All too often it is difficult to discern tangible results of money and effort expended on assistance to other countries. The benefits, while real, are diffuse and not easily pinpointed. An uncommonly good example of an exception is the work being done in Peru. The accompanying article, written by the SRI project leader in Peru, Wilson Harwood, describes some of many projects for private enterprise in Peru under the Alliance for Progress.

Industrial Growth of Peru

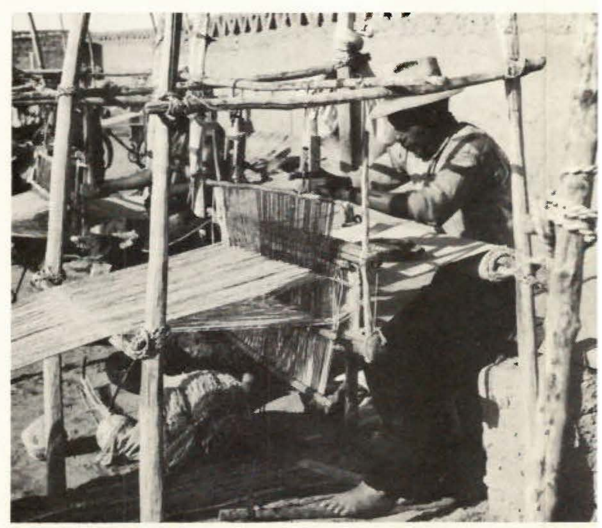
IN mid-1963 the Government of Peru, recognizing the urgent need to accelerate industrial development and to provide a wider distribution of its benefits, injected new life into its Institute for Industrial Promotion—INPI. At the same time, the U.S. AID Mission to Peru under the leadership of Robert E. Culbertson retained Stanford Research Institute to assist and guide INPI and the local development corporations of southern Peru in carrying out a campaign to attract new capital into productive investments and provide jobs for more people—all in furtherance of the aims of the Alliance for Progress.

Two basic conditions prompted these actions. First, increases in the population, and thus in the labor force, create the need for 20,000 new jobs in manufacturing each year. Second, as a result of the uneven distribution of income, half of the people of Peru live near the subsistence level and have little money from one year to the next.

Extensive natural resources, political and economic stability, and a Government with a positive outlook toward private enterprise contribute to the potential success of this continuing industrial promotion endeavor. On the other hand, there are obstacles to growth: extremes of climate and topography impede resource and transport development; able managers and skilled workers are in short supply; the domestic market is limited; and many investors demand a huge profit.

National Industrial Promotion

Within this environment INPI, directed by Juan Bazo, has been making progress over the past year and a half with assistance from SRI. Twenty SRI specialists in different fields have worked in Peru for periods up to two years under the project leadership of Wilson Harwood. The growth potential of selected industries has been assessed—specifically chemicals, metalworking, and processed foods. A variety of investment opportunities have been carefully examined, such as the production of sodium carbonate, salt, starch, steel profiles, kitchenware, hog products, raisins, and newsprint from cetico trees. In foods alone, some 25 possibilities for new processing operations have been identified.



Artisan handicraft production in Puno has been greatly increased.

Hog Processing—One of the new operations to be initiated soon by Peruvian investors is the production of hogs and the processing of hog products at Yurimaguas located on the edge of the Amazon lowlands not far from the eastern slopes of the Andes. This fast-developing area now depends on river barges and propeller planes for transport, but a trans-Andean highway is being built to provide access to the Pacific coast. The INPI-SRI feasibility study recommends an integrated operation from feed mill to meat-processing plant, requiring the investment of about $1 million.

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Farmers unloading sacked, rough rice from canoes for processing in the Hda. San Ramon rice mill.

SRI advisor Charles Jackson (left) has assisted in obtaining credit to enable relocation and modernization of plant to manufacture building blocks from volcanic ash.

Cattle are imported by air to upgrade the herds of Hacienda San Ramon. These cattle were brought from Chile in less than two hours' flight time.

Steel Profile Production—Another example of new manufacturing is in the field of metalworking. As a direct result of studies and promotion by INPI, a Peruvian-Chilean partnership has been formed to produce cold-rolled steel profiles or shapes. The Peruvians are providing the capital and business management while the Chileans are supplying the technical know-how and machinery.

Automobile Assembly—In part through persistent efforts of the director of INPI, a Supreme Decree was passed in November 1963 giving tariff advantages for unassembled motor vehicles, an action that inspired the interest of manufacturers throughout the free world. It is now estimated that approximately $30 million will be invested in Peru in the establishment of assembly plants to produce some 30,000 units per year and provide jobs for several thousand Peruvians. General Motors, the first company to start construction, is well advanced on its $6 million plant on the Central Highway near Lima. Ford and Volkswagen similarly will have automobile assembly plants in Peru.

Opening Government Monopolies—Another significant development has been the opening of former Government monopolies to private enterprise. Through direct action by INPI, investors are now permitted to enter into manufacture of tobacco products and salt, operations previously under Government control. American, British, and Peruvian interests are taking steps to produce tobacco products.

Information on Industry—In addition to information on potential investments, INPI, in cooperation with the Industrial Bank of Peru, collects facts and statistics, and issues reports on such subjects as the status of industry, the investment climate, laws and regulations affecting industry, and imported products that could be profitably manufactured in Peru. Together with SRI, it has proposed technical and financial services designed to better the competitive position of small and medium-sized firms. INPI and the Industrial Bank have publicized the Bank's new program of equity capital investments, an SRI recommendation.

Industrial Development in Southern Peru

SRI, under Carlton Wood's direction, has been assisting six development corporations in the southern region—in Arequipa, Cuzco, Ica, Moquegua, Puno, and Tacna. Industrial activity has been accelerated in each city. Over 100 possibilities for new or expanded manufacturing operations have been identified and in a number of cases investments have been made or are planned. As industrial credit at reasonable interest rates is difficult to obtain except by well-established enterprises, SRI advisors often help individual small and medium-sized firms obtain needed capital.

Training Corporation Staff—Staff development is being accomplished through on-the-job training, overseas training, and special seminars in techniques for industrial growth. Under U.S. AID sponsorship, corporation-staff members have been sent to the Monterrey Institute in Mexico and to observe investment promotion operations in other Latin American countries, the United States, and Canada. A series of ten one-week seminars underway from September 1964 through March 1965 are sponsored by the Arequipa corporation, funded by U.S. AID and managed by SRI.

Arequipa on the Threshold of Industrial Expansion—Arequipa, a provincial town oriented toward agriculture and commerce, is in the process of being transformed into the second industrial city of Peru, second only to Lima.

A highlight in Arequipa's development is the proposed industrial park. The feasibility study by SRI and the development corporation has been completed, its recommendations have been accepted, and construction is expected to start in March. In this park, the first of its type in Peru, industrial firms will be able to buy or lease developed lots with or without standard factory buildings at very reasonable cost. The Government of Peru is also providing tax incentives. Due to these factors, 15 or more firms have intentions of locating in Arequipa. Included are manufacturers of pencils, plastic products, and textiles. Further, several local Arequipa firms with expanding production plan to move to the industrial park.

Handicraft Development in Puno – A major effort by SRI in southern Peru has been the promotion of handicrafts, particularly in Puno and Cuzco high in the Andes.

The barren Puno flatlands near the shores of Lake Titicaca at an altitude of 12,500 feet are densely populated. Small family holdings, altitude, drought, frost, and flood limit farming and animal husbandry. After many thousands were hurt by the flood of 1963, the Government of Peru established a revolving fund designed to provide work in crafts to be administered by the development corporation with SRI technical assistance.

This growing crafts program produces inexpensive implements for local agriculture and housing such as small water pumps, wheelcarts, spades, and windows. The program also includes hand spinning, weaving, and knitting of a variety of alpaca and sheepwool products designed for the domestic market and for export – caps, shawls, sweaters, and rugs. These activities operate through a central design, marketing, and storage area and 18 production centers.

A little over 1000 persons are now working under this program – a recent peak was 1600 – and are earning wages substantially higher than they could have expected for similar work before. Although most of the output has been sold locally and in Lima, prospects for a substantial export trade are excellent. Market research indicates the possibility of much larger domestic and export sales which will sustain a permanent labor force of at least 2000 workers in the Puno area. U.S. AID through INPI is now launching a greatly expanded country-wide handicraft production and marketing operation.

Progress under the Alliance

It is felt that during the past year and half there have been substantial advances in the industrial growth of Peru – an aim of the Alliance for Progress – both in terms of specifics and of new attitudes encouraging accelerated development. This has been possible because of the combined and sustained efforts of the Government of Peru through INPI and the southern region development corporations, and United States AID through its contract with SRI. This joint endeavor is scheduled to continue into 1966.

The AID program in Peru is resulting in several new industrial manufacturing and automobile assembly plants.

International Research at Stanford Research Institute

Stanford Research Institute engages in scientific research and fact-finding for industry, governments, and international agencies. Most of the research is carried out on a contract basis in wide areas of the physical and life sciences, engineering, economics, and related social sciences. The professional and technical staff is made up of about 1200 specialists.

Established in 1946 by the Trustees of Stanford University, SRI is affiliated with the University but operates as a separate, not-for-profit corporation. The Institute has its own staff and research facilities. Among the purposes for which SRI was founded are to promote and foster the application of science in the development of commerce, trade, and industry and to raise the general standard of living in the less economically developed countries.

The International Development Center serves as a focal point for SRI's concern with the development problems of newly industrializing countries. Through research, publications, and practical assistance in the formulation of industrial development programs, the IDC seeks to contribute not only to the economic modernization of countries but also to the international amity and human welfare of the world, of which economic development is a vital condition.

The International Development Center is located at the heaquarters of Stanford Research Institute, Menlo Park, California 94025.

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