CHAPTER 6

MEDICAL COOPERATION

Section 1. Outline of Medical Cooperation

Cooperation in the medical field extended by Japan is comprised of three main types, i.e., dispatching of medical experts, furnishing of necessary medical equipment and supplies, and acceptance of medical trainees from abroad. The term "medical experts" refers not only to doctors, dentists and pharmaceutists but also to such para-medical experts as nurses, X-ray technicians, equipment repair technicians, etc.

Actual cooperation can be extended in a variety of forms. Experts can be dispatched in teams or individually to government research institutes, university laboratories, hospitals or medical centres, with medical equipment and supplies provided at the same time, to conduct programs of instruction, guidance or research. Medical personnel from developing countries can be invited to Japan for training at national research institutes, hospitals, or private research laboratories. Experts may be dispatched abroad for the purpose of examining and treating patients in remote and inaccessible areas, sometimes as a traveling clinic, or conducting research and treatment of specific diseases. Other cases include preparation of programs for the eradication of certain diseases, educational cooperation to certain universities, etc. The types of medical cooperation have become increasingly diversified, depending upon the need of the recipient parties and the fields in which the experts spcialize. The trend toward diversification is also reflected in the widening scope of cooperation projects, which have come to encompass a wide variety of activities ranging from hospital construction to cerebral surgery, cure of cancer, or such fields covered in general hospitals as internal medicine, surgery, orthopedics, gynecology and obstetrics. It should also be noted that, in a number of projects, some of the major Japanese medical colleges and national organizations are extending thorough cooperation from the planning through to the implementation stage. Another new area of medical cooperation which is increasingly in the limelight is family planning. Some of the developing countries with high rates of populaton growth look to Japan for cooperation as a country experienced in this field.

Section 2. Examples of Cooperation in Fiscal 1969

1. Dispatching of Medical Experts

The total number of medical experts dispatched

during 1969 was 200, of which 149 were newly dispatched and 57 were carried over from 1968. Among the newly dispatched were:

A team of experts in surgery, internal medicine (liver cancer), hospital design, and X-ray radiography sent to the Thai National Cancer Centre.

A team of experts in cerebral surgery, hospital construction and management, nurses and X-ray technicians sent to the Cho-Ray Hospital in Vietnam.

A team of experts in internal medicine, surgery, gynecology and obstetrics, and X-ray radiography sent to the Cambodia Clinical Centre.

A team of experts in internal medicine, surgery, X-ray television and pediatrics sent to the Napuru Provincial General Hospital in Kenya

Teams of parasitologists sent to the Central Hygienic Research Institute in Ethiopia, the National Wazir Akbal Khan Hospital in Afghanistan and the Tropical Medical Research Institute of Pernambuco University in Brazil.

The geographical breakdown of experts dispatched is as follows:

(1) Short-term

1.	Asia	
	New	103
	Carry-over	13
2.	Near and Middle East	and Africa
	New	7
i,	Carry-over	0
3.	Central and South Am	nerica
	New	1
٠.	Carry-over	0
(2)	Long-term	
1.	Asia	
	New	23
	Carry-over	28
2.	Near and Middle East	and Africa
	New	13
	Carry-over	13
3.	Central and South Ame	erica
:	New	2
- 11	Carry-over	3

2. Dispatching of Medical Survey Teams and Furnishing of Medical Equipment and Supplies

(1) Afghanistan

Wazir Akbal Khan Hospital

A team of two orthopedists and two nurses was dispatched, and surgical X-ray equipment, a vehicle for transporting patients and other medical equipment and supplies were furnished.

(2) Burma

Virus Research Institute

A team of experts in viral pathology and serology was dispatched, and a super-centrifugal separator, medical supplies and photographic equipment were provided.

(3) Cambodia

Clinical Centre

In addition to a team of physicians, X-ray and sanitary inspection technicians dispatched earlier, a new team of experts in internal medicine, obstetrics and gynecology, and X-ray equipment installation was dispatched. Medical supplies were purchased and delivered under the Equipment Supply Project.

(4) Ceylon

Cancer and endoscope experts were dispatched and medical supplies were provided to the General Hospital. A vehicle for malaria epidemic prevention was supplied to the Ministry of Public Health. Two amino-acid analysts were dispatched to the Lady Ridgeway Hospital. Two experts were dispatched to the Pharmaceutical Inspection and Examination Institute to assist in its establishment, and a gas chromatograph, an automatic recording spectrophotometer, an infrared spectrophotometer and other equipment were provided.

(5) Indonesia

West Java Central Hospital

Since 1967, cooperation had been extended from the University of Kobe to assist the development of the clinical examination department.

The department was equipped and developed steadily in the course of 1968, and this year, exports in internal medicine, clinical examination and biochemistry were dispatched for the purpose of enhancing the examination units and bringing about smoother coordination between them and the clinical units. Medical supplies were purchased and delivered under the Equipment Supply Project. Further, a team of four medical cooperation experts was dispatched in January 1970 to consult with the Indonesian authorities and to conduct a survey. It was decided on the basis of its findings that future cooperation be directed to short-term dispatching of experts and acceptance as trainees of Indonesian counterparts, with a view to accelerating the process of Indonesian self-reliance.

1) Chest Surgery Department, University of Indonesia

In November this year, Dr. Masatoshi Shiozawa of the Tuberculosis Research Institute visited the Chest Surgery Department of the University of Indonesia to discuss with the Indonesian authorities ways and means of possible cooperation and to conduct a survey. It was decided on the basis of his visit that a team of four chest surgeons be dispatched and necessary equipment and supplies

be furnished from July 1970. Work was started on the purchase for delivery of anesthetic equipment, lung function examination equipment, and other surgical tools and medical supplies. Due to the delay in preparing the specifications, however, part of the work has been carried over to Fiscal Year 1970.

2) Family Planning

A six-man survey planning team was dispatched in October this year. As a result of the survey and consultations with the Indonesian side, the conclusion was reached that cooperation should be extended to assist the execution of the Five Year Plan and that it would be necessary for that purpose to supply audio-visual education equipment, contraceptive devices and light vehicles for PR activities, to dispatch experts, and to accept trainees. This year, 140 bicycles and 80 motorcycles for PR activities and 72 sets of contraceptive devices were supplied.

As regards the supply of audio-visual education equipment, another field survey is being contemplated for the purpose of determining what will be most suitable to meet local requirements.

3) Medical Cooperation in Ambon

The project aims at the supply of surgical tools and other equipment and the acceptance of trainees for the enhancement of medical care in and around the Ambon region, and, in particular, the promotion of preventive measures against tuberculosis and malaria and the improvement of the facilities of the Ambon Polyclinic. Upon request of the Indonesian authorities, assistance this year will be extended chiefly in the furnishing of equipment and supplies (surgical tools, general medical tools, generators, etc.) to the Polyclinic.

4) Dental Surgery Department, State University of Padjadjaran

Dr. Adachi of the Tokyo Women's Medical College is currently in Padjadjaran to help the Dental Surgery Department, State University of Padjadjaran. A set of dental surgery equipment has been supplied to be used for instruction.

(6) Iran

An expert was dispatched to assist in the establishment of a course on industrial health and sanitation at the University of Teheran. An expert was dispatched to follow up the endoscopic work at the Firouzgar Hospital.

(7) Korea

1) Anti-Parasitic Measures

Experts were dispatched to the Korean Society for Eradication of Parasites, and a set of equipment for parasite eradication, six examination vehicles, one microscope, one PR vehicle, and a set of equipment and tools for use on the vehicle (worth about US\$83,300) were provided.

2) Severance Hospital, Yonsei University

Two experts were dispatched to install cobalt 60 teletherapy equipment, and medical supplies, a simulator and other equipment were supplied to the Cancer Centre, Severance Hospital, Yonsei University.

(8) Laos

1) Hospital de Luang-Prabang

In addition to a dentist already dispatched, one dentist and one dental technician were sent, and dental appliances were supplied.

2) Tha-Ngon Dispensary

A physician had already been dispatched since the opening of the dispensary. During this past year, one expert was dispatched on a short-term basis to conduct a survey on epidemics.

(9) Nepal

In response to a request of the Nepalese Government for the supply of X-ray and other equipment to three hospitals including the Nepal General Hospital, X-ray equipment was furnished, and two experts were dispatched for its installation. Further, two experts (including a doctor) were dispatched to help promote anti-tuberculosis measures, and one systematic botanist is currently dispatched upon request of the Nepalese side.

(10) The Philippines

1) Anti-polio Measures

In consequence of the survey and consultation conducted by a team dispatched in 1967, 500,000 doses of live polio vaccine were supplied and administered in the Batangas and Greater Manila areas during that year. In 1968, 700,000 doses were supplied to be administered newly in twenty-one areas, including Rizal, Davao and Baguio, and to follow up the operation of the previous year in Batangas and Greater Manila. Upon request of the Philippine Government for the supply to be continued this year, 700,000 doses and examination equipment have been furnished. In addition, examination technicians and doctors were dispatched to the Research Institute of the Quarantine Bureau for follow-up and administering activities.

2) Programme for Eradication of Cholera

This is a research project implemented with the cooperation of the Japan-Philippine Joint Committee and the WHO since 1964. Part of the emphasis this year was laid upon treatment and epidemic prevention aspects. Examination technicians were newly dispatched, and research equipment, culture dishes, a transporter for specimens and a centrifuge with freezer were supplied to the Joint Laboratory.

(11) Thailand

1) National Cancer Centre

Cooperation has been extended since the opening of the Centre (an early cancer diagnosis clinic) in December 1968. This year, with the dispatching from Japan's National Cancer Centre of six experts (one in management, one in stomach endoscope,

two in clinical pathology and two X-ray technicians), the X-ray, clinical examination and endoscope departments have been strengthened and are contributing further to the diagnosis of cancer among the Thai people. A survey team of four experts was dispatched in November 1968 to discuss with the Thai authorities a cooperation prograin preparatory to the construction of the clinic, Sets of equipment worth US\$163,900 (including cobalt 60 rotation therapy equipment) were supplied to consolidate the radiotherapeutics and clinical examination departments. At the same time, three Thai counterparts have been accepted as trainees in Japan to further the exchange of personnel and to ensure the effective absorption of the guidance provided by the Japanese experts. The cooperation for this project is extended in accordance with the Five Year Plan (1967-71) for the establishment of the Thai National Cancer It had been agreed between the two Governments that consultations would be held annually to resolve the problems arising from the restraints imposed by the single-year budget system of both Governments and to ensure the smooth implementation of the programme.

2) Thai Virus Centre

Steady cooperation has been under way in the field of prevention, eradication and research of viral diseases in Thailand since the Thai Virus Centre Agreement of 1962. This year, one expert in enteric viruses and two in arbovirus were dispatched from the Microbiological Research Institute of the University of Osaka. Their efforts bore fruit in the successful containment of a Japanese encephalitis epidemic in Chiengmai in June 1969, and received high praise among the public health circles in Thailand. Sets of equipment worth US\$17,500 (including those needed for epidemic surveys on Japanese encephalitis) were supplied. The annual consultation team was dispatched to carry out a thorough inspection of the equipment already supplied and to discuss with the Thai authorities the results of research activities and the priority research plan.

3) Pharmacognosy Research Project

Experts in pharmacognosy and pharmacology were dispatched to further the chemical analysis of Chinese herb medicines in Thailand, and sets of equipment worth US\$15,000 (including a polygraph) were provided.

4) Ramathibodi Medical College

In connection with the establishment of the college, request was made for assistance to the ophthalmology and experimental pathology departments. As a result of prior consultation with the Thai side, four ophthalmologists and one experimental pathologist were dispatched during 1969 and are still working in the college. Sets of equipment

worth US\$22,200 were supplied to the two departments.

5) Institute of Tropical Medicine, National Medical University

One immunologist and one expert on parasitic dipterous insects were dispatched and have been carrying out research and survey work on immunity to insecticides. An expert on insecticides has already returned to Japan after a two-year tour of duty, and the continuation of the project is now under review.

6) Central Chest Clinic

Cooperation was extended to the clinical department by dispatching tuberculosis research advisers. Four experts, each with a six-month tour of duty, were dispatched until the project was terminated in July 1969.

7) Nutrition Research Institute

An amino-acid analysis meter was provided and two experts were dispatched to investigate and analyze the nutrition conditions in Thailand. The project was terminated in September 1969.

8) Srisaket Hospital

Teams of experts were dispatched, alternating every six months, to areas around Srisaket in North-east Thailand to tour as a traveling clinic and to enhance the knowledge of local inhabitants on health and medical care. The experts dispatched numbered 24 and covered such fields as internal medicine, surgery, orthopedics, sanitary inspection and X-ray radiography. Sets of equipment such as mobile X-ray clinics, worth US\$83,300, were provided.

(12) Vietnam

1) Cho-Ray Hospital

As part of the medical cooperation program to Vietnam, cooperation was extended to the second stage construction of the Cho-Ray Hospital, namely, the construction of the new ward and accommodation facilities. This was completed on November 30. Sets of equipment such as X-ray televisions were provided. Three Japanese cerebral surgeons are currently working at the hospital.

2) Saigon Hospital

A surgeon and two anesthetists were dispatched, and the necessary equipment and medical supplies were provided.

(13) Ethiopia

Imperial Central Laboratory and Research Institute, Ministry of Public Health:

An expert in anti-malaria measures has been dispatched to the institute each year from September 1967. In consequence of the findings of the survey team dispatched in July this year, two entomologists and two parasitologists were dispatched and field research tools, examination equipment, such as a double beam spectrometer, and other medical equipment were supplied.

(14) Ghana

Ghana Medical College:

A survey planning team was dispatched in June 1968 for the purpose of working out the details of the cooperation program to the Ghana Medical College. It was decided on the basis of its findings to extend the cooperation to the virus department. Three virus experts were newly dispatched, an electronic microscope was provided and two technicians were dispatched to install it. Sets of equipment (worth US\$38,900) such as a super-centrifuge and a field operation vehicle were provided.

(15) Kenya

1) Nakuru Provincial General Hospital

Medical cooperation to Kenya has been continued in the form of cooperation to the Nakuru Provincial General Hospital. This year, one surgeon and one physician were newly dispatched, and with the supply of X-ray televisions, three installation experts were dispatched on a short-term basis.

2) Embu District Hospital

Three experts (those dispatched to Nakuru Provincial General Hospital) were dispatched on a short-term basis to repair the X-ray mobile clinic provided in 1968. A pediatrician and a physician were sent to help the pediatrics department.

3) Kenyatta Hospital (ICU)

A survey team of four experts was dispatched in January 1970 in connection with the establishment of the ICU (intensive care unit) at the Kenyatta Hospital.

(16) Nigeria

Upon request of the Nigerian Government, it was decided to extend cooperation to the Sleeping Sickness Research Institute, and one expert was dispatched to start the project. A gastroscope was provided to Dr. Solanke of Ibadan University as follow-up equipment for the returned trainee.

17) Brazil

Tropical Medical Research Institute, Pernambuco University:

Shipment was made of a polygraph and medical supplies purchased in the previous year, but the acceptance of the delivery by the Brazilian side has not yet been effected smoothly. Three experts on parasitology and blood dynamics were newly dispatched to replace the three experts already dispatched, and parasitological equipment was provided.

(18) Republic of China

1) Public Health Bureau, Talpei City

A mobile X-ray group clinic and tomographic equipment were provided to Taipei City Hospital to help promote its anti-tuberculosis measures.

2) National Taiwan University

Upon request of the Chinese Government, it was decided to help equip the clinical examination ward

which had been built newly in National Taiwan University. Sets of equipment such as a double beam spectrometer and a super-speed centrifuge with freezer were provided,

3) Public Health Department, Taichung Province In pursuance of the three-year plan of the provincial government to expand and equip the provincial hospitals, sets of cancer research equipment such as cobalt 60 rotation therapy equipment and X-ray diagnosis equipment were provided to the Taichung Hospital this year.

CHAPTER 7

AGRICULTURAL DEVELOPMENT COOPERATION

Section 1. Outline of Activities

This type of cooperation has been extended since 1967 for the purpose of providing continuous project cooperation in the field of agricultural development in addition to previous methods of technical assistance in agricultural fields such as the dispatch of individual experts, the acceptance of trainees and the establishment of agricultural centers.

The agricultural development cooperation now being provided can be broadly classified as follows:

(1) Project Cooperation

The aim of this type of activity is to select medium and small size areas most suitable to serve as models from the areas likely to be developed in the future, and to carry out the following measures in order to provide continuous and comprehensive technical cooperation.

- (a) Improvement of the physical infrastructure by such means as irrigation and drainage, new construction and maintenance of the farm road network, and lot-improvement.
- (b) Selection of suitable plant varieties, use of fertilizers, setting up of seeding and cultivation standards, improvement of farm management techniques such as the introduction of agricultural machinery.
- (c) Organization of the farming population, improved methods of marketing and of providing credit, structural improvements including establishment of systems of technical instructions.
- (d) Establishment of pilot farms of suitable size in the project area to directly improve the level of farm management techniques of the farmers and to provide training to the technical instructors of the recipient country.

In carrying out this type of project cooperation, the basic ideas mentioned above serve as the starting-point for research and planning and for the preparation of operational plans for the project under study. In accordance with the needs of the project, Japanese experts are dispatched, equipment is furnished and training in Japan is provided to the technical personnel of the recipient country.

(2) Agricultural Education Cooperation and Agricultural Research Cooperation

Agricultural education and research in agricultural techniques are most important and basic areas when directly carrying out agricultural development.

The various countries are exerting their best efforts, but these are still far from sufficient, and

there remain many problems which have yet to be solved.

The levels of research in techniques, together with the dissemination of education mentioned above, are areas which will have to be improved considerably in the future; in spite of a great deal of energy having been spent in experiments and study by the various countries concerned, the results still leave much to be desired.

In view of this state of affairs, requests for cooperation in the dissemination of education and in experimental research are expected to increase in the future. In response to such requests, cooperation is being provided by dispatching needed Japanese experts and furnishing the necessary equipment to universities or experimental stations connected with agriculture.

(3) Training Centers

In even shorter supply than experiment and research technicians is the number of technical instructors to disseminate to the farmers the techniques derived from experimental research, and improvements in dissemination techniques. In particular, it is considered a matter of the greatest urgency to train technical instructors in the dissemination of techniques of cultivation and agricultural mechanization.

Therefore practical cooperation is being provided by establishing training centers in areas where they are needed to develop and train these types of technical instructors on the spot, by dispatching Japanese experts as needed and by furnishing the necessary equipment.

Section 2. Activities Carried Out in Fiscal 1969

The projects currently in operation are as follows:

Country	Project Title				
Indonesia	Increased Food Production in Western Java				
	Agricultural Development of Tadjum District				
	Research Cooperation				
Philippines	Development of Rice Cultivation (Naujan, San Miguel)				
Vietnam	Can-Tho University				
Laos	Tha Ngon Agricultural Development				
Cambodia	Development of Maize Cultivation				
	Agricultural and Livestock Centers				
Malaysia	Training in Agricultural Mechaniza- tion				
Thailand	Cooperation in Sericultural Development				

Country	Project Title				
Ceylon	Rural Development Project				
India	Agricultural Demonstration Center				
	Agricultural Development of Danda- karanya				
Nepal	Basic Survey for Agricultural Develop ment				
Others	Basic Development Surveys				
	Traveling Technical Advisory Teams				
	Discussion of Plans				

The outline of the main projects follows.

Agricultural Development of Tadjum District, Indonesia

(1) Outline of Project

The Indonesian Government started work on an irrigation project covering 3,600 hectares in the Tadjum District, Regency of Banjumas in Central Java, from August 1965. In 1968, the Indonesian Government made a request to the Asian Development Bank for the financing of this project. The ADB made a field-survey the same year and, in the following year, decided to extend bank financing. As part of this project, the Indonesian Government made a request to the Japanese Government for cooperation in the setting up of a pilot project, and Japan dispatched a preliminary survey team for this purpose.

Indonesia imports from 0.5 to 1 million tons of rice annually, but the annual rate of increase in the production of rice in Java, where 70% of the total population is concentrated, is on the average (1953-67) only 0.25%. The Indonesian Government inaugurated the BIMS project in 1963, and is proceeding with mass training in self-sufficiency in foodstuffs with emphasis on Java.

Since April 1969, the five-year plan for economic development has been in progress. One of its aims is to achieve self-sufficiency in foodstuffs by increasing production of rice by 50% during the five years of the plan. The highest priority is therefore being placed on the increased production of rice by placing special emphasis on agricultural development, especially irrigation projects.

The Tadjum irrigation project is included as one of the special projects in the five-year economic development plan. It is expected to make an important contribution to the plan to increase food production, and the General Bureau for Water Resources of the Ministry of Public Works has the responsibility for the execution of the project.

In response to a request of the Indonesian Government and in consultation with the ADB, Japan will establish a pilot farm of approximately 220 hectares in the project area.

- (2) Details of Technical Cooperation
 - (i) In response to a request from the Indonesian

Government a preliminary survey team of 5 members was dispatched for one month to look into the technical cooperation necessary for the pilot farm project, and made studies on the following items:

- (a) Selection of site for the pilot project.
- (b) Determination of scale,
- (c) Survey of existing irrigation and drainage facilities and road conditions in the pilot area, existing farm management and farm management techniques, farmers' organizations, etc.

After study of the report of the preliminary survey team, a 10-member team for the preparation of operational plans was dispatched for about one month from February 1970. This team drew up a report on the operational planning and also compiled the agreed minutes of discussions with the Indonesian authorities.

(ii) As soon as an agreement is signed, experts will be dispatched and necessary equipment will be furnished.

2. Agricultural Research Cooperation, Indonésia

(1) Outline of Project

In order to effectively carry out agricultural development cooperation with the developing countries, it is essential to build up a reservoir of basic knowledge and the results of research in tropical farming, especially since Japan itself is situated in the temperate zone. It was therefore decided to begin, from 1970, agricultural research cooperation activities using the project formula. Funds for this purpose were appropriated in 1969. This project is the first of its type.

The main items of this cooperation are to dispatch experts and to furnish the necessary equipment to assist, in collaboration with local researchers, in the study of three themes, listed below, which the Indonesian Government desires to have urgently solved. The assistance is to be provided to the Central Agricultural Research Institute under the management of the General Agricultural Bureau of the Ministry of Agriculture, located in the city of Bogor in western Java. The details of the cooperation will be worked out through joint discussions between the Japanese experts dispatched and the Director of the Central Agricultural Research Institute as provided for in the agreement.

- (i) Research on biology, prevention and eradication of main food crop diseases.
- (ii) Research on forecasting outbreak of plant diseases and virus-transmitting insects affecting main food crops.
- (iii) Research on plant biology of main diseases and biological damage to food crops,
- (2) Details of Technical Cooperation

In October 1969 a survey team of 3 members carried out a preliminary survey for the commence-

ment of agricultural research cooperation in the Republic of China, Thailand and Indonesia. The team reached agreement with the Indonesian authorities on a policy to carry out technical cooperation with the Indonesian Central Agricultural Research Institute in the field of protection of crops.

As a result of this preliminary survey, in February 1970 a 6-member survey team for the purpose of drawing up operational plans for agricultural research cooperation was dispatched. After studying the details of the aforementioned project, the team prepared the agreed minutes of the discussions, signed them and returned to Japan.

At present, both countries are working on the text of the agreement.

3. Cooperation with Can-Tho University, Vietnam

(1) Outline of Project

The Agricultural Faculty of Can-Tho University is situated in Can-Tho, the city which is the center of the Mekong Delta. As it is the only institute of higher learning in the field of agriculture, which is the basic industry, and the only university agricultural faculty in Vietnam, both government and private circles have great hopes for its development

However, the history of the faculty is still new, and due in large part to the continuing ravages of war, the lack of teaching staff and inadequate plant and educational equipment and material make the educational content very poor.

The Government of Vietnam has therefore requested the Government of Japan to provide overall assistance in order to actively build up and strengthen the faculty.

The outline of the cooperation project is as follows.

- (i) Dispatch of one professor and one research fellow each in the fields of agronomy and livestock raising; guidance and assistance in research and education through dispatch of necessary Japanese instructors
- (ii) Acceptance in Japan of Vietnamese instructor-candidates to become future instructors at Cau-Tho University.
- (iii) Furnishing of research and educational equipment and material necessary for operation of the faculty.

For the purpose a team of 4 Japanese professors, as mentioned above, and research and educational equipment and material for the first year will be furnished during 1970.

- (2) Details of Technical Cooperation
- (i) In September 1967, the Education Ministry authorities of the Vietnamese Government requested visiting Japanese parliamentarians of the Asian Parliamentary Union to provide Japanese assistance to the Agricultural Faculty of Can-Tho University.

- (ii) In May 1969, Dr. Throung, the Director of the Agricultural Faculty of Can-Tho University, visited Japan and inspected various Japanese universities. He took the opportunity to request various quarters for Japanese cooperation.
- (iii) In July 1969, in response to an official request for assistance from the Republic of Vietnam, a survey team was dispatched to Vietnam to look into the matter of cooperation with the Agricultural Faculty of Can-Tho University. Agreed minutes of the detailed discussions with the Vice-Minister for Education of the Republic of Vietnam, Mr. Van Tuc Tuong, were drawn up by the team before its return to Japan.
- (iv) In March 1970, an agreement for cooperation was concluded between the Governments of Vietnam and Japan based on the agreed minutes mentioned above.
- (v) Selection of instructors to be dispatched and of equipment and material to be furnished is already under way in accordance with the agreement.
- 4. Dandakaranya Agricultural Development Cooperation in India

(1) Outline of Project

Since 1958, a project under the direct supervision of the central government consisting of a special development area of 80,000 hectares has been established in the hilly country straddling the three provinces of Orissa, Madhya Pradesh and Andhra Pradesh. Development of this project is still under way.

The basic aim of the development on the Indian side is mainly to provide aid to refugees from Pakistan and other areas and to take measures for the settlement of the indigenous inhabitants. An ambitious colonization plan has been drawn up for this purpose. The Dandakaranya project area is comprised of the four sub-areas of Raigarh, Umerkot, Paralkote and Malakanagiri. A Dandakaranya Development Agency has been set up in the capital, New Delhi. There is a regional development headquarters in Koraput in the project area, and in each of the four sub-areas are sub-area headquarters. The project is organized as a special development area both from the point of view of administration and from that of technical instruction and dissemination of knowledge.

The Paralkote area covers approximately 30,000 hectares. At present about 4,000 families have settled there, having now entered their sixth year. Their gross income is higher than the average for the farmers of other areas in India. In this area the Paralkote Dam is now under construction and is expected to be completed in June of this year. The area to be irrigated by this dam is expected to be 12,000 hectares, and it is necessary to introduce, by next year, new techniques for the rotation of crops. In this area there are small dams and

irrigation ponds in each village besides the large dam mentioned above.

(2) Details of Technical Cooperation

- (i) In December 1967, on the occasion of the visit to India of the 7th Traveling Technical Advisory Team to India, the Malakanagiri area of the Dandakaranya area was visited in response to a request. It was still only in its second year after settlement, and the facilities and the surroundings were such that the survey concluded it was not an area suitable for effective cooperation. Since then, however, there were repeated requests for cooperation from the Indian Government.
- (ii) On the occasion of the visit to India of the 8th Traveling Technical Advisory Team to India in February 1969, the Paralkote area of the Dandakaranya area was visited. As a follow-up, a preliminary survey team was dispatched to the area in July of the same year to select project areas for cooperation, and discussions were held with the local governments on the details of future cooperation by Japan. Further, in November of the same year, a survey team to draw up an operational plan was sent to the area for about two and a half months. Based on this survey, discussions were held with the Indian Government and the following basic plan for cooperation was drawn up.
- (a) For the purpose of community development, 500 acres of land which is being irrigated by the Pakhanjore main canal (P.V. 13 to 14 villages included) will be established, and irrigation and irrigation and drainage improvement will be carried out.
- (b) Improvement of the Pakhanjore main waterway to facilitate irrigation of the 500 acre area.
- (c) Plateau irrigation facilities will be installed in the 120-acre area borderng the Pakhanjore main waterway.
- (d) Paddy formation, irrigation and drainage facilities and other such basic land improvement measures will be carried out in 130 acres of low-lying land and 50 acres of plateau land in the general farm area; farmers in the area and extension workers engaged in local community development plans will be given training.
- (iii) The operational plan survey team compiled a report after its return to Japan, and this report was submitted to both the Japanese and Indian Governments. Both Governments have since continued to consult with each other, and in August 1970 an agreement for agricultural development cooperation in the project area was concluded between

The cooperation period provided for in the agreement is 5 years. Japan will extend such cooperation through the dispatch of experts and the furnishing of equipment necessary to carry out the operations envisaged in the basic development plan for

the project area.

Cooperation activities planned for this year are the dispatch of 3 experts in October (Team Leader, Irrigation Expert and Cultivation Expert); another 3 experts in early December (formation of paddies, agricultural machinery, cooperation personnel = coordinator); and the purchase and furnishing of 194,500 dollars worth of equipment (large agricultural earth-moving equipment, agricultural machinery, fertilizer, pesticides etc.).

5. Agricultural Development Cooperation with Nepal

The Kingdom of Nepal is steadily carrying out economic development. As more than 90% of the people are engaged in agriculture, the emphasis of Nepal's economic development has been on agriculture. As a result of such efforts, the agricultural production of the country has maintained higher standards than in other Asian developing countries. However, as traditional farming methods still prevail, in order to promote even further its economic development, Nepal has requested Japan to provide agricultural cooperation in irrigation, farm management and the dissemination of farming techniques in the Kankai area of the Meti zone, the Papti area of the Narayani zone and the Seti zone. In response to this request, Japan will conduct a survey in these zones from the technical and socio-economic points of view.

(1) Outline of Project

Besides the three zones mentioned above, there is also a cooperation request from the Janakpur zone. Since the original survey was made in a short period of time in the Tarai area of Nepal from the central portion to the east and since an onthe spot survey of the western portion which was requested was not possible due to transport problems etc., it has not yet been possible to draw up final plans. However, from these zones one area of an appropriate size, from 200 to 500 hectares, will be chosen. It is planned to dispatch experts and to furnish agricultural equipment for overall development measures as irrigation and other land improvement measures, the establishment of farm management techniques and the dissemination of farming techniques, with this project area as a demonstration base.

- (2) Details of Technical Cooperation
- (i) A 6-member team to conduct a basic development survey was dispatched in March 1970 to East Kankai, the Papti farm and the Janakpur areas of Nepal.
- (ii) A second team will be dispatched in early November of this year and will survey the western areas not covered in the first survey. The results of these two surveys will be studied and detailed cooperation measures for the future will be worked out.

CHAPTER 8

PRIMARY PRODUCTS DEVELOPMENT COOPERATION

Section 1. Outline of Activities

Japan's trade with the developing countries generally results in a great surplus of exports. It is therefore the strong desire of these developing countries that Japan increase its imports of primary products in order to improve their trade balances. In fact, it is considered to be Japan's major obligation. Generally speaking, however, the primary products of the developing countries are, in relation to their quality, comparatively more expensive than the international price, making it difficult to increase imports on a commercial basis.

The objective of this type of cooperation is to seek to improve the trading position of the developing countries through increased imports of their primary products, and to offer technical cooperation in improving productivity, quality and the distribution structure to better meet Japan's needs for products likely to greatly increase in demand.

Section 2. Activities Carried Out in Fiscal 1969

Development Cooperation for Maize in East Java, Indonesia

(1) Performance and Status of Operation

On receipt of a request from the Indonesian Government for cooperation in the development of increased production of maize, Japan decided to offer its cooperation by setting up four project areas in East Java.

In order to obtain effective results from this cooperation, it was considered necessary to demonstrate the profitability of exports to the farmers and to the Indonesian Government. However, exports in small lots (an average of 260 tons per shipment according to the previous year's actual figures) cost approximately twice the freight of full cargo charter rates and therefore result in export prices higher than international levels. Therefore, the objective of the project was placed on exports at international price levels, and to achieve this target it

was decided to carry out the project in such a way as to ensure collection of the product on a full-cargo basis.

In order to attain this objective, the cultivation area was to be enlarged to 10,000 hectares by the third and final year of the original plan. As a start, 4,000 hectares of this area was put under cultivation this year.

In the field, 5 experts are providing guidance in continuation of the cooperation offered last year. From the end of December 1969 to April 1970 a traveling technical advisory team of 6 members was dispatched to give advice and assistance to the experts in their operations.

In order to enlarge this project, it is of course necessary to strengthen the Japanese advisory teams, but it is even more essential to strengthen the Indonesian counterpart staff and to try to develop and build up the agricultural organizations in order to enable them to extend their influence into the farming households and to strengthen their instruction capabilities.

(2) Actual Operations

A. Areas selected for Contract Cultivation

Area Name	Area in Hectares	Participating Desa	Participating Farmers	
Banjuwangi	2,016	8	2,160	
Kedi ri	1,700	39	8,500	
Mal ang	395	8,	1,200	
Total	4,111	55	11,860	

B. Contract Contents

Since it is legally not permissible for a project which is a government organization to directly conduct operations from cultivation to export, contracts have been made with organizations concerned and related enterprises to cover the respective operational stages given in the following chart.

Operational Stage	Cultivation (a)	Collection (b)	Processing (c)	Transport (d)	Re-Proces- sing (e)	Storage (f)	Export.
Contractor	Farmers	Kediri area Ke Association of Organizations Malang Agricu Cooperative (n participation)	Agricultural Malang area Itural	E A	al Associatio ganizations	on of	
Sub- Contractors				Private Transport companies		jiptaniaga Jorporation)	Private Company P. T. Ballage
Contract Terms	Provided by Project Urea 200 kg/ha Seed 25 kg/ha	Kediri area 124 Rp/100 kg (ear corn)	Kediri area Average Product 15 kg/100 kg payment by farmer	9 Rp/1 kg/t Kediri 135 Km	0.85 Rp/kg re-processing fee	Standard 120 Rp/t/ month	Standard 1,547 Rp/t
	Corn grain to be returned to farmers 525 kg/ha as standard	Malang area 40 Rp/100 kg (corn grain)	Malang area farmers 16- 17% moisture content corn grain to be provided	Malang 90 Km			

(a) Contract for Production and Cultivation

The project will provide to the farmer 200 kilograms of urea and 25 kilograms of high-grade seed per hectare.

The farmer will return a standard 525 kilograms of dried corn grain in either corn-grain or ear-corn form to the collection center in the village.

The project will spray agricultural chemicals (pesticides) as necessary, free of charge.

In the event of natural calamities, the amounts to be returned will be waived in proportion to the damage sustained.

(b) Contract for Collection and Processing The project drew up contracts with agricultural organizations for collection and processing as one way of fostering the growth of agricultural organizations as a means to improve the distribution structure, since this is also one of the project objectives.

(c) Transport Contracts

Contracts were made with two transport companies at 9 Rp/t/km.

- (d) Contract for Handling of Export Procedures A sub-contract was made for export procedures to be handled in the name of the East Java Central Association of Agricultural Organizations at 1,547 rupiahs per ton.
- C. Collection, Export and Domestic Sales

(a) Collection

	Cultivated area	Collection target	Collection performance	Collection percentage
Kediri Area	1,688.9ha	886.7 t	515.6 t	58.1%
Malang Area	393.7	183.5	143	77.9
Total	2,082.6	1,070.2	658.6	61.5

The maize collected by May 30, 1970 totalled 658.6 tons. The average collection for the two project areas was 61.5%.

(b) Sales and Storage

On May 15, 1970 the East Java Association of Agricultural Organizations and the Japanese

Kumiai Boeki (Trading Division of Agricultural Organizations) contracted for the second interorganization trade at 500 tons following the performance of the previous year. The sales and storage situation is as follows.

		Amount	Contractor	Price	Date
Sales	Export to Japan	500 t	Kumiai Boeki	FOB US\$54/t	14 May
	Domestic Sales	100	P.T. DJITU	On truck 18.5 Rp/kg	30 May
Storage	P. N. Tjiptaniaga	44		_	
	Kediri Agr. Assoc.	14.6		· -	· ·
Total	<u> </u>	658.6.			

The figures for the collection, export and domestic sales for the Banjuwangi area were as follows.

Collection Figures

	Cultivated area	Collection target	Collection performance	Collection percentage
Banjuwangi Area	1,721.9 ha	904 t	616 t	68.1%

600 tons of the above were exported to Japan for the second time on August 10 this year under contract between the East Java Association of Agricultural Organizations and the Japanese Kumiai Boeki.

Import funds for this purpose were obtained on loan from the Asian Trade Development Association of Japan. The export price was FOB US\$56.10 per ton.

D. Experimental Surveys

In providing production guidance, it is necessary first of all to establish agronomic standards in the project areas. Many tests and experiments were carried out for this purpose this year and agronomic standards established.

Subsequently, as a means to achieve increased production, the following three points were stressed in the dissemination of knowledge and guidance of techniques for the project; (i) Efforts should be made to improve seed quality, and the farmers should be encouraged to plant high-grade seed. (ii) The number of plants under cultivation should be increased in proportion to increases in amount of fertilizer so that at time of harvest there are more than 60 to 70 thousand producing plants per hectare. (iii) Before sowing the land should be thoroughly prepared to promote germination.

Besides the above, tests were conducted in planting density, the prevention of downy mildew, and the use of fertilizer.

2. Development Cooperation for Maize in Cambodia

(1) Outline of Project

The Cambodian Government desired to establish

a Tropical Crops Cultivation Corporation (SOCTRO-PIC) as a Japanese-Cambodian joint venture and requested Japanese technical cooperation. From the viewpoint of improving the balance of trade between the two countries, Japan decided to extend cooperation for the development of maize from its production to distribution.

A survey team for operational planning was dispatched in 1967, and based on the results of the survey, 3 experts in the fields of distribution, technical instruction in soils and fertilizers and technical instruction in agricultural machinery were dispatched at the end of March 1969; fertilizers, pesticides and agricultural machinery were also supplied.

(2) Operation of the Project

A. Dissemination

(i) Rainy Season Cultivation

Operations for the dissemination of knowledge and techniques were started from the rainy season cultivation of this year. The method adopted was to set up a pilot community and operations were started in May. The contract situation between SOCTROPIC and the farmers was as follows:

Koki Thom	. 3	7	ho)U:	se	ho	olds	,	73	hectares
Samrong Thom	2	0							43	
Total		7					1	1	16	•

The actual work carried out in this project was mainly contract cultivation using tractors.

As this contract cultivation was a first experiment for SOCTROPIC, the rates were fixed at 350 Riels/ha. By comparison, the OROC (Royal family corporation—agricultural cooperative organization) rate is 400-450 Riels/ha.

SOCTROPIC furnished guidance to these contract cultivation farmers from the start of cultivation to the application of fertilizer and the sowing of seed; in September harvesting and purchasing was carried out resulting in a purchase of 206 tons.

Breakdown:

Contract Farms 57 Households

(116 hecta	ares)		193	tons
Others			13	tons
Total			206	tons

Apart from the cultivation under contract, a demonstration field was set up using a 6-hectare field of a farming household in Koki Thom and cultivation tests and demonstrations of maize and grain sorghum were conducted as follows:

- i) Planting and cultivation density test.
- ii) Fertilizer test.
- iii) Comparison test of different varieties.

The demonstration field, in spite of the delay in preparations this year, showed distinct superiority over those of other farmers in general, and the benefits of high grade varieties and fertilization were clearly evident. The fact that appropriate use of fertilizer greatly heightens the economic effect was clearly proven and served as a good model for the surrounding farming community.

(ii) Dry Season Cultivation (October-March)

The dry season was a preparation period for the concentrated effort to demonstrate the use of hybrid strains in rainy season cultivation. The dry season activities were carried out as follows:

(a) Demonstration Lot for the Irrigation of Dry Fields

In order to demonstrate the benefits of irrigation in the dry season, and to collect seed from the high-grade hybrid strain K 305 presently available, a total of 2 hectares was put under operation in the Samrong Thom area.

As a result 3.7 tons were harvested, and seed sufficient for the cultivation of 120 hectares next rainy season was secured.

(b) Demonstration Cultivation Fields in Abandoned and Virgin Land

In order to enlarge areas under cultivation as a preliminary step towards introduction of machinery, demonstration cultivation was carried out in Koki Thom (60 ares) and Samrong Thom (50 ares) for the experimental cultivation of maize and grain sorghum and the testing of fertilizer effects.

(c) Introduction of Machinery and Guidance in Improved Cultivation Techniques to Contract Cultivation Farmers

With emphasis on contract cultivation operations, 3 tractors were deployed in the Koki Thom and Samrong Thom areas.

They were received with unexpected enthusiasm. The areas serviced were 68 hectares in Koki Thom (70 families), 55 hectares in Samrong Thom (64

families), and 61 hectares in Bakkheng (13 kilometers from Pnom Penh; 111 families). The total was therefore 184 hectares (245 families). This operation had to be discontinued, however, due to the political situation in mid-March. If this had not been the case, areas covered would possibly have increased.

B. Distribution System

The harvest and purchase of the rainy season crop was started in September by SOCTROPIC, and 206 tons were purchased. This being the first purchasing operation for SOCTROPIC, maize with a high moisture content (16-20%) was purchased. Even after re-drying, about 100 kg. turned bad and had to be disposed of. There was also 5% with deficient moisture, approximately 10 tons.

(a) Purchase Price (per 100 kg).

Purchase Amount (t) Purchase Price (At Farmyard—Riels)

206

160 215 46 230 (after revision)

- (i) While purchases were in progress, the purchase price of SONEXIM (the export-import public corporation) was raised 15 Riels,
 - (ii) Moisture deficiency 5% (10 t)

206 t - 10 t = 196 t

- (iii) As the sales contract with SONEXIM was for 200 tons, 4 tons were purchased at 300 Riels/ 100 kg
- (b) Sales Price (Sales Price to SONEXIM per 100 kg)

Sales Amount (t) Sales Price (Riels) 200

100 265 + 3 (gunny-bag price) 100 *280 + 3 (gunny-bag price)

* Revised purchase price
(c) Sundry Costs (per 100 kg)

(i) Drying 5.0 (ii) Re-baling for export 6.0 (iii) Taxes (5.3%) 14.84

(iv) Management and Operation 16.0 (v) Others (Storage and Transport

Fees, etc.) 6.55 Total 48.39

(d) Balance

Credits $(268 \times 1,000) + (283 \times 1,000) = 551,000$ Debits $(215 \times 1,600) + (230 \times 460) + (300 \times 40)$ $+ (48.39 \times 2,060) = 561,483$

As a result the balance of the purchase of 200 tons was 10,483 Riels in the red.

Since exports are handled through SONEXIM which also decides purchase and sales prices, an increase in profits depends on how far costs can be reduced.

As one of the factors to be considered it is necessary to study the efficiency of rotation of truck transport, etc.

3. Primary Products Development Cooperation in Thalland

(1) Outline of Project

It was decided between the Thai Government and the first Survey Team that cooperation should be provided for six products, namely, kenaf, oilseeds, cassava, maize, milo and tobacco. An agreement was also reached on the operational plans for technical cooperation regarding each item.

The cooperation was to be aimed at raising productivity, reducing production costs and raising product quality for oilseeds (soya beans, castor beans, sesame seeds and ground nuts, etc.), feed crops (maize, milo and cassava) and kenaf, and the details of cooperation were embodied into projects as shown in the following chart:

Cooperation Field	Experts	Equipment to be furnished		
Control of Projects	Director Coordinator			
(1) Experimentation and Research	Cultivation Pest and Disease *Farm Mechanization	Equipment and material for experiments; machinery and apparatus for seed inspection		
(2) Diffusion and Exhibition at Pilot area	Extension	Agricultural machinery; fertilizer and pesticides; jeeps		
Quality Improvement of Kenaf				
(3) (1) Mechanization of Harvesting and	*Mechanization of agriculture	Reaping machines		
(ii) Excavation of Retting-ponds	Survey Team	Construction machinery		
(4) Oilseeds Laboratory	Oli Chemist	Equipment and apparatus for oil ex- traction and chemical analysis		
(5) Inspection of Commodity Standards		Equipment and material for inspection and standards		

Note (*) By the same experts

Cooperation is being successively carried out in accordance with the above general plan.

- (2) Operation of the Projects
- A. Cooperation in Soya Bean Development

Of the fields of cooperation listed above, Thailand requested, as the first item, cooperation in soya bean development. This will enter an active stage from this year.

The price of Thai soya beans is high compared with international standards. It is necessary therefore to bring down the cost to international levels.

The following measures to solve this problem are currently under study:

- (i) Expansion of area under cultivation
- (ii) Improvement of yield per unit area
- (iii) Reduction of costs by improving and streamlining distribution system
- (iv) Adoption of a system of guaranteeing minimum purchase prices

In order to put into operation the measures (i)—(iii) mentioned above, 3 experts in the respective fields of seed-growing, cultivation and improvement of distribution will be dispatched in 1970. The selection of the experts has already been made. The necessary equipment, such as tractors, trucks and machinery for the removal of foreign matter, to

the amount of 81,300 dollars, has been purchased and furnished.

B. Oil-Seed Laboratory

The consumption of edible fats and oils in Japan is increasing by approximately 10% annually, and an increase in demand is expected to grow even more in the future in accordance with the gradual change in national eating habits.

In Thailand at present there are no organizations or facilities to check whether the oilseeds produced are of a quality suitable for oil extraction. It is therefore not possible to judge whether the product is suitable for Japan's needs, both from the viewpoint of quality and of control.

In order to solve this problem, it is extremely important from the viewpoint of quality control to install testing equipment and apparatus for the analysis of the composition of improved varieties, and to have an adequate recognition of extraction techniques. A pilot plant for oil extraction will therefore be established.

For this year, analysis equipment to a value of 52,290 dollars was purchased and sent. Four counterpart personnel from Thailand were accepted and provided training (September-December) in Japan.

In 1970 it is planned to provide the pilot plant and to dispatch an oil chemist.

C. Inspection of Commodity Standards

The export products of Thailand are subject to inspection standards established by the Quality Standards Inspection Division of the Trade Bureau of the Economic Ministry. However, due to insufficiencies in staff and equipment, the Division is practically non-functioning. In transactions with Japan, therefore, for the most part, inspections are carried out at the port of unloading. Unevenness in quality, mixing of different varieties, presence of soil, sand and other foreign matter result in lowering the quality. This results in claims and in the lowering of export prices.

In order to cope with this situation, the Thai Government, in an effort to improve inspection at the port of loading, has requested Japan's cooperation. In response, equipment equivalent in value to 4,084 dollars for the measuring of oil, moisture and protein content was provided. It is also planned to accept 2 to 3 inspection personnel from Thailand for training.

4. Cooperation in Timber Development, Cambodia

(1) Outline of Project

The western seacoast area of Cambodia, namely the area enclosed by the Cardamomes and Elephant mountain ranges, and the seacoast of the Gulf of Siam was, until recently, very inaccessible and was covered with undeveloped tropical rain forests.

Of late, however, development has progressed with the port of Kompong Som as the center, and in accordance with the increased demand in Japan for Cambodian timber, forestry development by large capital interests is being planned.

Small-scale logging operations by Japanese private capital have already been carried out in this area since 1962. A large-scale development is about to be started, and it is expected that from now on logging operations will proceed at a greatly accelerated pace.

The Cambodian Government has great interest in the preservation of forestry reserves, the utilization of areas denuded by logging and the reforestation of such areas, and has asked for technical cooperation in these fields.

This year a survey team was dispatched from mid-January to the end of February 1970 as the first operational planning survey.

(2) Operation of the Project

The areas covered by the survey in Cambodia, with the Chruoy Smach project area of SOKECIA as the center, were the Ché Kor project area of SOKECIA, the Kompong Som project area of SKEF and the pine forests of the Kirirom highlands.

The outline of the survey is as follows:

(i) Natural Regeneration

In the SOKECIA project areas export timber is being logged mostly by the selective logging method, but after-care and reforestation of the areas after logging is practically non-existent. The regeneration of forests is therefore completely left to nature. Since reserves of useful tree varieties are not great and there is not much growth of replacement trees, to say nothing of the lack of replanting operations, the actual state of natural regeneration is not bright.

In order to ensure regeneration, it is necessary to introduce the established method of tropical rain forests regeneration known as the Malayan uniform system (including enrichment planting), and it is essential to establish a method of operation conforming to the economic and natural conditions of the locality.

(ii) Artificial Regeneration

Artificial reforestation in Cambodia has almost no history and no actual performance. In the near future, however, it is expected that artificial reforestation might be introduced.

For this purpose it is necessary to select useful tree varieties and to conduct small-scale trial plantings.

(iii) Regeneration of Pine Forests of the Kirirom Highlands

From the natural conditions of the area, regeneration is relatively easy, and in spite of the rough treatment at present, a certain amount of natural regeneration is actually taking place. However, in order to further ensure regeneration and to shorten the necessary period as much as possible, it is desirable that a concentrated natural regeneration method be put into planned operation in place of the present rough regeneration methods.

It is also highly useful to study forestation techniques and to accumulate experience through partial use of artificial reforestation methods. Artificial reforestation should also be applied to fringe areas where natural regeneration cannot be relied upon

CHAPTER 9

JAPAN OVERSEAS COOPERATION VOLUNTEERS

Section 1. Outline of Activities

In 1969, in order to cope with the increased number of volunteers dispatched, resident representatives were newly assigned to India and Kenya, a coordinator was assigned to Malaysia, and the overseas control structure was strengthened.

Furthermore, physical examinations of volunteers in the field and a system of cooperative benefits, both of which had been contemplated for some time, were put into effect. The physical examinations will be conducted on a regular annual basis from now on, and the cooperative benefit system, to be paid for by contributions from the volunteers and from the secretariat on a matching basis, will be used to cope with illnesses and deaths incurred while not on duty.

On the domestic front, it has now become possible to employ foreign lecturers to strengthen the language ability of the volunteers on a regular full-time basis.

Section 2. Activities Carried Out in Fiscal 1969

(1) Cambodia

Since 1965, the total number of volunteers assigned to Cambodia has reached 18, the majority, in the early stages, being in the field of agriculture and forestry. However, in recent years, volunteers from Japan have come to be concentrated in the field of sports. As of the end of 1969, 7 volunteers (2 in Judo, 2 in table tennis and 1 in volley ball), were actively engaged as coaches in these respective sports.

(2) India

Since the commencement in April 1965 of the activities of the Japan Overseas Cooperation Volunteers, 9 volunteers were assigned to India in 1966, and the total has today reached 86.

The actual number of volunteers at present working in India is 60, in such fields as rice-growing, agricultural machinery, nursing, the teaching of Japanese, livestock raising, chick-sexing, rodent-control, designing, etc. The Government of India places special importance on agricultural policy in order to cope with food shortages. Consequently, JOCV volunteers are also mainly concentrated in the agricultural field, there being 28 volunteers in rice-growing alone.

Recently development programs on a project basis are prevalent in India. These are called Intensive Agricultural District Programs (IADP) or Package Programs. At present 15 areas are designated for such programs, and JOCV volunteers are assigned to these development programs in groups of several members each.

(Participation in the BAPU Project)

Currently, 14 JOCV volunteers are assigned to Arsikere in the state of Mysore in southern India. The BAPU Project is being undertaken at the request of several Gandhian foundations such as the Kasturba-Gandhi Memorial Foundation, the Kasturba Women's College Foundation, etc., with the Gandhi Memorial Foundation in the central role. These foundations are carrying out a wide range of activities such as aid to orphans and physically-handicapped children, education blind children and widows, etc. The operating expenses of these activities are provided for out of the proceeds from the agricultural and livestockraising efforts of these foundations. JOCV volunteers are participating in the operation of the farms and the livestock-raising activities belonging to these foundations, in the technical instruction in the various facilities and in the training of orphans in useful skills. The contribution of these volunteers is highly valued.

(3) Laos

The first team of 5 JOCV volunteers was dispatched in 1965, thus inaugurating the activities of the JOCV in Laos. By the end of 1969, the total number of volunteers had reached 161, thus making Laos the country with the largest number of volunteers assigned.

At present, starting with the National Rice-Growing Experimental Institute in the capital, Vientiane, 24 agricultural volunteers are at work in Luang Prabang, Savanakhet, Pakse and other local cities in the fields of agriculture, improvement of livestock and the dissemination of knowledge. In the field of education, volunteers in the teaching of Japanese, handicrafts and physical culture are at work in various schools.

In recent years the requests from the Laotian side have broadened in scope to include the fields of communications, such as telephones and radio transmission, and civil engineering, such as construction, surveying, etc. In 1969, 40 volunteers covering 21 different fields were assigned to Laos. (4) Malaysia

Since the first group of 5 volunteers was assigned to Malaysia in January 1966, a total of 119 volunteers has been assigned to that country, of which 63 have already returned.

The number of volunteers presently assigned to Malaysia is 56 (41 in west Malaysia and 15 in east Malaysia). A great variety of fields are covered, such as dissemination of agricultural knowledge, vegetable-growing, agricultural machinery, ricegrowing, Judo, bamboo handicrafts, servicing of vehicles, TV, radio, machine-tools, welding, woodworking, fisheries, refrigerating and air-conditioning, Japanese, physical culture and nursing. In the agricultural field in particular, the 15 volunteers assigned to east Malaysia (the state of Sabah) are actively engaged in the dissemination of agricultural knowledge.

(5) Philippines

Since the first team of 13 volunteers was assigned to the Philippines in February 1966, a total of 146 volunteers has been assigned to that country.

As of the end of the current year, the number of volunteers now on assignment is 71. The fields covered are rice, fruit and vegetable growing, horticulture, the cultivation of tea, Japanese mushrooms (shiitake) and silk-worms, livestock-raising, fishing gear and fisheries, artificial breeding of fish, agricultural machinery, agricultural civil engineering, civil engineering in general, waterworks, bamboo crafts, radio and TV repair, electrical repair, radio transmission, automobile servicing, physical culture (swimming, volley ball, baseball), etc.

The volunteers are geographically spread out over nearly the whole area of the Philippines with the main body in the islands of Luzon and Mindanao, and are providing cooperation in their respective fields.

(6) Kenya

From March 1966 to the end of March 1970, a total of 57 volunteers has been assigned to Kenya, the bulk to the National Youth Service, others to the Ministry of Works, the Division of Roads, the Police Division of the Ministry of the Interior, the Ministry of Natural Resources, the Forestry Agency, the Ministry of Tourism and Wild Life, the Division of Fisheries and the Training Farm for Agricultural Mechanization. These volunteers are cooperating with the local inhabitants in the construction of the Kenya-Ethiopia Highway and other projects.

A total of 31 volunteers have already completed their assignments and returned to this country, but of this number 7 have taken renewed assignments as experts and in other capacities at the request of the Kenyan authorities.

(7) Tanzania

Up to the present a total of 118 JOCY volunteers have been assigned to 25 posts all over the country, such as the eastern seacoast, Lake Victoria in the north, on the border with Kenya, on the shores of Lake Tanganyika in the west, Malawi to the south

and close to the border with Portuguese Mozambique.

The volunteers are mostly in agricultural fields and are assigned to the Ministry of Agriculture and Agricultural Organizations, the Ministry of Education and so on. Those assigned to the Ministry of Agriculture and Agricultural Organizations are in charge of the technical divisions in the various local agricultural experimental centers, and, in that capacity, are engaged in the management of the farms attached to the centers, the setting up of other model farms and the teaching of skills in vegetable and fruit growing in the areas covered by farmers' schools. Those assigned to the Ministry of Education are teaching mathematics, chemistry, biology and physics in various middle and high schools. In the field of the Fisheries Division, volunteers are providing guidance in modern fishing methods and the use of different types of fishing gear:

In the past one-year period a total of 53 volunteers in the following fields was assigned to Tanzania: vegetable-growing and horticulture (32); fishing gear and methods (3); marine biology (1); landscape gardening (3); fishing-boat engines (1); horticultural research (1); research in plant growth cycles (1); processing of agricultural products (2); chicken-farming (2); processing of livestock products (1); forestry conservation (2); and dieticians (4).

(8) Morocco

Starting with the 6 volunteers assigned in September 1967, the total has reached 39 by the end of 1968. This year, about 30 of the volunteers assigned in 1967 and 1968 were providing cooperation in (a) a survey for partition and to determine areas for reforestation of nationally-owned land in the field of forestry administration, and (b) in a survey of irrigation needs and servicing of agricultural machinery in agricultural development projects. There were 7 volunteers newly assigned this year, including a replacement for a previous volunteer in the study of mulberry cultivation for sericulture (1), additional volunteers for the agricultural fields already mentioned (4), a coach for the dissemination of Japanese Judo (1), and an instructor in basic surveying techniques for the urban area development of the city of Casablanca. (9) Zambia

In November 1969, the first team of 6 volunteers in Judo instruction was assigned to the Police Agency. They are giving guidance in Judo, self-defense, methods of arrest and general physical education to 350 police leaders at the Zambian Police Academy. Good results are expected.

(10) Syria

Since January 1970 one volunteer each in Judo and Karate has been assigned. These volunteers

are giving guidance in their respective arts at the Damascus City Police Academy in the capital. Much is expected from the viewpoint of encouragement of sports in Syria and also the promotion of mutual understanding between Syria and Japan.

(11) El Salvador

On September 12, 1968, a total of 8 volunteers was assigned, covering the following fields: track and field (sports), 2 men, 1 woman; swimming, 2 men; soft-ball, 1 woman; gymnastics, 1 man; weight-lifting, 1 man.

On March 31, 1969, a total of 3 was assigned: Judo, 1 man; basket-ball, 1 man; gymnastics, 1 woman. On January 9, 1970, 2 volunteers, 1 for soccer and 1 for table-tennis, both men, were assigned. At present, a total of 13 volunteers is providing guidance in the management of, and the teaching of skills in, the training school for physical education instructors.

The Overseas Technical Cooperation Agency is carrying out the various types of activity described in the preceding chapters as assigned to the Agency by the national government. In order to carry out these activities with even greater effectiveness, the related activities of general planning and coordination of overall operations, evaluation of effectiveness, survey of trends in technical cooperation demand by country, holding of seminars by field of activity, consolidation of statistics and data, public relations and other activities are all being energetically pursued. These activities for 1969 are outlined below.

CHAPTER 10

RESEARCH AND STUDIES RELATED TO ASSIGNED ACTIVITIES, PUBLIC RELATIONS, STATISTICS AND DATA, LANGUAGE TRAINING AND OTHER ACTIVITIES

Section 1. Planning and Research

1. Technical Cooperation Seminars

The Technical Cooperation Seminar for 1969 was held for two weeks, from May 19 through May 31, 1969, at the Tokyo Central Training Centre under the joint auspices of the Ministry of Foreign Affairs and the Overseas Technical Cooperation Agency.

The Seminar was attended by 13 participants from 12 countries, Burma, Cambodia, Ceylon, the Republic of China, India, Indonesia, Korea, Laos, Pakistan, the Philippines, Singapore and Thailand. A regional training adviser from the Colombo Plan Secretariat was also present.

At the Seminar, technical cooperation was discussed by method and by field, country reports were made by representatives of each country, and talks were held with various ministries and agencies connected with technical cooperation. The Seminar was thus conducted in a manner designed to study each problem in depth from various angles.

After the end of general discussion on methods and fields, individual discussions between country representatives and the Japanese side were held daily, and bilateral matters were taken up.

The results of this Seminar were compiled into a report in English—"Report on Technical Cooperation Seminar-1969". This report was sent to each participating government and the Colombo Plan Secretariat, and was also made available to the country representatives taking part in the Twentieth Consultative Committee of the Colombo Plan which was held in Quebec, Canada, in November 1969.

2. Field Survey of Third Country Training

In order to study actual conditions of training aid projects provided to third countries by AID of the United States in the Asian region, and to study regional training organization within the region, 2 OTCA headquarters staff members were dispatched to Taiwan, Singapore, Thailand and the Philippines for two weeks in August 1969.

The study was conducted by exchanging views

with the local organizations of the aid donor country, the receiving organizations of the trainee-accepting countries and the dispatching organizations of the trainee-sending countries, and by the collection of reference material and data from the same. Study was also made with reference to possible recipients of encouragement grants from Japan among the international organizations carrying out joint training and study projects within the region.

The results of this survey were compiled into the "Report of a Field Survey on Third Country Training Aid Projects."

Outline of Evaluation Survey ("Ten Years Progress in the Survey of the Mekong Development Project")

Ten years have already elapsed since Japan undertook the field survey of the main tributaries of the Mekong River and sent out the first survey team in 1959. At this juncture, a survey was made with the aim of reviewing the progress of the Mekong development surveys for the purpose of evaluation. In the process of this evaluation, lessons could be learned which might be useful in determining the future direction to be taken in Mekong development cooperation.

The enormous amount of related data to be used as the basic source-material in pursuing the actual progress of Mekong development had not yet been adequately processed and analyzed. Therefore, as the first step in the current survey, emphasis was laid on organizing and analyzing existing data. The report was compiled after study of the following broad areas.

- (1) Events leading up to initiation of the Mekong Development Project and a summary of the project.
- (2) Summary of the survey plans to expedite the development project.
- (3) Japan's role and the outline of surveys carried out by Japan.
- (4) Preparation of detailed breakdown of all surveys already carried out, by country, by organization and by project, on a unified card filing system.

(5) Outline of development projects already in operation (by type of project and effectiveness, etc.).

This exercise by analysis of data alone is not sufficient as source material to evaluate our country's Mekong surveys, but the information thus accumulated contains much useful elements for evaluation. This survey should provide important basic material for any future activities of this type.

4. Counterpart Survey

In order to carry out technical cooperation activities effectively, the role played by counterparts is important and indispensable. A survey was made by preparing and sending out a questionnaire concerning the actual counterpart situation to experts, including project cooperation personnel and overseas technical cooperation center personnel (all experts already dispatched).

Surveys in Different Professional Fields (Transport Problem Study Committee)

It is hardly necessary to point out the importance of the role played by the transportation field as the nerve system in promoting the economic and social development of the developing countries and the regional cooperation of Asia. In the economic development programs of the various countries, the development of an infrastructure in the transportation field is viewed with great importance, together with that in the fields of agriculture and industry. However, in the existing stage of the Asian region, there is a lack of overall cohesiveness, being divided into continental states and island-chain states. Furthermore, transport connections between the countries of the region can hardly be said to be operating effectively, due in part to former colonial policies. Therefore requests to Japan for technical assistance in the transportation field are constantly increasing in recent years. Great emphasis has also come to be placed on this problem by international organizations such as the Asian Development Bank and the authorities of the countries concerned.

Against such a background, a "Transport Problem Study Committee' was set up in the Overseas Technical Cooperation Agency in November 1969 in order to grasp actual conditions in the "transport development" of Asia, and to promote research and study on future development trends and on ways and means of Japan's technical cooperation in this field.

The research and study in this Committee are being conducted in: (a) survey of actual development conditions in countries and areas under study; (b) study of economic and technical aid actually extended and future possibilities. This is being continued into 1970, and an interim report is to be compiled in the latter half of 1970.

Section 2. Public Relations, Statistics and Data

The following activities were carried out in 1969: Publication of Annual Report on Technical Cooperation

Various Publications

Overseas Technical Cooperation (Monthly Magazine)

Outline of the Overseas Technical Cooperation
Agency

Assorted Pamphlets

Lecture Meetings and Film Showings
Collection of Various Reference Materials
Promotion Campaign for Overseas Technical Cooperation

Section 3. Language Training Activities

For the experts and the personnel of technical training centers assigned to the developing countries, their ability in foreign languages is a most important factor if they are to be able to work to the best of their abilities and to realize their objectives. To elevate such linguistic skills is therefore an indispensable condition for raising the effectiveness of technical cooperation activities. The Overseas Technical Cooperation Agency has therefore installed language training equipment in the Tokyo International Centre and the Osaka International Training Centre and is carrying out language training employing both foreign and Japanese language instructors. The trainees are not only technical experts and center personnel to be assigned overseas but also include members of accompanying families and personnel engaged in technical cooperation activities in the Ministries and Agencies concerned. Starting with English, French and Spanish, languages taught include Indonesian, Thai, Persian, Portuguese, Swahili and Khmer.

The actual number of trainees this year was 119 experts and overseas personnel and about 30 from Ministries and Agencies concerned.

Section 4. Operation of Overseas Offices

During 1969, overseas offices were newly opened in Singapore, Indonesia and East Pakistan. These three, added to the existing four offices (Thailand, India, the Philippines and Cambodia) bring the total to seven.

In order to maintain close liaison with these overseas offices and to strengthen guidance of overseas office operations, the Second Meeting of Overseas Resident Representatives was held in New Delhi on February 19 and 20, 1970.

PART III STATISTICS AND DATA

STATISTICS

Records of Trainees Accepted and of Japanese Experts Assigned Overseas

- (1) This section contains the records from April 1, 1954, to March 31, 1970.
- (2) The yearly figures used in the records refer to fiscal years (April 1 to March 31 of the following year).
- (3) The number of persons in the records represent only the number of trainees arriving in Japan and of Japanese experts leaving Japan in a fiscal year under the budget for that fiscal year. Accordingly, the number of trainees staying in Japan and of Japanese experts serving abroad beyond the fiscal year into the following year or the year after are calculated once only for the year of their arrival in Japan or departure overseas and not for the subsequent year or years.
- (4) The classification of industries is based mainly on the administrative system in Japan and is tabulated on the basis of the functions of the administrative agencies concerned. For instance, the manufacture of agricultural machines is included in the category of light industry and their utilization and operation in agriculture.
- (5) If a subject covers two or more items, it is included in the industry covered by the principal subject of training or guidance.
- (6) "Other European and American Countries" refers to the nationals of developed countries in Europe and America who visited Japan for study and inspection or who rendered cooperation to countries other than developing ones on subjects such as, for instance, seismology.

1. Number of Trainees Accepted by Country and by Field

(1) Colombo Plan Area (April 1, 1954-March 31, 1970)

Education	Administration	Others
1	(1)	(1)
	(2)	(4)
	c	4

(Unit: Person)

Country Afghanistan	T 10tal	Agriculture	Fisheries	Construction	Heavy Industry	(i) Mining	E Light Industry	Chemical Industry	Public Works	Transportation	Postal Services & Telecommunications	Health & Welfare	Atomic Energy	Business Management	Education	Administration	Others
ĺ	72	19	2	6	1	3	6		. 2	. 4	6	14		2	1	3 (2)	3 (4)
Bhutan	(8) 14	(2) 4									1					. 5	4
Brunei													•				
Burma	1 (46)	1 (3)	(1)		(2)		(2)			(32)		* - "			11.	(5)	(1)
	246	67	11	6.	13	5	24	3		43	11	15	7	4	5	25	7
Cambodia	(20)	(2)		(2)					7	7	(13) 45	(1) 5	1	3:	29	9	(2) 24
Ceylon	272 (61)	111 (17)	4 (4)	17	4 (5)	(1)	6 (1)	(1)	,	(5)	(3)	(2)	1	(2)	47	(13)	(7)
ceyion	439	126	41	18	7	- 3	42	5	4	23	18	12	3	15	2	87	33
India	(58)	(16)	(2)	(5)	(4)		(3)	-		(8)	(2)	(6)		(1)	(1)	(7)	(3)
	912	302	71	56	55	6	129	13	13	53	35	24	4	21	30	78	22
Indonesia	(141)	(31)	(6)	(1)	(4)	(3)	(.7) :139	1.4	(2) - 23	(16) 166	(4) 81	(32) 109	(4) 17	(.4) 88	28	(22) 159	(5) 97
Iran	1, 430 (43)	218 (7)	113 (2)	57 (2)	91 (2)	28	(3)	16	(2)	(5)	(7)	(1)		(1)	20	(8)	(2)
	277	91	- 11	40	6	5	18	2	6	15	30	10	4	4	. 2	26	7
Korea	(132)	(32)	(1)	(1)	(3)	(3)	(7)			(2)	(10)	(30)	(3)	(2)	(1)	(32)	(5)
	1,017	220	100	29	45	18	67	12	3.	60	50	. 77	32	26	26	203	49 (2)
Laos	(30)	(7)	(2)	(2)	6	(1)	(4) 6		(1)	(1)	(3) 10	3	2.5		- 5	(7) 24	4
Malaysia	119 (50)	21 (10)	4 (4)	(1)	O		(2)		(2)	(5)	(8)	(6)		(1)		(10)	(1)
,ina (pinii	486	128	22	25	5	4	16	1	12	48	57	21	2	15	- 23	78	29
Maldives																	· · ·
Mana	2		2			٠										1.43	635
Nepal	(16)	(2)	(1)	.(1). 8		,	(3) 11		4	3	2	(1)		(1) 9	18	(6) 26	(1)
Pakistan	118 (43)	28 (7)	(1)	(2)	(1)	1	(8)		4	(3)	(7)	(1)	(2)	(3)	10	(5)	(3)
	500	63	21	22	8	4	69	-88	6	27	69	19	18	14	7	47	18
Philippines	(115)	(15)	(9)	(8.)	(2)	(3)	(11)	(1)		(3)	(4)	(11)		(2)	(20)	(22)	(4)
•	907	244	67	83	26	10	72	7	15	49	52	57	13	13	39	124	36
Singapore	(21)	_	(2)	(1)	(1)		(1)			(1)	(2)	(4) 6		- 1	3	(6) 41	(3) 28
Thailand	174 (246)	5 (36)	14 (42)	16 - (20)	6 (3)	(3)	15 (21)	. 1	(5)	11 (15)	27 (16)	(34)	(4)	(3)	(3)	(27)	(14)
Inaliana	1,681	358	127	96	12	10	90	4	41	95	157	201	25	18	166	199	82
Vietnam	(49)	(9)		(1)		(1)	(1)				(3)	(19)				(12)	(3)
	327	79	23	5	- 2	2	12	1		7	14	74	4	1	22	59	22 .
Total .	(1, 105)	(202)	(78)	(49)	(28)	(17)	(75)	(2)	(12)	(96)	(86)	(156)	(13)		(25) 406	(185). 1, 193	(61) 467
	8, 994	2, 085	636	506	287	102	722	153	139	619	665	650	130	234	400	., 193	401

(2) Other Asian Areas (April 1, 1954-March 31, 1970)

(b) Venti issu		,	-,			-, -	,			4.11				1. 1		(Unit:	Person)
China (Taiwan)	155 1, 637	(36) 580	(7) 95	(7) 75	(3)	(5) 57	(11) 95	(1) 15	(8) 42	(7) 84	(13) 76	(15) 84	(4) 52	(3) 37	(2) 127	(22) 109	(11) 69
Hong Kong	(1)													100		(1)	r itaa
	8	4										1		1		1	1
Mongolia										*-							
	3									3							
Okinawa							2				7	1.			4.		
[21	į,	6			200			3	1	3	1	4.				
Total	(156)	(36)	(7)	(7)	(3)	(5)	(11)	(1)	(8)	(7)	(13)	(15)	(4)	(3)	(2)	(23)	(11)
	1,669	585	101	75	40	57	97	15	45	-88	83	86	52	38	127	110	70

^{*} Figures in brackets are numbers of trainees accepted in fiscal 1969.

(1												-·	· · · · · · · · · · · · · · · · · · ·	(U	Jnit: I	Person)
Field	.	Agriculture	Fisheries	Construction	Heavy Industry	80	Light Industry	Chemical Industry	Public Works	Transportation	Postal Services & Telecommunications	th & Welfare	Atomic Energy	Business Management	Education	Administration	S.
Country	Total	Agr	Fish	Cons	Hea	Mining	Ligh	Che	Pub	Traz	Post Te	Health	Aton	Busi	Educ	Adm	Others
Algeria	(1)														~	(1)	
Cameroon	1	1								٠						1	
Congo	(4)					(4) 4	٠.					•					
Ethiopia	(14) 65	(4) 5		1	1	2	(1) 9		2		(2) 27	2		(2)		(5) 11	3
Ghana	(11)	(3) 11	1	6	12		13				(1) 21	(2) 3		(1) 2	3	(1) 11	(3) 5
Iraq	(13) 59	(1) 3	(1)	7	.1		- 3		2	(4) 9	(2) 12	(1)	2	(1) 2	:	(3) 12	2
Israel	10	6	1	1			r		_	1		-	_	2		1	5
Jordan	6		2		:					2	1				-	1	
Kenya	(11) 44	5	(1) 8	1			7			(1) 4	(3)	(1) 2		(1) 4		(1)	(3) 3
Kuwait	(3) 10	1	•	: 1						•	(3)						
Lebanon	(3) 12	4	(1)	(1)		٠	(1)									1 ·	
Libya	4						1	-			2	•		٠			1
Madagascar	6	2			•				4	:					-		
Mali	2	. •		. 2	-												
Malta	(1) 1													(1) 1			
Morocco	(1)	(1)		1			1				1						
Nigeria Qatar	(17) 115 (1)	(1) 23	(2) 16	8	(1)	(1)	(1) 13	2	(1)	(2) 11	(3) 12	(3) 4		(1)	2	(2) 15	3
Saudi Arabia	(3)	•				(2)				2	(1) 16					1	
Senegal	24 (4) 4	1	1	1.		2					10		•			•	(4) 4
Sierra Leone					<i>:</i> .										2	2	•
Somalia	(2) 6		÷								(1) 2				_	(1) 4	
Yemen (South)	(i) 1		'							(1)						•	
Sudan	(9) 59	3	(1) 6	2			. 2		2	(2) 10	(3) 22	(1)			4	(2) 6	1
Syria	(6) 28	(2) 4	1	3		:	(1) 2			(1)	(1) 6	ŕ			-	2	(1)
Tanzania	(8) 18	(2)	(1) 4	. 1	· ·		(1)				3	(1) I			(1) 1	(2) 2	
Tunisia	(1)													(1) 1			
Turkey	(17) 153	(2) 17	(1) 6	28	6 :	(1) 3	(3) 10	4	(5) 14	(1)	(1) 21	(1) 6		(1)	13	(1) 12	3
Uganda	(4) 12	4				(1) 1		٠.			(2)	. 1				(1)	
United Arab Republic	(37)	(3) 31	3	(3) 15	9:		(7) 15	1	. 2	(12) 51	(2) 36	(1)	2	(3) 7	1	(5) 29	(1) 4
Zambia	4															4	222
Total		(19) 128		(4) 80	(1) 31	·(9) 13	(15) 80	. 7	(6) 27	(24) .106	(25) 202	(11) 23	4	(12) 25	(1) 26	(25) 119	(12) 31
																	

\ Field											29			٠			
				•				Ž,			& cation	re	٠,	ешеп			1.
	•			ď	ustry		ıstry	ngns	rks	tion	vices	<i>N</i> elfa	ıergy	fanag		ttion	
		ilture	ies	ructic	Jug ,	bo	Indu	ical I	Wo	porta	Ser	ॐ प	i E	ess iv	ation	nistra	έ λ
Country	Total	Agrículture	Fisheries	Construction	Heavy Industry	Mining	Light Industry	Chemical Industry	Public Works	Transportation	Postal Services & Telecommunications	Health & Welfare	Atomic Energy	Business Management	Education	Administration	Others
Argentina	(11)	(1)			3		(1)	1	11	(5) 29	(1) 13	(1)	(1)	1		(1) 7	
Bolivia	77 (7)	., 1		(2) 8	3	(1) 3	. 4	1	3	(1) 10	(2) 14	(1)	•		3		
Brazil	(49)	(14) 46	(1) 7	· (1) · 8	(3) 19	(1)	(2) 14	i	(7) 34	(2)	(4) 16	(4) 5	1	(2) 8	(2)	(3) 11	(3) 5
Chile	203 (12)	3	(3) 10	(1) 13	*/	۷	(1)	2	1	(2) 12	(2) 8	(2)		. 1	6	(1)	
Colombia	61 (11)	(1)		(1)			1	۷	(1)	(1)	(6) 16			(1)	. •	3	2
Costa Rica	56 (2)	4	4	(1)					ь		(1)			2			
Cuba	14	3	2	2	•					. 2	- 3				100		
Dominica	2 (2)		2	(1)					•	(1)						·	
Ecuador	(6)	1		(1)			1		(3) -7	1	(1)		:			. (·1)· . 4	
El Salvador	34 (1)	5	. 8	8	. 3		5		.,	1	4		: 3	•	4	(1) 2	
Guatemala	20 (3)	(1) 5		2	ა		3		(1)		(1) 2				- 1	· · · · · ·	·
Haiti	11			Ł					. 2		2					* .	
Honduras	3 (1)	3						•			(1)					est.	
Mexico	(22)	2 (4)	(2)			٠	(1) 4		•	(1) 10	(10) 37	1	1		4	(2)	(2) 5
Nicaragua	102	17	9	9	2		4			10	37	.1	: -		-	(1)	3
Panama	3 (2)	i	(1)	,							(1)						
Paraguay	13 (2) 30	. 7 . 6	2	1					4	. 3	4	3		(1) 3		(1) 7	
Peru	(21)	O	(3)			(3)		2	(3) 13	. 8	(4)	(1). 4		(3)		(1) 16	
Trinidad- Tobago	85 (1) 2		5	14	1	4	1	ż	1.0	(1)	,	-1		. 1		10	
Uruguay					٠.,			٠		3	. 1						engara Egara
Venezuela	4 (5) 20			(1)					(1) 2	(2) 9						1	
Total	(159)	(21)	(10)	(12)	(.3)	(5)	(5)		(16)	(16) [:]	A	(9)	(1)	(7)	(2)	(12)	(5)
Others	798 (5)	110	49	86	28	9			86	118	144	19		21			12
Officia	77	12		16	2		5	1	· ·	1	·	2	16	4	2	4	7
Grand Total	(1, 597) 12, 495				(35) 388		(107) 932	(3) 182	(42) 297	(143) 932	(159) 1, 094	(191) 780	(19) 205	(42) 322	(30) 582	(245) 1, 484	(89) 587

2. Number of Experts Dispatched by Country and by Field

(1) Colombo Plan Area (April 1, 1954-March 31, 1970)

																· (Uπ	it:	Person)
	Field Country	Total	Agriculture	Fisheries	Construction	Heavy Industry	Mining	Light Industry	Chemical Industry	Public Works	Transportation	Postal Services & Telecommunications	Health & Welfare	Atomic Energy	Business Management	Education	Administration	Others
	Afghanistan	(8) 23	- (1) - 4		(1) 1	÷	(3)	7		(3) 5			2		. 1			
	Bhutan	1	1															
	Burma	43	11	1	4.		5	4				2	11			5		
	Cambodia	(22) 125	(10) -56		(2) 10		(2) 2	3	1	· (1) 2	1	(5) 36	4			(2) 8	1	i
	Ceylon	(5) 104	(2) 27	(2) 20	-10	2	. 7	25		1	2	5	3			(1) 1:		1
	India	77	38	17	1	. 1	: i	5.	2		4	i	3		1	2		1
	Indonesia	(17) 105	8	(5) 8	(6) 13	•	17	(2) 10	_	(3) 13	,	4	16		1	10	(1) 5	
	Iran	(12) 68	8	2	(4) 19	2	(2) 3	(4) 21			ĺ	(2) 5				3	3	1
	Korea	(10) 37	(1) 11	(<u>1</u>)	(1) 4	(4) 7	(1) 4				(2). 10							
	Laos	(2)	(1)		7	•				1		·(1) 2	7	•		. 1		
	Malaysia	26 (1) 60	(1) 25	4	4	l	. 7	4		•	5	3	•		٠.	4	1	2
	Nepal	(1) 30	3	2	5	•		3		5	J		11				•	(1) 1
	Pakistan	(14) 145	(1) 60	(<u>1</u>) 9	11		(1) 9	. (1) 14	1		4	(9) 24			3	(1) 3	6	1
	Philippines	(13) 48	5	(3) 7	(9) 13		3	3	· -		4		6			(1) 7		
	Singapore	(13)		(9) 18	7		J				(2) 3	12	5			(2) 7	1	2
:	Thailand	55 (42) 252	(4) 35	(13) 41	(4) 16	(6) 16	(1) 10	(2) 12	3	(4) 20	(1) 10		30			6	(2) 11	(5)
	Vietnam	(6) 40	14	2				(1) . 5	1			33 (5) 5	1			12		
:	Maldives	1	1			٠					٠							
	Total	(166) 1,240	(21) 322	(34) 132	(27) 118	(10) 29	(10) 71	(10) 116	8	(11) 47	(5) 44	(22) 132	99		6	(7) 69	(3) 28	(6) 19
	(2) Other As			il 1,	1954	-Marcl									(1)	(U	nit:	Person)
	China (Taiwan)	(21) 109	(6) 23	(2) 10	5		(2) 38	. (2) . 5			(1) 6	(7) 11			(1) 6	1	4	
٠	(3) Near & N	Middle E	ast an	ul Afi	rican	Area	(Apr	il 1, :	1954	-Marci	ı 31,	1970)				- (U	nit:	Person)
	Algeria	(2)	(2)															
	Congo	5 (2)	2		1			2			(2) 3		•					
	Ethiopia	(3)	(3)				4			_	3		1		1			
	Ghana	9 (1) 11	3			(1) 1	.4	4		1	2		. 1		•			
d	Iraq			1		. •		. •		•		1	7:					
	Kenya	(6) 21	2	(2) 5	2	(1) 1		2	٠.		(2) 4		4		1	(1) 2		
	Jordan	4	*11		4													
	Kuwait	2	1.7		2													
•	Lebanon		A	5				2					. }					
٠.	Madagascar	11 (3) 10	(3) 10	3				Ĩ.		· . i.					. *			
	Morocco	10									·							
	<u> </u>																	

^{*} Figures in brackets are numbers of experts dispatched in fiscal 1969.

	- _T						··				<u>v</u>			+2			
Field	Total	Agriculture	Fisheries	Construction	Heavy Industry	Mining	Light Industry	Chemical Industry	Public Works	Transportation	Postal Services & Telecommunications	Health & Welfare	Atomic Energy	Business Management	Education	Administration	Others
Niger	}											·——					
Nigeria	(5)	(1)									2 (4)		•				
Qatar	16 (3)	3		4			1		1		- 5	2				· (3)	
Saudi Arabia																3	
Senegal	6			4							2						e de la companya de l
Sudan	i														1		
Syria	5 (2)	2 (1)	1	(1)			٠.			2							** 6
Tanzania	12 (11)	(3)	1	(1)					(6)	2				(1)	ļ		ar a stati
Tunisia	27	5		10			3		7					1 -	.*.	1	
Turkey	1 (1)					(1)				1			•				
Uganda	24 (11)	1	11	6 (2)	(4)	3	(3)		. 2		(2) 5					1	
United Arab	· 25 (1)	2		2	4		7				. 5	<u>.</u>	*.	2			(1)
Republic Total	28 (51)	7 (13)	1 (2)	(4)	(6)	1 (1)	(3)		(6)	12 (4) 26	(6)	5		(1)	(1)	(3)	
(4) Central	232	52	25 variou	36	6	8	21	_1(0)	11	_	15 W	13		6	4	5 (Unit:	Person)
(4) Central a	1110 300		16.6 16.11		a (21)	71 1,	1001			, 1011						CHIL	1 erson)
Bolivia	10	Į		1	٠	3			÷	5,			•.	· .	* . *		
Brazil	4 (8)	(2)	1			ì				(5)	1				(1)		
Dominica	42	17	4				3		Ţ	11	2	- 1	1.00		3		
Chile	· 1 (2)	1	(1)	(1)						: .							
Colombia	11 (3)		1	5					(3)	. 5							
Costa Rica	13			3					7.	i	2		٠.		: . · ·		
Ecuador	11	1		5		5								e ^a	:		
El Salvador	16 (1)	2		1		12			1	· (1)	. + + 1 +	+ +1, ,		1	1	·	
Mexico	14 (1)				5			٠.	3	ì	5					2 (1)	
Paraguay	21 (4)	(2)	4	4							(2)					6	
Panama	17	15									2						1 1/2/201
Peru	1 (9)	i	(4)	(1)					(4)				: -				
Trinidad-	17 (1)	(1)	5	4					5	•	2 .			1			
Tobago	3	2							٠			• •				1	n tylety Sierekouw
Venezuela Uruguay	3			1							2						
Total	2 (29)	(5)	(5)	(2)			2		(7)	(6)	(2)				(1)	(1)	
Other European and American	186	41	15	20	5	21	5		15	23	27	. 1		1	3	9	
Countries, etc. Grand Total	5 (267) 1,772	(45) 438	(43) 182	3 (33) 182	(16) 40	(13) 138	(15) 147	. 8	(24) 73	(16) 99	(37) 185	113		(2) 20	(9) 78	(7) 46	(7) 23

* .

3. Number of Personnel Assigned to Overseas Technical Cooperation Centres

(1) By Year and by Field (including the Cambodia Center)

		·																(Unit	: P	erson)
Field Year	Total	Agriculture	Fisheries	Construction	Heavy Industry	Mining	Light Industry	Chemical Industry	Public Works	Transportation	Postal Services & Telecommunications	Health & Welfare	Atomic Energy	Business Management	Education	Administration	Banking	Statistics	Public Relations	Others
1963	17	6	• .		·		4				6	1							_	
1964	82	34	2	10		:	19				4	11				٠				2
1965	6		1				3		1.			2								
1966	3		-			÷	2				1									
1967	40			÷ :	11		18				11									
1968	31	14			1		14				2									
1969	7	1	4	· · . : .			2					•	•				•			2
Total from 1960	253	78	22	10	12		. 80	· ·		·	32	17								4.

(2) By Country and by Field (including the Cambodia Center)

					(April 1960—M	arch 1970)
Ceylon	10	10				
Cambodia	24 15		•	7	•	2
India	58 50	8				
Pakistan	28 13	4	11			
Philippines	11	11				
Singapore	12	12				÷
Thailand	31	10	11	10		
Afghanistan	11	11		. :		
Ghana	15	15		• .		
Iran	9	9.	•			
Kenya	21	21				
Uganda	2	2				
Brazil	7	7			en e	
Mexico	10		10			
Korea	4	4				
Total	253 78	22 10 12 80	32	17	<u> </u>	2

4. Development Survey Teams Dispatched by Country and by Field

(July 1, 1962-March 31, 1970)

Cambodia Cambodia Combodia Combod	Maineral Resources Development Natural Gas Development Maize Development Prigation and Forestry Development Phnom-Penh Port Construction Project Smit Port Construction Project Coastal Fisheries Development (First—Rainy Season) (Second—Dry Season) Chruoy-Smach Port Construction Project (Operational Planning Survey) Expansion of Telecommunications and Broadcasting Network Sambor Project Development around Great Lake Cluminum Smelting Industry	5 13 7 12 7 8 6 6 6	1962 1962 1963 1963 1964 1966 1967 1968
Cambodia II F S C C (Mekong) S A C Ceylon India Indonesia Indonesia	Maize Development rrigation and Forestry Development Phnom-Penh Port Construction Project Smit Port Construction Project Coastal Fisheries Development (First—Rainy Season) (Second—Dry Season) Chruoy-Smach Port Construction Project (Operational Planning Survey) Expansion of Telecommunications and Broadcasting Network Sambor Project Development around Great Lake	7 12 7 8 6 6	1963 1963 1964 1966 1967 1968
(Mekong) Compared to the state of the state	rrigation and Forestry Development Phnom-Penh Port Construction Project Smit Port Construction Project Coastal Fisheries Development (First—Rainy Season) (Second—Dry Season) Chruoy-Smach Port Construction Project (Operational Planning Survey) Expansion of Telecommunications and Broadcasting Network Sambor Project Development around Great Lake	12 7 8 6 6 7	1963 1964 1966 1967 1968
(Mekong) Compared to the state of the state	rrigation and Forestry Development Phnom-Penh Port Construction Project Smit Port Construction Project Coastal Fisheries Development (First—Rainy Season) (Second—Dry Season) Chruoy-Smach Port Construction Project (Operational Planning Survey) Expansion of Telecommunications and Broadcasting Network Sambor Project Development around Great Lake	7 8 6 6	1964 1966 1967 1968
(Mekong) Ceylon Characteristics of the second of the sec	Phnom-Penh Port Construction Project Smit Port Construction Project Coastal Fisheries Development (First-Rainy Season) (Second—Dry Season) Chruoy-Smach Port Construction Project (Operational Planning Survey) Expansion of Telecommunications and Broadcasting Network Cambor Project Development around Great Lake	8 6 6 7	1966 1967 1968
(Mekong) S D A Ceylon G India C India In	Coastal Fisheries Development (First—Rainy Season) (Second—Dry Season) Chruoy-Smach Port Construction Project (Operational Planning Survey) Expansion of Telecommunications and Broadcasting Network Sambor Project Development around Great Lake	6 6 7	1967 1968
(Mekong) Solution Ceylon Characteristics Characteristics Characteristics Characteristics Compared to the compared to th	Coastal Fisheries Development (First—Rainy Season) (Second—Dry Season) Chruoy-Smach Port Construction Project (Operational Planning Survey) Expansion of Telecommunications and Broadcasting Network Sambor Project Development around Great Lake	6 7 6	1968
(Mekong) S D A Ceylon G India C India In	(Second—Dry Season) Chruoy-Smach Port Construction Project (Operational Planning Survey) Expansion of Telecommunications and Broadcasting Network Cambor Project Development around Great Lake	6 7 6	1968
(Mekong) S D A Ceylon G India C India In	(Second—Dry Season) Chruoy-Smach Port Construction Project (Operational Planning Survey) Expansion of Telecommunications and Broadcasting Network Cambor Project Development around Great Lake	7	
(Mekong) S D A Ceylon G India C India In	Chruoy-Smach Port Construction Project (Operational Planning Survey) Expansion of Telecommunications and Broadcasting Network Eambor Project Development around Great Lake	6	1968
(Mekong) S D A Ceylon G India C India In	(Operational Planning Survey) Expansion of Telecommunications and Broadcasting Network Sambor Project Development around Great Lake	6	1968
(Mekong) S. D. A. Ceylon C. India C. Indonesia In	Expansion of Telecommunications and Broadcasting Network Cambor Project Development around Great Lake	i	
(Mekong) S. D. A. Ceylon C. India C. Indonesia In	Network ambor Project Development around Great Lake	i	
Ceylon C L L Country India Indonesia In	Development around Great Lake	141	1969
Ceylon C L L Country India Indonesia In	Development around Great Lake	4.44	1962—69
Ceylon G India Co Indonesia In	and the second of the second o	62	1967—69
Ceylon C India C India Infindonesia Infindonesia		. 8	1969
Ceylon G India C Indonesia In	pper Slepok	21	196265
india Control India Indonesia In	Coal Fishing Port and Shore Facilities Construction		
India C'o In Indonesia Ir	Project Project	6	1963
ndia Co In ndonesia In	and Improvement of Colombo City	7	1969
Indonesia Ir	omprehensive Development of Orissa State	19	1962
ndonesia Ir	ron Ore Loading Facilities	9	1967
, 1	mprovement of Waterworks Djakarta City	6	1962
	Development of Larona River Hydroelectric Re-	•	1902
į	sources (Preliminary)	3	1963
b	continual Bridge Construction Project	5	1964
1	the contract of the contract o	5	1966
į.	faize Development	Ů.	1900
11	mprovement of Bitung Harbor and Repair of		1007
	Sulawesi Road	9 3	1967
	aper and Pulp Industry Development	3	1968
15	asic Plan for Expansion and Development of	10	4000 00
j	Electrical Companies (Basic Survey)	10	1968, 69
· ·	Development of Barito River Basin	6	1969
	dumatra Highway Construction	7	1966
(am Ngum Project (Operational Planning)	6	1965, 66
į M	lineral Resources Development		
	(First)	6	1966
	(Second)	6	1967
V	ientiane Airport Construction		
į	(Basic Survey)	5	1966
·[.	(Operational Planning)	13	1968, 69
1	long KhaiVientiane Rallway Construction Project	5	1968
· !	conomic Research	11	1962
	licrowave Network Construction	5	1965
i i	taub Hydroelectric Power Development	7	1965
· K		8	1966
1	Cuching Port Construction (Basic Survey)		

Country	Name of Survey Team	Number of Members	Year
Malaysia	Waterworks Construction	7	1967
	Tropospheric Scatter Communication Link between		
	Johore Bahru and Kuching	9	1967
	Fishing Port Construction on East Coast of Western		1969
	Malaysia	8	1968
	Kuantan Fishing Port Construction	13	1964
epal	Kuricani River Development	6	1962
ic par	Iron Industry	6	1965
akistan	Dacca—Burigan River Bridge Construction	10	1963
arcisteri	Chittagong—Karnaphuli River Bridge Construction	10	1964
	Microwave Network Construction	6	1964
	Development of Medium and Small-scale Industries	6	2001
	Undersea Cable Link between East and West Pakistan	8	1964
	Dacca City Planning	11	1965
	Goral River Bridge Construction	22	1965. 66
	Karnaphuli Hydroelectric Power Project		1000. 00
		4	1967
	(First) (Second)	3	1968
	Television Network Construction	8	1967
	li de la companya de	8	1969.
	Islamabad Waterworks Construction	0	1909.
Asian	Total Law William Construction	12	1968
Highway)	Jessore—Faridpur Highway Construction	. 1	1969
	Dacca—Faridpur Highway Construction	6 5	1969
Philippines	Manila Fishing Port Construction	4	1963
	Southeast Asia Cable Project		- 1
	Industrial Site Development	5	1963
	Industrialization Project	6	1964
	Bacolod and Davao Waterworks Construction	5	1965
The Armer	Agricultural Development		
	(First)	4	1966
	(Second)	10	1967
	Offshore Mineral Resources Development	11	1969
hailand	Agricultural Development	ā	1962
	Mineral Resources Development	9	1962
	Fisheries Resources Development	7	1962
	Nam Sai Yai Hydroelectric Power Project		
	(First)	6	1964
	(Second)	8	1967
	Songkhla Port Construction Project		
	(First)	6	1965
	(Second)	6	1967
	Upper Nam Pong River Basin Hydroelectric Power		
	Project	1	•
maria 1988 - Barrio Barrio de Primero	(First)	2	1966
	(Second)	6	1966
	Television Network Construction	7	1966
		· · · · · · · · · · · · · · · · · · ·	<u></u>
No. of the contract of			

Country	Name of Survey Team	Number of Members	Year
Thailand	Chao Phya River Bridge Construction		
	(First Bridge)	7	1967, 68
	(Operational Planning)	11	1968
	(Second Bridge)	9	1968
	Development of Industrial Sites	9	1969
Korea	Iron and Steel Industry	9	1965
•	Railway Workshop Construction	7	1966
	Agricultural Water Resources Development		
	(Preliminary Survey)	6	1968
	(First)	9	1969
	(Second)	8	1969
	Development of Dairy Farming (Preliminary)	18	1969
China	Takao Harbor Expansion Project	5	1962
	City Planning for Tainan	5	1965
	Li-Wi-Chi Hydroelectric Power Project		
	(First)	6	1967
ĺ	(Second)	5	1969
	New Port Project		
:	(Basic Survey)	9	1968
	(Main Survey)	9	1969
	Offshore Mineral Resources Development	9	1968
Asian			
Highway	Nong Khai—Vientiane Bridge Construction		
	(Thailand, Laos and Vietnam)	29	1967, 68
·			
Burma, India			
Pakistan,	Survey of Southeast Asian Delta Areas	3	1962
Thailand &			
China)			
Thailand &	Development of Wood-Usig Industries	5	1963
Pakistan /			
Malaysia,	Survey for Implementation of Southeast Asian	7	1966
Philippines &	Regional Development Projects	•	1300
Thailand J	Regional Development Projects		
Indonesia			
Indonesia,.			
Laos,			
Malaysia,	Improvement of Southeast Asian Intra-Regional	6	1967
Philippines,	Telecommunications Network		
Thailand, Vietnam			
& China			
be China			
Cambodia	Economic Cooperation with Overseas Medium and	12	1967
& ECAFE	Small-Scale Industries (Southeast Asian Team)		
	CONTRACT STANDONICS (SOUGHOUSE AND	t in the second of the second	

Country	Name of Survey Team	Number of Members	Year
ndonesia,			
falaysia,			
hilippines,	Development and Expansion of Iron and Steel In-		
ingapore,	dustries of Six Southeast Asian Countries	16	1968
hailanu			
China			•
	Distribution of Down and Duly Industry	5	1000
lgeria	Establishment of Paper and Pulp Industry Improvement of Railways and Inland Water Trans-	υ	1966
ongo	port	10	1967
thiopia	Construction of Microwave Network		1001
	(First)	5	1968
	(Second)	8	1969
hana	Development of Medium and Small-scale Industries	6	1963
an	Torregan Irrigation Project	8	1962
	Teheran City Transport Systems	. 11	1969
aq.	Waterworks Construction	7	1964
ebanon	Tunnel Construction between Beirut and Damascus	6	1963
adagascar	Development of Mineral Resources	7 6	1963 1965
	Development of Electric Power Lagos Fishing Port Construction	9	1965
igeria udan	Development of Railways	6	1964
urkey	Dalaman River Hydroelectric Power Development	6	1964
arne)	Kelkit—Karatas Hydroelectric Power Project	- 5	1968
	Kultan and Belke Hydroelectric Power Project	6	1968
anzania	Transportation Development	8	1969
ganda	Expansion of Television Network	9	1968
nited Arab	Development of Desert Areas	7	1964
Republic	Desert Area Microwave Network Development	7	1964
	Cairo City Transport Systems	8	1966
udan & } anzania }	Development of Medium and Small-Scale Industries	10	1963
alizailia)			ļ
an, Kenya)	Economic Cooperation with Overseas Medium and	-	
Tanzania	Small-Scale Industries	5	1967
	(Near & Middle East and African Team)		
			ļ
entral			1
frica,	Economic Cooperation with Overseas Medium and		ļ
ameroon,	Small-Scale Industries (African Team)	8	1969
thiopia			
Nigeria			
rgentina	Development of Hydroelectric Power Resources	6	1962
r Reminia	Descriptions of 11 attores to Tailer Troposition		1

Country	Name of Survey Team	Number of Members	Year
Bolivia	Telecommunications Facilities	5	1962
OUVIA.	Build-up of Sweet Potato Cultivation Areas	4	1962
	Hydroelectric Power Development	6	1963
,	Development of Wood-Using Industries	5	1965
Brazil	Hydroelectric Power Development in North-eastern	v	
į	•	6	1966
ļ	Brazil	6	1969
	Mineral Resources Development		1964
hile	Development of Microwave Network	5	
ļ	Urhan Transport	8	1966
olombia	Bridge Construction	. 5	1962
ľ	Mineral Resources Development	G	1965
į	Patia River Hydroelectric Power Development	6	1966
]	Timba Hydroelectric Power Project	6	1969
cuador	Development of Mineral Resources	3	1962
	Hydroelectric Power Development	5	1965
	La Mica River Hydroelectric Power Project	6	1968
lexico	Iron and Steel Resources	6	1963
araguay	Encarnacion City Waterworks Construction	1	1963
шиваал	Railway Construction	6	1963
	Forestation Project	5	1965
	Rural Electrification Project	o e	1967
		6	
eru	Development of Telecommunications Network		1963
	Water Resources Survey	7	1964
	Electrification Project in Puno Prefecture	4	1966
rinidad-	Reclamation Project for Nariva Swamp		
Tobago	(First)	3	1966
	(Second)	11	1968
:			
enezuela	Improvement of Caracas City Transport Systems	6	1964
	Development of Mineral Resources	6	1967
hile &			
eru	Development of Wood-Using Industries	5	1963
rgentina &)			
olombia	Development of Mineral Resources	7	1964
olombia)			in the state of
-1:			
olivia &	Development of Wood-Using Industries	5	1964
araguay 📗			
1			Control of the Service
		top these en	
hile &	Economic Cooperation with Overseas Medium and		
olombia }	Small-Scale Industries (South American Team)	6	1968
and the control of th			
-			
	- 78 - 		
		and the second second	

5. Medical Cooperation Experts and Teams Dispatched by Country and by Year (April 1, 1966—March 31, 1970)

									(Un	it: Person)
Year	Tot	tal	19	66	19	67	19	88	90	69
Country	Teams	Experts								
Burma	3	11		1	3 -	2		4		4
Cambodia	3	32	2	1	ì	18		1		12
Ceylon	6	9		'			6]	9
India	٠.	1		:		1				:
Indonesia	8	36			4		4	18		18
Laos	1	6		Ì				3		3
Malaysia	9	9	4			. 9			5	
Nepal	7	3		·		[5	1	2	2
Philippines	7	30]		7 -	5	-	11		14
Thailand	5	131		20	3	29	2	48		34
Vietnam	12	32		4	2	8	4	5	6	15
Korea	6	8				ļ	6	}	ļ	8
China	6								6	
Afghanistan		16				3		9	Į	4
Ethiopia	2	9.		-		1	2	4	ļ	4
Iran	4	12			4	1	ļ	8	1	3
Ghana	4	8 -					4	3		5.
Kenya	5	16			:	5	5	3		8
Nigeria		. 3			1.	1		2		
Brazil	5	- 6			5		:	3		3
Total	92	378	, 6	26	29	83	38	123	19	146

6. Agricultural Development Cooperation Experts and Teams Dispatched

(1) Experts and	Teams Dis	patched by	Country	Articles	and seems of		(Unit:	Person)
Field				Agrici	ılture	4. ~		
Year 1967		19	68	1969		Total		
Country	Teams	Experts	Teams	Experts	Teams	Experts	Teams	Experts
Cambodia	9		. 3				12	
Ceylon			21		10		31	
India	7	· · ·			34		41	
Indonesia	9		5	5	18		32	5
Laos	10		10		7		.27	
Malaysia	11		16				.27	
Nepal		, ·			6		6	-
Philippines	21		7	ł		ļ	28	
Thailand			10		10		20	
Vietnam					,5		5	}
Total	67		72	5	99		229	5

Country	Project Title	Number of Members	Year	
Indonesia	Cooperation with West Java Emergency			
	Food Production Promotion Project	ļ.		
	(Operational Planning)	9	1967	
	(Traveling Technical Advisory Team)	5	1968	
	Cooperation in Agricultural Research	8	1969	
	Cooperation in Agricultural Research	•	100	

Country	Project Title	Number of Members	year
	Agricultural Development of Tadjum Area		
	(Preliminary Survey)	10	1969
Malaysia	Agricultural Development of Lower Prai River Basin	11	1967
•	Prai River Basin Drainage and Land Reclamation		
	Project (Operational Planning)	11	1968
	Farm Mechanization	5	1968
Philippines	Increased Production of Rice	1	
- · · · • • · •	(Discussion Team)	3	1967
	(Operational Planning)	18	1967
	Pilot Farm Project (Operational Planning)	7	1968
Cambodia	Maize Development (Operational Planning)	12	1967, 68
Laos	Tha-Ngong Area Irrigation Project	10	1967
	Tha Ngong Area Agricultural Development		and the same
	(Operational Planning)	10	1968
	(Operational Planning for Pilot Farm)	7	1969
India	Agricultural Technical Center, Second Farm Survey		
	and Technical Instruction	7	1967
	Research on Rice Plant and Vegetable Diseases and		
	Technical Instruction	1	1969
	Overseas Agricultural Development Instruction		
	Survey	6	1969
	Dandakaranya Development Project	1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1	
	(Preliminary Survey)	17	1969
Ceylon	Agricultural Development Basic Survey	2113	1968
	Dewahuwa Area Agricultural Development	10	1969
Thailand	Agricultural Development Basic Survey	5	1968
•	Sericultural Development (Operational Planning)	5	1968.
	Overseas Agricultural Development Instruction		
	Survey	10	1969
Vietnam	Survey for Assistance to Agricultural Faculty of		
	Can Tho University	5	1969
Nepal	Agricultural Development Basic Survey	6	1969

7. Primary Product Development Cooperation Teams and Experts Dispatched

Field				Agricu	lture			
Year	18	967	19	68	19	69	Tot	ial
Country	Teams	Experts	Teams	Experts	Teams	Experts	Teams	Experts
Cambodia	2		. :	4	6		8	4
ndonesia	7	-	7		6		20	a de propriado de la composición de la La composición de la
hailand	11		7	4		ranz sistem	18	4
'anzania	6						6	
	26		14	8	12		52	8

(2) Teams Dispatched by Country and by Year (April 1, 1967-March 31, 1970)

Country	Project Title	Number of Members	Year
Cambodia	Maize Development (Operational Planning)	2	1967
Indonesia	Maize Development (Operational Planning)	7	1967, 68
	(Traveling Technical Advisory Team)	7	1969
	Forestry Survey	6	1969
Thailand	Primary Product Development Cooperation		·
	(First)	4	1967
	(Second & Operational Planning)	7	1967
	(Operational Planning)	7	1968
Tanzania	Maize Development (Operational Planning)	6	1967

8. Japan Overseas Cooperation Volunteers Dispatched

(1) By Year and by Field

				1.2													(Unit:	Pe	rson)
Field Year	Total	Agriculture	Fisheries	Construction	Heavy Industry	Mining	Light Industry	Chemical Industry	Public Works	Transportation	Postal Services & Telecommunications	Health & Welfare	Atomic Energy	Business Management	Education	Administration	Banking	Statistics	Public Relations	Others
1965	40	21		3	2		3		4		: ''	1			2					4
1966	111	41	8	4	1	1	. 4			4	6	7			4				1	30
1967	171	54	.11	23	6	1	17		6	10	8	3			.7				1	24
1968	198	47 t	9	9	6	1	13		1	- 5	. 8	2			18					24
1969	232	4.5	9	13		. 1	19		2	5	10	3			8				1	37
Total	752	342	37	52	15	4	56		13	24	32	16			39				3	119
(2) By Country	y and	l by l	Field	(196	5Ma	arch	1970)												
Cambodia	18	7.													٠					11
India	179	50	1	100		- 1	7			2	2	11			. 5					l
Laos	161	63	1	33		4	. 11		8		19	. 3			7				_	12
Malaysia	114	29	5		4		14			5	. 7	2			9				3	36
Philippines	135	88	8	4			20		. 4	1	4									6
Kenya	58	5	12	5	11		4	44.1	1	16										4
Morocco	46	38		, . 7 .		•														Ţ
Syria	2		**				٠.,													2.
Tanzania	120	62	10												18					27
Zambia	6	1000			1 1 1	٠	· · · · ·	. 1		•										6
El Salvador	13	1 16		Andrews Market	*		4		4.7										2	13
Total	752	342	37	52	15	4	56		13,	24	32	16	: .		39		•		3	119

9. Expenditures Required in Technical Cooperation

Overseas Technical Cooperation Expenditures by Country and by Field (1954-1969) (Unit: US\$) Development Surveys Acceptance of Trainees Dispatch of Experts Furnishing of Asian Highway and Trans Sumatra Highway Basic Pre investment Overseas Technical Equipment Surveys Country 1. Asian Arca 438, 206 9,286 0 0 0 301, 152 131, 947 Afghanistan 0 0 0 0 0 0 2,541 Brunei 0 52,765 5,880 0 O 23, 188 Bhutan 0 0 298, 967 5,523 113, 923 14, 177 240, 919 Burma 0 n 1, 598, 736 213, 255 113, 288 164, 466 122,608 Cambodia Ò 36, 230 523, 360 719, 128 315, 983 47, 244 Ceylon 0 807, 044 369, 950 1, 739, 300 21,854 India 10,016 0 12,572 83, 333 Indonesia 1,054,205 749, 315 387, 469 0 Ó 77, 533 77,769 691,541 20, 175 668, 263 Korea 11,880 0 0 50,077 51, 286 294,619 198, 930 Laos 238,822 0 0 0 580,877 450, 211 62,774 Malaysia 0 0 0 Maldives 5,817 886 12, 269 79, 419 248,019 0 27,055 30,861 0 0 Nepal 178, 183 1, 543, 527 920, 822 46,094 246, 202 0 Pakistan 494, 780 0 0 Philippines 802, 752 247, 825 480, 786 54, 427 43, 958 0 0 Singapore 185, 213 546, 261 817, 588 45, 213 6, 166 Ó 0 1,787,641 38, 483 256, 352 Thailand 1,631,516 2, 101, 341 0 0 Vietnam 0 0 0 150, 163 312, 494 15,016 0 96,886 0 China 603,727 257, 333 1, 957, 419 0 0 0 Mekong Area 0 0 0 0 0 0 8,419 0 0 Southeast Asia Delta Areas 0 Philippines & Cambodia 0 0 0 0 0 0 0 Thailand & Pakistan 0 0 0 0 0 0 0 Thailand, Ceylon, Pakistan 0 0 0 0 0 0 Afghanistan 0 Thailand, Cambodia 0 0 0 0 & India 0 1,413 0 Indonesia & Vietnam 0 0 0 0 0 0 0 Philippines, Thailand 0 0 0 8, 102 0 0 0 & Malaysia Thailand, Indonesia, India 0 0 0 & Afghanistan

				18.				
-		T	7					
Surveys for Overseas Development Projects	Japan Overseas Cooperation Volunteers	Medical Cooperation	Overseas Cooperation in Scientific Education	Agricultural Development Cooperation	Primary Development Product Cooperation	Compensa- tion Expenses for Experts	TOTAL	
0	0	197, 522	0	0.	0	0	1, 078, 113	٠
0	0	0	0	0	0	0	2, 541	
0	0	0	0	0	0	0	81, 833	
27, 322	0	199, 735	14, 016	0	0	0	914, 582	
. 0	115, 181	308, 900	0	620, 169	236, 144	0	3, 492, 747	
0	0	268, 450	8,083	156, 091	0	. 0	2, 074, 569	
43, 548	337, 299	92, 595	0	642, 000	0	0	4, 053, 590	
71, 463	0	537, 891	12, 038	397, 099	316, 872	0	3, 632, 273	
11, 197	0	313, 313	0	0	. 0	0	1, 859, 791	
42, 633	832, 155	161,854	. 0	99, 105	ָס	0	1, 742, 539	
42, 627	503, 502	65, 544	23, 175	69, 653	0	0	2, 037, 185	: .
.0	0	О	0	0	Ō	0	18, 972	
17, 700	0	90, 125	0	9, 163	0	0	502, 342	
89, 097	0	1,883	26, 386	: 0	. 0.	0	3, 546, 974	
74, 670	702,750	457, 630	21, 086	485, 644	0	0	3, 371, 528	
5, 591	0	247	16, 666	0	. 0	0	1, 622, 945	
162,077	0.	1, 746, 761	22, 180	243, 002	244, 950	0	8, 234, 303	
0	0	1, 543, 386	0	16, 077	0	. 0	2, 022, 120	
108,058	0	1,669	10, 258	. 0	. 0	0	1, 092, 947	
.0	0	60	.0	0	0	0	1, 957, 419	
· · · · · · · · · · · · · · · · · · ·	0	0	0	0	0	.0	8, 419	
0	0	2,663	0	0	0	. 0	2, 663	
16,069	0	0	.0	0.	0	0	16, 069	
0	0	0	o	0	0	О	0	
0	0	0	0	0	0	. 0	1, 413	
0	0.	3, 694	0	0	0	0	3, 694	
9,966	0	0	o	0	0	o	18,068	
0	0	15, 097	0	0	0	0	15, 097	

Field	Acceptance of Trainees	Dispatch of Experts	Overseas Technical Centres	Furnishing of Equipment	Basic Pre- investment Surveys	Mekong River Development Surveys	Asian Highway and Trans- Sumatra
Country	L		0 0	0	0	0	
Cambodia & Vietnam China, Indonesia, Philippines, Thailand, Vietnam & Malaysia	0	0	0	0	13, 475	0	
Thailand & Laos	0	0	0	o	O	0	107, 560
Ceylon, Thailand, Iran, Pakistan & Afghanistan	0	0	1, 758	o	0	0	(
Ceylon & Thailand	0	9, 933	0	o	0	0	(
TOTAL	8, 307, 269	10, 182, 231	7, 801, 285	673, 776	1, 358, 716	1, 957, 419	347, 048
-		:					
2. Near & Middle East							
and Africa Area United Arab Republic	336, 536	127, 636	0	1, 458	76, 663	0	(
Cameroon	3, 433	0	o	0	0	0	(
Ethiopia	151, 938	23, 811	0	20, 925	106, 452	0	(
Ghana	193, 413	54, 341	583, 686	0	0	0	c
	449, 877	475, 091	475, 877	22, 952	97, 691	0.	
Iraq	106, 819	42, 658	o	7, 147	17, 736	0	
Jordan	15, 258	3, 227	0	o	0	0	O
Congo	7,775	18, 802	o	10, 036	50,575	0	C
Kenya	104, 638	251, 477	755, 375	36, 236	0	0	C
Lebanon	23, 138	50, 505	o'	10, 969	19, 847	0	C
Libya	6, 572	0	o	o	0	0	Ç
Madagascar	4, 463	21, 169	0	0	0	0	c
Mali	47	. 0	o	0	0	0	О
Morocco	9, 330	4, 505	0	О	0	0	c
Niger	0	31, 338	0	0	0	0	c
Nigeria	333, 219	168, 597	7, 983	34, 833	38, 636	0	C
Kuwait	17, 347	15, 161	. 0	o	0,	0	C
Saudi Arabia	36, 197	17, 119	0	15, 261	0	0	
Sudan	135, 577	14, 922	0	30, 252	31, 180	0	o
Syria	54, 144	114, 800	o	13, 605	2, 325	0	o
Senegal	9, 369	17, 441	0	0	0	0	0
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Surveys for Overseas Development Projects	Japan Overseas Cooperation Volunteers	Medical Cooperation	Overseas Cooperation in Scientific Education	Agricultural Development Cooperation	Primary Development Product Cooperation	Compensa- tion Expenses for Experts	TOTAL	
0	. 0	6, 150	0	0	0	0	6, 150	
0	0	0	0	0	. 0	0	13, 475	
0	0	0	. 0	0	i 0	0	107, 563	
0	0	0	.0	0	0	0	1,758	
0	0	0	0	0	0	0	9, 933	
722, 018	2, 490, 887	6, 015, 109	153, 888	2, 738, 003	797, 966	0	43, 543, 615	
							5	
31, 163	0	0	. 0	0	0	0	573, 456	
0	0	0	0	0	0	0	3. 433	
0	.0	185, 819	0	0	0	j o	488, 945	
19, 716	0	177, 816	0	0	0	0	1, 028, 972	
0	0	196, 352	43, 191	0	0	0	1, 766, 031	÷.
0	0	0	0	. 0	0	0	174, 360	
0	0	0	0	0	0	0	18, 485	
. 0	0	0	0	0	0	0	87, 188	
0	349, 308	393, 738	20, 955	0	0	0	1, 911, 727	
0	0	. 0	0	0	0	0	104, 459	
0	0	0	0	0	0	0	6, 572	
54, 775	0	0	0	0	0	. 0	80, 407	
0	0	0	0	0	0	0	47	
0	262, 352	0	0	0	0	0	276, 187	
0	.0	0	0	0	0	0	31, 338	
0	0	31, 733	0	0	· · · 0	0	615,001	
0	0	0	0	0	0	0	32, 508	
0	0	0	0	0	0	0	68, 577	
0	0	0	0	0	0	, 0	211,931	
0	5, 361	0.	0	0	0	0	190, 235	
0	0	0	0	0	0	o	26,810	

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Field	9 K	ss		11 85 II	6 #	s ent			5 4	
	Acceptance of Trainees	Dispatch of Experts	Verseas Sechnical Centres	Furnishing of Equipmnent	Basic Pre- investment Surveys	Mekong River Developmen Surveys	Asian	Highway	nd Irans Sumatra Hichway	
Country	Acce	Si A	Overseas Technical Centres	Furi Equi	Basi inve Su	Dev B		3	n S	
Somalia	10,038	0	0	0	0	0			.0	
Tanzania	43, 619	217, 486	0	18, 177	20, 097	0			0	,
	264, 297	280, 805	0	2, 194	35, 019	0			: 0	
Turkey		3, 100	0	0	0	0	.[0	
Tunisia	0		-							
Zambia	0	. 80	0	2, 583	0	0			. 0	
Uganda	22, 672	183, 138	448, 855	12, 133	48, 983	0			.0	1
Sudan & Tanzania	0	• 0.	0	0	0	0			- 0	
Ghana, Kenya & Ethiopia	0	0	0.	0.	0	0	1		0	
Ghana & Kenya	. 0	. 0	2, 041	0	0	0	1	C.	. 0	
Kenya, Tanzania & Iran	0	0	0	0	0	0		. :	0	
Algeria	0	31, 325	. 0	. 0	0	o			.0	
Kenya & Tanzania	O	0	. 0	0	0.	o			0	
Qatar	3, 686	5, 125	0	0	0	o			0	
TOTAL	2, 343, 402	2, 173, 659	2, 273, 817	238, 761	545, 204	o			0	-
3. European Area										
Czechoslovakia	20, 094	0	0	0	0	0		. :	0	-
Yugoslavia	4, 038	286	0	0	0	0			. 0	
Bulgaria	2, 822	0	. 0.	0	0	0			0	
Greece	2, 120	,	0	.0	0	0		January	0	
Hungary	4, 197	2	0	0	0	0			0	
France	0	3, 361	0	0	0	0			0	
Switzerland		9, 472	0	0	0	0			.0	
TOTAL	33, 271	13, 119	O	0	0.	o		÷ .	0	
		20, 11								
4. Central and South										
American Area	140.001	go: 00g	_					via Las		
Argentina	149, 291	73, 397	0	.0	0	0			0	
Bolivia	102, 258	121, 838	0	18, 091	28, 686	0	1		0	1
Brazil	433, 702	392, 205	689, 719	9, 627	0	0	<u>L</u>	———	0	

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urveys for Overseas levelopmen Projects	Japan Overseas Cooperation Volunteers	Medical	Overseas Cooperation in Scientific Education	Agricultural Development Cooperation	Primary Development Product Cooperation	Compensa- tion Expenses		
Surveys for Overseas Development Projects	Ja Ovez Coope Volur	Medical Cooperation	Ove Coope in Sci	Agric Devel Coope	Prii Devel Pro Coope	Compensa- tion Expenses for Experts	TOTAL	
0	. 0	0	0	0	0	0	10, 038	<u> </u>
0	534, 830	0	0	0	19, 194	0	853, 403	
77, 016	0	0	0	Ô	. 0	0	659, 331	
0	0	0	0	0	. 0	0	3, 100	
0	9, 755	0	0	0	o	0	12, 418	•
0	0	0	8, 355	0	0	0	724, 136	· .
28, 519	0	0	0	0	0	0	28, 519	
0	0	6, 161	0	0	0	0	6, 161	
0	0	0	0	0	. 0	0	2,041	
15, 544	0	0	0	0	0	0	15, 544	
17, 080	0	0	0	0	. 0	Ö	48, 405	
0	0	6, 644	0	0	0.	0	6, 644	
0	. 0	0	0	. 0	0	0	8, 811	
243, 813	1, 161, 606	998, 263	72, 501	0	19, 194	0	10, 070, 220	
				<u>.</u>				
0	0	0	0	0	. 0	0	20, 094	
0	0	0.	0	0	0	0	4, 324	
0	0	0	0	0	. 0	0	2,822	
.0	0	0	0	0	. 0	0	2, 120	
0	j · : 0.	0	0	0	0	; O	4, 197	
0	0	0	0	0	0	0	3, 361	
0	0	0	. 0	0	. 0	0	9, 472	
0.	0	0	0	0	0	0	46, 390	
						-		
				0				
26, 608	.0	0	0	0	0	0	249, 296	
21,372	0	0	0	0	0	0	292, 245	
66, 891	0	130, 975	0	0	0	0	1, 723, 119	

Field	Acceptance of Trainces	Dispatch of Experts	Overseas. Technical Centres	Furnishing of Equipment	Basic Pre- investment Surveys	Mekong River Development Surveys	Asian Highway and Trans- Sumatra
Colombia	101, 983	135, 752	Q	0	14, 761	0	(
Costa Rica	20, 436	36, 388	0	7, 022	0	0	
Chile	124, 219	43, 566	0	. 0	26, 280	0	
Dominica	5, 891	12,005	0	0	0	0	1
Ecuador	77, 641	156, 977	0	0	14, 866	0	
El Salvador	27, 213	218, 997	0	12, 013	0	0	
Haiti	1, 591	o	0	0	0	0	
Honduras	12, 480	0	0	D	0	0	
Mexico	187, 658	198, 411	485, 111	0	0	0	
Nicaragua	2, 933	0	. 0	0	0	0	
Panama	21, 280	9, 405	0		0	0	
Paraguay	67, 405	115, 961	0	7, 975	47, 800	0	
Peru	191,086	163, 719	0	0	34, 447	0	(
Trinidad-Tobago	1,600	48, 761	0	0	65, 175	0	
Uruguay	8, 166	8, 938	0	0	0	0	·
Guatemala	18, 216	0	0	0	0	: 0	
Venezuela	34, 047	13, 222	0	0	18,738	0	
Cuba	3, 922	0	0	0	. 0	0	
Argentina & Colombia	0	0	. 0	0	0	0	
Bolivia & Paraguay	0	0	0	0	0	0	
Peru & Chile	0	13, 390	O.	. 0	0	o	
Peru & Mexico	0	-2,547	0	.0	0	0	. **
TOTAL	1, 593, 018	1, 765, 479	1, 174, 830	54, 728	250, 753	0	
Sum Total	12, 276, 960	14, 132, 488	11,249,932	967, 265	2, 154, 673	1, 957, 419	347, 04
Incidental Expenses	2, 599, 672	98, 194	2, 044	0	0	0	
GRAND TOTAL	16, 469, 650	15, 996, 161	12, 426, 806	1, 021, 993	2, 405, 426	1, 957, 419	347, 04

Surveys for Overseas Development Frojects	Japan Overseas Cooperation Volunteers	Medical Cooperation	Overseas Cooperation in Scientific Education	Agricultural Development Cooperation	Primary Development Product Cooperation	Compensa- tion Expenses for Experts	TOTAL
105, 458	0	0	0	0	0	0	357, 954
0	0	0	0	0	0	0	63, 846
29, 955	0	3, 572	0	0	0	0	227, 592
0	0	0	0	0	0	0	17, 896
83, 625	0	0	0	0	0	o	333, 109
0	74, 825	0	0	0	0	0	333, 048
0	0	0	0	0	0	o	1, 591
0	0	0	0	o	0	o	12, 480
17, 211	0	0	0	0	0	. 0	888, 391
0	0	0	0.	0	0	0	2, 933
0	0	0	0	0	0	ō	30, 685
34, 697	0	8, 316	0	0	0	. 0	282, 154
52, 008	0	0	0	0	. 0	0	441, 260
0	0	0	0	0	0	0	115, 536
0	0	0	0	o	. 0	o	17, 104
0	0	0	0	0	0	0	18, 216
24, 688	0	0	0	0	0	0	90, 695
0	0	o	0	0	. 0	0	3, 922
38, 597	0	0	0	0	. 0	0	38, 597
17, 772	0	0	0	. 0	0	0	17, 772
18, 638	0	0	0	0	o	. 0	32, 028
0	0	0	0	0	0	0	2, 547
				-			
537, 520	74, 825	142, 863	0	0	0	0	5, 594, 016
1,503, 351	3, 727, 318	7, 156, 235	226, 389	2, 738, 008	817, 160	0	59, 254, 241
0	1, 957, 758	230	4, 550	0	0	18, 630	4,681,078
2, 040, 871	5, 759, 901	7, 299, 328	230, 939	2, 738, 003	817, 160	18, 630	69, 529, 335
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