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TECHNICAL COOPERATION

A report on how the United States and more than 50 nations of the Free World today are combining their skills and knowledge to benefit many millions of people.

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An Historic Struggle for a New Freedom

“From the deserts of North Africa to the islands of the South Pacific one third of all mankind has entered upon an historic struggle for a new freedom: freedom from grinding poverty. Across all continents, nearly a billion people seek, sometimes almost in desperation, for the skills and knowledge and assistance by which they may satisfy from their own resources, the material wants common to all mankind.



“We must use our skills and knowledge and, at times, our substance, to help others rise from misery, however far from the scene of suffering may be our shores.



“The American experiment has, for generations, fired the passion and the courage of millions elsewhere seeking freedom, equality, and opportunity. And the American story of material progress has helped excite the longing of all needy peoples for some satisfaction of their human wants. These hopes that we have helped to inspire, we can help to fulfill.”

SECOND INAUGURAL ADDRESS OF PRESIDENT
DWIGHT D. EISENHOWER

January 21, 1957

TECHNICAL COOPERATION

A. THE OBJECTIVE IS DEVELOPMENT

Technical cooperation, a term of great meaning in the present era of history, describes something that is old as humanity itself. It is a human habit that has been going on for a longer time than the race of men has been using the wheel or the plow or fire. Whenever human beings in one place have found a better way of meeting human needs, others have been eager to take advantage of the improved device or method, the better food crop, the better way of dealing with disease.

What is new now is that technical cooperation is an important activity of governments and of international organizations, a tangible expression of common interest among the people of many nations. For the first time in history, the proven skills and tested techniques of the more advanced nations are being harnessed—consciously, deliberately and effectively—to attack economic and social problems of the less advanced nations on a broad scale.

A Matter of Degree—But the Difference is Great

Any country of the world, the United States included, is capable of increased economic development. The difference between the most advanced and the least advanced is therefore a matter of degree. In some respects it is also a matter of history.

By comparison with the development of today, neither the United States nor any European nation was, 100 years ago, a highly advanced nation. The profound changes resulting from scientific progress and education have come about since then. And so today the disparity between the most advanced nations and the less advanced is greater and more conspicuous and known by more people than ever before. What is especially significant is that 2 out of every 3 persons on earth live in the newly developing areas of the world.

Measure the difference in money.—The per capita income of the people of the United States (6 percent of the world's population) is \$2,300 a year. For the full 50 percent of the world's population, per capita income is only \$100 a year.

Measure the difference in food.—In food consumption, men, women and children of the United States have a diet adding up to an average 3,220 calories a day. In Latin American countries the average is more than 20 percent less. In Asian countries it is almost 35 percent less.

Measure the difference in education.—About 98 percent of the people of the United States can read and write. In Latin America you might find that half the people could not read and write. In most nations of the Middle East and Far East, less than 25 percent would have this ability and formal education would have no meaning for the great mass of people.

Measure the difference in health.—Malaria, almost unknown now in the United States although it formerly was a health menace, attacks 300 million persons a year in the less developed countries. Tuberculosis, steadily being reduced in the United States, is common to many other millions. Enteric diseases, such as dysentery, are almost universal in some regions of the world.

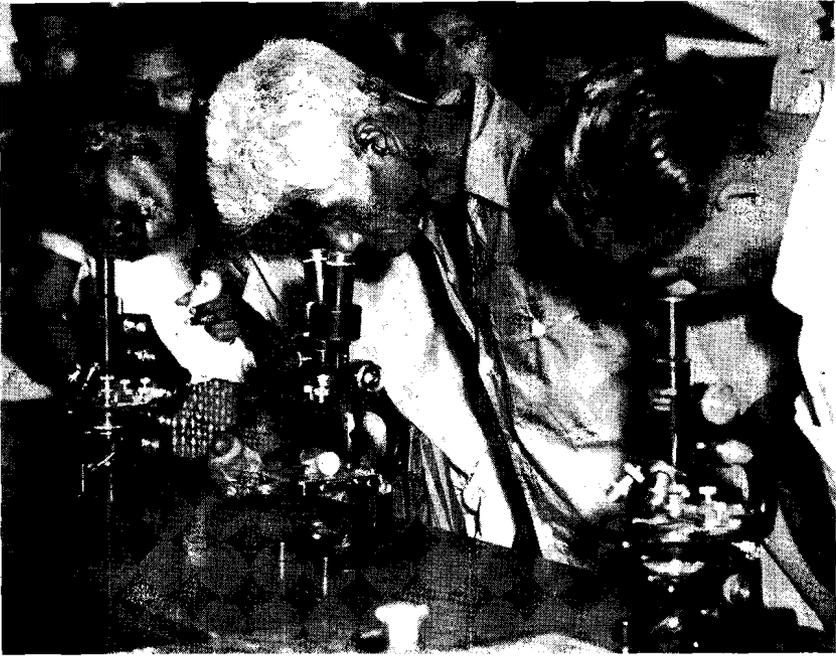
Measure the difference in economic development.—Latin America has more than twice the area of the United States and more people. But it has only 7 percent as many miles of all-weather roads as the United States, consumes only 8 percent as much electricity. Electrical consumption per capita in the Scandinavian countries, higher than in the United States, is 50 times as much as in Iran. In the United States steel consumption per capita, a key indicator of economic development, is 275 times as much as in Pakistan. Consumption of petroleum per person in the United States is 210 times as much as in India, a nation with more than twice the population of the United States.

The Need Is Recognized—At Home and Abroad

Peoples of the less advanced nations are becoming every day more aware that progress is possible. The differences in levels of development have been made evident by motion pictures, by radio, by international travel, by books, by magazines. Leaders of nations all over the world recognize the urgent necessity of improving living conditions of their people and also realize that something can be done about it.

The more advanced nations also have recognized the necessity of contributing to the development that many new nations, and many old ones, today are undertaking on their own. The period since World War II, the period of the existence of the United Nations, has seen an ever-increasing emphasis on economic and social progress, on a cooperative basis.

The United Nations and its specialized agencies such as Food and Agriculture Organization, World Health Organization, International Labor Office, Educational, Scientific and Cultural Organization have active programs of technical assistance. The International Bank for Reconstruction and Development (World Bank) includes technical assistance as a part of its banking procedures. The United States is a member of the United Nations agencies and of the World Bank.



Seventy years ago not even the world's top scientists knew that the anopheles mosquito was the culprit in transmitting malaria. Today hundreds of millions of people the world over have this knowledge and these visitors at a festival in Thailand are seeing for themselves what causes the disease.

The Organization of American States, of which the United States is a member, sponsors technical cooperation activities in Latin America. Nations of the British Commonwealth and others are joined in the Colombo Plan for technical cooperation and economic development. The United States is a member of the Colombo Plan also.

Private organizations, such as Rockefeller Foundation, which has a long record of technical assistance; Ford Foundation, comparatively new in the field but very active; Near East Foundation and many others also are making valuable contributions. Some voluntary agencies have contracts with the International Cooperation Administration for specific technical cooperation projects under United States bilateral programs. Large American corporations, such as oil companies, rubber companies and the like which have operations abroad, assist other countries with vocational training, health programs and improved housing.

United States Takes a Leading Role

But the United States, most called upon among nations to give technological assistance, most able to give it and perhaps most willing,

has taken the lead in technical cooperation and development assistance.

On a bilateral basis—that is, in direct relations with individual countries in each case—the United States has technical cooperation programs with more than 50 countries and dependent territories. The earliest of these programs have been in existence for more than a decade; others have been established in recent years.

In addition to technical cooperation, basically the transferring of knowledge and skills from one country to another, the United States also makes a substantial contribution in some instances of “development assistance,” grants or loans of money to permit other countries to undertake capital improvements. In some countries where mutual military defense programs are in effect, economic assistance also is given and is called “defense support”.

The objectives of technical cooperation, of development assistance and defense support are alike in that they seek to assist a newly developing country in taking those steps that will better its living conditions, increase its economic strength and its ability to defend its freedom.

B. THE METHOD IS AIDED SELF-HELP

In the past, technical cooperation has been carried on by the people of the United States under many different circumstances and different auspices. Millions of Americans, through their churches, have contributed to the building of schools and colleges to assist education abroad. Indeed, American technical specialists working abroad today often find that the scientist or scholar of the host country working with them is a graduate of a missionary college or came to the United States on a scholarship.

Technical assistance requests from foreign governments to the United States, moreover, began well over 100 years ago. In 1846 the Sultan of Turkey, for example, requested the services of several scientific agriculturists to introduce an improved method of cotton culture.

In the Philippines, Cuba and Puerto Rico, the United States gained much of its experience in the techniques of technical cooperation—how to approach problems of disease, illiteracy and poverty, how to introduce simple skills and practices. Many examples exist also, in the last 50 years, of engineers, geologists and the like requested by Latin American countries for specific tasks. In 1938, the Interdepartmental Committee on Scientific and Cultural Cooperation was set up by the United States Government as a means of facilitating technical cooperation with Latin American countries.

Definite programs began, on a bilateral basis, with the founding of the Institute of Inter-American Affairs in 1942 and some of today's technical cooperation programs date from that time.

In 1950, Congress passed the Act for International Development, popularly known as Point Four, and technical cooperation programs were established on a world-wide basis for the specific purpose of helping other nations to develop their economies.

For the less developed countries, technical cooperation has a special meaning. For them technical cooperation represents the advice that will permit them to make the best use of limited resources to overcome major obstacles to their progress and permit them to get the development process going under its own momentum. The newly developing country recognizes that its people must do the job themselves but need improved technology to make their work successful.

Plans, Resources and Problems

Each country with which the United States participates in a technical cooperation program presents a special case, but the majority share the same basic problems. Since the people are poorly fed, agriculture must be improved; since there is widespread disease, health programs must be instituted or strengthened; since skilled people are lacking, education must be brought nearer to the country's needs. Governmental administration must be brought to a level of professional efficiency sufficient to advance, and not to hinder, the overall development.

A few countries, such as Venezuela and Iraq, have special oil revenues that they can use for development purposes. Some other countries, such as Brazil or India, are able to take stock of national resources and work out comprehensive development programs.

A joint Brazil-United States Commission, for example, prepared 41 detailed projects calling for reequipment of railways, ports and coastal shipping; expansion of electric generating capacity and pilot projects in agriculture, highways, industry and warehousing. Such planning not only gives direction to national budgeting but also permits technical cooperation to be used effectively.

India has completed its First Five-Year Plan and is currently carrying out the Second Five-Year Plan. These Plans blueprint activity in agriculture, industry, transportation, communications, power, health, and education and community development. United States technical cooperation with India has been fitted in at key points with India's own Five-Year Plans.

Iraq has undertaken a long-range capital works program calling for control and utilization of the waters of the Tigris and Euphrates rivers, settlement of landless farmers on more than 12 million acres of state-owned land, establishment of research stations and experimental farms, improved education, basic industries, a highway program and so on. United States technical cooperation with Iraq has concentrated on educational and advisory phases of these activities.

In a majority of countries, however, conditions are not so favorable. For they include not only a primitive agriculture, widespread disease and ignorance, lack of schools, absence of any considerable resources and poor communications but also lack of experience in public administration techniques and insufficient governmental organization with which to undertake immediately major development efforts.

The resources of technical cooperation are such that they can be applied at even the most elemental levels of economic development. It is at these levels, perhaps, where few facilities already exist, that technical cooperation is most vital.

First Needs First

No country is completely without means of self-help. A particular country may have only a few scientific farmers but some may be found. The shortage of medical and health personnel may be grave but beginnings of public health programs will have been made. Schools generally may be substandard but some schools exist.

The official beginning of a technical cooperation program comes when another country makes a request to the United States, through diplomatic channels, for its cooperation. The next step usually is the signing of an agreement between the United States and the host country. Prospective joint projects are discussed.

The first or "general" agreement may cover program operations for a period of years. Later agreements set forth details of the particular projects—reasons for a project, what it is intended to accomplish, the contributions to be made by the United States and the host country. In the selection of joint projects, both the host country and the United States attempt to determine what needs are basic and how technical skills and knowledge, applied at these points, may make other improvements possible. To illustrate, improvements in agriculture may be required from a viewpoint of the host country's economy; but if many of its farmers suffer from malaria or other diseases and are unable to give their full energies to farming, the beginning may need to be a rural health program.

Working Together on Joint Projects

In Latin America, it was discovered that the best approach to joint projects was to set up a "servicio," a special joint agency receiving financial support from both the United States and the host country and administered by personnel from both nations. There are today 56 "servicios" in operation in Latin America. A servicio usually has charge of activities in only one particular field—health, education, agriculture, industry—so there may be several servicios in any particular country.



Brazil's textile industry supports a training program at the SENAI industrial school in Rio de Janeiro. With a SENAI student are Harold M. Ballew (right), ICA technical specialist, and his Brazilian counterpart, Dr. Maurilio Leite de Araujo Falho.

In other areas of the world, a variety of methods have been followed. Some joint agencies closely resemble the servicios. In others there is an overall joint agency administering program activities. In many cases, United States technical specialists are assigned to a particular unit of the host government, to a State government, an educational institution or association of private industrial concerns. In each case, the American technical specialist works with a "counterpart" in the host government, an officer of similar rank and duties and concerned with a technical field.

Since the occupation of the great mass of people in the newly developing countries is agriculture or related to agriculture, projects for the improvement of agriculture are of immediate importance. But

health and education projects also are basic and these also are early concerns of technical cooperation.

In the early stages, agricultural programs may include demonstrations of better methods of cultivation, the advantages of better seeds, better varieties and improved methods of planting. The use of even slightly improved tools and implements frequently accomplishes much. Farmers also are shown better methods of care for livestock, veterinary practices are introduced and improved breeds developed.

None of these skills or such knowledge is likely to spread to any great number of farmers, however, unless some form of agricultural extension is worked out. Trained extension workers are lacking in many newly developing countries and so facilities are set up for training them. Agricultural vocational schools, agricultural colleges and research stations follow. Development of agricultural credit systems, assembling of agricultural statistics, attention to problems of storage, processing and marketing mark further progress. At all levels, the experience of the United States and its agricultural development are available.

Health programs initially may be directed to attacking a primary health menace, such as malaria or yaws or outbreaks of smallpox and other diseases. Well-organized DDT spraying campaigns reduce malaria very rapidly. Treatment with penicillin can clear up cases of yaws. Inoculations against smallpox keep that disease in check.

Emphasis on Long-Range Gains

But the basis of continuing progress has to be laid from the beginning in educating people to take better care of babies, to adopt sanitary practices which reduce the incidence of water-borne and filth-borne diseases, to undergo periodic examination, to report illnesses. Health centers need to be set up to which people can come for treatment of common ailments. Very soon the training of personnel is involved—midwives must learn better methods of caring for mothers and children, nurses' training must be begun, health "visitors" have to be instructed by the hundreds. And in the background is the building of hospitals, improved medical education, organization of national public health facilities within the government.

To be specific, a joint project of the United States and a host country in the health field might be to establish health centers—with the host government providing buildings, personnel, the United States a limited amount of equipment and the services of a technical specialist to advise on organizing the centers and training the personnel, to help get the centers in working order and performing efficiently.

In education, one of the first needs is vocational training and in many instances there are such projects, guided by United States tech-

nical specialists working with counterparts of the host country. Training of teachers for elementary schools is another important activity of technical cooperation and experienced United States education specialists help set up or improve normal schools, advising on curricula, methods and teaching aids. Technical cooperation extends also to efficient educational administration, advice on organization of school systems, and, in the case of American universities in technical cooperation, to help in developing schools of engineering, schools of medicine, schools of education and the many other institutions to produce professional personnel.

Although agriculture, health and education are the principal fields in which technical cooperation projects have been undertaken, industry, mining, transportation, communications, labor, community development, housing and public administration are other areas in which technical cooperation is being carried on.

Major capital improvements, such as the building of hydroelectric installations, factories, steel mills, highways and railways are not ordinarily included in "technical cooperation" as the term is defined in the United States mutual security program. Financial assistance in these cases comes under the classification of "development assistance" or "defense support," in the form of loans or grants. Newly developing countries also obtain loans for these purposes from the World Bank or Export-Import Bank of Washington, or finance them from their own resources or in other ways.

Technical cooperation, nevertheless, enters into the picture for although the larger expenditures are not "technical cooperation," the assistance of technical specialists is necessary and this may be supplied, either in the services of individuals or under contract with engineering firms, to assist in drawing plans, supervising construction or installation, operating plants in initial stages and training local staff to carry on continuing operations.

What the United States Contributes

Four main components of the United States contribution to a technical cooperation program are (1) technical specialists; (2) training in the United States or in a third country; (3) technical information in the written word or in films, filmstrips or other audiovisual media; (4) demonstration supplies and equipment.

The fiscal year 1957 appropriation for all technical cooperation programs, through the United Nations and Organization of American States, as well as the bilateral programs with more than 50 countries and territories, was \$152 million.



Nurse training is an important aspect of technical cooperation in health. A nurse supervisor here assists a student at the National School of Nursing in Ecuador to apply theory to practice. The profession of nursing, upgraded through technical cooperation, is gaining prestige in many countries.

Technicians Sent As Requested

Some 4,000 United States technicians are today working in bilateral programs around the world. They are sent only on request of host governments, to provide technical advice and guidance on specified projects. They work in partnership with officers of comparable rank and experience in the host country, effecting a direct exchange of know-how on a day-to-day basis.

They have some direct contact with farmers, students, manufacturers and workers and work on specific problems, but their principal role is that of advisers and working collaborators to assist in setting up host country organizations, helping to make plans and helping to carry projects to completion. Salaries of the United States technical specialists are usually paid by the United States.

In the early stages of United States technical cooperation programs, specialists requested were largely agricultural extension specialists, public health nurses, teachers of vocational training, home

economists, geologists, civil engineers. As programs expanded, however, and host countries themselves progressed further in economic development, the area of specialization has become broader and more detailed. Requests come for plant pathologists, agronomists, marketing technicians, land management specialists, cost accountants, malariologists, organization and management advisers, metallurgists, industrial engineers, analytical statisticians, handicraft technicians, audiovisual officers, soil scientists, vegetable oils specialists, hydro-power technicians, photogrammetrists, public administration advisers, even radio isotopes specialists.

Although the United States has—in industry, government, universities and research institutions—many hundreds of thousands of technical specialists, recruitment for service abroad is not easy. Many specialists are unable to leave jobs in the United States or to go abroad for personal reasons. Throughout the history of bilateral technical cooperation programs, requests for technicians have always exceeded the number available at any one time.

United States Universities Help

The International Cooperation Administration in recent years has sponsored so-called university contracts, whereby an American university agrees to undertake specific technical cooperation tasks, in association with a college or university or government agency of the host country. This assistance is pointed directly at increasing the number of professionally trained persons in the host country and at guaranteeing the steady flow of technical specialists in the future.

Faculty members of the American university are detailed to the university in the host country, to assist in organizing a School of Medicine, or Engineering, or Business Administration, or Public Administration or, in some cases, entire new universities. While the American faculty members are at the foreign university, key faculty members of that institution are studying in the United States in preparation for greater responsibilities in the education of their own country.

The American university team helps to develop course content, curricula, teaching methods, research facilities, helps establish adequate laboratories and libraries, helps to foster relations of the foreign university with the community and with industry. This last activity is a distinctive feature of American education, in contrast with traditional education in many countries, which has tended to be isolated and apart from the economic life of the nation.

As of December 31, 1956, there were 84 university contracts in operation, involving the work of 54 American universities and technical institutions. Activities were being carried out in 38 foreign countries and in addition there were 4 regional contracts.



The many audiovisual aids available now make the task of technical cooperation much easier and speed up the exchange of knowledge and skills between countries. Syracuse University, under contract with ICA, has helped Iran to develop its own audiovisual services and train its own technicians. At left, Syracuse instructor Ed McCoy; at right, cameraman Reza Badiyi of Iran.

Participants Come to the United States

A very important aspect of technical cooperation—perhaps the most important—is the training of large numbers of skilled persons needed as development proceeds. This manpower lack is a basic cause of limited progress. Under technical cooperation projects, hundreds and thousands of village workers, health visitors, skilled vocational mechanics and artisans are trained within the host country itself, but for many even more specialized training is desirable.

Foreign technical specialists, therefore, come to the United States to study and observe in their fields of special interest. Those selected (by the host governments) are persons engaged in work related to the specific technical cooperation projects on which the United States and the host country are working. Their visits are individually arranged and their time is spent at universities, research institutions, government offices, industrial plants or other sites where they can get the most value from their experience.

Some participants go to regional training centers that are coming

into increased use. The American University in Beirut, for example, provides many types of public health training for the entire Middle East. In this hemisphere, Puerto Rico has become a kind of technical cooperation laboratory and offers the kind of conditions which many technical specialists not only of Latin America but also of parts of Asia, the Middle East and Africa find in their own countries. The International Institute of Agricultural Sciences at Turrialba, Costa Rica, an OAS specialized organization, is another regional training site.

In the Far East, the Philippines provides regional training and increasing numbers of participants are being sent to Japan. Hawaii offers training facilities comparable in many ways to those of the United States, with not as much travel involved as to the mainland.

Since the beginning of United States bilateral technical cooperation, some 26,000 foreign participants have come to the United States. They have studied in all fields—agriculture, health, education, industry, labor, transportation, communications, public administration and many others.

Technical Information Media Speed the Process

An important component of technical cooperation in every basic field is the providing of technical information in the form of the written word (books, reports, digests, brochures, pamphlets, magazines, replies to special inquiries) and in the entire range of visual media (films, filmstrips, slides, cartoons, graphics, exhibits and so on).

The United States has available enormous quantities of all of these but language and cultural differences, even differences in level of economic and technical attainment, make it imperative in most cases that these materials be produced in the host country, in its own language and with symbols and illustrations familiar to its people. For this reason, audiovisual specialists from the United States are assigned abroad to assist in developing such programs.

Many millions of people the world over, who will never come in contact with an American technical specialist, are thus gaining information that helps them improve their own living conditions. Leaders of all the underdeveloped countries are becoming increasingly aware of the importance of audio-visual techniques in speeding up the process of development.

Supplies and Equipment Are Used for Demonstration

It has long been recognized that it is futile to send a United States technical specialist abroad if many of the tools or pieces of equipment that he uses are not available to him so these are supplied, in limited amount, from United States funds.

Such supplies and equipment may include laboratory equipment for health programs, machines for a vocational school, heavy equip-

ment for highway projects to be used for the training of mechanics and operators. Large construction projects are necessary for economic development in many countries yet the country may have few men trained to operate tractors, bulldozers, trucks, cranes and the like. Under some technical cooperation programs, heavy equipment training centers are set up where such training can be given.

What the Host Country Contributes

Host country contributions in most cases, especially over a period of years, are likely to exceed greatly the contribution of the United States. Land for demonstration farms, buildings for health clinics or vocational schools or other purposes are provided by the host country. Salaries of large numbers of local workers are paid by host governments. Transportation of supplies and equipment within the country are paid for by the host country. Office space for American technicians and clerical help for them are also provided.

Although a single technical cooperation project may represent a fair balance of United States and host country contributions, the broader programs set up as a result of the success of a demonstration project entail a far greater host country outlay. Particularly in the health field, costs go up rapidly. For example, an awakening interest in health measures in Thailand has resulted in an increase in Thai Government expenditures for health programs from \$719,000 in 1947 to \$6,569,000 in 1954. In the Philippines health program expenditures rose from \$8 million in 1953 to \$16 million in 1954 and went on to \$24 million a year later.

According to a United Nations survey, expenditures on education in five Arab states (Egypt, Iraq, Syria, Lebanon, and Jordan) have more than tripled since 1945. If expenditures for school buildings are included, then total expenditures on education have risen 500 percent in these countries in the last decade.

C. THE RESULTS ARE FAR-REACHING

Technical cooperation projects do not exist in isolation and the most successful programs are those related to overall economic goals. For this reason, projects are rarely viewed as valuable unless they contribute to gains both in the particular technical field and in other fields as well. Some activities and some results are these:

Agriculture.—Better methods of cultivation, improved plant varieties and breeds of farm animals, application of fertilizer to crops, improved tools and implements, control of plant diseases and insect pests, all contribute to increased agricultural productivity.

More vital, however, is the education of the farmer himself and establishment through agricultural extension and otherwise of channels through which a continuous supply of scientific information flows

to the farmers themselves in a form which they can understand and apply. Without neglecting the specific and immediate techniques, ICA agricultural specialists emphasize the establishment of extension systems and development of agricultural credit and related services. Seventeen countries now have extension services fostered by United States technical cooperation. Farm youth (4-II) clubs have been established in 21 countries.

Even slightly improved tools or better methods of cultivation make immediate and striking improvement. In Iran, a demonstration of the advantages of using a moldboard plow instead of the traditional one in sugar beet cultivation resulted in three times the yield. In the following season, farmers rented a tractor and plow to do the plowing of all sugar beet land in the demonstration area.

A demonstration, also in Iran and somewhat surprising to the local people, that sugar beet pulp could be used as cattle feed, resulted in farmers constructing and filling 375 pit silos. What in former years was largely wasted became a useful product. By United States standards, the cattle feed provided was worth approximately \$5 million.

In Liberia, fertilized upland rice yielded 2,600 pounds per acre against an unfertilized check plot yield of only 1,200 pounds. In Ethiopia, a simple change to row planting of corn instead of broadcast planting increased production from 18 bushels an acre to 30 bushels.

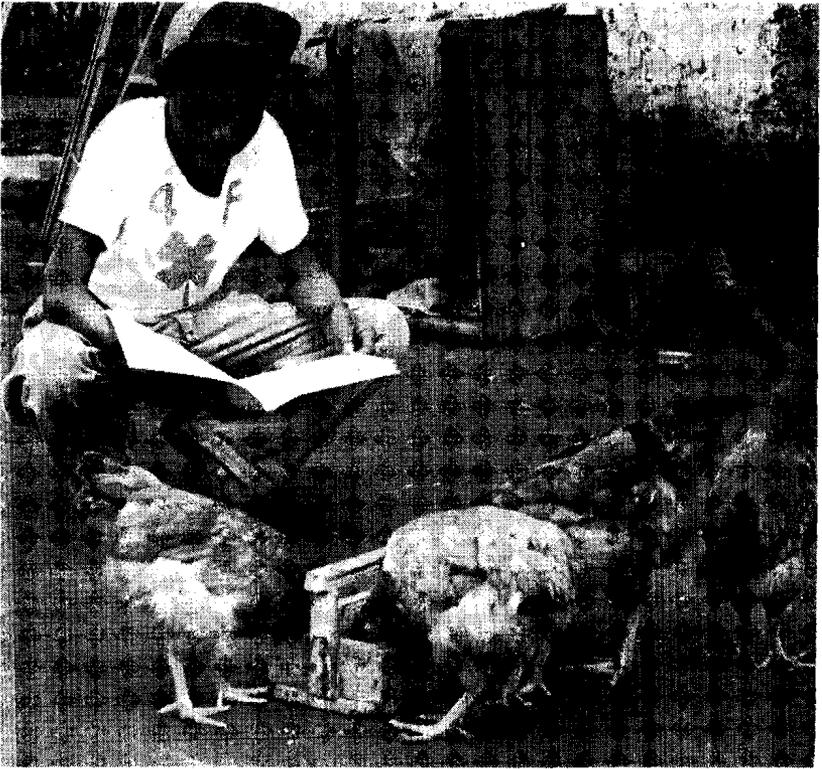
In Peru, the importance of selected seed, proper fertilizer and modern methods of cultivation in growing potatoes was shown when a demonstration plot produced 610 bushels per acre, valued at the equivalent of \$677, compared to 118 bushels per acre valued at \$50 by conventional cultivation.

In food-poor Egypt, a hybrid corn program assisted by the ICA mission resulted in such a demand for seed from the Government that private firms were encouraged to go into the business.

In the Philippines, a nursery project resulted in growth and sale of 411,000 coffee seedlings, in addition to seed for many more plantings, and sale of 36,000 cacao seedlings, also additional seed, thereby making the beginnings of greatly increased coffee and cacao production.

In India, where not even cow manure has been used for fertilizer because of its use for fuel, farmers have been taught the value of commercial fertilizers. Use of ammonium sulphate fertilizer rose from 200,000 tons in 1951 to an estimated 660,000 tons in 1956. India plans an increase of nearly 300 percent in nitrogenous fertilizers in the next 5 years. The greater use of fertilizer in India has been an objective of the Indo-American technical cooperation program. India's population problems are so acute that a great increase in food supply is necessary even to maintain reasonable standards of diet.

Countries in which there are technical cooperation programs have imported more than 17,000 breeding animals—cattle, sheep and hogs.



A young member of a 4-F Club, Ecuadoran equivalent of a 4-H Club in the United States, reads about care for his poultry. Having followed directions for proper feeding, he is now interested in shelter for his small flock in the winter months.

Most of these have gone to Latin America. Yet in Iran a top-level herd of Brown Swiss breeding cattle has been established and artificial insemination has produced 40,000 cross-bred offspring. Ordinary Iranian cows average 1,400 pounds of milk a year, the improved breeds produce 4,500 to 5,000 pounds of milk annually.

Baby chicks from the United States have helped establish improved poultry flocks in many countries. More than 75,000 baby chicks were imported into Iran in 1952, another 60,000 in 1953. Cross-bred chickens are double the weight of native poultry and lay three times the number of eggs. In Egypt, improved poultry and poultry raising has increased so greatly that six concerns now market improved feed recommended by the technicians.

Day-old chicks hatched in Israel are finding a good market, with 400,000 a year going to Cyprus and other tens of thousands to Greece. A United States poultry specialist has been adviser to this project.

The first high-grade milk, packaged in paper cartons, to make its appearance in the Middle East went on the market in Beirut early

in 1956, from new modern commercial pasteurizing plants set up as a result of interest aroused in modern dairying by a technical assistance project. In Brazil an American dairy and pasture specialist helped develop a school for training young men in dairy operation.

United States citizens who lived in Paraguay years ago and have returned recently comment on the great improvement in the availability and quality of vegetables in the markets. This results from a technical cooperation seed project. Arrangements are being made to convert the seed service to private enterprise.

Also in Paraguay, an agricultural survey showed that there were great numbers of caranday wax palms. With the assistance of an agricultural chemist, a company went into the business of processing the leaves and now handles 60,000 daily. The wax obtained is used in car and floor polishes, stencils, recordings, printers' ink and as a stabilizer for high explosives.

More than 50 vocational agricultural schools have opened in 10 countries as a result of technical cooperation. Agricultural colleges have been established in seven countries. Yet the demand for skilled workers and trained specialists is so great that shortages will exist for years.

Health.—The original activity of technical cooperation in Venezuela was in malaria control. In 3 years, malaria dropped from third place to sixth among causes of death. In the Philippines, malaria incidence fell 68 percent as a result of DDT spraying. In Indonesia, more than 12,000 acres of land in the Surabaya area, abandoned because of malaria, were returned to rice production after malaria control. In Taiwan (Formosa) malaria incidence has been reduced from 25 percent to 0.5 percent.

In Iran, sample studies of villages located in the Tabriz and Caspian Sea areas and along the Persian Gulf have revealed a reduction in malaria incidence from 66.9 percent to 5.2 percent. Iranian Ministry of Agriculture data shows that after control operation began wheat acreage expanded nearly 10 times as fast as previously. Those familiar with the program say that "malaria control has undoubtedly played a major role" in the expansion rate.

Iran also offers an outstanding example of how public health services are organized under technical cooperation. Prior to the establishment of the Public Health Cooperative Organization in 1953, more than 40,000 villages and the nomadic tribes were without medical or public health services. Today PHCO, as it is called, has regional offices in all provinces which have provided services and demonstration projects in malaria control, sanitary engineering, environmental sanitation, preventive medicine, public health nursing, laboratory services, health education, health center construction and operation, smallpox control and administrative services.



Late in 1954, PHCO conducted probably the largest and most intensive vaccination program against smallpox in the history of the Middle East. It has trained more than 57 qualified Iranian nurses and midwives, 115 nurse aides. Six engineers have been sent to Beirut for 1 year's training in public health engineering and 11 others have come to the United States for study. At home, 233 graduates have received 4 months' class work and 2 months' field work in sanitation.

Brazil is one of the countries where technical cooperation in health has the longest record. More than 241 health projects have been completed since joint activities were inaugurated in 1942. Activities included work in establishing safe water supplies and sewerage systems,



To reach villages inaccessible by road, public health officers in conducting anti-yaws campaigns in Colombia frequently travel in river boats. This particular boat bears the initials of the Colombia-United States health service—Servicio Cooperativo Interamericano de Salud Publica. About 100,000 persons have been treated so far in the campaign, which involves 3-day injections with penicillin.

improving slaughter houses, operation of hospitals, demonstration health centers and clinics, public health laboratories, training public health nurses, sanitary guards, laboratory technicians and others.

Education.—The surge of interest in education in all newly developing countries is a phenomenon of the present era. In 1946–47 in Cambodia there were 38,000 children in primary schools; in 1955–56 attendance was 241,000. In Iran since the United States technical cooperation program began in that country, school enrollment has risen from 424,000 to nearly 1 million. In Liberia school enrollment increased from 20,600 in 1948 to 45,300 in 1955. Panama's secondary school attendance was 4,100 in 1943, 16,400 in 1953.

The great need everywhere is for trained teachers and technical cooperation projects in education have concentrated on filling this need, helping to give preservice training to more than 17,000 teachers and in-service training to more than 46,000.

More than 1,200 teacher institutes or vacation workshops have been held, 621 demonstration schools set up. American education specialists have helped to develop 150 or more textbooks, copies of which have been distributed to more than three-quarters of a million children.

Another phase of education which has received major attention is vocational training. In Brazil, the education division of the United States-Brazilian program works with 23 trade schools, conducting 6 weeks' summer courses for shop teachers. Some 321 instructors have been trained and these in turn have trained more than 8,300 persons in 1,100 plants. In Paraguay, the only civilian industrial school in the nation, set up under technical cooperation, has graduated five classes. All graduates were immediately placed in industry, which strongly supports the school.

In Nicaragua, the National Vocational School, another technical cooperation venture, conducts classes in seven different kinds of shop training, with demand especially high for training in electricity, machine-shop work, and auto mechanics.

In the Philippines, in the past 10 years, United States assistance has been given to rehabilitating 37 vocational agricultural schools and 33 industrial vocational schools. Six vocational training centers are being established in Israel with United States assistance.

Industry.—Technical cooperation in industry has been extended not only to newly developing countries but to many with a high degree of industrialization, particularly in Europe. In Austria two American mining specialists made a survey of operation of the largest coal mining company in the country. Adoption of two techniques they suggested made it possible to increase production by 25 percent. In France, the leader of a French productivity team which visited the United States reported that by using American techniques, the French had been able to triple production of neoprene synthetic rubber. A Yugoslav nonferrous mining study group to the United States likewise reported that application of United States techniques increased production.

A Japanese automotive industry productivity team helped to carry out ideas not only for greater plant efficiency but also for better wages for employees and establishment of such facilities as a temporary cafeteria for workers. French paint and varnish manufacturers learned here the advantages of specialization and standardization and have since reduced the variety of products and cut both selling prices and operating costs. Philippine plywood producers after visiting



Through technical cooperation, advanced teaching methods are being brought to many remote areas of the world. In Bolivia, as in many other countries, a cooperative program in education sponsors workshops where rural teachers observe and take notes on new techniques.

American industry, were able to increase productivity in their own plants, establish safety rules and increase wages.

United States technical cooperation programs have helped in many countries to establish new industries and expand existing ones. The Philippine Industrial Development Center's help to industry has resulted in thousands of new jobs. The range of new industries resulting from technical cooperation and advice varies widely—a modern tire recapping plant in Indonesia, a grape juice bottling industry in Jordan, wallboard production in Turkey, can lid gasket manufacture in Iran, ceramics plants in the Philippines.

A United States metal-working expert arrived in El Salvador in July 1955, his assistance requested by a rolling mill that had operated intermittently and unsuccessfully for the previous 3 years. As a result of his suggestions, production was raised from 27 tons a month to 60 tons and the owners plan to buy new equipment and raise production to 200 tons. The Inter-American Industrial Productivity Center established in 1954 in El Salvador has had requests for help in the establishment of a building block plant, plants for manufacture of

glass bottles, and improvements in plants which make roof tiles, floor tiles, pottery and other products.

Mining specialists and geologists from the United States have done especially productive work. Surveys in Israel discovered new types of ceramics clay, building stones, gypsum, and other materials. In Brazil, American geologists and their Brazilian counterparts have located 1 billion dollars' worth of ores for Brazilian and United States mining companies. In India, an American technical specialist has assisted in the pilot development of vast lignite resources in the State of Madras.

Labor.—In a number of countries with expanding industrial communities, ICA labor programs are meeting a growing interest in development of good labor-management relations. The contributions of free trade unions to economic growth as well as their role in resisting Communist penetration of the labor force is becoming ever more widely appreciated. Many newly developing countries have called for technical cooperation assistance in strengthening specialized governmental labor services that help to raise labor standards and improve manpower utilization.

The Labor Education Center at the University of the Philippines, established in 1954 with ICA assistance, has sponsored more than 60 workers' education seminars. More than 3,500 trade unionists were trained in such subjects as trade union administration, labor legislation, shop steward functions, grievance procedures and labor-management relations.

ICA labor specialists also have helped the Philippine Department of Labor in its reorganization program. Eight regional labor offices have been established, the inspection service has been strengthened in such fields as wage regulation, safety and employment standards for women and children.

In Turkey, two United States specialists helped the Government bolster its employment services operations. The services, operating through 50 local branches, are currently providing placement services for the Government and private business.

Workers' education seminars in Costa Rica and British Guiana have made a notable contribution in development of practical skills needed to carry on good day-to-day labor-management relations. The free trade unions in these countries are following through on additional workers' education activity and the seminars are serving as models for other Latin American countries.

Public Administration.—All technical advances, to produce the maximum benefit for a country, must be accompanied by the improvement of managerial skills and ability. This is clearly reflected in the growing desire of countries to modernize their governmental services, the better to support and advance economic development.



The library of the Institute of Public Administration of the University of the Philippines is considered one of the best collections of its kind in the world—with 9,000 volumes, 1,600 Government publications, microfilms, filmstrips, photostats and other records. The Institute was built up through an ICA university contract with the University of Michigan.

As result, the United States has received and responded to increasing requests for technical assistance in public administration.

In 1952 the Government of the Philippines launched a program to modernize its public services. High in priority was a project for development of an Institute of Public Administration to provide a continuing flow of trained personnel into the public services and to aid the Government through consultative services to meet a number of its major problems.

An American university (University of Michigan) teamed up with the University of the Philippines to undertake this project. Four years later a well-organized and trained staff of Filipinos had been assembled and were operating the Institute of Public Administration in Manila. An excellent library in public administration had been established and was being increasingly utilized by governmental officials. An extensive program of support to in-service training in the

Philippine Government was into operation. The effect of consultative services had been significant—a program for modernization of the budgetary and fiscal operation of the government had been initiated, a complete reorganization program implemented and extensive work begun toward improvement of pay and civil service operation.

In Iran, American experts in public administration are assisting Iranian government officials in improving the organization and administration of government activities. American advisers work with newly appointed Under-Secretaries for Administration in most Ministries. Specialists in accounting, budgeting, taxation, personnel management, organization and methods, municipal management and other subjects are assisting in devising new systems and improving public service.

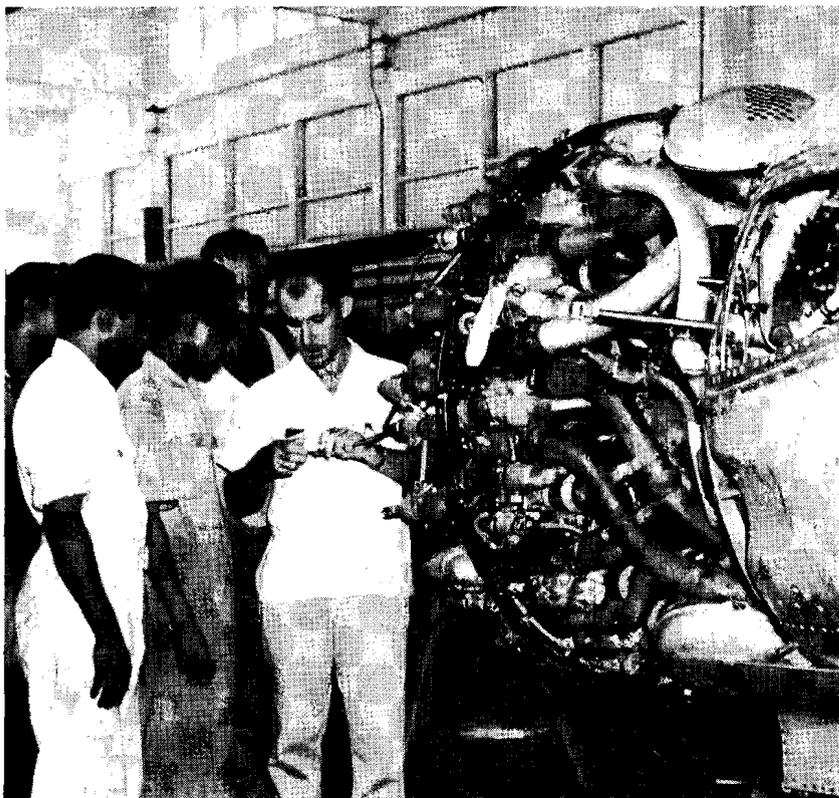
An Institute of Administrative Affairs has been established at the University of Teheran through a contract with the University of Southern California. A graduate program in public administration is in its second year and Iranian faculty members are beginning to return from periods of special study at Southern California, assuming responsible positions in the Institute. A large in-service training program is in effect.

The Government of Costa Rica has undertaken a three-point attack on its administrative problems with assistance from public administration advisors from the United States. In May 1953 a civil-service law was enacted and a merit system of personnel administration is in operation. To regularize fiscal affairs, a performance-type budget system has been developed and work is underway to improve the new system. A national organization and methods office has been established and personnel trained under the ICA program in the United States are now making management studies of various ministries with the assistance of a United States technician.

Transportation.—Technical cooperation is being extended in many fields of transportation—airlines, railroads, highways and waterways. In an automotive age, highway development is one of the quickest ways to stimulate economic development. Newly developing countries in most cases finance highway development from their own resources or through loans from the World Bank or Export-Import Bank. Technical advisors help plan programs, survey highway routes, supervise construction and demonstrate road-building and highway-maintenance methods and the use of heavy equipment.

An American engineering firm, under a contract sponsored by ICA, is helping Iraq to develop a modern highway system. The American firm gives training in all phases of highway work and when its task is completed, Iraq will have its own trained engineers and officials in all key positions to carry on the highway program.

Iraq has allocated the equivalent of \$33 million a year, for the next



Under an ICA contract, Pan-American World Airways is assisting Pakistan in developing its own aviation facilities. A Pan-American maintenance technician here discusses ignition systems with Pakistani engineers. Domestic air travel is especially vital to Pakistan since the two parts of the country, East Pakistan and West Pakistan, are separated by 1,400 miles, with India in between.

5 years, from its own oil revenues, for the construction of main roads and bridges and its Public Works Department has an annual budget of \$1.25 million for maintenance and reconstruction.

In Turkey, United States aid in highway development has amounted to about \$40 million over the past 8 years. Turkey itself has expended about \$135 million. The highway program in Turkey was undertaken in recognition of its importance both to the country's economic progress and to free world defense.

Under the United States economic assistance and defense support programs, an all-weather network of some 17,000 miles of road has been put into operation. United States Bureau of Public Roads has directed on-the-job training for some 3,000 Turks and nearly 100 engineers and management personnel have been trained in the United States.

The dramatic changes brought about by improved highways is

illustrated by the fact that the cost of transporting produce and other materials by motor truck in Turkey is figured now at 10 cents per ton-mile, compared to \$1 per ton-mile by oxcart.

In Ethiopia, in 1951, a 3-year highway construction and training program was instituted, using a \$5 million loan from the World Bank and \$10 million of Ethiopian funds. This program was later extended 2 years with Ethiopia paying all the additional cost. The entire program has been supervised by the United States Bureau of Public Roads, which has kept an average of 30 men in Ethiopia. Their salaries were paid, not by the United States, but by the Ethiopian Government.

One of the program's achievements has been the reconstruction of the important highway from Addis Ababa, the capital, to the port of Assab on the Red Sea. A trip that formerly took several weeks now takes less than 3 days. Trucking rates between the two cities have been reduced 40 percent.

In Bolivia, development of the 300-mile Cochabamba-Santa Cruz Highway and other roads was undertaken with loans from the Export-Import Bank of Washington totaling more than \$30 million. The Cochabamba-Santa Cruz highway is the first land transportation link between the highland centers of population and economic activity and the potentially important agricultural lands of eastern Bolivia. A fertile area the size of the State of Montana is now open to development.

Up to the time the highway program was initiated, maintenance on an organized scale was virtually nonexistent. Now with technical cooperation, the organization for maintaining and improving the national highway system is being developed, training is being given in construction, maintenance of equipment and testing of soils and materials.

In Paraguay, where there has been only 50 miles of hard-surface blacktop road in the entire country, the United States is furnishing road construction and demonstration equipment, with several highway specialists to assist in training. In 1955, a technical cooperation contract was entered into with the Mennonite Central Committee to carry out projects for road development. The Mennonite colony has a unique place in Paraguay in occupying an important agricultural area and in being able to furnish personnel for training.

In Iran, technical cooperation projects have resulted in the training of 28 motor-grader operators, 16 bulldozer operators, 11 road-roller operators, 42 truck drivers and others. Ten field stations for highway maintenance have been set up.

The Government of Cuba has created a National Planning Board for development of its highway system and has requested assistance from the United States in working out an overall highway plan.



Ernest E. Neal, ICA community development advisor confers with members of a village panchayat (council) in India on the effect of community project work in their village. Some of the earliest community development work in India was undertaken in this particular area in northern India.

Various countries, among them India, Korea, and Iran, have received technical assistance in improving railway systems. Assistance on airlines is being given in every area of the world.

Community Development.—One of the most basic aspects of technical cooperation, and of nationwide progress in newly developing countries, is “community development,” something which has many definitions and occurs in many forms. It has been called “a means of introducing and effecting change at local level through aided self-help programs”, also “a statement of belief in the democratic process where people recognize needs and take action toward solving them.”

Still another concept of community development is that it is “a technique many governments have adopted to reach their village people and to make more effective use of local initiative and energy for increased production and better living standards.”

A key description is “aided self-help.” Local people in many instances recognize their needs and also may be able to work together

toward a higher standard of living and better way of life. "Community development" today, however, implies that the process is not entirely a grassroots one, since even these people may be unaware of their own resources, may lack appreciation of technical skills, may not know the most efficient ways to accomplish self-help. Here is where government help comes in.

One United Nations study of community development says that "changed attitudes in people are more important than the material achievements of community projects." In every country where community development programs have caught on, a new spirit is evident. The ordinary man gains a new consciousness of what is possible for him, the community expands with hope and new energy.

In sheer extent and also in amount of government support, no community development program in the world today equals that of India, which is already affecting the lives of 80 million people and which the Government of India plans to extend to a total of 340 millions in the next 5 years.

This program was started with United States assistance. American community development specialists helped with the planning of the nationwide program, which got off to an impressive start largely because many pilot projects had already been undertaken, because India already had had some experience in types of community development and because the spirit of India was ready, since the father of Indian independence, Mahatma Gandhi, had long advocated village development. The program started appropriately on the anniversary of Gandhi's birth, October 2, 1952.

American agricultural extension specialists, health specialists and others assisted in planning training courses for village workers. The Ford Foundation took an important role in helping to develop training centers. Material aid was given by the United States in the form of jeeps and other transport equipment, motion-picture projectors and other teaching aids.

India's village people, awakened to their opportunities, have accomplished wonders—such things as reclamation of 895,000 acres of land, irrigation of 1.5 million acres, establishment of 12,000 schools and 30,000 adult education centers, building 28,000 miles of new roads. These things have been done largely by the people themselves.

Prime Minister Nehru has called the change in attitude "a silent revolution." He wrote in 1955:

"I think we may modestly claim to have achieved a great deal in many fields of human endeavor during these past years in India. But I believe that the most significant development in India has been this development of community projects and national extension service in the vast rural areas of India. For the first time, it may be said with truth, that we tackled the rural problem in a realistic way."



Class in home economics extension methods at Peshawar in Pakistan. Mae Everett, ICA home economics advisor formerly with the University of Missouri, observes the instruction.

In Iran, where the Near East Foundation, under contract with ICA, assists the Government of Iran in community development work, results are impressive although on a smaller scale. In one ostan, or province, of which Isfahan is the center, 60 new schools have been constructed, 19 clinics constructed and 3 repaired, 60 bathhouses built, 25 new mosques constructed and 80 repaired, 360 old bathhouses repaired or modernized, 650 kilometers of subroads leveled and graveled, 300 bridges constructed, 17 water reservoirs built or repaired, 25 sanitary pumps installed. Of more than 900 projects completed, only 6 required loans to villagers to help pay costs.

In Kermanshah and Kurdistan provinces, 673 construction projects have been completed in the past 2 years and 197 were under way late in 1956. Commenting on the work in the Isfahan area, one United States technician wrote:

“All these projects were at least carried out by the Village Councils acting as the legal representative of the villagers. It is logical to



Albert Fraleigh, an officer of the ICA mission in Taiwan, discusses use of building materials at a self-help housing project for Keelung dockworkers. This housing venture represented cooperation of the Republic of China, the United States, the dockworkers' union and the dockworkers themselves.

assume that as these councils progress in their work of improving the villages they will gain wider recognition, be given added responsibilities, gain more support from the villagers, obtain greater village participation in group activities and improvements in the villages and become more truly a democratic representative of the village people."

In Pakistan, in Iraq, in Egypt, Vietnam, Afghanistan, the Philippines, Indonesia, in countries of Latin America and elsewhere, similar community development work is under way. Information on common problems and approaches is being exchanged among the various countries. In some cases ICA has sponsored visits of community development experts from one country to another; in other cases study tours have been arranged by the United Nations.

Housing.—For hundreds of millions of people in the newly developing countries, improved housing is an urgent need. No phase of technical cooperation, moreover, better illustrates the application of advanced techniques to a specific situation. For better housing calls for the utmost ingenuity in meeting a number of conditions—very

low cost, use of indigenous materials, use of a man's labor and that of his own family to build the house they live in, and, finally, a design that meets the requirements of climate, family life, site and other factors.

What has evolved, notably in Puerto Rico, is "self-help" housing. Experts prepare designs and specifications, government makes available machines or equipment for making building blocks, supervises construction. Most of the rest of the job is up to the citizen himself and his neighbors.

A very large self-help housing program was carried out in Greece, beginning in the spring of 1950. More than 70,000 families built their own homes.

The island of Taiwan has been the scene of several successful housing projects. One was for resettlement of refugees from the Tachen and Nanchi islands. In February 1955, some 18,500 refugees arrived in Taiwan. One year later, more than 9,500 moved into new houses in 15 villages. Houses were built by the refugees' own labors. Construction of additional houses has continued in 17 more villages.

In Vietnam, of 16,000 homes destroyed by internal strife during 1955 at Saigon, 2,000 were rebuilt by March 1956. The self-help cost was one-third as much as government or contract cost with hired labor.

Other self-help housing programs are being carried out in Korea, Israel, Iran, Egypt and other countries. In Chile, a 1,000-house program is under way in a former slum area of Santiago.

The Chain Reaction of Development

Technical cooperation occurs in many other fields than are illustrated by the foregoing examples. None of the fields actually is separate and gains in one instance have effects elsewhere. Because of inter-related factors, some projects cannot succeed immediately. To illustrate, the use of a moldboard plow, a simple implement, would appear to be a change that could easily be made by farmers. But underfed oxen or other draft animals may be able to pull a primitive plow but not be strong enough for a moldboard plow, which penetrates deeper and turn the earth over. Efforts must be made to increase food supply for farm animals or, as has been done in some instances, by farmers cooperating to have a tractor plow all their lands.

Yet if depressed conditions in many places offer a vicious circle tending to make a beginning difficult, the reverse also is true. One step forward calls into play additional economic forces. An example of this is found in a report on a project in Paraguay. It relates to the establishment of a model dairy, but what occurred is typical of many technical cooperation projects, large as well as small.

When the United States and Paraguay formed the cooperative agricultural servicio, referred to as STICA, in 1943, both the United States



A United States agricultural advisor, Carl D. Snyder, judges fruits and vegetables at an agricultural fair in Thailand. The winning coconut, shown here, weighed 19 kilograms (about 42 pounds).

mission and the Government of Paraguay agreed that a program should be devised to alleviate the serious shortage of milk. At that time the capital city, Asuncion, was without any source of clean whole milk. Milk supplies passed through as many as six hands between producer and consumer and in the process was watered and adulterated with mandioca flour and similar materials.

The Government assigned 400 acres of valuable land adjacent to the vocational agricultural school as a site for a model dairy. Pastures were established, milking barns built, a pasteurization plant, a dipping vat to rid cattle of insect pests and other facilities were installed. Since, at the time, there was not a cow of recognized milk breed in the whole of Paraguay, a foundation herd of 232 Holstein cows and 38 bulls was imported from Argentina.

Clean, pasteurized milk was sold at cost to hospitals and schools and a retail outlet was opened to supply bottled milk to the public. During the time the model dairy was in existence, more than 1 million

liters of clean milk were sold. Demand was so great and the clean milk so esteemed that one Paraguayan included his place on the milk list as an asset in his will.

The model dairy project started an economic chain reaction that produced, in addition to the output of clean milk, these results:

1. Sixty-one private dairies were established with quality milk cows. A number of these now deliver milk directly from the dairy to the consumer.

2. A number of private individuals and groups are importing dairy cattle from Uruguay and Argentina.

3. A strong dairy producers' cooperative, with quasi-governmental status, has been formed.

4. No single agency in Paraguay had the resources to take over the model dairy. Therefore about half the land, with milking barns, pasteurization plant, equipment and a foundation herd were transferred to the vocational agricultural school. The dairy is used for instructional purposes.

5. A social welfare agency which had used milk from the model dairy for patients in its hospital bought 60 cows and set up a model dairy of its own. The remainder of the cattle were sold at auction and went to dairymen.

6. As a result of the import of dairy cattle and herd improvement programs, the dairymen's cooperative estimates that there are 4,200 purebred and good half-breed cattle in the Asuncion area alone.

7. The model dairy produced its own mixed feed, at first sold mixed feed to dairymen for their use and later made formulas available to commercial firms. There are now eight mixed feed plants in operation in the Asuncion area, all operated by private enterprise, to supply balanced, mixed feed for cattle and other farm animals as well.

In capsule form, then, here are some of the results of technical cooperation—improved agriculture, better health, education, new industry, more international trade and a stronger relationship, among the people of a country and between countries.

D. BOTH SIDES BENEFIT

The United States, in its own development, relied greatly on scientific knowledge and techniques acquired from abroad. It used foreign capital from the United Kingdom, the Netherlands and other sources to supplement its own savings in building its economy. In education it freely borrowed enlightened European theories. Its livestock, its food and forage crops are largely of foreign origin. The eventful discoveries regarding atomic energy, made in the United States, were accomplished by a team of American and foreign scientists.



Young Vietnamese students of agriculture about to depart by plane for the Philippines to complete their second year of study at the Los Banos agricultural college. Training facilities in the Philippines are used by students from many other countries of Asia.

The United States today is still eagerly seeking, not only at home but abroad, the advanced processes, the new food plants, the more suitable breeds of livestock, the mechanical inventions, the results of research in health which will bring increased well-being to its people. Technical cooperation produces some of these things. A pasture grass in Iran was found suitable for South Dakota. A rodent in Israel made a good laboratory animal for study of leptospirosis; previously the United States had used cattle for tests.

Already there are indications that the newly developing countries, as they progress, will make increasing contributions to economic and social conditions throughout the world. Some are already giving technical assistance in particular fields to other countries. As one

country develops a training institution in a particular field, this center becomes available to other countries of the area, as the Institute of Public Administration in Manila is attended by students from various Asian countries.

Participants who have come to the United States have made valuable contributions to research projects here. Specialists from Taiwan and Iran have given details of laboratory methods used in their own countries in staining bacteria and making vaccine. A technical specialist from Brazil recognized a new virus disease of tomatoes in California. Scientists from India, Thailand, Lebanon and Venezuela have contributed useful data on extraction of oil from oil seeds.

Many of the crops being expanded as a result of technical cooperation—coffee, cacao and others—are important to international trade and many of the natural resources being discovered and developed are also highly important to the world economy. Highways developed abroad are helping to lower costs of materials sold in the export market. Outweighing these advantages, perhaps, is the development of mutual understanding and friendly contacts among the peoples of many countries.

The purpose of United States participation in technical cooperation programs is set forth in Title III, Section 301 of the Mutual Security Act of 1954, as amended:

“It is the policy of the United States and the purpose of this title to aid in the efforts of the peoples of economically underdeveloped areas to develop their resources and improve their working and living conditions by encouraging the exchange of technical knowledge and skills and the flow of investment capital to countries which provide conditions under which technical assistance and capital can effectively and constructively contribute to raising standards of living, creating new sources of wealth, increasing productivity and expanding purchasing power.”

The spirit of technical cooperation also is found in goals stated in the preamble to the Charter of the United Nations:

“to save succeeding generations from the scourge of war * * *

“to reaffirm faith in fundamental human rights, in the dignity and worth of human persons, in the equal rights of men and women and of nations large and small * * *

“to establish conditions under which justice and respect for obligations * * * can be maintained * * *

“to promote social progress and better standards of life in larger freedom * * *”

AVAILABLE PUBLICATIONS ON INTERNATIONAL COOPERATION

The following publications may be obtained, on request, from the Office of Public Reports, International Cooperation Administration, Washington 25, D. C.

General:

ICA Fact Sheet.
Reports to Congress on the Mutual Security Program.
Reports to Congress on the Mutual Defense Assistance Control Act of 1951 (the Battle Act).
Mutual Security Program, Fiscal Year 1957-58.

Technical Cooperation:

Technical Cooperation.
Technical Cooperation in Education.
Technical Cooperation in Health.
Technical Cooperation Through American Universities.

Country Series:

Fact Sheet :

Bolivia.	Haiti.
Brazil.	Honduras.
Chile.	Mexico.
Costa Rica.	Nicaragua.
Cuba.	Panama.
Dominican Republic.	Paraguay.
Ecuador.	Peru.
El Salvador.	Uruguay.
Guatemala.	Venezuela.

Booklets:

India.	Philippines.
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Films: "Report to the American People on Technical Cooperation" (27 min.)
"Strength for Peace" (Military Cooperation) (12 min.)

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