

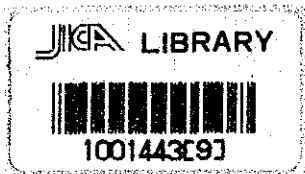
JICA
JAPAN INTERNATIONAL COOPERATION AGENCY

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annual report
1978

annual report





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JAPAN INTERNATIONAL COOPERATION AGENCY

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FOREWORD

The economic recession, triggered by the 1973 oil crisis, caused stalemate in the growth of world economy giving rise to unemployment, inflation and imbalance of international payments. However, as a result of efforts made by many countries, some signs of economic recovery have appeared, although many of the affected countries have not yet fully recovered. Developing countries in particular are plagued by the shortage of food and accumulation of foreign liabilities with population rapidly increasing.

Based on the common recognition that the elimination of social unrest and the attainment of economic stability in developing countries are essential for the peace of the world, efforts have been made in recent years for establishing dialogue and cooperation between the North and the South.

Being aware that the role to be played by it in such a situation has become increasingly important, the Japanese Government has announced its intention to participate actively in the common efforts for creating international peace by, among other things, doubling its official development assistance during the three years beginning 1977.

The Japan International Cooperation Agency, which is now in the fifth year of its activities mainly in the field of technical cooperation, is resolved to make every endeavor in order to perform its duties smoothly and efficiently.

I hope the present Annual Report of the Japan International Cooperation Agency on its performance in fiscal year 1977 will serve to clarify Japan's overseas cooperation activities.

December, 1978



Shinsaku Hogen
President
Japan International Cooperation Agency

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PART I

INTRODUCTION



Philippine researchers and Japanese expert working jointly for the study of Schistosomiasis in the institute at Palo, the Philippines

THE JAPAN INTERNATIONAL COOPERATION AGENCY AND ITS ACTIVITIES

1. OBJECTIVES

The Japan International Cooperation Agency (hereinafter referred to as "the Agency" or "JICA") was established on August 1, 1974, under the Japan International Cooperation Agency Law (Law No. 62, 1974) as an executing organ of Japan's international cooperation services for the socio-economic progress of developing countries. The Agency, when it was established, incorporated the functions of the then existing Overseas Technical Cooperation Agency, established in 1962 for government-sponsored technical cooperation, and those of the Japan Emigration Service, instituted in 1963. At the same time, it took over part of the functions of the Japan Overseas Trade Development Association and all of those of the Japan Overseas Agricultural Development Foundation, as well as new responsibility for development cooperation, training and recruiting of qualified Japanese experts for technical cooperation.

The Agency carries out its international cooperation under the supervision of the Ministry of Foreign Affairs, its supervising authority, as well as of the Ministry of Agriculture, Forestry and Fisheries and the Ministry of International Trade and Industry, as regards matters of their respective competence. For smooth and efficient implementation of its work, the Agency endeavours to obtain extensive cooperation of relevant government offices, local public bodies and private organizations in Japan by maintaining close contact with them as well as to act in concert with the governments of developing countries and international organizations concerned.

The functions of the Agency fall under the following five major categories.

- (1) Government-sponsored technical cooperation
- (2) Dispatch of Japan Overseas Cooperation Volunteers (JOCV)
- (3) Cooperation in the development of agriculture, forestry, mining and manufacturing industries as well as social development (investment, loans, etc.)
- (4) Emigration service

- (5) Training and recruiting of qualified Japanese experts for technical cooperation

In addition to the above, the Law to make a partial amendment of the Japan International Cooperation Agency Law (Law No. 35, 1978) enforced on April 28, 1978, added new responsibility of the Agency for the provision and promotion of financial cooperation on a grant-aid basis for developing countries.

A brief description of these categories is given below.

- (1) The government-sponsored technical cooperation is extended under international agreements. It comprises acceptance of trainees (hereafter referred to as participants) for technical training in Japan, dispatch abroad of Japanese experts, supply of equipment, assistance to technical cooperation centres, conduct of development surveys, cooperation in medical care, agriculture and industrial development.
- (2) The Japan Overseas Cooperation Volunteers are designed to promote and assist overseas activities of young Japanese volunteers who while living and working together with indigenous people of a developing country, cooperate in the socio-economic development of that country. The JOCV programme includes recruitment, training and dispatch of volunteers and extension of information on, and deepening people's understanding of their activities.
- (3) The third category covers cooperation in the development of agriculture, forestry, mining and manufacturing industries as well as social development in developing countries. It aims at the improvement, both in quality and quantity, of Japan's cooperation through a unified operation by the Agency of government-sponsored and private level cooperation, and a closer linkage between financial and technical cooperation, which was not adequately integrated previously. It also aims at further strengthening infrastructure for the development of agriculture, welfare, education, medical care, etc. in addition to the previous cooperation in the projects and plans for industrialization, trade promotion, resources development, etc.
- (4) The emigration service is offered in an integrated manner, both in Japan and accepting countries, to provide the emigrants with necessary assistance and guidance. The service comprises the followings;

- a. Research, dissemination of information, consultation and good offices related to emigration
 - b. Pre-departure training and orientation courses, payment of travelling expenses, provision of accommodation before departure and escort services for emigrants
 - c. Consultation and guidance for emigrants concerning their work and life in accepting countries
 - d. Improvement of welfare facilities for settlement of emigrants in the accepting countries
 - e. Assistance in the acquisition, preparation, control, transfer of land necessary for the settlement of emigrants
 - f. Provision of necessary business funds, guarantee of loan liabilities, or investment for the emigrants, or their associations engaging in agriculture, fisheries and manufacturing industries in accepting countries
 - g. Lending of business funds to those projects (excluding emigrants and their associations) which contribute to the settlement and stability of emigrants in agriculture, fisheries and manufacturing industries in their host country and investment for providing such funds
- (5) The training and recruiting of qualified Japanese experts for technical cooperation are carried out by the Agency through the improvement of systems designed for those purposes, and the operation of various training courses. The Agency is also engaged in the collection and analysis of information, compilation of statistics, public relations activities and project assessment in relation to the five categories of the Agency's activities mentioned above. In addition, the Agency conducts the following activities with the approval of the Minister for Foreign Affairs
- a. Procurement and delivery of equipment and materials for the Southeast Asian Fisheries Development Centre
 - b. Cooperation with the United Nations and other international organizations in the implementation of technical cooperation programmes undertaken by such organizations
 - c. Services related to the screening and recommendation of experts or survey missions invited by the governments of developing countries on their own initiative

2. PERFORMANCE OF THE AGENCY IN FISCAL 1977*

Budgetary appropriation for the Agency was 43,000 million yen for 1977, made up of 33,600 million yen for grants, 6,400 million yen for investments and 3,000 million yen for fund in trust, respectively provided from the national treasury.

The Agency's performance can be roughly divided into three categories: (1) Technical cooperation (including Japan Overseas Cooperation Volunteers); (2) financial cooperation (development investment and financing); and (3) emigration service. The whole of (1) and (2) and a part of above (3) constitute the Official Development Assistance (ODA). The performance in 1977 was as follows:

(1) Technical Cooperation

The actual expenditure for technical cooperation in 1977 was 28,600 million yen, an increase of 37% over 20,900 million yen in the preceding year.

The cumulative total of actual expenditure for the period since 1954 amounted to 137,000 million yen. In the same period, the cumulative total of participants accepted from abroad numbered 29,079, inclusive of 2,688 received in 1977, experts dispatched overseas (including survey teams) 17,738, inclusive of 3,137 sent in 1977 and Japan Overseas Cooperation Volunteers dispatched abroad 2,459, inclusive of 248 for 1977. JICA's performance in technical cooperation has expanded steadily year after year.

In 1977, of the dispatch of experts (including survey teams), which constituted the major part of such cooperation, agriculture accounted for 21.9%, construction 19.9%, transportation 17.3% and administration 8.7%. In cumulative total by sector up till the end of March, 1978, construction accounted for 17.3%, agriculture 16.6%, transportation 9.4% and medical care 8.9% in that order. (See Table 1)

Novel features introduced in JICA's operation in 1977.

a. Technical Cooperation Survey by Country

In 1977, when 3 survey teams on technical cooperation potentiality were dispatched for the first time by the Ministry of Foreign Affairs to 5 ASEAN

Note: * Unless otherwise stated, the year 1977 in this report denotes the fiscal year 1977 (from April 1977 to March 1978).

Table 1. Total Amount of Technical Cooperation by Sector (1954 - 1977)

Unit: Person
(): %

Participants

Agriculture	Fisheries	Construction	Mining	Chemical Industries	Public Transportation	Telecommunications, Broadcasting and Postal Services	Medical and Welfare Service	Atomic Energy	Education	Administration	Others			
5,472 (18.8)	1,507 (5.2)	1,841 (6.3)	869 (3.0)	612 (2.1)	1,677 (5.8)	500 (1.7)	802 (2.8)	2,578 (8.9)	8,026 (10.4)	2,564 (8.8)	307 (1.1)	838 (2.9)	4,070 (14.0)	1,438 (4.9)
			Heavy Industries	Light Industries					Management					
									970 (3.4)					

Experts & Survey Team

Agriculture	Fisheries	Construction	Mining	Chemical Industries	Public Transportation	Telecommunications, Broadcasting and Postal Services	Medical and Welfare Services	Atomic Energy	Administration	Others	
2,948 (16.7)	842 (4.7)	3,060 (17.3)	1,274 (7.2)	486 (2.7)	228 (1.3)	1,056 (6.0)	1,663 (9.4)	1,252 (7.1)	1,581 (8.9)	1,092 (6.2)	1,510 (8.5)
			Heavy Industries	Light Industries						Management	
			390 (2.2)							93 (0.5)	
											Education 259 (1.5)

Survey Team

Agriculture	Fisheries	Construction	Heavy Industries	Mining	Light Industries	Public Transportation	Telecommunications, Broadcasting and Postal Services	Medical and Welfare Services	Atomic Energy	Administration	Others	
1,618 (15.3)	275 (2.6)	2,336 (22.0)	220 (2.0)	976 (9.2)	216 (2.0)	17.1 (1.6)	788 (7.4)	1,227 (11.6)	583 (5.5)	281 (0.3)	597 (6.6)	1,291 (12.2)
										Management		
										28 (0.3)		
											Education 7 (0.1)	

Experts

Agriculture	Fisheries	Construction	Heavy Industries	Mining	Light Industries	Public Transportation	Telecommunications, Broadcasting and Postal Services	Medical and Welfare Services	Atomic Energy	Administration	Others		
1,330 (18.6)	567 (7.9)	724 (10.1)	170 (2.4)	298 (4.2)	270 (3.8)	57 (0.8)	268 (3.8)	436 (6.1)	669 (9.9)	1,310 (18.4)	252 (3.5)	495 (6.9)	219 (3.1)
										Management			
										65 (0.9)			
											Education		

Volunteers

Agriculture	Fisheries	Construction	Mining	Chemical Industries	Public Transportation	Telecommunications, Broadcasting and Postal Services	Medical and Welfare Services	Atomic Energy	Administration	Others	
876 (35.6)	123 (5.0)	278 (11.3)	111 (4.5)	92 (3.7)	45 (1.8)	121 (4.9)	178 (7.2)	136 (5.5)	316 (12.9)	4 (0.1)	157 (6.3)

countries, JICA joined these teams and had discussions on matters related to technical cooperation with the authorities of these countries. Of these teams, those dispatched to Indonesia and Thailand signed respectively a Record of Discussions (R/D) with their counterpart authorities of these countries.

b. *Expansion of Local Cost Bearing System*

Local cost of JICA's technical cooperation is, in principle, borne by the host country. However, insufficiency in local fund or delay in the payment of local costs by recipient country often interferes or delays the execution of projects. To cope with such a situation, JICA amended its terms of reference to enable it to bear part of the following local costs.

- i) Expenses for preparation of model infrastructure required in the initial stage of agricultural and forestry development projects such as experimental farms, experimental forests and nurseries
- ii) Expenses of LLDC which have special difficulty in bearing local costs for financial reasons
- iii) Part of expenses for equipment and materials necessary for preparing the foundation, including environmental improvement of, for example, medical care facilities so as to facilitate the transfer of technology

c. *Closer Linkage between Technical Cooperation and JICA's Other Services*

JICA started a cooperation project for the agricultural and forestry development in Paraguay, aiming at promoting the mechanization of agriculture and forestry in the province of Itapua where many Japanese emigrants settled.

d. *Services relating to Grant-Aid Cooperation*

For those projects involving grant-aid which have close relation with technical cooperation, preparation has been made to enable the Agency to promote such projects.

(2) Financial Cooperation

In 1977, the Agency agreed to finance 865 million yen involving 3 cases for the improvement of related facilities, 852 million yen for 7 experimental projects, and made an investment of 1,000 million yen totalling 2,717 million yen in 12 cases.

The high light of development financing by JICA in 1977 was that it made investment in an experimental project for the first time. The project is intended to develop agriculture on the scrub land of 50 thousand hectares in the province of Minas Gerais, Brazil. The Agency provided 50% of the capital of the investment company established in March, 1978, to promote this project.

(3) Emigration Services

In 1977, the Agency handled a total of 417 emigrants who left Japan for Brazil, Paraguay, Argentina and Bolivia in South America (of them, 372 were provided with travelling expenses and 45, paid their way). The cumulative total of emigrants for whom travelling expenses were provided, since 1952, when the emigration ban was lifted, was 65,119. The Agency offered services for emigrants to Canada such as guidance in the application procedure, pre-departure training and issue of notices to qualified emigrants. In 1977, such notices were issued to 50 emigrants to Canada in 28 cases.

Australia, as a new accepting country, intends to actively receive Japanese emigrants. Argentina has also proposed a plan to accept Japanese fishery emigrants. These proposals require to be examined thoroughly through dispatch of survey teams or by other means, and it was decided to take the matter up in and after 1978.

The measures for protecting emigrants in their respective accepting countries are being further strengthened. Especially, emphasis is being laid on education and medical care essential for their life stability. Guidance in farming is being actively strengthened through the dispatch of agricultural experts to the settlements to ensure settlement of emigrants. Efforts are also being made to improve the training and guidance courses offered for emigrants in Japan and accepting countries in order to enhance emigrants' adaptability to local environment and development capabilities.

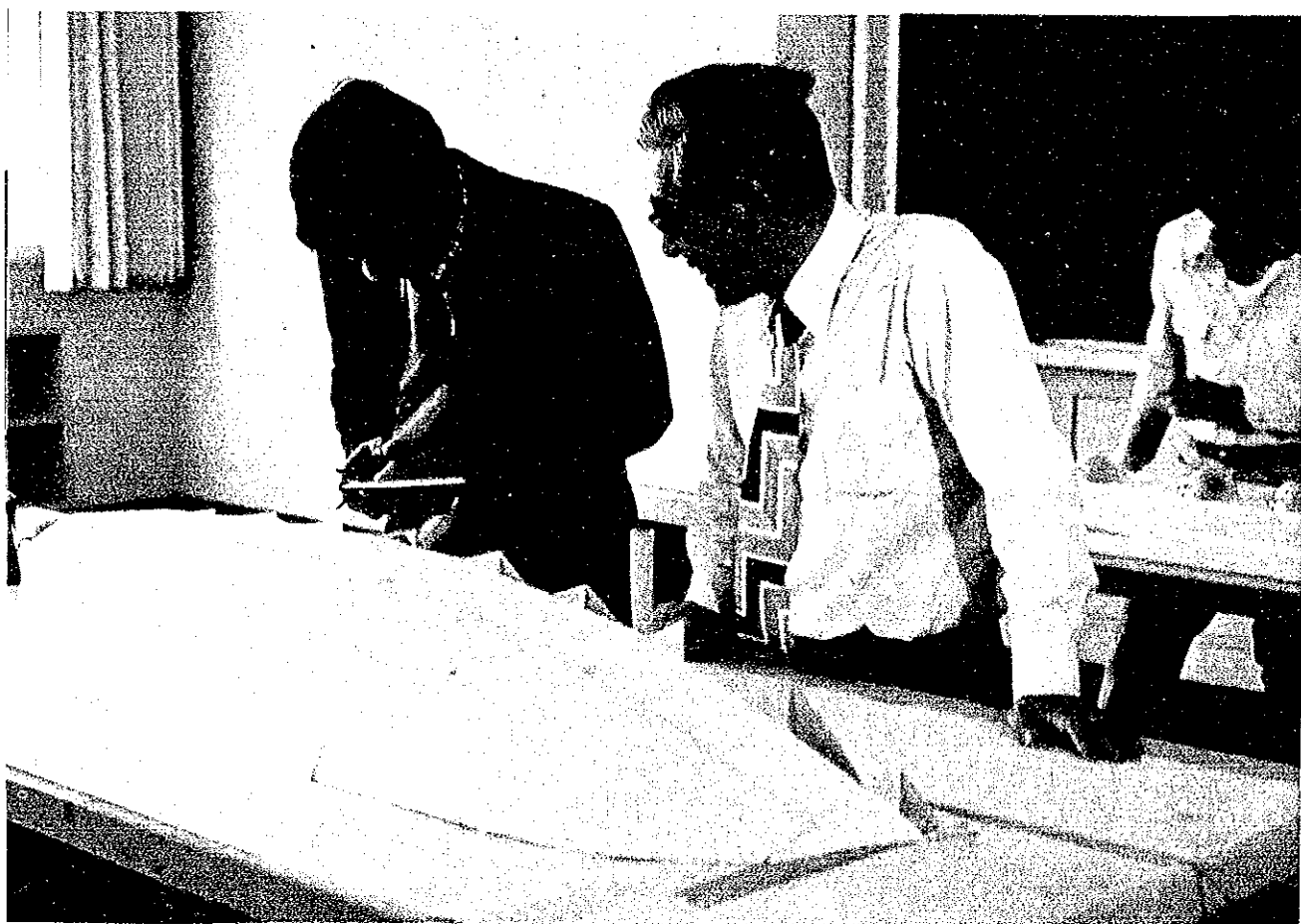
3. FUTURE PROBLEMS

(1) The Agency has continued its efforts to play part of coordinated assistance activities, in close contact with the related ministries and agencies, as well as with the *Overseas Economic Cooperation Fund and the Export-Import Bank of Japan* or private enterprises. However, with a growing trend toward diversification and larger demand for assistance, it will be necessary for the Agency to strengthen its efforts in future.

(2) The Agency has so far extended its cooperation upon request from developing countries. The necessity for more positive cooperation in the stage of project formation has come to be felt. With the increasing need for cooperation in the formulation of comprehensive regional development plans and various master plans, there is a pressing need to enhance the Agency's positive stance for cooperation.

PART II

OUTLINE OF JICA PERFORMANCE



Training course in shipbuilding

CHAPTER 1

GOVERNMENT-SPONSORED TECHNICAL COOPERATION

SECTION 1 TRAINING PROGRAMME FOR OVERSEAS PARTICIPANTS

1. OUTLINE

Japan has conducted training of overseas participants ever since she joined the Colombo Plan in 1954 as a donor country. In this activity which constitutes a major part of her technical cooperation, she has carried out training in diverse fields and contributed significantly to upgrading human resources needed for socio-economic progress of the countries concerned and to promoting friendly relations with them.

Since the initial acceptance of 138 participants from Asia in 1954, the number of participants has increased year after year with the geographical coverage widening to include Middle East, Africa and Latin America. Participants accepted in 1977 numbered 2,673 and the total number of participants received since 1954 reached 29,011 by the end of March 1978.

There are two types of training courses conducted in Japan for overseas participants. One comprises group training courses organized according to what JICA regards as the greatest common needs of the developing countries. The other comprises individual training courses in response to specific requirements of a region or a country. The latter type includes the training of local counterparts of Japanese experts in the projects abroad assisted by Japan with a view to improving the efficiency of such projects as well as the training of participants requested by the United Nations and other international organizations. Participants are generally middle-level technicians, researchers and administrative officers of governments, public bodies and private enterprises who have been recommended.

Training in Japan is offered at the Uchihara International Agricultural Training Centre and the Kanagawa International Fisheries Training Centre operated by the Agency, and at other appropriate institutions with the cooperation of research and experiment stations of government, local public bodies, universities, private enterprises etc. Curricula are prepared in consideration of the general needs of developing countries in the case of group training courses and of specific needs in the case of individual training courses. Training courses comprise lectures, practical exercises and study tours so that they may be of practical value.

The Agency operates international training centres, in addition to those mentioned above, in Tokyo, Hachioji, Osaka, Nagoya and Kobe providing the participants with boarding and training facilities. In operating these centres, every effort is made to enable the participants to enjoy a comfortable life in a agreeable environment. Now that various research and experimental stations are moving to Tsukuba City, it has been decided to establish a JICA's Tsukuba International Training Centre.

2. PERFORMANCE IN 1977

In 1977, a total of 3,123 participants were accepted, of whom 2,673 were new arrivals and 450 carried over from the preceding year. For the new-comers, 141 training courses were organized to accept 1,683 participants and individual training courses were given to 990 participants. In the same year, with a view to retraining ex-participants, JICA set up three courses in farm machinery, ports and harbours and international standards.

Of the new participants in 1977, 1,472 were from Asia (55%), 458 from Middle East, 181 from Africa, 512 from Latin America and 50 from other regions. (See Fig. 1)

Sector-wise, 205 participants received training in development projects, 267 in agriculture, 30 in live-stock industry, 40 in forestry, 105 in fisheries, 240 in construction, 99 in public works, 79 in mining, 137 in heavy industries, 88 in chemical industry, 109 in light industries, 226 in transportation, 335 in telecommunications, broadcasting and postal services, 269 in medical care and welfare, 52 in management technique, 139 in economics and public finance, 29 in education, 187 in labour relations and vocational training, 6 in atomic energy, 25 in information science and 6 in other sectors. (See Fig. 2)

Of them, local counterparts of Japanese experts numbered 443.

Fig. 1. Participants by Region (1977)

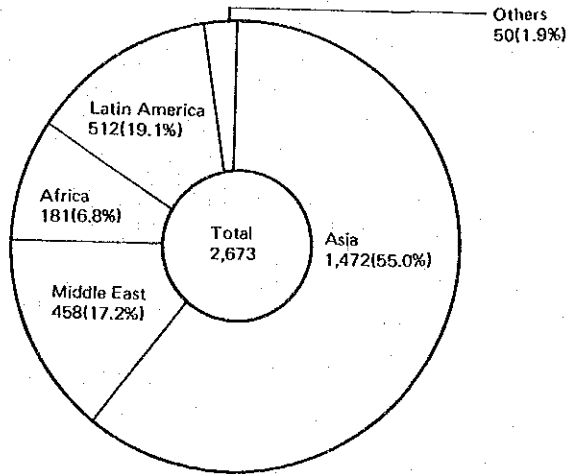
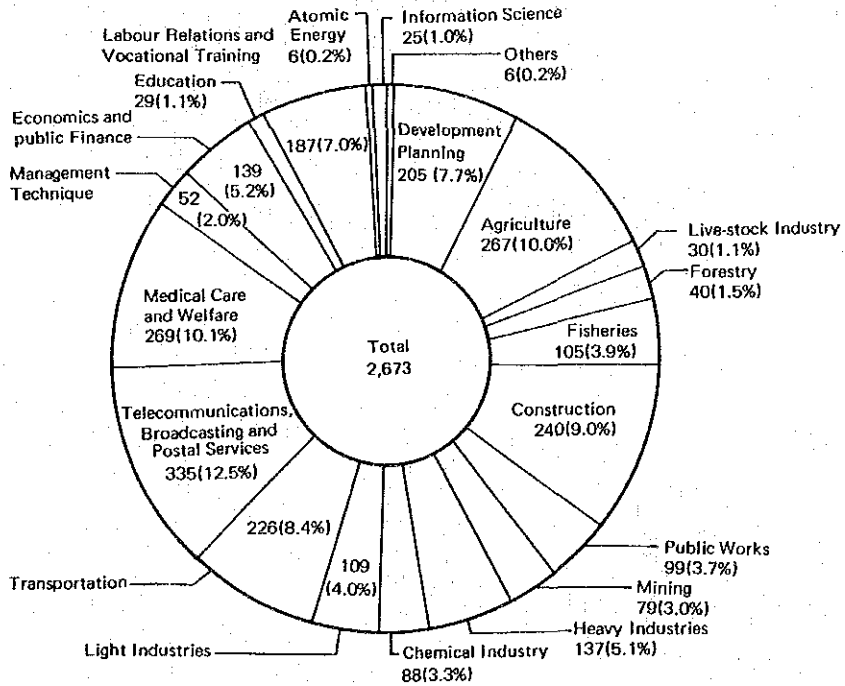


Fig. 2. Participants by Sector (1977)



Group Training Courses and Seminars Conducted in 1977

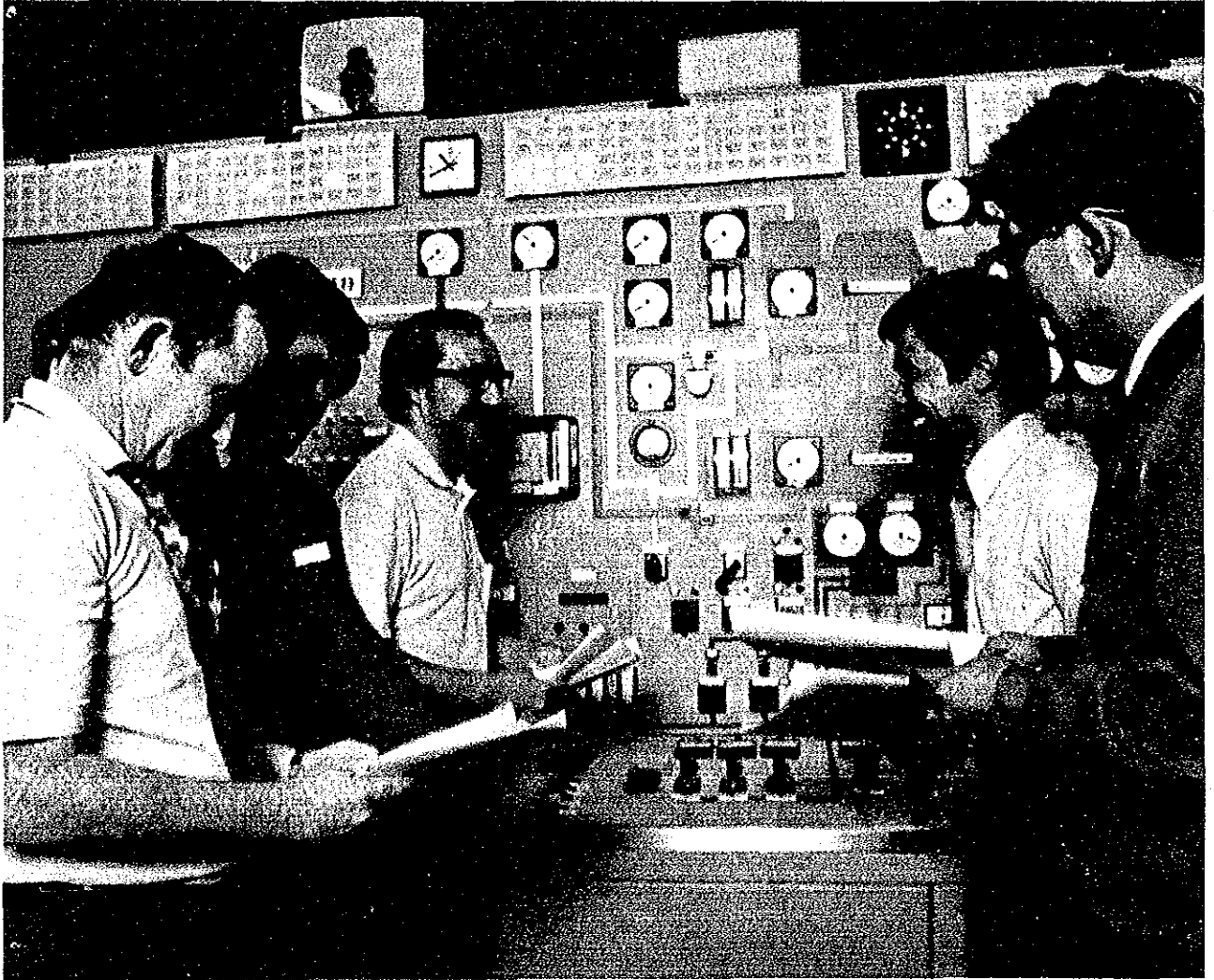
No.	Courses/Seminars	Duration (Month)
1	Agricultural Extension Service	3
2	Animal Health Research	6
3	Coastal Fisheries Extension (I)	10
4	Highly Skilled Machinist	11.5
5	Treatment of Offenders	3
6	Smaller Enterprise Development (Seminar)	3
7	Ceramic Glaze and Decoration	6
8	Metal Finishing Engineering	6
9	Microbial Diseases	11.5
10	Telephone Switching Engineering (I)	3
11	Local Government Administration	3
12	Tourism A (Seminar)	2
13	Coin and Decoration Manufacture, Metal Analysis and Precious Metal Refining	3.5
14	Family Planning Administration for Senior Officers (Seminar)	0.5
15	Wood Industrial Machinery	3.5
16	Poultry Development	5
17	Artificial Insemination for Cattle	6
18	Carrier Telephony Engineering	3.5
19	Vocational Training Instructors (Machinery, Electric, Electronics, Wood Working and Automotive)	11
20	Hydrographic Survey	6
21	Satellite Communication Engineering (Advanced)	2.5
22	International Telegraph and Telephone Services (Traffic and Commercial)	2.5
23	Thermal-Electric Power Engineering	2.5
24	Hydro-Electric Power Engineering	2.5
25	Marine Fisheries Research (I)	6
26	Offshore Prospecting	7

No.	Courses/Seminars	Duration (Month)
27	Construction Machinery	3
28	Tuberculosis Control (Advanced)	0.5
29	Television Broadcasting Management	1.5
30	Trade Promotion A (Seminar)	2
31	Supervisory Training (Seminar)	2
32	Economic Development (Seminar)	1.5
33	Control of Rice Diseases and Insect Pests	7
34	Agricultural Machinery Maintenance and Repair	6
35	Surveying and Mapping (Photogrammetry)	6
36	Information, Education and Communication in Family Planning (Seminar)	0.5
37	Telephone Outside Plant Engineering	3.5
38	Metrology and Measurement Standards	6
39	Maintenance and Improvement Engineering of Permanent Ways	3
40	Tuberculosis Control	4.5
41	Solid Waste Management and Night Soil Treatment	2
42	Shipping Business	2
43	Agricultural Land and Water Resources Development	2
44	Welding Technology	7.5
45	Port and Harbour Engineering (Senior Course)	1
46	Railway Rolling Stock Engineering	3.5
47	Color Television Engineering	3
48	Radio Broadcasting Engineering	2.5
49	Microwave Communication Engineering (I)	3.5
50	Educational Television Programme	2.5
51	Foundry Engineering	8.5
52	Textile Engineering (Weaving)	8.5
53	Tile Manufacturing Technology	8.5
54	Water Works Engineering	3.0
55	Fisheries Co-operatives	6.0
56	Seismology and Earthquake Engineering	11.5
57	River Engineering	4

No.	Courses/Seminars	Duration (Month)
58	Mining Engineering	4.5
59	Industrial Design	2
60	Medical Science and Technology	10
61	Agricultural Statistics	2.5
62	Industrial Safety and Health (Seminar)	1.5
63	City Planning	2
64	Port and Harbour Engineering	4
65	Medical and Biological Aspects in Family Planning (Seminar)	0.5
66	International Telex Communication Engineering	3
67	Satellite Communication Engineering (Regular)	3
68	Radio Frequency Monitoring	1.5
69	Groundwater Resources	4
70	Bridge Engineering	2.5
71	Telephone Switching Engineering (II)	3.5
72	Electronics	4
73	Industrial Standardization and Quality Control	3
74	Business Feasibility Study and Management Practice	7
75	Foreign Trade Practice for Leaders	4
76	Rice Processing	3
77	Navigation Aids	2
78	Taxation (Direct Tax) (Seminar)	1.5
79	Taxation (Indirect Tax) (Seminar)	1.5
80	Geothermal Energy	2.5
81	Electric Power Distribution	2.5
82	Afforestation Techniques and Administration	3
83	Water Pollution Control and Sewage Works Engineering	3.5
84	Administration of Criminal Justice	3
85	Microwave Communication Engineering (II)	3.5
86	Technical Management of Pollution Control	1.5
87	National Government Administration	2.5
	Marine Fisheries Research (II)	6
88	Subway Engineering	2
89	Prevention of Narcotic Offences (Seminar)	1

No.	Courses/Seminars	Duration (Month)
90	Offset Printing	2.5
91	Statistics (General Course)	6.5
92	Construction Engineering	3
93	Ceramic Engineering	11.5
94	Refractory Manufacturing Technology	6.5
95	Metal Works and Engineering	11.5
96	Development Economics (General)	6.5
97	Computer Technology	3
98	Customs Techniques (Seminar)	1.5
99	Trade Promotion B (Seminar)	2
100	Meteorology	4
101	Taxation (Seminar) (Senior Course)	0.5
102	Agricultural Co-operatives	2.5
103	Industrial Relations (Seminar)	1.5
104	Fire Service Administration	2
105	Highway Construction (Seminar)	1.5
106	Electric Power Management	2
107	Vocational Training (Seminar)	2
108	Railway Electrification and High-Speed Operation	2
109	Tourism B (Seminar)	2
110	Traffic Police Administration	2
111	Telecommunication Management (Seminar)	0.5
112	Shipbuilding	20
113	Administration for Seamen's Education	1
114	Community-Based Family Planning (Seminar)	0.5
115	Clinical Oncology	4.5
116	Aerodrome (Seminar)	1.5
117	Early Gastric Cancer Detection	2
118	Laboratory Works for Tuberculosis Control	4
119	Plastic Techniques	5
120	Technology for Disaster Prevention (Earthquake)	0.5
121	Physical Oceanographic Survey	4.5
122	Telephone Network Planning and Designing	3.5

No.	Courses/Seminars	Duration (Month)
123	Broadcasting Administration (Seminar)	0.5
124	International Telephone Switching Engineering	2.5
125	Ports and Harbours (Seminar)	2
126	Measures for Smaller Industry	2.5
127	Glass Technology	2.5
128	Medical Radiography	5.5
129	Electrical Steel Making	3
130	Irrigation and Drainage	9.5
131	Vegetable Crops Production	9.5
132	Public Administration Officers on Women's Problems (Seminar)	1
133	Railway Signal Engineering	4
134	Development Economics (Industrial Project)	2.5
135	Prevention of Offences (Senior Course)	1.5
136	Public Health Administration	1
137	Administration of Pollution Control	1.5
138	Coastal Fisheries Extension (II)	10.5
139	Telecommunication Development (Seminar)	0.5
140	Rice Production Mechanization	9.5
141	Rice Cultivation and Its Extension	9.5
142	Postal Executives (Seminar)	0.5



Training course in thermo-electric power engineering

3. THIRD COUNTRY TRAINING PROGRAMME

Overseas training can be effective as it is conducted in developing countries for their people who share the same language or similar languages, common social, cultural or physical environment in response to common needs. It aims at fostering the host country to organize and conduct training courses on its initiative, while Japan provides the participants with travelling, living and other necessary expenses.

In 1977, JICA conducted such training courses in Mexico and Thailand under agreements respectively concluded between the Governments of Japan and these countries.

(1) Mexico

A training course in carrier transmission technology was conducted from January 16 to March 15, 1978, at the National School of Telecommunication, Mexico, for 12 participants (two each from Honduras, Nicaragua and Costa Rica, and six from Mexico).

(2) Thailand

A training course in telecommunication technology was conducted for about ten weeks from February 20, 1978, at the King Mongkut's Institute of Technology, Thailand, for 10 participants from six countries (two each from Singapore, Sri Lanka, the Philippines and Malaysia, and one each from Nepal and Indonesia).

4. WORK RELATED TO TRAINING

(1) Orientation

JICA provided 48 one-week orientation courses on its training activity, the life and situation in Japan through lectures and films for 1,625 participants in the common group training courses.

(2) Japanese Language Courses

69 Japanese language classes were organized for participants especially requiring Japanese language ability during their training. 49 general language classes were organized for all the participants in order to facilitate their life and understanding of

Japan.

(3) Health and Welfare Services

So that participants may keep in good health and enjoy their stay in Japan, they were offered social parties, bus tours, movie and theatre visits, sports gatherings, etc. arranged by the Agency's international training centres. Blanket insurance for them was contracted covering injuries, diseases, etc.

(4) Aftercare Services for Ex-participants

a) Dispatch of Follow-up Training Teams

JICA's follow-up training teams are dispatched to organizations where ex-participants are working in order to assess the effect of their training in Japan and to provide necessary technical guidance, as well as to improve JICA's future training courses. In 1977, 12 such follow-up training teams were dispatched for participants in 21 group training courses. Five teams among them conducted seminars, etc. to introduce to them up-to-date technology and knowledge.

b) Fostering of Alumni Associations

Alumni associations are organized and operated by the ex-participants on their own initiative in their respective countries. The Agency provided subsidy to help foster their activities, taking account of their performance.

c) Supply of Equipment

In order to facilitate the ex-participants to make effective use of their technical training obtained in Japan, the Agency supplies necessary equipment to the organizations where they are working.

In 1977, a total of 11 equipment were supplied for 10 countries.

d) Supply of Periodicals

For the purpose of enabling the ex-participants to display the effect of training in their jobs and to upgrade their technical level, the Agency furnished them with English periodicals of four kinds carrying the latest technical information.

e) Publication and Distribution of Alumni Bulletin "KENSU-IN (The Participants)"

This bulletin, published twice a year, was distributed to the ex-participants to strengthen their bonds and friendship with the Agency and among themselves through the introduction of Japanese culture, social events and Agency's activities.

SECTION 2 EXPERT DISPATCH PROGRAMME

1. OUTLINE

Dispatch of experts in diverse fields to developing countries is one of the principal vehicles of technical cooperation. Since 28 experts were sent to five Southeast Asian countries in 1955 under the Colombo Plan, their number has increased year after year, and the geographical coverage widened from Asia to Middle East, Africa and Latin America. To the dispatch of them requested by developing countries was added the dispatch at the request of international organizations. Their number increased from about 100 in 1960, to 200 in 1967, 300 in 1971, 400 in 1976 and 565 in 1977. The total number of experts sent since 1955 reached 4,662 by the end of March, 1978.

These experts were assigned to government offices, research and experimental stations, training institutes, etc. of recipient countries to offer roughly the followings:

- (1) Advice in the making of policy decisions
- (2) Guidance in technical education and training
- (3) Consultant services
- (4) Guidance in the operation, maintenance and repair of machinery and equipment

In the fields of medical care, agriculture and manufacturing industries, the so-called project-base technical cooperation has been added, which offers experts, equipment and training of participants in a package. The description and statistics in this section are related to the experts dispatched outside such packages.

2. PERFORMANCE IN 1977

In 1977, a total of 565 experts were newly dispatched abroad to add to the 328 experts who had been continuing overseas service from the preceding year. These 565 experts, comprised 504*(89.2%) who were sent on a bilateral basis at the request of

Note: * The figure includes 10 experts transferred from technical cooperation centres.

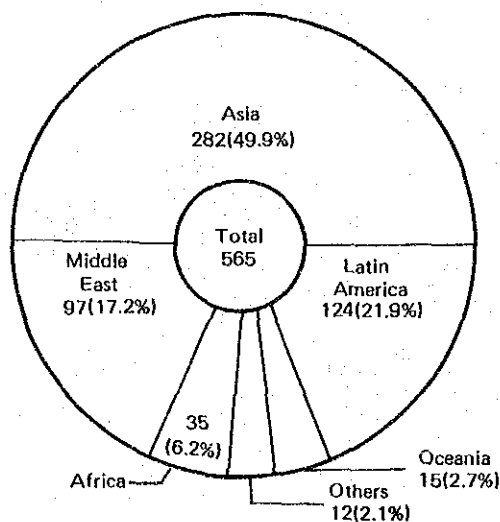
developing countries and 61 (10.8%) dispatched at the request of international organizations.

By region, 282 experts (49.9%) were sent to Asia, 97 (17.2%) to Middle East, 35 (6.2%) to Africa, 124 (21.9%) to Latin America, 15 (2.7%) to Oceania and 12 (2.1%) to others. (See Fig. 1)

The total number of experts dispatched in 1977 increased by 114 (25.3%) over those in 1976, when the increase was 77 (20.6%) compared with 1975. The increase in 1977 was in respect of experts sent on a bilateral basis. Geographically, Asia registered an increase of 61 experts (27.6%), Middle East 25 (34.7%) and Latin America 33 (36.3%). Africa showed a decrease of 22 (38.6%).

For service periods, experts sent for over one year numbered 184 (32.6%) and those sent for less than a year 381 (67.4%) as compared with 119 (26.4%) and 332 (73.6%), respectively in the preceding year. Experts for long-term service increased substantially both in number and proportion but experts for short service continue to be more numerous than those for long service.

Fig. 1. Dispatch of Experts by Region (1977)



Note:

The number of dispatched experts includes those on the request of International Organizations and moved from the technical cooperation centre programme.

Geographical distribution of JICA's experts shows that of the 15 countries in Asia where more than 10 experts each went were Indonesia (67), Korea (35), Thailand (38), the Philippines (20), Singapore (14), Bangladesh (12), Laos (12) and Nepal (11). Of the 14 countries in Middle East where more than 10 each went were Iran (33) and Egypt (12). Of the 14 countries in Africa which received Japanese experts, Kenya, only received as many as 10 experts. On the 21 countries in Latin America where the experts were sent, Brazil (17), Argentina (14), Mexico (11) and Colombia (11) received over 10.

In 1977, 61 experts, the same number as in the preceding year, were newly dispatched to various international organizations. As in the past, principal recipients were organizations in Asia such as the Southeast Asian Fisheries Development Centre (SEAFDEC) and the United Nations Economic and Social Commission for Asia and the Pacific (ESCAP). Experts were sent also to international organizations in Latin America and Africa including the United Nations Economic Commission for Latin America (ECLA), the African Development Bank (AFDB) and the West Africa Rice Development Association (WARDA).

Fig. 2. Dispatch of Experts by Sector (1976)

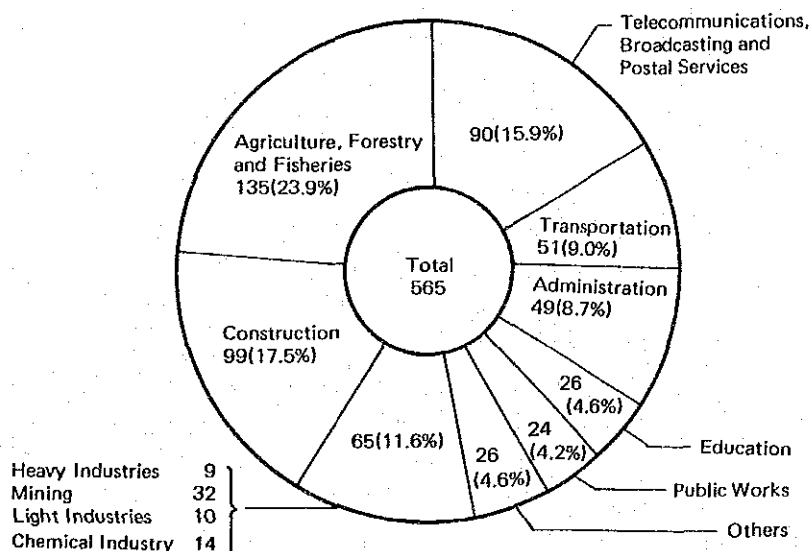


Table 1. Dispatch of Experts by Region and Sector (1977)

Sector	Region							Total	Sector (%)
	Asia	Middle East	Africa	Latin America	Oceania	Others	International Organizations		
Agriculture	31	6	1	27	5		7	77	13.6
Fisheries	12		7	17	3		19	58	10.3
Construction	67	3	10	5		9	5	99	17.5
Heavy Industries	2	3		4				9	1.6
Mining	17	4		5			6	32	5.7
Light Industries	1	1	1	7				10	1.8
Chemical Industry	3	1		5			5	14	2.5
Public Works	8	5	4	7				24	4.2
Transportation	15	14	3	12	2	3	2	51	9.0
Telecommunications, Broadcasting and Postal Services	32	39	2	14	2		1	90	15.9
Medical Care and Welfare	16							16	2.8
Atomic Energy				1				1	0.2
Management Technique		1	2				1	4	0.7
Education	14	3		5			4	26	4.6
Administration	19	14	1	5			10	49	8.7
Others	2			2			1	5	0.9
Total	239	94	31	116	12	12	61*	565	
Region (%)	42.3	16.7	16.7	20.5	2.1	2.1	10.8		100.0

Note: * International Organization 61 (Asia 43, Middle East 3, Latin America 8, Africa 4 and Oceania 3)

Sector-wise, construction accounted for 17.5% (99 experts), telecommunications, broadcasting and postal services 15.9% (90), agriculture 13.6% (77), fisheries 10.3% (58), transportation 9.0% (51), administration 8.7% (49), and heavy, mining, light and chemical industries 11.5% (65). (See Table 1 and Fig. 2) In recent years, fisheries have become one of the major fields, accounting for more than 10% of the total. The experts dispatched in the infrastructure sectors such as construction, telecommunications, broadcasting and postal services, transportation and public works accounted for 46.4% exceeding the 33.4% in the preceding year by a large margin.

Of the 565 experts newly dispatched in 1977 those for technical guidance and research accounted for 50.5% followed by survey experts accounting for 36.6%, with these two categories accounting for 86.7% of the total.

It is a recent tendency that an increasing weight is given to survey experts. This seems to reflect the tendency that developing countries make increasing use of experts in survey and feasibility studies in formulating their development projects.

In 1977, a joint research programme was newly implemented. This programme is premised on the worldwide reflection that the studies of development theory for developing countries have been pushed forward mainly from the standpoint of advanced countries, without the viewpoint of developing countries reflected on these studies. The programme is designed to dispatch from Japan experts on development theory to have them study, jointly with the researchers of the recipient country on an equal footing, the type of development most suitable to the actual conditions of that country and to build up the capacity for study of development problems in developing countries in the process.

This programme is not intended to provide any one-sided technical guidance and advice by Japanese experts, but to promote their joint studies with local research institutes (universities and others) or researchers of high level.

In 1977, this joint research was conducted in Indonesia under the theme "Economic Development in Indonesia and Economic Cooperation by Japan" and in Chile under the theme "Economic Development in Latin America and Economic Cooperation by Japan".

Another feature of the expert dispatch programme in 1977 was the dispatch of a number of experts abroad in connection with financial grant-aid provided by Japan for developing countries. Financial grand-aid by Japan was started in 1969. In connection with this aid, Japanese experts were dispatched for (1) surveys in advance on the supply of equipment and facilities, and for (2) follow-up training and guidance in operating the equipment and facilities supplied. In 1977, the advance surveys were conducted in 13 cases by 35 experts dispatched, and the follow-up services were

provided in one case involving 6 experts for the training and guidance in the operation of fishing boats supplied under a financial grant-aid.

The ultimate objective of the experts dispatched is to effect technology transfer through their counterparts in recipient countries. In this connection, in an effort to facilitate technology transfer, counterparts are invited to Japan for training. In 1977, 71 counterparts came to Japan for training.

Japan's cooperation with the Southeast Asian Fisheries Development Centre (SEAFDEC)

SEAFDEC is an international organization set up in December 1967 as the first project of the Ministerial Conference for Southeast Asia Development. Its objective is to contribute to the fisheries development in Southeast Asia through the training of fishery engineers, study of fishing techniques, development of fishing grounds, survey of fish resources and study of aquaculture techniques. At present the centre has its *Secretariat and Training Department* located in Thailand (in a suburb of Bangkok), Research Department in Singapore, and Aquaculture Department in the Philippines (in a suburb of Iloilo, Panay) and conducts activities as mentioned below.

Since the establishment of the Centre, Japan as a major donor country has cooperated with it supplying machinery and operating funds to these establishments, contributing scholarships in addition to the dispatch of experts and reception of participants for training in Japan. This is the largest cooperative project of Japan. In 1977, 20 experts were dispatched to the departments, 24 counterparts were accepted under the training programme for overseas participants, and 54.682 million yen worth of equipment was supplied.

(1) Training Department

This department is mainly engaged in the training of engineers and technicians in fisheries and studies of fishing techniques and fishing gear. Training is offered during training navigation aboard the training vessel "PAKNAM", supplied by Japan, with emphasis on developing practical skills in handling fishing gear, engines, navigation and machinery.

(2) Research Department

Development of fishing grounds, survey of fish resources and oceanographic

investigation are the main tasks of this department. As oceanographic investigation, experimental operations and collection of oceanographic data are conducted in the South China Sea, Malacca Strait and Indian Ocean.

The department has decided to implement studies about improvement of traditional aqua products and keeping fish fresh under the project for marine products processing techniques approved by the 9th meeting of the SEAFDEC Council in 1976.

(3) Aquaculture Department

The main tasks of this department are to train experts in extensive research and investigation and disseminate aquacultural knowledge and information, in connection with milkfish, fresh water and sea surface cultures centreing on shrimp, and the activities of the department are expanding rapidly. As regards shrimp, a certain measure of successful results has been attained using culture tanks.



Japanese expert providing guidance at the Training Department, the Southeast Asian Fisheries Development Centre in Thailand (Photo by Katsumi Yoshida)

SECTION 3 EQUIPMENT SUPPLY PROGRAMME

1. OUTLINE

The equipment supply programme was initiated in 1969 as part of Japan's *technical cooperation*. The programme is intended to contribute to the economic and social progress of developing countries through the supply of needed equipment at the request of the countries concerned where, although a certain measure of technical knowledge and experiences have been attained, training in and transfer and dissemination of technology are not smoothly carried out, and the existing technology is not utilized effectively due to lack or shortage of appropriate equipment.

Principal equipment for the purpose includes, (1) that which makes more effective the guidance services of the experts; (2) that needed by the counterparts of the country concerned to continue their services after the Japanese experts go home; and (3) that needed by the repatriated participants to use effectively their knowledge and skill gained in training in Japan. It is designed to enhance the effect of technical cooperation by, so to speak, an organic combination of man and material.

Many of the least developed countries suffer from a shortage of necessary equipment for financial reasons and assistance under the programme is requested strongly by them. The equipment supplied to them are being utilized properly.

With more than 10 years having elapsed since its initiation, the effectiveness of the programme has gained due recognition in both recipient countries and Japan. Up to the end of March, 1978, 2,568 million yen worth of equipment was supplied on 325 occasions.

2. PERFORMANCE IN 1977

In 1977, 461 million yen worth of equipment was supplied in a total of 34 cases. Seen by region, Asia recorded 11 cases amounting to 203 million yen (44.0%), Middle East 6 cases amounting to 62 million yen (13.4%), Africa 3 cases amounting to 47 million yen (10.2%) and Latin America 14 cases amounting to 149 million yen (32.4%).

Follow-up of experts' activities registered 233 million yen (50.5%) in 17 cases and services relating to repatriated participants 228 million yen (49.5%) in 17 cases.

SECTION 4 TECHNICAL COOPERATION CENTRE PROGRAMME

1. OUTLINE

Cooperation under the Technical Cooperation Centre Programme, which was inaugurated in 1957, now carries a heavy weight in Japan's overseas technical cooperation activities. Cooperation under this programme is generally offered on the basis of agreements between the governments of the recipient countries and Japan concerning the establishment and operation of Centres. In certain cases, it is offered in accordance with a Record of Discussions agreed upon for the implementation of a specific project and signed by the competent authorities of both countries. In either case, the Japanese government supplies equipment and materials required for the establishment and operation of centres, dispatches experts and undertakes training of their counterparts in Japan, whereas the government of the recipient country is required to secure the site and building of the Centre, provide the services of counterpart personnel, and defray the Centre's operational expenses.

In 1977, the programme covered a total of 31 Centres, of which 26 were operated under agreements or Records of Discussions including those extended after termination of the cooperation period, and 5 were at the stage of preliminary survey or planning (See Table 1). The programme covers diverse fields such as telecommunications and broadcasting, fisheries, road construction, small scale industry, livestock farming, vocational training, and so forth.

Cooperation under this programme, which is offered with a view to training and upbringing engineers and skilled workers whose services are required for socio-economic improvement of developing countries, can be broadly classified as follows.

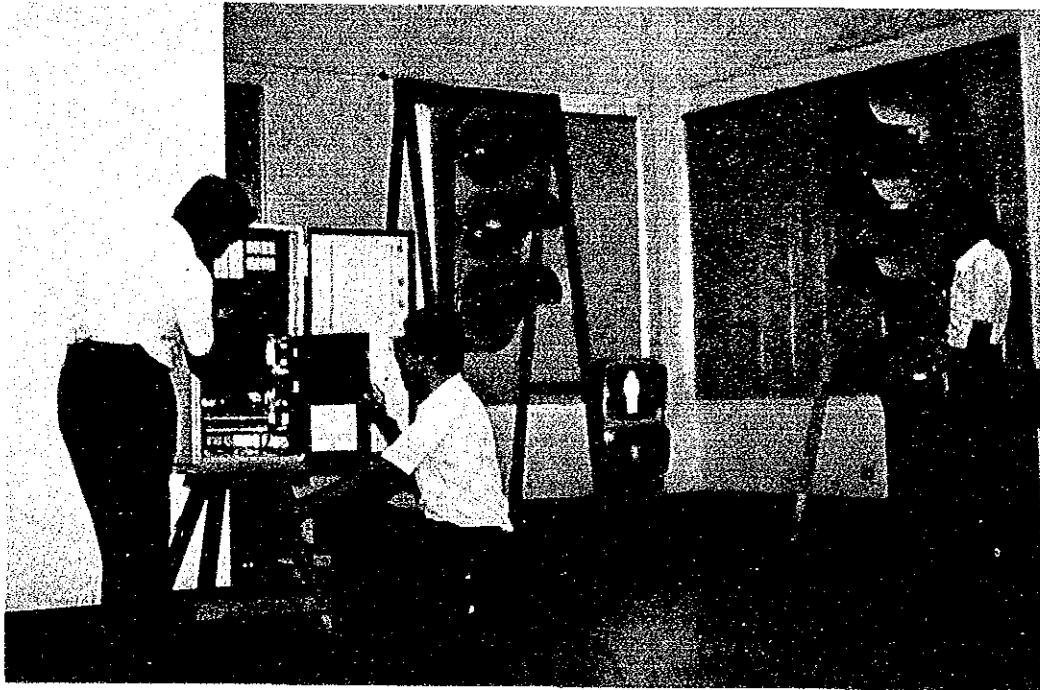
- (1) Cooperation in manpower resources development aimed at upbringing of middle level engineers and skilled workers
- (2) Cooperation in research of development and those which involve practical test
- (3) Cooperation in development and improvement of production techniques
- (4) Cooperation in vocational education

However, some centres may not be classified neatly as above and they will be operated under multipurpose cooperation.

2. PERFORMANCE IN 1977

In 1977, the technical cooperation centre programme covered a total of 31 centres including those under preliminary survey. The cooperation continued thus far was amplified by new projects, including the Technical Cooperation Project on Mine Safety, Peru; the Institute for Skill Development in Northeast Thailand; the Electric Service Centre of the Royal Scientific Society, Jordan; and the Tunisian National Fisheries Institute, Tunisia (respectively on a Record of Discussions basis).

For cooperation offered newly to three centres, the Agency sent experts to the Technical Cooperation Project on Mine Safety, Peru, and the Tunisian National Fisheries Institute, Tunisia, and received counterparts for training in Japan from the Institute for Skill Development in Northeast Thailand and the Electric Service Centre



Training at the Transport Training Centre, the Philippines

of the Royal Scientific Society, Jordan.

For the supply of equipment for the operation of technical cooperation centres in 1977, the Agency purchased and transported required equipment for a total of 16 centres. Also a total of 79 counterparts was received from different centres for training in Japan under the training programme for overseas participants.

In addition, preliminary survey teams were dispatched to study possible cooperation in the operation of the Japan-Singapore Training Centre, Singapore, of the SENAI Electric and Electronic Vocational Training Centre, Brazil and of the Electroplating and Electric Welding Centre, Malaysia. Examination of the possibility of such cooperation for the future has been started, based on the reports of these teams.

To provide continued assistance in the operation of the King Mongkut's Institute of Technology, Thailand, the Pakistan Telecommunication Research Centre, Pakistan, and the Iran Telecommunication Research Centre, Iran, after termination of the cooperation agreement, experts were sent under the expert dispatch programme.

Table 1. Present Situation of Technical Cooperation Centres

I. Centres whose Cooperation Period Terminated

(As of March 31, 1978)

Country/Centre	Scope of Cooperation	Performance
THAILAND King Mongkut's Institute of Technology	Microwave, Wire communication equipment, Computer control engineering, Broadcasting engineering, Carrier transmission, Radio engineering, Electronic circuit design	Accepted 3 counterparts
PAKISTAN Pakistan Telecommunication Research Centre	Microwave, Carrier transmission, Telephone exchange, Telegraph, Power supply	Accepted 2 counterparts
IRAN Iran Telecommunication Research Centre	Wireless, Telephone, Microwave, Carrier transmission, Telegraph, Radio wave regulation, Lines	Dispatched experts

II. Centres in Continued Operation

1. Centres operated under Agreements

Country/Centre	Scope of Cooperation	Performance
MALAYSIA Marine Engineering Training Project	Marine engineering, Marine engine	Dispatched evaluation survey team and experts Accepted 4 counterparts Equipment supply (equivalent to 13,133 thousand yen)
INDONESIA Sulawesi Industrial Vocational Training Centre	Metal working, Electricity, Wood working, Construction, Automobile maintenance and repair	Dispatched experts Accepted 6 counterparts Equipment supply (equivalent to 28,490 thousand yen)
SRI LANKA Sri Lanka Fisheries Training Centre	Fisheries, Marine engine, Fishing techniques, Fishing gear	Dispatched evaluation survey team and experts Accepted 3 counterparts Equipment supply (equivalent to 25,367 thousand yen)
PERU Fish Processing Centre	Development of processed marine products for food, and research on marine products processing techniques	Dispatched itinerant guidance team and experts Accepted 6 counterparts Equipment supply (equivalent to 40,588 thousand yen)
KOREA Japanese - Korea Daejeon Vocational Training Institute	Welding, Electricity, Metal finishing, Electronics, Machinery	Dispatched itinerant guidance team and experts Accepted 7 counterparts Equipment supply (equivalent to 129,891 thousand yen)
EGYPT Shoubra Vocational Training Centre	Metal working, Textile, Electricity	Dispatched itinerant guidance team and experts Accepted 2 counterparts Equipment supply (equivalent to 81,310 thousand yen)

2. Centres operated under Records of Discussions

Country/Centre	Scope of Cooperation	Performance
TURKEY Istanbul Fisheries and Water Products Vocational High School	Fisheries education, Propagation techniques, Fishing methods	Dispatched evaluation survey team and experts Accepted 1 counterpart Equipment supply (equivalent to 64,209 thousand yen)
SAUDI ARABIA Riyadh Electronics Technical Institute	Radio and TV, engineering, Telecommunications, Electronic measurement	
KENYA National Youth Service Advanced Training Centre	Mechanical engineering, Electric work finishing	Dispatched experts Equipment supply (equivalent to 20,207 thousand yen)
IRAQ Iraq Electrical and Electronic Industrial Training Centre	Elevator, Refrigerator, Air conditioner, TV and Radio engineering, Portable computer	Dispatched experts Accepted 7 counterparts Equipment supply (equivalent to 27,164 thousand yen)
PHILIPPINES Ceramic Research and Development Centre	Ceramics	Dispatched experts Accepted 6 counterparts Equipment supply (equivalent to 153,803 thousand yen)
MALAYSIA MARA Vocational Training Institute at Johor Bharu	Marine engine, Welding (shipbuilding), Electroplating	Dispatched experts Accepted 4 counterparts Equipment supply (equivalent to 89,195 thousand yen)
EGYPT Arab Maritime Transport Academy	Sea men's Training Center (deck, engine and electricity), Navigation department, Engine department	Dispatched itinerant guidance team and experts Accepted 3 counterparts Equipment supply (equivalent to 132,902 thousand yen)

Country/Centre	Scope of Cooperation	Performance
THAILAND Furniture Industry Department Centre	Furniture making and design	Dispatched experts Accepted 2 counterparts Equipment supply (equivalent to 106,852 thousand yen)
PHILIPPINES Transport Training Centre	Traffic planning, Traffic engineering, Traffic control	Dispatched experts Accepted 8 counterparts Equipment supply (equivalent to 73,356 thousand yen)
PARAGUAY Centro de Entrenamiento Vocacional	Wood working, Machinery, Automobile maintenance and repair, Electricity, Electronics, Piping (plumbing), Refrigerator, Architecture	Dispatched experts Accepted 2 counterparts

3. Centres operated after Termination of Agreements

Country/Centre	Scope of Cooperation	Performance
THAILAND Technical Cooperation Centre for Road Construction and Training at Surat Thani	Civil engineering, Machinery, Pavement work, work, Construction Technology	Dispatched experts Accepted 5 counterparts Equipment supply (equivalent to 10,041 thousand yen)

4. Centres operated after Termination of Records of Discussions

Country/Centre	Scope of Cooperation	Performance
SYRIA Poultry Disease Control Centre	Consulting for prevention of poultry disease (Diagnosis, Research, Propagation)	Dispatched evaluation survey team, experts and instrument repair survey team Accepted 1 counterpart Equipment supply (equivalent to 21,490 thousand yen)

Country/Centre	Scope of Cooperation	Performance
IRAN Vocational Training Centre of Karadi	Electricity, Electronics, Road construction, Machinery maintenance and repair	Dispatched evaluation survey team and experts Accepted 3 counterparts Equipment supply (equivalent to 71,734 thousand yen)

II. New Centres

1. Centres operated under agreements

Country/Centre	Scope of Cooperation	Performance
PERU Technical Cooperation Project on Mine Safety	Mine safety	Dispatched experts
THAILAND Instiute for Skill Development in the Northeast of Thailand	Automobile, Farming machinery, Skeet metal, Welding, Machinery, Electricity, Electronics, Architecture, Construction	Dispatched cooperation planning survey team Accepted 2 counterparts
JORDAN Electronic Service Center of the Royal Scientific Society	Electronics (maintenance, test, verify, standardization)	Dispatched cooperation planning survey team Accepted 2 counterparts
TUNISIA Tunisian National Fisheries Institute	Fisheries, Marine engine, Fishing techniques, Fishing gear, Coastal fishing improvement	Dispatched cooperation planning survey team and experts

2. Centre under planning or survey

Country/Centre	Scope of Cooperation	Performance
SINGAPORE Japanese - Singapore Training Centre		Dispatched preliminary survey team

Country/Centre	Scope of Cooperation	Performance
MALAYSIA Training Center for Electricity, Plating, Press, Welding		Dispatched preliminary survey team
TANZANIA Kilimanjaro Industrial Development Centre		Dispatched implementation survey team
BURMA Bridge Engineering Training Centre		Dispatched cooperation planning survey team
BRAZIL SENAI Electricity and Electronics Vocational Training Centre		Dispatched preliminary survey team

SECTION 5 DEVELOPMENT SURVEY PROGRAMME

1. OUTLINE

The term "development survey" means all such activities as "formation of survey teams composed of experts, their dispatch to developing countries to conduct field survey for public development projects, and pre- and post-survey work in Japan including the preparation of survey reports of detailed designs for the promotion of such development projects."

Promotion of comprehensive regional development projects and public development projects bears closely upon the socio-economic progress of developing countries, and it has often been the case that the Japanese government is requested by these countries to cooperate in the planning of such comprehensive or individual development projects. To meet such request the Agency conducts development surveys as part of Japan's government-sponsored technical cooperation.

The phase and purpose of the surveys vary largely according to the nature or objectives of each individual project for which cooperation is requested by the recipient country. Specifically, the development surveys can be broadly classified as follows.

- a) Surveys called "reconnaissance survey", "preliminary survey" and "basic survey" which are carried out to formulate the master plan of the project and chart its course, or to pass judgement as to whether it is desirable to proceed to the next stage of survey, i.e., feasibility study.
- b) "Feasibility study" which is conducted to map out the facilities construction plan and the implementation plan for the project, and to provide comments and recommendations on the project feasibility from economic, financial and technical viewpoints.
- c) "Surveys for detailed design" which are aimed at providing various data, detailed designs, specifications, etc. required for construction work under

the project, a more detailed explanation is given below on these surveys according to project phasing.

(1) Surveys for Preparation of Master Plan

In recent years, development projects have become increasingly larger in scale and many of them are intended for comprehensive regional development, and it is often the case that a project embraces a number of related projects in the same development sector. Accordingly, surveys for such projects should start with the preparation of a comprehensive and basic project plan usually called "Master Plan". Surveys of this type are for the purpose of providing the basic data for socio-economic development strategy.

(2) Surveys for Preparation of Maps and Charts

These surveys are aimed at preparation of the topographical maps for national land development which serve as the basic data essential for planning development projects. In many developing countries, planning of development projects in various fields is hindered by a lack of fundamental maps. Surveys for preparation of maps and charts therefore play a very important role in the planning of various development programmes or projects in such countries.

(3) Pre-feasibility Study

Pre-feasibility study comprises the project finding survey and the preliminary survey.

Project finding survey, intended for positive selection and screening of promising projects, is conducted to study the background of the development cooperation request, the importance of the candidate projects in the whole socio-economic development plan, the relationship between the candidate projects and the related projects which are already in progress or under planning, and possible linkage with financial cooperation.

Preliminary survey, on the other hand, is performed to assure that the fullscale feasibility study for the cooperation project can be carried out efficiently, and covers such activities as the fundamental data collection including field surveys in the project area and discussions with competent authorities of the recipient country regarding the

scope of the feasibility study.

(4) Feasibility Study

Feasibility study constitutes the nucleus of all development surveys. It is carried out to study technical and economic feasibility of each project, to make recommendations on its implementation, and to prepare a feasibility report for the government of the recipient country. Feasibility report thus prepared serves as fundamental data to seek financial aid from Japan or international financing organizations for project implementation.

In this study, comprehensive technical knowledge related to the project and Japan's high level technology are fully utilized. Feasibility study requires a longer period to prepare than any other development surveys do and consequently makes it possible to transfer project-related technical knowledge to the recipient country during the survey period. This is therefore a valued means of technical cooperation.

(5) Surveys Directly Related to Financial Cooperation

These surveys are conducted in direct relation to or for the extension of yen credit and other financial cooperation. It is expected that surveys of this type will increase in the coming years and break the financial bottleneck in government-sponsored technical cooperation.

(6) Survey Directly Related to Grant-Aid Programme

These Surveys have been conducted increasingly in recent years with the growing demand for Japan's grant-aid. Financial aid of this type needs to be preceded by a careful study of the outline, scale and fund requirement of the project for which the aid is requested. These surveys are intended to identify the purpose of such projects and collect relevant data in order to prepare basic designs. Hence, they may be considered basic surveys for grant-aid cooperation and are called special project surveys.

(7) Surveys for Preparation of Detailed Designs

These surveys are for obtaining various data (including final drawings and specifications) needed to implement a planned project. Since utmost precision is required for

the preparation of a detailed project design and related work, these surveys are usually costly and time-consuming. There has been growing demand for Japan's cooperation in such surveys.

(8) Basic Surveys for Resources Development Cooperation

Surveys to explore mineral deposits have been conducted since 1970 by geological surveys, bioprospecting, boring surveys, and the like. Surveys for resources development are stalemated in many developing countries due to shortages of necessary equipment, engineers and funds. Surveys for resources development cooperation are intended to provide such countries with fundamental data for natural resources development.

(9) Surveys for Aftercare Services

While development surveys are conducted in various phases as previously mentioned, it is occasionally necessary to review a survey report after its completion or to reexamine the project after the lapse of several years. These surveys are carried out for that purpose.

The development survey programme has expanded steadily over the past 16 years and the budget for the programme increased rapidly to 8,636.37 million yen in 1977 from the initial 174.75 million yen (Fig. 1). In parallel with it, the surveys have been improved in their quality, scope and diversity.

Table 1 shows the number of survey teams dispatched from 1962 to 1977, for a total of 779 projects. By country, Indonesia received survey teams for 123 projects, the Philippines 70, Thailand 56, Pakistan 29 and Peru 25 followed by other countries. By region, Asia received survey teams for 450 projects to account for 58% of the total – an overwhelming proportion. In recent years an increasing number of survey teams were dispatched to Middle East and Latin America.

Survey teams dispatched from 1962 to 1977 numbered 7,579 in total.

Sectors to be covered by the development survey programme are comprehensive regional development; increase of production (agriculture, forestry, fisheries, mining and manufacturing industries); improvement of infrastructure (roads, railways, ports and harbours, airports, ships, communications, planning of land use, urban transport,

Fig. 1. Budget for Development Survey Programme (Initial Budget)

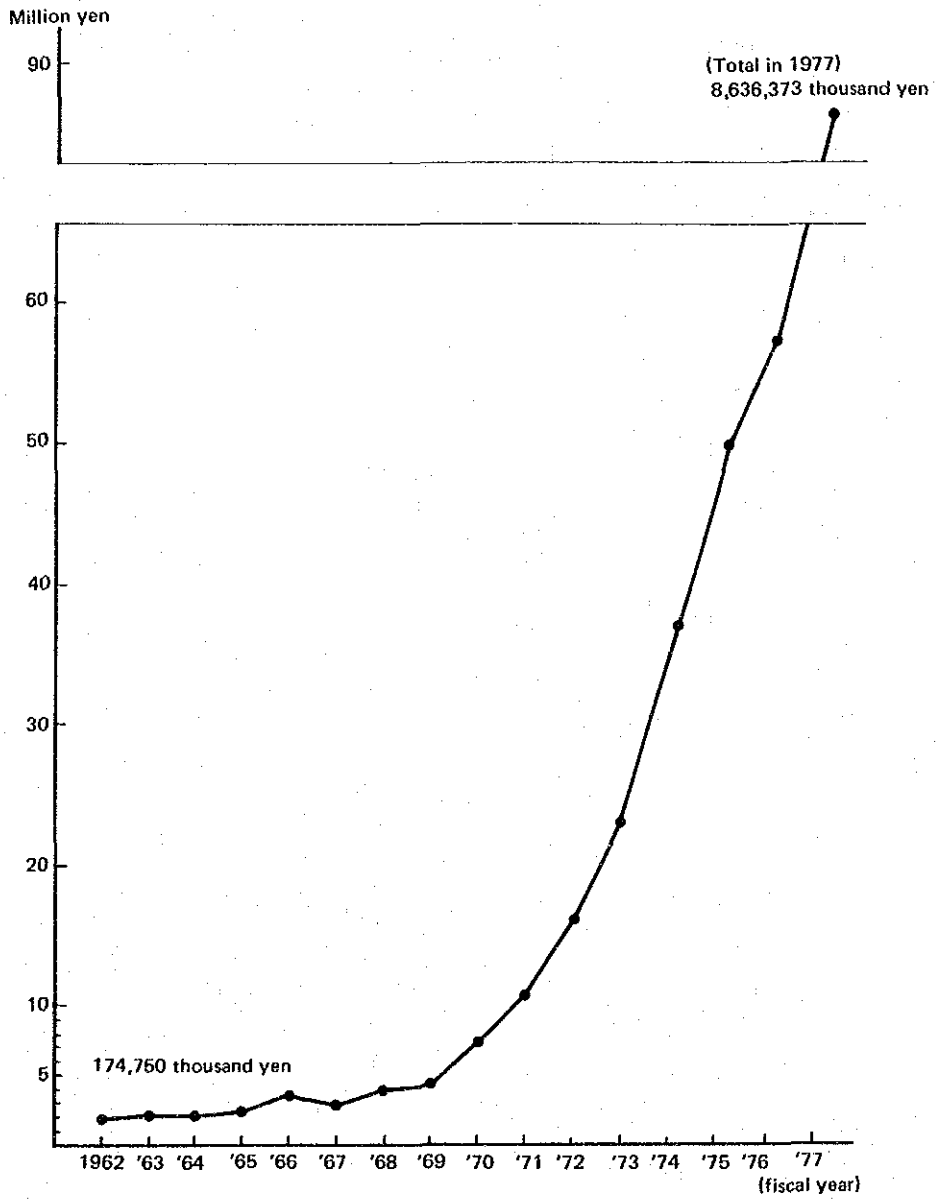


Table 1. Field Survey Performance (1962 - 1977)

Unit: Project

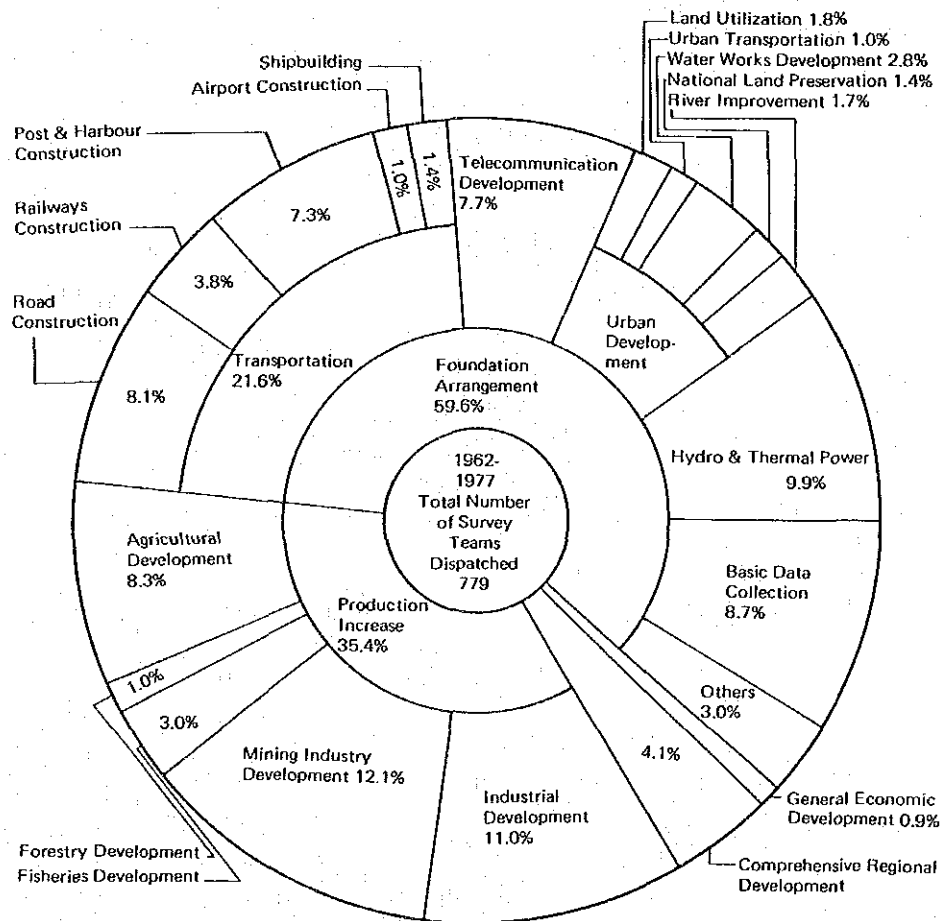
Classification	Year	Total Number for 1962 - 1973	1974	1975	1976	1977	Total
1. Preliminary Survey		34	10	15	10	21	90
2. Survey for Comprehensive Development Project				2	3	2	7
3. Feasibility Study		172	19	17	25	27	260
4. Long-term Survey		3	1	1	2	2	9
5. Survey for Aftercare Services		7	2	1	2	3	15
6. Survey for Preparation of Maps and Charts		4	3	3	4	4	18
7. Survey for Agricultural and Forestry Development Project				7	24	26	57
(Preliminary Survey)					(12)	(7)	(19)
(Feasibility Study)					(6)	(13)	(19)
(Forestry Resources Survey)					(1)	(2)	(3)
(Fishery Resources Survey)					(5)	(4)	(9)
8. Detailed Design		16	2	11	11	22	222
9. Ad Hoc Survey			3	1	7	12	23
10. Large Scale Project Survey						7	7
11. Overseas Development		98	18	24	24	46	210
12. Resources Development		15	8	9	11	15	58
Others		3					3
Total		352	66	81	113	167	779

- Note:
1. This table is accounted the total number of projects carried out field surveys by each year from 1962 to 1977.
 2. The classification of surveys is on the basis of each budget item.

preservation of national land, river improvement, hydraulic and thermal power generation, and basic data – preparation of maps and marine charts); and economy in general.

Fig. 2 shows the number of survey teams dispatched by sector, with the transportation, mining and manufacturing industries accounting for relatively large proportions.

Fig. 2. Surveys by Sector



Source: Social Development Department

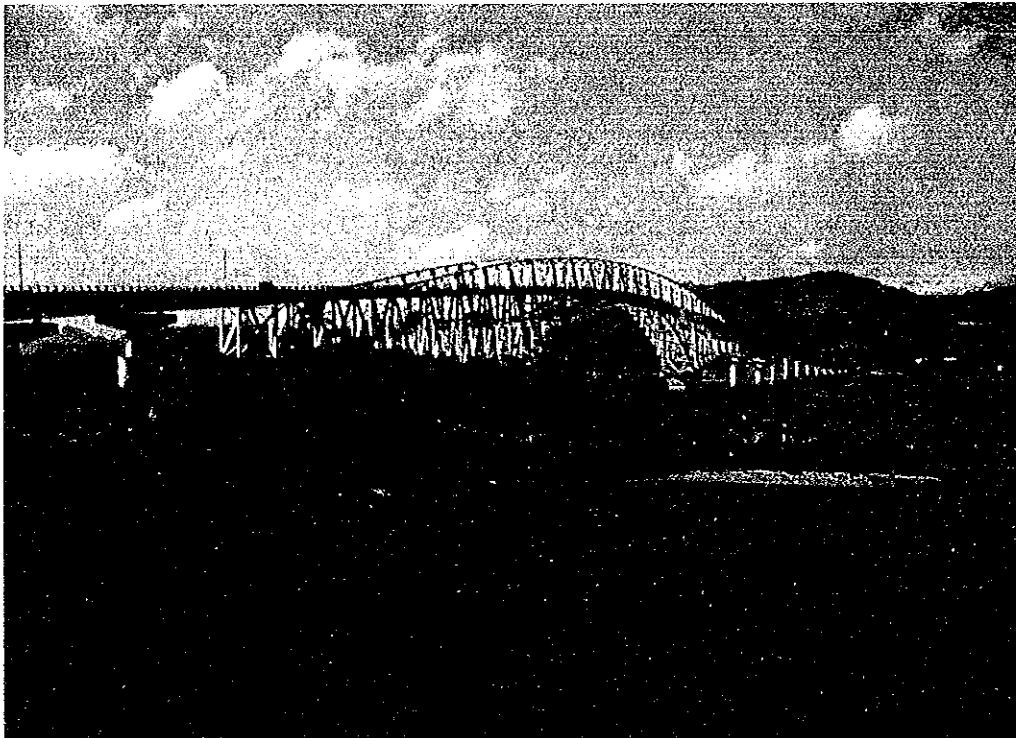
2. PERFORMANCE IN 1977

- (1) In 1977, development surveys were conducted for a total of 197 projects (with survey teams dispatched abroad for 167 projects), with a budgetary appropriation of 7,915,564 million yen, of which 1,298.025 million yen was carried over from the preceding year.
- (2) Surveys carried out in 1977 are outlined below.

Country	Name of Survey	Remark
Bangladesh	Survey for Television Studio Construction Project	6
	Survey for Narayananj Narshindi Irrigation Project	4
	Survey for Automobile Repair & Maintenance	4
Burma	Survey for the Construction Plan of Biomedical Research Centre	6
	Survey for Irrawaddy Agriculture Integrated Development Project	1
Indonesia	Survey for Extension Project of Bitung Port Project	4
	Survey for the Development Plan of the Banjarmasin Port Project	4
	Survey for Overall Ular River Improvement Project	3
	Survey for Northern and Western Sumatra Tourism Development Project	1
	Survey for Shipbuilding Industry Development	1
	Survey for Jakarta Ring Road Project	4
	Survey for Master Plan of Central South Sulawesi Water Resources Development Project	1
	Survey for the Construction Project of Semarang Port	4
	Survey for the Master Plan Study for Mt. Merapi Project	1
	Survey for Brantas Middle Reaches River Improvement Project	9
	Survey for Rating School Construction Project	6
	Survey for Riam Kanan Irrigation Project	4
	Survey for Forestry Cooperation in Java	
	Survey for the Management Plan of Upper Musi Watershed in South Sumatra	
	Survey for Java Regional Study, Phase I, Part B (Central Java)	1
Survey for Sodang River Bakar Hydroelectric Power Development Project	4	
Survey for the Rehabilitation of Ombilin Coal Mine	1, 4	
Survey for the Construction of Bukit Asam Coal Firing Thermal Power Plant	4	

Country	Name of Survey	Remark
	Survey for Pre-feasibility Study of Energy Data Bank	3
	Survey for the Construction of Urea Plant in Aceh	5
	Survey for Collaborative Mineral Resources Exploration	8
	Survey for Uranium Exploration Project in Sumatra, Indonesia	8
Korea	Survey for Subway Project (Route No. 2)	4
	Survey for the Long-term Multi-purpose Dam Schemes	3, 4
	Survey for the First Stage for Tidal Reclamation Project on the West-southern Coast	4
Malaysia	Survey for the Kuantan-Kuching Submarine Cable Project	4
	Survey for the Beluru/Long Lama/Limbang Trunk Road Construction Project in Sarawak	3
	Survey for the Drainage and Sewerage System Project in Butterworth/Bukit Mertajam Metropolitan Area	1, 4
	Survey for Trengganu Tengah Swamp Area Agricultural Development Project	3
	Survey for the Master Plan on Petroleum Industry	4
Nepal	Survey for the Construction Plan of Health Posts and Laboratory	6
	Survey for Kulikhani No. 2 Hydro-power Station Project and Kathmandu Transmission & Distribution System Project	4
	Survey for the Construction of Udaipur Cement Plant	4
Pakistan	Survey for the Development of Shipbuilding and Navigation	3
	Survey for Central Telecommunication Research Laboratories Construction Project	6
	Survey for Project Finding of Industry, Mining & Power	3
The Philippines	Survey for Telecommunication Network in the North of Luzon Island	3, 4
	Survey for the Pasig-Potrero River Flood Centre and Sabo Project	1
	Survey for Flood Forecasting System	4
	Survey for C-3 & R-4 Roads Construction Project	4
	Survey for Mapping Project	2
	Survey for Ferryboat Construction Project	5
	Survey for the Extension Plan of the National Hydraulic Research Centre	6
	Survey for Project Finding and Identification in the Philippines	3
	Survey for Bohol Integrated Agricultural Development Project	4
	Survey for Ilocos Norte Irrigation Project	4
	Survey for Review and Complementary Study Report of Fishing Port	5

Country	Name of Survey	Remark
	Survey for Economic Cooperation	3
	Survey for Project Finding for Industry, Mining and Power	3
	Survey for Integrated Steel Mill Project in Mindanao Island	3
	Survey for Cagayan Valley Electrification Project	4
	Survey for the Proposed Mine Tailings Disposal System in the Baguio Mining District	3, 4
Sri Lanka	Survey for Outside Colombo Area Telecommunication Development Scheme/Stage-II Project	5
	Survey for Inginiyitiya Reservoir Project	5
	Survey for the Establishment of a Synthetic Textile Mill Project	4
	Survey for Development of Free Trade Zone	3



Marcos Bridge, Philippine - Japan Friendship Road, the Philippines

Country	Name of Survey	Remark
Thailand	Survey for the Road Construction Project between Phetchabun and Chuibadan	3
	Survey for the Separate System of Metropolitan Water Supply in Bangkok	4
	Survey for Pattaya Tourism Development Project	1
	Survey for the Detailed Design of Bangkok Telephone Network Project	7
	Survey for the Construction of Northeastern Regional Institute for Skill Development	6
	Survey for Kasetsart University Development Project	6
	Survey for Irrigated Agriculture Development Project in the West Bank Tract of the Greater Chao Phya	4
	Survey for Master Plan Study on the Greater Mae Klong River Basin Development Project	1
	Survey for the Rehabilitation of Mae Moh Fertilizer Plant	3
Survey for the Industrial Development Plan in North-east Thailand	3	
Thailand, Malaysia, Singapore	Survey for the Thailand - Malaysia - Singapore Submarine Cable Construction Project	3
Indonesia, Malaysia Singapore	Survey for Electronic and Other Navigation Aid System Project in in Malacca-Singapore Strait	4
	Survey for the Joint Tidal and Current Studies and Common Datum Chart Project in the Strait of Malacca and Singapore	2
Indonesia, Thailand, Malaysia, Singapore The Philippines	Survey for Technical Cooperation	3
Afghanistan	Survey for Television Broadcasting Construction Project	6
	Survey for the Construction Plan of the National Tuberculosis Institute	6
	Survey for Rice Development Project Center	6
Egypt	Survey for Technical Cooperation to the Economic-planning Section of Suez Canal Authority	3
	Survey for the Rehabilitation of the Egyptian Iron and Steel Co., Helwan Egypt	4
Iran	Survey for the Development Plan of Petrochemical Downstream Industries	3
	Survey for Petrochemical Industry Products	4

Country	Name of Survey	Remark
Iraq	Survey for Kahlaa Rice Farm Project	4
Jordan	Survey for Integrated Regional Development of the Northern Jordan	1, 3
Libya	Survey for Technical Cooperation in Telecommunications	4
Morocco	Survey for Collaborative Mineral Resources Exploration	8
Oman	Survey for Project Finding of Industry, Mining and Power	3
	Survey for the Industrial Development Plan of Oman	3
Saudi Arabia	Survey for Rub Al Khali Desert Mapping Project	2
	Survey for the Saline Water Conversion Scheme	3
	Survey for the Construction of Petrochemical Plant	3
Sudan	Survey for Road Project in Central Sudan	4
	Survey for Gasaba Agriculture Development Project	4
	Survey for Infrastructure Development Planning for the Ingessana Hills District Sudan	3
Tunisia	Survey for Electric Power Development Plan	1
	Survey for the Kasseb Pumped - Storage Power Projects	4
Turkey	Survey for Collaborative Mineral Resources Exploration	8
Yemen	Survey for the Hajiha Agricultural Development Planning	1
Gabon	Survey for Coastal Fisheries Resources in Gabon	8
Guinea	Survey for Mapping Project	2
Kenya	Survey for FM. Broadcasting Network Expansion Project	4
	Survey for Mapping Project of East Kenya	2
	Survey for the Construction Project on the Kenyatta College of Agriculture and Technology	3
	Survey for Development of Nyeri Industrial Estate	4
	Survey for the Modernisation Plan of Wood Processing Industry	4
Liberia	Survey for Hydro Power Project in St. John River	3
Madagascar	Survey for Telecommunication Links by Microwave in the South of Madagascar	4

Country	Name of Survey	Remark
Malawi	Survey for Coal Development Project	3
	Survey for Development Project of Ngana Coal Field	4
Mali	Survey for Subterranean Water	3
	Survey for the Development Survey Projects	3
Mauritius	Survey for Road Construction Project	3
		4, 6
Nigeria	Survey for Port Project	3
Senegal	Survey for Faleme Railway Project	2, 4
Tanzania	Survey of Kibit-Lindi Coastal Link Road Project	4
	Survey for the Integrated Development Plan, Killimanjaro	1
	Survey for Caustic Soda and PVC Project	5
Uganda	Survey for Development of Kilembe Mine	4
Zair	Survey for Matadi Bridge Construction Project	3
Kenya, Tanzania, Zambia	Survey for Finding of Industry, Mining and Power in Africa	3
Mali, Nigeria, Liberia	Survey for Project Finding of Industry, Mining and Power in Africa	3
Madagascar	Survey for Finding of Collaborative Mineral Resources Exploration in Africa	3
Argentina	Survey for Mineral Resources Exploration	8
Bolivia	Survey for Viru-Viru International Air Port Development Project	3
	Survey for Mapping Project of Chapare Area	2
	Survey for Gastro Enterological Research Institute	6
	Survey for Hydro Power Development Project in the Pilaya River	3
	Survey for Mineral Resources Exploration	8
Brazil	Survey for the Construction Project of the Praia Mole Port	4, 5
	Survey for Victoria Urban Development Project	3
Chile	Survey for Mineral Resources Exploration	8

Country	Name of Survey	Remark
Colombia	Survey for Fisheries Resources Development Project	3
	Survey for Coal Development Project in Cali Coal Field	4
Costa Rica	Survey for the Hinterland of Caldera and Puntarenas Port	1
	Survey for Reventazon and Pacuare Rivers Hydroelectric Power Development Plan	4
El Salvador	Survey for Development of Metal Mechanical Industries	4
Guatemala	Survey for Geothermal Power Station Development Plan	4
	Survey for Collaborative Mineral Resources Exploration	8
Honduras	Survey for New Tegucigalpa Airport Construction Project	3
	Survey for Agricultural Development Project of the Choluteca River Basin	4
	Survey for Collaborative Mineral Resources Exploration	8
Mexico	Survey for Mexico City Urban Railways Construction Project	4
	Survey for Geological and Mineral Resources Exploration	8
Paraguay	Feasibility Study for Fleet Expansion Project	4, 5
	Survey for the Construction of Vocational Training Center	4, 6
Peru	Survey for the Santa River Hydro-electric Power Development	3
	Survey for Collaborative Mineral Resources Exploration	8
Mexico, Guatemala, Colombia	Survey for Technical Cooperation	3
Bolivia, Paraguay	Survey for Project Finding and Screening for Development in Latin American Countries	3
Fiji	Survey for Exploration of Coconut Stands	1
Papua New Guinea	Survey for Papua New Guinea Purari River Hydroelectric Power Development Plan	4
Gilbert and Ellice Islands	Survey for Fisheries Resources Development	8

Note: The surveys are classified as follows and indicated by the numbers designated to respective items.

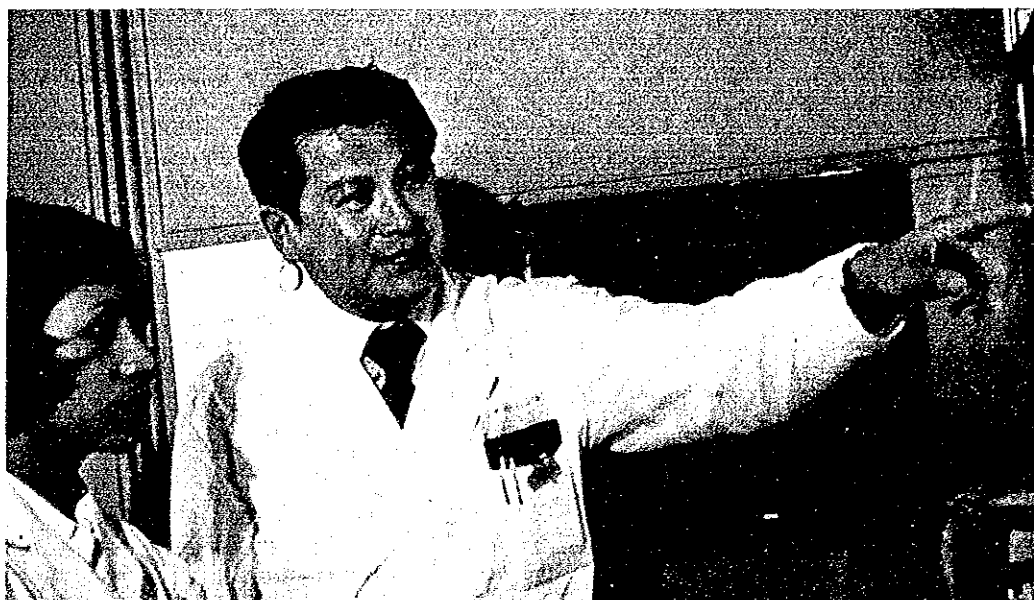
- | | |
|---|--|
| 1) Surveys for the purpose of preparing master plans, etc. | 6) Surveys directly related to financial co-operation. |
| 2) Surveys for the purpose of drawing maps and marine charts. | 7) Detailed designing. |
| 3) Preliminary surveys. | 8) Basic survey for resources development cooperation. |
| 4) Feasibility studies of projects. | 9) Surveys with the object of providing aftercare. |
| 5) Surveys directly related to financial cooperation. | |

SECTION 6 HEALTH AND MEDICAL COOPERATION PROGRAMME

1. OUTLINE

The health and medical cooperation programme of Japan started full-scale in 1966 as part of cooperation in social development in developing regions. At present, medical cooperation is offered to developing countries in Asia as well as in Middle East, Africa and Latin America, mainly in the form of project-based cooperation, combining effectively the dispatch of medical experts, acceptance of participants for training in Japan and supply of equipment. In 1977, 29 cooperation projects were implemented in 23 countries.

With the change in needs of developing countries, the health and medical cooperation, directed mainly to the studies of parasites, virus and tropical diseases such as



Counterpart receiving guidance on electro-encephlogram

cholera, has been expanded to include organic diseases, such as cancer and cardiopathy, and the fields of clinical medicine, i.e. internal medicine (tuberculosis, etc.) and surgery (chest surgery, plastic surgery). A conspicuous trend in recent years, has been the assistance extended for the improvement of medical services for community residents and covering the fields of environmental and public hygiene for community-wide people.

The cases where medical cooperation is offered on a large scale with financial cooperation, have increased rapidly, and enhanced cooperation has been offered in the improvement of research and education facilities such as the Biomedical Research Centre, Burma, and the Basic Medical Science Research Institute of the University of Ghana, as well as in the improvement of health and medical facilities such as the Peradenia Second Education Hospital of Sri Lanka, the Tuberculosis Research Institute of Afghanistan and the Gastroenteric Diseases Research Centre of Bolivia. On the other side of the programme, expanding both qualitatively and quantitatively, the medical cooperation programme shows a marked trend toward comprehensive and large-scale operation, coupled with tie-up to programmes in agricultural, industrial and other fields.

Moreover, cooperation with Asian countries in the study of population problem and family planning has recently become an internationally important theme. As the only Asian country which has successfully slowed down the increase in its population and shares a common social basis, Japan offers cooperation in these fields at the request of various countries in Asia. She is faced with the need to advance such cooperation positively in concert with the United Nations and others.

Besides the project-based cooperation, well-known Japanese medical doctors, including university professors and top-level experts on the subject, are sent abroad to give lectures to those concerned. Such medical cooperation plays an important role through the introduction of Japan's advanced therapeutic techniques (cardiosurgery, endoscopic technology for early detection of cancers, etc.) and upgrading of the technical level of Japanese medical experts stationed in developing countries and ex-participants.

Medical cooperation is much the same in essence as other types of technical cooperation in that it aims at upgrading human resources required for the socio-economic progress of developing countries, while at the same time encouraging self-reliance of such countries. Such cooperation squares precisely with the idea, "response to basic human needs", which is now a consensus reached among advanced countries as a basic philosophy of assistance.

2. PERFORMANCE IN 1977

In 1977, a total of 214 medical experts were dispatched abroad, 1,637.635 million yen worth of equipment supplied and 21 survey teams (comprising 88 members in total) sent overseas. The details are shown in Tables 1 and 2.

Table 1. Performance in 1977 by Country and Project

Country	Title of Project	Outline of Activities	Performance
Bangladesh	Family Planning	Cooperation in the extension of family planning in DND areas (model areas) in a suburb of Dacca, including health improvement services for mothers and children	Experts and a cooperation planning survey team dispatched; 71,235 thousand yen worth of equipment and instruments supplied; 2 participants accepted for training
Burma	Dental Medicine	Guidance in research in stomatology and microbiology	Experts dispatched; 27,621 thousand yen worth of equipment and instruments supplied; 3 participants accepted for training
Indonesia	Centre for Biomedical Research	Cooperation in the standardization of test method of biomedical preparations, and in the strengthening of virus researches	Experts dispatched; 99,664 thousand yen worth of equipment and instruments supplied; 6 participants accepted for training
	Family Planning	Cooperation in the extension of family planning	Experts dispatched; 71,268 thousand yen worth of equipment and instruments supplied; 3 participants accepted for training
Korea	Clinical Nutrition Research Centre	Cooperation in nutrition research, and in the improvement of clinical diagnosis capacity	Experts dispatched; 116,651 thousand yen worth of equipment and instruments supplied; 3 participants accepted for training

Country	Title of Project	Outline of Activities	Performance
Nepal	Development of Basic Health Services in the Western Region	Cooperation in the improvement of basic health services in the western region, especially public hygiene, clinical examination techniques and tuberculosis control	Experts and an evaluation survey team dispatched; 80,987 thousand yen worth of equipment and instruments supplied
The Philippines	Schistosomiasis Research	Cooperation in the research of immunological diagnosis, in development of vegetable snail-killing agents, in research of ecological distribution of carrier snails, and in clinical therapy and treatment research for the prevention of schistosomiasis	Experts and an evaluation survey team dispatched; 65,693 thousand yen worth of equipment and instruments supplied; 5 participants accepted for training
	Family Planning	Cooperation in the extension of family planning	An evaluation survey team dispatched; 69,301 thousand yen worth of equipment and instruments supplied
Thailand	Promotion of Provincial Health Services	Cooperation in the improvement of public health and hygiene in model areas	Experts and a itinerant guidance team dispatched; 120,108 thousand yen worth of equipment and instruments supplied; 8 participants accepted for training
	Family Planning	Cooperation in the extension of family planning	An evaluation team dispatched; 99,314 thousand yen worth of equipment and instruments supplied
	National Cancer Institute	Cooperation in the repletion of the Institute's diagnosis and therapeutic sectors, maintenance and control of instruments	Experts dispatched; 59,622 thousand yen worth of equipment and instruments supplied; 8 participants accepted for training
Afghanistan	Malaria and Tuberculosis Control	Cooperation in the extension of treatment and research measures for malaria and tuberculosis	Experts dispatched; 89,757 thousand yen worth of equipment and instruments supplied; 3 participants accepted for training

Country	Title of Project	Outline of Activities	Performance
Ghana	University of Ghana, Medical School	Cooperation in basic research and education in pathophysiology and immunology in the School	Experts and a cooperation planning survey team dispatched; 60,305 thousand yen worth of equipment and instruments supplied; 8 participants accepted for training
Kenya	Kenyatta National Hospital	Cooperation in the establishment of an Intensive Care Unit within the Kenyatta National Hospital	2 participants accepted for training
Nigeria	University of Ife, Faculty of Medicine	Cooperation in the improvement of basic medical education in the fields of physiology, parasitology and microbiology	Experts dispatched; 46,886 thousand yen worth of equipment and instruments supplied; 6 participants received for training
	University of Nigeria, Faculty of Medicine	Cooperation in the improvement of basic medical education in the fields of pathology, parasitology and anatomy	45,177 thousand yen worth of equipment and instruments supplied; 2 participants accepted for training
Tanzania	Tuberculosis Control	Cooperation in the extension of tuberculosis control	1,324 thousand yen worth of equipment and instruments supplied; 4 participants accepted for training
Argentina	Health Care System	Cooperation in the strengthening of the Health Care System operated by the Nichikai Kyosaikai Clinic, covering community residents	Experts and a cooperation planning survey team dispatched; 72,234 thousand yen worth of equipment and instruments supplied; 3 participants accepted for training
Bolivia	Gastroenterology	Cooperation in the control of gastroenteric diseases, centering on early diagnosis of cancer, in 3 regions including La Paz, Cochabamba and Sucre	Experts dispatched; 81,222 thousand yen worth of equipment and instruments supplied; 7 participants accepted for training

Country	Title of Project	Outline of Activities	Performance
Brazil	Instituto de Geriatria da Potificia, Universidade Catolica de Rio Grande do Sul	Cooperation in the repletion of circulation system, cerebral artery and digestive system sectors at Instituto de Geriatria de Polificia	Experts dispatched; 10,108 thousand yen worth of equipment and instruments supplied; 2 participants accepted for training
Chile	Gastric Cancer Control	Cooperation in the improvement of early cancer detection techniques and group cancer examination technics, with Chile University, Faculty of Medicine taking the lead	Experts dispatched; 84,657 thousand yen worth of equipment and instruments supplied; 3 participants accepted for training
Costa Rica	University of Costa Rica, Faculty of Medicine	Cooperation in the improvement of research in the basic medicine field with emphasis on electron microscopes	Experts dispatched; 18,881 thousand yen worth of equipment and instruments supplied
Ecuador	Research for Microbial Infections	Cooperation in the research of tropical diseases centering on microbial infections	Experts dispatched; 105,905 thousand yen worth of equipment and instruments supplied; 2 participants accepted for training
Guatemala	Onchocerciasis Control	Cooperation in the establishment of research and control of onchocerciasis intermediated by gnats	Experts and a cooperation planning survey team dispatched; 56,218 thousand yen worth of equipment and instruments supplied; 2 participants accepted for training
Paraguay	Leprosy Control	Cooperation in the research and treatment of leprosy	Experts dispatched; 21,601 thousand yen worth of equipment and instruments supplied

Table 2. Dispatch of Survey Teams in 1976

Country	Type of Survey	Survey Objective/Particulars
Burma	Preliminary Survey	A survey was conducted on the formation of a technical cooperation plan in relation to the establishment of a biomedical research centre on a gratuitous cooperation basis.
Indonesia and Thailand	Preliminary Survey	A survey was made on the possibility of Japan's cooperation in public health services, training of nurses, in both countries.
Kenya	Preliminary Survey	A survey was made on the Possibility of Japan's cooperation with the National Institute of Public Hygienic Sciences.
Indonesia	Implementation Survey	A Record of Discussion was arranged for cooperation in the health services in the North Sumatra region.
Algeria	Implementation Survey	A Record of Discussion was arranged for cooperation with the Medical Centre, University of Scientific Technology.
Egypt	Implementation Survey	A Record of Discussion was arranged for cooperation in the education and research of nursing.
Iran	Implementation Survey	A survey was made on the possibility of Japan's cooperation in the fields of industrial medicine and tuberculosis medicine centering around Teheran University, and a Record of Discussion was arranged.
Tunisia	Implementation Survey	A Record of Discussion was arranged for cooperation in quality control and official approval of pharmaceuticals.
Thailand, Indonesia, The Philippines, Thailand, India, Ghana and Kenya	Instrument Repair Survey	Technical guidance was offered in the maintenance and control of various equipment and instruments supplied, with emphasis on projects implemented in respective recipient countries with Japan's cooperation.

SECTION 7 AGRICULTURAL DEVELOPMENT COOPERATION PROGRAMME

1. OUTLINE

The agricultural development cooperation programme is intended to contribute to the increase of foodstuff production and the improvement of farmers' income levels and living standards in developing countries, through increased productivity. Cooperation is offered under the programme for development projects in an organic combination of the dispatch of experts and supply of equipment and materials upon relevant surveys and discussions with the governments of the countries concerned (a Record of Discussions and Agreement).

It goes without saying that the technical cooperation contributes largely to developing and upgrading the technical level of human resources indispensable for agricultural development in developing countries, and plays an important role in establishing the basis for their independent development.

Thus far, Japan's project-based cooperation has been offered, centring on Asia, in diversified forms such as:

- Assistance in providing technical guidance by setting up agricultural extension centres and model extension farms mainly for paddy production
- Assistance in regional agricultural development projects to provide integrated guidance in the extension of advanced techniques, improvement of the infrastructure for augmented production and fostering of farmers' organizations in each designated project area
- Assistance in agricultural research and experiments for enhancing its research and development capacity of recipient countries
- Assistance in agricultural education for future generation of farmers

In recent years, the geographical coverage of cooperation has expanded from Asia to other areas and the fields of cooperation have come to be diversified from paddies to upland crops, livestock farming and forestry. Also the scale of cooperation has

been largely expanded as in the case of assistance offered for regional agricultural development projects and for research and education projects.

2. PERFORMANCE IN 1977

In 1977, a total of more than 3,000 million yen was expended for the agricultural development cooperation programme, with a total of 171 experts and 35 survey teams dispatched abroad and about 2,200 million yen worth of equipment and materials supplied.

The main programmes implemented in 1977 are summarized in the table below by country and by project.



Japanese expert giving guidance to the Philippine counterparts under the Cagayan integrated agricultural development project

Performance in 1977 by Country and by Major Project

Country	Title of Project	Outline of Activity	Performance in 1977
Bangladesh	Central Extension Resources Development Institute Project	Cooperation in the establishment and operation of the Central Extension Resources Development Institute for the purpose of conducting: <ul style="list-style-type: none"> - development of agricultural extension methods and technical potentiality; - trial cultivation for practical application of farming techniques; - training of instructors of extension workers and training of technical officials; and - guidance in, and advice for fostering agricultural extension systems. 	Construction of institute facilities on a grant-aid cooperation basis; dispatch of experts
	Citrus and Vegetable Research Project	Cooperation in research on citrus and vegetables of disease resistant and high yield variety, and in the development of production and storing techniques for vegetable seed.	Dispatch of long-term experts and a detailed design survey team; supply of 45 million yen worth of equipment and materials
Burma	Pig and Poultry Development Project	Cooperation in the introduction of improved techniques for pig and poultry farming, the production of feed and training in techniques.	Dispatch of preliminary survey team
Indonesia	Japan-Indonesia Joint Food Crop Research Programme	Cooperation in joint research at the Central Agricultural Research Institute, Bogor, covering: <ul style="list-style-type: none"> - ecology and control of plan pests; - forecasting of the occurrence of vector insects of virus diseases; - physiological disorder of food crops; and - plant physiology. 	Dispatch of experts, and a itinerant guidance team; acceptance of 4 participants for training

Country	Title of Project	Outline of Activity	Performance in 1977
	Lampung Agricultural Development Project	<p>With the object of developing agriculture in Lampung province, South Sumatra, cooperation in:</p> <ul style="list-style-type: none"> - establishment and operation of an agricultural extension centre for improvement of farming techniques and training of extension workers; - extension of improved rice planting with bases placed at 41 extension farms; - extension of improved upland farming centering on cassava and maize; and - fostering of farmers' organizations. 	Dispatch of experts and an evaluation survey team; acceptance of 2 participants for training
	Sericultural Development Project in South Sulawesi	Cooperation in the development of sericultural techniques and in the technical guidance of sericulture farmers, at the Sericultural Development Centre and sub-centres.	Dispatch of experts and a itinerant guidance team; supply of 165,195 thousand yen worth of equipment and materials; acceptance of 2 participants for training
	Project on South Sulawesi Regional Agricultural Development Planning	<p>With the object of promoting regional agriculture in South Sulawesi province, cooperation in:</p> <ul style="list-style-type: none"> - examination and analysis of the master plan of the agricultural development; - formation of project implementation plans for designated areas; and - training of experts for the formulation of plans. 	Dispatch of experts; supply of 59 million yen worth of equipment and materials; acceptance of 2 participants for training
	Agricultural Products Processing Pilot Plant Project, IPB	Cooperation in the strengthening and expansion of facilities for the raising of human resources undertaken by the Faculty of Agricultural Engineering and Products Processing, Bogor Agricultural University.	Dispatch of experts; supply of 32,500 thousand yen worth of equipment and materials

Country	Title of Project	Outline of Activity	Performance in 1977
	Animal Health Improvement Programme	Cooperation in the establishment, on grant-aid basis, of Disease Investigation Centres in Medan and Tanjung Karang, Sumatra, for survey and control of infectious animal diseases in the regions, training of engineers, trial manufacture of preventive vaccines, and establishment of preventive measures against such diseases.	Dispatch of experts, an implementation survey team and a cooperation planning survey team; supply of 46,653 thousand yen worth of equipment and materials; acceptance of 2 participants for training
Korea	Japan-Korea Joint Research Programme on Agriculture	Cooperation in research on increasing agricultural productivity, covering those on: <ul style="list-style-type: none"> - high yielding varieties of stabilized crops; - soil and fertilizers for paddy fields of low productivity; - nutritional physiology, water physiology and ecology of crops; - herbicides; - increased production and improved quality of vegetables; and - Protection of field crops. 	Dispatch of experts; supply of 61 million yen worth of equipment and materials; acceptance of 13 participants
Laos	Pilot Farm Project, The Ngon Agricultural Development Project	Cooperation, in concert with the Asian Development Bank, in the operation of a pilot farm (100 ha) established in the Tha Ngon Agricultural Development Project area (800 ha) for the purpose of developing agriculture in the Tha Ngon area, Vientian Plain. The cooperation project was transferred to the Laos authorities in April, 1977, and terminated.	Dispatch of engineers for the maintenance and control of equipment and materials

Country	Title of Project	Outline of Activity	Performance in 1977
Malaysia	Water Management Training Programme	Cooperation in the raising and training of Malaysian water management experts by the establishment of the Water Management Training Centre for this purpose, and in the provision of guidance and advice for farmers in water management techniques by means of a pilot farm.	Dispatch of experts; supply of 75 million yen worth of equipment and materials; acceptance of a participant for training
Nepal	Janakpur Zone Agricultural Development Project	Cooperation, for agricultural development in the Janakpur zone, in the establishment of a project centre; extension of, and guidance in improved farming techniques at an extension farm (40 ha) and model farm (8 ha); and improvement of agricultural infrastructure in a deep-irrigation area (420 ha).	Completion of the project centre; dispatch of experts and an equipment repair team; supply of 210,195 thousand yen worth of equipment and materials; acceptance of 4 participants for training
The Philippines	Cagayan Agricultural Development Project, CIADP	Cooperation in the establishment of a pilot centre for experiments in and extension of paddy varieties, fertilization and water management, with the purpose of extending double cropping of paddy and improving agricultural productivity, as a part of the Cagayan Integrated Agricultural Development Project (CIADA).	Dispatch of experts and a co-operation planning survey team; supply of 170 million yen worth of equipment and materials; acceptance of 2 participants for training
Thailand	Sericultural Development Project	Cooperation in the establishment and extension of modern sericultural techniques, training of expansion experts, fostering and guidance of farmers, at Korat Central Sericultural Research and Training Centre and subcentres. This project is to terminate by the end of this fiscal year and follow-up co-operation will be offered for 2 years.	Dispatch of experts and an elevation survey team; supply of 122,466 thousand yen worth of equipment and materials; acceptance of 4 participants for training

Country	Title of Project	Outline of Activity	Performance in 1977
	Irrigated Agriculture Development Project	<p>Cooperation in:</p> <ul style="list-style-type: none"> - promotion of paddy field adjustment and improvement; - improvement and expansion of agricultural production techniques; and - improvement and expansion of farming organizations; <p>Carried out at the Project Centre pilot areas (Chao Phraya and Mea Klong) and Suphan Buri Experiment and Training Centre, for the purpose of increasing paddy yield per unit area and expanding double-cropping area.</p>	<p>Dispatch of experts and a co-operation planning survey team; supply of 144,237 thousand yen worth of equipment and materials; acceptance of 2 participants for training</p>
	Animal Health Improvement Programme	<p>With the object of improving animal health, cooperation in the establishment of the Animal Hygiene Centre and Foot and Mouth Diseases Centre for diagnosis and research of animal diseases, and in the establishment of mass culture and production techniques of vaccine against foot and mouth diseases.</p>	<p>Dispatch of experts and a co-operation planning survey team; supply of 111,951 thousand yen worth of equipment and materials; acceptance of 2 participants for training</p>
Afghanistan	Rice Development Project	<p>For the purpose of improving foodstuff production and rice farmers' income, cooperation in the establishment of the Rice Development Centre, its annexed farm and extension bases for introduction and extension of improved farming techniques and improved varieties, covering 3 provinces in the eastern part of Afghanistan.</p>	<p>Dispatch of an implementation survey team and a basic design survey team for the construction of a rice development centre</p>

Country	Title of Project	Outline of Activity	Performance in 1977
Iran	Zabol Area Agriculture and Natural Resources Research Centre	Cooperation in the establishment of a pilot farm for agricultural development of 250 thousand ha. in region.	Dispatch of a cooperation planning survey team
Tanzania	Kilimanjaro Agricultural Development Centre Project	With the object of agricultural development in Kilimanjaro province, cooperation in soil improvement, experiment and research for the right crops, survey of water resources, and economic investigation of farm households, carried out centering around the Lyamungu Research Institute.	Dispatch of a cooperation planning team
Brazil	Agricultural Development Project in the Riberia River Basin	Cooperation in the extension of paddy cultivation techniques and research at the Agricultural Development Centre, for the purpose of increasing agricultural production in the Riberia River basin.	Dispatch of experts and a itinerant guidance team; supply of 100 million yen worth of equipment and materials; acceptance of 7 participants for training
	Japan-Brazil Agricultural Research Project	Cooperation in the establishment of agricultural production techniques, for agricultural development in area of province.	Dispatch of experts; supply of 200 million yen worth of equipment and materials.
Uruguay	Japan-Uruguay Vegetable Research Cooperation Project	Cooperation in the extension of vegetable cultivation, experimental cultivation, and research on injurious insects and pests, for the purpose of increasing vegetable crops.	Dispatch of an implementation arrangement survey team; acceptance of a participant for training

SECTION 8 PRIMARY COMMODITIES DEVELOPMENT COOPERATION PROGRAMME

1. OUTLINE

The primary commodities development cooperation programme, initiated in 1967, is intended to extend technical cooperation in order to improve productivity, quality and distribution systems of primary commodities in developing countries, so that competitiveness in the export of such commodities may be strengthened and demand for them in international markets, including Japan, be satisfied adequately.

In the past, cooperation was extended only in the agricultural and forestry sectors. Since the establishment of the present Agency in August 1974, such cooperation has been offered also in the mining and manufacturing sectors.

However, with the inauguration of the industrial development cooperation programme, the present programme was absorbed into the said programme and the agricultural and forestry development cooperation programme and its activities were terminated by the end of March 1978.

2. PERFORMANCE IN 1977

In 1977, the last year of the said programme, a total of more than 900 million yen was expended for activities, with a total of 49 experts and 19 survey teams dispatched abroad and about 400 million yen worth of equipment and materials supplied.

The main activities performed in 1977 are outlined in the table below by country and by project.

Cooperation Activities in 1977 by Country and by Major Project

Country	Title of Project	Outline of Activity	Performance in 1977
(Agriculture, Forestry and Fisheries Sectors)			
Burma	Technical Co-operation Project for Forestry Development	Cooperation in the development of, and training in techniques for harvest cutting and timber collecting, construction of access roads, and maintenance and control of forestry machinery and equipment, for the purpose of developing forestry in mountain system area.	Dispatch of long-term survey experts; supply of 9 million yen worth of equipment
Indonesia	Technical Co-operation Project for Java Mountain Forest Harvest	Cooperation in training in timber collecting techniques in Java mountain districts.	
	Technical Co-operation for Shallow Water Cultivation	Cooperation in the development of a culture industry for fish and shellfish in the Indonesian coastal areas.	Dispatch of long-term survey experts
The Philippines	Technical Co-operation Project for the Afforestation of the Pantabangan Area	Cooperation in the selection of kinds of trees, preparation of seedling forms, planting methods, and forest conservation, by the establishment of a technical cooperation of a pilot forest, for the purpose of establishing afforestation techniques.	Dispatch of experts; supply of 168,571 thousand yen worth of equipment
Thailand	Shrimp-culture Development Project	Cooperation in the improvement of convention culture methods and research and development on seed production, by the creation of a pilot farm, for the purpose of promoting a shrimp-culture industry. The cooperation for this project terminated in March, 1978.	Dispatch of experts, an itinerant guidance team and an evaluation survey team; supply of 31,475 thousand yen worth of equipment; acceptance of 6 participants for training

Country	Title of Project	Outline of Activity	Performance in 1977
	Maize Development Project	Cooperation with the cooperative Demonstration Centre for improving cultivating techniques of maize and operating and repairing techniques of farm machinery, for producing and distributing seed, and for fostering agricultural cooperative associations, in order to increase maize production in five provinces in Central Thailand.	Dispatch of experts and a detailed design survey team; supply of 86,679 thousand
Madagascar	Technical Cooperation for Livestock Development in Northern Madagascar	Cooperation in the improvement of livestock farming techniques, culture management, animal hygiene, and production of feeds, in the northern area of Madagascar.	Dispatch of long-term survey experts and an itinerant guidance team; supply of 8,385 thousand yen worth of equipment
Micronesia	Development of Fisheries	Cooperation in the development of bonito fishing.	Dispatch of a preliminary survey team and long-term survey experts; supply of 25,988 thousand yen worth of equipment
(Mining and Industrial Sector)			
Indonesia	Development Project for Building Materials	Cooperation in the development of building materials for constructing low cost housing.	Dispatch of a preliminary survey team
The Philippines	Technical Cooperation on the technological Development for Particle Board	Cooperation in raising the technical level of particle board to make for low cost housing.	Dispatch of experts; supply of 7,017 thousand yen worth of material; acceptance of 3 participants for training
Thailand	Technical Cooperation for the Technological Development of Natural Rubber Processing	Cooperation in the quality control of natural rubber, advice to the existing rubber industry and training of technicians.	Dispatch of experts; supply of 54,500 thousand yen worth of equipment; acceptance of 6 participants for training

Country	Title of Project	Outline of Activity	Performance in 1977
Bolivia	Technical Co-operation on the Recovery of Valuable Minerals from Complex Sulphide	Cooperation in the recovery of unused valuable minerals such as zinc, silver and lead from complex sulphide.	Dispatch of experts; supply of 138,005 thousand yen worth of equipment; acceptance of 2 participants for training
Brazil	Technical Co-operation for the Development of Mineral Resources	Cooperation in the prospecting of mineral resources, prevention of environmental pollution caused by mineral development, and development of various research.	Dispatch of experts
Chile	Technical Co-operation for the Technological Development of Copper Smelting and Refining	Cooperation in the improvement of copper smelting and refining techniques.	Dispatch of experts; supply of 18,285 thousand yen worth of equipment; acceptance of 3 participants for training

CHAPTER 2

DISPATCH OF JAPAN OVERSEAS COOPERATION VOLUNTEERS

1. OUTLINE

The Japan Overseas Cooperation Volunteers (hereinafter referred to as JOCV) is designed to promote and enhance cooperation in socio-economic progress of countries in such developing regions as Asia, Africa, Middle East, Latin America and the South Pacific. Young volunteers play a leading part in the cooperation and the Government, as their supporter, promotes and encourages their activities.

The secretariat of JOCV publicly invites volunteers twice a year, based on requests made by developing countries, and with the cooperation of prefectural governments and various private organizations, selects them and gives to the successful candidates a 4-months preassignment training and supporting services for their two-year activities abroad.

The number of requests for the dispatch of volunteers is increasing, partly due to new requests from Ghana, Bolivia, Paraguay, etc. Sector-wise, their numbers increased markedly in the fields of maintenance and operation and of education.

2. PERFORMANCE IN 1977

The total number of volunteers dispatched in 1977, described below, includes those sent abroad up to April 10, 1978 including senior volunteers.

In February 1977, an arrangement for the dispatch of volunteers was reached for the first time between Japan and Ghana, and the first batch of 9 volunteers was sent to that country in August to serve in science and mathematics education and agricultural sectors. Also, new agreements were concluded successively with Paraguay and Bolivia, and the first dispatch of volunteers to them was realized from February to April, 1978.

Laos has received 250 Japanese volunteers in total since the start of JOCV. With the establishment of the present government in 1975, the number of dispatches rapidly reduced, both in request and volunteers dispatched and the last volunteer would up his service and returned to Japan in March, 1978. A 13-year cooperation through volunteers has thus been suspended until a new request is made by that country.

Table 1. Number of Volunteers Dispatched by Sector and by Country (1965 - 1977)

(As of April 10 1978)

Region	Country	Sector	Agriculture, Forestry and Fisheries	Manufacturing Industry	Maintenance and Operation
Asia	The Philippines		261	12	20
	Cambodia		7		
	Malaysia		76	4	27
	India		83	6	3
	Laos		91	2	45
	Nepal		38	2	14
	Bangladesh		36		6
Oceania	Tonga		4		4
	Western Samoa		8		8
Latin America	Honduras		6	1	2
	El Salvador		1	1	3
	Costa Rica				
	Paraguay		3		1
	Bolivia				
Middle East	Syria		16		1
	Tunisia		3	2	10
	Morocco		64		2
Africa	Ethiopia		12	3	20
	Kenya		49	4	86
	Tanzania		127	3	41
	Ghana		2	1	1
	Malawi		15	2	38
	Zambia		17		64
	Total		919	43	396

(Unit: Person)

Civil Engineering and Construction	Health and Welfare	Office Work and Culture	Education and Training	Total
22	7	6	62	388
			9	16
25	11	6	193	342
	14	21	23	131
51	10	4	47	250
23	44	3	22	146
1		2	17	62
				8
10	2		4	32
		1	3	13
		1	65	71
		2	14	16
				4
		3		3
3	2	1	11	34
1	13	1	10	40
54			3	123
12	14	9	9	79
28		2	58	227
24	9	29	39	272
4			7	15
43	30	5	23	156
2		1	18	102
303	154	78	637	2,530

In 1977, 258 volunteers (inclusive of 7 senior volunteers) were dispatched abroad and, as of the end of March 1978, a total of 586 volunteers were in service in 20 countries. The number of volunteers dispatched in 1977 was the highest since the initiation of JOCV operations in 1965. (See Table 1)

The total number of volunteers sent abroad since the start of JOCV operations reached 2,530 by the end of March 1978. By region, Asia (7 countries) accounted for 52.8%, Africa (7) 33.6%, Middle East (3) 7.8%, Latin America (5) 4.2% and Oceania (2) 1.6%. Sector-wise, 919 volunteers (36.3%) serve in agriculture, forestry and fisheries 637 (25.2%) in education and training (inclusive of linguistic training in Japanese and sports), 396 (15.6%) in maintenance and operation, 303 (12.0%) in civil engineering and construction, 154 (6.1%) in health and welfare 78 (3.1%) in office work and culture and 43 (1.7%) in manufacturing industry (See Figs. 1 and 2)



Japanese volunteer giving guidance on automobile maintenance

Fig. 1. Dispatch of Volunteers by Region (1965 - 1977)

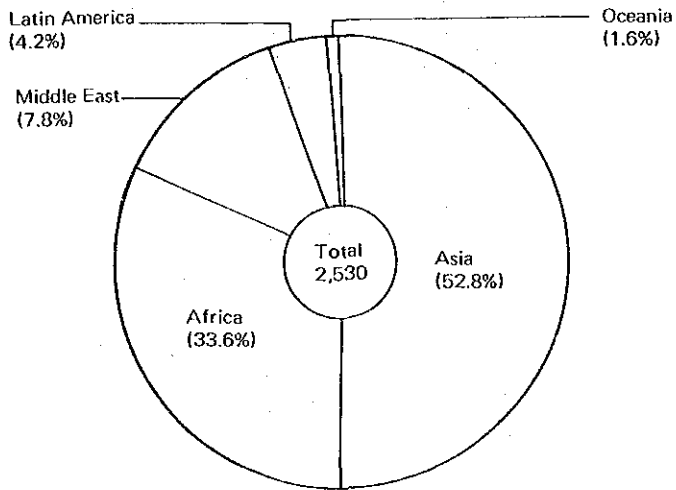
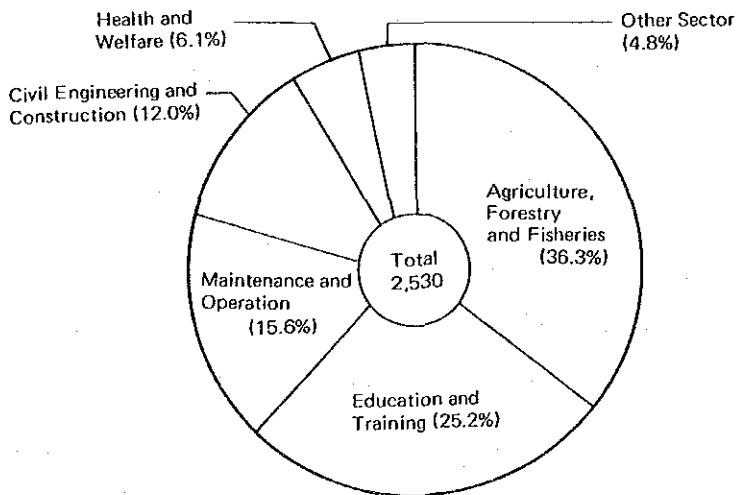


Fig. 2. Dispatch Volunteers by Sector (1965 - 1977)



The senior volunteer system was instituted in 1973 with the object of fostering regionally specialized experts from amongst those who had experience and understanding of life and work of the indigenous people. So far, a total of 31 senior volunteers have been dispatched abroad.

It is felt advisable to incorporate qualified senior volunteers and their predecessors into the visiting expert teams and to train them to become experts. The qualified senior volunteers are now being taken into various training courses and registration system operated by the Agency.

Pre-Assignment Training

The volunteers are given a 16-week pre-assignment training before departure.

In the first half (8 weeks) of the training period, they are trained to acquire the elementary knowledge necessary for adapting them for their 2-year service in social and cultural conditions quite different from those of Japan. In this period, emphasis is placed on physical training to keep them in good health as well as on their mental preparation for different cultural heritage, psychology and behaviour of the local people. Importance is also attached to character building so that all volunteers will take keen interest in international cooperation and overcome any kind of adversity which they may encounter during their term of service.

The latter half of the training period is devoted to improving the volunteers' linguistic ability. Training is given by native instructors in English and other languages spoken in the recipient countries such as French, Spanish, Malay, Nepalese, Bengali, Suwahili, Arabic, etc.

The pre-assignment training is conducted according to the curricula at the training institutes where they live and study under a strict rules and regulations of the organization.

CHAPTER 3

DEVELOPMENT COOPERATION

PROGRAMME

1. OUTLINE

Cooperation in social development, agriculture and forestry, and mining and manufacturing was inaugurated in August 1974, when the Agency was established, as Japan's new frontier of international cooperation activities not previously undertaken by the Agency's predecessors, namely the Overseas Technical Cooperation Agency and the Japan Emigration Service.

Cooperation in these new fields of development is designed to achieve two specific objectives not adequately fulfilled under the former cooperation system for the lack of close linkage between government-sponsored and private-sponsored cooperation, and of integration of technical and financial cooperation.



Afforestation Project financed by JICA loan

Under the new system, the Agency aims at broadening its overseas cooperation activities in the developing countries in the following aspects.

- (1) Qualitative and quantitative improvement of Japan's international cooperation
- (2) Diversification of cooperation fields by promoting assistance in:
 - a) Development projects in industry, natural resources and foreign trade
 - b) Infrastructural improvement for agriculture and welfare
 - c) Social development, covering education, and medical care, etc.

The prime objective is to ensure an organic combination by the Agency of technical cooperation with smooth supply of soft loans which are difficult to obtain from the Export-Import Bank of Japan or the Overseas Economic Cooperation Fund for reasons of risk, profitability or technical difficulties involved in the projects.

The Agency's development cooperation falls under the following five categories.

(1) The Agency provides loans or surety for loan liability required for the construction or improvement of facilities related to development projects in culture, transportation, communications, sanitation, living environment, etc. These facilities may be useful for promotion of welfare of the inhabitants, as well as for development projects in agriculture, forestry, mining and manufacturing.

Loans are provided for infrastructural improvement, such as the construction or improvement of roads, ports and harbours, waterworks and sewerage systems which are required for implementation of various development projects, as well as for the construction of schools, hospitals, public halls and churches for those engaged in development projects and for those in the surrounding areas.

These related facilities are indispensable for smooth implementation of development projects and useful for socio-economic development and people's welfare in the neighbouring areas.

Supply of funds for such related facilities is made on condition that they are unobtainable from the Export-Import Bank of Japan or the Overseas Economic Cooperation Fund, and that the principal development projects of the facilities described above are financed by the said Bank or Fund.

(2) The supply of funds for what are termed experimental projects among development projects, excluding those related to prospecting of petroleum (inclusive

of oil-sand and oil-shale), combustible natural gas and metallic minerals, and manufacturing industry. Specifically, the Agency provides loans for those development projects of experimental nature involving considerable risk. In this case, too, loans are provided on condition that it is considered difficult to obtain them from the above mentioned Bank or Fund.

All these funds are provided on extremely soft terms and conditions.

(3) The Agency carries out various projects, entrusted by the governments, local public entities or other public organizations of developing countries on the basis of international agreements, for improving facilities.

These projects are classified as follows.

- a) Infrastructural improvement for increased agricultural and forestry production by improvement of farmlands, irrigation facilities, farm and forest road networks, and by afforestation
- b) Infrastructural improvement for mining and manufacturing by preparation of their sites and industrial use improvement of waterworks
- c) Installation of industrial pollution control facilities
- d) Construction and improvement of other public facilities related to culture, transportation, communications, public sanitation, and living environment

The above projects are offered only when there are no other suitable sources in the developing countries or in Japan except the Agency.

(4) The surveys and technical guidance which are required in connection with the projects described above.

(5) Technical guidance for various development projects as JICA's auxiliary functions at the request of Japanese cooperations undertaking such projects.

The surveys in the fourth and fifth categories above include the basic surveys for large-scale projects to which the recipient countries attach great importance in its development plan, and surveys for screening applications for loans, whereas the technical guidance consists of accepting counterpart engineers and technicians engaged in development projects for training in Japan, and the dispatch of Japanese experts for guidance to recipient countries.

2. PERFORMANCE IN 1977

In 1977, loan agreements concluded for financial cooperation in various development projects amounted to a total of 2,899 million yen (16 cases). Sector-wise, 2,290 million yen (15 cases) was appropriated for agricultural and forestry development and 609 million yen (1 case) for mining and manufacturing development.

Basic surveys were carried out for 9 development projects for agriculture and forestry and 5 such projects for mining and manufacturing industries. Technical guidance for a related programme was provided for 15 participants accepted from Thailand in the agricultural sector. Also a total of 7 experts were dispatched to Indonesia, Paraguay and Malaysia for technical guidance in the agricultural and forestry and social development sectors.

Table 1. Loans Approved and Concluded in 1977

Unit: Million yen

Sector	Project	Approved		Concluded	
		Number of Projects	Amount	Number of Projects	Amount
Social Development	Related Facilities Improvement and Construction Project	-	-	-	-
	Experimental Project	1	99	-	-
	Total	1	99	-	-
Agriculture	Related Facilities Improvement and Construction Project	1	300	2	405
	Experimental Project	6	1,379	10	1,409
	Total	7	1,679	12	1,814
Forestry	Related Facilities Improvement and Construction Project	1	295	1	295
	Experimental Project	2	374	2	181
	Total	3	669	3	476

Sector	Project	Approved		Concluded	
		Number of Projects	Amount	Number of Projects	Amount
Mining and Manufacturing Industry	Related Facilities Improvement and Construction Project	1	270	1	609
	Experimental Project	-	-	-	-
	Total	1	270	1	609
Total	Related Facilities Improvement and Construction Project	3	865	4	1,309
	Experimental Project	9	1,852	12	1,590
	Total	12	2,717	16	2,899

Table 2. Investments and Loans Approved in 1977

**1. Social Development Sector
(Experimental Projects)**

Title of Project	Country and Project Area	Project Objective/Particular
Social Development	Indonesia	Construction of public house
Total (1 project)		

**2. Agriculture and Forestry Sector
(Related Facilities Improvement and Construction Projects)**

Title of Project	Country and Project Area	Project Objective/Particulars
Agricultural Development	Thailand (Prachuap Khiri Khan Prefecture)	Construction and improvement of roads, bridges, clinic, public hall, church and pier
Forestry Development	Indonesia (Kemang, South Sumatra)	Construction and improvement of roads, bridges, clinic, public hall, church and pier
Total (2 projects)		

(Experimental Projects)

Title of Project	Country and Project Area	Project Objective/Particular
Experimental Agricultural Development Project	Brazil (Saõ Paulo province)	Experiment for improvement of hen breeding
Experimental Agricultural Development Project	The Philippines (Negrok island)	Trial cultivation of vegetables
Experimental Agricultural Development Project	Indonesia (Lampung province)	Trial cultivation of cassava
Experimental Agricultural Development Project	Madagascar (Tamatabu province)	Trial pulse cultivation
Experimental Agricultural Development Project	Brazil (Mato Grosso province)	Trial cultivation of soy bean and upland rice plant
Experimental Agricultural Development Project	Brazil (Minal Gerais province)	Trial cultivation of soy bean, maize, etc.
Experimental Forestry Development Project	Papua New Guinea (Madan Area)	Trial of forestration of encalyptus, acacia, etc.
Experimental Forestry Development Project	The Philippines (Mindanao Island)	Trial of forestration of albizia falcata
Total (8 projects)		

Note: These projects are under investment.

3. Mining and Manufacturing Industry Sector
(Related Facilities Improvement and Construction Projects)

Title of Project	Country and Project Area	Project Objective/Particular
Mining and Manufacturing Development Project	The Philippines (Mindanao Island)	Construction of pier and facilities of fire defence
Total (1 project)		

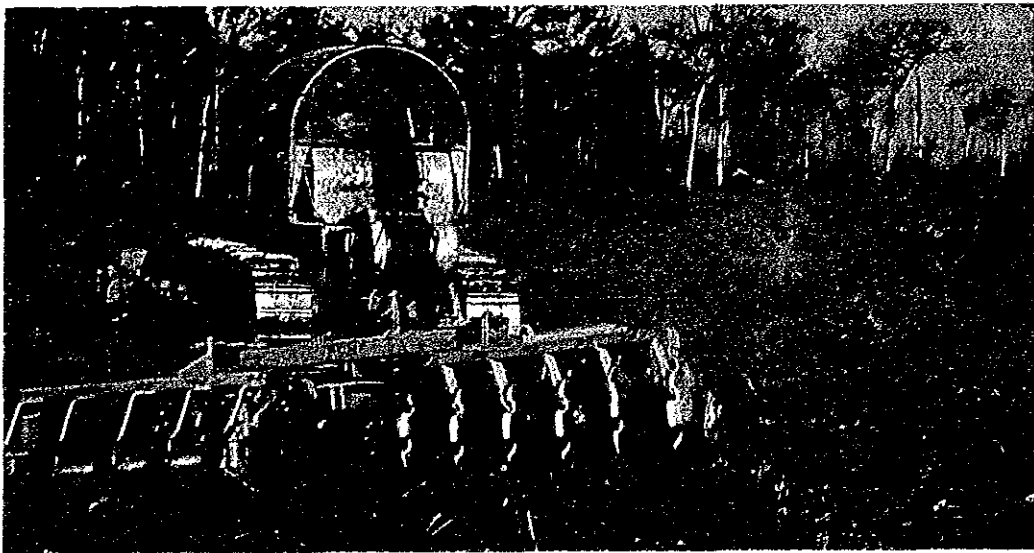
CHAPTER 4

EMIGRATION SERVICE

1. OUTLINE

Emigration of Japanese people in modern times dates from 1868 when about 150 Japanese contract labourers left their country for Hawaii, to work in sugar plantations. This was followed by emigrants to Hawaii under governmental contract in 1855 and subsequent emigrants to the American Continent. The first emigrants to Brazil left Japan in 1908 and about 800 thousand had settled in overseas countries up to the outbreak of the World War II, when emigration from Japan was held up entirely.

Under resumed emigration after the war, the first emigrants, comprising 54 jute plantation workers, left Japan for Brazil in 1952. In pushing forward emigration in postwar years, a primary factor was the serious population problem caused by war repatriates and by second and third sons of farmers who lost their livelihood due to the impoverished conditions of rural communities. Since the change in circumstances



Agricultural emigrant reclaiming a scrub land

brought about by the spectacular revival of the Japanese economy and the resultant increase in employment opportunities, it has been emphasized that "emigration should not be a mere outflow of labour force, but must serve to raise the reputation of Japan and Japanese by developing their potentiality. (The report of the Emigration Council in 1962.) This opened a new chapter for the Japanese emigration policy which had only been considered as a means of solving population problem.

The postwar emigration service was undertaken by the Federation of Japan Overseas Associations, organized in 1954, and the Japan Emigration Promotion Co., established in 1955. These organizations were merged into the Japan Emigration Service, set up in 1963.

The Japan Emigration Service was for dissemination of emigration information, counselling for emigration aspirants, lectures and training for emigrants, provision of travelling expenses for emigrants, assistance in their adaptation to alien environment and stabilization of their livelihood, loaning business funds and in investment for promotion of emigration.

With the advent of an era for cooperation on a global scale, Japan has come to be strongly called on, from inside and outside the country, to expand her economic and technical cooperation with developing countries. The Government decided to improve its organization to carry out international cooperation smoothly and effectively. On the other hand, attention was drawn to the fact that Japanese emigrants contributed significantly to promoting cooperative relations between Japan and their host countries for the following reasons:

- emigration is a desirable form of international cooperation as "it transfers development capabilities to the settlement area" and contributes to regional development in accepting countries;
- assistance provided for emigrants contributes to the socio-economic development in and around their settlements;
- mutual understanding fostered between emigrants and their neighbours underpins international cooperative relations at a mass level, constituting an effective factor for economic and technical cooperation.

In this way the emigration service was incorporated by JICA when it was instituted in 1974.

Now that the policies of accepting countries are oriented to selective admission of emigrants who have high level techniques and abilities, emigrants have to meet such requirements. Requirements for fine character, development capabilities (with high

level techniques and capital) and adaptability to an alien environment will become increasingly pronounced in future.

2. PERFORMANCE IN 1977

(1) Research and Dissemination of Information on Emigration

a. Research on Emigration

The Agency carried out the following surveys to collect data necessary for providing emigrants with assistance and guidance as well as for promoting emigration in a consistent and effective manner in and out of Japan.

- i) Dynamic survey of emigrants settled in Canada
- ii) Farm household economy survey
- iii) Market survey
- iv) Survey on suitability of settlements
- v) Preliminary survey on accepting countries

b. Dissemination of Information on Emigration

Public relations activities were conducted to make the general public aware of the significance and reality of emigration and actual conditions in accepting countries. So that they may have a correct understanding, and interest in emigration.

(2) Training of Emigrants

a. Pre-departure Training:

(a) For agricultural emigrants

i) Long-term training course

A one-year training course was conducted twice at the Emigrant Training Center for emigration aspirants with little agricultural experience to train them in local, language, agriculture and to give them information and on the situation in accepting countries. A total of 66 aspirants took the course.

ii) Short-term training course

A course of about one month duration was conducted 8 times for

them in language and to give them information on the present situation in the prearranged settlement area. A total of 77 emigrants took the course.

(b) For industrial emigrants

A training course of about one month duration was organized 7 times for industrial technical emigrants in order to improve their adaptability to new environments. 58 emigrants took the course.

(c) For emigrants to Canada

A one-month training course was provided 3 times at the Emigration Center for emigrants to Canada in order to improve their adaptability to the new environment. 28 emigrants took the course.

(d) For female emigrants

A 45-day course was provided twice at the International Female Emigrants Training Center for female emigration aspirants. 30 aspirants took the course.

b. Training for Emigrants in Accepting Countries

(a) For young agricultural emigrants

With the object of promoting farming in settlements, a course was provided 3 times for young emigrants who will be future leaders in their respective settlements in order to train them in general culture and in agricultural knowledge and techniques. A total of 42 emigrants took the course.

c. For Emigrants' Children

For the purpose of creating a nucleus which will play key roles in Japanese settlements and local communities in Latin America, the Agency has invited emigrants' children settled in Brazil, Argentina, Paraguay, Bolivia and Dominican Republic to Japan for technical training. They are given training for 18 months at relevant training centres in floriculture, agricultural machinery, sericulture, livestock farming, pomiculture, management and operation of agricultural cooperatives, construction electrical works, etc.

(3) Pre-departure Assistance and Guidance

In 1977, the Agency provided 372 emigrants with their travelling expenses. In addition, it offered them overnight accommodation before leaving Japan and after arrival at destinations, and also conducted orientation courses for them on the arrangement of passages and the general situation at their settlements.

(4) Assistance and Guidance for Emigrants

a. Guidance in the Extension of Farming

The Agency offered counselling services to emigrants engaging in agriculture in their settlement. Efforts were made for the extension of farming by dispatching farming counsellors and agricultural experts, organizing short courses, on-the-spot guidance, printing and distribution of guidance data. On the other hand, various experiments and research were carried out at experimental stations, set up by the Agency in Paraguay, Bolivia and Argentina, for the purpose of establishing bases for farming guidance. At settlements, furthermore, assistance for agricultural cooperatives and for special farming measures were extended in an effort to seek an early establishment of farming.

b. Assistance and Guidance for the Improvement of Living Environment

To help stabilize the emigrants' livelihood and improve living environment at the settlements, the Agency dispatched medical doctors, supplied medical equipment, dispatched teachers of the Japanese language, provided scholarships and improved educational facilities in order to supplement various measures taken by the government of an accepting country.

(5) Acquisition, Readjustment and Custody of Land at Settlements

a. Readjustment and lotting-out were completed for the Glew settlement acquired in Buenos Aires province, Argentina.

b. Surveying for lot arrangement, new road construction and road repairs were carried out in Alto Paraná, Yguaz and Fram settlement areas in Paraguay.

(6) Provision of Loans

Since emigrants starting business in their settlements usually have no close dealings with local financial institutions at the outset, the Agency provides business funds to individual emigrants or a group of them.

(7) Investment

In order to contribute to the development of settlements, the Agency provides capital for business engaging in processing, storing and transportation of agricultural and forestry products. At present, the Agency has an investment of 350 million yen (as of the end of March 1978) in the Japan-Itapua Oil Manufacturing Investment Co., Ltd. (set up in Tokyo in 1967).

This company established the Itapua Oil Manufacturing Commerce & Industry Co., Ltd. (in Encarnación, Paraguay, in 1968) which operates a factory to process tung seeds produced by Japanese emigrants in Paraguay.

(8) Operation of JAMIC and JEMIS

The activities in 1977 of JAMIC and JEMIS, Brazilian corporations appointed by Japanese and Brazilian authorities according to the agreement to provide financing and services for emigrants, were as follows.

a. Survey on Emigration

- (a) Dynamic survey on emigrants
- (b) Farm household economy survey
- (c) Market survey
- (d) Survey on employed farmers
- (e) Survey on suitability of new settlements (Survey on suitable crops at new settlements)
- (f) Survey on relocation of small and medium-scale enterprise

b. Training of Emigrants

- (a) Training for improving adaptability to new environment (Orientation was given in São Paulo to emigrants immediately after their arrival in

Brazil. A total of 135 emigrants received the training.)

- (b) Supplementary training for emigrants prior to their becoming independent (Supplementary training in farming knowledge necessary for employed farmers and profit-sharing tenant farmers in becoming independent, and that in expert skills for industrial technical emigrants was provided 6 times. A total of 162 such emigrants received the training.)
- (c) Training course for young agricultural emigrants (In order to foster agricultural knowledge needed for settlements, a training course was offered 5 times covering the young agricultural emigrants. The number of participants was 51.)
- (d) Special training (Of the industrial emigrants, those who had been employed in enterprises for many years and those self-employed were provided with a training course in expert skills of a high level and the labour-related laws and regulations of Brazil on two occasions. A total of 105 such emigrants took the course.)

c. Assistance and Guidance for Emigrants

- (a) Extension of guidance in farming
To assist the agricultural emigrants to settle down, counselling and guidance were offered them, and various experiments and research were carried out at the agricultural experiment centre established in the province of Belém Branch. In addition, agricultural cooperatives were fostered and special farming measures taken to attain an early establishment of farming in the settlements.
- (b) Assistance and guidance for the improvement of living environments
With the object of assisting in stabilization of the emigrants' livelihood and improving living environment in the settlements, the following measures were taken to supplement the policy of the accepting countries.

- i) Establishment of a clinic in the Daini Tomé-Acú settlement; appointment of contract doctors to provide medical services for emigrants scattered in back regions; itinerant medical services
 - ii) Provision of scholarships; supplement to remuneration for teachers; construction of students' dormitories
 - iii) Distribution of books and films; assistance in the construction of a public hall
- d. Readjustment and Custody of Land in Settlements
 - (a) Lotting survey, new road construction and road repairs were carried out in *Várzea Alegre* and four other settlements.
 - (b) One jeep was purchased for readjustment work in the Daini Tomé-Acú settlement.
- e. Provision of loans for Emigrants
Emigrants and their groups were provided with loans required for starting business activities.

CHAPTER 5

TRAINING AND RECRUITING OF QUALIFIED JAPANESE EXPERTS

1. OUTLINE

The Agency which is now in its fourth year of operation has expanded and improved its programme for training and recruiting of qualified Japanese experts in quantity and quality.

The objective of the programme is to train and secure highly qualified persons for technical cooperation. The programme consists of training courses for fostering experts, operation of the experts registration system for securing qualified persons and improvement of experts' treatment and remuneration.



Japanese experts receiving pre-departure training

2. TRAINING OF QUALIFIED PERSONS

(1) Pre-departure Training Course

The pre-departure training course is offered to experts appointed for overseas service. It consists of language training in English, Spanish, French, Indonesian, Korean, Arabic and Thai, technical training to be given at research institutes, experimental stations and general factories and of general pre-departure training, a typical course which combines language training with general orientation. In 1977, 162 experts participated in the language training course, 79 in the technical training course and 263 in the general pre-departure training course.

(2) Medium-term Training Course

The medium-term training course provides extensive training in language and general and specialized fields for technical experts to be dispatched abroad in the near future, including aid for overseas projects under way, and it is intended to cope *efficiently with the future increase in requests for their dispatch*. It consists of training in the country and training in foreign countries and, in 1977, a total of 106 experts received the former training and a total of 26 experts the latter training.

(3) Long-term Training Course in Foreign Countries

The objective of the long-term training course is to train highly qualified technical experts who will take technical cooperation as their career. Trainees are sent abroad for a 2-year training, not only to improve their techniques and capabilities, but to bring them up as internationally-minded technical experts equipped with excellent linguistic ability. In 1977, a total of 25 experts were dispatched to the United Kingdom, the United States, Mexico, Canada, Malaysia and Colombia for training in sectors covering agriculture and forestry, mining and manufacturing and social development.

(4) Long-term Technical Training Course for Experts returned from abroad

A new training course instituted in the current year, it is intended for repatriated experts, who are expected to be dispatched overseas again, to give them training, over a relatively long period, for their technical improvement or conversion to meet require-

ments in a new sector. A total of 11 experts received training in the fields of agriculture and forestry, health and medical, vocational education and construction.

3. RECRUITING OF QUALIFIED PERSONS

(1) Experts Registration System

Prompt and accurate dispatch of experts requires a recruitment system under which qualified persons are obtained extensively from among general experts. In 1977, a total of 104 persons was newly registered under the system. (The number of effective registrants was 1,760 as of the end of March 1978.)

(2) Experts Pooling System

The experts pooling system aims at pooling top experts who have returned to Japan after their overseas service and expressed their intention to be dispatched abroad again, and whose further activity is expected by the Agency. While waiting for their next overseas assignment, they undergo some training. They are requested to give advice and cooperate with the technical cooperation service.

In 1977, 27 such experts were newly pooled under the system to add to 21 carried over from the preceding year. Of 48 experts in total, 17 were dispatched abroad.

