

持出禁止

保存用

'68

ANNUAL REPORT

# TECHNICAL COOPERATION OF THE JAPANESE GOVERNMENT

OVERSEAS TECHNICAL COOPERATION AGENCY



JICA LIBRARY



1018956[1]



**TECHNICAL COOPERATION  
OF  
THE JAPANESE GOVERNMENT**

国際協力事業団

|                     |     |
|---------------------|-----|
| 受入<br>月日 '84. 4. 20 | 000 |
| 登録No. 02774         | 36  |
|                     | KA  |

## FOREWORD

Against the background of self-examination of the role of industrially advanced countries, such as the United States, in assisting developing countries, spurred by the world currency instability and other factors, the economic and technical gap between advanced and newly emerging nations seems to be growing wider.

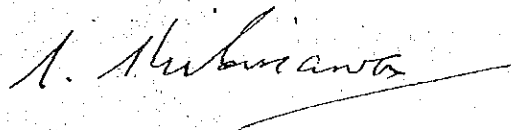
In Southeast Asia, while the importance of regional cooperation for economic development is being stressed, expectations in regard to technical cooperation from Japan, the only industrially advanced country in the region, are growing more and more.

The Second United Nations Conference on Trade and Development this year adopted a resolution, which called for making one per cent of the Gross National Product of advanced nations as the aid target, while on the other hand, there have been increasing requests, in international conferences including the Development Assistance Committee (DAC) sessions, for expansion of aid from Japan and an easing of her terms.

Since Japan's technical cooperation has not yet reached the scale of other advanced countries, she is faced with many problems for qualitative and quantitative improvement in her assistance to developing countries. Japan must bear a larger responsibility in the future to expand her technical cooperation.

In the above circumstances, we believe that it would be most significant to look back on the technical cooperation projects which our Overseas Technical Cooperation Agency (OTCA) has undertaken last year and to search for the right direction of Japan's technical cooperation.

It is our sincere hope that this publication would deepen the understanding of Japan's technical cooperation by people from all walks of life and would serve as a guide for formulating future policy.



(December, 1968)  
Shin-ichi Shibusawa,  
Director-General, Overseas Technical  
Cooperation Agency.





# CONTENTS

## PART I

### INTRODUCTION

|           |   |    |
|-----------|---|----|
| CHAPTER 1 | SIGNIFICANCE OF TECHNICAL COOPERATION                                       | 3  |
| CHAPTER 2 | SCALE OF JAPAN'S TECHNICAL COOPERATION                                      | 3  |
|           | 1. Amount of Technical Assistance   |    |
|           | 2. Weight of Technical Cooperation in Economic Cooperation                  |    |
| CHAPTER 3 | RECENT TREND OF JAPAN'S TECHNICAL COOPERATION                               | 6  |
|           | 1. Regional Cooperation in Asia   |    |
|           | 2. Cooperation on a Project Basis   |    |
| CHAPTER 4 | JAPAN'S POSITION IN TECHNICAL COOPERATION AMONG ADVANCED COUNTRIES          | 8  |
|           | 1. Acceptance of Trainees and Students                                      |    |
|           | 2. Assignment of Experts Abroad   |    |
|           | 3. Supply of Equipment  |    |
|           | 4. Patterns of Technical Cooperation of Major Countries                     |    |
|           | 5. Fields of Cooperation  |    |
| CHAPTER 5 | PROBLEMS OF JAPAN'S TECHNICAL COOPERATION                                   | 11 |
|           | 1. Expansion of Scale and Scope   |    |
|           | 2. Multiplication and Integration of Technical Cooperation                  |    |
|           | 3. Expansion and Strengthening of Organs Implementing Technical Cooperation |    |
|           | 4. Request for Self-Support Efforts of Recipient Countries                  |    |

## PART II

### DETAILED DISCUSSION

|            |   |    |
|------------|---|----|
| CHAPTER 1  | ACCEPTANCE OF TRAINEES  | 17 |
| Section 1. | General Situation of Acceptance of Trainees                     | 17 |
| Section 2. | Results of Accepting Trainees in Fiscal Year 1967               | 18 |
|            | 1. Results of Acceptance  |    |
|            | 2. Group Training Course  |    |
|            | 3. Individual Training  |    |
|            | 4. Aftercare Services for Returned Trainees                     |    |
| Section 3. | Problems of Training  | 28 |
| CHAPTER 2  | ASSIGNMENT OF EXPERTS ABROAD                                    | 30 |
| Section 1. | Outline of Assignment of Experts Abroad                         | 30 |
| Section 2. | Examples of Assignment of Experts Abroad                        | 35 |
|            | 1. Expert on Livestock Pathology dispatched to Indonesia        |    |
|            | 2. Expert on Fresh-water Fish dispatched to Nepal               |    |
|            | 3. Experts on Urban Water Supply dispatched to Thailand         |    |
|            | 4. Experts on Electric Power Development dispatched to Thailand |    |
|            | 5. Experts on Agriculture dispatched to East Pakistan           |    |

|            |   |    |
|------------|---|----|
| 6.         | Expert on T.V. Engineering dispatched to Singapore  |    |
| 7.         | Experts on Well Drilling dispatched to Ethiopia   |    |
| 8.         | Experts on Seismic Prospecting dispatched to Ecuador  |    |
| 9.         | Expert on Youth Guidance dispatched to Brazil   |    |
| 10.        | Expert on International Telecommunications dispatched to Mexico   |    |
| 11.        | Experts on Erosion Control dispatched to Costa Rica   |    |
| 12.        | Expert on Prospecting for Mineral Resources in Off-shore Areas dispatched to ECAFE                            |    |
| 13.        | Experts dispatched to the Asian Industrial Development Council of ECAFE                                       |    |
| 14.        | Expert on Small-Scale Industries dispatched to ECA (Economic Commission for Africa)                           |    |
| 15.        | Experts on Science Education dispatched for Overseas Cooperation in Science Education                         |    |
| Section 3. | Problems of Dispatch of Experts Abroad  | 41 |
| CHAPTER 3  | EQUIPMENT SUPPLY PROJECT  | 43 |
| Section 1. | Outline of Equipment Supply Project   | 43 |
| Section 2. | Examples of Equipment Supply  | 44 |
| 1.         | Simultaneous Translation System supplied to Burma   |    |
| 2.         | Agricultural Equipment supplied to Bhutan   |    |
| 3.         | Agricultural Equipment supplied to Nepal  |    |
| 4.         | Agricultural Equipment supplied to East Pakistan  |    |
| 5.         | Radio & Television Servicing Equipment supplied to Singapore  |    |
| 6.         | Language Laboratory System supplied to Thailand   |    |
| 7.         | Fishing Net and Marine Diesel Engine supplied to Kenya  |    |
| 8.         | Fisheries Research Equipment supplied to Iraq   |    |
| 9.         | Veterinary Research Equipment supplied to Syria   |    |
| 10.        | Irrigation Pump supplied to Bolivia   |    |
| 11.        | Equipment supplied to Machinery and Automobile Servicing Section of Instituto Técnico Industrial, El-Salvador |    |
| Section 3. | Problems of Equipment Supply  | 46 |
| CHAPTER 4  | OVERSEAS TECHNICAL COOPERATION CENTERS  | 47 |
| Section 1. | Outline of Overseas Technical Cooperation Centers   | 47 |
| Section 2. | Outline of Centers (Centers through Bilateral Agreements)   | 50 |
| (1)        | New Centers in Preparation  |    |
| 1.         | Kyung-Puk Institute of Technology in Korea  |    |
| 2.         | Vocational Training Institute in Uganda   |    |
| 3.         | Agriculture Extension Center in India   |    |
| (2)        | Centers Under Cooperation   |    |
| 1.         | Technical Training Center for Textile Industries in Brazil  |    |
| 2.         | Agriculture Demonstration Farms in India  |    |
| 3.         | Textile Training Center in Ghana  |    |
| 4.         | Telecommunications Research Center in Pakistan  |    |
| 5.         | Training and Research Center for Small-Scale Industries in Kenya  |    |
| 6.         | Technical Training Center for Road Construction in Thailand   |    |
| CHAPTER 5  | DEVELOPMENT SURVEY (Pre-Investment Survey)  | 63 |
| Section 1. | Outline of Development Survey (Pre-Investment Survey)   | 63 |

Section 2. Results of Development Surveys in Fiscal Year 1967 64  
(Asian Region)

1. Survey for Development of the Coastal Fishery in Cambodia
2. Survey for Harbor Construction Project at Songkhla in Thailand
3. Survey for Tropospheric Scatter Communication Links between Kuching and Johore Bahru in Malaysia
4. Survey for Water Works in Malaysia
5. Survey for River Training in Western Part of Taiwan in China
6. Survey for Nongkhai—Vientiane Bridge Construction Project in Thailand and Laos
7. Preliminary Survey for the Modernization of Bitung Harbor and the Repayment of Sulawesi Roads in Sulawesi, Indonesia
8. Survey for Small-Scale Industries in Southeast Asia
9. Survey for Telecommunication in Southeast Asia
10. Survey for Nam Sai Yai Hydro-Power Project in Thailand
11. Survey for T.V. Network Project in Pakistan
12. Survey for Karnaphuli Hydro-Power Project in Pakistan
13. Survey for Mineral Resources Project in Laos (Second)
14. Survey for Bangkok—Thonburi Bridge Construction Project in Thailand
15. Survey for Li Wu Chi Hydro-Power Development Project in the Republic of China
16. Survey for the Development of the Area around Great Lake in Cambodia (Lower Mekong Basin)
17. Survey for Iron Ore Loading Facilities near Visakhapatnam in India  
(Near-Middle East and African Regions)
  1. Survey on Economic Cooperation to the Medium and Small-Scale Industries (Near-Middle East Team)
  2. Survey for Congo Railroad-Navigation Improvement Project  
(Latin America Regions)
    1. Survey for Mineral Resources Development Project in Venezuela
    2. Survey for Agricultural Electrification Project in Paraguay

Section 3. Problems of Development Survey ..... 75

CHAPTER 6 MEDICAL COOPERATION ..... 76

Section 1. Situations of Japan's Medical Cooperation Activities 76

1. Public Health and Medical Cooperation
2. Past Achievements
3. Medical Cooperation with WHO

Section 2. Achievements during Fiscal Year 1967 ..... 78

1. Survey
2. Medical Cooperation to Viet-Nam
3. Other Medical Cooperation Activities

Section 3. Problems of Medical Cooperation ..... 80

CHAPTER 7 AGRICULTURAL DEVELOPMENT COOPERATION ..... 81

Section 1. Outline of Agricultural Development Cooperation .. 81

Section 2. Achievements during Fiscal Year 1967 ..... 82

|            |   |    |
|------------|---|----|
| 1.         | Project of Increasing Rice Production in West Java, Indonesia   |    |
| 2.         | Drainage and Reclamation of Sungai Prai Basin in Malaysia   |    |
| 3.         | Philippines: Rice Production Centers (Naujan district, Mindoro Is.; San Miguel-Alangalang district, Leyte Is.)                                      |    |
| 4.         | Laos: Tha Ngon Agricultural Development Project   |    |
| 5.         | Le Developpement de La Culture Du Mais Au Cambodge  |    |
| 6.         | The Agricultural Technical Center of Friendship between Japan and Cambodia & The Livestock Breeding Center of Friendship between Japan and Cambodia |    |
| 7.         | Expansion of India-Japan Agricultural Demonstration Farm  |    |
| Section 3. | Problems of Agricultural Development Cooperation  | 85 |
| CHAPTER 8  | PRIMARY PRODUCTS DEVELOPMENT COOPERATION  | 87 |
| Section 1. | Outline of Primary Products Development Cooperation   | 87 |
| 1.         | Significance of Primary Products Development Cooperation  |    |
| 2.         | Basic Policy for Primary Products Development Cooperation   |    |
| 3.         | Outline of Primary Products Development Cooperation   |    |
| Section 2. | Performance of Primary Products Development Cooperation for Fiscal Year 1967  | 88 |
| 1.         | Tanzania  |    |
| 2.         | Indonesia   |    |
| 3.         | Cambodia  |    |
| 4.         | Thailand  |    |
| Section 3. | Problems of Primary Products Development Cooperation  | 91 |
| CHAPTER 9  | TECHNICAL COOPERATION BASED ON REPARATIONS AND OTHER AGREEMENTS   | 91 |
| Section 1. | Acceptance of Trainees under Reparations Agreements   | 91 |
| 1.         | Acceptance of Trainees from Indonesia   |    |
| 2.         | Acceptance of Trainees from the Philippines   |    |
| 3.         | Acceptance of Trainees from the Republic of Korea   |    |
| CHAPTER 10 | COOPERATION WITH TECHNICAL ASSISTANCE PROGRAMS OF THE UNITED NATIONS AGENCIES   | 92 |
| Section 1. | Acceptance of Trainees under the United Nations Development Plan  | 93 |
| Section 2. | Recommendation of Experts to United Nations Agencies  | 94 |
| CHAPTER 11 | JAPAN OVERSEAS COOPERATION VOLUNTEERS   | 95 |
| Section 1. | Outline of the Japan Overseas Cooperation Volunteers  | 95 |
| Section 2. | Achievements of Overseas Cooperation Volunteers   | 95 |
|            | Assignment of Volunteers Overseas   | 95 |
|            | Some Examples of JOCV's Activities  | 96 |
| 1.         | Laos  |    |
| 2.         | Malaysia  |    |
| 3.         | The Philippines   |    |

|  |     |
|--|-----|
| 4. Kenya   |     |
| 5. Tanzania  |     |
| Section 3. Supporting Services of JOCV .....   | 99  |
| Recruitment of Volunteers  |     |
| Selection of Volunteers  |     |
| Pre-Service Training   |     |
| Publicity Work   |     |
| Japan Overseas Cooperation Volunteers Council  |     |
| Liaison with Prefectural Offices   |     |
| Afro-Asian Research Institute of JOCV Itinerant<br>Guidance                                |     |
| Construction of Japan Overseas Cooperation Volun-<br>teers Building                        |     |
| Section 4. Future of JOCV .....  | 101 |
| CHAPTER 12 EVALUATION AND RESEARCH OF TECHNICAL<br>COOPERATION .....                       | 107 |
| Section 1. Follow-up Research of "Evaluation of Effects of<br>Technical Cooperation" ..... | 107 |
| 1. Outline of Follow-up Survey   |     |
| 2. Results of Survey   |     |
| 3. Case Studies  |     |
| Section 2. Major Research Conducted during Fiscal Year 1967                                | 108 |
| 1. Sector-wise Survey  |     |
| 2. Country-wise Survey   |     |
| 3. Study and Lecture on Technical Cooperation  |     |
| CHAPTER 13 PUBLIC RELATIONS .....  | 109 |

PART III  
STATISTICS AND DATA

|   |      |
|---|------|
| (I) Number of Trainees in Japan .....   | (3)  |
| (1) By programs, fields .....   | (3)  |
| (2) By fiscal years, programs, fields .....   | (4)  |
| (3) By countries and fields .....   | (12) |
| (4) Number of participants of each country by years, pro-<br>grams and fields .....                       | (17) |
| (II) Number of Japanese Experts .....   | (49) |
| (1) By programs, fields .....   | (49) |
| (2) By years, programs and fields .....   | (50) |
| (3) By countries and fields .....   | (54) |
| (4) By years, programs and fields .....   | (58) |
| (5) Medical Cooperation Teams and Instructor .....  | (74) |
| (III) Number of Experts and Personnel of Overseas Technical<br>Cooperation Centers and Survey Teams ..... | (75) |
| (1) Overseas Technical Cooperation Centers .....  | (75) |
| (2) Development Survey Teams .....  | (79) |
| (3) Agricultural Development Cooperation Primary Prod-<br>ucts Development Cooperation .....              | (83) |
| (4) Cooperation Volunteers .....  | (84) |
| (IV) Materials .....  | (87) |



# **PART I**

## **INTRODUCTION**





# CHAPTER 1

## SIGNIFICANCE OF TECHNICAL COOPERATION

The objective of technical co-operation is to help developing countries develop their human resources, increase productivity and enhance levels of research and technology by extending to them the technique and knowledge possessed by advanced countries. The commonest form of technical co-operation is extended through human being, which is often accompanied by supply of information, equipment and materials for providing more effective assistance.

It has been widely recognized that technical co-operation plays an important role with regard to capital, human resources and foods which developing countries need to develop their economies. It was generally believed that developing countries were lacking in domestic capital while having surplus manpower and their economies could therefore be expanded by introducing capital from outside, and by mobilizing idle labour force. But the experience of co-operation over the past ten years indicates that this way of thinking is not correct and that development of human resources is a most urgent problem to be given top priority. It is now strongly recognized that in spite of the large populations of developing countries, the scarcity of productive manpower with managerial and technical capabilities is the main obstacle to the development of these countries.

For this reason, such developed countries as the United States, the United Kingdom, and West Germany are laying increasing emphasis on the expansion of technical co-operation. In the Second United Nations Conference on Trade and Development, it was also admitted that the expansion of foreign trade of developing countries is dependent upon capable human resources. In Japan technical co-operation is now considered to be playing an important part in enhancing effectiveness of capital assistance. It is obvious that the solution of food shortage problems in developing countries is dependent upon various kinds of technical co-operation for increasing productivity of agriculture, and

for adjusting population by means of regulating the size of families.

The report of the Chairman of the Development Assistance Committee this year says: "An aid strategy must convince donors of their stake in its success. It must challenge them to make larger financial contributions on more appropriate terms, and especially, to devote more of their best manpower to help developing peoples to apply modern science, technology and management skills for improving the quality of life." It is most interesting to note that the Committee considers the supply of highly qualified experts to be just as important as the relaxation of terms of aid. The Annual Aid Review of DAC last year stressed in its report that one of the most remarkable changes noted in recent co-operation programs on a bilateral government basis was that the donor countries have come to attach more importance to technical assistance, and that this tendency is becoming more pronounced despite difficulties of providing experts and other administrative obstacles.

Our country has been extending technical co-operation for more than ten years and its quality has gradually improved as co-operation projects on governmental and private basis increase. But the scale and scope are not yet sufficient to meet the requirements and expectations of developing countries, and its weight in economic co-operation is smaller compared with other advanced countries. This is the question remaining to be overcome by our continuing efforts.

Since Japan can offer techniques directly applicable to agriculture and medium-and-small size enterprises which are vital to the economic development of developing countries, and since Asian countries are eager to learn from Japan how to mould their country and people, she should put greater emphasis on her offer of technology to contribute to the economic and social development of these countries.

# CHAPTER 2

## SCALE OF JAPAN'S TECHNICAL COOPERATION

### 1. Amount of Technical Assistance

The expectations of foreign countries for tech-

nical co-operation from Japan have been growing year by year, and along with this tendency an in-

crease in the magnitude of assistance has occurred. "Evaluation of Japan's Technical Co-operation on Government Basis" conducted in 1967 points out many instances of demands for expansion of the scale of technical co-operation. For example, the Government of the Republic of China made the following comment: "Japan's technical co-operation has improved techniques of natural resource exploitation and of other various industries and has promoted social and economic development of developing nations. It is an effective assistance and has been contributing greatly to the development of the Republic of China. We hope that Japan will continue to expand and strengthen her technical co-operation. Much more acceptance of trainees in especially desired by us." There is also the comment of the Government of Laos: "We have a chronic deficit in finances and are relying on a large amount of assistance from abroad. To us, Japan is an assisting country from which we expect a large amount of aid just as much as we expect from the United States, the United Kingdom and Australia. We hope Japan will continue to provide us with her technical assistance as much as possible." There is also the demand of the Government of Chile: "Japan's technical co-operation has a high reputation and all of our institutions desire its increase in quality." As seen from the example cited above, the demands for expansion of Japan's technical co-operation are over-whelmingly strong in many countries.

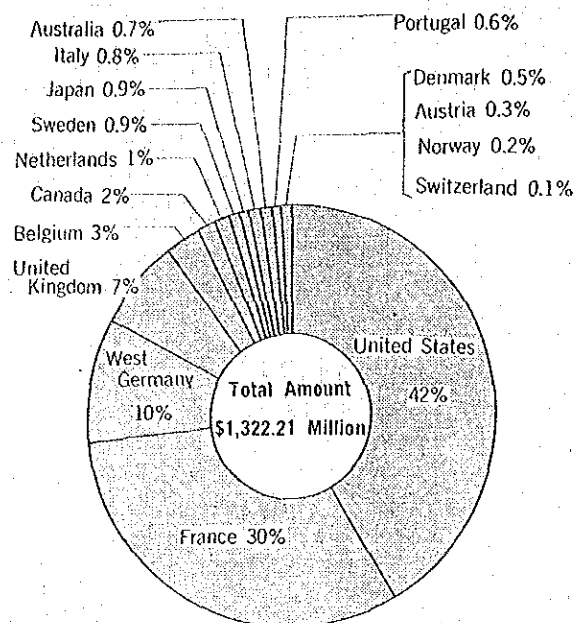
Then, how great is the volume of Japan's technical assistance? Japan's technical co-operation on a bilateral government basis for the fiscal year 1967 amounted to \$11 million on the disbursement basis, representing a considerable increase of \$3-4 million, or 45% over the previous year. The amount on a commitment basis also increased substantially from \$10.4 million to \$16 million.

However, when compared with other member countries of the DAC, the amount of Japan's technical co-operation looks very small, being only 1/50th of the U.S.A.'s and 1/40th of France's. Japan ranked only ninth in the total amount of technical co-operation after the United States, France, West Germany, the United Kingdom, Belgium, Canada, the Netherlands and Sweden, while being ahead of Italy, Australia and Portugal compared with the previous year (See Fig. 1 and Table 1).

Let us then look at the increase of technical assistance of DAC member countries. The average increase was 8.9 per cent over the previous year, which was smaller than Japan's rate of increase, but in terms of absolute amount, Japan's increase was only 1/10th of France's. France's increase was \$37.8 million, ranking her first; second was U.S.A.'s \$29 million and the third was West Germany's \$26

million. Even the United Kingdom who suffered from economic stagnation marked a larger increase than Japan.

Fig. 1. Technical Assistance on Bilateral Government Basis of DAC Member Countries



Japan should seriously consider the fact that the absolute increases of technical assistance of France or West Germany whose gross national product is nearly the same as that of Japan are, on the government basis alone, two to three times as large as the total amount of Japan's technical assistance.

The Second United Nations Conference on Trade and Development adopted a resolution that the target of technical assistance should be increased from 1 per cent of the national income to 1 per cent of the gross national product, and thus the burdens of the advanced countries have increased by about 25 per cent. Under such circumstances, Japan's gross national product has come to rank third next to the U.S.A. and the U.S.S.R., and therefore, the world-wide expectation for the increase of Japan's technical assistance is mounting. In addition to such international pressure, the decision on curtailment of overseas aid by the U.S. congress, the devaluation of the pound sterling and the withdrawal of British troops from east of Suez have added fuel to fire for the demand of Asian countries for Japan's assistance. Since Japan has time and again in international forums requested advanced countries to increase their aid to the Asian region, pleading on behalf of the Asian countries that they have the largest populations of all developing countries and yet have the smallest per capita national income and the smallest amount of per capita aid, Japan herself must assume the responsibility to expand her aid to the Asian countries. Japan

should realize that she can offer certain types of technical co-operation which Asian countries cannot expect from the United States and other Western countries and should expand and strengthen many types of technical assistance to the greatest possible extent.

## 2. Weight of Technical Co-operation in Economic Co-operation

On the occasion of the 1966 Annual Aid Review of Japan, Chairman Thorp of DAC, touching upon the smallness of the share of Japan's technical co-operation in the whole picture of economic aid, stated: "The Committee was disappointed at the relatively small role of technical assistance in the Japanese program, particularly because Japan has an outstanding stock of technical skills and has already set up a permanent, specialized administration for technical aid (i.e. the Overseas Technical Co-operation Agency). While the difficulties restricting the expansion of the program are appreciated, similar obstacles have been overcome by other donors. In this connection, the services of the Secretariat are available to the Japanese authorities should they desire to obtain information on the experience accumulated by other donors in endeavoring to strengthen their programs. It is hoped that the Japanese authorities will explore certain potential sources of supply of technical assistance personnel as well as other aspects of technical assistance programming (e.g. the establishment of domestic supporting institutions and the promotion of training programs in connection with in-

dustrial investments overseas). The Committee hopes that an effort will be made to raise the volume of technical assistance above the present target of five per cent of the official aid program."

Japan, since that meeting, has made efforts to expand the scale of her technical co-operation. The Economic and Social Development Program decided upon by the Cabinet in March 1967 included the following statement expressing the firm determination of the Japanese Government to improve technical assistance. "In our economic co-operation, technical co-operation lags behind. We should expand its scale, strengthen its coordination with capital co-operation more effective and should try to secure enough technicians to be dispatched overseas and to expand and strengthen institutions for technical co-operation. As for sector of co-operation, agriculture is considered most important in view of food problems in developing nations."

However, since then, the small proportion of Japan's technical co-operation in total economic co-operation has actually made little improvement. Technical co-operation on a bilateral government basis constituted 1.14 per cent of Japan's total economic co-operation in 1966, which increased slightly to 1.28 per cent in 1967 but was still far from the 5% which is the target at present. The backwardness becomes even more obvious when we compare these figures with the average in advanced DAC member countries, which was 11.3 per cent in 1966 and 11.7 per cent in 1967 (See Table 1). Although the absolute amount of governmental technical assistance on a bilateral basis in 1967 increas-

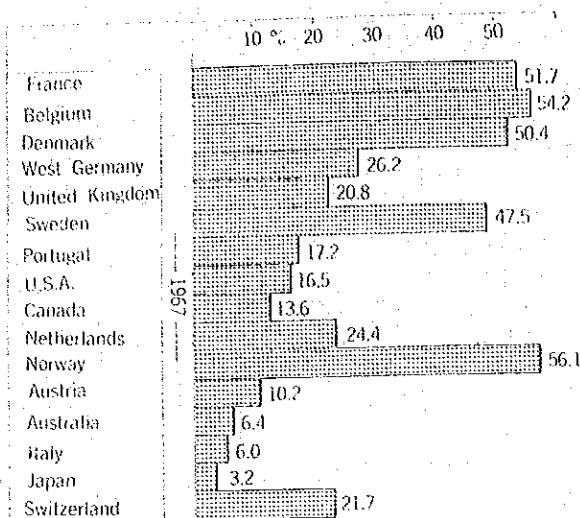
Table 1. Amount of Technical Assistance of DAC Member Countries  
(Data from DAC 1968)

| Country        | Total Assistance (Million Dollars) |          | Ratio to National Income (%) |      | Assistance on Bilateral Government Basis (Million Dollars) |         | Technical Assistance on Bilateral Government Basis (Million Dollars) |         | Ratio of Governmental Technical Assistance to National Income (%) |      | Ratio to Total Assistance (%) |      | Ratio between Technical Assistance and Total Assistance on Bilateral Government Basis (%) |      |
|----------------|------------------------------------|----------|------------------------------|------|--|---------|--|---------|---|------|-------------------------------|------|---|------|
|                | '66                                | '67      | '66                          | '67  | '66  | '67     | '66  | '67     | '66   | '67  | '66                           | '67  | '66   | '67  |
| Australia      | 139.2                              | 182.1    | 0.72                         | 0.86 | 114.8  | 146.2   | 7.6  | 9.3     | 0.04  | 0.04 | 5.5                           | 5.1  | 6.6   | 6.4  |
| Austria        | 49.3                               | 47.8     | 0.65                         | 0.60 | 30.3   | 31.5    | 2.8  | 3.2     | 0.04  | 0.04 | 5.7                           | 6.7  | 9.2   | 10.2 |
| Belgium        | 178.0                              | 153.4    | 1.24                         | 1.00 | 67.3   | 74.5    | 37.9   | 40.4    | 0.26  | 0.25 | 21.3                          | 26.3 | 56.3  | 54.2 |
| Canada         | 266.7                              | 253.9    | 0.67                         | 0.59 | 180.5  | 166.9   | 19.2   | 22.7    | 0.05  | 0.05 | 7.2                           | 8.9  | 10.6  | 13.6 |
| Denmark        | 24.1                               | 24.3     | 0.28                         | 0.27 | 10.5   | 12.5    | 4.3  | 6.3     | 0.04  | 0.07 | 17.8                          | 25.4 | 41.0  | 50.4 |
| France         | 1,319.7                            | 1,343.9  | 1.72                         | 1.64 | 716.2  | 772.3   | 381.5  | 399.6   | 0.58  | 0.49 | 27.4                          | 29.7 | 50.6  | 51.7 |
| West Germany   | 737.5                              | 1,140.4  | 0.81                         | 1.26 | 453.7  | 480.4   | 105.7  | 126.1   | 0.13  | 0.14 | 14.3                          | 11.1 | 23.3  | 26.2 |
| Italy          | 631.6                              | 284.9    | 1.29                         | 0.53 | 31.0   | 169.2   | 10.9   | 10.2    | 0.02  | 0.02 | 1.7                           | 3.6  | 35.2  | 6.0  |
| Japan          | 669.3                              | 855.3    | 0.86                         | 0.95 | 234.9  | 345.9   | 7.6  | 11.0    | 0.01  | 0.01 | 1.1                           | 1.3  | 3.2   | 3.2  |
| Netherlands    | 254.1                              | 229.0    | 1.50                         | 1.24 | 51.5   | 75.5    | 14.8   | 18.4    | 0.16  | 0.10 | 6.0                           | 8.1  | 29.5  | 24.4 |
| Norway         | 17.1                               | 30.2     | 0.29                         | 0.48 | 5.2  | 4.1     | 2.0  | 2.3     | 0.03  | 0.04 | 11.7                          | 7.6  | 38.5  | 56.1 |
| Portugal       | 39.7                               | 78.4     | 1.13                         | 1.16 | 22.4   | 46.4    | 7.5  | 8.0     | 0.22  | -    | 19.1                          | 10.2 | 33.9  | 17.2 |
| Sweden         | 108.0                              | 120.7    | 0.64                         | 0.70 | 23.7   | 26.1    | 11.4   | 12.4    | 0.11  | 0.05 | 10.6                          | 10.3 | 48.5  | 47.5 |
| Switzerland    | 109.6                              | 121.5    | -                            | -    | 10.7   | 6.9     | 1.3  | 1.5     | -   | -    | 1.2                           | 1.2  | 12.1  | 21.7 |
| United Kingdom | 944.5                              | 875.0    | 1.14                         | 1.01 | 469.5  | 444.8   | 85.2   | 91.8    | 0.11  | 0.11 | 9.0                           | 10.5 | 20.3  | 20.8 |
| U.S.A.         | 4,983.0                            | 5,567.0  | 0.80                         | 0.85 | 3,548.0  | 3,413.0 | 534.0  | 559.0   | 0.10  | 0.09 | 10.7                          | 10.0 | 15.1  | 16.4 |
| Total          | 10,471.4                           | 11,306.3 | -                            | -    | 5,966.1  | 6,212.8 | 1,233.8  | 1,322.2 | -   | -    | 11.3                          | 11.7 | 20.7  | 21.3 |

ed considerably, the increase on the disbursement basis being 45 per cent over the previous year; the increase of financial aid was even more considerable and, as a result, the proportion of technical co-operation saw no improvement in the scope of economic co-operation. It is a pity to note that its ratio in total governmental assistance decreased to 3.2 per cent from 3.24 per cent in the previous fiscal year on account of larger financial aid on a government basis (See Fig. 2 and Table 1).

The average proportion of technical co-operation expenditures in the total economic aid on a bilateral government basis of all advanced DAC member countries increased to 21.3 per cent from 20.7 per cent of the previous year, and even Australia whose weight of technical co-operation is the second lowest next to Japan showed 6.4 per cent. It will be understood from the aforementioned circumstances that the most important factor calling for our urgent attention is to raise the proportion of technical co-operation in our economic co-operation program.

Fig. 2. Ratio of Technical Assistance to Total Economic Assistance on Bilateral Government Basis of DAC Member Countries



## CHAPTER 3

### RECENT TREND OF JAPAN'S TECHNICAL COOPERATION

Japan has been enlarging the scale, and improving the quality, of her technical co-operation year by year. What is noticeable as an important recent trend is that, first of all, the importance of technical co-operation in the scheme of regional co-operation in Asia has been recognized, and correspondingly the role of Japan's technical co-operation in promoting Asian regional co-operation has become more vital. Secondly, as the scale of Japan's aid becomes enlarged, integrated assistance on a project basis grows more important, and Japan has undertaken aid in agriculture and primary products on a project basis in addition to medical project co-operation which had started earlier.

#### I. Regional Co-operation in Asia

When one looks back to the progress made in Asia during the past one year, it is possible to discern a strong current of force moving towards closer regional integration.

Promotion of regional co-operation for the development of Asia is increasingly assuming a major importance in the economic development plan of each country, and the role of technical co-operation is considered as vital in promoting such ends. The Asian Development Bank, the Ministerial Conference for the Economic Development of Southeast Asia and the Conference on Agricultural Develop-

ment in Southeast Asia have all made contribution in advancing regional technical co-operation. Amid such international trends, the fields are growing wider for Japan to take the initiative in the promotion of regional co-operation through technical co-operation, as a nation in Asia which has a highly advanced technological standard. This was evidenced by the fact that, on the occasion of Prime Minister Sato's visit to Southeast Asia in 1967, all of the Asian countries welcomed Japan's attitude for establishing closer ties with various schemes for Asian regional co-operation.

Let us review the actual developments in the fiscal year 1967.

First, the establishment of the Southeast Asian Fisheries Development Center, which is a multi-lateral organization for technical assistance set up at the initiative of Japan, came into effect with the agreement of six countries including Japan. This is the first concrete achievement of the Ministerial Conference for the Economic Development of Southeast Asia. In March 1968 the inaugural meeting of the Council was held and the Training Department was established in Thailand, and the Research Department in Singapore, Japan is dispatching experts and supplying training and research vessels and equipment and materials to the Center.

Secondly, activities of the Asian Development

Bank in the field of technical assistance have been intensified, and Japan donated \$100,000 to the Bank in March 1968 for technical assistance funds. Furthermore, expenses for dispatching experts to the Bank were appropriated in the budget for the Overseas Technical Co-operation Agency to enable the dispatch of experts for the various surveys to be conducted by the Bank. The Asian Development Bank is requesting the Overseas Technical Co-operation Agency to assist the Bank in recruiting qualified Japanese experts for the Bank's technical assistance works.

Also, development of the lower Mekong Basin and the Asian Highway project, for which Japan has contributed a great deal by sending many survey teams, are advancing into the stage of capital assistance. The Nam Ngum dam (Laos) is now ready for construction and the prospect of constructing the Prek Thnot dam (Cambodia) is promising, while the detail design for the Nongkhai-Vientiane bridge connecting Thailand and Laos is on the verge of completion.

With regard to the future role of technical co-operation in promoting regional co-operation, there is such a plan as the setting up of an expert registry system in the region of ASPAC in which Japan will play a key position. The Colombo Plan Council and Consultative Committee also expect Japan's positive assistance to the development of intra-regional training which is presently carried out by self-help endeavors of the regional countries.

Accordingly, one of the important aims of technical co-operation by Japan will be to support and supplement multilateral co-operation by closely coordinating bilateral co-operation with regional co-operation in order to maximize the effectiveness of technical co-operation.

## 2. Co-operation on a Project Basis

Japan started to offer positive co-operation in the fields of agriculture and primary products in fiscal 1967 when the budget for integrated project co-operation in these fields was approved.

A year before, medical project co-operation was embarked upon. Agricultural project co-operation is an integral program, aimed at solving food shortage problems in Southeast Asia, through experiment and research centered on paddy rice cultivation, improvement of arable land by introducing irrigation and drainage systems, training in advanced agricultural technique, and extension of improved farming method to small farmers. This integrated agricultural project co-operation is performed in selected model areas from which new method of agricultural production should diffuse and it aims at assistance for procurement of necessary funds. Technical co-operation for develop-

ment of primary products, such as maize, is designed to help developing countries improve seed variety and quality of products, increase productivity, and improve marketing system, so that the quality and costs of such primary products may become more competitive and exportable. Surveys of primary products in agriculture for import have already been undertaken, and future technical co-operation for development of primary products will be tied closely to development finance, marketing and imports.

The reason for attaching such importance to project co-operation in agriculture is based on the recognition that the increase of agricultural production is not only necessary for the solution of food shortage which is aggravating with the increase of population in developing countries, but that the increase of agricultural income, which is sharing one third to one half of the gross national product of these countries, is essential to the development of their whole national economy. Agriculture must be developed in balance and harmony with the development of industrial sectors. Such recognition and reflection explain the attitude of the Japanese Government to give the highest priority to setting up the Special Fund for Agricultural Development for the Asian Development Bank. Also, as a background to Japan's project co-operation for promoting development and importation of primary products, there are the resolutions of such meetings as the Second United Nations Conference on Trade and Development and the Consultative Committee of the Colombo Plan in 1968, which point out that the promotion of exports is the key to self-support and prosperity of the economy of developing countries.

Japan's technical co-operation for development of agriculture is especially paid much attention by DAC member countries, and this matter was taken up during the annual aid review of Japan in 1968. Japan stated on that occasion as follows: "Co-operation is extended to assist in a project for agricultural development planned by a recipient country which is to be carried out at a suitable locality as a model. Our selection of a project is based on the development plan of a recipient country, and from now on we intend to relate technical co-operation with capital aid as much as possible, and when the draft project and detail design are completed, financing from such international fund as the Asian Agricultural Development Fund will be expected."

It is anticipated that Japan will further increase and expand the types and scale of integrated project co-operation, and accordingly, the need for closer relationship between technical co-operation and capital will increase.

# CHAPTER 4

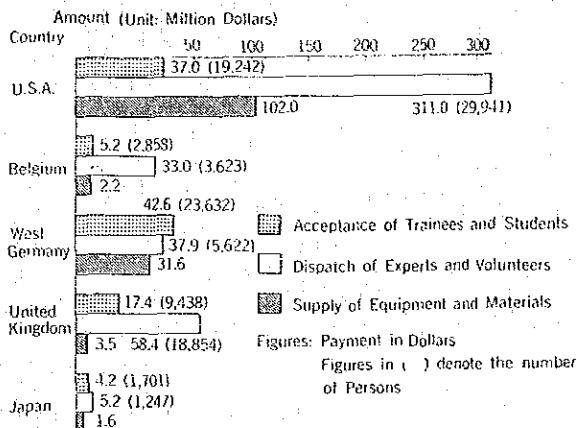
## JAPAN'S POSITION IN TECHNICAL COOPERATION AMONG ADVANCED COUNTRIES

### 1. Acceptance of Trainees and Students

In 1968, the total number of trainees and students accepted from abroad by the DAC member countries swelled to 80,657, and \$147.3 million was spent on their training, marking increases of 13,551 and \$13.3 million, respectively, over the preceding year.

The share of each country is shown in Fig. 3 and Table 2. West Germany, the U.S.A., France, and the United Kingdom have by far the larger shares, and Japan's share is smaller than those of Canada, Belgium and Australia, not to mention the above countries.

Fig. 3. Performance of Technical Assistance of Main Advanced Countries (Data from DAC 1968)



An increasing tendency in sum and number is noticed in all but a few countries, and West Germany is the most remarkable example. West Germany almost doubled her sum and number compared with the preceding year, resulting from the increase of local training places of the developing countries themselves. This system of training the trainees in their home countries is also adopted by Belgium, though on smaller scale. In regard to the U.S.A., the remarkable feature is the third country training for both trainees and students whose share in the whole training program exceeds 20 per cent. Similarly, West Germany gives third country training to both trainees and students and its share in the whole training program is 15 per cent. Sweden offers third country training to students and Australia offers such training to trainees.

Acceptance of trainees by Japan, like the case of Belgium, decreased in number despite an increase of expenditures, but this indicates the improvement in quality and care of the training programs in Japan.

### 2. Assignment of Experts Abroad

Let us then review the aspect of assignment of experts and technicians abroad. The total expenditure spent by, and the total number of experts dispatched from, DAC member countries grew in 1968 to \$636.3 million and 11,103 respectively, representing increases of \$28.3 million and 7,459 persons over the previous year. The share of each country is shown in Fig. 3 and Table 2, and a rising tendency is noted as a whole. Among others, increase shown by France, the U.S.A., the United Kingdom, and West Germany are conspicuous, and the shares of these countries are also larger. Belgium and Canada dispatched more than 2,000 experts respectively, surpassing Japan considerably, but Japan also increased her number of 1,247 from 768 in the previous year. For the first time, therefore, Japan in 1968 dispatched more than 1,000 experts a year.

### 3. Supply of Equipment

Lastly, let us review supply of equipment and materials by DAC member countries to developing countries (See Fig. 3 and Table 2). In 1968, the U.S.A. supplied \$102 million worth of equipment and materials (increase of \$5 million over the preceding year), West Germany \$31.6 million (increase of \$7.8 million), the United Kingdom \$3.5 million (decrease by \$0.1 million), Australia \$2 million (increase of \$0.6 million), and Japan \$1.6 million (increase of \$1.1 million). Among these countries, the U.S.A., West Germany, and Australia are emphasizing supply of equipment and materials, their shares of this type of co-operation in the total technical co-operation being around 20 per cent. In the case of Japan, the amount of supply of equipment and materials was near to 15 per cent, which indicates that Japan takes seriously of this type of co-operation. But the allocation of aid in equipment and materials must be increased in view of small absolute amount of this aid.

### 4. Patterns of Technical Co-operation of Major Countries (See Fig. 3 and Table 2)

Let us then look at the patterns of bilateral aid of major countries.

(1) The U.S.A. spent \$37 million on accepting trainees and students from abroad (19,242 persons), and \$311 million on dispatching experts abroad (29,941 persons), and \$102 million on supplying equipment and materials. The scale of each category is very large, but the largest weight is attached to the dispatching of experts. Volunteers constitute 62 per cent of the experts dispatched

abroad, and students constitute 60 per cent of the total of trainees and students accepted from abroad. The area to which co-operation is extended covers almost all of the developing countries.

(2) The United Kingdom spent \$17.4 million on accepting trainees and students (9,438 persons), \$58.4 million on dispatching experts (18,854 persons), and \$3.5 million on supplying equipment and materials. Among these three categories, the dispatching of experts is by far the largest, and the supply of equipment and materials is very small. Experts constitute 90 per cent of those dispatched abroad, and volunteers are few, being 10 per cent. Like the case of the U.S.A., students constitute 60 per cent of the total of trainees and students accepted from abroad.

(3) West Germany spent \$42.6 million on accepting trainees and students (23,632 persons), \$37.9 million on dispatching experts (5,622 persons), and \$31.6 million on supplying equipment and materials. The absolute amount of equipment and materials and its share in the total technical co-operation are very large compared with other countries. The priority area to which co-operation is extended seems to be Asia and Africa, whereas in the case of private investment of West Germany, Central and South America seems to be given priority.

Among major advanced countries, West Germany represents a rare example whose accepted number of trainees and students exceeds the number of dis-

patched experts. As mentioned before, this could be explained from the large weight put on training in recipient countries, and as a consequence, the number of trainees is four times as large as that of students. As to dispatching of experts, the number of experts is larger than that of volunteers, constituting 62 per cent.

(4) Belgium spent \$5.2 million on accepting trainees and students (2,858 persons), \$33 million on dispatching experts (3,623 persons), and these two categories constitute the major part of her co-operation. In terms of expenditure, dispatching of experts is by far the larger of the two, but the number of dispatched experts is not much different from that of accepted trainees, etc. Experts constitute 90 per cent, and volunteers 10 per cent, of the total number of persons dispatched abroad. As to a breakdown of trainees and students, trainees take up 33 per cent and students 67 per cent.

(5) Canada spent \$8.4 million on accepting trainees and students (3,385 persons), and \$14.3 million on dispatching experts (2,393 persons), and these two categories are well balanced. The number of trainees is nearly the same as that of students, and the number of experts is also nearly equal to that of volunteers.

(6) Sweden spent \$2.5 million on accepting trainees, etc. (763 persons), \$5.1 million on dispatching experts, etc. (402 persons), and \$1.2 million on supplying equipment and materials. Like the case of the Netherlands, the expenditure for

Table 2. Technical Aid of DAC Member Countries by Category (Data from DAC 1968)

| Category<br>Year<br>Amount<br>Country | Acceptance of Trainees, etc. |                  |                 |                  | Dispatch of Experts etc. |                  |                 |                  | Supply of Equipment and Materials |                 | Others          |                 |
|---------------------------------------|------------------------------|------------------|-----------------|------------------|--------------------------|------------------|-----------------|------------------|-----------------------------------|-----------------|-----------------|-----------------|
|                                       | '66                          |                  | '67             |                  | '66                      |                  | '67             |                  | '66                               | '67             | '66             | '67             |
|                                       | Million Dollars              | Number of people | Million Dollars | Number of people | Million Dollars          | Number of people | Million Dollars | Number of people | Million Dollars                   | Million Dollars | Million Dollars | Million Dollars |
| Australia                             | 5.0                          | 2,519            | 5.1             | 2,556            | 1.2                      | 837              | 2.2             | 990              | 1.4                               | 2.0             | -               | -               |
| Austria                               | 0.5                          | 189              | 0.3             | 469              | 0.2                      | 45               | 0.6             | 761              | 0.1                               | -               | 2.0             | 2.3             |
| Belgium                               | 4.9                          | 3,164            | 5.2             | 2,858            | 30.8                     | 3,532            | 33.0            | 3,623            | 0.3                               | -               | 1.9             | 2.2             |
| Canada                                | 7.4                          | 2,904            | 8.4             | 3,385            | 11.1                     | 1,714            | 14.3            | 2,393            | ..                                | ..              | 0.7             | -               |
| Denmark                               | 0.6                          | 440              | 0.9             | 475              | 1.0                      | 324              | 1.6             | 463              | ..                                | ..              | 2.7             | 3.8             |
| France                                | 17.8                         | 12,906           | -               | -                | 153.0                    | 44,916           | -               | -                | 7.2                               | -               | 184.2           | -               |
| West Germany                          | 37.0                         | 13,143           | 42.6            | 23,632           | 32.4                     | 3,680            | 37.9            | 5,622            | 23.8                              | 31.6            | 12.5            | 14.0            |
| Italy                                 | 4.5                          | 1,129            | 2.8             | 1,360            | 5.4                      | 1,308            | 4.9             | 1,323            | 0.2                               | 0.5             | 0.8             | 2.0             |
| Japan                                 | 3.4                          | 1,856            | 4.2             | 1,701            | 3.4                      | 768              | 5.2             | 1,247            | 0.5                               | 1.6             | 0.3             | -               |
| Netherlands                           | 1.8                          | 1,015            | 2.3             | 1,170            | 5.3                      | 637              | 6.5             | 732              | ..                                | ..              | 8.1             | 9.6             |
| Norway                                | 0.2                          | 187              | 0.2             | 184              | 1.7                      | 253              | 2.0             | 298              | 0.1                               | 0.1             | -               | -               |
| Portugal                              | ..                           | ..               | ..              | ..               | ..                       | ..               | ..              | ..               | ..                                | ..              | 7.6             | 8.0             |
| Sweden                                | 2.1                          | 652              | 2.5             | 763              | 4.5                      | 312              | 5.1             | 402              | 1.9                               | 1.2             | 3.0             | 3.6             |
| Switzerland                           | 0.7                          | 535              | 0.7             | 518              | 0.5                      | 117              | 0.6             | 138              | 0.1                               | -               | 0.1             | 0.2             |
| United Kingdom                        | 13.1                         | 9,021            | 17.4            | 9,438            | 56.5                     | 17,424           | 58.4            | 18,854           | 3.6                               | 3.5             | 12.0            | 12.7            |
| U.S.A.                                | 35.0                         | 17,446           | 37.0            | 19,242           | 301.0                    | 27,777           | 311.0           | 29,941           | 97.0                              | 102.0           | 102.0           | 114.0           |
| Total                                 | 134.0                        | 67,106           | 147.3           | 80,657 *         | 608.0                    | 103,644          | 636.3           | 111,103*         | 136.1                             | 149.7           | 337.9           | 394.0           |

N. B. 1. Acceptance of Trainees, etc. includes students.

2. Dispatch of Experts, etc. includes Volunteers.

\* : Including Estimated Number of France.

dispatching experts is considerable, but the number dispatched is relatively smaller in comparison with that of accepted trainees. The number of experts is larger than that of volunteers, constituting 70 per cent, and students are larger in number than trainees, constituting 70 per cent of the total of the two.

(7) The Netherlands spent \$2.3 million on accepting trainees, etc. (1,170 persons), \$6.5 million on dispatching experts, etc. (732 persons), and \$9.6 million on other categories of co-operation. As is evident from these figures, the Netherlands emphasizes dispatching of experts. But what is more striking is "other categories" constituting 50 per cent of her co-operation. Similar examples are found in the cases of Australia and Denmark, etc. The number of experts is 70 per cent, and that of volunteers 30 per cent, of the total number dispatched, and the number of students is 80 per cent, and that of trainees is 20 per cent, of the total number accepted.

(8) Japan spent \$4.2 million on accepting trainees and students (1,701 persons), \$5.2 million on dispatching experts and volunteers (1,247 persons), \$1.6 million on supplying equipment and materials. Though they are fairly balanced, their absolute amounts are very small. The number of experts is three times as large as that of volunteers, and the number of trainees is twice as large as that of students. As for the area to which co-operation is extended, Japan has adopted the basic policy of emphasizing Southeast Asia, because, as was stated by the Japanese delegate at the meeting of DAC held in 1968, Japan is an advanced country in Asia having close geographical and historical relations with the Southeast Asian countries, and their expectation for Japanese co-operation is naturally high. Moreover, Southeast Asian countries are offered relatively smaller amounts of aid in comparison with other regions.

##### 5. Fields of Co-operation

Let us review the subject of trainees and students accepted by, and experts and volunteers dispatched from, all the DAC member countries. As for trainees constituting 60 per cent of the total of trainees and students, the main fields of their training are industry, mining and handicraft (15%), agriculture (15%), public administration, power transport and telecommunication, education (respectively 11%) and health service (7%). As for students, the main fields are engineering (18%), education (13%), medical sciences (12%), agriculture (12%), and natural science (10%). As for experts constituting 80 per cent of those dispatched abroad, educational experts constitute by far the larger portion of 55 per cent, operational personnel 25 per cent, and advisors 20 per cent.

Among educational experts, teachers, mostly teachers of primary and secondary education, constitute 60 per cent, and the number of educational administrators and educational advisors is small. The fields of operational personnel are centered on power transport and telecommunications (24%), public administration (17%), agriculture (17%), health service (13%), and the major fields of advisors are agriculture (20%), public administration (12%) and industry, mining and handicraft (7%), etc. As to volunteers, teachers constitute 40 per cent of the total, and teachers of primary and secondary 80 per cent of the total number of teachers. Other than teachers, the major fields are social service and labor relations (40%), health services (25%) and agriculture (15%).

In the case of Japan, advisors constitute by far the largest portion of 93 per cent of experts, and the number of educational experts is very small, although it is steadily increasing over the preceding year. There is no operational personnel sent abroad, because Japan has no special ties with developing countries as other advanced countries have based on their former colonial relationship, and also because of the language difficulty which is a problem peculiar to Japan. The main fields of advisors are agriculture (26%), economic planning (25%), industry, mining and handicraft manufacturing industry (22%), power transport and telecommunication (11%) and health service (11%). The main fields of volunteers are agriculture (40%), power transport and telecommunications (18%) and industry, mining and handicraft (11%), and the number of teachers is small (5%).

The fields of trainees are centered on agriculture (25%), power transport and telecommunication (23%), industry, mining and handicraft (21%), and those of students on engineering (40%), natural science (16%), agriculture (15%) and medicine (11%).

The most remarkable recent trend of assistance by DAC member countries is that the weight of their assistance policy is being shifted towards development of agriculture and social development such as education, family planning and medical treatment. A striking feature in Japan's aid is that agriculture including fisheries continues to occupy the largest share in her technical assistance.

Population problems in Asia have also aroused the concerned of advanced countries in connection with food problems, and co-operation in regulating the size of families is given specific attention. Japan is also taking a positive step in this direction and has set up seminars in family planning for the benefit of developing countries.

On the other hand, assistance in diffusion and promotion of education as a basis for economic development has become a mainstay of co-operation



extended from advanced countries to developing countries. Japan expressed her willingness to share in the Asian part of educational assistance carried out by DAC member countries, and in practice, she has tried to dispatch an expert on agricultural education in addition to experts on science teaching, and their achievements have gradually become noteworthy. But the scale of educational assistance is still very small compared with other major advanced countries, and remains to be enlarged by our continuing efforts.

N.B. 1

i) Educational Experts:

Should include teachers, educational administrators and educational advisors.

ii) Operational Personnel:

Should cover all experts not engaged in education, or as advisors, including persons temporarily at the disposal of public or semi-public Agencies in developing countries to fill a permanent post.

iii) Advisors:

Should include all experts whose role is to give advice and training in establishing or strengthening institutions, initiating new activities, con-

ducting surveys or research, advising on different policy issues, etc. Educational advisors should be excluded and reported under the appropriate sub-group of "educational experts".

iv) Volunteers:

Should include all volunteers working in developing countries under partly or wholly publicly financed or publicly controlled volunteer programs. Volunteers performing teaching functions should be separately identified. Countries which possess information should provide a breakdown by level of teaching, e.g., primary and secondary education, technical and vocational training, etc.

N.B. 2

As regards figures of performance of each of the DAC member countries in 1967, the amounts and the number of persons cited in this paragraph are based on the DAC method of classification for convenience of comparison with various countries. Therefore, these figures may differ from those appearing in the succeeding part of this volume which are based on the OTCA method of classification.

N.B. 3

The source of figures concerning DAC is the DAC Chairman's Report for 1968 Statistical Annex.

## CHAPTER 5

### PROBLEMS OF JAPAN'S TECHNICAL COOPERATION

Japan's technical co-operation consists entirely of donation of services of Japanese experts and Japanese equipment to the recipient countries, which takes the form of tied grant and does not allow any disbursement to the third country training program or to the third country experts. After reparation, technical co-operation was the second type of economic co-operation which was taken up by Japan, born from her zeal for the development of Asia. Its history can be traced back to the period immediately after Japan regained its independence more than 14 years ago.

In fiscal 1967, survey of evaluation of Japan's technical co-operation was carried out for the first time by the Ministry of Foreign Affairs and the Overseas Technical Co-operation Agency of Japan, and the results of the evaluation were compiled in a report form. It was encouraging to find that Japan's technical co-operation was generally held in high esteem in recipient countries although there is still much to be improved in both qualitative and quantitative aspects, and that the technical levels of Japanese experts were especially given high appraisal. Technical co-operation has the nature of giving services and equipment and has the danger to waste resources because there is no clear criteria

for cost-benefit analysis as in the case of loan financing. On the other hand, extension of effective technical co-operation to truly meaningful projects will produce long lasting impacts making great contribution to the fundamental change and evolution of recipient countries. Continued evaluation is, therefore, essential for providing effective technical co-operation. Therefore, the first step taken to systemize evaluation of Japanese technical co-operation is very significant.

Let us now review the various problems awaiting solution in promoting Japan's technical co-operation.

#### 1. Expansion of Scale and Scope

As mentioned before, Japan's disbursement for bilateral technical co-operation on government basis amounted to \$11 million in fiscal 1967, an increase by \$3.4 million over the previous year, and the amount of co-operation on a commitment basis also increased considerably from \$10.4 million to \$16 million. But the total amount of financial assistance also marked a large increase, and consequently, the share of technical co-operation in the total governmental assistance did not increase.

Recently, in discussing equitable burden-sharing

Table 3. Share of Aid in Per Capita National Income of DAC Member Countries

| Country        | Per Capita National Income, Fiscal 1966 | Per Capita Aid and its share in per Capita National Income, Fiscal 1966 | Per Capita Governmental Aid and its Share in Per Capita National Income | Per Capita Aid for Bilateral Government Assistance and its Share in Per Capita National Income, Fiscal 1966 | Per Capita Aid for Bilateral Government Technical Assistance and its Share in Per Capita National Income, Fiscal 1966 |
|----------------|---|---|---|---|---|
| Australia      | 1,757                                   | 11.8 (0.66)   | 11.1 (0.63)   | 9.9 (0.56)  | 0.7 (0.04)  |
| Austria        | 1,034                                   | 6.8 (0.65)  | 5.0 (0.48)  | 4.2 (0.40)  | 0.4 (0.04)  |
| Belgium        | 1,503                                   | 18.7 (1.24)   | 11.1 (0.74)   | 7.1 (0.47)  | 4.0 (0.27)  |
| Canada         | 1,979                                   | 13.4 (0.68)   | 10.6 (0.54)   | 9.1 (0.46)  | 1.0 (0.05)  |
| Denmark        | 1,793                                   | 5.0 (0.28)  | 5.4 (0.30)  | 2.2 (0.12)  | 0.9 (0.05)  |
| France         | 1,542                                   | 26.7 (1.73)   | 15.1 (0.97)   | 14.5 (0.94)   | 7.3 (0.48)  |
| West Germany   | 1,574                                   | 12.4 (1.07)   | 8.2 (0.52)  | 7.6 (0.48)  | 1.8 (0.11)  |
| Italy          | 944                                     | 12.2 (1.29)   | 2.4 (0.25)  | 0.6 (0.06)  | 0.2 (0.02)  |
| Japan          | 791                                     | 5.9 (0.75)  | 2.9 (0.37)  | 2.4 (0.30)  | 0.1 (0.01)  |
| Netherlands    | 1,362                                   | 20.4 (1.50)   | 7.5 (0.55)  | 4.1 (0.30)  | 1.2 (0.09)  |
| Norway         | 1,556                                   | 4.6 (0.29)  | 3.5 (0.22)  | 1.4 (0.09)  | 0.5 (0.08)  |
| Portugal       | 378                                     | 4.3 (1.14)  | 2.6 (0.07)  | 2.4 (0.64)  | 0.8 (0.22)  |
| Sweden         | 2,392                                   | 13.8 (0.58)   | 7.3 (0.31)  | 3.0 (0.13)  | 1.5 (0.06)  |
| United Kingdom | 1,515                                   | 18.7 (1.23)   | 9.6 (0.63)  | 8.5 (0.56)  | 1.6 (0.10)  |
| U.S.A.         | 3,154                                   | 25.3 (0.80)   | 18.6 (0.59)   | 18.0 (0.57)   | 2.7 (0.09)  |

of assistance among nations, the amount of burden per national is often referred to. As far as the share of aid in per capita national income is concerned, Japan nearly stood abreast with the United States and Western European countries in fiscal 1966, but she lagged far behind in the field of technical co-operation (See Table 3). On this account, DAC Chairman Martin and it can hardly be said emphasized the strengthening of technical co-operation as well as the softening of terms for providing assistance as the major tasks of Japan in coming years.

Considering that Japan still maintains a high rate of economic growth, greater efforts will be required of Japan to raise the amount of her technical co-operation to an international level.

What are the obstacles to the rapid expansion of the scale and scope of Japan's technical co-operation? First, the increase in the budget for technical co-operation is restrained within the general increase rate of the budgets of the Ministries (especially of the Ministry of Foreign Affairs), and any rapid increase in budget and staff is held in check by budget inflexibility. Secondly, necessity of the expansion of budget for technical co-operation is not adequately recognized by all government and private sectors and it lacks fully support of the public opinion. There is much to be done to win wider support from various organizations in Japan and the Japanese Government must make strenuous efforts to lead public opinion in order to carry out various steps of reform. Thirdly, in comparison with the gradual increase in the budget for technical co-operation, organizational set-up for carrying out large scale undertakings is

slow in progress. The necessity of centralizing aid-giving organizations of Japan was pointed out by DAC chairman Martin and it can hardly be said that our domestic system for performing effective co-operation is well organized.

## 2. Multiplication and Integration of Technical Co-operation

Japan's technical co-operation tended to be provided case by case at the request of foreign countries, and not much effort was made to enrich means of technical co-operation by inventing new methods, nor to combine various methods into a systematic one, nor to pay attention to sufficient aftercare services.

This weakness is gradually being rectified and improvement in multiplication and integration of technical co-operation is in progress. Examples are: increasing educational co-operation and project co-operation; training in Japan of counterpart personnel who work in technical co-operation established in recipient countries, supply of equipment and materials to ex-trainees as aftercare service, grouping of dispersed Japanese experts and supply of equipment to these groups of experts, mutual co-operation between Colombo Plan experts and overseas co-operation volunteers, feasibility surveys to be accompanied if possible by subsequent grant for preparing detail designs, and integrated project co-operation for medical treatment and development of agriculture and primary products. However, cases of supply of equipment and materials to ex-trainees for aftercare service are very few supply of equipment and materials to groups of experts are not sufficient, and educational aid to schools which is a basic stage of technical co-opera-

tion is almost negligible if compared with the magnitude of such aid given by the United States and Western countries. Moreover, Japan does not dispatch such senior policy advisors as can directly give advice or instructions with regard to policies for economic or technological development of recipient countries. In this respect Japan is even lagging behind communist countries, not to mention the United States and Western countries. Japan should expand fields of her technical co-operation to enhance overall effectiveness, with emphasis laid on educational aid, technical training, supply of equipment and materials, advice on economic and technological policies, and tying up of financial assistance to the projects for which surveys and detail designs were made by Japanese teams.

### 3. Expansion and Strengthening of Organs Implementing Technical Co-operation

#### (1) Training in Japan

Japan's training is centered on group training, and individual training which requires more expenses and labor has lesser weight.

In carrying out group training, different stages of development of countries dispatching trainees to Japan are not taken into consideration. Although the method of selection is based on choosing trainees of the same level and qualification, there is a limit to the merit of group training where trainees from rather developed developing countries and those from the least developed developing countries are assembled together and given the same instruction. Therefore, it is more desirable that Japan should shift its emphasis on individual training which should be performed according to the different development stage of a recipient country and level of a trainee. For this purpose, level of participants and their countries accepting group training should be carefully reviewed, and the ratio between the number of group trainees and that of individual trainees should be reconsidered. It is important in this context to explore more training institutes and increase the number of staff for organizing courses and for instruction and interpretation. One of the difficulties facing this task is that most of our training organizations were established for the training of Japanese trainees, and instructors are not necessarily familiar with the backgrounds and technical ability of foreign trainees and the conditions prevailing in their countries, since they do not specialize in training people from developing countries. It is therefore desirable that Japan should establish special training institutes for foreigners, particularly for the people coming from developing countries. Overseas Technical Co-operation Agency has only two training institutes specializing in training of participants from developing countries, i.e. agricultural course and fisheries

course, and yet expansion of these facilities are restrained by a limited budget. It is considered necessary to establish an institute for small scale industries to give basic training to overseas trainees and to give orientation to Japanese experts in the field of medium-and-small size enterprises which has an increasingly large demand from developing countries, next to agriculture and fisheries. On the other hand, campaigns to obtain support from both public and private sectors for more effective organization and conduct of training must take place. Since the shortage of training facilities will aggravate with the rising demand for training in Japan, we should positively ask for co-operation from government agencies as well as from local public bodies, national and private universities, and private enterprises.

#### (2) Selection and Treatment of Experts

There is a growing overseas demand for Japanese technicians and experts, and government has made great efforts to recruit able experts to meet such a demand from the available manpower, the main source of which was national Ministries and Agencies. Co-operation by local public authorities and private organizations is gradually improving, together with the voluntary registry system of experts established by the Overseas Technical Co-operation Agency. However, it is still difficult to expand substantially the number of experts to be dispatched overseas, particularly those on long term for the following reasons: First, in the event that experts are assigned overseas for a long time, they are obliged to retire temporarily or permanently from their present offices, and thus be in a disadvantageous and unstable position after return to Japan. Secondly, there are not many experts who are proficient in foreign languages. Thirdly, treatment of experts during their stay in foreign countries is not adequate. As to counteract the first disadvantage, government officials, if they are to be assigned overseas, should be seconded to such a post as if on official mission and not to be placed on the half-pay list. There is a Ministry which has set up a specific post of overseas co-operation staff for experts to be sent abroad and this kind of posts should be largely increased. In case of temporary retirement, it should be taken care of that they will not be handicapped in their positions and promotion after return to their original organization. Better understanding in this regard by government Ministries and Agencies, local public authorities and various organizations concerned should be secured. In 1968, new measures were taken to grant unemployment allowance to experts who failed to take up employment after returning from overseas. Also, a new arrangement called "pooled experts system" was made whereby a limited number of returned experts with certain qualification

will be pooled at the Overseas Technical Co-operation Agency for the purpose of further dispatch abroad. These measures are noteworthy as offering more security to returned experts, and it is necessary to widen the coverage of unemployment allowance and to increase the number of pool staff. As to the second difficulty, the language problem exists not only in the case of English, but it is much more acute in the cases of French and Spanish which is hampering co-operation vis-à-vis Africa and Central and South America. It should be overcome by intensifying language study during pre-dispatch training period, together with efforts to recruit capable experts from among private enterprises which have experienced staff in foreign language. As to the third problem which is to give better support for experts while serving abroad, a new measure will be taken to cover sickness and accident compensation including off-duty and family compensation; Also local duty allowance and home-leave system is gradually improving. What is desired is to raise the standards of treatment of experts including their monthly allowance near to the level enjoyed by those who are employed by international organizations. Also some devices should be invented to recruit technicians more easily from among private enterprises.

### (3) Development Surveys (Pre-investment Surveys)

With regard to pre-investment surveys and feasibility surveys, there is much to be desired in the selection of projects for development survey, method of survey, scale of survey teams and contents of their reports, since budgetary allocation for such survey is small, and since there is very few experienced project-economists, and the consultants are not fully developed in Japan.

To rectify such a situation, what should be done is, firstly, to make sufficient preliminary investigations as to backgrounds of requests, development plans made by requesting countries and urgency of projects before full scale surveys are started. Also, dispatching of project finding teams should be considered to find proper projects. Secondly, enlargement and prolongation of surveys and participation of project-economists capable of evaluating the economic aspects of projects should be promoted so that surveys can be conducted more elaborately and feasibility aspects of project can be more carefully scrutinized in order to induce financial investment. Thirdly, follow-up activities should be performed much further after surveys are completed. Some arrangement must be made so that a member of survey teams could remain on the spot for liaison work or may be dispatched again to co-operate with the staff of recipient countries in explaining and implementing the survey report. Lastly, survey work should be tied closely to financial assistance,

and financial sources should be explored while carrying out survey work in order to materialize projects thus surveyed by Japanese teams.

### 4. Request for Self-support Efforts of Recipient Countries

It is essential for developing countries to make self-support efforts for their economic and social development. Without such self-support efforts by developing countries, the effectiveness of co-operation would not be long lasting, however hard donor countries may try to co-operate with developing countries. Since the basic character of technical co-operation is the extension and transfer of experience, knowledge and technique through human media, it would prove fruitless if corresponding efforts were not made on the part of aid-recipient and its organization. In the Second United Nations Conference on Trade and Development held in India in May 1968, a resolution was adopted by the participating countries that the responsibility for the economic development of developing countries rests primarily on the developing countries themselves and therefore it was indispensable for the developing countries to make further efforts and improvement in mobilizing their domestic resources. It was stressed that domestic resources including human resources should be utilized more effectively by developing countries and for that purpose their own self-help efforts should be required. In the meeting of DAC held in 1968, the Japanese delegate requested that developing countries should 1) take measures required for effective utilization of assistance, 2) attach importance to agriculture, 3) curtail defense expenditures and 4) make social and institutional reforms in their countries.

In other words, Japan requested good performance from developing countries, and urged that the above four steps should be implemented with joint steps by advanced countries of DAC. This statement of Japan's position drew great attention of DAC member countries.

Japan must expand her future aid under conditions of budget inflexibility, and it is therefore important to secure the support and understanding of the people. Japan should also make endeavors to secure effective performance of her co-operation by positively offering policy recommendations to the recipient countries. To attain this end, Japan should continue to make detailed preliminary study as to the conditions and stage of economic development of requesting countries as well as backgrounds of their requests, and at the same time it is desired that requesting countries should on their part take appropriate measures to remove adverse factors hampering the effectiveness of assistance so that environments for receiving Japan's assistance could be improved and better coordinated.