burden or sugarcane, is so great as to offset the extra expenditures or adjustments.
- "4. That some acceptances are conditional upon others."8/

The impact of one culture upon another is often a subtle process and, of course, is a two-way process. Present-day Peru is the result of this two-way flow. The end product in many cases, even after 400 years and more, is still not at hand. This fact perhaps can be illustrated by present conditions of land tenure. The old traditional communal system of the Indians and the system of private property introduced by the Spaniards continue to exist together in many areas.

Present-Day Peru

Modern Peru is a mixture of the two cultures. The percentage of people claiming complete European descent is small. The ratio of the

8/ Steward, op.cit. p.537

Indian population to the total remains large, but it is decreasing. The mestizo population continues to grow. The direction and the trend is clear. The nature of the blend of the two cultures varies with the geographical area in Peru. There have been two main acculturational trends: (1) Individuals and classes of individuals have been detached from the context of native life and assimilated quite rapidly into the national, Hispanic-American culture; and (2) comparatively stable native communities have experienced more gradual acculturation. The large Indian population of the Sierras, for example, still holds firmly to many of the traditional ways of the Incas.

The patterns of government, religion, and economic life are well defined. A centralized system of government is a heritage from the past. Most of the people now accept the Catholic Church and its religion. Economically the country continues to depend heavily upon agriculture.

Class structure is also well-defined. In general there are three main classes: the upper, the middle, and the lower. The upper includes the people with money, land, education, family name, and high government and religious positions. The lower class includes the uneducated, the landless, and the poor. A third class, a middle class, has developed in the major cities in recent years with the trend to industrialization. Also a large number of private land owners may be considered as members of a middle class.

The contrast of city and country living is enormous. Lima, for example, has been transformed from a Spanish colonial city into a modern cosmopolitan commercial and manufacturing city. The coming of an industrial society has brought many changes. Only a few can be mentioned here. Prestige, for example, now comes largely from money, which brings power, rather than through ownership of land, which brings security. Time concepts have changed. Human behavior has become more standardized. In the country, however, with the exception of parts of the coastal area, life continues in much the old way. Prestige and status among the Indians, for example, depends upon becoming the leader of the main fiestas of the year, possessing land, and owning livestock. The money economy is present almost everywhere, but money itself is not valued so highly as in the urban areas. Change is slower in taking place.

In this brief and fragmentary review of the Peruvian background, something more needs to be said regarding the general economy, particularly the agriculture. Peru possesses abundant natural resources but these have remained comparatively undeveloped. The greatest percentage of its wealth comes from the soil. Nearly 67 percent of the total income from the exportation of goods, amounting to 135 million dollars in 1947, came from the sale of agricultural produce. No less than 60 percent of the crops for export were grown on large farms, sugar and cotton leading the list. However, of the total income from agricultural production in Peru, only 15 percent is derived from the operation of big farms; the rest is accounted for by thousands of small farms worked in large measure by primitive methods. It is estimated that 65 percent of the Peruvian population is dependent for its living on agriculture and 20 percent is partly dependent on it.

Most of the 5 million acres under cultivation are devoted to the production of foodstuffs for home consumption. Despite this fact, nearly 40 million of the 135 million dollars in 1947 for trade purposes were used for the purchase and importation of food, principally wheat, meat, and edible fats. Bread grains are imported primarily to feed the populations of the Costa and Selva, since the people of the Sierra are more or less self-sufficient in their production of grains, barley, and wheat.

Some of the major rural life problems of Peru include (1) low levels of living -- of diet, health, housing, education, and so forth, (2) an inadequate distribution system, (3) lack of effective communication, and (4) insufficient food production.

As stated previously, Peru has a deficit of vital foodstuffs such as wheat, rice, milk, certain fruits, barley, and butter and other fats. Thus it lacks enough of the basic foods for a good diet. Rural housing and clothing resources are generally considered inadequate. Infant mortality is high. The fact that scarcely more than 40 percent of the total population of the country over 6 years old is literate adds to these problems. This aspect is further complicated by the language barrier: a large percentage of the Indians speak only Quechua or Aymara and do not have a knowledge of the Spanish language. Absentee landlords, lack of credit, lack of water, and large holdings of land are frequently cited as other agricultural problems needing attention.

It is now time to get on with our story. How did it happen that the United States and Peru got together on a food production program? How did an Extension Service develop from the implementation of a basic food production agreement between the two countries?

GENESIS AND DEVELOPMENT OF THE PERUVIAN FOOD PRODUCTION PROGRAM

Impact of War and United States Foreign Policy

As World War II progressed, it became apparent to Peruvian officials that the general food supply situation in Peru was deteriorating and that something would have to be done to correct it. It was recognized that the general food supply tended to be critical at all times, particularly along the coast, and that it had been made even more serious by the war-created shortage of ships. No longer was it possible to secure adequate shipping space to import rice, wheat, and meat to supplement the inadequate supplies of these important foods. In addition to this general shortage problem, the food situation in the north of the country had been aggravated by the establishment of a United States Army air base at Talara, and by the promotion of a rubber development program in the Iquitos area of the jungle.

By the summer of 1942, following the Pan American Conference at Rio de Janeiro, the food supply had reached such a critical condition that the Peruvian Government decided to invite the Office of the Coordinator of Inter-American Affairs to consider extending special assistance to Peru in solving its war-made food problem. The Office of the Coordinator of Inter-American Affairs, an emergency wartime agency, had been initially formed by the United States Government to counteract the propaganda and vested capital influences of Axis nations and to cooperate with designated agencies of other governments of the hemisphere in the improvement of health and sanitary conditions. Since health depends in large measure on food, a division for food supply had soon been added, and then later a division for education. The Institute of Inter-American Affairs (IIAA) had come into being as a corporation under the Office of the Coordinator of Inter-American Affairs to carry out the health and agriculture functions of the Office. The Institute was later given nonemergency status by Congress and was transferred to the State Department and eventually became a government corporation attached to the State Department.

In looking back, Mr. Kenneth Iverson, President of the Institute of Inter-American Affairs, has said, "While the development of sound and good relationships between the United States and the other countries in the Western Hemisphere has been a long standing objective of the foreign policy of the United States, the immediate impetus for the organization of the Institute was the urgent necessity created by the war for improving the living conditions of people, contributing to the war effort."^{9/}

The Congress of the United States, in authorizing the continuation of the activities of the IIAA in 1947, set forth the policy of the United States and in turn the objectives of the Institute in these words: "To further the general welfare of, and to strengthen friendship and

^{9/} Iverson, K. R. "Progress of the Institute of Inter-American Affairs -- Point IV in Action." Foreign Commerce Weekly, v.53, No.2, Apr.9, 1951, p.3.

understanding among the people of the American Republics through collaboration with other Governments and governmental agencies of the American Republics in planning, initiating, assisting, financing, administering, and executing technical programs and projects, especially in the fields of public health, sanitation, agriculture and education."

Mr. Iverson expressed this same policy in somewhat different words: "Our foreign policy is aimed not only at preserving what we have, but at making available to our sister nations and friends in the other American Republics, our techniques and aids used in the development of better conditions in which people work and live. And since foreign economic policy in today's world is the handmaiden of over-all foreign policy, let us look to those parts of our economic barriers that need mending here at home and in the other Americas." 10/

Survey of the Peruvian Food Situation and the Agreement That Created SCIPA

The invitation of the Peruvian Government was accepted, and IIAA detailed a party to make a survey and recommendation concerning the food situation. This group of specialists, working in cooperation with officials of the Peruvian Government and representatives of the American Embassy in Lima, performed their survey work in the fall and winter of 1942 and the early spring of 1943. In brief, the party concluded that the general food supply situation in Peru was serious indeed and recommended that a United States food mission be established to carry out actual production projects. It felt that these production projects would be sufficient in themselves to make an important impression upon the food requirements of the 8 million citizens of Peru.

The recommendation of the survey party was approved, and the first members of the mission arrived in Peru on May 1, 1943. The initial purpose was to provide production projects to assist in meeting the vegetable requirements of the Talara army base and the general food needs of the areas in which the Rubber Development Corporation was operating. No decision had been reached as to whether or not the mission would become involved in a general food program throughout the country. This decision rested on the exact nature of a basic agreement to be worked out between the two countries. On May 1 Sr. Ing. Godofredo A. Labarthe became the Peruvian Minister of Agriculture. Between this date and May 19 negotiations were carried on to determine the terms of the agreement. By May 19 negotiations had been brought to a successful conclusion, and the Minister of Agriculture and the American Ambassador signed an agreement committing IIAA to the establishment of a countrywide food program. The agreement set forth the objectives and working arrangements of the two countries. For this reason, and also because this agreement was to remain in operation for several years with only minor alterations, it is reproduced in its entirety here:

"First. - The Government of the Republic of Peru will create, as a separate entity, a special technical service within the Ministry of Agriculture, which shall be known as the Servicio Cooperativo Inter-Americano de Produccion de Alimentos (Inter-American Cooperative Food Production Service), hereafter to be called the SCIPA. The SCIPA shall function in the formulation and execution of the food production program hereinafter set forth. It shall be a dependency of the Ministry of Agriculture.

"Second. - The Government of the United States of America, represented by the Institute of Inter-American Affairs, a corporation organized and existing under the laws of the State of Delaware, an instrumentality of the United States of America, will name a food production mission to assist in the consummation of the program in Peru. The person in charge of this mission will be an expert who shall have the title of Chief, Food Production Mission in Peru. This official shall be the representative of the Food Production Division of the Institute of Inter-American Affairs in Peru. Subject to the approval of the Minister of Agriculture, the Chief of the Food Production Mission in Peru shall be the Director of the SCIPA. The appointment of the Director is for the term of one year.

"Third. - The SCIPA will submit and develop a program to increase the production of foodstuffs of vegetable and animal origin, of primary necessity, covering at least the following items:

- (a) technical assistance for the increase and improvement of production of food products of animal and vegetable origin;
- (b) development of plans for crop adjustment;
- (c) development of new acreage, including agricultural colonization, and plans for soil conservation works; dry farming; and soil survey for new irrigation areas;
- (d) supply of means, tools, equipment, insecticides, seeds, livestock, and other materials, for the increased production of food products of animal and vegetable origin;
- (e) assistance in the further development of extension work to promote the production of food products;
- (f) provision of loans or other assistance to small producers;
- (g) studies and related work in the fields of nutrition and diet.

"Fourth. - The funds for servicing the SCIPA shall be supplied by contributions up to three hundred thousand American dollars (\$300,000) on the part of the Institute of Inter-American Affairs, and provided the Government of Peru makes similar contributions to the program in cash, property, or services.

"The funds supplied by the Institute of Inter-American Affairs shall be transferred to the SCIPA as required by the progress of the work performed by said SCIPA.

"The total funds, property or services supplied by the Government of Peru shall be transferred to the SCIPA in proportion to the amounts provided by the Institute of Inter-American Affairs.

"The amount of three hundred thousand dollars supplied by the Institute of Inter-American Affairs shall constitute the sum total of its contribution and shall include the cost of the materials and equipment supplied by the Institute to the SCIPA. The funds supplied by the Institute of Inter-American Affairs shall be spent exclusively on the realization of the plan indicated in Clause Three.

"The funds of the SCIPA shall be deposited in a special account in the name of the SCIPA and shall be disbursed by the Director of the SCIPA only upon projects having the mutual consent of the Minister or his representative and the Director of the SCIPA.

"Fifth. - The salaries and travelling expenses of the members of the Food Production Mission of the Institute of Inter-American Affairs for work in Peru shall be paid by the Institute of Inter-American Affairs from funds not assigned to the SCIPA.

"Sixth. - All construction undertaken according to this agreement shall become the property of the Government of Peru. No work shall be undertaken which will require materials or personnel indispensable to the prosecution of any phase of the war effort, but without prejudice to the immediately preceding provisions of this sentence the necessary steps will so far as possible be taken to obtain those which are necessary to the realization of the proposed plan.

"Seventh. - The kind of work to be undertaken by the SCIPA in accordance with the program established in Clause Three shall be determined through mutual agreement between the Minister or his appointed representative and the Director of the SCIPA, and shall be carried out by the Director of the SCIPA, always in conformity with policies prescribed jointly by the Minister or his representative and the Director of the SCIPA.

"Eighth. - All contracts and agreements relating to projects agreed upon between the Minister of Agriculture or his representative and the Director of the SCIPA may be drawn up, signed and executed by the Director of the SCIPA with any other legal entity or individual, or any combination of legal entities or individuals. All such contracts

shall conform to general regulations previously approved by the Minister or his representative and the Director of the SCIPA.

"Ninth.- All rights and privileges which are enjoyed by similar official divisions of Government in Peru and by the personnel and employees of the same, shall accrue to the SCIPA, and to all its personnel and employees while performing their official duties. The members of the Food Production Mission of the Institute of Inter-American Affairs will not pay to Peru any direct tax on salaries when they are subject to such a tax by the United States of America. The customs duties paid by the SCIPA on imports of equipment, supplies and material destined for the use of the food production program will be reimbursed by the Ministry of Finance as shown by respective customs house documents and receipts.

"Tenth.- The Director of the SCIPA, with the agreement and consent of the Minister of Agriculture or his representative, shall select, appoint and dismiss the personnel of the SCIPA and shall determine the salaries, transfers and conditions of employment. The personnel shall enjoy the rights and privileges accorded to Government employees.

"Eleventh.- The Director of the SCIPA shall furnish the Minister of Agriculture or his representative all information necessary concerning the SCIPA.

"Twelfth.- The SCIPA shall present to the Minister of Agriculture or his appointed representative, at intervals agreed upon by the Minister or his appointed representative and the Director of the SCIPA, a complete account of all its indebtedness, financial transactions, and expenditures. The accounts and records of the SCIPA shall be open at any time for the inspection of the Minister or his appointed representative, and the Institute of Inter-American Affairs and its designated representatives.

"Thirteenth.- The present agreement will be for the duration of one year, continuing from the date of signature and the Note of Transmittal, and may be extended in the judgment of the contracting parties.

"In addition to the plan to promote food production through the SCIPA, it is understood that the Government of Peru and the Government of the United States of America, through the Institute of Inter-American Affairs, may undertake such other activities and programs as are deemed advisable by the Minister of Agriculture and the Chief of the Food Production Mission to promote the production of food products in the Republic of Peru. If such additional programs are undertaken the facilities of the SCIPA may be used if deemed advisable by the representatives of the two governments."

The Servicio As an Organizational Device

The Agreement called for the creation of a Servicio in the Ministry of Agriculture to formulate and execute the program. It is perhaps well to pause for a moment to describe the Servicio itself as a basis for cooperation.

What is a Servicio and how does it work? "A Servicio is the generic name of the administrative device through which the IIAA works with the other American Republics in the execution of cooperative programs of technical assistance or basic economic development programs. The Spanish word 'Servicio' means service; it is also the synonym for government bureau in the United States."11/

More specifically, a Servicio is a cooperative organization, into which the respective governments feed money, personnel, special authority, and the other elements required to successfully develop the agreed-upon improvement program. It is a legal dependency of the government of the country in which the program is to be carried out. Its authority for operation is fixed under the laws of that country. The responsibilities of the Servicio for carrying out the agreed-upon improvement program are equally divided between the cooperating countries and their agencies.

It is also an executive agency of a special or emergency nature, as distinguished from a permanent or constitutional ministry. "Although the Servicio is a part of a ministry, it is autonomous in many respects. Its autonomy is derived from the authority vested in the director to determine, with the concurrence of the Minister, the administrative procedures to be followed by the Servicio. It has a special bank account over which it has jurisdiction. It may be relieved from most of the fiscal laws and regulations applicable to the regular branches of the Ministry. It exists for the sole purpose of carrying out a program of development and improvement within the limits of the selected field of operation that was planned, developed, and agreed to by the representatives of the two Governments. The Latin American Republic is represented by the minister of the cooperating ministry and IIAA is represented by a Chief of Field Party. The Institute sends to the American Republic such technicians as are required and names as the head of the group a Chief of Field Party. The minister and the Chief of Field Party are co-equals in developing the administrative technique to be followed by the Servicio."12/

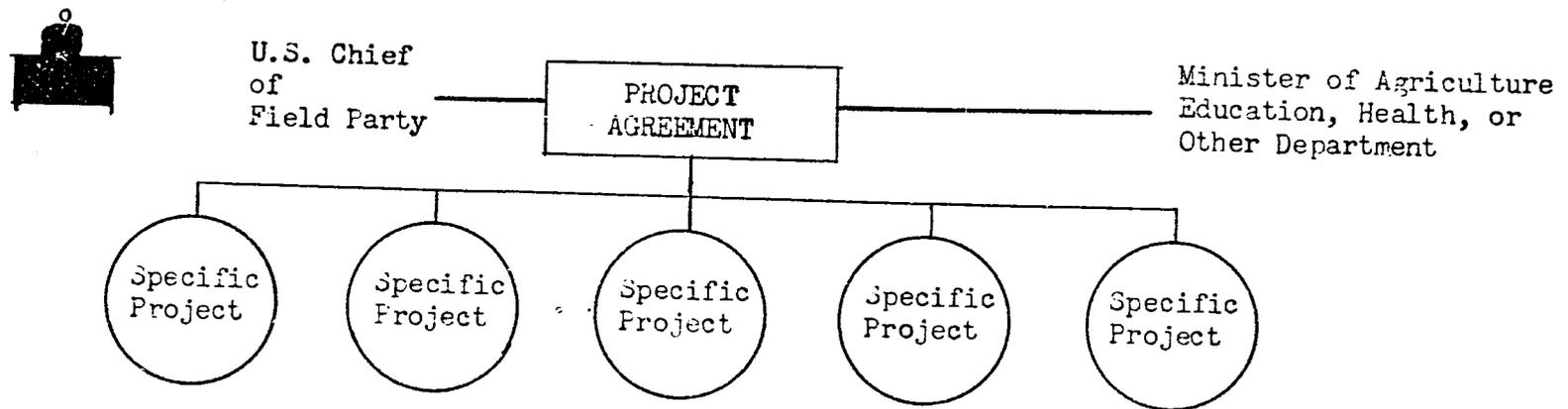
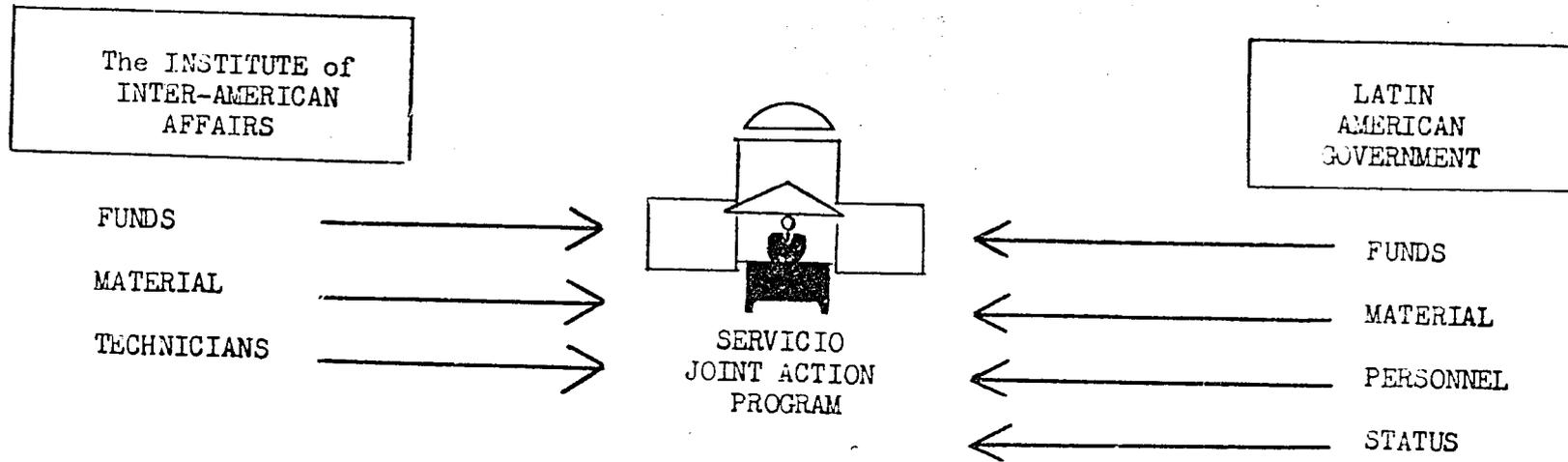
The Servicio functions as an organization of the other country. It is an entity in which United States technicians make their respective contributions with full authority as organizational (Servicio) functionaries and with the responsibilities of organizational employees. These

11/ Iverson, K. R. "The Servicio in Theory and Practice." Public Administration Review, v.11, No. 4, autumn 1951, p.223.

12/ Ibid., p.225.

COOPERATIVE SERVICE

A Method of Joint Enterprise for Health and Sanitation, Food Supply, and Education



How the Servicio technique enables the United States Government, working through the Institute of Inter-American Affairs, to cooperate with other American Republics.

technicians upon occasion may be called upon to function in a special advisory or research capacity to the government concerned but only on a part time basis. They remain an integral part of the servicio team and its operations.

No two Servicio organizations are exactly alike. Each is a special vehicle built to fit the needs of a particular ministry and its program, in a particular country.

And, by all means, the Servicio is a pioneering agency. This does not mean that it attempts nothing but new things. On the contrary, it engages in the regeneration of old institutions, outworn practices, and the like; but even these activities may be considered as entirely important pioneering effort. The Servicio thus is an agency of a different type, endowed with special personnel by the cooperating countries, and inevitably, because of this personnel's being drawn from two nations of somewhat different cultures, the Servicio is possessed of a new spirit, a new pattern for culture, a new pattern for activity, the result of the intimate mingling of two sets of cultural and operational thinking.

No one seems to know exactly when and where this method of carrying out joint enterprises by governments or within governments originated. Probably it was long, long ago. It is believed, however, that the Servicio was first described as an administrative device with the coming of the IIAA programs in the early 1940's. Some people feel that General Dunham, the first Director of the Institute's Health and Sanitation Program, was responsible for its adoption by the Institute.

Whatever its origin, however, the selection of the Servicio as the organizational device for carrying out Institute programs is not a happenstance. Institute leaders have given much thought and consideration to the matter of working relations between Governments.

The Institute, for example, raises this question: "If you were an official of the United States Government with these program responsibilities, how would you meet them?" As guidance in consideration of this question, it specifies certain facts to be kept in mind:

- "1. The work to be performed is in the other Americas, where you are a foreigner and the nation you represent is a foreign sovereignty.
- "2. The other American Republics are sovereign states as is the United States. If the situation of need were reversed, as yourself how you would like to be approached as the recipient of aid.
- "3. The activities to be undertaken and the work to be done are the responsibilities of the American Republic, not the direct responsibility of the United States, but the United States is willing to respond to the request for assistance from its fellow Republics.

"4. The programs involve expenditures of funds, the relationships of governments and people, problems of conflict of law, and many matters of national and international relationships."^{13/}

With this question in mind the Institute examined three of the principal methods by which nations could work together: (1) Use of United States advisers to consult with representatives of other countries, (2) use of United States personnel to actually perform the functions concerned, (3) use of a Servicio, a partnership arrangement. The Institute came to the conclusion that the first method was often ineffective. The second method placed the United States Government in business in a foreign country, an action that would not seem appropriate except under unusual circumstances. For these reasons and others too, the Institute decided that the Servicio, a partnership arrangement with the other country, within which personnel from both countries could jointly undertake to execute programs, was likely to receive greatest cooperation and would probably obtain most lasting results.

Thus the Institute follows the basic principle of a partnership working arrangement with the foreign country concerned. This signifies mutual planning, financing, and operation. The Institute believes in the actual working together of all parties concerned in an operational sense. It believes in great delegation of responsibility and authority to its field personnel so that appropriate decisions can be made at the working level. The Institute points out that the minister has authority to represent his government and that the Chief of Field Party must have equal authority if mutual confidence and respect are to develop. Responsibility, confidence, respect, and equal rights are the elements upon which a successful Servicio relationship is established and maintained. This is also the same path to successful cooperation between Governments in its opinion.

The Food Mission Begins Work

The Peruvian Food Mission, which arrived from the United States on May 1, 1943, consisted of four individuals: Joseph A. Smart, Chief of Party; John R. Neale, animal husbandman; Gerald T. Stack, agronomist; and Margaret E. Jensen, clerk. New members were added as time progressed.

The tasks facing the new arrivals and their Peruvian colleagues were not easy ones. A program had to be developed; an organization had to be established to implement the program. There was pressure from both Governments to accomplish both overnight.

The original survey team had not formulated definite plans, as the Food Mission had hoped, but instead it had left a rough diagnosis of the situation, a diagnosis that pointed toward action along the following lines:

^{13/} Ibid., p.224

1. Immediate steps to increase food production, particularly the production of vegetables, potatoes, and, where possible, cereal grains, including rice for consumption in the Costa and the Selva.
2. Assistance in developing much-needed centrally located warehouses and storage facilities.
3. Assistance in developing a fish program.
4. Starting a project to provide fresh vegetables for the United States Army base at Talara.
5. Starting a project to relieve the critical food situation for workers of the Rubber Development Corporation.

As time was to show, this diagnosis was incomplete and partly inaccurate.

The initial task of the Mission, along with building an organization, was to accumulate and interpret basic data which would permit the development of a logical program. As information became available, it began to be apparent that --

1. Many of the food problems were economic rather than production ones. Even though the Government had fixed low ceilings on food prices, many people still did not have enough money to buy food; besides, the low prices discouraged many farmers from producing.
2. Food was produced almost entirely by hand labor, crops were planted by workers with shovels in fields prepared by the use of wooden plows, and on many farms all tillage operations of every sort and all harvesting, including threshing, were carried out without machinery.
3. Facilities were inadequate for transporting food in sufficient quantities to the rapidly growing city of Lima.
4. Warehouses were needed for orderly food distribution.
5. Much of the information necessary for the development of an adequate agricultural program for the country simply was not available.
6. The most feasible method of getting more food to the hungry people of Lima and elsewhere along the coast would be to provide farmers with usable information about improved agricultural practices that could lower the costs of production of food crops to such an extent that these crops could compete with export crops of cotton, sugar, and flax, and to such an extent that poor people could buy the food produced. Obviously, the original plan - installing supervised projects that had as their objective the production

of more food -- would be of insignificant value; actually the problem was one of education and the introduction of improved techniques.

7. There was no well-organized program for the dissemination of information from the experiment stations to the farmers.
8. Sound economic studies in all the phases of agriculture would be necessary.

In addition to these substantive observations and findings of a program nature, there were many others of an organizational and cultural nature. The Mission -- or Field Party as it was also called -- was handicapped to some extent in that none of its members had had experience in such a program in a foreign country. A process of acculturation took place. As the members of the Field Party became better acquainted with Peruvian life, they gained a fuller appreciation and realization that Peru was not a pioneer country but had, on the contrary, a society that was highly organized. Its Government and customs represented the developments of hundreds of years. Its practices in agriculture represented the accumulation of traditions of centuries. All that was to be done in the country must be done in full consideration of the deep indoctrination of the people in the old ways.

The acculturation process brought the members of the Mission a better understanding of the Peruvian people and their problems. Previous expectations and attitudes, based on inadequate information acquired in the States, were thus modified to meet the realities of the new environment. Members of the Mission came to sounder conclusions concerning the job to be done. In this respect the early observations and conclusions of Mr. Neale, who was later to become Chief of Party, are particularly significant. Mr. Neale during 1943 wrote to a friend as follows:

"Peru will not be changed materially in any single generation, but it does seem likely that the past decade has seen the beginning of forces that must in time lead to the adoption of wholly modern standards of social and economic organization. The people of Peru are more like the people of the United States, at least that is my opinion, than are other Latin American countries even including Mexico. Even the peon class must be regarded as intelligent, with strong bodies, capable of production much greater than is possible through any opportunity now provided. I have been particularly interested in noticing that these people all learn readily to operate machines, to drive automobiles, etc., and the young men who are trained in aviation (these of course are confined largely to the upper social strata) demonstrate a marked ability as is found amongst our most capable aviators in the United States. In other words, they think rapidly and are blessed with excellent muscular and mental coordination. . . .

"I find no indication here that Americans, North Americans that is, are liked. I find no indication that we are regarded with dislike, however, either; and I am pretty well satisfied that if we, as North Americans, can act in South America as we do at home - that is, if we

act natural and are honest -- we can render much needed assistance in improving conditions in South America. All this must eventually result in very largely improved relationships. There are a lot of North Americans in this country who continue to try to be South Americans in their acts and in some way they miss the boat.

". . . I have no idea how long I may be in South America; it might be weeks or it might be a matter of months or it might be a matter of years. There are plenty of things for doing which I can find the personal satisfaction of believing that I am useful for. I am perfectly sure that as time goes on, my work here will be of value to the people I work for. As you know, I am getting old enough to be inflexible in regard to my standards for work and my principles for organization of work. I hope that in doing what we are doing here, we shall eventually have evolved an organization that will be entirely managed by Peruvian nationals in accordance with their ideas of what is good for Peru, but that will contain the better elements of our improved practices in agricultural management and coordination. I think we can do this."

The acculturation process brought the Americans a realization that there was more than one way of organizing the social system. It soon became apparent that a knowledge of the Spanish language, the Peruvian class structure, and its prestige system would be essential if effective work was to be done within the Peruvian culture. Members of the Mission found that the values held dear by the Peruvians were not necessarily the same as their own. They also learned that the Peruvian was proud of his culture, held great love for his family and country, and believed in enjoying life as it was lived. They found that it was important to learn to do things on a friendly basis, perhaps through the family or other social gathering, rather than always on a formal business basis. In addition to these things the members of the Mission discovered that they had much in common with their Peruvian colleagues. Economic security, respect for your fellowman, and position or status in society appeared to be universal values.

At the same time, members of the Mission were rapidly learning many of the organizational problems of a new venture. Administration is never conducted in a vacuum, and this fact was not long in making itself known. The Director of the new Servicio was literally swamped from all sides with the new ideas and new plans that were daily dropped into the general hopper. They became grist for the mill which eventually ground out the Servicio's program. Not all of these plans and proposals were helpful, not all of them were unselfish, and the relative inexperience of the members of the new Servicio made it extremely difficult to select the good ones. Likewise the task of staffing the new organization was arduous. Job applications from Peruvian technicians had to be studied carefully, and the right person selected for the right position.

Development of a Program

Despite all the pressures, the initial program took shape rather rapidly. As one member of the Mission said later, it was program building

on a more or less catch-as-catch-can basis, but it was the best that could be done under the circumstances.

The program for the period May 1943 to June 1944 came to include separate projects for each of the following: (1) Seeds, (2) victory gardens, (3) cattle quarantine stations, (4) general machinery, (5) economic analysis, (6) fish, (7) central warehousing, (8) extension service, (9) dietetics and nutrition, (10) marketing, (11) hogs and poultry, (12) irrigation and land use, (13) statistical studies for the Ministry of Agriculture, (14) Tingo Maria dairy project, and (15) food-crop development at Iquitos and Talara.

Each project was a separate entity jointly agreed upon and signed by the Chief of the Field Party and by the Minister of Agriculture. Each project agreement set forth the general situation, a statement that was really the justification for the project; the general objectives; the method of implementing the project; the scope of the project; the estimated cost; and the income from the project, if any.

For a better understanding of the over-all SCIPA program, let us examine briefly some of the major projects.

The Seed Project, which was concerned with distribution and propagation of seed, was countrywide. Its purpose was (1) to increase the available supply of good adapted varieties of food-crop seeds for the Peruvian farmers and (2) to introduce new kinds of food crops to add variety to the diet and increase the crop selection for soil and climatic conditions. The project included such activities as (1) buying domestic and imported seeds to exploit varietal selections, (2) assisting farmers in purchasing and selling seeds to benefit the national program, (3) assisting Peruvian Experiment Stations to acquire facilities for increasing propagation of good seeds, and (4) testing and proving adaptability of new varieties in cooperation with Experiment Stations.

The Victory Garden Project had as its objectives (1) the introduction of home gardens to the 120,500 urban families in Lima and Callao and to haciendas where little importance had been placed on means of supplementing the family food supply, (2) the improvement of dietary habits by teaching new and varied uses of little known vegetables, (3) the improvement of the national food picture by relieving the transportation load, reducing prices of vegetables, and relieving the dependence on importation of foods. The program called for a close tie with the nutrition program. Seeds were to be distributed in appropriate packages. Special instructions on planting, tillage, insect control, and the like were to be prepared and distributed.

The Arequipa Quarantine Station was one of the projects that was local in nature. Its goals were (1) to treat all imported animals carrying diseases or parasites that can be feasibly treated, (2) to reject animals carrying incurable diseases that would cause loss to farmers in the area. The program called for the following: (1) facilities to handle a maximum of 240 cattle at one time, (2) a dipping vat for the control of ticks, (3) a competent veterinarian to inspect, test, and treat animals

for communicable diseases, (4) police power to reject animals that are found to be carriers of specified diseases and cannot be cured of the diseases in quarantine.

The General Machinery Project was likewise countrywide in scope. Its main purpose was to stimulate and improve efficiency in food production where machinery was vital to immediate results. The program called for (1) small implements and hand tools to be distributed to aid and stimulate food production in connection with special projects, (2) spraying and dusting machines to be made available, and their use demonstrated, to farmers who had permitted their tree fruit production to deteriorate both in quantity and quality, (3) harvesting, threshing, and other large expensive machinery to be made available for the utilization of farmers on a custom basis.

The Extension Service Project will not be discussed at this point inasmuch as it will be taken up in great detail later. The Director of SCIPA, in submitting his proposed plan to the Minister of Agriculture, said, "Our greatest hope for the solution of all the basic problems of Agriculture lies in the development of an intelligent and efficient field service. It is in the nature of men, particularly those close to the soil, to be suspicious of all Governments. The farmer should have one representative in his own community who can help him understand why the agriculture of a nation must be a unified whole, who can listen to his problems and help meet them through friendly and expert advice and demonstration."

The Dietetic and Nutrition Project was countrywide in scope, but was scheduled to make its beginning in the Lima-Callao area. The goals were two-fold: To make consumers aware of nutritional and health values of various available foods and to effect an improved balancing of essential foods and proper preparation and preservation of foods. In order to promote better utilization of available foods, the program called for (1) a promotional campaign using bulletins, posters, movies, radio, press, and so forth, (2) preparation and distribution of low-cost menus, (3) educational and demonstrational work with schools, clubs, garden groups, and others, (4) a special dietary course for training workers, (5) a study of existing dietary habits, (6) enlisting the cooperation of Government agencies and civic interest.

From these illustrations of the scope and character of the over-all SCIPA program, it can be seen that the main streams of effort were to be along four primary channels: (1) an agricultural extension service, (2) economic studies, (3) storage and marketing, and (4) the supply of essential agricultural materials. All were to add up to more food production for the country. The Servicio was prepared to give essential assistance within the limitations of war shortages, in the securing of seed, equipment, tools, fertilizer, and pesticides. The creation of an extension service to give technical information and advice to farmers was to receive special attention.

The development of the program had not been an arbitrary process. An effort had been made to work through regular institutions and channels

of the culture. Key individuals in the various Ministries of the Government and leading producers had been consulted. Several meetings had been held with leaders of the National Agrarian Society to secure their advice and support for the program. This society represented all the large production interests in the coastal areas of Peru and its cooperation was considered vital to the success of the program. The decision to include or not to include a particular project was made in an atmosphere of good will. Some projects such as the ones for constructing warehouses, livestock quarantine stations, and fisheries were particularly favored by the Ministry; other projects, such as the one for development of an agricultural extension service, were favored by the Food Mission.

Thus it is clear that the new program in agriculture was not to be a pure technical-assistance one but one with strong developmental aspects. A basic objective was to provide projects that would fit in and complement projects already under way in the country. Agricultural techniques developed in the United States and American organizational procedures were to be applied to the new undertaking, making modifications to fit the Peruvian environment.

The internal organization of the Servicio followed the proposed main lines of effort. Six divisions and two sections were created: (1) Field Administration Division (Extension Service), (2) Economic Division, (3) Warehouse and Marketing Division, (4) Transportation Division, (5) Irrigation Division, (6) Administrative and Business Division, (7) Information Section, and (8) Pisciculture (Fish Production) Section. Mr. John Neale became head of the Field Division, or Extension Service.

Operations of the Servicio

It is not possible to go into many of the details of the operations of the new Servicio. In general, the first months produced little in the way of tangible program accomplishments, but did develop plans destined to be converted into a useful program. The Ministry of Agriculture was new, having only been formed in January 1943, and the first four months of its existence saw three different Ministers. In addition, frequent personnel changes in the various departments of the Ministry continued to take place. All these changes made the task of developing a close understanding and working relationship between the members of the Ministry proper and the new organization, SCIPA, difficult.

Out of the general disorder and confusion of May, June, and July 1943, however, an orderly program and organization began to develop. During the succeeding months of 1943 and 1944 slow but steady progress was made. Construction was begun on a large potato storage warehouse at Oroya; a victory garden program was inaugurated; a quarantine station for livestock was under construction; various economic investigations were begun; production projects were begun for the U. S. Army and the Rubber Development Corporation; and the Extension Service was founded.

There did, however, begin to be various sorts of political and personnel disturbances as the end of the agreement period approached (June 1, 1944). As was natural, many of the officials of the Ministry had watched

and followed the development and performance of SCIPA with a close eye. In the beginning some had considered the new undertaking with a certain amount of misgivings and expected that the new organization would be staffed largely with personnel from the United States. This fear was soon dispelled, however, when it became apparent that the new bureau in the Ministry was to consist of only a handful of Americans and that all the rest of its employees were to be Peruvians.

As might be expected in any such new and unusual cooperation, the figure of the Chief of Party proved to be a basis for controversy. The Chief of Party, Joseph Smart, was the man who had to make the decisions during these first months. He had to take strong stands, some of them against officials of the other Government. In addition he had to take the blame for the incapacity of his assistants; consequently he tended to become the focus of official and popular criticism. His friends felt that his critics frequently overlooked his demonstrated organizational and administrative capacity to point out his lack of training and experience as an agricultural technician. Within a year Mr. Smart himself concluded that new technical leadership as Chief of Party could do much to improve the operation's likelihood of success. Nonetheless, his strong stands during the early months of SCIPA's life are believed by many people to have had great bearing on the organization's later successes.

The New Leadership

In retrospect it might be said that the change in leadership (from Smart to Neale) of the SCIPA organization marked the close of the period of uncertainty concerning the future of the SCIPA program. Strictly speaking, this is not true because in many of the subsequent years there was a certain amount of anxiety toward the close of each annual extension of the Agreement as to whether both Governments would renew the Agreement or not. Nevertheless, the facts remain clear that from the beginning of the new leadership the SCIPA program and organization became stronger and stronger with each year. The continued increases in Peruvian and United States appropriations for SCIPA and the continued addition of new responsibilities bear irrefutable evidence as to the expanding confidence of the Ministry in SCIPA and in SCIPA's leadership.

It is well to pause at this point for a better look at the man who was to guide and lead the fortunes of SCIPA for many years to follow. For no one can fully understand the development and present-day organization of SCIPA and its Extension Service who does not know something of John R. Neale. His spirit and vision, along with the solid and loyal help of his Peruvian and United States staff, have been largely responsible for today's organization and program.

Jack Neale was born in Ohio, the son of an agricultural extension worker. His father was a frequent speaker at Farmer Institutes in Ohio during the early years of the century. Later the family moved to Kansas, where his father worked as a dairy specialist and later as an assistant county agent leader. During these years his father worked frequently

with C. B. Smith, who was later to become Assistant Director of the Federal Extension Service. The views and philosophies of these two men left a strong impression on the mind of the developing youth. Father Neale believed that children should be trained not only to take care of themselves but to do many of the physical tasks now quite often performed by specialists in the present industrial society of America. As a consequence of this belief, Jack was trained from childhood as a generalist in agriculture. In fact his early education encompassed much more than agriculture, for he served as an apprentice to a plumber, a carpenter, and a bricklayer. The emphasis of this early training on the practical became a big influence in the life of Jack Neale.

Jack earned his B.S. degree at Kansas State Agricultural School in 1917, majoring in agronomy and animal husbandry. After college and following service in the United States Air Force he took a number of different positions in the next few years. He served as a superintendent of a large livestock company for a time and also as a cattle buyer in Montana. In 1923 he became a county agricultural agent in Wyoming. It is said that the first two agents of the county had been "run out" by the farmers because they had too much book learning; Jack stuck. After four years as a county agent Jack moved into Wyoming State College as Extension Animal Husbandry Specialist, a position he was to fill until 1935. In 1935 Jack left the State Extension Service to become Director of Resettlement Administration for the State of Wyoming. This position involved directing a program of rehabilitation for low-income farm families. Later his duties and responsibilities in this work were enlarged and he was made an Assistant Regional Director in charge of the programs in three States. Late in 1942 Jack left this work to become associated with the Institute of Inter-American Affairs. He was soon to go to Peru with the Peruvian Food Mission.

Jack Neale's philosophy and beliefs have strongly influenced his actions.

He believes in the spirit of "rugged individualism." He feels that every person should be trained and educated along broad practical lines; that every person should be able to stand on his own feet under conditions of adversity. And, needless to say, he is a strong believer in democracy and private enterprise.

He believes that a country's capacity to spend must always be a basic yardstick in determining a strong program.

He believes that you must start where people are and with what people have in the way of resources. For example, you do not do extension work in underdeveloped countries in the same way as in present-day United States.

He believes that the main contributions that the United States can make in a foreign agricultural program are in the form of American organizational methods, agricultural techniques, the training of nationals, and the establishment of an agricultural educational system.

He believes that technical cooperation is a going-along process: a few people with experience, with plenty of time.

He believes that the Servicio administrativo devile, wherein the cooperating Governments pool money, personnel, and special authority, is one of the soundest arrangements or cooperative efforts of Governments; that it is as important to have the proper working relationship at the top administrative level as it is to understand the values and needs of the rural people who are to be helped.

He believes that the task of SCIPA is to help improve the internal economy of Peru by aiding the individual to produce more, buy more, and to have more wants. The job is to raise the individual's level of living, as well as his standard of living.

He believes that if you help a farmer make more money, the farmer himself will do most of the right things to improve his lot and that of his family, socially or otherwise. In other words, help a man to help himself improve his net worth. Once you do this, you automatically take the biggest step in improving his level of living and his way of life.

He believes strongly in the principle of self-help, i.e., that rural people must participate in program development and execution, and that rural people must organize for effective action.

He believes in starting programs in a small way, routing them through established channels and institutions, and starting them when and where chances of success are best

He believes in the team concept and the importance of selecting capable, compatible personnel, personnel who can carry their work with a minimum of supervision and guidance.

He believes that there are some things which people have to learn the hard way, that is, by making mistakes. The task of the Administrator is not to prevent this process, but to minimize and control the size of the mistakes.^{14/}

Development of the SCIPA Program

Extensions of the basic 1943 agreement were signed in 1944 and again in 1945 by the Minister of Agriculture and the Chief of the Food Mission. This was a period of adherence to the original objectives and projects, and a period of steady progress by SCIPA. It was also a period of trial and error. From the experiences of these early years there began to emerge a program and an organization that more closely fitted the needs of the Peruvian situation. Other things of great importance also had been

^{14/} His extension philosophy and beliefs will appear later in this account

taking place. Relationships between Peruvians and Americans and between the SCIPA organization and the rest of the Ministry continued to be strengthened as individuals became better acquainted and as SCIPA began to show its worth.

By December 1946, when it was time once again to consider extension of the agreement, there no longer was any doubt concerning the success of the cooperative effort. The preamble of the December 1946 Memorandum of Agreement read as follows:

"WHEREAS the Cooperative Program of Food Production between the Republic of Peru, acting through the Minister of Agriculture of the Republic, and the Government of the United States of America, acting through the Institute of Inter-American Affairs (hereinafter called the Institute), covered by the Memorandum of Agreement of May 19, 1943, has contributed to the development of agriculture in Peru; WHEREAS the Government of Peru and the Government of the United States of America wish to derive the maximum benefit from the work performed to date under the basic agreement; WHEREAS the Government of Peru considers the Agreement to be indispensable to the economy and welfare of the country in the light of the acute shortage of essential commodities;

"WHEREAS the Republic of Peru believes that termination of the Agreement at this time might jeopardize the improvement of the basic economy of the country;

"WHEREAS the Government of the United States of America recognizes the benefits of the program to the people of the Republic of Peru; and WHEREAS the Government of the United States of America and that of the Republic of Peru, consistent with the declaration of Mexico, have expressed their adherence to the principle that economic cooperation is essential to the common prosperity of the American nations; and whereas the Government of Peru has requested that the agreement herein above mentioned be extended until June 30, 1948 . . ."

The new agreement reflected the atmosphere of mutual respect and confidence in other ways as well. The objectives of the original agreement were broadened in numerous respects and spelled out in more detail. Work in the fields of processing, storage, and distribution of food products was now authorized along with technical assistance in production. In some instances this was merely recording on paper what SCIPA had already begun to do.

The Agreement also took special notice of the training of Peruvian civilian personnel. It said, "In order that Peruvian personnel will be prepared to assume, at the termination of this agreement, or earlier when circumstances warrant, the responsibilities of the Food Mission personnel for the administrative and technical direction of the program, definite provisions shall be made during the life of this agreement for the training of competent Peruvian personnel for all positions of administrative responsibility in the SCIPA organization." This clause was inserted into

the agreement, not in a spirit of dissatisfaction by either party, but simply to emphasize the importance of the training responsibility and function of the Food Mission.

The many individual projects of the early SCIPA days had by 1947 given way to a pattern of a few main projects with numerous sub-projects. Besides, a shifting about in project operations had been necessary in order to find fields of operation that (1) would be of genuine and permanent value to Peru's agriculture, (2) would not be competitive with programs already being carried out by other agencies of the Peruvian Government, particularly the Ministry of Agriculture, and (3) could either be liquidated rapidly if the cooperative contracts between Peru and the United States were discontinued, or could be transferred to the Ministry of Agriculture.

By 1947, five main projects were clearly in evidence: (1) Economic studies and analysis, (2) engineering and land improvement, (3) facilities for agriculturists, (4) field extension service, and (5) administration. In addition, separate projects for home gardens, general warehousing, and nutrition and dietetics were maintained. The organization structure followed the program emphasis by providing a divisional arrangement for each of the major five projects.

Two things should be commented on here: (1) Program emphasis and priority, and (2) harmony of program development and execution. In the eyes of Juan Bazo, Neale's right-hand man, the SCIPA program emphasis had started with the establishment of an Extension Service, shifted first to livestock, then to farm machinery, and later, as we shall see, to large demonstrational farms. This does not mean, for example, that the Extension Service was neglected once the focus of new effort shifted to livestock. It simply means that once a new endeavor was well organized and under way, attention could be given to other pressing matters. You may ask why SCIPA shifted to livestock first. What was the reason for the order in the sequence? There were many reasons and factors, more than we have time to go into here. But livestock emphasis came when it did partly because the Minister of Agriculture was deeply interested in livestock work. Machinery pool development had to wait to a large extent until the close of the war, when equipment could be imported from the United States.

The development and progress of the SCIPA program is remarkable in many respects, particularly in the harmony that existed between the Food Mission and the Ministry. According to the record, there simply have not been any serious differences of opinion in the selection, development, and execution of projects. As a matter of fact the harmony on this subject between the Food Mission and the Ministry has exceeded the degree of agreement that on occasions has existed between the Food Mission and its Washington office. For example, in the early years of the program the Institute office in Washington, because of the wording of the law authorizing funds for IIAA, was forced to stress the temporary nature of the work, specifying that projects must be of a type that either could be completed within one year, or after one year could clearly be carried forward without outside assistance. This short-range view met head-on with the views

of Jack Neale and his associates in Peru, who were on the spot and who could see the long-range nature of many of the problems. Permission to develop an extension service under such limited circumstances, for example, was clearly a matter of considerable debate.

Coming back to the harmony of project selection, development, and execution: What explains it? It is an important matter and one worthy of deep reflection. Some observers say it is a matter of working within a culture, and a matter of "simpatia" between Jack Neale (including his American staff) and members of the Ministry. They point out that the Servicio device -- that is, the mixing of Peruvians and Americans on the same staff -- the policy of placing Peruvians in active charge of operating divisions as soon as possible, the place of the Servicio within the Ministry itself, that all these things favor a common viewpoint, purpose, and effort.

The Agreements of 1948 and 1949 were simply extensions of the 1946 Agreement. The degree of confidence in SCIPA was expressed in both Agreements as follows: "The parties hereto hereby express their complete satisfaction with the way that SCIPA has operated since it was established, and their recognition of the effectiveness and efficiency of the service rendered by SCIPA to the agriculture of Peru." The program of SCIPA was not to be altered materially until 1950, and those changes will be discussed somewhat later. .

It is now time to retrace our steps and take up the development of the Extension Service that developed within the SCIPA organization.

GENESIS AND DEVELOPMENT OF THE EXTENSION SERVICE WITHIN SCIPA

The original agreement provided for extension work as a part of the entire SCIPA program: ". . . assistance in the further development of extension work to promote the production of food products."

The importance of an agricultural extension service to bring technical information and advice to the Peruvian farmer was quickly realized at the very beginning of the SCIPA program. Jack Neale, an old extension man, phrased it this way: "It is generally agreed everywhere that nothing is so necessary, so much needed in Peru's agriculture, as technical service on the farms. Such a service can be provided only as a result of a well-organized adult educational activity. It must be carried out by men who are selected because of their interest in such an activity. It cannot be carried out by politicians, nor can there be any taint of politics or personal favor attached to the activity."

The Extension Service Project

The justification for an agricultural extension service, the duties of the rural agents, and the general pattern of organization were spelled out in the initial 1943 Extension Service Project:

"There is need for a well-coordinated program of adult education designed to instruct farmers in improved management method for crops and livestock -- in improved tillage and irrigation method and in organization for marketing.

"The country's agriculture can benefit largely by making available to farmers of all classes -- but most particularly to the uneducated or poorly educated operators of small farms -- technical advice in sound agricultural practice.

"Production of all food crops and animal products and meat can be largely increased through the use of improved practices and techniques, improved seed and breeding stock. service in the procurement of machinery, seeds, and livestock, etc., and through improved marketing services. Practical advice and demonstrations on farms -- lectures -- instructional materials -- circulars -- blueprints -- adequate reports concerning marketing conditions -- rallying points around which campaigns for the production of urgently needed food crops and around which campaigns for the control of insects and disease may be organized -- these are the most important requirements of a countrywide food production and general agricultural improvement program. Such service can best be provided through the medium of properly staffed, serviced and directed field offices set up in the more important food production areas of the country.

"It is proposed to establish a program of field service and extension education for farmers, with agents located in the most important food producing areas and trade zones of the country. Agents of the Servicio, located at these field stations, will serve as the local representatives

of SCIPA, and all phases of SCIPA's program will be promoted by these agents and projected through their offices in order that the program may in all its aspects be completely localized and tuned to the needs of the specific areas.

"It is planned that these field offices will be established at Piura, Chiclayo, Trujillo, Barranca, Lima, Chincha or Canete, Ica, Arequipa, Cuzco, Huancayo, Tarma, Cajamarca, and Iquitos. These offices will be in charge of Peruvian national agronomical engineers whose activities will be guided by a Peruvian agronomist engineer whose title will be Field Service Leader. The Field Service Leader will be under the direction of the Chief of Field operation for SCIPA.

"It is expected that the projects of the Institute of Inter-American Affairs will be narrow in scope and that SCIPA operations will be broadly expanded and that in the immediate future, Field Representatives of SCIPA, that is, Peruvian national agronomical engineers, will be functioning as the directors of these offices. It is expected that the functions of Field Representatives established at these various headquarters will be carried out in complete coordination with the various Experimental Stations of the Ministerio de Agricultura.

"In general, the functions of Field Representatives are:

- 1) To act as the local contact man and director of the SCIPA program.
- 2) To carry out the directions of the Director of SCIPA in promoting in their areas those special SCIPA projects that have been approved by the Minister of Agriculture and the Director of the Servicio.
- 3) To organize and implement a program of general education for farmers in the various districts of their areas and to carry to farmers, through this phase of their program, scientific practices, particularly those that have been proven and demonstrated at Experimental Stations. In other words, to act as a medium through which experimental discoveries may be so propagandized that they will be immediately and largely helpful to the agriculture of the country.
- 4) To assist agriculturists and business people in those localities in which they operate to organize and promote the development of facilities for marketing, processing and warehousing food crops and to instruct business people and farmers alike in the proper market classifications of food crops and produce.
- 5) To introduce, in cooperation with Governmental and private agencies, improved livestock, and to supervise farmers in the proper management and use of that livestock.
- 6) To provide such other services and facilities as may be required.

- 7) To render to SCIPA and through SCIPA to the Ministerio de Agricultura, such reports as will provide for the development of an orderly picture of agricultural production, agricultural problems and agricultural needs.

"Each Field Representative will be equipped with a business office where he may be freely contacted by farmers and business people, will have at his disposal when required a stenographer or clerk to assist him in providing the best possible service to the public, will have an automobile either owned by SCIPA or personally owned and used for SCIPA business on the basis of travel reimbursement, and will also have such other special equipment as may be required for carrying out his duties in the office and the field.

"It is expected that Field Representatives will devote a major portion of their time to the actual study of farmers' problems on their farms, to actually advise farmers on their farms, and to assist farmers through method and result demonstrations as well as to advise them as to improved methods of production, insect control, and so forth.

"They will also direct the activities of practical farm agents who may, as required, be established in defined communities as the directors of special projects. Such agents will be established only in those communities where specialized problems have led to the development of special projects which will in all cases have received the approval of the Minister's office in addition to the approval of the Director of SCIPA and for which special budgets will be provided from those funds available to SCIPA. Such projects will consist of such things as programs to promote increased dairy production, increased swine and poultry production, control of special disease or insect problems, and so forth.

"In addition to the Field Offices, there is established at SCIPA headquarters in Lima a corps of specialists whose function is to direct and be responsible for the proper organization and promotion of specialized SCIPA projects and who do function as technical specialists in assisting Field Representatives to organize, promote, and direct programs in those special fields in which the Field Representative himself may lack capacity and specialized technique.

"This Corps of Specialists is composed at present of five agronomists from the United States, members of the staff of the Institute of Inter-American Affairs and paid by the Institute of Inter-American Affairs; three Peruvian national agronomical engineers, members of the Servicio staff, a marketing specialist, member of the Institute staff; an animal husbandman, member of the Institute staff; an irrigation engineer, an agricultural economist, and a warehouse specialist, all members of the Institute staff.

"In addition to the activities outlined above, Field Representatives will be expected to work closely with all movements having to do with the improvement of rural youth, and will begin to undertake the organization of boys' and girls' clubs for the encouragement and teaching of improved practices in agricultural production and home making.

"SCIPA will offer special encouragement to these clubs as they develop in the way of prizes to consist of implements, livestock, or other elements essential to the betterment of agricultural production on the individual farms and in communities."

Foundation Stones of the Organization

Before going further let us examine the basic philosophy that was to mold the form of the Peruvian Extension Service. The philosophy is that expressed by C. B. Smith, one of the early extension workers in the United States. It is a philosophy held by many extension workers and a philosophy that was accepted and followed in large measure by Jack Neale in the establishment of the Peruvian Extension Service. It could not be followed in every respect under Peruvian conditions, but much of it was found suitable to the Peruvian culture. Mr. Smith has expressed his thoughts in these words:

"Agricultural extension work is instituted among nations by peoples and government to help make rural people -- owners and tenants alike -- efficient, prosperous, self-reliant, proud of their occupation; progressive, cultured citizens with a love of country in their heart; to produce the maximum amount of food and fiber needed by the nation, and to maintain the productivity of the land forever.

"Extension in the United States is financed, planned, and executed by Federal, State, and county Governments and rural people all cooperating, and is known as the Cooperative Agricultural Extension Service. Its teaching program is designed to help people help themselves.

"The agricultural extension program undertaken on an individual farm, in the farm home, or in a community succeeds best when it meets the felt needs of the farmer, his family, or the people of the community.

"The program should be practical, relatively easy to apply, and must result in satisfaction to the farmer as well as to the Government. Begin in a small way with simple matters and enlarge the work as agents and people acquire experience and vision together.

"The large purpose of the early extension work in the community is to establish faith of the people in the extension agent himself -- that he knows his business, has something worth while to bring them, is a man of integrity, and wants to be of service to the people. People follow the recommendations of the leader if they have faith in him.

"Governments undertaking agricultural extension work are presumed to have some agricultural knowledge and agricultural facts, based on research, to extend. It is the business of Government to develop trained leaders for this work and to put in their hands facts for extension pertinent to each community of the State. This means that preceding or coincident with the development of extension in the nation should be the development of schools and colleges to train competent leaders, and experiment stations to develop agricultural and home economics facts for

both teaching and extension. Teaching, research, extension should all go along together.

"In extension program building in any community, it is highly desirable to take into consideration the successful practices and experiences of the local people themselves. They have much to contribute to the building of an extension program based on their local knowledge and experience. Successful extension agents do not ignore local knowledge. It takes trained extension agents to find and utilize successful local practices.

"Extension agents in their study of local conditions often discover problems requiring research studies before extension work, looking toward their solution, can be offered. The agents carry these problems back to the State experiment station or the National Government for solution. That, too, is a function of extension.

"The most effective agents study their job and the results of their efforts among local people to learn what best to do and check up on their own effectiveness. Local agents, farm-raised and technically trained, have their office and live among the people they serve and are one of them. This has been one of the main reasons for much of the success of agricultural extension work in the United States -- men and women agents to help the farmer with his agricultural problems and income, and to help the farm woman with her problems of health, nutrition, home building, family relationships, and cultural life.

"Both men and women agents have found it advantageous in the United States to carry on their extension work in the community through voluntary efforts of the boys and girls 10 to 20 years of age as well as with adults. With proper encouragement and guidance, farm boys and girls make effective demonstrators of better practices in both the home and on the farm. Extension work with youth is probably the most popular phase of agricultural extension in the United States.

"A local organization of rural people, both men and women, to work with the extension agents stationed among them, to help finance, plan, and carry out the extension program, has proved very helpful in the United States. Such an organization should have its own officers and handle its own business. The local extension agents may give counsel to the association but should not hold office in it.

"Local extension agents may at the outset deal with individual farmers and farm families, but more and more as the people come to have faith in him he deals with the leaders selected to help the agent carry on the work. These leaders are usually referred to as local leaders. They serve without pay and multiply manyfold the amount of extension work that can be carried on in any community. In this way extension helps to build rural leaders.

"Teaching by means of actual demonstration on the farm or in the home or community constitutes much of the strength of extension in the United States. The agent gets the farmer, the farm woman, or the farm boy or girl to do the work, keep records, make a report and explain the work to

others. In this way farmers grow in their own importance and in the respect of their neighbors.

"Usually employment of an extension agent who is a native of the community is not desirable. He may be partial in his service to his relations and friends. A public servant works with all people alike. The effective extension agent does not talk down to his constituents but treats them as colleagues and equals.

"Extension best accomplishes its mission when it sends rural men, women, and youth singing down the road of life, because it brings to them help, service, an enlarged outlook, and points the way to larger accomplishment."^{15/}

If this was the basic philosophy, what then were the founding principles and hypotheses? Jack Neale had these beliefs:

1. That practically every community has within itself the ability and leadership to discover and to bring about the solution of its own problems.
2. That there must be an understanding and great participation of farm people in the development and execution of extension service programs if they are to be successful.
3. That an extension service should be for educational purposes and should possess no regulatory functions. (As a part of SCIPA it was also to assist in the conduct of other SCIPA projects wherever it was appropriate for it to do so.)
4. That effective extension work in an underdeveloped area often is dependent upon (1) helping farmers get better credit and (2) providing facilities and services for securing fertilizers, pesticides, and other farm equipment.
5. That use of the self-help principle is fundamental to any extension effort.
6. That an extension service must progress with the people for whom it serves; that the approach and methods used must fit the conditions and culture of the people; that many of the latest refined techniques developed in the United States Extension Service may not, and probably will not, be applicable in extension work in underdeveloped areas.
7. That the introduction and expansion of extension work in a new culture does not require a large United States staff; that, on

^{15/} Smith, C.B. A Working Philosophy of Extension. Report on the Contribution of Extension Methods and Techniques Toward the Rehabilitation of War Torn Countries, p. 218. U. S. Department of Agriculture, Extension Service and Office of Foreign Agricultural Relations, October 1945.

the contrary, there are many reasons for keeping it small; that field operations, in general, should be carried out by nationals who understand the channels of communication within the social structure and the people's way of acting and thinking.

First Steps in the Development

The first task of Jack Neale and Dennett Guthrie, the two people on the Food Mission who had had extension experience, was to find personnel for the new service. The search was for men of intelligence, of integrity, of agricultural knowledge, with an honest desire to serve Peruvian farmers. It was for men who were active, for men who were willing to conduct and perform demonstrations personally. This last requirement or qualification ran counter to Peruvian tradition to some extent. In the past, Peruvian society had expected the college graduate to plan and supervise; it had not expected him to perform physical work. This conflict with Peruvian tradition made the selection process more difficult.

Obtaining technically qualified persons in agriculture was facilitated by the presence of La Molina Agriculture College in Lima, an institution which has proved to be the main source of recruitment for extension personnel over the years.

Once the persons had been selected, developments took place rapidly. The first extension office was established at Arequipa on August 18, 1943, and by the end of the year 11 field offices were functioning. In accordance with the original plan, each office was established in an important commercial agricultural center. As a result of this policy on location of field offices, the pattern of expansion was, first, the fertile valleys of the coast, then the more important agricultural areas of the Sierra, and, last, the jungle. Consequently most of the field offices for the first few years were located in the coastal area.

Indoctrination of the Rural Agents

The philosophy of extension was something new to Peruvians. In many ways it was a new thought in Peru to help a man to help himself. Consequently it was important and necessary to acquaint each new employee with extension philosophy, his duties and responsibilities, and instruct him in ways that would help him do his work.

The new agents were told that it was their duty to help farmers help themselves, and that their principal means to attain this goal were through their own technical education and experience and through the experience and cooperation of the farmers with whom they worked.

In addition they were informed that there were also special facilities of SCIPA that could be used. These included the Victory Garden Program, the Storage Program, the Seed Program, the General Machinery Program, as well as others.

But the means on which rural agents can always depend are their own ingenuity, their own interest in the agriculture of Peru, their own experience and technical capabilities, their faith in the people, their ability to organize individuals for a good purpose. Most important is their devotion to their work, a sincere belief in the future of their work, together with a deep conviction that the Peruvian people have the capacity to develop a permanent agricultural structure.

The rural agents were advised that the soundest programs were those in which the farmer cooperates, in which the principal elements of the community have been enlisted to outline the project, and in which the people have had their interest aroused to such a point that they themselves assume the responsibility and guide the activities.

The rural agent was cautioned that he must not innovate through imposition, and that he may expect little success if he conducts work in which farmers are not interested. For this reason, his first step must be to serve farmers in those problems in which they are already interested. Once an agent has proved to be a good advisor on the problems that interest his community, he may then become a leader and undertake to suggest new methods, with the certainty that he will be listened to. But first he must serve his community; only when he has done that, should he attempt to become its leader.

The agent was emphatically reminded that he was a member of a coordinated team, and that team work was the basis of success in an extension organization.

Then he was cautioned that the success of his work would depend, to a great extent, on his ability to stimulate and maintain satisfactory relations with all kinds of people and organizations.

Rules for Successful Extension Work

Finally, each new rural agent was given a set of rules derived from successful experience in extension work:

1. An extension program is a cooperative program.
2. Being a leader carries responsibilities.
3. Importance should not be attached to personal recognition.
4. A rural agent needs the help of all.
5. The work of the agent is to know the needs of the farmer and to bring him in contact with the entities that can give him the desired material and information.
6. Rural agents are the farmers' agents.

7. Agents must not be afraid of initiating activities that have never been tried before.
8. Agents should not always expect good results from their undertakings. But they must not be discouraged by failure.
9. Agents should not hesitate to recognize failures.
10. Agents must live as close as possible to the people they serve.
11. Agents must not avoid making decisions.
12. Agents should consider the members of their offices on an individual basis. An office employee, although he occupies a lesser position, may be -- and often is -- the key to the success of a program and he should be made to feel his importance. 16/
17/

The Rural Agents Begin Work

Thus the first task of the rural agent was to gain the confidence of the people. This was not easy (see case study on rehabilitation of peach orchards, Appendix I). Heretofore, visits of government officials had usually been for the purpose of collecting taxes, enforcing regulations, and the like. Suspicion dies slowly, particularly in areas of heavy Indian populations, where memories go back to the days of the Spanish conquest. The process of gaining confidence took time. It was not accomplished overnight. Slowly and steadily, however, as the agent's advice and help proved good, the farmers began to look to the agent. SCIPA's providing the agent with a small revolving fund for buying hand tools, fertilizers, pesticides, and seeds for resale to farmers aided the process immensely. Likewise the activities of the agent in cooperation with local committees in distributing garden seeds furnished by SCIPA made closer ties between the people and the agent.

Once a reasonable degree of confidence was evident, each agent proceeded to form community agricultural committees to help him carry out extension work. The procedure used in forming the committees varied. Sometimes a key farmer was asked to draw up a list of names of his neighbors. Then the agent invited them to a public meeting, explained the purpose of SCIPA and its Extension Service, the advantages of an agricultural community committee, and left it to them to decide by vote whether they wished to organize or not. In other cases the village mayor called the initial public meeting at the suggestion of the agent.

16/ Neale, J. R. Extension Service Manual for the Rural Agents, pp. 20-24. SCIPA, Lima, Peru. 1946.

17/ Neale, J. R. Extension Address Before Fifth Conference of Rural Agents in Peru, December 1950.

Almost invariably the farmers voted to organize. Then each group elected its officers -- a president, vice-president, secretary, treasurer and, usually, alternates for each. The functions of the committees were primarily as follows:

1. To serve as a source of ideas about farming matters, suggesting new activities or improvements needed in the community, such as introduction of (a) better cattle and poultry stocks for the benefit of the community and (b) new farming practices, which may include irrigation methods, treatment of seed, or general farming methods.
2. To help in carrying out SCIPA projects such as (a) use and distribution of threshers, tractors, and other machinery and (b) distribution of insecticides.
3. To call the agent's attention to special problems that may require his cooperation, such as control of insects and plant diseases, distribution of irrigation waters, and markets for agricultural products.
4. To arrange for collective purchasing of seed, fertilizers, and so forth, in order to obtain these products at the most advantageous prices.
5. To serve as a means of expanding the work of the agent by carrying technical information and advice of the agent to other rural people.

Extension Policies and Relationships

By the end of the first few months of organization and operation, a number of decisions had been made setting forth a rather definite pattern on policy and relationship matters. Among these policies were the following:

1. That extension agents are wholly public agents, and that as public agents they must give their time without cost to all rural people of the areas served, and that as public agents they must refrain from partisan activities in politics.
2. That the administrative direction of agents rests wholly with the central extension office of SCIPA in Lima.
3. That extension programs and plans of work originate within the area served by each agent, but that such plans are subject to review and approval by the central extension office.
4. That the central office examines all vouchers of field offices for expenditures to see that funds have been expended in accordance with law and project agreement.

5. That salaries and local expenses of agents are paid solely from the central office.
6. That all extension work in agriculture and home economics performed in the local area by the central staff of SCIPA is done in cooperation with the rural agents.
7. That extension work is carried out to deal with individuals primarily as they are representatives of a group, to teach increasingly through agricultural committees, and to give them special instructions from time to time.
8. That extension teaching is generally based on field demonstrations, the results of experiment station studies, the experience of SCIPA's specialists, and the experience of farmers.
9. That a limited number of subject-matter specialists will be employed to serve as carriers of technical information to rural agents and to aid agents when possible in developing local extension programs and in giving instruction to agricultural committees.
10. That extension workers will help promote farmer organizations such as cooperatives but will not assume responsibility for them. They will not be officers in such associations.
11. That neither rural agents nor specialists will act as regulatory officers, such as enforcers of quarantine laws.

Accomplishments and Expansion

The success of the new venture was soon apparent. Demands upon the rural agents continued to increase day by day and month by month. New localities began to petition SCIPA for the establishment of field extension offices, requests which could not always be met because funds were limited.

The following figures for July 1, 1945, give an indication of the early progress of the Extension Service and the nature of its reception by Peruvian farmers.

Local agricultural committees organized	138
Committee meetings held to date	528
Total attendance at committee meetings	10,090
Demonstration meetings	423
Total attendance at demonstration meetings	4,343
Other agricultural meetings	706
Total attendance at other agricultural meetings	14,090
Number of farms visited	4,514
Number of office calls from farmers	6,720

Agricultural necessities distributed:

Hand tools of all kinds (shovels, hoes, machetes, etc.	16,733
Plows (both imported and made locally)	495
Plow parts	589
Tractors	5
Threshers	15
Sprayers and dusters	366
Seed (in kilos):	
Wheat	113,213
Barley	6,750
Potatoes	165,084
Rice	41,327
Alfalfa	4,556
Vegetables	3,089
Other (sorghum, beans, corn, etc.)	86,368
Pesticides (in kilos)	3,385
Fertilizers (in kilos)	125,100
Number of animals treated for prevention and control of disease (including cattle, horses, hogs, sheep)	1,773
Poultry vaccinated	3,932
Superior breeding animals distributed	242
Purebred poultry distributed	1,686
Victory Garden packages distributed	28,118

The number of field offices expanded from 11 in 1943 to 14 in 1944, to 19 in 1945, to 31 in 1947, to 32 in 1949, and to 37 in 1951. The number of extension workers rose with the expansion of work, increasing from 23 in 1943 to 140 by 1952.

Home Demonstration Work

The agreement of 1943 made provision for "studies and related work in the fields of nutrition and diet." Mrs. Jean Burbank, dietician from the United States, began work in the field by commencing food-consumption studies. She was soon to leave the organization, however, and Miss Angelica Roncal, a Peruvian, carried on this important work. Miss Roncal was the sole home economist of SCIPA during 1945-49. The task of accumulating reliable data and information regarding the food habits, incomes, and needs of the families of small farm operators and farm laborers was a long and arduous one. Studies were made in more than 100 different communities in practically every Department of Peru. The results of these studies were then used as a basis for nutrition programs. Miss Roncal gave as many lectures on nutrition and demonstrations on preparation of food as her limited time would permit.

Gradually the home demonstration movement expanded, and in August of 1947 the first Women's Club was founded, in Iquitos. The pattern of organization of this club and the ones to follow was closely similar to the pattern used by the men in the formation of their agricultural committees. Each Women's Club was to have a president, vice-president, secretary, and

treasurer. The function of the club was to enable the agent to reach more people. The professional staff of home economists, consisting only of Miss Roncal in the beginning, increased to two persons in 1949 and to three in 1950. The first home demonstration agent was appointed in December 1950, but the home demonstration movement was to move slowly until the spring of 1952.

Looking back, Mr. Neale attributes the slowness of home demonstration development to two things. First there was the job of selling the Extension Service to people who were responsive mainly to financial income. Thus, in his opinion, the emphasis had to be on agricultural extension work until this task was accomplished. Second, there simply was not enough money to expand all lines of extension at the same time and rate.

Youth Work

Club work began in Iquitos in 1946 and 11 clubs were in operation by the close of the year. The pattern of their organization and program work was similar to the 4-H movement in the United States. Gradually other clubs came into existence as rural agents found the time for this new field of work. Progress was relatively slow, however. Lack of funds was again the main deterrent to rapid progress. Money was needed for professional personnel to get the movement under way and to sustain it.

In 1948 Mr. Harth Terre was sent to the United States to study 4-H Club work in preparation for his new position as head of a youth department. Upon his return, youth work was undertaken in a more systematic way, with the benefit of program and organization leadership from the central office in Lima.

It has been said that the pattern of organization of youth work was identical with that followed in the United States. This is not strictly true. Due to the custom of the segregation of the sexes during the school years in Peru, it was found desirable to form separate clubs for boys and for girls.

The organizing of the clubs took place through the regular institutions of Peruvian society. The school system, for example, was used extensively. There were essentially four steps in the organizing process. First, Mr. Harth Terre or one of his two assistants selected the school in the area through which he wished to form a club. Second, the proposed club was discussed with the director of the school. Then the director called a meeting of the leading citizens of the area to consider the proposal. If their approval was gained, a meeting was held with the boys of the school to establish and launch a club. These sessions were held in cooperation with the rural agent, and it was he who carried on the meetings thereafter with the help of local leaders. Sometimes the rural agent formed the clubs directly without assistance from the central office.

Organizational Landmarks

Along with the general expansion of the Extension Service, various important organizational events occurred that marked the stages of development of the Service. Some of these events are here presented in chronological order:

1944:

1. Supervisors for the northern and southern areas were appointed.
2. An Information Department was established in the Extension Service for the dissemination of technical information.
3. The First Annual Extension Conference was held in Lima during December.

1945-46:

1. Supervisors Summers and Labarthe were sent to the United States for a six months' training course in Extension Service Administration.
2. Club work for boys and girls began in Iquitos in 1946. Eleven clubs were in operation by close of year.

1947:

1. The first Peruvian Director of Extension was appointed on April 17.
2. The heretofore separate project of Dietetics and Home Economics became an integral part of the Extension Service in the form of a Department.
3. A specialist was chosen to take charge of the specialist staff.
4. Four Coordinators of extension field workers (district agents) were appointed to help supervise and coordinate the extension program.
5. The First Home Demonstration Club was formed in Iquitos on August 30.

1948:

1. Mr. Harth Terre was sent to the United States to study 4-H Club work in preparation for his new position as head of a juvenile department.
2. The Extension Service was reorganized into five principal divisions: (1) Field service, (2) technical aids and program development, (3) nutrition and home management, (4) information service, (5) juvenile clubs (including home and institutional gardens).

THE PRESENT SCIPA PROGRAM AND ORGANIZATION

The present SCIPA program is being carried on under the terms of the agreement signed on September 22, 1950. This agreement is notable because it is a five-year agreement; previous agreements were limited to one or one and one-half years. Certainly the longer term has many program and organizational advantages.

In the present agreement, clauses dealing with the objectives and content of the program have a broader scope than in previous agreements:

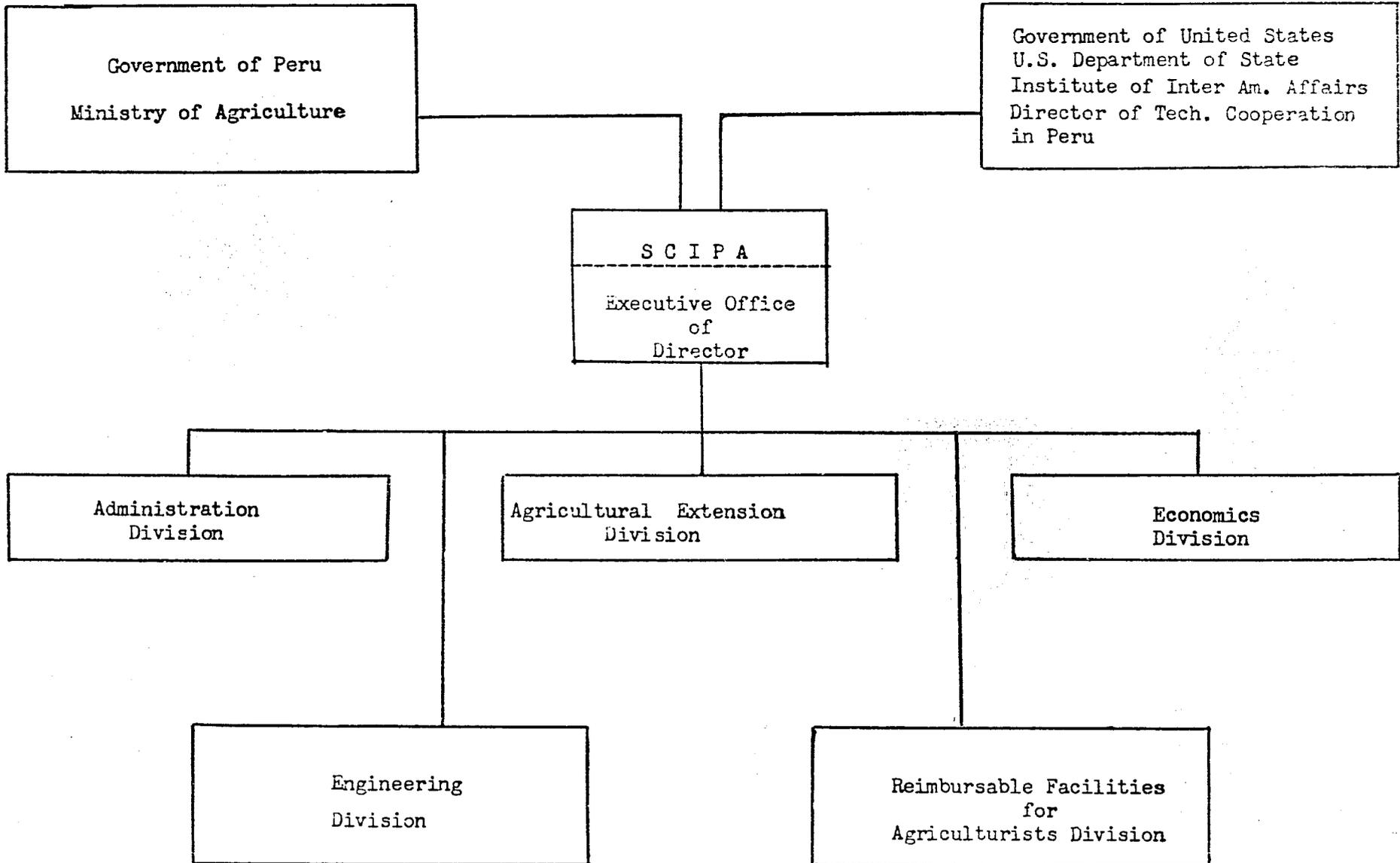
"Clause I. The objectives of this cooperative program of agriculture are:

- A. To promote and strengthen friendship and understanding between the peoples of the Republic of Peru and the United States of America and to further their general welfare;
- B. To facilitate the development of agriculture in Peru through cooperative action on the part of the parties to this agreement; and
- C. To stimulate and increase the interchange between the two countries of knowledge, skill and techniques in the field of agriculture.

"Clause II. It is agreed that this cooperative program of agriculture may include:

- A. The furnishing by the Institute of a field party of specialists (hereinafter referred to as the 'Field Party') to collaborate in carrying out the cooperative program of agriculture.
- B. The development and carrying out of activities of the following types: (1) Studies and surveys of the needs of Peru in the field of agriculture, and the resources which are available to meet these needs, and the formulation, administration and continuous adaptation of a program adequate to enable it to meet such needs; (2) the initiation and administration of projects that will effectuate the program, including activities in the fields of increasing food supply, introduction of better plant and animal varieties, soil and water conservation, agricultural extension work, introduction of better tools and methods of cultivation, improved nutrition and basic agricultural statistics; (3) training activities in the field of agriculture; (4) the purchase of equipment, supplies and materials needed in carrying out the agricultural program in Peru provided for in this agreement.

ORGANIZATION OF SCIPA



- C. The use of any other methods and means which may be considered appropriate for the effectuation of this cooperative program of agriculture."

The Program

In general, the program contributes to the production of food in the following ways:

1. Providing aids to increase and improve the production of foods of both animal and vegetable origin.
2. Assisting in the development of new lands, including agricultural colonization, plans for conservation, for dry farming, and for new irrigation projects.
3. Forming, developing, and expanding a countrywide extension service.
4. Supplying equipment such as tools, insecticides, seeds, agricultural machinery, livestock for breeding, and other materials to improve agricultural production of all types.
5. Making loans and giving other financial help to small farm operators.
6. Making studies and doing work in connection with home improvement through better nutrition, diet, and sanitation.

The present program continues the pattern developed through nine years of experience. It consists of five main projects: (1) Economic Studies, (2) Engineering, (3) Reimbursable Facilities and Services for Agriculturists, (4) Administration, and (5) Extension Service.

The Economic Studies Project involves work in farm management, statistical analysis, and special area studies as may be required from time to time.

The Engineering Project provides service in the fields of architecture, construction, land rehabilitation, irrigation, and drainage. Recently the matter of developing water wells has received much attention.

The Project for Reimbursable Facilities and Services for Farmers involves (1) building up, maintaining, and operating machinery pools, (2) making available to small farmers special hand tools, pesticides, seeds, vaccines, animals for breeding, and spray equipment, (3) developing special area projects, (4) providing special aids for development of the fishing industry, (5) maintaining warehouses, and repair shops for servicing activities of SCIPA, (6) conducting special studies for the development of a dehydration industry, (7) operating three livestock development demonstration farms, a new enterprise financed by a special contribution of the Peruvian Government.

The Administration Project provides services for fiscal and regulatory controls of SCIPA's activities, purchasing of supplies, maintaining inventory records and others -- the day-to-day service essential to the smooth operation of the SCIPA organization.

The Extension Service Project, which is the special subject of our discussion, need not be elaborated upon at this point.

The SCIPA Organization

The present SCIPA organization is a large one, large both in terms of personnel employed and in terms of budget figures. Starting with 45 Peruvian employees in 1943, SCIPA had 823 employees on June 1, 1952. The present Food Mission staff of 18 makes a total of 841 people on the SCIPA team.

The contributions of the two Governments for 1951-52 called for \$200,000 from the United States and 6 million soles (\$400,000) from Peru. ^{18/} Facilities and services to agriculturists bring in sizable amounts of money in the form of income for the budget. The total budget for the calendar year 1952 amounts to 9 million soles.

Organization at the National Level

SCIPA has five divisions, one to correspond with each main project: Economic Studies, Engineering, Reimbursable Facilities for Agriculturists, Administration, and Agricultural Extension.

SCIPA, as a Servicio, is an organic part of the Ministry of Agriculture but possesses considerable autonomy. This autonomy is reflected to some degree by the fact that, physically, the members of SCIPA have their offices in a building separate from the rest of the Ministry. SCIPA's Director, Mr. Neale, works directly with the Minister of Agriculture. The present Minister, Señor Luis Dibos, has been in charge of the Peruvian Agriculture Department since 1950 and is well-acquainted with SCIPA's program and organization. The fact that the Minister and the Director are personal friends helps cement the official relationship of the two positions.

One other point should be made concerning the position of SCIPA within the Ministry, a point already partly covered. SCIPA, as a result of its special character, has always been a very flexible organization, able to perform many functions quickly. Other bureaus of the Ministry are subject to regular Peruvian laws and regulations, which frequently tend to impair their flexibility. For this reason SCIPA has been used on numerous occasions by other parts of the Ministry to promote administrative efficiency.

^{18/} In addition, under the Point IV Agreement, the United States will contribute \$280,000 and Peru 4.5 million soles (\$300,000)

Duties and Responsibilities of the Director of SCIPA and Chief of Field Party.-- As Chief of the Institute Field Party and at the same time as Director of SCIPA, Jack Neale "wears two hats" in an administrative sense. Some of his duties, responsibilities, and relationships are directly related to IIAA; others are more closely related to the Servicio. In actual practice these two sets of duties, responsibilities, and relationships tend to merge. For this reason we will list the main duties together:

1. To supervise and direct all activities of the members of the Food Mission.
2. To supervise and direct all activities of the members of SCIPA. These duties include planning and executing programs of crop and livestock improvement, nutrition, land development, land rehabilitation, fisheries development, and so forth. They involve guidance and leadership in all activities of the agricultural program from the technical standpoint as well as from the standpoint of policy and over-all program objectives. They include making final recommendations to the national government concerning the character and extent of agricultural work to be conducted and the personnel needed to implement the program.
3. To represent and speak for the Institute during negotiations with representatives of the Peruvian Government on determination of program content, financial arrangements, and the like. Contiguous to this duty is the responsibility to the Institute for the administration and allocation of United States funds and for planning and executing a program.

The relation between Mr. Neale and the Minister of Agriculture is interesting. As Chief of the Food Mission, Mr. Neale represents the Institute and functions as a coequal of the Minister in making joint decisions; as Director of SCIPA, he is the head of a division of the Ministry and has a direct responsibility to the Minister of Agriculture for the satisfactory development and execution of the food program. The degree of autonomy with which SCIPA is invested, as well as the function Mr. Neale has as Chief of Party, gives the over-all relationship between the two men a tone of partnership and equality.

Normally the Chief of Party would be definitely subordinate to the Point Four Director in the country. In Peru, however, this matter is simplified by the fact that Mr. Neale occupies both positions

It has been said that the Director of SCIPA is a "practical" administrator, one who has developed through experience and hard knocks and not through studying the theory of public administration. It has also been said that he has a natural "feel" or intuition for administration. Certainly the main components of his theory of administration bear witness to its soundness: 19/

19/ Many of his ideas on administration have already been covered previously in this paper under the headings "Basic Philosophy and Beliefs," "Foundation Stones of the Organization," and "Indoctrination of the Rural Agents."

1. That the organizational structure should be as simple as possible, with a clear line of authority running from top to bottom.
2. That the top administrator should have freedom of choice in selecting his subordinates, and that these individuals should be people of strong character and broad experience, with a team concept of work.
3. That the Chief of a Field Party, in an operation such as in Peru, should have authority to match the great responsibilities of the task.
4. That the Servicio device, if properly used, is one of the soundest arrangements for carrying out cooperative programs between Governments.
5. That foreign technicians must learn the language, customs, and traditions of the country in which they are stationed, and must work within the culture.
6. That the top administrator should delegate authority commensurate with responsibility; that administrators should delegate as much as possible, leaving subordinates free to use their initiative; and that the administrator must keep informed on developments within the organization.
7. That the human factor is basic to sound organization, and that the dignity and self-respect of the individual must be safeguarded at all times.

In practice the Director has not always found it possible to delegate as much as he would like. The arrival of new employees from time to time and the diplomatic nature of much of the work has required fairly close control over the SCIPA organization and its program. In large measure, determination of policy, selection of key personnel, control of finances, over-all program leadership, and direction of public relations have had to be handled personally by the Chief of Party and Director of SCIPA.

The Director's Staff.-- The Director's administrative staff consists of the heads of the five divisions: Pedro Perez Palacio, of Peru, Economic Studies Division; C. T. Sturdivant, from the United States, Engineering Division; Juan Bazo, of Peru, Division of Reimbursable Facilities for Agriculturists; Joel H. Thornton, from the United States, Administrative Division; and Enrique Labarthe, of Peru, Agricultural Extension Service.

Besides these, there is the administrative staff in the Office of the Director, which consists of four persons: Benjamin Quijandria, Juan Bazo, Margaret Bazo, and Eric Anturez de Mayolo -- all of them Peruvians except Mrs. Bazo. A short description of each one's duties follows:

Benjamin Quijandria, Secretary General, is liaison officer between the Director of SCIPA and the Minister of Agriculture; through him are made all contacts between the two. He keeps the Director informed on developments within the Ministry and the Peruvian Government in general, arranges meetings and introduces visitors to members of the Ministry upon request of the Director of SCIPA, represents the Director at various meetings and conferences within the Ministry as requested, and functions as head of the SCIPA Personnel Board.

Juan Bazo, Executive Assistant, who is also head of the Division of Reimbursable Facilities for Agriculturists, works in the Director's office to ease the administrative load. He does it in two ways principally: (1) By giving advice to other SCIPA workers concerning the necessity of taking or not taking issues to the Director, and (2) by providing follow-through on decisions made by the Director

Margaret Bazo, Administrative Assistant, reviews all incoming and outgoing mail so that the office may be appraised of all matters; she reviews outgoing mail for the additional purpose of insuring consistency and adherence to policy; she interprets policy for staff members and generally keeps them appraised of the Director's wishes; also she keeps the Director appraised of all problems that warrant his attention. She supervises all office operations except those of Business Office; directs the activities of secretaries, stenographers, and messengers; interviews and recommends such workers for employment. Besides, she maintains liaison with American Embassy on mail and cables, initiates day-to-day correspondence for the Director, and handles visitors, arranging appointments with Director and the like.

Eric Anturez de Mayolo, Planning Officer, holds a new position, and some of the duties are still in the formative stage. At the present time he prepares the annual report of SCIPA for the Ministry; receives and handles questions of the public that are of an unusual nature and do not fall within the business of the regular divisions; handles details on completion of agreements as projects are terminated; brings together all important reports and documents of SCIPA and other necessary material for a resource stock pile for planning purposes; prepares special reports of a research nature as instructed by the Director.

Duties and Responsibilities of the Division Heads.-- Let us consider the functions of the Division Chiefs briefly. A portrayal of the scope and nature of the work of two of them will serve to illustrate.

Joel H. Thornton, Business Manager of the Administrative Division, provides administrative service to the members of the Field Party, supervises fiscal and business management of SCIPA, prepares budget materials, assists in the performance of other Point Four fiscal and business management operation upon request, serves as the Institute's certifying officer for the Field Party, develops a training program for Peruvian staff in his division.

C. T. Sturdivant, Chief of Engineering Division, serves as the top agricultural engineer in a consulting capacity to the Chief of Party and members of his staff; provides leadership in developing and executing of agricultural engineering projects; supervises and directs the work in the Engineering Division of SCIPA; develops a training program for Peruvian staff in his division; and coordinates work of his division with other activities of SCIPA and the Ministry.

Advisory Committee.-- A new and important addition to the SCIPA organization at the national level is the creation of an advisory committee to help the Director in his policy and coordination problems. The primary purpose of the committee is to tie the personnel and work of SCIPA more closely to the personnel and work of the remainder of the Ministry. The committee is composed of: (1) The Director of SCIPA, (2) The Secretary General of SCIPA, (3) The Director of Extension, (4) The Director of Division for Reimbursable Facilities for Agriculturists, (5) The Director General of Agriculture, (6) The Director of the Livestock Division, and (7) The Director of Colonization and Jungle Development. The last three members are from the Ministry proper.

The Specialist Staff and the Training Function.-- It is clear that the training function is basic in any technical assistance program. A program may be developed by foreign technicians, but, within a relatively short time after they take their departure, no appreciable vestige of that program will remain unless local technicians have been trained to administer, staff, maintain, and improve the facilities created. How has this training function been handled by the Food Mission in Peru? The answer to this question is closely related to the role of the foreign technician.

Jack Neale, as Chief of Party, uses the following procedure in orienting a new technician from the United States. The technician is informed that the first 2 or 3 months are to be spent in getting acquainted with the country and the culture, taking Spanish lessons, and finding some of the problems in his particular field of work. At the end of this period he returns to Mr. Neale to discuss his future work, and the two of them jointly agree on its exact area and nature. This is the general procedure followed. In Neale's opinion it tends to put the individual on his own resources in defining the situation. Some people, of course, are recruited for a definite, specific purpose and are released upon conclusion of their short-term assignment.

Insofar as training is concerned, the roles of technicians fall into several general patterns: (1) The actual directing and operating pattern, (2) a supervisory pattern, (3) an advisory or consultant pattern, (4) and finally a pattern with little or no attention to the training function. When a program is in its early stage of development, the theory of the Servicio is to place the foreign technician in actual charge. He is responsible for the actual planning, direction, and supervision of a project. Nationals are placed in subordinate positions to observe and learn. Mr. Sturdivant's position as Chief of the Engineering Division is an illustration of this stage of development in one of the divisions of SCIPA. Later the foreign technician is replaced by a trained Peruvian. The policy of the Institute is to speed this process as much as possible. In SCIPA's

case, practically all important positions of the organization had been filled by Peruvians by the summer of 1946, three years after the beginning of the program. (See case study on control of potato insects, Appendix I.)

Once the Peruvian has taken charge, the foreign technician's role changes to that of a consultant. Actually, if the same two people are involved, the role of the foreign technician usually turns out to be more of a supervisory one because the newly trained person still tends to rely upon and follow closely the advice of his former superior. Gradually, however, this relationship changes until the new man is truly independent and on his own resources. This pattern might be called the model pattern.

As we have mentioned, foreign technicians frequently function in other role patterns. The technician may enter the organization to operate either directly as a supervisor or indirectly as an advisor. The role he takes at any particular time will depend upon the situation and the stage of development that the national administrator or technician has reached.

Thus, the role of the technician is subject to change. It generally moves in one direction, that is to say, from actually directing a project to acting as a consultant. But it need not do so. Miss Bryant, for example, recently reported for duty with the Food Mission with the understanding that she would function in an advisory capacity, helping to give leadership to a new and expanding home demonstration program. However, it soon was deemed desirable to have her take a more active role -- as acting home demonstration agent leader -- to get the program launched more quickly.

Neale has found that a few foreign technicians never seem to see their training responsibilities and functions in true perspective. They are pure technicians and can work directly but, for one reason or another, fail to succeed in training their national associates. They become so enthusiastic over the importance of the actual operation that they tend to lose track of the training function.

In addition to the training accomplished through the day-to-day associations of foreign with national technicians, it has been the policy of the Peruvian Food Mission to send qualified Peruvians to the United States for additional training from time to time. Mr. Labarthe and Mr. Summers, for example, after two years of work with SCIPA, were sent to receive additional training in Extension Administration. The policy has been to send only individuals that have proven their worth and their potentiality. Experience with Peruvians has been that these trips are important and valuable in the broad training of the individual, even though not always particularly fruitful in a narrow technical sense. The trips tend to break down inferiority complexes if there are any, and to show the Peruvian that, after all, people in the United States are very much like his own countrymen.

The Field Organization

The field organization of SCIPA consists essentially of the 37 extension offices. The organization of these offices will be discussed later, along with the extension organizational arrangements within the central office at Lima.

In addition to the extension field offices, 13 machinery pools are now organized and operating throughout Peru. Equipment in these pools includes 81 tractors, 77 plows, 37 threshers, 9 bulldozers, and other machinery. Each pool operates under a manager, who in turn is responsible to a regional manager. The regional managers work under the instructions of the Chief of the Division for Reimbursable Facilities for Agriculturists. The rural agents cooperate with the managers of the machinery pools but usually have no responsibility for their operation.

Other installations in the field consist of the three development demonstration farms supported by the Peruvian Government at Tarapoto, Cajamarca, and Pucallpa. A small farm for testing new equipment, stationing newly arrived livestock, and similar purposes is located at Callao. And, as mentioned earlier, there are two rice mills operated by SCIPA at Camuna and Tumbes.

THE PRESENT EXTENSION PROGRAM AND ORGANIZATION

The objectives and scope of the extension program in Peru have broadened over the years with the addition of youth and home economics work. This new horizon is revealed in the following objectives of the present program:

1. To provide a technical advisory and demonstrational service to farmers in the most important agricultural areas of the country, a service that will help farmers on their own farms and in their own communities to improve their operations.
2. To develop through communally organized activities the normal cooperative instincts of farmers and implement their normal wishes to help each other.
3. To excite in farm children through organized Juvenile Club Programs an interest in improved practices and better living on farms, to the end that they may develop a desire not only to be farmers, but to be better farmers than their fathers.
4. To assist farm families to have home gardens by making available seeds of vegetables suitable for production in their communities.
5. To provide special assistance in procuring seeds and the establishing of vegetable gardens at institutions, hospitals, military posts, schools, and so forth, through the medium of an Institutional Garden Program.
6. To teach farm women more about nutrition and home management.

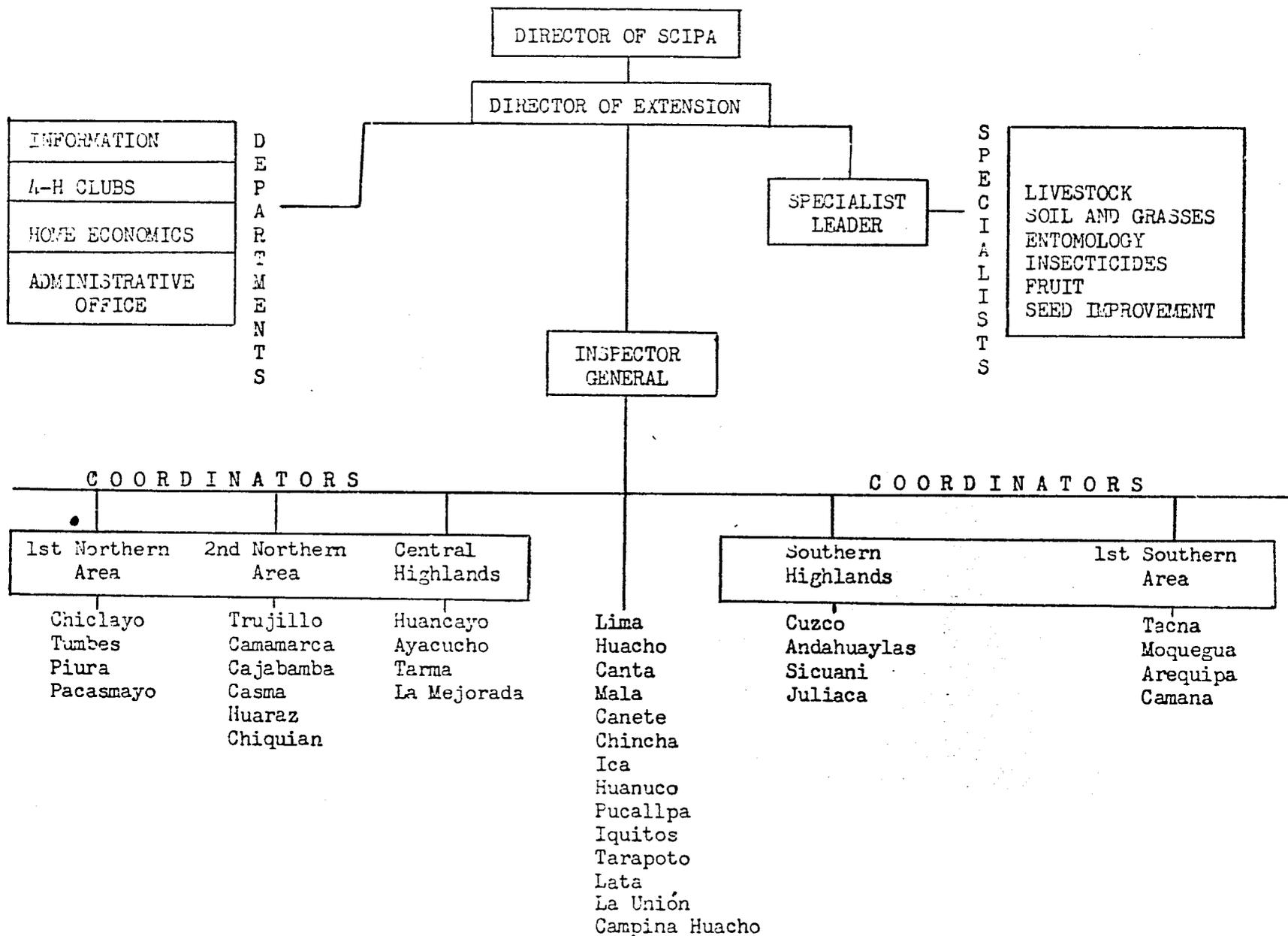
Growth of the Program

Additional funds are now making it possible to expand home demonstration work. The services of Miss Louise Bryant, formerly with the Texas Extension Service, have been procured to help give technical and administrative guidance to the expansion. Six new home demonstration Agents have been hired recently, given preservice training, and assigned to extension field offices for work, making a total of nine home demonstration agents in the field.

The increase in the number of home demonstration agents in turn will help the youth movement, particularly in girls' work. Rural agents in many cases will now have home demonstration agents to help them in club work.

Rural agents continue to act in their particular zones as SCIPA's official field representatives in all matters, but they direct most of their time and effort to organized projects, educational and organizational in nature, designed to help farmers to help themselves.

ORGANIZATION OF PERUVIAN EXTENSION SERVICE



The Extension Organization

The present extension organization is a substantial part of SCIPA, with 37 field offices in operation. As of June 1, 1952, professional staff for the country totaled 103:

Director of extension	1
Inspector general	1
Leader of home demonstration agents	1
Leader and assistant leaders of club work	3
Leader of agricultural extension specialists	1
Head of Information Service	1
Agricultural extension specialists	9
Home economics specialists	3
Rural agents	37
Field assistants to rural agents	37
Rural home demonstration agents	<u>9</u>
Total	103

The organization is substantial also in terms of budget figures. The budget for the calendar year 1952 totals 4,520,200 soles (about \$301,000).

Characteristics of the Peruvian Extension Service

Some of the key characteristics of the Extension Service in Peru are as follows:

1. The Extension Service is an integral part of the mother organization, SCIPA.
2. The Director of Extension is directly responsible to the Director of SCIPA.
3. Structurally the Extension Service is an organization with one line of authority, running from the Director of Extension to the Inspector General to the rural agent. The rural agent is in administrative charge of all personnel at the field-office level, including the home demonstration agent.
4. The leader of the home demonstration agent and the leader of club work hold program positions. They provide technical program leadership.
5. All extension personnel at the national level are housed in the same building with the other SCIPA personnel.
6. The leader of home demonstration agents is in charge of home economics specialists. She directs and coordinates their work in the field and in the office.

7. Agricultural extension specialists are scheduled through the office of the Director of Extension upon request of rural agents.
8. Field offices are not established on the basis of geographical political subdivisions of the country, but on the basis of the agricultural importance and needs of the various areas.
9. The control and financial support of the Service is centralized in the Lima office. Final action on all extension budgets is taken in the Lima office.
10. The staff of each field office consists of (1) the rural agent, (2) his field assistant, (3) a male secretary, and (4) a messenger boy. In addition, nine offices now have home demonstration agents as part of their staff.
11. Youth work is conducted by either the rural agent or his field assistant. In those offices having a home agent the work is split between the home agent and the rural agent. In line with the culture, youth work is conducted on the basis of separate clubs for boys and girls.^{20/}
12. The lay organizations consist of (1) agricultural community committees and (2) home demonstration clubs. Each club and each committee has its own officers. They are advisory in nature.

Organization at the National Level

It is clear that the Extension Service in Peru is an integral part of the mother organization, SCIPA. The interactions and interrelations of the divisions of SCIPA are close and friendly ones. The services and facilities of the other divisions support and facilitate the conduct of extension work in Peru. Indeed it would be difficult to do effective extension work without their help. The Extension Service in turn supports the other projects of SCIPA.

The Extension Service occupies a special place in SCIPA. It is generally recognized that the establishment and maintenance of the Extension Service represents a movement that must be perpetuated, an institution that must be made permanent. The awareness of this special position of the Extension Service is reflected in a basic policy dominating the growth of the Service. The policy is simply this; the budget of the Extension Service is not to exceed the annual contribution of the Peruvian Government for SCIPA work. It is a policy based on the probability that sometime in the far future the cooperative arrangement

^{20/} An exception to this rule exists in Iquitos, where there are a number of joint boys' and girls' clubs.

between the two countries will be discontinued. In this event the burden of supporting the Service should not be more than the country's capacity to support it. Thus it is a policy predicated to safeguard the future existence of the Service.

Perhaps the relationships between extension work and agricultural research should be discussed at this point. Research work is carried out under the supervision of the Director General of the Ministry of Agriculture. Extension work is carried out under the supervision of the Director of SCIPA. Both functions are under one head, the Minister of Agriculture. The relationship perhaps is not so close on a formal administrative plane as the one that exists under the land-grant college system in the United States, where all three functions -- teaching, research, and extension -- fall under one dean of a college of agriculture. In operation, however, there is not so much difference. Procedure is much the same in both countries: extension field workers go directly to experiment stations with farmer problems to find answers. Results of experimental work are taken to rural people by the rural agents. The experiment stations in the past have been handicapped to some extent by lack of adequate funds and, in turn, loss of key personnel. Under a new cooperative arrangement between the two Governments it is felt that the work of the experiment stations will be strengthened in the years ahead.

Let us now consider briefly the main duties of the extension director and his staff.

Enrique A. Labarthe, director of extension, provides leadership, direction, and supervision in the development and execution of the extension program. His task involves general planning, policy formulation, preparation of budgets, coordination with the other divisions of SCIPA, and maintaining relationships with farm organizations. Other duties include the preparation of monthly and annual extension reports, approval of travel requests and vouchers for personnel of the central extension staff, approval of annual plans of work for rural agents, and determination of the needs of equipment and personnel for the Extension Service.

Abelardo Baracco, inspector general, whose position is similar to that of State leader of county agricultural agents in the United States, is charged with the administrative supervision of the field staff. In addition, he is responsible for leadership of the rural agents and for supervision of their program. In the absence of the director, he serves as acting director.

Louise Bryant, acting leader of home demonstration agents, has the task of providing administrative and technical leadership for a rapidly expanding home-demonstration program and organization. This responsibility involves program supervision and leadership for home demonstration work. She directs and supervises the work of home economics specialists.

Harth Terre, leader of club work, has a job essentially the same as Miss Bryant's except that it deals with youth. His job is to forward the progress of youth extension work in Peru and to provide program leadership for youth activities.

Carlos Bohl, chief of specialists, functions as coordinator of agricultural extension specialists and their work. In this capacity he prepares monthly and annual reports of specialist activities. In addition to these duties, Mr. Bohl carries out his responsibilities as an extension horticultural specialist.

Washington Patino, head of the Information Service, operates directly under the supervision of the Director of SCIPA. He is charged with the over-all task of disseminating (1) general information on SCIPA's operations to the public and (2) technical information to farmers. This he does through radio, news releases, weekly news letters, technical bulletins, and the like.

In addition to these persons, the staff includes a number of extension specialists and five agricultural program coordinators.

The extension specialist is the liaison person between the experimental worker and the extension field worker. He provides program leadership in his specialty and serves as a backstop for the rural agent in problems in that specialty. He is charged with keeping himself fully informed on developments in his field and with disseminating pertinent information to rural agents through such means as meetings and publications.

The five agricultural program coordinators have the job of helping rural agents and their committees in program development and execution. They are chosen from among the most successful rural agents and function as coordinators along with their regular work as agents. They spend approximately fifty percent of their time in this type of work.

The Field Organization

The typical field office has a staff consisting of (1) the rural agent, (2) his field assistant, (3) a man secretary, and (4) a messenger boy. Besides, nine of the field offices have home demonstration agents.

The rural agent is charged with the direction and supervision of the staff. For the home demonstration agents, program supervision comes from Miss Bryant and her staff of home economists.

The duties of the rural agent are essentially the same as those performed by county agents in the United States. In addition they assist in facilitating other activities of SCIPA upon request. For instance, they work closely with the Division of Reimbursable Facilities and Services for Agriculturists in, say, the distribution of hand tools, seeds, and vaccines.

The functions of the home demonstration agent in her work with women are similar in nature to those of the rural agent in his work with men. Basically the task is to organize and implement a program of general education for women, work that will include projects in family education, child care, care of clothing, nutrition and food preparation, weaving, home nursing and general hygiene in the home and community, home production of

livestock and home gardens and the like. The assignment is to bring the latest and best findings in home economics to the attention and use of both rural and urban women.

The field assistant of the rural agent carries out much of the work connected with agricultural method and result demonstrations. In many ways he is a follow-through man once the plans and the direction have been set by the rural agent. He handles office calls and farm visits of a routine nature. He is generally a person who has practical agricultural experience but has not had the advantages of a college agricultural education.

The duties of the secretary are the usual secretarial duties of any extension office. In addition he takes care of the details of selling such equipment as hand tools, fertilizers, and insecticides to farmers. Thus the primary reason for having a man in this position is a practical one. A certain amount of physical work is involved that would make it difficult for women. Another reason is related to the country's culture. Generally speaking, rural men in Peru are used to dealing with men on business matters. The role of women is still conceived to be a household one.

Office Equipment and Facilities. -- The office equipment and facilities of the staff are excellent. The policy from the very beginning has been to select good offices and then to outfit the field office with equipment necessary for the efficient functioning of the extension worker.

The standard equipment for each field office includes a vehicle for transportation, telephone, camera, typewriter, files and desks, a set of agricultural text books, scales for weighing materials, syringe for vaccination purposes, and two or three hand dusters and sprayers. Tools for demonstrational purposes include hand-operated garden planters and cultivators, an 18-gallon power sprayer, and various veterinary instruments. Recently, soil-test kits, measuring tapes, farm levels, and seed cleaners have been added to the equipment.

Special equipment for the home demonstration agent includes a hand loom, first-aid kit, cooking equipment, camera, and a hand-operated sewing machine.

In addition to these items, movie equipment is now available at the central office for use by the agents. Two panel trucks equipped with self-powered movie machines bring movies to any area that a truck can reach.

Participation and Support of Lay People. -- There are now 367 agricultural community committees in Peru cooperating with the Extension Service. They represent approximately 900,000 people connected with agricultural activities. Most committees work solely on a community basis. In a few instances community committees are subdivided into commodity committees, such as a committee for fruit or for cotton. It is said that these committees have unconsciously become centers of democratic action: farmers have learned to air their problems among themselves and adopt the decision that gets the majority vote. In some instances these committees have served as the basis for the establishment of big associations of farmers.

The influence of these committees has made itself felt throughout the rural social structure and the Government structure as well. Career men within the inner walls of the Ministry of Agriculture speak of the work of these committees with praise and respect.

The participation and support of the women and the children is also evident. There are now 13 women's clubs with 339 members, and 67 boys' and girls' clubs with 1,361 members. These figures may seem small in comparison with the great lay activity manifested on the agricultural side of the extension program. But it must be remembered that it is only recently that funds have become available to expand home demonstration work, and that funds are still lacking to help the youth movement materially.

Lay participation in the Extension Service is likewise evidenced in attendance at extension meetings, requests for farm visits, and so forth. During 1951, extension agents received 50,386 office calls, made 16,713 farm visits, and held 1,833 farmer meetings with an attendance of 57,530. In addition, 3,726 demonstrations were conducted before 27,007 rural people. It is reported that 24,950 farms with an acreage of 714,300 acres are now cooperating with SCIPA and its Extension Service.

Personnel Questions

Let us now turn to some of the main questions about the personnel of the Extension Service: What are the standards of qualifications for professional extension workers? How are they recruited and selected? What are their salaries?

As has already been said, most of the rural agents in Peru are recruited from the ranks of the graduates of the La Molina Agricultural College in Lima. The director of extension and the dean of the college have a working arrangement whereby a number of college men serve as apprentices to rural agents for 2 or 3 months after they have finished their junior year. The policy is to select new agents from this group when they have graduated. The basic requirement is an engineering degree in agronomy. If the position to be filled is in the Sierras, where many of the Indians do not understand Spanish, the candidate must also be able to speak Quechua.

The decision on hiring, however, does not rest with the director of the Extension Service. He makes his recommendation to the Personnel Board of SCIPA. This Board consists of the Secretary-General of SCIPA, the directors of the Extension Division and the Division of Reimbursable Facilities for Agriculturists, the assistant business manager of the Administration Division, and the administrative assistant to the Director of SCIPA. The Board considers all personnel matters dealing with the Peruvian staff of SCIPA, including hiring, firing, salaries, and leave. The Board, however, does not take final action. It considers, deliberates, and makes a recommendation to the Director of SCIPA, with whom its recommendations carry great weight.

The recruitment of home demonstration agents is more difficult. The curriculum of the Institute of Home Economics in Lima is considered in-

adequate in some respects for training girls for field extension work in home economics. This is one aspect of the problem. In addition, the competition of urban schools for home economics teachers is severe. The six girls recently hired by the Extension Service were recruited by placing an announcement of the positions in the newspapers. Twenty-three girls applied for the positions, all of whom were then given a seven-weeks' intensive course in the various fields of home economics. At the conclusion of the course six were selected from the group. Inasmuch as it was felt that much of the technical training of the new home agents would have to be given on the job, the basis of selection centered largely on the following qualifications: Personality, interest in people, knowledge of rural life, cooperativeness, maturity, tactfulness, and, for mountain positions, ability to speak Quechua.

In-service training for rural agents is given at the annual extension conference. At that time SCIPA's specialists, experiment station workers, and others bring the latest agricultural developments to the attention of the agents. Perhaps the greatest value of such meetings, however, lies in the opportunity that it presents for an exchange of views and experiences among agents. This value was particularly apparent in the early pioneering days of the Service.

Salaries of agents fall under the provisions of the Peruvian civil service system. The monthly salaries of extension workers are about as follows (equivalents in United States money are based on the current rate of exchange -- 15 soles to the dollar):

Program coordinator	2,040	soles	(\$136)
Rural agent	1,760	"	(\$117)
Subagent (trainee for position as rural agent)..	1,340	"	(\$ 90)
Field assistant	780	"	(\$ 52)
Office assistant (secretary)	570	"	(\$ 38)
Home demonstration agent	990	"	(\$ 66)

To these salaries must be added a 100-sole cost-of-living allowance by the Government. In addition, the rural agent is provided a home for his family. The home demonstration agent receives 300 soles per month for quarters.

But this is not all. SCIPA has developed a bonus system based on the quality of the individual's performance and the number of years of service. This helps the salary picture materially for those with fine records who have been with SCIPA for some time. Each individual is eligible for one month of leave each year.

Problems of the Service and Challenges of the Future

Despite its great progress, the Peruvian Extension Service, like every other organization, has its problems. What are some of the main ones? And what are the plans of the Service for the future? The answers to these questions vary from one individual to another, depending in part on their position in the organization.

Problems

Mr. Neale lists some of the obstacles and problems of the Extension Service as follows: (1) Lack of a pool of trained technicians, a problem that makes loss of trained personnel a serious matter, (2) lack of public and private organizations to cooperate with the Extension Service, (3) the very limited budget for operating purposes, (4) the need for more public knowledge concerning the extension agent -- who he is and what he does, (5) inadequacy of the country's communication systems (telephones, mail, and roads), which makes the extension job more difficult, and (7) the high level of illiteracy among rural people.

Mr. Labarthe, director of the Extension Service, says that the original problems were to gain the confidence of the people and to overcome the certain amount of jealousy that developed in the early days between extension workers and workers of the Ministry of Agriculture who were stationed in field offices of the Ministry. Both of these problems now have largely disappeared. In Mr. Labarthe's opinion, most of the present problems of the Service are the results of an inadequate budget. Salaries are too low to keep good agents, and turnover is excessive. Lack of funds curtails in-service training and prevents the adding of one or two more supervisors, who are badly needed. Expansion of youth work and development of the Service in general are delayed because of the size of the budget. Mr. Labarthe feels that finding a way to do better extension work with the Indians is also a problem.

Mr. Harth Terre, leader of youth work, also speaks about the matter of finances and the effect it has on expansion of his work. He lists other problems of youth work, too: (1) Gaining public support for club work, (2) getting land for the boys and girls for project work, (3) securing good local leaders and adequate funds for training them, (4) getting the collaboration of rural agents, who are already busy with adult extension work, and finally, (6) learning how to do better club work with Indian children.

Two of the problems facing home demonstration work have already been mentioned -- lack of a source of adequately trained personnel and competition for personnel from urban schools. Miss Bryant, leader of the home demonstration agents lists two others: (1) the big job of selling home demonstration work to rural agents, rural people, Government officials, the press, and the public in general, and (2) establishing the prestige and status of the home demonstration agent.

What do the rural agents say the problems are? Ricardo Chiglino, who is stationed in the coastal area, gives two: (1) Need for an extra vehicle and (2) need for a larger revolving fund to buy such things as fertilizers and pesticides for small farmers. Enrique Olivares of the Sierras mentions (1) the difficulty of securing the confidence and cooperation of the people, particularly the Indians, and (2) the difficulty of getting and keeping qualified extension personnel for the mountain area, (3) the inadequacy of the salary level of rural agents, (4) the difficulty of maintaining functioning agricultural committees because of the poverty of the members and the lack of funds in the extension budget for such a purpose,

(5) the broad geographical area that the average rural agent has to cover, and finally, (6) the problem of how to help the small Indian farmer who has only 1 or 2 hectares of land.

Challenges

Extension administrators agree that at least three large challenges face the service. One deals with the establishment and expansion of home demonstration work, which we have already mentioned. The second concerns the expansion of a youth program. And the third deals with the development of an over-all extension lay organization at the field-office level. At present there are agricultural community committees for the men, women's clubs for the women, and youth clubs for the children. How should these organizations be brought together to integrate the various lines of extension work? These are the three main issues facing Director Labarthe and his staff.

A fourth point, which is really not a challenge of the future but which can be properly raised here, deals with the place of the extension service within the Ministry. The question is this: When is the proper time for transferring the Extension Service from SCIPA to the Ministry proper, where it will become clearly an established part of the permanent institution? Thus far no definitive answer has been reached. Mr. Neale has suggested the transfer on two occasions, once in 1948 and again in 1952. Each time the Minister has decided to postpone such a move pending a time when the Ministry itself was more firmly established. The Ministry is young and continues to have growing pains. Furthermore there is the proposition of creating a tradition which provides for complete freedom of the Extension Service insofar as political interference is concerned. Creation of such a tradition requires time.

THE SUCCESS OF SCIPA AND ITS EXTENSION SERVICE

This is not an evaluation report. Nevertheless this paper would be incomplete if it did not consider the over-all profit or loss of this cooperative agreement between Peru and the United States, which has now been in effect for nine years. We wish to consider two questions: Is the SCIPA program a success? If it has been successful, what has made it so?

The answer to the first question appears to be clearly yes. It could be supported by presenting many figures showing various accomplishments of SCIPA: number of warehouses built, quantity of garden seeds distributed, number of livestock imported for breeding purposes, and number of acres of land plowed by SCIPA tractors.

Likewise, many statistics could be mustered showing the rapid growth of the Extension Service, the number and activity of its agricultural committees, the number of farmers cooperating with SCIPA, and the like. But perhaps the best indication of the success of a program rests in the appropriations that are made for it year after year, particularly appropriations by the country in which the program is being carried out. The following figures, which show the sources of SCIPA funds from the time the organization was set up, in May 1943, until the end of 1951 are evidence that Peru has borne by far most of the expense:

Source of funds	Amount	Percent of total funds
Peruvian Government:		
By agreement	21,854,003.43	23.5
Over and beyond agreement	18,346,638.40	19.7
Special accounts from the Ministerio de Agricultura <u>2/</u>	(11,359,861.6 (3,623,954.02	12.2 3.9
Total	55,184,457.81	59.3
United States Government (IIAA):		
By agreement	7,998,654.35	8.6
Over and beyond agreement	4,408,090.99	4.7
Total	12,406,745.34	13.3
SCIPA collections through sales, interest, work done, etc.	25,507,192.34	27.4
Total funds	93,098,395.49	100.0
Expenditures	76,626,397.90	82.3
Balance, Dec. 31, 1951	16,471,997.59	17.7
Total	93,098,395.49	100.0

1/ From 1943-50, 1 U.S. dollar equals 6.485 soles; since, 1 dollar equals approximately 15 soles.

2/ These funds are set aside by the Peruvian Government to carry out strictly Peruvian Government projects through the facilities of the Servicio, projects that are in addition to regular projects of SCIPA. Example: recent construction of a fish-marketing terminal in Lima.

The trend of contributions by the Peruvian Government toward the SCIPA program has been a continuously rising one, increasing from 1,150,000 soles in 1943-44 to 15,749,374 in 1950-51.

The budget of the Extension Service within the SCIPA budget also shows an increasing trend:

	<u>Soles</u>
May 19, 1943-May 31, 1944	605,000
June 1944-August 1945	611,400
September 1945-December 1946	1,352,000
January 1947-June 1948	2,001,926
July 1948-June 30, 1949	2,250,000
July 1949-June 30, 1950	3,002,545
July 1950-Dec. 31, 1951 (18 mos.)	5,010,000
January 1952-Dec. 31, 1952	4,520,200

The success of a program may be reflected in numerous other ways. One is by means of newspaper accounts. The following excerpts from an editorial in La Prensa, one of Lima's newspapers, is given as an illustration. The editorial was entitled "End of SCIPA's Extension Agreement and the Need of Renewal."

"A few days before the expiration of SCIPA, or Servicio Cooperativo Inter-Americano de Produccion Alimentos, it is worth while to remember that this organization, created in May 1943, has fulfilled a rejuvenating function in our agricultural and livestock industries. As the first steps are being taken to put into effect another agreement, between the United States and Peruvian Governments, we wish to express our opinion, for La Prensa has always published a great number of news stories about SCIPA's activities.

"It is remembered that, directly after the 1942 Conference of the Ministers of Foreign Affairs in Rio de Janeiro, where an all-out effort to win the war was agreed upon, Cooperative Services were set up in the fields of Public Health and Food Production in several countries in our hemisphere. . . .

"When the war was over, many programs were cancelled. Not all of them reach the success SCIPA has attained in Peru. Among the reasons for liquidation in some cases was the misunderstanding of the system. It was claimed that the United States should be reduced to the position of dollar-donors without supervising the investments. In some other cases, politics interfered in the development of the projects. . . .

"We have said that SCIPA was successful in Peru. During six years SCIPA has worked in our country with ten different Ministers of Agriculture and under three different governments. Its flexible structure has permitted the organization of SCIPA to keep an

essentially technical pace of development. Not having among its attributes any one connected with price control or market regulations, SCIPA has always been well received by those who are devoted to food production, wherever its action has been noticeable. The Agricultural Extension Service, which has been hoped for in Peru for more than 40 years, was established in 1943 in such a way that every year the number of rural offices has grown. Many of them were opened at the request of farmers themselves. The agricultural engineering service and land rehabilitation have been working tirelessly, fulfilling functions not available in the young Ministry of Agriculture.

"The services of SCIPA's reimbursable services for agriculturists, which include machinery pools, demonstrations of new insecticides, the supply of sheep, hogs, chicks, and other livestock, etc., have some advantages that Peru should attempt to adopt, even though it should be necessary to modify the budgeting system of the country. Whereas similar services of the Ministry of Agriculture are not directly reimbursable, but instead are merged into the income of the General Budget of Peru, SCIPA, thanks to its flexibility, has been able to have revolving funds available, which in their turn have been useful in increasing help to small farmers. . . .

"SCIPA's accounting system and its commercial credit, as well as the pattern followed to carry out its projects -- once they are approved by the Minister of Agriculture and the Director of the Food Mission -- allows keeping on investing the reimbursed produce in new supplies and always being prepared to serve the farmers. . . .

"We hope the present Government will entrust SCIPA with the achievement of a greater number of projects based on the experience acquired by this organization since its beginning. These projects will serve to intensify our agriculture and to increase the exportable commodities such as potatoes, beans, corn, etc., after they are commercialized as industrial crops. SCIPA has other advantages besides the activities of its technicians. The fact is that SCIPA is an executive agency. While in other countries the system has failed because the advice of the experts was relegated to the archives -- and we have plenty of such experiences in Peru -- our country has gained because of an Extension Service inferior to none in its class and because of a Project of Reimbursable Facilities, both representing the most modern system of helping the farmer to help himself." 21/

21/ "End of SCIPA's Extension Agreement and the Need of Renewal." Editorial in La Prensa, Lima, Peru. June 24, 1949.

This, you may say, is fine; but what does the United States reap from this cooperative arrangement? Dr. Washington Patino, the Peruvian head of SCIPA's Information Department, answers the question in this way: "This is a program of mutual benefit for both Peru and the United States. Greatest benefit for our people is steadily rising standards of living; for your people, steadily increasing markets for your manufactured products."22/

Other observers see the primary benefits resulting from the Institute's cooperative programs in terms of hemisphere solidarity. One American has phrased this view as follows:

"It is setting the pattern for sound, profitable development of resources in the underdeveloped areas of this hemisphere. The investment of public funds is not intended as a permanent program either for the United States or for our neighbors, but rather as 'pilot plant' operations to pave the way for private investment and cooperative enterprise.

"But there is another result, immeasurable in its value. The usual frigid formality of international relations melts away in the atmosphere of close personal relations maintained by all hands working in the services. Members of the staffs are no longer 'foreigners' one to the other. The effect is a continually deepening understanding that will strengthen for all time the structure of inter-American solidarity and peace."23/

Our second question concerns the why of SCIPA's success.

Roy Westley, United States agricultural attache in Lima, claims the program is one of the best, if not the best program, in South America. He gives several reasons for the success: (1) The continuity of Jack Neale's leadership, (2) the high quality of SCIPA's staff, and (3) the fact that much of the program has been placed on an extension service basis.

Jacobo Zender, Director-General of the Ministry of Agriculture, and Alberto Salmon De Los Heros, Secretary-General of the Ministry of Agriculture, attribute SCIPA's success to the person of Jack Neale and to the Servicio device. They point out that the selection of the right man to lead the program is more important than the actual wording of an agreement signed by governments. In their opinion the director of a Servicio must possess more than the normal qualities of leadership; they say he also must (1) feel at home in the country in which he works, (2) take local problems as personal problems, (3) possess the technical ability to face problems and to find solutions, and (4) be able to fit into

22/ Armstrong, O. K. When Good Neighbors Get Together, p.2. Institute of Inter-American Affairs. Washington. 1951.

23/ Ibid., p.4.

the culture, possessing "simpatia." They are certain that Mr. Neale met these requirements. The servicio device, in their judgment, has been an extremely good instrument for cooperation. In addition, it has given much flexibility of action.

Some of the people within SCIPA give similar reasons for SCIPA's achievements. Benjamin Quijandria, the Secretary-General and a Government worker of long experience, gives most of the credit to the Servicio arrangement and to the person of Mr. Neale. His other reasons for success flow from those two. For example, he considers that the selecting of Peruvian and American personnel to work within SCIPA has been well done. He attributes Mr. Neale's success to (1) knowledge and ability, (2) organizing talent, (3) knowledge of human nature, and (4) choice of staff.

Juan Bazo, Chief of the Division of Reimbursable Facilities for Agriculturists, also considers that SCIPA's success is due to the Servicio device and to Jack Neale. He says that Neale's honest belief in the program from the beginning, his interest and experience, and his pioneering spirit have been the personal attributes leading to success. These factors, along with the facts that the program has been kept out of politics and that the Servicio device has been a strong one, he judges to be the chief reasons for the successful results SCIPA has had.

Enrique Labarthe, Director of Extension, adds other reasons for the high prestige that SCIPA enjoys. His list includes the facts that (1) SCIPA worked within the economic capacity of Peru, (2) Mr. Neale gave Peruvians a full opportunity to take over leadership, and (3) the personality and qualities of Jack Neale were such that they inspired confidence. In Mr. Labarthe's opinion, Mr. Neale's leadership stems from his broad knowledge and vision, his understanding of the psychology of the Peruvian people, and his ability to get the loyalty and support of his workers.

What reasons does the Director of SCIPA himself give for SCIPA's success? He feels that continuity of leadership and the Servicio device are large factors in SCIPA's achievements. It is his belief that one of the big tasks of the top administrator is to create and maintain an administrative organization that can stand up and go ahead under conditions of constantly changing foreign technicians. In his opinion success of SCIPA is largely due to the fact that many of the key Peruvian workers and a few of the Americans have been with the movement right from the beginning. He feels that two basic policies have helped immeasurably in providing morale, esprit de corps, and leadership for the organization: (1) Relatively equal salaries for Peruvians and Americans in key positions, (2) turning over the leadership of the various offices of SCIPA to Peruvians as soon as trained personnel are available.

In concluding this account of cooperation between governments, it seems appropriate to refer once again to the "essence of Point Four philosophy" as expressed by the late Dr. Henry G. Bennett, Administrator of the Technical Cooperation Administration. Dr. Bennett said, "Our friends of the underdeveloped areas do not want charity. They want to become independent, by their own efforts, of our help and all outside help. They are eternally right in asking us to share knowledge and

skill which cannot be given away -- so that they may have self reliance and the dignity that goes with it. They represent old cultures that long pre-date ours. They would not permit us to superimpose our culture on theirs, even if we were so foolish as to try. There are as many paths to progress as there are nations. They want to choose their own."^{24/} Thus, we leave this question with you, "Is not the SCIPA story the living embodiment of Point Four philosophy in action?"

^{24/} Bennett, Henry G. Point Four Adventure in Education. An address before the American Vocational Association's convention in Minneapolis, Minn., Nov 28, 1951, p.5.

APPENDIX I: CASE STUDIES

Rehabilitation of the Peach Orchards in the Mantaro Valley, Peru

This is a story dealing with the rehabilitation of the peach orchards in the Mantaro Valley, high in the Andes Mountains of Peru. But more fundamentally, it is the story of the trials, errors, and success of launching an extension program in a strongly conservative and stable culture. It is a story of how the confidence and support of rural people was won for an extension service.

The Peruvian farmers of the Mantaro Valley had been known for their fine peach crops. Practically every family had had at least a few trees that had been a source of food and income over the years. But this happy state of affairs changed with the advent of a fruit fly and mildew in the 1930's. By 1945, when the Agricultural Extension Service of SCIPA (Servicio Cooperativo Inter-Americano de Produccion de Alimentos) was getting established, these orchards were not producing a single peach of commercial value. Income from this source had been completely lost.

The new rural agent of the Extension Service in Huancayo, Abelardo Baracco, noticed this situation and thought that a comprehensive program to renovate the orchards not only would help the people directly, but also would help establish the prestige of the new Extension Service in the Mantaro Valley. Having come to this conclusion, the agent held several meetings with the peach growers of the valley to determine what could be done. These meetings culminated in the formation of the Izuchara Fruit Growers Cooperative. The idea of a cooperative was new and strange to the farmers of the valley and only about 20 percent of them agreed to join. The 80 percent who refrained from joining included both large and small producers. They refused to join on the grounds that they did not have any faith in a cooperative movement.

Related Factors

This is perhaps a good place to pause and become better acquainted with the people of the Mantaro Valley. They were descendants of the Inca Indians and their Spanish conquerors. Agriculture had been their primary means of livelihood for hundreds of years; and agricultural customs and practices had been handed down from one generation to the next without appreciable change. As a matter of fact, the farmers look with suspicion and alarm on people who made changes.

The economy of the vast majority of the farmers of the valley was essentially one of self-subsistence. They simply did not have enough land to be in a commercial category although practically every family once had had some income from selling peaches.

The coming of the Agricultural Extension Service in 1943, with its philosophy of helping the farmer to help himself, was something new and foreign to the rural people of the valley. In some ways it represented a threat to their old and secure ways; and most of them, particularly the older members of the community, viewed it with suspicion.

Sequence of Events

The Izcuchara Fruit Growers Cooperative got off to a fine start by making a detailed survey of the peach orchards of the valley. It found that a total of 306 trees, out of a total of 12,455, should be destroyed to help control the fruit fly.

On the basis of this survey and the technical recommendations of the rural agent, certain quarantine measures were taken to start a control campaign. One, for example, forbade the planting of tomatoes and other crops considered susceptible to the fruit fly. High hopes were held that DDT, the new insecticide, would control the pest.

An effort was made to raise 5,000 soles to buy necessary materials and equipment for the campaign. This effort failed because of a difference of opinion among members of the cooperative concerning the merits of the program. The work of the cooperative came to a halt, and in the end SCIPA had to withdraw most of the materials that it had provided. Years later, one of SCIPA's specialists, in looking back, attributed the failure of the cooperative to the lack of experience and over-enthusiasm of the members and to the negative influence of the 80 percent of the growers who would not join.

In the meantime, in 1945, SCIPA had started a program of demonstrational orchards throughout Peru. The program was based on the experience of extension workers that farmers would accept advice only after they had seen immediate results. These workers had found that it was difficult and almost impossible to get farmers to stick to practices that produced results only after years of application. Consequently SCIPA felt that the development of demonstration orchards in strategic areas of Peru might be a means to end the dilemma. It was decided that SCIPA would provide the material and furnish the necessary equipment and technical advice for the establishment of the demonstration.

We return to our story. Having failed in the collective approach, Rural Agent Baracco of Huancayo decided to develop one of these demonstrational orchards in the Mantaro Valley to illustrate the soundness of his recommendations and to influence the local people.

His initial task was to find a suitable orchard and a farmer who would cooperate, not an easy thing to do because of the newness of the Extension Service and the conservative nature of the farmers of the valley.

The agent visited several peach growers, explaining his purpose and needs without effect. Finally he approached a friend, Victor Matos, who was the owner of a store and a farm. Mr. Matos seemed to be a good

choice: he was well-known and enjoyed a fine reputation in the community; besides, he was Governor of the District. Mr. Matos, however, was reluctant to consent to the use of his orchard for this purpose.

Sensing that he needed help in persuading Mr. Matos, Agent Baracco arranged for the horticultural specialist, Carlos Bohl, to come and meet with Mr. Matos and his neighbors. The meeting was held, and the proposed project was outlined. Both Mr. Baracco and Mr. Bohl explained the treatments that would be required: the heavy pruning, the fertilization, the cultivation, and the spraying. They told the growers that the program would require four years to produce significant results. At the conclusion of the explanation the growers discussed the matter at length. Finally, Mr. Matos capitulated and agreed to let the Extension Service use his orchard for demonstrational purposes. His consent was really based on his friendship with the rural agent and his conviction that the trees were going to die anyway.

This meeting was followed by another two or three days later. At this time Mr. Bohl demonstrated the proper pruning of the trees to Mr. Matos, his neighbors, and a group of school boys. Arrangements were made that Mr. Matos would have his help present on the following day for instruction from the horticultural specialist.

The next day arrived, and the Extension workers learned with consternation that all plans had been cancelled. The wife of Mr. Matos had said "No"; she feared that her orchard would be spoiled. Then the task of selling the plan had to begin all over again. Finally Mr. Matos, feeling ashamed of his wife's influence, gave in and agreed to go ahead in accordance with his original decision.

The rehabilitation process was a long and arduous task. Control of the fruit fly and the mildew in particular did not prove easy. Raymond Russell, an American entomologist, and his Peruvian colleague, Gustavo de la Torre, worked industriously to find the proper spray materials.

The interest of the community in the Extension Service demonstration was intense. The sight of the freshly pruned peach trees in particular proved to be a tremendous shock to the community. The six-year-old orchard had never been pruned before, and it was found necessary to cut away a large part of each tree to remove diseased branches. When the pruning was over, the orchard presented a fearsome sight to the community. Many of the neighbors, unable to restrain their feelings, stopped in to see Mr. Matos. They told him how foolish he was to have permitted his orchard to be ruined by ingenieros. His wife remained angry over his decision.

In many respects the community was split into two factions concerning the rehabilitation efforts: a few people sympathized with Mr. Matos and had hopes that the efforts would prove to be successful, but the vast majority were unsympathetic and believed that Mr. Matos was wasting time and money. They had little confidence in the recommendations of the Extension Service, and thought that Mr. Matos was simply acting the fool by following them.

By summer, however, the prestige of Mr. Matos began to rise again. His neighbors saw the fine new growth and foliage of the trees in the demonstrational plot. As one by one they called on Mr. Matos to find out why his orchard was in such fine condition, he began to feel better about his venture.

The agent took advantage of this renewed interest by calling a meeting of growers at the orchard, at which Mr. Bohl explained what had been done. Several of the growers were finally convinced of the beneficial effect of the treatment and requested help with their own orchards. Thus the process of winning the confidence of the farmers of the area was beginning to bear fruit. Slowly but surely the farmers of the valley were placing their confidence in the budding Extension Service.

The Outcome

With the success of this first demonstration, which made Mr. Matos the only producer of sound fruit in the region, the demand for technical assistance grew. The scope of the work began to increase during 1948-49, and growers participating in the rehabilitation campaign were asked to pay the cost of the fungicides and a small amount for the depreciation of the SCIPA spraying machine.

By 1950 the campaign had been so successful that Mr. Baracco and Mr. Bohl reported the situation as follows:

"To have an idea of what the work done in the Mantaro Valley has meant and will mean in the future, economically, we can give the assurance that, given the interest of the farmers to increase their plantations, that valley can eventually have some 30,000 peach trees (the water resources are limited), which is truly encouraging if we remember that when the work was begun some orchards were being cut down as worthless. By rehabilitating the trees counted in 1945, it is possible to attain a production of 300 tons of fresh fruit, valued at more than half a million soles, all of which money will go into the pockets of small farmers.

"To sum up, the start of the work of rehabilitating the peach orchards of the Mantaro Valley (Huancavelica) required four agricultural campaigns and years. It was only with the second that appreciable results began to appear, the demonstration orchard entering into the commercial phase in the third year. It should be noted that only when faced with striking results in the fourth year did the farmers change to a frankly favorable opinion.

"It must be emphasized that all the technical staff who took part in the demonstration worked shoulder to shoulder with the interested parties in the work in the field, educating the farmer and his children in conformity with one of the principles of Agricultural Extension: 'A man may forget what he sees or hears, but he never forgets what he does with his hands.' The work was hard but effective."^{1/}

^{1/} Baracco, A., and Bohl, Carlos Rehabilitation of the Peach Orchards in the Manaro Valley, Ministry of Agriculture, p.16. SCIPA, Technical Information Service, No. 57, Lima, Peru, Sept. 1950.

However, this was not the end of the story, as it turned out. SCIFA continued to help Mr. Matos until the conclusion of the 1949-50 crop year. At this point the demonstration was a striking economic success. The value of the harvest for the 4-year period was 36,300 soles, the cost of the treatments 5,220 soles, and the resulting profit 30,778 soles. Even more important from the standpoint of the Valley, however, was the fact that a number of other growers were following the new practices.

SCIPA had worked hard to make the demonstration a success. It had followed the advice and help on production with advice and help on marketing. The peaches were graded, packaged, and sent to Lima. SCIPA even procured special wrapping paper for the fruit. Mr. Matos had become the proud owner of the best peach orchard of the valley. He was congratulated on all sides by farmers and officials. No longer was he the laughingstock of the neighborhood.

But now comes the sad part of the story. When Mr. Matos was thrown upon his own initiative, he proceeded to let the orchard revert to its state of neglect. With the help of his earnings from the profitable years of his peach production, he bought a bakery and invested in a mine. Thus the man who had appeared to be an outstanding local leader to the rural agent did not turn out to be one.

It is said that Mr. Matos was following the traditional economic pattern of the Sierra: If successful, a farmer buys a store in town; for a while he operates both the store and the farm; soon he drops the farm and branches out into other forms of urban enterprises; then if success continues, he eventually moves to Lima to live.

However, SCIPA does not regret the demonstration. It believes that its purpose was accomplished. Many farmers have changed their way of thinking and doing. At present many of the growers are following modern practices although others continue in the old ways. The rise in the price of fruit has helped the adoption of modern practices.

The old tradition of farming only for immediate profit has begun to give way to one with a longer perspective. SCIPA estimates that 200 of the 500 small orchards of the Mantaro Valley are now profiting from SCIPA's efforts. Thus the Extension Service has made substantial progress in winning the confidence of the people of the valley.

Controlling Potato Insects in the Sierra Mountains of Peru

It all started with a telephone call on a pleasant Saturday morning in December 1948. Ray Russell, an American entomologist with the Institute of Inter-American Affairs' Food Mission in Lima, Peru, was in the process of winding up his week's work and looking forward to an enjoyable weekend with his family when the call came. Ingeniero Abelardo Baracco, the rural extension agent at Huancayo, was on the wire. He needed help, and he needed it right away. One of his farmers, Señor Salvatore Beteta, had 15 hectares of potatoes that were being rapidly demolished by soil insects. What was Ingeniero Baracco to do? What treatment could he recommend to the farmer? Ray advised him to sit tight and wait for him; he would be there as soon as his pickup could take him.

Role of the Foreign Technician

Ray was an old-timer in Peru as American technicians go. He had worked with the Rubber Development Corporation during the war and had traveled the Peruvian jungle far and wide in his efforts to promote the Corporation's program. His industriousness and stamina under the hardships of jungle life had earned him the name of Ironman Russell. After the war Ray had joined the staff of the Food Mission, which was endeavoring to increase the Peruvian food supply. As a member of the Mission he automatically became an integral part of SCIPA (Servicio Cooperativo Inter-Americano de Producción de Alimentos), the food-production Servicio of the Peruvian Ministry of Agriculture, and worked side by side with native technicians. Through his years of experience Ray had come to feel at home in the Peruvian culture.

As you may know, there has been, and still is, a certain amount of disagreement among Point IV workers concerning the proper role of the foreign technician. Should he confine his activities to solely training and advising? Should he actively participate in the solution of problems as they occur in the field? Of course, a still larger question, which has a relation to the technician's role, centers about the whole problem of the organizational arrangement between governments in doing cooperative technical assistance work. But this question we will not go into here.

Ray was a strong believer in the doctrine that a foreign technician should take an active part in the solution of agricultural problems. He felt so strongly on this point that at times he tended to forget his training duties in his enthusiasm to get out on the land and do something. This is a story of an American technician bringing his know-how to bear directly on a serious agricultural problem.

Sequence of Events

When he had hung up the telephone receiver that December morning, Ray Russell went into action. He tossed into his pickup all the various types of insecticides that he had on hand. He had heard about the great damage

that grubworms, wireworms, stem borers, and the Andean weevil caused to the potato crop in the Sierra, but up to this time had been too occupied with other problems to give it much attention.

He knew that the project he was embarking on was of some scope and consequence because potatoes are one of the most important food crops grown in the Sierra. The average Indian eats more than two pounds of potatoes daily. When the insect attacks are severe, the Indian runs short of food and the coastal urban population runs short of potatoes.

Arriving at the scene of action, Ray found that the potato plants at one end of the 15-hectare field had already been killed, and that an average of two grub worms were feeding on each living plant. The situation looked hopeless. There was no known control for soil insects. If anything was to be done, it had to be done immediately. The infestation was so severe that the entire crop would probably be lost in less than two weeks.

An attempt was made to control the grubworms with DDT and benzene hexachloride. The ground around the plants was sprayed and dusted with various concentrations of these products, which were all that Russell had available. This method failed to show beneficial results and was discontinued. Then Ray remembered an article he had read about promising results obtained in the United States at New Brunswick, where benzene hexachloride had been used in the soil for the control of wireworms. He decided to give this method a trial. A few grains of DDT and BHC were placed in the soil around the plants and results were tested. Trials were conducted for a week. By that time it was evident that 1 percent BHC, applied as dust, about 5 grams per plant, gave a thorough kill of grubworms in short order. Within a half hour the gas given off by the BHC had penetrated the soil sufficiently to kill the soilworms.

Ray had only one reservation in recommending the use of BHC for controlling soilworms. There was some danger of BHC's imparting an odor to the potatoes. Consequently Ray advised Señor Beteta that an immediate application would save his crop but might leave an odor. Beteta replied that he had all his money invested in the potato crop, that if he lost it he would be ruined, and that he was prepared to gamble on the odor.

Following up his decision, Señor Beteta asked the extension workers to order the insecticides immediately. As soon as they arrived he treated his entire potato field for the grubworms. In the meantime, stem borers attacked the foliage. For these, DDT was applied, and with three applications this insect brought under control.

In reporting on his work, Ray Russell said: "This 15-hectare field of potatoes served as a demonstration of the control of insects. Considerable interest was aroused in this work and many nearby farmers came to see the excellent crop of potatoes. This demonstration marked the beginning of the first opportunity for the farmer in this Sierra locality to produce a cash crop. No attempt was made to recommend the full use of BHC the first year because of the possibility of transmitting the odor of BHC to the potatoes. Approximately 50 hectares of potatoes were treated with DDT or BHC the

first year. Attempts were made to find an odor in the potatoes harvested from BHC treated fields but practically no difference was noted in flavor. Potatoes from treated fields were sold at a premium because they were free from insect damage. Señor Beteta harvested four times as many potatoes from a given area as his neighbors who did not treat their fields.

"All the farmers that tried DDT and BHC for control of potato insects were sold on the idea. This was the first time that they had been able to successfully control potato insect pests and plant diseases."

Expansion of the Work

Rural agent Baracco had worked closely with Ray Russell and watched the progress of the work on the Beteta farm with a keen eye. The agent had been a student of potato insects and diseases for several years and had written several technical bulletins on the subject. He expressed the farmers' problem in these words: "The problem was to produce potatoes where it was impossible to obtain a sound tuber, working with persons of limited means. In the beginning they had no insecticides capable of controlling some of the very harmful pests, but by the time of the 1948-49 campaign we had learned of the good results obtained in New Brunswick, where applications of BHC were given to the soil for the control of the wireworms."

Results on the Beteta farm were so outstanding that it was decided to arrange two good-sized demonstrations in the Huayao and Huancayo Valleys. Both valleys were broad and level, and in all respects ideal locations for potato production. The valleys, however, had not been used for potato production to any extent because heavy insect damage had reduced yields to as little as 2,000 and 4,000 kilograms per hectare. After some difficulty in finding cooperators, Agent Baracco made arrangements with Señor La Rosa Calderon and with the Observatorio Magnetico. Then, working as a team, the rural agent and the extension specialist proceeded to lay out their plots in the two areas. Various mixtures of DDT and BHC were applied and careful records kept on all operations. The results were astounding: increases in the yield of potatoes amounting to 6,800-20,000 kilos per hectare were received.

The success of the two demonstrations was further enhanced by the success of a large grower who had decided to gamble on the new treatments. Señor Esteben Santa Maria, who had been unable to grow a satisfactory potato crop in years, planted 30 hectares. His every previous attempt had resulted in failure because of the Gorgojo de los Andes (Andean weevil). Now, following the instructions of the rural agent in using the new insecticides, Señor Santa Maria came through with a fine crop.

The Outcome

As a result of these demonstrations and the experience of Señor Santa Maria, more hectares of potatoes were planted by farmers, and use of the new chemical treatments spread. However, some of the farmers believed that the use of benzene hexachloride caused an off-flavor in the potatoes. Heavy rains during the 1949 harvest season had caused some rotting of the

potatoes, and the odor of the decay was attributed to the use of the benzene hexachloride. However, when soil insects again began causing serious injury to potatoes in the Huancayo area, everybody resorted to the new soil treatment to save their crops.

The use of the new pesticides continued to spread and, by the end of 1949, 5,000 hectares were receiving the new treatments. The success of this technical assistance and the size of the task ahead was reflected in the Food Mission's report to its Washington headquarters in May 1950: "The use of benzene hexachloride to control soilworms, and of DDT and copper to control other insects and diseases, has only begun. Last year approximately 5,000 hectares out of approximately 187,000 hectares that are grown in Peru came under this treatment. A number of valleys in the area of the Sierras have already indicated by requests to the SCIPA agents a demand for sufficient chemicals to bring approximately three times this amount under treatment during the next crop year. Nevertheless, the small number of hectares treated last year brought an estimated additional 30,000 tons of potatoes to the markets of Peru worth approximately 30,000,000 soles."

In reminiscing on the episode and its consequences, Ray Russell sums it all up: "Now public opinion has changed. Nearly everyone is convinced that if potatoes are to be grown in the Sierra both the soil and the foliage must be treated. The commercial growers in the Huancayo area, for example, who plant an estimated 1,000 hectares of potatoes, practically all use the insecticides in question. Yields of potatoes have increased an average of 40 percent in this area. The excess potatoes are shipped to Lima as a basic crop. Potatoes may now be purchased in Lima every month in the year at reasonable prices due to the yield increases in the Sierra and also to the fact that it is now possible to keep potatoes in storage."

Thus closes one of the annals of the foreign technician and Point Four in action.

APPENDIX II: LISTS OF PERSONNEL

Administrative Personnel of the Servicio Cooperativo Inter-Americano
de Producción de Alimentos (SCIPA)

Office of the Director

Director, John R. Neale (USA)
Secretary General, Benjamin Quijandria
Executive Assistant, Juan Bazo
Administrative Assistant, Margaret J. Bazo (USA)
Planning Officer, Eric Anturez de Mayolo

Administrative Division

Business Manager, Joel H. Thornton (USA)
Assistant Business Manager, Abdon F. Guidette (USA)
Administrator, Augusto Espinosa
General Accountant, José Guerra
Purchasing Agent, Luis Aris

Division of Reimbursable Facilities for Agriculturists

Director, Juan Bazo
Administrative Assistant, Raul Aris
Administrator of SCIPA Shop, Mario Roggero
Chief of Machinery Operations, José Carlos Barrios
Machinery Operations Adviser, Delbert E. Thornton (USA)

Agricultural Extension Division

Director, Enrique Labarthe
Inspector General, Abelardo Baracco

Agricultural Specialists:

Fruit, Carlos Bohl

Entomology:

Harold Koone (USA)
Raymond Russell (USA)
Gustavo de la Torre

Crops:

Jack T. Jackson (USA)
Norman M. Ward (USA)
Jungle Activities, George A. Woolley (USA)
Veterinary Medicine, G. Carl Thompson (USA)
Livestock, Federico Jahneke

Home Economics Specialists:

Acting Chief, Louise Bryant
Nutrition and Child Care, Angelica Rencal
Clothing and Handicrafts, Alicia Sarmiento
Organization and Home Management, Gloria Castro

Family Gardens and Youth Clubs:

Chief, Luciano Harth Terre

Assistants:

Mario Baracco
Antonio del Rio

Administrative Personnel of the Servicio Cooperativo Inter-Americano
de Produccion de Alimentos (SCIPA)--Continued

Agricultural Extension Division--Continued

Information Service

Chief, Washington Patino

Assistants:

Irene Gonzales

Eugenia Gonzales

Dora Solari

Engineering Division

Chief, C. Togo Sturdivant (USA)

Construction Specialist, Juan Dalmau

Land Use Specialist, José Vivas

Economic Studies Division

Chief, Pedro Perez Palacio

Assistants:

Enrique Klien

Carlos Aquila Pardo

Ministers of Agricul

SCIPA, and Directors of Extension
Present Time

Ministers of Agriculture

Benjamin Boca	1943
Godofredo Labarthe	1943-45
Enrique Basombrio	1945
Oswaldo Gonzalez Tafur	1945-46
Luis Rose Ugarte	1946-47
Pedro Ventura	1947-48
Azmando Zamudio	1948
Romulo Ferrero	1948
Carlos Alzamora	1948
Carlos A. Minano	1948-49
Alberto Leon Diaz	1949-50
Luis Dibos	1950-

Directors of SCIPA, and Chiefs of IIAA Food Mission

Joseph H. Smart	1943-44
John R. Neale	1944-

Directors of Extension

John R. Neale	1943
Dennett Guthrie (acting)	1944
Gerald Stack (acting)	1945
Raymond Russell (acting)	1946
Enrique Summers	1947
Enrique A. Labarthe	1948-

Peruvian Food Mission
of the Institute of Inter-American Affairs

John R. Neale, Chief of Mission

Margaret J. Bazo, Administrative Assistant
Louise Bryant, Home Economics Consultant
Elisa Flores Chinarro, Librarian and Spanish Language Adviser
Abdon F. Guidette, Assistant Business Manager
Jack T. Jackson, Agronomist
Stephen U. Kramer, Machinery Technician
Ira F. Mattatall, Agricultural Technician
Eleanor Neill, Statistician
Raymond Russell, Insecticide Specialist and Plant Pathologist
Robert O. Smith, Fisheries Specialist (from Fish and Wildlife Service,
United States Department of Interior)
C. Togo Sturdivant, Engineer
G. Carl Thompson, Veterinarian
Delbert E. Thornton, Machinery Technician
Joel H. Thornton, Business Manager
Charles Wade, Fisheries Specialist (from Fish and Wildlife Service,
United States Department of Interior)
Norman M. Ward, Horticulturist
Fred L. Wheeler, Coordinator of Machinery Pools