



THAI-AMERICAN ECONOMIC COOPERATION

1951-1956

**UNITED STATES OF AMERICA
OPERATIONS MISSION TO THAILAND**

Thailand-United States Economic Cooperation

Economic cooperation between Thailand and the United States has as its objective the development of Thailand's economic resources and technical skills in order to help make possible the long-run progress of the Thai economy and at the same time enable Thailand to bear the burden of defense preparedness. U. S. economic aid totalling \$99,919,000 during 1951—56 has been provided to supplement the Thai Government's own resources.

The aid program is designed to assist the efforts of the Government of Thailand in the following key areas, which are crucial to development in all other spheres of the economy: expansion of transportation, power, and communications; improvement of basic public services to Thailand's people in health, education, agricultural extension, and stimulation of industry; and modernization of overall government budgetary procedures and fiscal management in order that Thailand may achieve the most effective use of its resources.

Under the terms of the 1950 agreement between Thailand and the U. S. this program of aid was set up to work cooperatively—like a partnership to assure that the efforts and materials put into it are most effectively used for the welfare of the Thai people.

The U. S. Government's International Cooperation Administration finances its share with funds appropriated by the U. S. Congress and delegates the authority to spend these funds to the U. S. Operations Mission to Thailand.

ICA finances all the direct dollar costs of the projects and a portion of the local currency costs through dollar financed imports of saleable commodities which yield baht currency. The Thai Government pays a substantial portion of project costs by direct appropriation to Ministries sponsoring projects and from deposits made in an agreed amount to a joint Thai-U. S. Government controlled account called the Counterpart Fund.

From its inception in fiscal year 1951 until 1955 the program consisted primarily of technical assistance to Thailand in the form of services of U. S. technicians, the training of Thai nationals in the U. S., and the provision of equipment and supplies for demonstration and training projects. In addition, however, in some areas substantial commodity assistance was provided to capital investment projects, such as highway and railway development and rural power facilities.

Beginning in fiscal year 1955 considerably expanded assistance was made available. This makes possible the undertaking of larger scale assistance projects and in addition provides needed budgetary support to meet the domestic costs of the aid program and to assist the Thai Government to carry forward economic development expenditures while at the same time maintaining its defense effort. The economic aid funds are programmed partly to meet direct dollar costs of aid projects and partly for the import of saleable commodities which yield baht currency for meeting domestic costs of the projects.

The total aid (non-military) made available to Thailand in each category during the six years of the program is as follows :

U.S. ECONOMIC ASSISTANCE TO THAILAND, 1951-1956
(In millions of dollars)

U.S. Fiscal Year						
1951	1952	1953	1954	1955	1956	Total
8.9	7.2	6.5	8.8	34.3	34.3	99.9
—	—	—	—	—	—	—

Technical assistance has been concentrated primarily in agriculture, public works, public health, and education, with some attention devoted also to fields of labor, public information and public administration. The projects have sought chiefly to :

(a) increase agricultural productivity and to bring about diversification of agriculture so as to reduce Thailand's overwhelming dependence on rice ;

(b) improve transport facilities, increase power output, and explore and gauge Thailand's mineral resources and ground water supplies ;

(c) launch programs for the control of communicable diseases, especially malaria, and for the provision of safe water supplies and sanitation, as well as to develop the educational and training facilities required to enable Thai technicians to carry out an expanded public health program ;

(d) establish technical training and teacher training

facilities to help supply the trained personnel needed for development throughout the economy and to help overcome the acute shortage of teachers at all levels of education.

The sharp increase in assistance beginning in 1955 enabled new and larger projects to be undertaken, primarily in the field of transport, including highways, railways and air transport. Assistance is also provided to tank irrigation and groundwater research, primarily in the arid Northeast area.

Of the total assistance funds thus far provided about \$60 million have been used to meet the costs of supplies and equipment imported for the joint projects; the salaries and support of American technicians brought to Thailand; the costs of technical services contracts with U.S. engineering firms, universities, and other agencies providing technical experts for the aid projects; and the training of Thai nationals in the U.S. The balance, \$40.4 million, has been made available to Thai commercial importers for the import of needed commodities—such as textiles, petroleum products, medicines and drugs, electrical and agricultural equipment—and the baht paid by the importers are used by the Government of Thailand to meet the domestic costs of the aid projects. The economic aid funds thus help to conserve Thailand's foreign exchange, and directly supplement the Government's budgetary resources.

Distribution of Funds.

The distribution of assistance funds by field of activity is as follows :

DISTRIBUTION OF AID FUNDS, 1951—56
BY FIELD OF ACTIVITY

	<i>Millions of Dollars a/</i>
Agriculture and Natural Resources	13.0
Industry and Mining	2.8
Transportation	52.1
Labor	0.1
Health	11.3
Education	5.2
Public Administration	1.3
Other	2.0
Plus: Generated Baht programmed for military projects	12.1
	— —
	99.9

a/ Includes generated baht programmed to the various projects

The distribution of funds according to the various types of assistance provided is as follows:

DISTRIBUTION OF AID FUNDS, 1951—56
BY PROJECT ELEMENTS

	<i>Millions of Dollars</i>
Overseas Training	4.7
U.S. Technicians	7.7
Contract Services	12.6
Supplies and Equipment	74.9
	— —
	99.9

The projects concerned directly with increasing production and raising health and education standards are being supplemented to an increasing degree by assistance in the field of public administration. The modernization and strengthening of government budgetary, fiscal and planning procedures are vital to the long-run success of the efforts in the technical fields and to the optimum utilization of resources for development. The aid program is providing increased assistance, in the form of technical advisory services, in the public administration field.

The U.S. has sought to assist in regional cooperation and joint planning on the part of Thailand with neighboring states. The U.S. planned and financed the improvement of rail and river transport facilities between Thailand and Laos. A contract to be financed by the U.S. for a survey of telecommunications between Thailand, Laos, and Viet Nam is being negotiated, and a preliminary reconnaissance of the Mekong River has just been completed. In addition, Thailand has provided training to technicians from neighboring countries in the fields of agriculture, public health, finance, and education. Proposals for further regional development projects, such as telecommunications development and rinderpest control are now being formulated.

Within Thailand, assistance under the aid program has been given some concentration in the depressed and arid Northeast Region. The development of irrigation facilities and highway and railway facilities, the agricultural extension work, and many activities in the health and education fields have given first priority to the economic betterment of this part of the nation which needs assistance most urgently.



AGRICULTURE.

Agriculture is the mainstay of Thailand's economy. Agricultural improvement therefore is vital. Almost 50% of Thailand's foreign exchange earnings from exports normally are derived from rice. Income from rice makes up slightly more than 30 percent of the Government's revenue.

At the request of the Thai Government, a survey of the most urgent needs in agriculture was made in 1950—1951. Because of the basic importance of rice in the Thai economy, the rice improvement project initially assumed an important role in the U.S. aid program.

Rice Improvement,

The rice basket of Thailand is filled chiefly from the twenty thousand square miles of central plain. On an average, seven million tons of rice are grown annually, but yields are under par compared to other countries. For example, Thailand produces about one-half tons per acre.

It has been the task of American rice experts to help find varieties which will produce better quality and higher yields of rice on Thailand's soil. Tousands upon thousands of rice samples from all parts of the globe have been tested. About 200,000 selections have been gathered from different parts of Thailand for examination. Local varieties have been sent to other countries for cross-breeding. Carefully marked demonstration plots have been planted in farmers' fields and experimental stations to determine the relative yielding ability of the new types in all sections of the Kingdom.

Livestock Improvement and Disease Control.

The key to Thailand's livestock program is the improvement of farm animals by controlled breeding and disease prevention to produce superior animals and animal products for home use and for the export market.

U.S. aid support entered the picture in 1952. That year Thailand received its first air-lift cargo which arrived after an American livestock specialist went to Karachi to select twenty-two sturdy Red Sindhi cattle to be purchased by the Thai Government. The Red Sindhi—twenty cows and two bulls—were brought into Thailand for the purpose of up-breeding local stock.

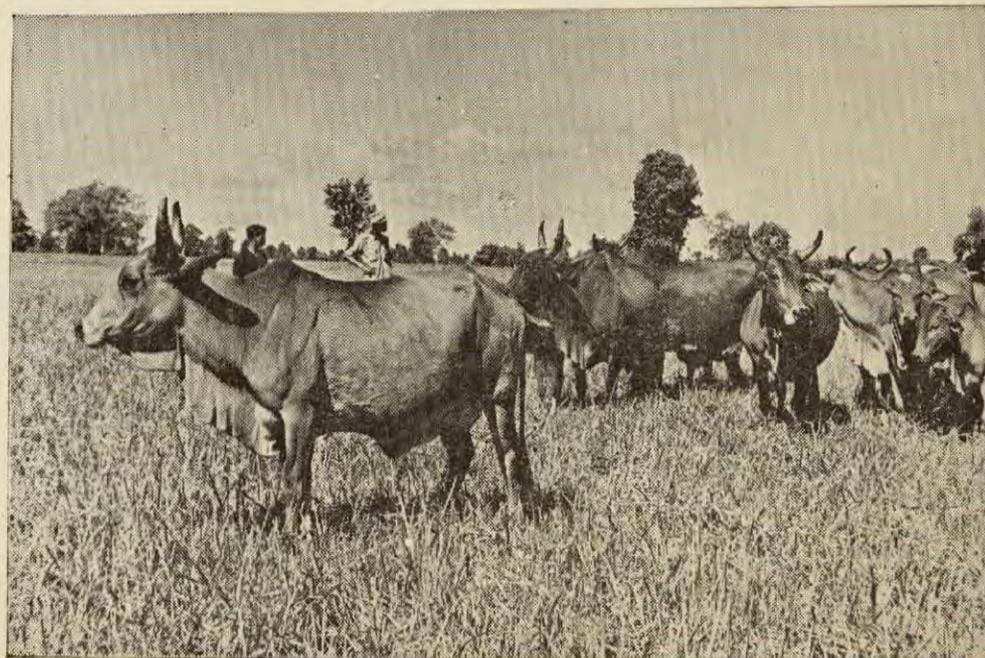
At the Tha Phra Livestock Station Red Sindhi cattle are cross bred with native cattle to improve the local stock.



Workers leave the field with rice samples which will be threshed and examined for quality. Those that are satisfactory are used to grow larger plots in further tests.

The objective of this project is to grow the present production of rice on less land surface in order to allow greater use of arable land for other crops. So far nearly 50 different strains have shown increases in yield of 13 to 32 percent and improved seed producing a 15% increased yield is now being distributed to farmers. A vastly expanded seed multiplication program is under way and will provide far-reaching effects on productivity.

Short courses have been held to train Thai in conducting regional variety tests, selection, and fertilizer tests. Agriculturists from Vietnam, Laos, and Cambodia have been included in the courses.

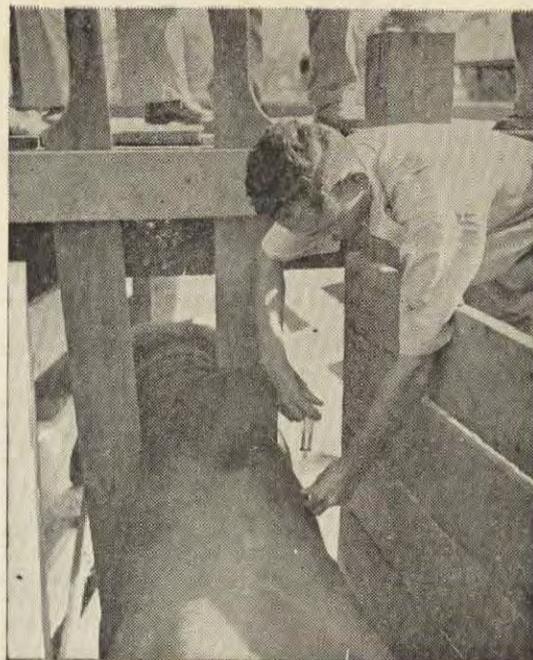


This same American specialist, accompanied by two Thai veterinarians, then made a trip to the United States and returned with a ship and cargo rivaled only by Noah's Ark. For 62 days, the trio served as stable attendants to 61 head of Brahman cattle, 54 Brown Swiss, 215 Berkshire and Hampshire hogs, turkeys, chickens, pigeons, horses and even earthworms (night crawlers used for compost making). These carefully chosen animals, bought half with Thai and half with American money, have been used for up-breeding local stocks.

A big part of the livestock program is the work to keep the animals healthy. U.S. funds have supplied equipment for making vaccine to combat outbreaks of hog cholera. Foot and mouth disease has been typed and a rinderpest epidemic has been brought under control.

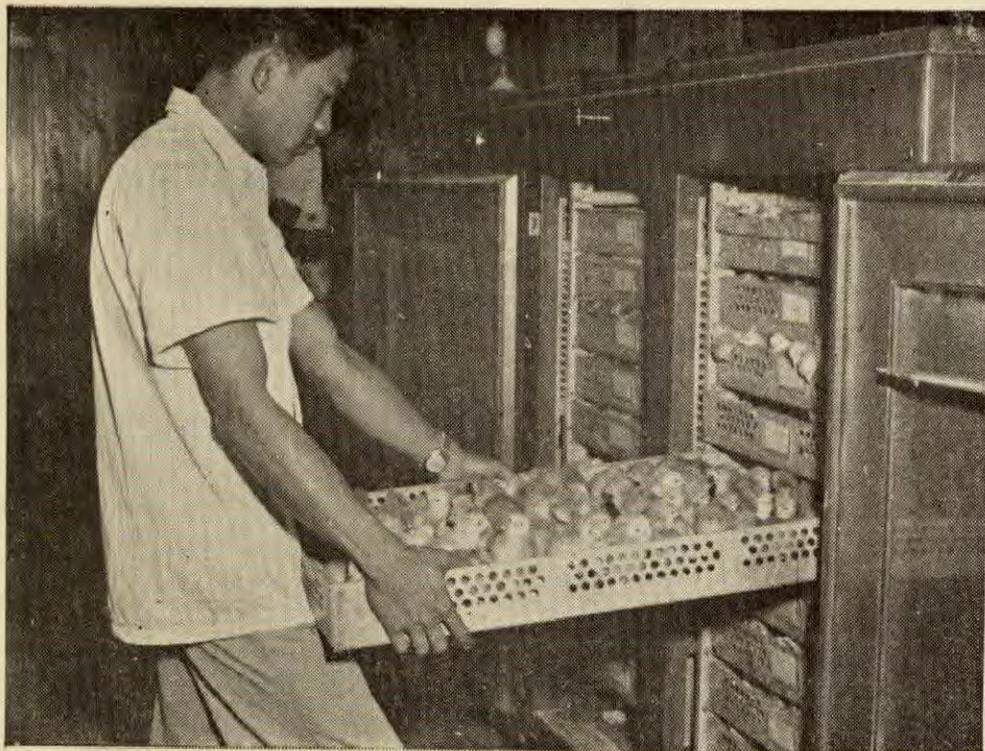
Other accomplishments include the establishment of six livestock stations where work in breeding, care and feeding of livestock is being carried out. A program of education and demonstration to train Thai farmers in modern livestock management has been set up, and Thai participants are being sent to the United States to study and observe farm methods.

The Thai Government, USOM and FAO are cooperating with Laos, Cambodia and Viet Nam in a Regional Rinderpest Eradication Program.



Upper: Red Sindhi bull is vaccinated for hemorrhagic septicemia.

Lower: The success of the disease control program has enabled Thailand to export cattle to Southeast Asian countries.



A student at Kasetsart University College of Agriculture removes newly-hatched Rhode Island Red chickens from the hatchery at the University.

Agricultural Education.

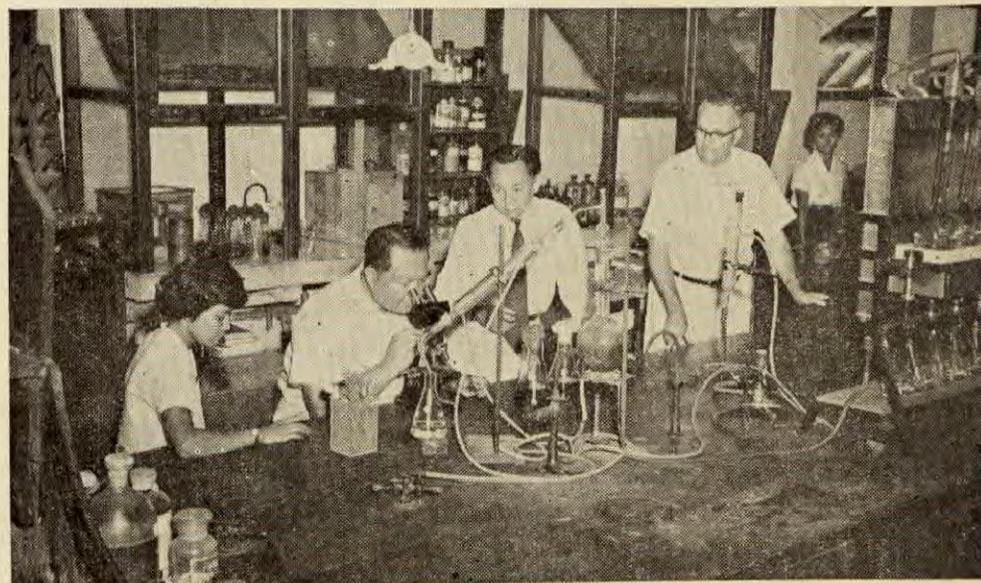
USOM also has helped in accelerating the growth of Kasetsart University, Thailand's only institution of higher education in agriculture. The aid program has supplied equipment for Kasetsart's laboratories; books for its library (which was constructed out of Counterpart Funds); and has made the major financial contribution to the contract between Kasetsart and Oregon State College whereby six Oregon professors are to spend 30 months at Kasetsart. Twelve Kasetsart staff members have been sent to the U.S. for advanced training.

Soil Improvement,

It takes well-primed soil to produce good crops. At the same time it takes well-trained people to know how to get the most out of soil.

With this in mind, a Soils Laboratory has been established to make studies of soil fertility for rice and upland crops, and to train qualified Thai to do research in the chemistry of soils, fertilizers and crop materials, and better land utilization. In 1956, a second Soils Laboratory was established and equipped at Kasetsart University and approximately \$10,000 worth of scientific equipment and supplies have been obtained from the U.S. for training purposes.

In connection with this program, U.S. aid funds have supplied several thousand tons of fertilizer and demonstrations have been carried out in more than 4,000 farmers' fields in practically every section of Thailand.



The USOM Soils Advisor and his counterpart in the Thai Ministry of Agriculture observe a Thai technician perform an experiment in microbiology at the Soils Laboratory.



Harvest of corn in Northeast Thailand.

Upland Crops.

In addition to work on rice, research is being carried on with sorghum, soybeans, peanuts, corn, cassava, pasture grasses and legumes, cover, and green manure crops.

Some of the tests show great promise. More than forty species of forage plants from many sections of Thailand and other tropical areas are under observation, and grazing and nutrition trials on large pasture areas are being conducted. Experiments in plantation crops also are being conducted.

As in most tropical countries, diseases and pests cause heavy crop losses. To meet this threat, experiments and demonstrations on plant protection materials and techniques now are under way, as are demonstrations in the practical and economical use of fertilizer and green manures for crops.

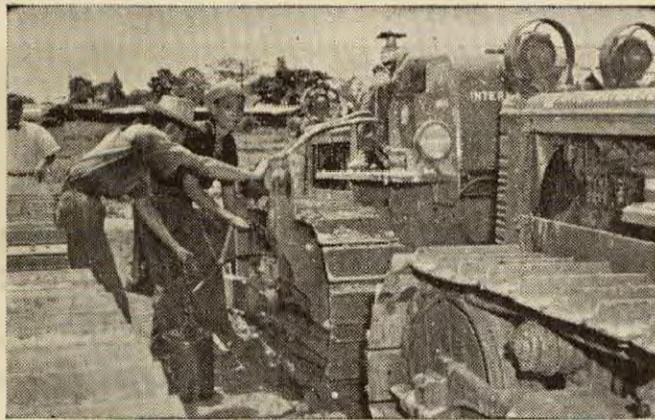
Cooperatives.

In addition to the usual marketing and credit practices, Cooperatives in Thailand conduct such important projects as land development, jungle clearing, water control, and settlement, making it possible for landless families to become land owners and make a success of their holdings.

At first, the cooperative movement operated as a department of the Ministry of Agriculture. But so rapidly did it expand that four years ago the Government established a separate Ministry of Cooperatives. There are 10,432 cooperatives in Thailand with a membership of 410,678, an increase of more than 61,000 in the past 3 years.

The United States aids the Ministry by supplying funds for technical assistance, training participants to provide needed trained personnel in the many essential fields, and for commodities for demonstration and training.

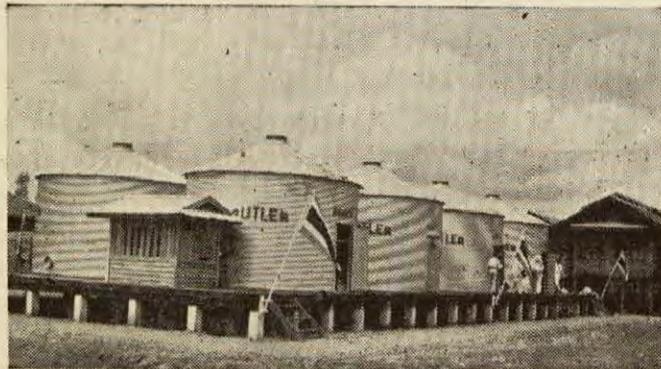
Thirty-five tractors were supplied the Ministry for use in land improvement and resettlement projects. Twenty large irrigation pumps have been provided, Rice yield in the area served by the first six pumps to be installed has increased six times over the previous yields.



One of the thirty-five tractors supplied the Ministry of Cooperatives by USOM.



Members of the Pad Rew Cooperative at Chachoengsao prepare the foundation for the installation of Butler Grain Bins.



Butler grain bins provided by USOM to the members of the Pad Rew Cooperative.

Credit.

The provincial banks at Chiangmai and Utrดิต have been strengthened to provide better agricultural credit service. Credit societies, previously obtaining capital from the Bank for Cooperatives, are now served by the banks at Chiangmai and Utrดิต.

A counterpart loan fund for controlled or supervised credit has been established to enable farmers to obtain needed funds through their credit societies with paddy as security. The controlled credit plan has resulted in a 54 to 95 percent increase in storage use of godowns by the ten paddy marketing associations in Thailand.

Marketing and Statistics.

Marketing, both domestic and foreign, holds exceptional opportunity for development. It involves storage, processing, [distribution, financing and management. A prerequisite is the gathering of reliable statistical information and its accurate interpretation.

An eight-year review of agricultural data has been completed and is in process of publication. Simplified information on 1954 agricultural exports and imports has been published in English and Thai. Plans have been developed for marketing, economic, and costs studies, and a reporting system for crop estimating.

Extension.

As the agricultural improvement program took shape, it became obvious that an efficient extension system was needed to carry knowledge gained through research and experiment to the individual Thai farmer.

To fill this need, USOM technicians and Thai agriculturalists set up an agricultural extension project. 8 pilot extension service centers have been established at Chiangmai, Udorn, Korat, Nakorn Pathom, Chachoengsao, Songkla, Lopburi, and Pitsanuloke. It is the intention of the Thai Government to extend the service to all seventy-one provinces.



Delegates to a 4-H Club Conference demonstrate how to mix a scientific poultry ration.

Short courses are held from time to time at the centers. Daily attendance has varied from 400 to almost 1,000, a very impressive number considering the distances most farmers have to travel to reach the headquarters. They are instructed on a variety of subjects from compost making to animal husbandry.

Farmers too far away to attend the courses are represented by district extension officers who, in turn, hold similar courses when they return to their own locale. These district officers thus channel information to and from the farmer.

Farmers and teachers attend an Agriculture Extension Short Course.





4-H Club members attend a club conference in Bangkok.

To breach the communication barrier, instruction is made simple and clear through well illustrated posters, bulletins and other visual materials. This informational process is effective. As one U.S. extension officer has remarked:

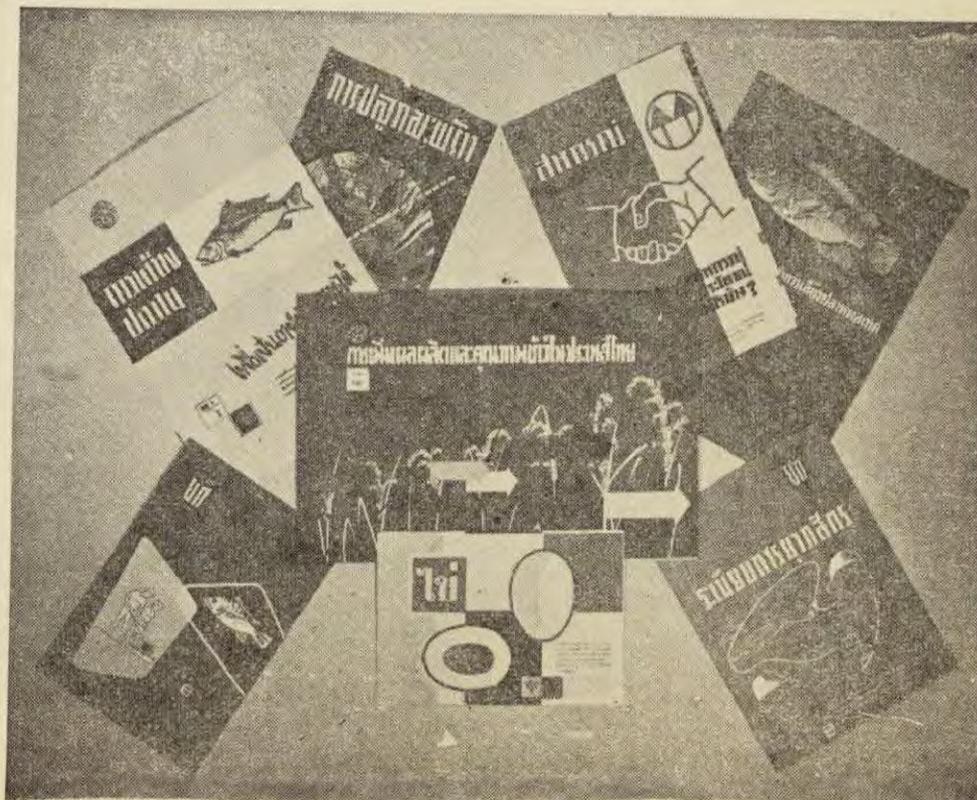
"Each scrap of information is treasured and passed by word of mouth from farmer to farmer".

Thailand's youngsters have a chance to improve their nation's agriculture and also aid the extension work. Youth farmer clubs, similar to the 4-H Clubs in the United States, have been organized to encourage young Thai farmers--mostly school children and teenagers to start their own model projects. More than 2,200 children now

Instructional Publications.

are raising pigs, chickens, vegetables, and fish under proper supervision. The initial stock and working implements are distributed to the Youth Farmer on a pay-back basis. The youngster repays the organization out of his profits and in turn that money is used to finance new members.

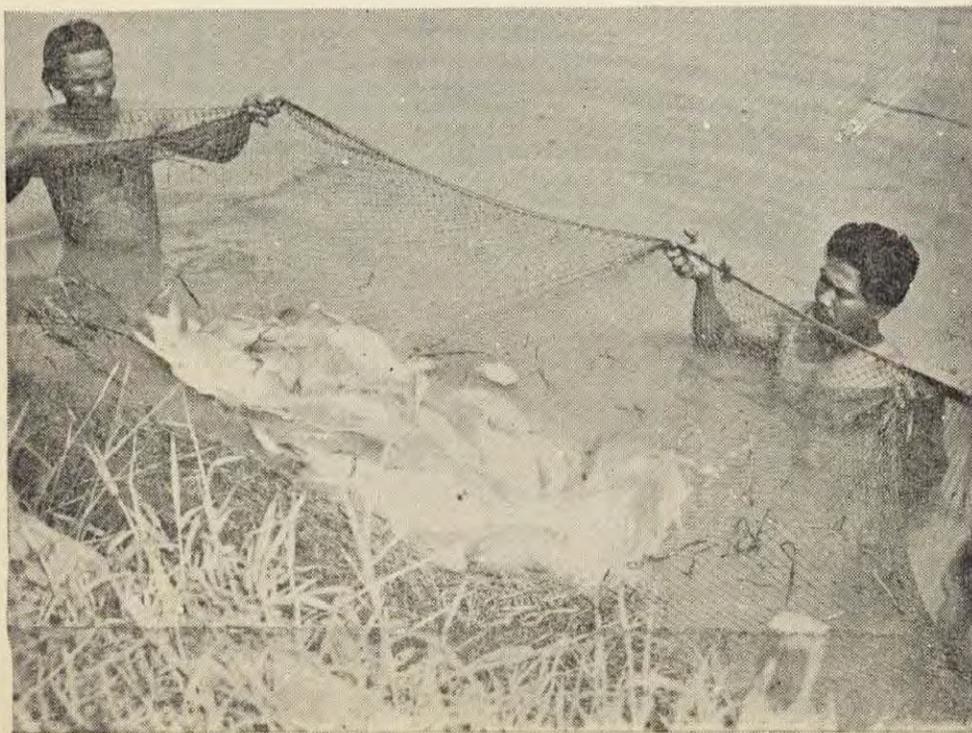
The Youth Farmer clubs are organized with a volunteer adult leader who assists the members in carrying out the projects. In addition to learning better farm methods at an early age, the youngsters can increase the family income and supply a more varied diet for the family table. They also receive training in democracy and citizenship through conducting their own meetings and electing their own officers.



Fisheries:

"Just as a land may be fertile or barren, so may the sea. But Thailand is a fisherman's paradise. And the country hasn't really begun to produce what it can in fish and fisheries products".

This is the opinion of a U.S. fisheries expert who has been sent to Thailand as part of the U.S. aid program.



Thailand's fishing activities received added stimulus when a fisheries project began in 1951. Aided by U.S. funds and technical advice, the project aimed at (a) exploring and developing new fishing grounds in and around Thailand; (b) improving fishing methods; (c) promoting new fishing industries, and (d) improving marketing operations.

In the short time the program has been operating, the following has been accomplished:

1. Experiments and demonstrations with imported trap nets have produced a catch two to seven times greater than with old methods and at less cost.

2. Culture of pond fish, including Tilapia, has made tremendous strides as a source of cheap food in Thailand. This project has contributed significantly in helping other countries in the area both with fingerlings for stock and with training other nationals in cultural practices.

3. A small-scale, village-level operation to produce fish meal and oil has been started and promises to develop a new industry to supply feed for farm animals.

4. As a result of USOM recommendations a modern wholesale fish market in Bangkok has been in successful operation for more than a year. A modern freezer and cold storage plant is under construction adjacent to the fish market with a connecting technical laboratory.

5. A Marine Station has been established at Ban Pae on the outer Gulf of Thailand for experimental and exploratory fishing and for extension and demonstration purposes.

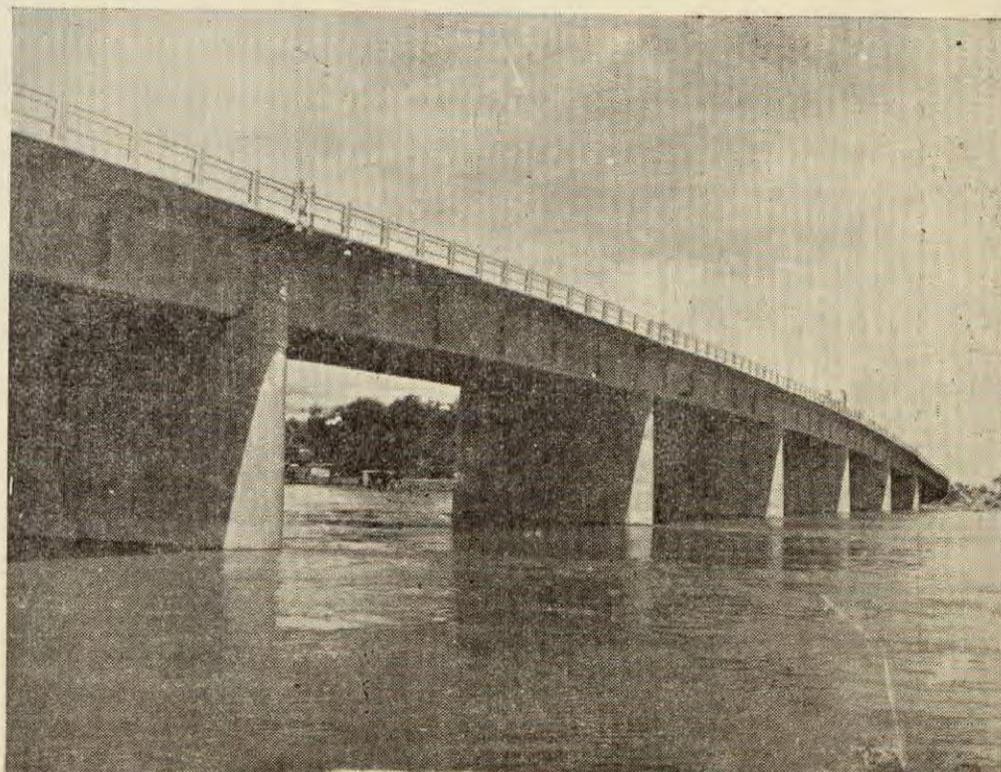
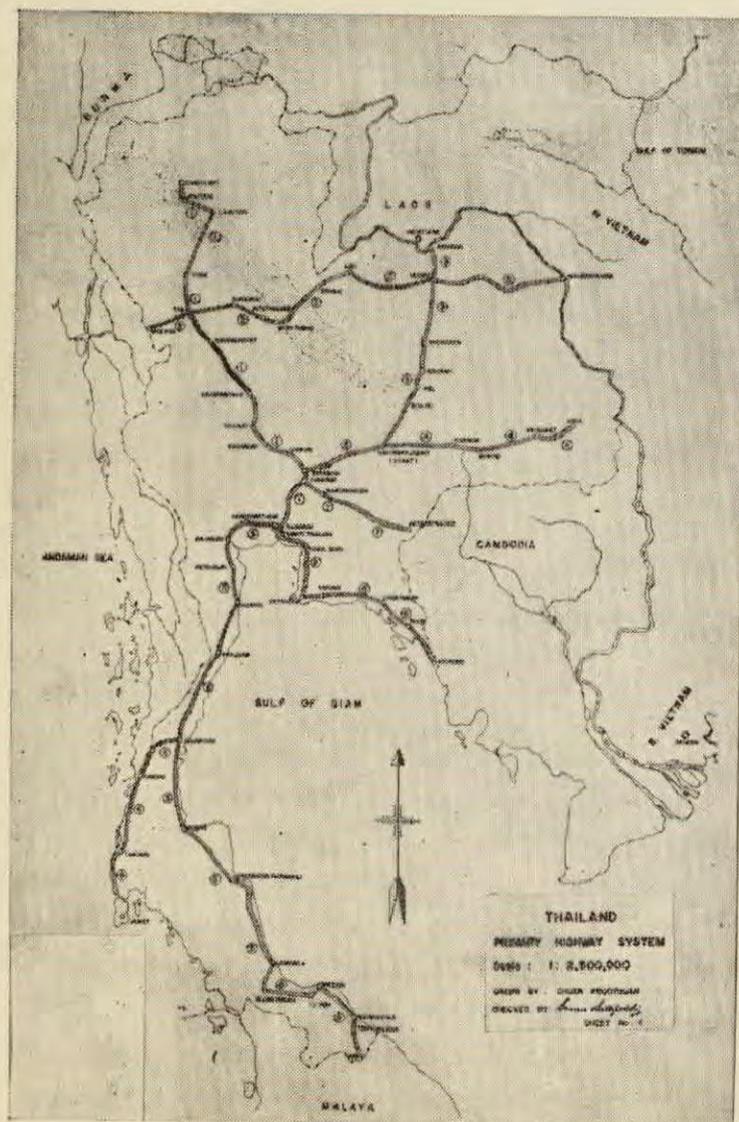
Increased production of tilapia has provided an abundant source of cheap food for Thailand.

TRANSPORTATION

Highways :

Thailand's 10,000 kilometers of highways have insufficient mileage of hardsurfaced road and the surface of even these is not substantial enough to support present motor traffic. Practically all of the highways are earth and gravel, almost always very rough and destructive of vehicles. There are thousands of one-way wooden trestles which serve as bridges and constitute a hazard to life and a block to the country's transportation development.

One of the new bridges constructed under the Expanded Aid Highways project.

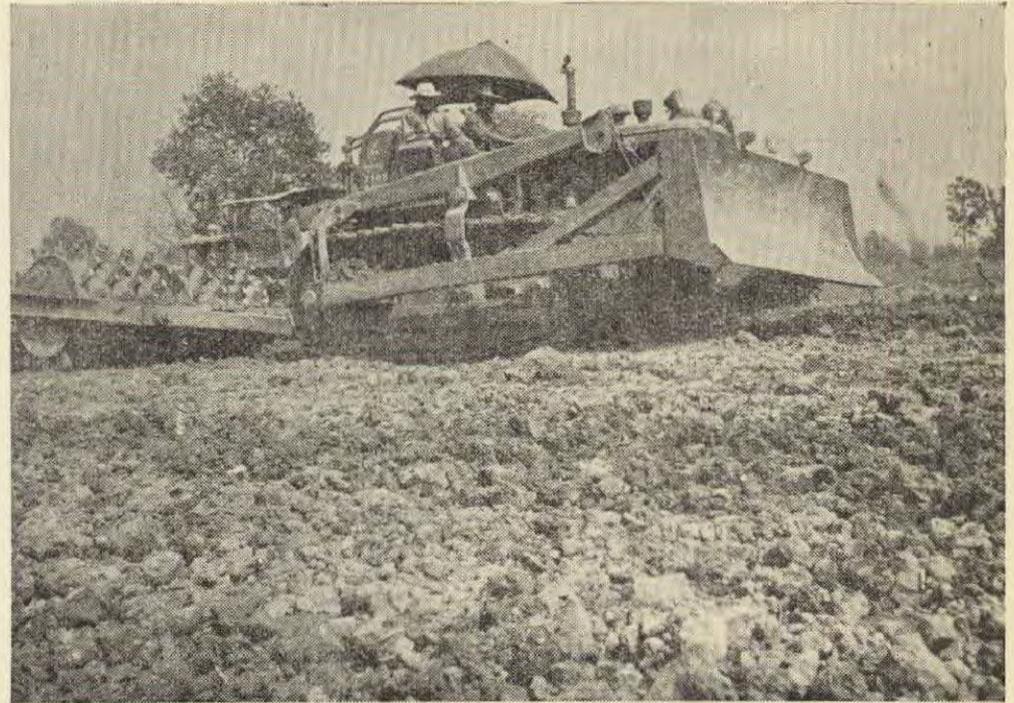


During the years 1951 to date the United States has continuously furnished advice and instruction to the Highway Department through technical assistants in office and field, upon the improvement of design and construction standards, performance of maintenance and construction operations in accordance with the best modern practice and the betterment of maintenance and operation of mechanical equipment.

In 1951, the Highway Department, with United States aid and advice, laid out a four-year improvement and construction program covering 5,400 kilometers of highway. To aid the Department in general highway construction, the U.S. contributed in that year construction equipment costing \$1,400,000.

From 1952 to 1955 an equipment mechanics' and operators' service was conducted for the training and instruction of applicants from all the Thai Government departments. Approximately \$200,000 of construction equipment was purchased for this project, and seven U.S. technicians provided the teaching services. The service has continued in operation with Thai personnel.

In 1953, the aid program purchased over \$200,000 worth of shop equipment to outfit a base repair shop at Korat and a field repair shop at Pitsanuloke, these installations to serve as models for additional shop erections by the Thai Government. Testing equipment for a Bangkok laboratory was furnished by the United States and set up in two new buildings provided by the Highway Department.



Primary compaction of Northeast highway.

Under the Expanded Aid Highways project USOM and the Highway Department have prepared a plan for performing approximately \$6,000,000 of the FY 56 project under a services contract. This contract will provide for complete construction of the Pitsanuloke - Dansai highway, including the purchase of \$1,600,000 in construction equipment which will become Thai Government property.

At the present time, other construction operations are underway on approximately 200 Kilometers of roadway and 220 bridges.



Final compaction of road base for Northeast Highway.

NORTHEAST HIGHWAY.

Expanded economic aid has made possible the construction of an important highway leading from the heart of Thailand into the Northeast section of the country. The Northeast Highway is a 172 kilometer highway between Saraburi and Korat. The first 63 kilometers are now 41% complete. It was undertaken with three major services contracts:

(1) A contract with Raymond Construction Company for the construction equipment required for the job. This

equipment will become the property of the Thai Government upon completion of the project.

(2) A contract with Sverdrup and Parcel Engineering Company to provide engineering services for the first 63 kilometers of the highway.

(3) A contract with Raymond Construction Company to provide construction services for the first 63 kilometers of the highway.

Negotiations for extensions to the above contracts to complete the highway to Korat are under way. These include funds for construction equipment, which also will become the property of the Thai Government upon completion of the project.



Bridge construction on the Northeast Highway.

The total U.S. contribution to the Northeast Highway project to date is \$12,342,000. In addition, dollar equivalent funds of \$664,912 were made available from the sale of ICA financed commodities.

This project, in addition to providing an important link in the transportation system of Thailand, is serving as a training ground for the Thai engineers in modern highway engineering and construction and in the use of modern construction equipment.

Railways:

Aside from the canals and rivers, the railways have served as the only dependable, all-weather means of transportation within the Kingdom. Rail lines, however, have never extended far enough and many of the lines are restricted in capacity because of steep grades and sharp curves. The U.S. aid program since 1950 has:

(a) Provided a railway advisor from January, 1951, to the present time. He has assisted in the design of repair shops and has advised the railway on all mechanical problems.

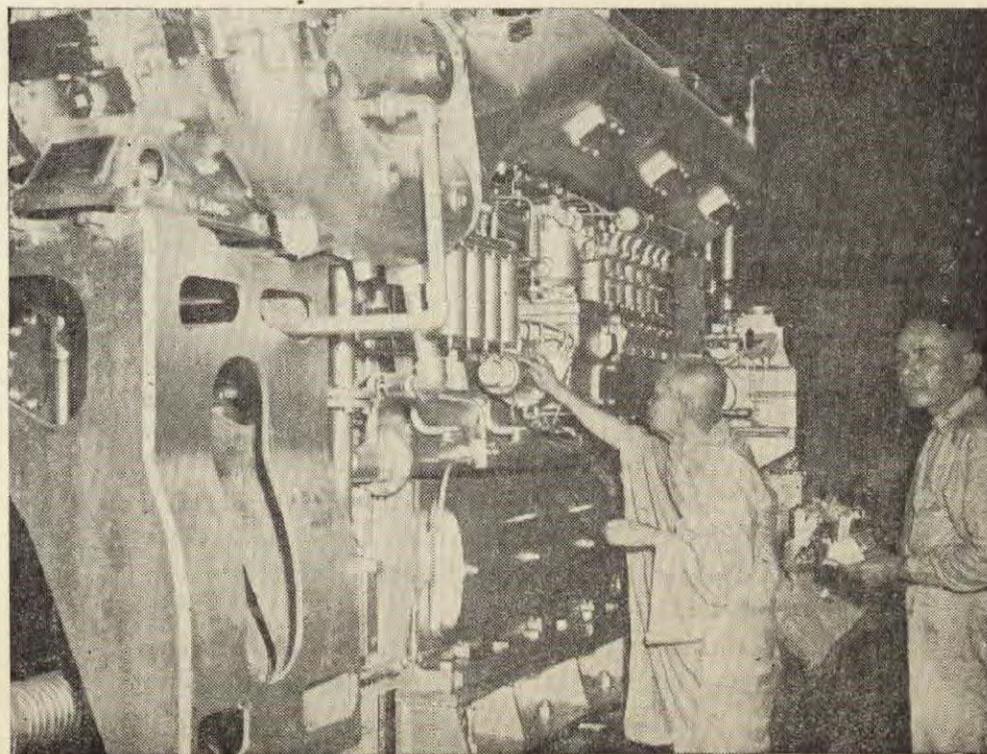
(b) Provided two 500 kilowatt diesel electric generators at a cost of \$108,000 for the Makasan repair shops, and \$1,000,000 for material and spare parts for rolling stock.

(c) Provided \$350,000 for equipment and machinery for a secondary car and locomotive shop in the Northeast, and supplied \$34,000 of test and laboratory equipment for installation at various locations throughout the system.

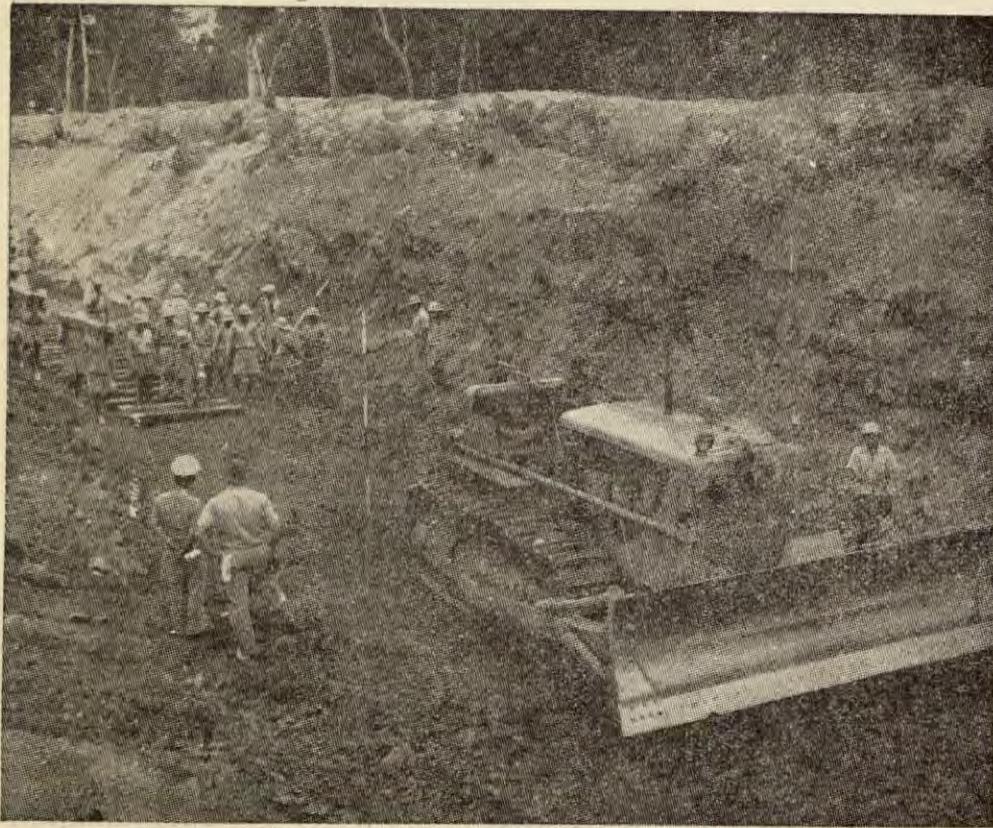
A Buddhist priest blesses the diesel electric generators supplied the Makasan repair shops at the dedication ceremony.

Strong aid support for railway development has also come from the International Bank for Reconstruction and Development which has made two loans for the purpose totaling approximately \$15,300,000.

Cost and delivery time factors have made it economically desirable to supply the landlocked Kingdom of Laos from the Port of Bangkok. Accordingly the Thai Railway system has been extended, through U.S. aid, from its former terminus at Udorn in Northeast Thailand to the Mekong River at Nongkhai.



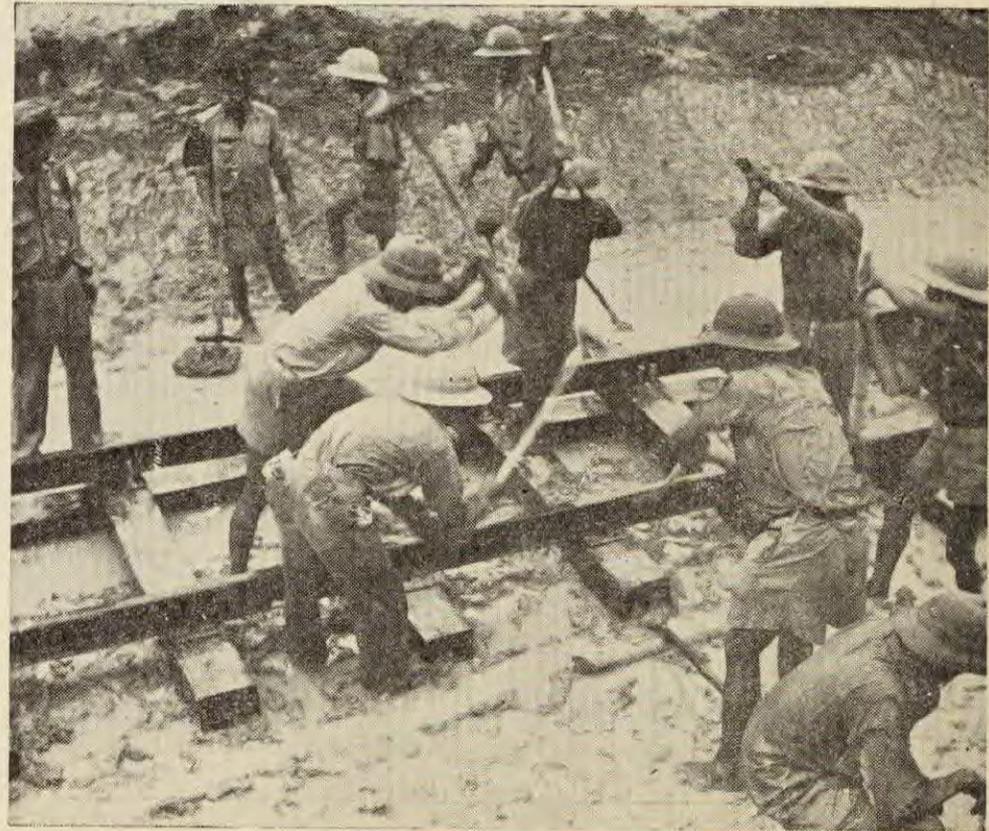
Construction of the Udorn—Nongkhai line was performed largely by State Railway forces, utilizing U.S. furnished equipment. Services of a local contractor were utilized to some extent in this work. The Udorn-Nongkhai line is presently 95% complete and consisted of 54 km. of single-track line with all necessary sidings, bridges, and yards. The total cost of this new line, including construction costs, materials, and equipment is \$4,000,000.



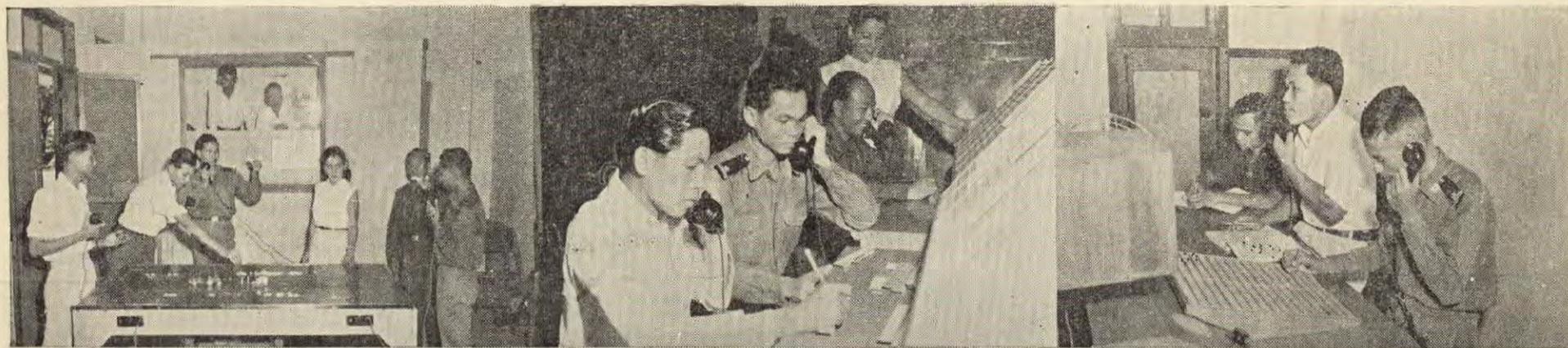
Bulldozer smoothes grade to lay railway ties for Udorn Nongkhai extension.

In addition, \$1,100,000 of rolling stock and communications equipment is under procurement.

A ferry landing and railway spur, which will form the extreme terminus of the Northeast system, have been planned and approved. Foundation investigations are completed and construction is well under way. This will provide facilities to accommodate the movement of traffic and goods across the Mekong to Laos.



Railway construction continued through the torrential rains of the monsoon season.



AIR TRANSPORT.

USOM has participated in projects pertaining to three major air transport fields: traffic control and navigational aids; meteorological services; and technical assistance to the Thai Airways Company. In addition, approximately \$9.2 million of economic aid funds, including counterpart funds, provided for airfield construction, have been turned over to the Joint U.S. Military Advisory Group (JUSMAG) for implementation.

An air traffic control training school is in operation at Bangkok's Don Muang Airport with thirty students in attendance. In support of international air travel, upper air observation balloons, radio equipment and other aids have been supplied. Air terminal buildings and control towers have been built at eleven domestic airfields and equipment for these is now under procurement.

On March 8, 1956 a contract was signed providing for Pan American World Airways to furnish technical assistance to the Thai Airways Company for developing a program to improve and expand its air transport services. This is a 3-year contract with a total value of \$2,800,000.

In the past five years, 9 participants have been sent to the U.S. for training in aeronautical and meteorological subjects, and 12 more are scheduled for U.S. training in 1956.

The air transport programs have been carried out with technical assistance of U.S. Civil Aeronautics Administration personnel and three USOM specialists specifically assigned to the projects.

WATER RESOURCES

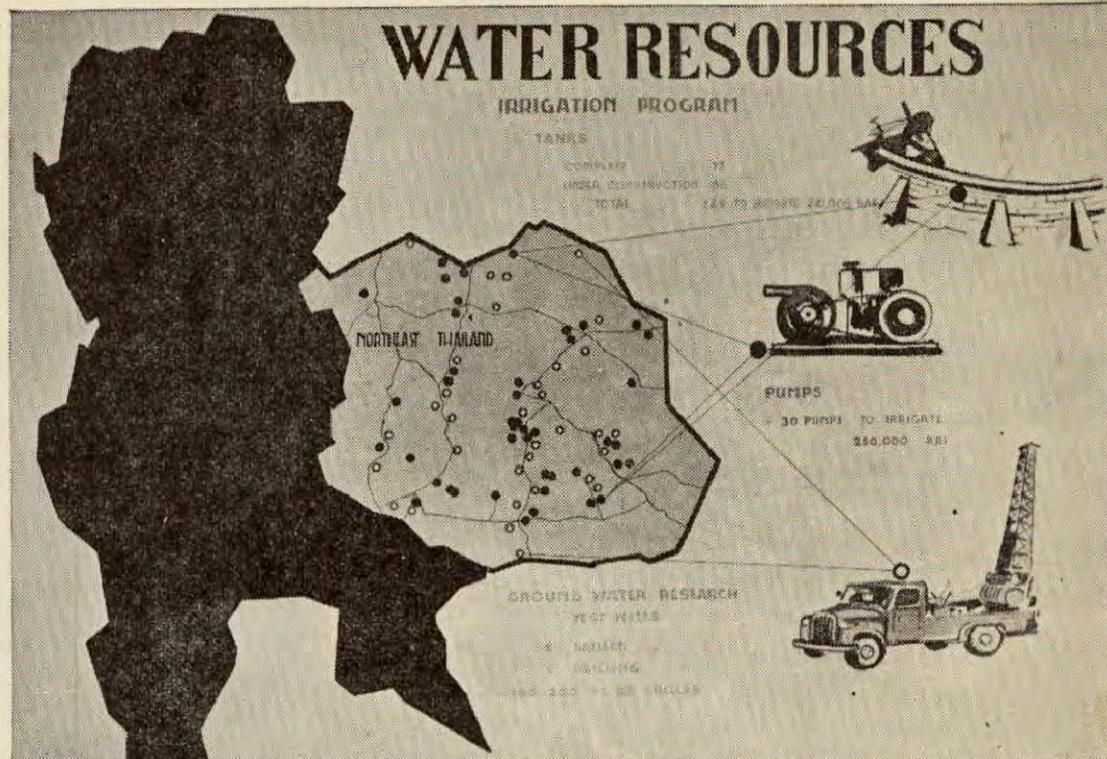
Thailand's vast Northeast region has always presented a particular problem. It is arid and unproductive. For six months of the year the people are short of water for farming, for livestock, for fish culture, and even for personal needs.

To relieve the situation, an ambitious program has been planned by the Thai Government and U.S. aid technicians. It is a costly and difficult program calling for skilled management and millions of dollars worth of heavy equipment. Heavy equipment has been sent from the United States, including draglines, tractors, scrapers, rollers, and pumping units.

The tank irrigation project is well underway with much construction already accomplished. Seventy-three irrigation tanks and dams have been completed and 56 are presently under construction. Those completed provide a volume capacity of 118,000,000 cubic meters and cover an irrigable area of 60,000 acres.

Twenty-eight truck-mounted and 2 barge-mounted pumps have been furnished, providing supplementary irrigation facilities for an additional 100,000 acres. Other pumping equipment has been supplied to service still another 20,000 acres. Some small low-lift pumping outfits have been sold to farmers and a revolving fund has been set up to tend this service.

Where irrigation is not feasible an attempt is being made to find water on the spot. Four well-drilling units, (operating on the basis of information supplied by a recently completed water level survey) have been furnished to prospect for water.



GROUNDWATER RESEARCH AND DEVELOPMENT.

This project is planned to conduct basic geological studies and drill exploratory test wells in the Korat Plateau area of Northeast Thailand. In addition to detailed studies of geology and hydrology, and drilling of exploratory wells, the project will include development of test wells, selection of drilling sites, training personnel, chemical analysis of water, and establishment of Thai Government Ground Water Committees.

The Geological Survey, Royal Department of Mines, Ministry of Industry, will have the responsibility of making systematic ground water investigations in cooperation with USOM technical assistants. \$720,000 for equipment and services and \$253,000 in local currency has been allotted for project operations.

GEOLOGY AND MINING.

Geological Survey

A geological survey of Thailand has been undertaken to locate mineral deposits which can be economically developed, and, at the same time train Thai geologists and engineers in specialized fields of geology.

The geological survey will also provide basic information on ground water resources in the Northeast.

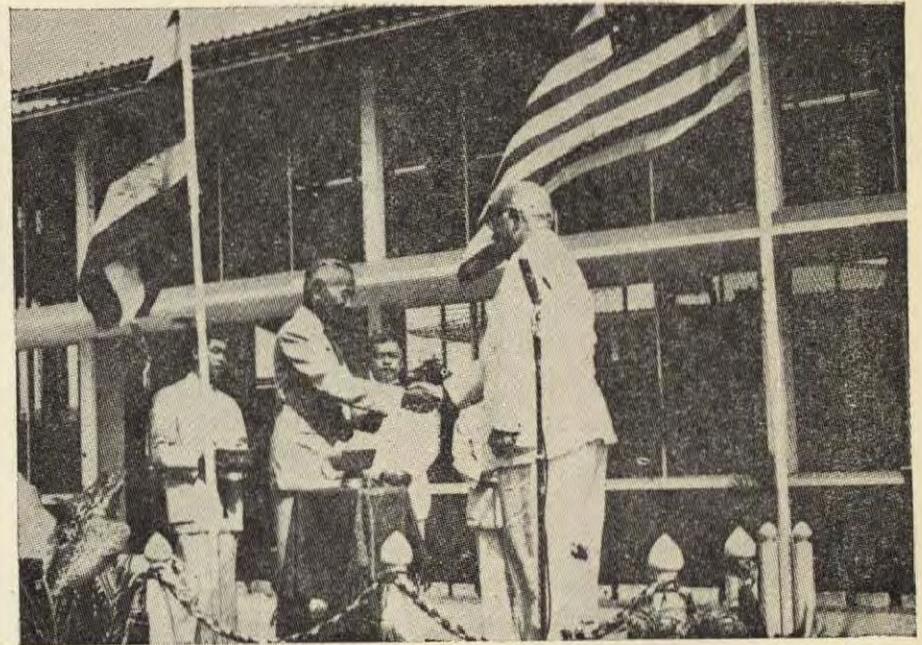
Experimental Metal Mining.

Mining plays an important role in the economy of Thailand. Tin deposits have been worked from time immemorial, and those of tungsten, lead, zinc, iron and antimony are increasing in importance.

Experimental mining projects for practical instruction in modern methods of underground mechanized mining are being carried out in three mining districts under the supervision of Thai engineers trained in the U.S. Research in mining methods and the training of junior engineers, miners and machine operators are a part of the project.

Minerals Experimental Center

A Minerals Experimental Center in Bangkok was opened in February 1956. This is a modern laboratory where studies of minerals, ore-dressing methods, and other research projects can be undertaken. The U.S. has supplied generating units and machine shop, ore dressing, laboratory and printing equipment for this Center.



Field Marshal Pibulsonggram, Prime Minister of Thailand, and Lloyd K. Larson, Director of USOM, at the dedication ceremony of the Minerals Experimental Center.

Thai technicians trained in the U.S. have been assigned to direct operations of the Center. It is planned to send two more technicians to the U.S. for specialized training in ore dressing and nonferrous metallurgy.

Lignite

As early as 1950 the Thai Government requested exploration at two lignite deposits at Mae Moh in the north of Thailand and Krabi in the south. Early exploration indicated reserves of 200,000,000 tons at Mae Moh and more than 4,000,000 tons at Krabi. Exploration and mining has been temporarily discontinued in the south but development is being carried out at Mae Moh and approximately 250 tons per day are being produced.

To make this possible, mining, exploration, and production equipment valued at approximately \$1,000,000 has been supplied by USOM and about \$600,000 has been expended in local currency.

POWER AND COMMUNICATIONS.

Without adequate power there can be no substantial progress in industrial development. The shortage of power has continued to be a major economic problem facing Thailand. USOM has provided assistance in power facilities improvement, power exploratory survey, and telecommunications engineering.

The power facilities project is a continuation of the over-all power program begun in 1952. From 1952 to 1956 the Bangkok power system was expanded by the installation of ten diesel generator sets providing a total of 27,000 kilowatt additional generating capacity. Of this total, 6,000 kilowatt was directly contributed by the United States.

During this period, twelve diesel generator sets also were contributed by the U.S. for installation in rural areas. These varied in size from 85 kilowatt to 600 kilowatt and were installed in 10 different locations throughout the country. The total value of these units was \$360,000.

The power exploratory and telecommunications projects are both new and provide for consultant contracts to conduct engineering surveys. The International Cooperation Administration in Washington is now inviting bids and preparing to negotiate two engineering contracts to

provide for a complete power survey and for telecommunications engineering.

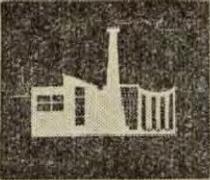
The Power survey group will provide detailed engineering analysis and preliminary design for construction of a high voltage primary distribution network for the Bangkok-Thonburi area as well as recommendations for future development of selected hydro sites.

It is proposed that the telecommunications engineering contract be regional in scope, involving Thailand, Laos, and Viet Nam, as the present lack of a communications system hinders political integration and economic development.

RURAL POWER

12 DIESEL GENERATORS
CAPACITY 2625 K.W.

- INCREASE POWER FOR DOMESTIC CONSUMPTION
- EXTEND POWER SERVICE TO 24 HOURS / DAY
- REDUCE COST PER KILOWATT HOUR
- PROVIDE POWER FOR SMALL INDUSTRIES



BANGKOK

POWER FACILITIES IMPROVEMENT
7 DIESEL-ELECTRIC GENERATORS
CAPACITY 6,000 K.W.



POWER EXPLORATORY SURVEY

POWER REQUIREMENTS
HYDRO AND THERMAL PLANT SITES



POWER

OTHER PUBLIC WORKS AND INDUSTRY PROJECTS

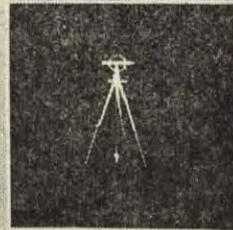
\$ 2.6 MILLION

VOLUNTEER
DEFENSE CORPS
CONSTRUCTION



MEKONG RIVER
RECONNAISSANCE

(FINANCED FROM
REGIONAL ICA FUNDS)



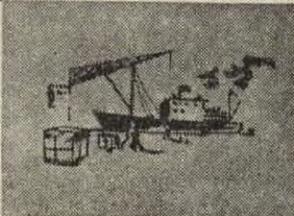
TELECOMMUNICATIONS



SMALL INDUSTRY
PRODUCT DEVELOPMENT



PORT OPERATIONS
AND
HYDROGRAPHIC STUDY



Port Operation.

In 1951, the dredge Manhattan was brought to Thailand at a cost of \$747,000 to assist in dredging the bar at the mouth of the Chao Phya River. This work has been completed and the dredge has since been employed in maintenance dredging along the entire length of the channel.

In 1950, the International Bank for Reconstruction and Development extended credits of \$4,500,000 to the Port of Bangkok and in the agreement included a clause that the Port be organized as an autonomous body. To assist in setting up the books, establishing a modern accounting system, and classification of accounts, the aid program provided the services of a Port Accountant who completed this task in 1952. The United States also paid for the services of a Port Operation Specialist for a period of one year to help initiate port operation.

Thirteen Thai technicians have received training in the U.S. in fields of hydrography, port operations, and allied subjects; four more are scheduled to go this year. The need for training in these fields grew rapidly at the time the mouth of the Chao Phya River was dredged clear by the Manhattan.

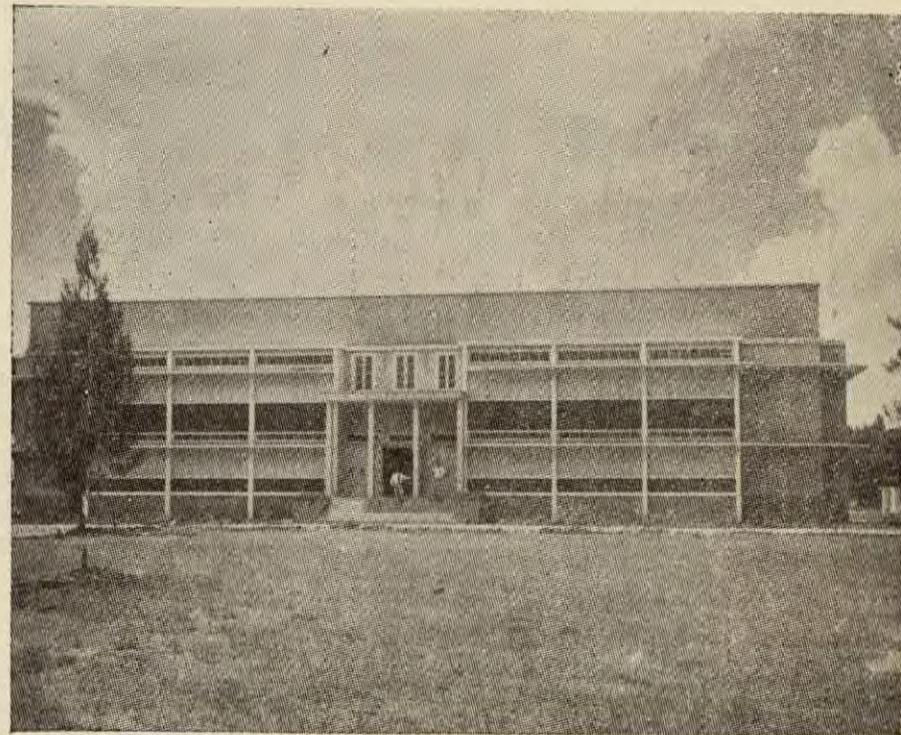
Industrial Projects.

The aid program has provided training in the U.S. for Thai technicians in the small industries field, and has financed a survey of export marketing possibilities of Thai

cottage industry products. Also, the services of an industrial advisor have been made available to examine overall industrial development needs and possibilities in Thailand, and to advise on methods to stimulate the growth of industrial enterprises..

Volunteer Defense Corps Construction.

Approximately \$100,000 in equipment and services, and \$887,600 in local currency has been provided for the construction of a headquarters, printing building, and warehouse in Bangkok, and training camps for the Volunteer Defense Corps in 40 border provinces. This work is now approximately 80% complete.



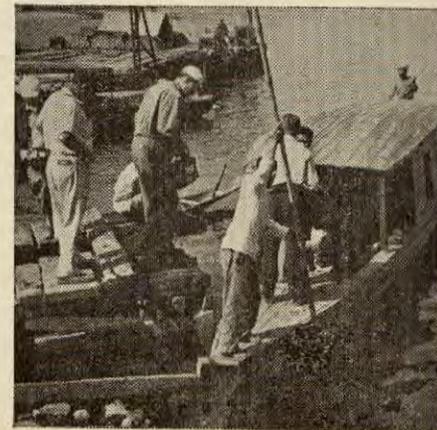
Headquarters Building, Volunteer Defense Corps.

Mekong River Reconnaissance

The Mekong River Reconnaissance is a regional project involving the three countries of Thailand, Laos and Viet Nam. In December, January, and February, a team of U.S. experts aided by local USOM and Thai Government consultants, reconnoitered the Mekong River from upper Laos to its mouth on the South China Sea. In February 1956, a final regional conference was held at Saigon, following which the team members returned to the U.S., where they prepared a final report. This report contains recommendations for specific surveys to accomplish long range development of the river for irrigation, flood control, navigation and hydro-electric power generation.



Survey group on the Mekong River in Laos.



Survey group board small river craft on the Mekong River in Cambodia.

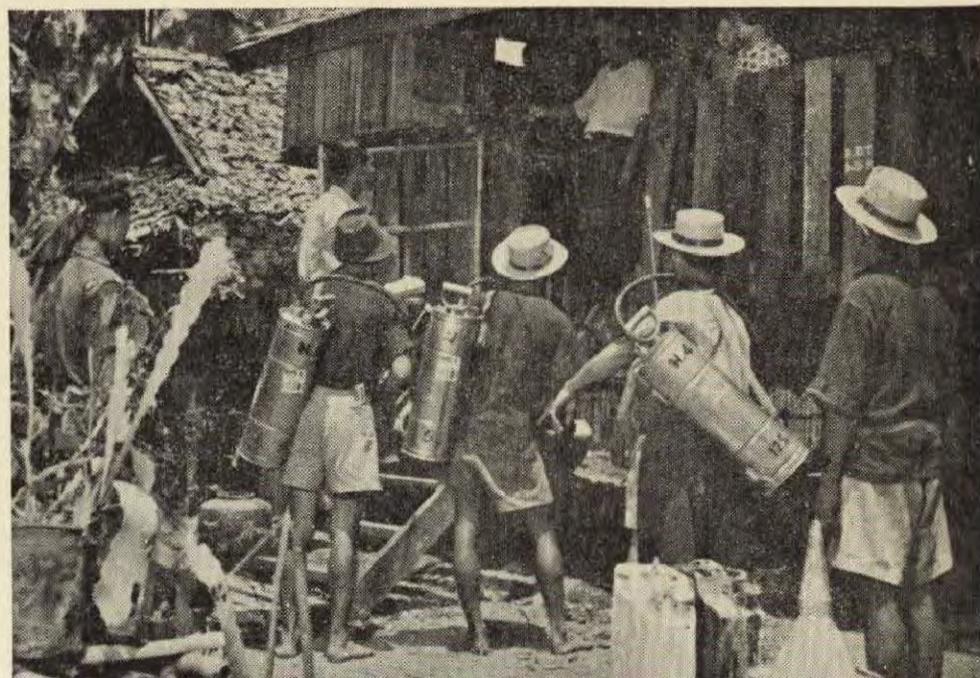
PUBLIC HEALTH.

In the field of public health, the United States is assisting the Ministry of Public Health in improving health services to Thailand's people; launching program for the control of communicable diseases, especially the mosquito-borne and filth-borne diseases; and providing educational and training facilities to help train the large numbers of technical personnel required for an expanded public health program.

Sixteen health projects have received U.S. assistance totalling \$10,686,000. Some of these, undertaken in the early years of the aid program, provided primarily commodity support, while the current projects typically provide both commodities and technical assistance.

Of the many activities which could be undertaken, a few have been selected for concentration of effort. The operating programs at present are: (1) Malaria and Filariasis Control, (2) Medical Training, (3) Cholburi Health Demonstration and Training Center, (4) Environmental Sanitation, (5) Rural Health development, (6) Hospital expansion and (7) Health Education.

In a study of the causes of illness and death, it was apparent that there was untimely death resulting from the prevalence of communicable diseases, especially malaria and diarrheal diseases. These debilitating diseases constitute a serious drag on the productivity of the nation's people. Accordingly special attention has also been given to improved preventive medicine and public health services.

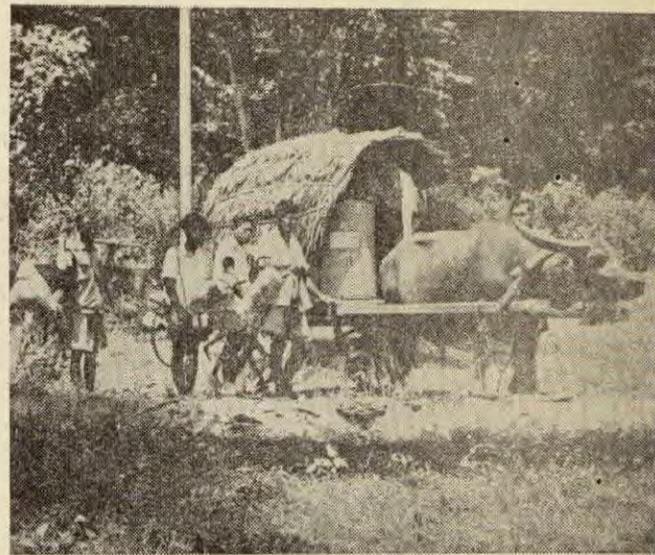


A DDT spraying team is welcomed in a North Thailand village.

Malaria and Filariasis Control

Malariologists predict that it is now possible for Thailand to be made completely free of malaria within the next few years.

The malaria control program operates principally through an annual DDT house-spraying campaign. It started in three provinces in 1950 with a demonstration assisted by WHO and UNICEF. The UN project closed in December 1951. Early in that year American assistance had already begun to expand the program. Spraying operations were extended into new areas as rapidly as possible, year by year, and in 1956 reached 60 provinces and the homes of more than ten million persons. The



DDT is carried into remote areas of Thailand by elephant, boat and bullock cart.

program is now operating in all areas which have had a serious malaria problem.

The Thai-American program calls for spraying every house in all malarious areas once a year for several consecutive years. Usually about three years of house-spraying are sufficient to eliminate malaria-carrying mosquitoes, prevent transmission of the disease, and cause it to die out.

The house-spraying campaign is to be followed by a permanent program of protective surveillance and incidental control operations to complete the elimination of malaria and guard against any possible new outbreak.

Technical surveys in all malarious areas each year determine the areas which can be placed under protective surveillance and the areas in which control work must be

continued. In 1956 the house-spraying campaign could be safely discontinued in areas of more than three million population where malaria and the malaria-carrying mosquito have virtually disappeared. In this year the house-spraying campaign continued in areas of about seven million population.

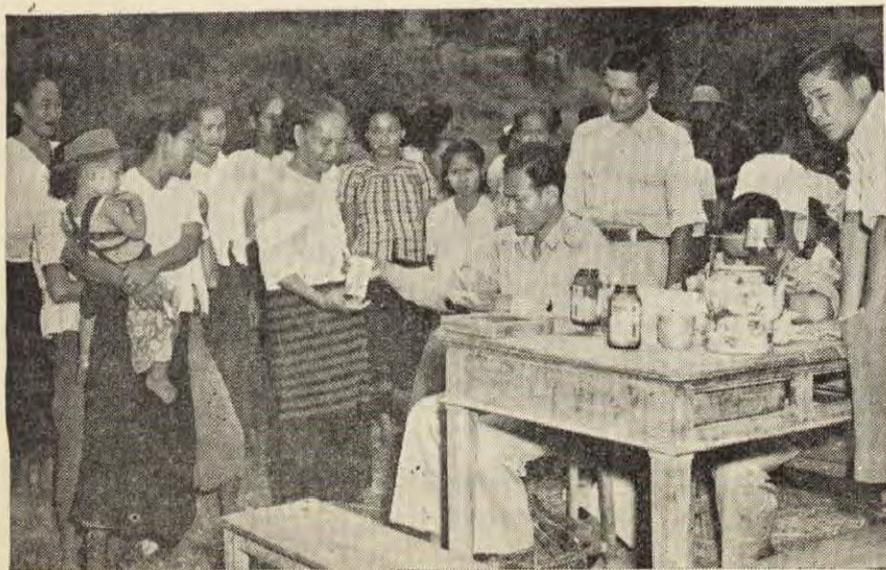
The house spraying campaign has involved training a small army of sprayers and laboratory technicians. The American team was composed of a chief advisor and three regional advisors. Eleven Thai medical officers have been sent to the United States for study. A training center established in Chiangmai in 1952 has graduated more than 50 malaria technicians, increasing the permanent staff to more than 200, and is now training an additional 40 technicians. The Chiangmai Center has also trained 38

malaria technicians from Laos, Vietnam, and Indonesia.

The house-spraying has been supplemented by the distribution of enough U.S. supplied anti-malarial drugs to treat 2,000,000 cases.

In order to assure full cooperation from the people, a large scale public education program has accompanied the technical surveys and house-spraying activities. It has reached over 20,000 villages and millions of people with talks, motion pictures, exhibits, leaflets, posters, and other informational materials.

The malaria control program is also accompanied by prevention and control of filariasis, yellow fever, encephalitis, and other mosquito-borne diseases. Of these, filariasis is of greatest known public health significance. It is estimated that about 1,000,000 Thai in the south are exposed to mosquitoes which may carry filariasis, and in some areas the disease is prevalent.



Aralen distribution in a Thai village.



Malaria control officer examines a child for enlargement of the spleen, a symptom of malaria infection.



A malaria control officer shows malaria control trainees the proper way to dissect mosquitoes.

MEDICAL TRAINING.

As Thailand's health programs began to expand, the need for more and better trained medical personnel became pressing.

To meet this need a medical training project was organized to improve and expand undergraduate and postgraduate facilities for training doctors, nurses, public health officers, sanitary engineers, medical technicians, dentists and veterinarians.

U.S. aid has supplied teaching equipment for the existing medical schools and 154 grants for training teaching staff in the U.S. In addition, for three years ending in 1954, technical assistance was given Thai medical and nursing schools by 23 visiting U.S. doctors and nurses. This was effected partly through a contract with Washington University Medical School of St. Louis, Missouri, and financed by Aid

funds. Approximately 85 percent of the total funds for this program has been devoted to the improvement of schools of medicine, nursing, and public health.

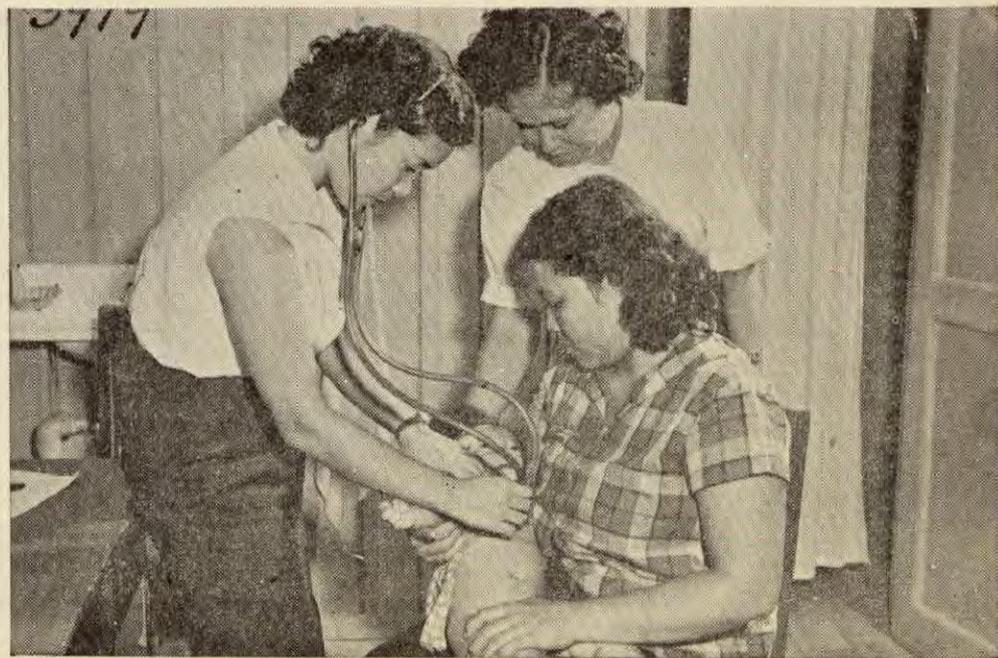
CHOLBURI FIELD HEALTH DEMONSTRATION AND TRAINING CENTER.

At Cholburi, some 60 miles southeast of Bangkok, several impressive buildings house Thailand's first and only national field demonstration and training center for public health workers and students. Present activities include in-service training and field demonstration for health workers of all types.

American advisors and funds have assisted in the development of this Center. Training has been given to 561 sanitarians, 115 health officers, 225 midwives, 56 public health nurse supervisors, and 35 public health nurse students.



A former USOM participant teaches a mothers' class at the Pre-natal Clinic, Womens' Hospital in Bangkok.



A doctor at the Cholburi Health Center examines a child brought to the clinic.

ENVIRONMENTAL SANITATION.

With malaria rapidly being brought under control, diseases caused by poor sanitation move up to number one spot as Thailand's major health hazards. These are filth-borne diseases which include bacillary and amoebic dysenteries, typhoid fever, paratyphoid fever, infectious hepatitis, intestinal parasites, and food poisoning. In many parts of the Kingdom from one-half to as many as nine-tenths of the people suffer from them.

American doctors, sanitary engineers, and sanitarians are working with Thai health officials on a program to

correct the situation. Here are some of their accomplishments:

a) An environmental sanitation organization has been created in the Ministry of Public Health.

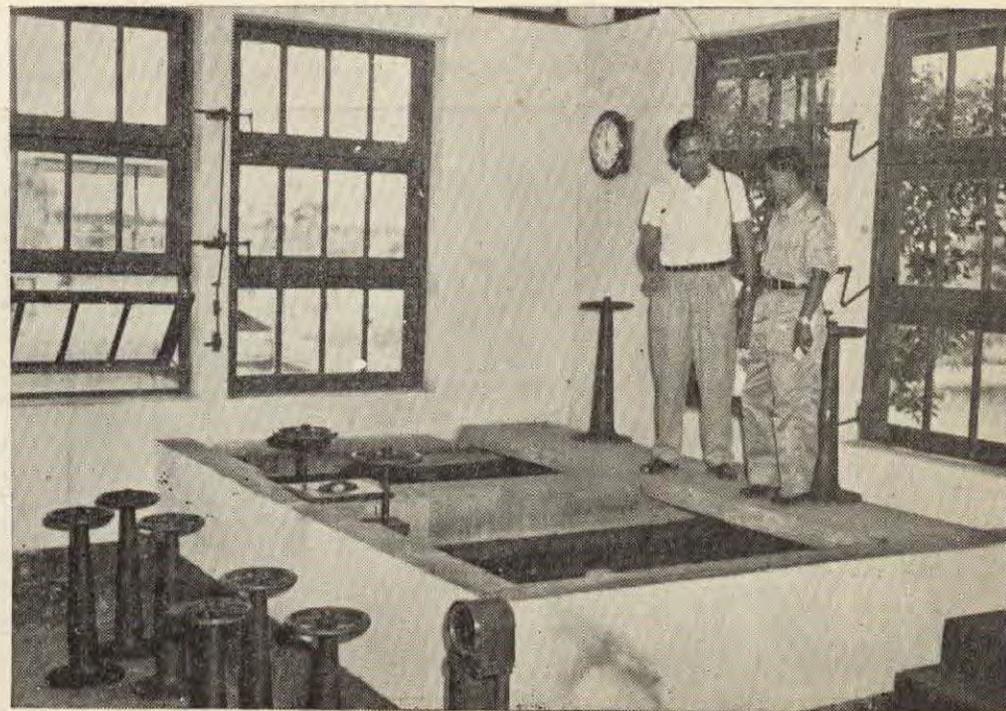
b) Programs with major emphasis on safe and adequate domestic water supply, sanitary excreta and sewage disposal, and garbage and trash disposal have been started or planned.

c) Demonstration projects for village and community improvement are set up around health centers, schools, hospitals, and other public institutions.

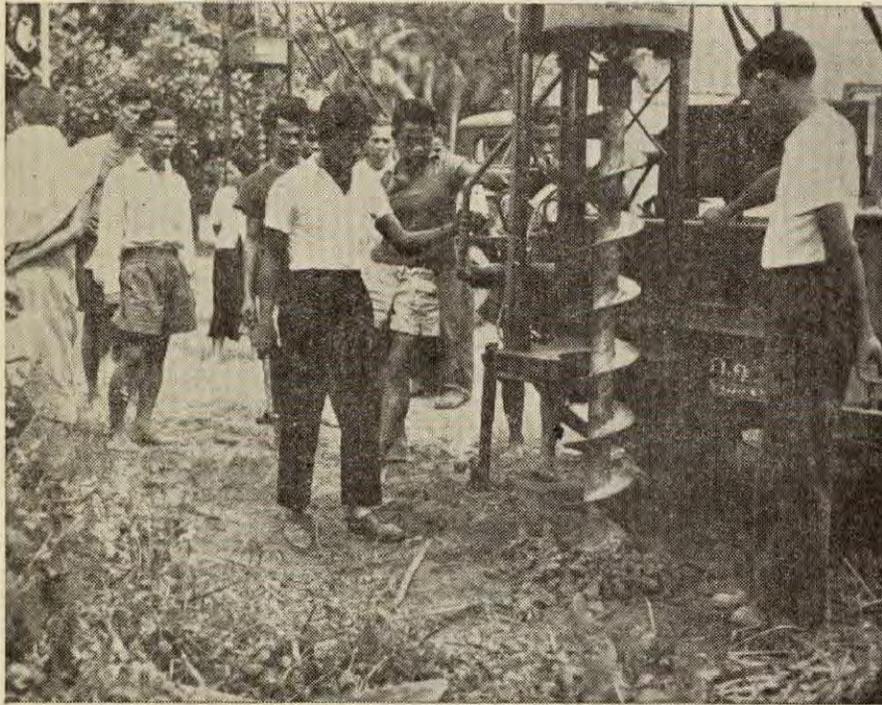
d) In-service training courses for local sanitarians have been organized.



A child is examined for signs of liver enlargement due to liver fluke infection.



Rapid sand filters in one of the six water treatment plants constructed in Northeast Thailand.



Well drilling equipment supplied by USOM to increase water supply of Northeast Thailand.

Of first importance is the supply of good water to the vast Northeast which suffers a water shortage many months of the year. 364 wells have been reclaimed or dug, and 6 city water systems have been constructed in the region. Well drilling equipment, supplied by the United States, has been in operation for some time digging shallow wells and exploring ground water conditions. The project has been complicated by lack of ground water, the presence of salt water in many places, and the difficulties involved in transporting the equipment from one site to another over unimproved roads.

Recently heavy duty drilling equipment from the United States has gone into operation to explore deeper into the ground for a source of safe water.

Meanwhile, the people in some 350 villages of the Northeast have joined the program and contribute labor for simple well construction and the digging of rain water catchment reservoirs to meet the emergency shortages.

A surprising number of villagers have reacted enthusiastically to instruction on community hygiene. For example the village Tamuang has set up its own sanitary refuse disposal system as suggested. The people have been quick to understand the merits of boiling water, and cooking fresh vegetables, as a disease preventive.

RURAL HEALTH.

One of Thailand's most difficult problems has been to provide medical care and public health facilities in rural communities—where ninety percent of the Thai population is located, and where health conditions are most unfavorable.

The rural health program is directed toward correcting this situation. Started in 1953 with U.S. assistance, the main objectives of the project are to improve the 91 First Class and 669 second Class Health Centers, to develop field consultant services, and to provide necessary commodities.

USOM provides one public health advisor to assist with the program, plus medical supplies, equipment, and vehicles so that health workers can reach people in need of medical service. In addition, it shares the expense of sending Thai participants to the United States for public health training.

HOSPITALS.

The aid program has helped Thailand provide modern medical care in large areas where a few years ago such services were unknown.

The objectives of the Hospitals program are:

- (1) to improve and expand facilities for medical care through assistance to provincial hospitals, and
- (2) assist in the training of doctors and nurses.

Before 1950 there were general civilian hospitals in only 20 of the 71 provinces. Since then, government hospitals have been built, or are under construction, in 70 of the 71 provinces. This has resulted in improvement in medical care.

Dollar funds have been spent for hospital equipment, drugs, and other supplies, ambulances and trucks; and training grants for key physicians and nurse educators from provincial hospitals. Through the assistance of a U.S. advisor, regional "refresher" courses for all physicians in Thailand have been developed.



USOM Nursing Education Advisor supervises a demonstration for student nurses.



Equipment supplied by USOM to Womens' Hospital in Bangkok.

HEALTH EDUCATION.

Health education of the public is a comparatively new and very important program. It is intended to bring health information to communities so that their inhabitants can understand their health problems and take part in solving them.

The United States has provided the following: five mobile health education units are operating at the local level; health exhibits have been set up at all major fairs; some four and one-half million pamphlets, booklets and posters on health have been produced for distribution to the people, and technical assistance has aided the Division of Health Education of the Ministry in reorganizing along more effective lines.

The development of community support and participation in solving problems and backing the programs of the Health Department has been started in a number of localities on a demonstration basis.

Teachers attend an in-service training class in health education.

EDUCATION.

The Ministry of Education has made steady progress in providing improved educational facilities since the end of World War II. Since 1951, assisted by U.S. funds and technical advice, the improvement program has been accelerated.

But the road toward raising the education level of Thai people is a long one. The needs are great. Changes are necessary to improve the educational system so that it can meet the modern industrial, professional, and economic demands of the country.

Compared to other Asian nations, Thailand has a high rate of literacy, about 60%. But it still needs, as does every country, improved educational methods and material; more and better qualified teachers, and more completely equipped vocational schools.

Vocational Education.

The impact of modern society on Thailand has created a great need for skilled and semi-skilled workers. Young Thai who can work with their hands as well as their heads must be trained as printers, auto mechanics, metal workers, electricians, plumbers, radio technicians, carpenters, and the like.



Children at school are taught the importance of drinking clean water.

A major undertaking, intended to meet this need, established Thailand's first multi-vocational school, the Technical Institute, which opened its doors to students in 1952. The plant now includes 17 major buildings and 21 minor buildings; one other major building is now under construction, and another planned during 1956. The Institute, the best equipped school of its kind in Southeast Asia, continues to grow, and it is planned by 1957 that the plant will be completed. A contract for further improvement is being negotiated between the Technical Institute and Wayne University in Detroit.

Some 400 students were enrolled during the first year. In May 1956 enrollment was 2,201.



Students at work in a metal trades class at the Technical Institute.

The land and buildings of the Institute have been provided exclusively out of Thai money, while about 95 percent of the equipment was supplied by the United States. Eleven American technicians have given assistance to this project, and 23 Thai teachers have been sent to the United States for study.

This is only the beginning of the technical education program. Three regional institutes are planned: in Songkla, training was started in June 1955 in three vocational fields and in Korat in May 1956. A third branch is scheduled to open in Chiangmai in 1957.

USOM Printing Trades Specialist instructs a class at the Technical Institute in the use of the printing press.



Students at the Technical Institute studying the technique of electrical wiring.

There has been a steady increase in the number of vocational schools throughout Thailand. Today there are more than 200 in the Kingdom. This network comprises 31 Junior Vocational Schools, 13 Higher Vocational Schools, 150 Junior-Senior Vocational Schools, 4 Teacher Training Schools, and 16 Vocational Agriculture Schools. Future plans provide that the junior vocational schools may be replaced by the primary extension school system.

One important task of the U.S. technicians is to assist in developing a flexible curriculum which fits local community needs. For example, if it happens to be a mining area, metal trade and shop work should be stressed.

USOM Home Economics Advisor instructs students in a cooking class.

The aim is to train the student to make use of the resources of his own community.

Vocational training in Thailand does not neglect the young women. Sewing is taught everywhere, by hand and on the sewing machine which is to be found in every part of Thailand. Cooking is taught, not only on the familiar charcoal pot where most of the cooking is done, but also on kerosene and electric ranges. This advanced demonstration work on the special stoves is extremely popular. In many of the schools, complete courses in home-making are available.

At the Technical Institute, students are offered three and five year courses. One year of exploratory work in general industrial arts is required before the student specializes in one trade.



TEACHER TRAINING

In every country of the world, the cry is for a sufficient number of adequately trained teachers, and Thailand is no exception. Many teachers in Thailand have been trained only a year beyond the primary school. Only a small handful of teachers have degrees. Assisting the Ministry in up-grading the training of teachers has been, therefore, one of the principal undertakings of U.S. assistance in the field of education. The program has developed in two parts: (1) work with teacher training schools throughout the Kingdom by U.S. educationists and (2) assistance in creating a model degree-granting teacher training school—the new College of Education—by means of a contract between the College and Indiana University.

A new two-year curriculum for teacher training schools was adopted in 1954 by the Ministry. Four U.S. educators have worked with the teacher training schools. In addition, 128 Thai teachers and administrators have been sent to the United States or the Philippines for training. Improvements in teaching methods, and the development of teaching materials have also been primary objectives.

The contract with Indiana University, financed with aid funds, became effective on November 1, 1954. The contract runs for three years and provides a team of specialists to assist in developing the College and to build equality into the teacher education program generally.



The first summer school session in Thailand was held under the University of Indiana contract at the College of Education. These biology students are teachers during the regular school term and are attending summer school as part of the Ministry of Education-USOM teacher training project.

About 500 prospective teachers are enrolled in the College and are expected to be graduated with teaching degrees within the next 2 to 4 years. According to present plans, the College will be expanded until it can handle some 1,200 new students each year, or a total enrollment of about 5,000. The contract provides for U.S. training of an additional twenty administrators and teachers per year. For the first time in the history of Thailand, the College of Education presented bachelor degrees to its students in 1955.

these readers have been published and will soon be distributed.

VOCATIONAL AGRICULTURAL SCHOOLS.

Since Thailand is an agricultural country, the educational program is giving special attention to practical farming in the classroom and in the field.

Sixteen agriculture schools provide educational opportunities in various parts of the Kingdom. Two, one at Surindr and the other at Mae Jo (Chiengmai), have full-time American advisors.

These two schools are particularly interesting because each one is a farm in itself. The students spend time doing the actual farm work under guidance. They grow crops, work on modern fertilization methods, attend the farm animals, and learn about farm by-products, such as making rope from available fibers or basket weaving. Concurrently with this practical experience, they have their classroom work,

As in all the vocational schools, the agriculture schools aim to make full use of community resources in their curricula. Also, they hope to extend their instruction to adults. For example, a project now is under way to help bolster Thailand's silk weaving industry by producing the necessities from the mulberry leaf to the raw silk. A cottage industry may get under way as a result of this project, since a family can be taught all phases of silk production from the culture of the worm to the actual weaving of the raw silk.



The Library at the College of Education.

PRODUCTION OF TEACHING MATERIALS,

One special project, compressed into only six months, was unusually successful. Two U.S. technical experts were assigned to guide the production of supplementary readers for elementary schools. In the brief period of time they were here, six books were completed all in Thai and on Thai subjects. The technicians worked with a corps of Thai writers who wrote texts based on Thai life and customs. For example, one book was about the Royal Family; another was about the local markets. Three of

COMMUNITY SCHOOLS.

In summing up his observations of Thailand's educational program, a U.S. education technician observed, "You can plant new crops and make them grow in a short period of time, but introducing new methods of education takes a long time". He further explained what he terms "the importance of attitude". "The teacher must want her students to learn. The students themselves must want to learn. And their parents must want them to learn."

That is why major effort has been made in getting communities interested in schools. It is felt that the school must be made part of the community and that everyone must cooperate to make the school successful. Progress has been made in developing community interest. For example, just outside of Thonburi, across the river from Bangkok, there is a model school, Wat Nimarnoradi which is a fine demonstration in community cooperation, and is one of nine similar schools in the Bangkok-Thonburi project. Extra land was needed for the site. The land was secured from the Wat. The Government built the buildings, but it was the parents who came when their day's work was done to help landscape the area and clear paths along the klong leading to the school.

Attendance in all grades has remained remarkably high at Wat Nimarnoradi even though a large percentage of the children must travel long distances by boat to reach their classrooms. In many schools, attendance falls off in the higher grades when planting time comes around. The older children often are kept home to work. But at Wat Nimarnoradi classrooms remain full throughout the term.



Children become familiar with Thai letters while playing a game.

Teachers from all over Thailand have come to observe this Thonburi project school. They, in turn, pass on their knowledge to thousands of others.

Another model school project is located in Chachoengsao Province, 60 miles southeast of Bangkok. This province was chosen because the topography, the natural resources, and the vocational pursuits of the people are adequately diversified. Rural schools here were typical of those which most of the nation's children attend.

The project was initiated by UNESCO, and other UN agencies, such as WHO and ILO, cooperate. The USOM contribution has taken the form of supplying demonstration teaching equipment, and the full-time services of a



A primary class at one of the Chachoengsao Pilot Project schools.



Chachoengsao Pilot Project school children learn how to cast their votes.



A former USOM participant instructs a group of teachers in the use of paints for class room activities.

specialist in elementary education who has been helping the teachers and principals revise the content of instruction and methods of teaching.

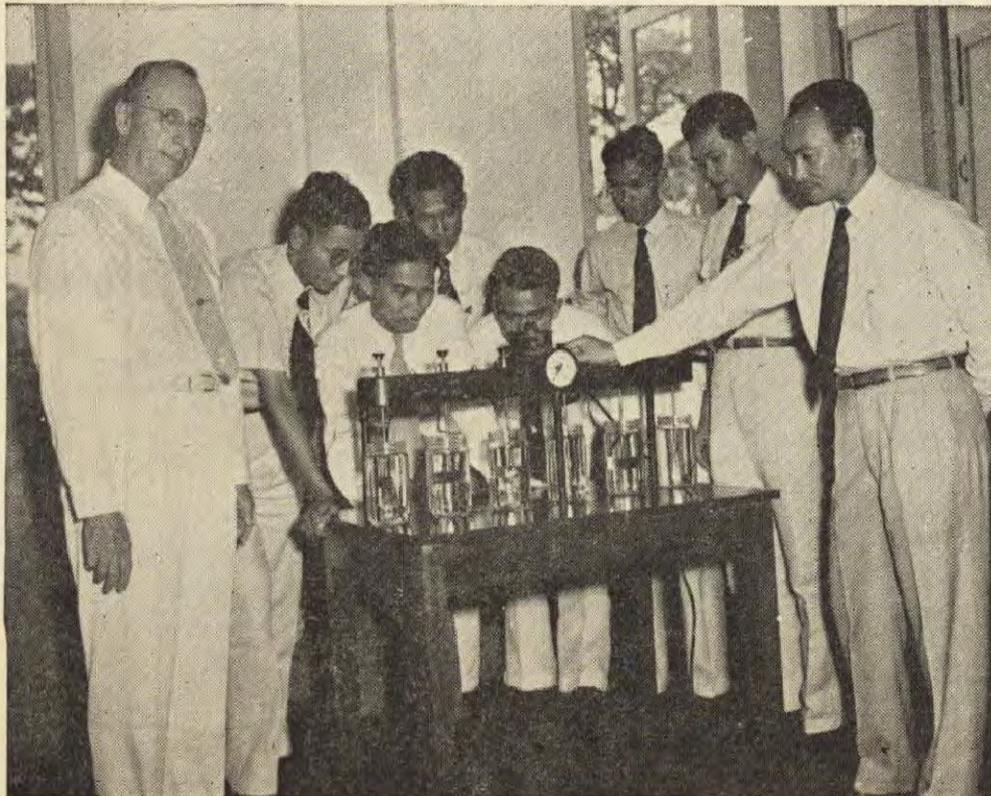
Gratifying results from this program of rural school improvement are already in evidence. Home beautification and sanitation have been inspired by the examples set by the schools. Daily school attendance is at a steady high of about 93 percent. Children clamor to continue their schooling. Reports from higher schools where Chachoengsao elementary school children continue their schooling, reveal that they demonstrate a superior capacity to think and work. Procedures developed in the project rural schools are now becoming a part of the official program of elementary education issued by the Ministry of Education. Special facilities have been erected by the Ministry of Education to house teachers from other provinces who will be assigned to Chachoengsao for a period of intensive training and experience.

Work with the community schools has recently been expanded to include assistance in establishing primary extension schools. Heretofore, the first four years (pratom) has provided all the education 90% of the youth in Thailand ever received. The Ministry, with the advice and assistance of the Mission's education team, has planned and is now opening schools intended to "extend primary education" for another three years. One primary extension school for each amphur of the Kingdom, is planned. Some 504 such schools have already been opened. The curriculum (still in process of development) proposes to make full use of community resources, placing heavy emphasis on the handicraft arts and vocational agriculture in addition to the classroom work. The U.S. experts, three in number, work as a team at selected schools, spaced around the Kingdom, demonstrating improved teaching methods, assisting in the installation of equipment in the shops, and training teachers on the spot in improved agricultural methods.

The U.S. educators participating in the community school work assist also in extensive in-service training programs for teachers. The pre-service teacher training program described above promises to solve the teacher problem for Thailand on a long-range basis; the in-service training of the community school leaders, U.S. and Thai, promises to give some immediate relief to the situation.

ENGINEERING.

Another Thai-American education contract—this one between Chulalongkorn University and the University of Texas—is aimed at improving and expanding the facilities for training engineers.



The contract, to run for a three-year-period beginning August, 1954, calls for a U.S. expenditure of \$290,000 for technical assistance and equipment. The Texas professors are advising on curriculum revision, teaching materials, and laboratory development in the fields of civil, mechanical, and sanitary engineering.

The course in sanitary engineering deserves special comment because it is new, not only to Thailand, but to all of Southeast Asia. Chulalongkorn University is now the only school in the area equipped to offer a degree in Sanitary Engineering and will probably attract students from many neighboring countries.

ATOMS—FOR—PEACE.

As a part of President Eisenhower's program of "Atoms-for-Peace", the Mission has provided opportunities for prominent Thai scientists to study in the U.S. at selected atomic installations. Four leading scientists from Chulalongkorn University have been sent to the School of Nuclear Science and Engineering located at the Argonne Laboratories of the University of Chicago. Six scientists are to be selected to attend the course beginning in September 1956.

A class in sanitary engineering at Chulalongkorn University and instructor from the University of Texas.

LABOR.

Raising the standard of living is a basic objective of both the Thai Government and USOM.

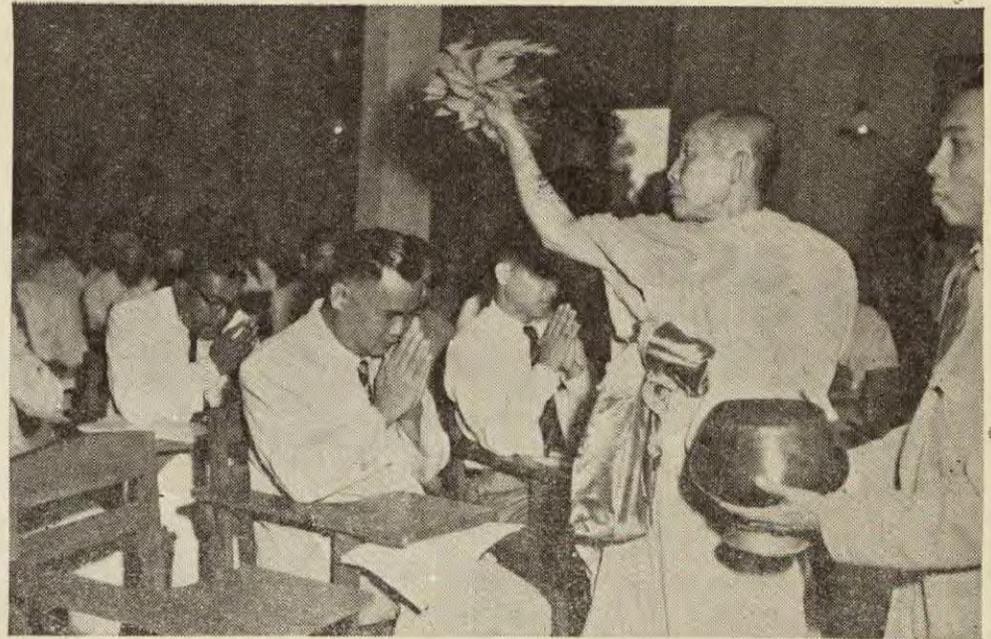
To speed progress, USOM since 1953 has supplied a labor advisor who acts as consultant to the Public Welfare Department and its Labor Division, to the Thai National Trade Union Congress, and to the Free Workmen's Association of Thailand. Each of these last two agencies is in its infancy. Progress of each will necessarily parallel the growth of industrialization in Thailand which promises to expand rapidly under the economic development program upon which Thailand has embarked.

Thailand faces problems of setting up labor statistical, employment, and labor relations services. To aid this development, four Thai officials went to the United States in 1955 to study federal and state labor administration. Five are scheduled to go in 1956.

The U.S. labor advisor has helped to draft labor laws providing for free trade union organization, collective bargaining, wage, hour, health, and other standards for the protection of men, women, and children.

In addition, assistance is given in building an educational program for potential leaders of bonafide trade unions.

The Thai government realizes that such training is essential in neutralizing any Communist propoganda which may appear among workers.



A Buddhist priest blesses the students at Trade Union Training Institute.

PUBLIC ADMINISTRATION.

On May 3, 1955, the Prime Minister of Thailand signed a contract in Washington with President Herman B. Wells of Indiana University. This contract was signed by the Premier in his capacity as Rector of Thammasat University. It is intended to provide, over a three-year period, a team of specialists who will come to Thailand to assist Thammasat develop a graduate program in public administration. Also, the objectives are a Government Research Bureau, and the development of in-service training courses at Thammasat for government officials. The dollar

allotment for the three-year period is \$880,000 which includes the cost of sending forty students for training in the United States.

An additional \$100,000 was devoted to the implementation of a contract bringing three experts from the United States to assist in improving revenue and customs administration.

A contract for \$400,000 has been entered into with a U.S. management firm to help design and install improved fiscal management and accounting practices in government ministries and government commercial enterprises.

Each year, a group of fifteen government officials jointly selected by the Thai Government and USOM visits the United States for study and observation. Their training takes place in selected agencies of the United States government, as well as state and local agencies. A few attend classes in U.S. colleges and universities.

PROGRAM INFORMATION.

A program information section at USOM was established to assist the Thai Government in the reproduction of printed materials, audio-visual aids, exhibitions, and bring about a better understanding of the economic development program. This section has been engaged in activities such as on-the-job training of Thai Government personnel in the production and distribution of audio-visual materials; production and distribution of informational materials in support of the various aid programs; and supply of information and assistance to USIS for use in the U.S. Information Program.

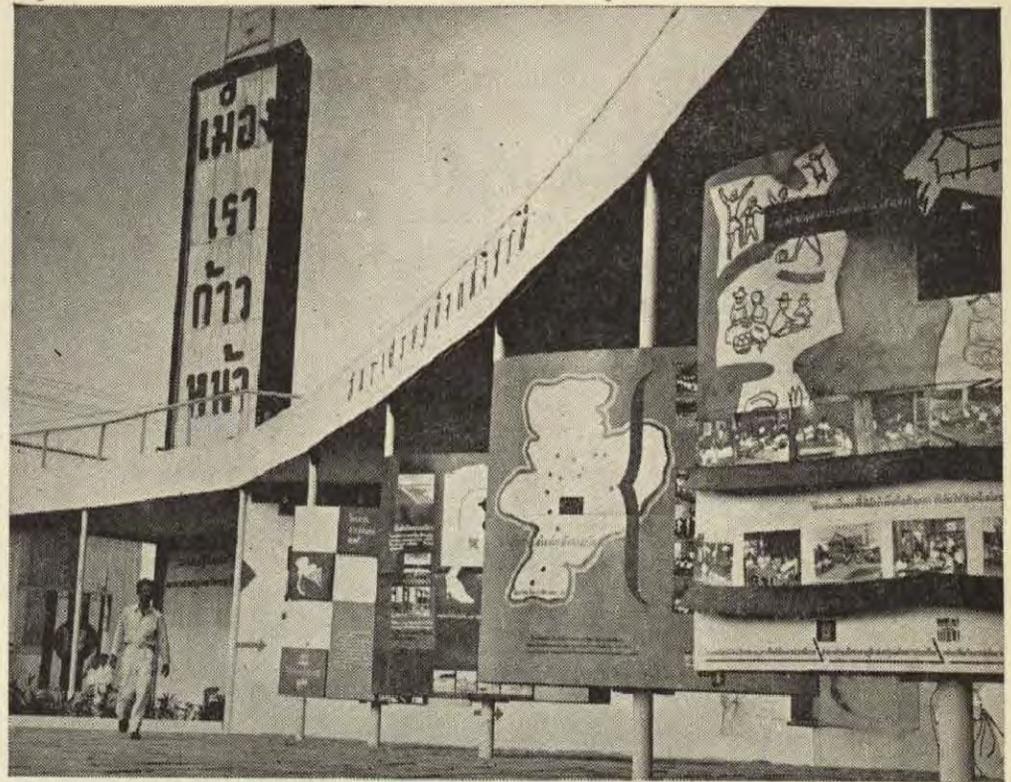


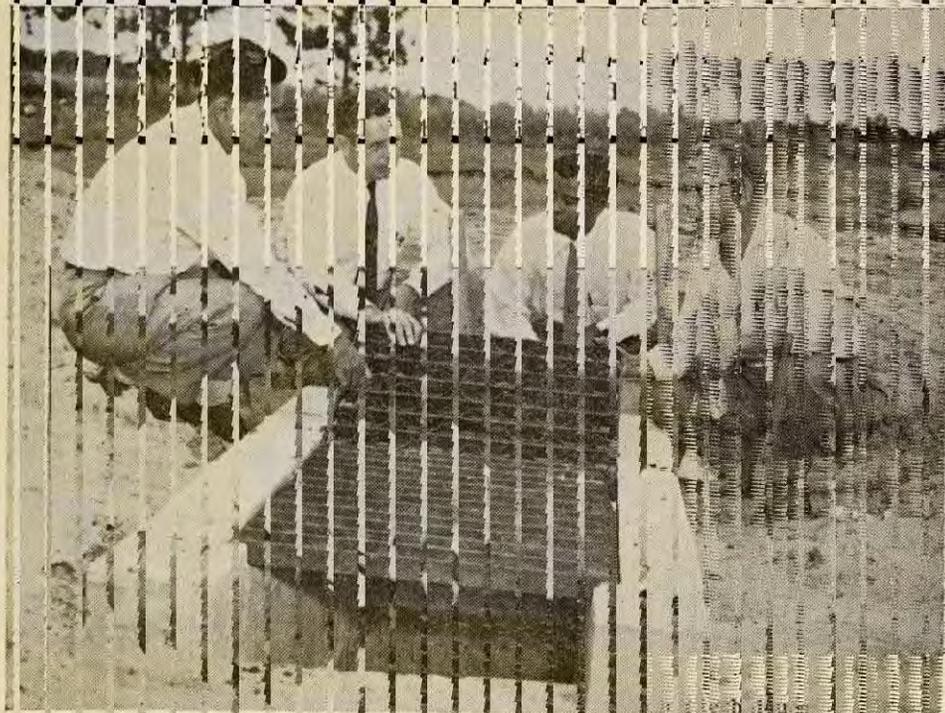
Exhibit presented by the Thai Technical and Economic Committee and USOM at Constitution Fair in Bangkok.

Nearly 50 exhibits on public health, agriculture, education, public works, and the program as a whole, have had repetitive showings at fairs and schools in every area of Thailand since 1950. Sixty-nine different pamphlets, leaflets, and posters have been produced in collaboration with Thai Ministries. Over eight million of these publications have been issued and distributed by the Ministries through their own regional offices and at schools and fairs. On-the-job training in developing educational campaigns and preparing audio-visual materials has been given to Thai Government personnel.

TRAINING OF THAI NATIONALS IN THE U.S. 1951-56
(BY FIELD OF ACTIVITY)

NUMBER OF PARTICIPANTS

	Returned	Now in U.S.	In Process	Total
Agriculture & Natural Resources	129	54	26	209
Industry & Mining	50	12	13	75
Transportation	46	23	37	106
Health and Sanitation	180	68	59	307
Education	103	69	57	229
Public Administration	49	25	21	95
General and Miscellaneous	—	—	2	2
TOTAL	558	253	220	1,031



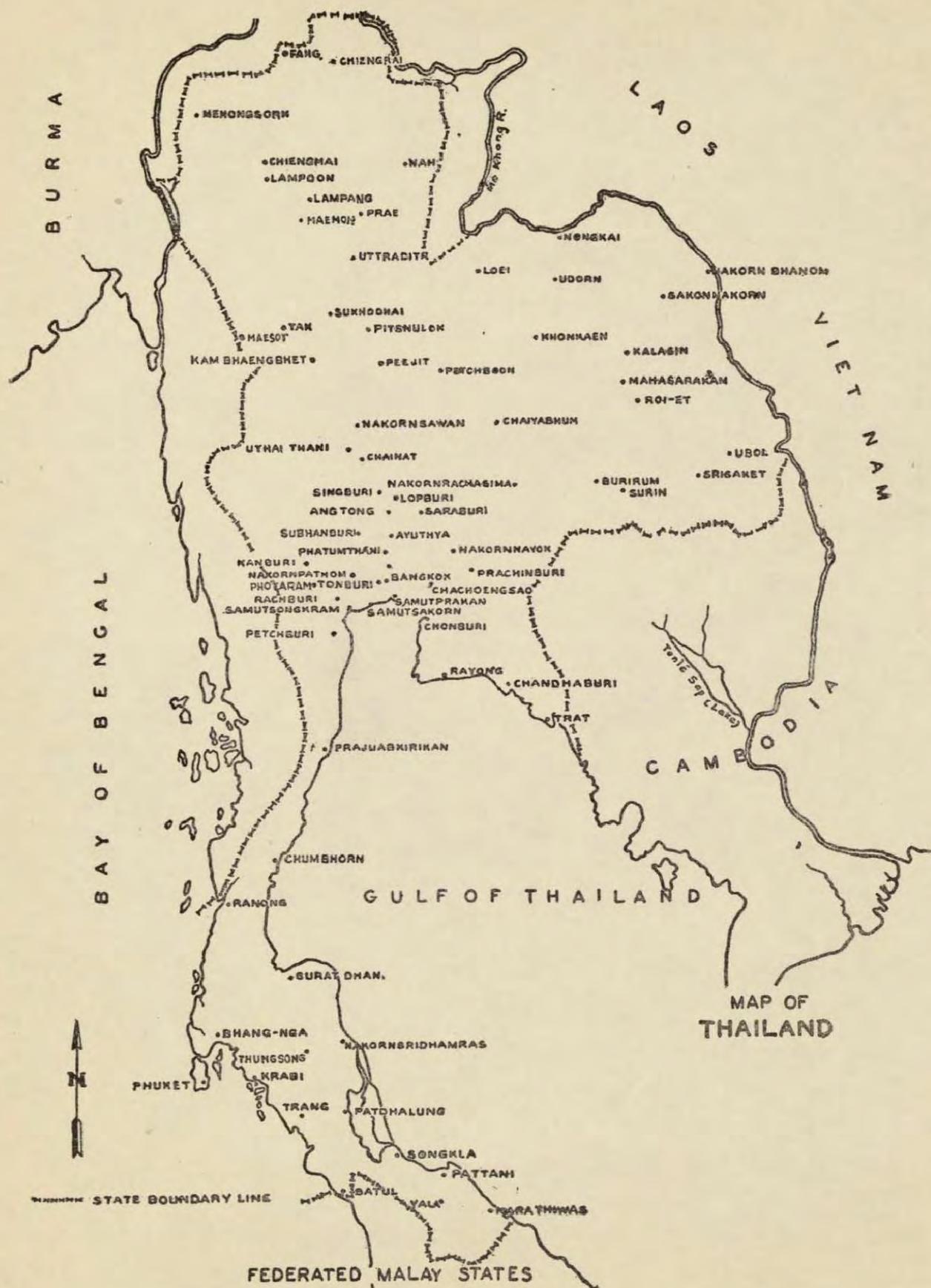
Thai highway engineers study modern road-building techniques with U.S. Bureau of Public Roads engineers.

THE OVERSEAS TRAINING PROGRAM

One of the integral parts of the U.S. assistance program from its inception has been the training of Thais in many fields in the United States. More recently, the program has been expanded to include training in third countries, principally the Philippines and Japan.

The following table shows the numbers of technicians and the fields in which they worked.

The program has been one of the most successful in building a close working relationship between U.S. technical advisors and their Thai counterparts. The devices of comradeship and professional understanding were most evident when a U.S. technician is working with a Thai technician who has training, language, customs, and which are in common has aided the smooth execution of projects in many cases. Technicians are selected for this training by processes as well as direct appointment.





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