'71

ANNUAL REPORT

TECHNICAL COOPERATION OF THE JAPANESE GOVERNMENT

OVERSEAS TECHNICAL COOPERATION AGENCY

TECHNICAL COOPERATION
OF
THE JAPANESE GOVERNMENT

FOREWORD

The Second United Nations Development Decade, which began in 1971, is about to enter its second year. The year 1971 witnessed drastic changes in the international political situation, as exemplified in the new economic policy adopted by the United States, the admission of the People's Republic of China to the United Nations membership, and the India-Pakistan conflict over East Pakistan; and a new approach in international cooperation toward the developing countries, described as the greatest international challenge of this century, has come to be called for.

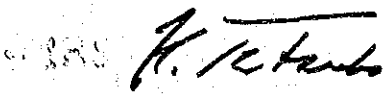
In this fluid international situation, it can be said that Japan's economic cooperation, which has shown rapid growth in recent years, is now facing an important turning-point.

It has been pointed out in a recent report submitted to the Japanese Government by the External Economic Cooperation Council that "a new concept in external development cooperation is needed by the unification of capital cooperation with technical cooperation." Particularly with respect to technical cooperation, reference was made to several new areas, such as education, culture and medical care, thus indicating the future course to be followed.

This report seeks to explore the new direction and role to be taken in Japan's technical cooperation and also describes the accomplishments and problems faced during 1970 in the various projects undertaken by the Overseas Technical Cooperation Agency.

It is my hope that, as Japan sets out to take new forward step in its external economic and technical cooperation under the new international situation, this report will serve to deepen the understanding of various circles concerned and will prove to be useful in some measure.

December, 1971



Keiichi Tatsuke
Director-General
Overseas Technical Cooperation Agency

CONTENTS

PART I

INTRODUCTION

PART II

DETAILED DISCUSSION

PART III

STATISTICS AND DATA

PART I

INTRODUCTION

CHAPTER 1

NEW DIRECTION AND ROLE OF TECHNICAL COOPERATION

Section 1. In Search of Human Well-Being

The International Development Strategy for the Second United Nations Development Decade adopted by the United Nations General Assembly in the autumn of 1970 is the new guidepost for development assistance in the world in the 1970s.

During the First United Nations Development Decade, the countries of the world endeavored to achieve the goals of stability and a more advanced welfare society through economic development and social progress, but the fact that the living standards of peoples in the developing countries are still miserably low and that the gap between them and the peoples in the advanced countries continues to grow wider cannot be ignored.

The United Nations at the outset of the International Development Strategy indicates that "The ultimate objective of development must be to bring about sustained improvement in the well-being of the individual and bestow benefits on all. If undue privileges, extremes of wealth and social injustices persist, then development fails in its essential purpose. This calls for a global development strategy based on joint and concentrated action by developing and developed countries in all spheres of economic and social life: in industry and agriculture, in trade and finance, in employment and education, in health and housing, in science and technology. This is in fact an appeal made against such a world background, calling for extrication from and improvement of this situation.

Needless to say, assistance was commenced after World War II as an arrangement for relief and recovery, and later, reflecting the cold war world situation prevailing, was used as a political tool by the advanced countries to expand their markets. In view of this, when the United Nations undertook its First Development Decade in the 1960s, some corrections were made in the course to be taken in extending assistance, and it came to be recognized that assistance should be viewed from the standpoint of the developing countries. In both the advanced and the developing countries, however, the emphasis of assistance tended to be laid on direct economic growth, and the question of how the benefits of development were to be reflected on the inhabitants in general was often overlooked. It is believed that this was not necessarily due to the arbitrary methods of the advanced countries, but was also due to a lack of awareness on the part of the developing countries that the aim of assistance is to promote the well-being of their people and to overemphasis on superficial economic growth. This problem was taken up as the main agenda item at the twenty-first meeting of the Colombo Plan Consultative Committee in February, 1971, in Manila, and it was agreed that the recipient countries should study the promotion of the well-being and social justice of their people as their basic development policy. As is evident in the fact that serious discussions took place not as a request to the donor countries, as is often the case in conferences of this kind, but as the result of self-reflection by the recipient countries, it can be said that a new recognition of the problem was gained by both the advanced and the developing countries, through mutual self-reflection.

This trend signifies that both the donor and recipient countries have shaken off the mood of confrontation that had prevailed among them, and have taken the position of seeking measures which will make development more effective through mutual reconfirmation of the goals of development. This is worthy of note as a new worldwide trend for promoting the well-being of mankind.

This way of thinking is also emphasized in the recommendations made by the External Technical Assistance Committee of the External Economic Cooperation Council, an advisory organ to the Prime Minister of Japan, that for the realization of a just and affluent society as the basic concept of development assistance, the advanced countries, in the same way that they strive to promote the well-being of their own peoples, should apply the concept to the peoples of the developing countries, and that in order to contribute to the economic development of the developing countries and the well-being of their peoples, the advanced countries should aim at giving a full sense of satisfaction and confidence to these peoples. It is believed that this indicates a new trend in Japan's assistance as well as its self-reflection that its assistance in the past was not necessarily based on a full recognition that the ultimate objective of assistance is to promote the well-being of the people.

Japan's concept or its way of thinking concerning external cooperation was indicated for the first time in the above recommendations. This was an epoch-making event even at home. On the other hand, the world is now undergoing a period of change in international cooperation. It is to be hoped that these recommendations will be given full play as Japan's charter for external cooperation.

In Japan also which has been admitted to the community of advanced countries, some frictions and conflicts have arisen between industrial development and the well-being of its people, and as mentioned at the outset, the well-being of peoples in the developing countries has been almost totally ignored. It is difficult to expect a truly peaceful and affluent society without harmony between industrial development and human welfare.

In looking into the various international cooperation projects implemented by the Overseas Technical Cooperation Agency, only a few have been directly aimed, in their programming and implementational stages, at promoting the well-being and interests of the local population, fully considering all aspects. The manner in which the projects are programmed and implemented often leads to cooperation in disregard of the local peoples and isolation from local communities. Thus, such projects might be regarded as arbitrary acts of the donor countries and cause disfavor among the recipient countries. In view of this fact, the projects should be oriented toward the new world guidepost for development assistance, without overlooking the afore-mentioned worldwide trend of such assistance.

Section 2. From Mere Expressions of Good Intentions to Actual Implementation of Development Projects

In order to bridge the extreme disparity between wealth and poverty and to bring about a just and affluent society on earth, it must be the objective of our cooperation to enhance the efficiency of development assistance and to reflect its benefits on the peoples of the recipient countries at the earliest opportunity. Further, development assistance must be provided through the integration of money, materials and manpower. In spreading the benefits of assistance among people, much depends especially on technical cooperation.

Generally speaking, in the developing countries, there are many cases where economic and social backwardness impedes the full production of the effects of assistance because the countries lack the ability to digest assistance. On the other hand, it cannot be denied that the efficiency of assistance by the donor countries is low because their experiences and knowledge are thrust upon the recipient countries in disregard of the actual local situation.

It must be the primary mission and the chief function of technical cooperation to break this vicious circle and to eliminate the cause hampering development.

It is important to realize that technical cooperation is not only the transfer of production methods and techniques, but also includes that for social development, widely covering the economic, social, educational, cultural and all other areas. In order to increase the assistance-receiving capability to a particularly less-blessed country, the causes hampering social development must be eliminated through technical cooperation prior to the provision of money and materials, and urgent and paramount importance must be attached, in extending development assistance to such a country, to technical cooperation including grants of social capital, of which there is a shortage, and social services. The low efficiency of assistance by the advanced countries, as noted earlier, due to the lack of knowledge of the real situation in the recipient countries will also be much improved by the promotion of mutual understanding between them through technical cooperation.

Accordingly, in strengthening and expanding Japan's development assistance in future, it can be said that technical cooperation will serve as a very useful tool in the implementation stage of assistance projects, greatly influence economic and social development in the recipient countries and promote well-being of local peoples that will be welcomed by them. In other words, in the stage of programming such projects, the real situation in the recipient countries must be fully understood through technical cooperation, and in the implementation stage the transfer of new techniques, management guidance, the training of leaders and other projects must be conducted. In addition, after-service and after-care must be provided through technical cooperation. Only by doing so can the real effects of assistance be achieved.

Technical cooperation, viewed sectionally, is often regarded as cooperation by people that does not require money and as belonging to a category separate from monetary aid or grants of materials and facilities. However, as stated above, it is necessary to fully recognize that technical cooperation comprises the most important cog in the mechanism of assistance.

To understand technical assistance in the cycle of development assistance, a strategy consistent with it is called for. In considering the future course of Japan's assistance, it is obvious that its volume, particularly the volume of governmental development assistance, will increase sharply. It is inevitable that this situation will lead to undertaking intensive, large-scale projects as well as those in the area of social development.

The orientation of cooperation toward economic development and the promotion of the well-being of the people, in addition to the study of methods for effective cooperation on the premise that the volume of assistance will increase, will come to assume utmost importance. In connection with this problem, the promotion of development efficiency is emphasized in the aforementioned United Nations International Development Strategy as follows:

"International co-operation for development must be on a scale commensurate with that of the problem itself. Partial, sporadic and half-hearted gestures, how-

soever well intentioned, will not suffice."

As pointed out above, assistance heretofore often began on the assumption that it should manifest the good intentions of the advanced countries and benefitted the recipient countries. In many cases, assistance projects were implemented without fully appraising or forecasting their effects in the programming stage or without clarifying their goals. Thus, such ill-prepared projects failed to produce the expected effects of development.

Since the integration and enlargement of assistance projects in order to increase development effects is expected to exert considerable influence on local societies concerned, it will become all the more important to program such projects with a full awareness and comprehension of the real situation in the recipient countries. If foreigners who are not well informed of local conditions undertake social development only on the basis of experiences in their own countries, there is danger that this will only confuse the local population and their social structure. Further, in such an event, if the director of such undertaking programes a development project only for the sake of modernization which disregards the desires of the local people and brings no benefits to them, such cooperation would, on the contrary, serve to provoke their resentment.

As noted above, it is necessary, first of all, to conduct a thoroughgoing survey before undertaking development assistance and to obtain information on the opinions and the characteristics of local communities. A project must not be programmed for only one single sector, such as agriculture, but as a package program embracing the cultural, educational, industrial and other sectors that form the background of the project.

Development cooperation must be considered within the fabric of society. Unless a project for such cooperation, as noted in the Pearson Report, is regarded as a system or a cycle, and unless it is implemented scrupulously and with mobility in keeping with the ever-changing social situation, effective development cannot be expected.

CHAPTER 2

JAPAN'S TECHNICAL COOPERATION AND ITS INTERNATIONAL STATUS

Section 1. Japan's Economy and the Amount of Its Technical Assistance

It was in 1961 that the United Nations designated the 1960s as the First United Nations Development Decade with the goal set at raising the economic growth rate of the developing countries to 5 per cent by the end of 1969. Although this goal was achieved, the volume of assistance by the member countries of the Development Assistance Committee has not increased as expected, and the developing countries are facing difficulties with their accumulated debts. Thus, "trade and aid" has become a catchword, and matters have turned for the worse and have become complicated.

In a world thus beset with the problems, Japan, too, prepared to cope with problem of international cooperation at the threshold of the Second United Nations Development Decade. It established the Conference of the Cabinet Ministers Concerned with Economics, a *de facto* decision-making organ of the Government, in 1969, and took up the basic problems of international economic cooperation in the External Economic Cooperation Council, an advisory organ to the Prime Minister, to study various future development policies.

The amount in value of Japan's assistance, which accounted in 1969 for only 3.0 per cent (circa $200 million) of the total assistance by the DAC member countries, gradually increased, and reached 12.4 per cent (circa $1,800 million), thus ranking second in volume and next only to the United States (see Table 1).

The ratio of Japan's assistance to its Gross National Product made a big jump from 0.76 per cent in 1969 to 0.93 per cent in 1970 (see Table 1). Japan has made a commitment to increase its assistance to 1 per cent of its GNP by 1975, but in view of its past record in the volume of its assistance, the assistance growth rate registered 67.5 per cent in 1965, 28.7 per cent in 1966, 27.5 per cent in 1967, 29.1 per cent in 1968, 22.6 per cent in 1969, and 44.4 per cent in 1970. Thus there is great possibility that the commitment will be fulfilled. However, when the accomplishments of Japan's total assistance are observed, the necessity of taking drastic measures for its increase is keenly felt.

In 1970, Japan's official development assistance (ODA) accounted for only 25.1 per cent of its total assistance, with the ratio of ODA to GNP as low as 0.23 per cent and still on the decrease, contrary to the increasing volume of its total assistance. Thus, there is the need to strive for an increase in ODA (see Table 2).

The same can be said of technical cooperation. It showed an increase of 13.6 per cent in 1970 over the preceding year (see Table 2), but its ratio against ODA was only 4.8 per cent, or slightly over 20 per cent of the average ratio of other DAC member countries. It is felt that strong measures to improve and increase this ratio are urgently required in order not to become the target of criticism.

As noted above, it will no doubt be pointed out that there is large a room for qualitative improvement in Japan's international cooperation. Japan must also break away from its assistance posture during the 1960s, and made efforts to meet the expectations and demands of not only the developing countries but also the advanced countries in the field of international cooperation, which is the greatest challenge of the 1970s.

Section 2. Comparison of Economy and Technical Cooperation of Advanced Countries

The Second United Nations Development Decade during which the advanced countries are required to appropriate 1 per cent of their respective GNP for assistance was designated in October, 1970. This necessity can be readily understood by viewing the trend of international cooperation in the 1960s.

The developing countries account for about 50 per cent of the world's total population, but their per capita GNP is only one-thirteenth that of the advanced countries, revealing the great gap that still exists. During the 1960s they achieved an average annual GNP growth rate of 5.4 per cent against 5.1 per cent for the advanced countries. But actually since the average annual population growth rate for the developing countries was as high as 2.6 per cent against 0.9 per cent for the advanced countries, the average annual per capita GNP growth rate for the developing countries was 2.8 per cent compared with 3.9 per cent for the advanced countries. From this, it can be understood that the First United Nations Development Decade did not warrant any optimism.

Under such an international environment, the status of Japan's external technical cooperation among the advanced countries is given below on the basis of DAC data.

Accomplishments of DAC member countries in assistance to the developing countries during the 1960s continued to show an increase in total accounts as shown in Table 1. Although assistance by the German Federal Republic in 1970 decreased by 30 per cent over the preceding year, the actual amount of assistance by the DAC member countries reached $14,700 million, the highest since 1960. The amount of assistance by Japan, a DAC member country, made a sharp increase of 44.4 per cent over the preceding year, and the ratio of its assistance to GNP was 0.93 per cent over the preceding year surpassing the average of 0.74 per cent of the DAC member countries, thus nearing the goal of 1 per cent (see Table 2).

Japan's official development assistance (ODA) in 1970 was up 5.1 per cent over the preceding year, totalling about $400 million but ranking after the United States, France and the German Federal Republic (see Table 1). The ratio of Japan's (ODA) to its GNP dropped from 0.26 per cent in 1969 to 0.23 per cent in 1970 (see Table 2).

This downward trend can also be seen in the ratio of the DAC member countries' official development assistance to GNP, which, despite the international trend to raise the ratio, continued to decrease from 1968, dropping from 0.36 per cent in 1969 to 0.34 per cent in 1970.

The ratio of Japan's multilateral development assistance to its ODA was 22.1 per cent, somewhat higher than that of the principal donor countries. This form of assistance is complementary with bilateral development assistance, and in view of its various advantages, more efforts must be made to increase its share in the total volume of Japan's assistance.

On the other hand, technical cooperation is becoming the mainstay of economic assistance. The total amount of Japan's technical cooperation in 1970 increased by about six times over the early 1960s, but qualitatively, the ratio of Japan's technical cooperation to its total assistance was 1.6 per cent, and to its official development assistance 4.7 per cent. The ratio of its technical cooperation of its bilateral official development assistance was 5.8 per cent. In each case, the figure was only one-fifth to one-tenth of the average figures for the DAC member countries, showing that Japan still lags far behind the other DAC member countries and cannot avoid criticism (see Table 2).

A comparison of Japan's expenditures for receiving trainees (including students) and the dispatch of experts (including volunteers) with those of the German Federal Republic, which is often taken as an example for comparison, shows that Japan's expenditures for receiving trainees in 1965 totalled $2,000,000, or about one-fourteenth of the $27,000,000 of the German Federal Republic. Japan's figure for 1969 was $5,000,000, or about one-ninth of the $46,000,000 of the latter.

With respect to the dispatch of experts, Japan's expenditures for 1965 totaled $3,000,000, or one-eighth of the $24,000,000 of the German Federal Republic, and for 1969 it was $9,000,000 or about one-fifth of the $50,000,000 for the latter (see Table 5).

As noted above, Japan's assistance have greatly increased in total volume, but qualitatively it is obvious that its official development assistance or its technical cooperation are far inferior to those of the other DAC member countries. Further, with the implementation of the United States policy to cut its foreign aid expenditures by 10 per cent as a measure to defend the

dollar, the expectations placed on Japan will increase hereafter, and it is believed that Japan, as a member of the world community, must take urgent steps to perform its role as an active promoter of international cooperation.

CHAPTER 3

CHANGE OF JAPAN'S TECHNICAL COOPERATION PLANS AND NEED FOR A REGIONAL APPROACH

Section 1. Japan's Technical Cooperation Plans and Accomplishments by Regions

This year marks twentieth anniversary of the founding of the Colombo Plan which came into existence in 1951 from the strong desires of the peoples of the Southeast Asian Countries after World War II for higher standards of living and from the firm determination of the friendly neighbor countries to extend a helping hand to these peoples.

At present, the Colombo Plan has nineteen Asian member countries including not only South and Southeast Asian Countries, but also Afghanistan and Iran which are geographically situated in the Near and Middle-East, as well as Korea in the Far East. In 1954, Japan joined the Colombo Plan as a member country outside the area, and has since been extending technical cooperation to the developing countries in the area.

From the middle of the 1950s, the Japanese economy continued to show steady growth and accordingly, Japan was requested to extend technical cooperation to the developing countries outside of Asia. In compliance with this request, the Japanese Government set up the Near and Middle-East and Africa Technical Cooperation Plan and the Latin America Technical Cooperation Plan in 1958 and the Technical Cooperation Plan for the Other Asian Areas in 1960.

Thus, Japan's technical cooperation with the Colombo Plan began. It was directed toward the developing countries in Asia, but was gradually extended to other regions. It is now extended to nearly all the developing countries of the world employing diversified implementation methods.

At the time Japan joined the Colombo Plan, its technical cooperation with developing countries was restricted to receiving trainees and dispatching experts, but subsequently it extended to cover the supply of equipment and so-called "development survey project" or basic researches in public development projects in the developing countries. From 1958, overseas training centres were established in the recipient countries, and methods of training and guidance for local technicians in these centres were introduced.

Furthermore, in order to effectively conduct technical cooperation in such sectors as medical services and agriculture, which are especially required by the developing countries, and to extend such cooperation on a priority basis, the concept of technical cooperation on a "project basis" was worked out. In 1966, the medical cooperation project was initiated, and in 1967, the agricultural cooperation project with respect to the development of agriculture and primary products was launched.

In addition to the above-mentioned cooperation measures' the Japan Overseas Cooperation Volunteers Program was implemented, as a result of which youths aspiring to assist the developing countries in their nation-building plans are actively engaged in providing technical services in these countries.

Thus, together with the regional expansion of Japan's technical cooperation, the methods of cooperation have become diversified with volume of assistance increasing sharply from about 50,000,000 yen in 1954, the year in which Japan joined the Colombo Plan to around 8,000,000,000 yen in 1970.

Next, let us study actual records of Japan's technical cooperation expenditures from 1954 to the end of March, 1951, are:

Asia	19,851	million yen	(72.7%)
Near & Middle-East & Africa	4,940	〃	〃 (18.0%)
Latin America	2,496	〃	〃 (9.1%)
Total:	27,307	million yen	

According to Table 6 showing the trainees received by Japan by regions and countries, over 80 per cent are from Asia, with the Southeast Asian Countries including Thailand, the Republic of China, Indonesia heading the list, while the Near and Middle-East and Africa (8.2%) and Latin America (7.1%) showed low rates.

Similarly, with respect to the dispatch of experts (see Table 7), the number sent to the Southeast Asian and

other Asian countries shows the highest rate, while those sent to the Near and Middle-East and Africa accounted for less than 1 per cent.

Table 3 shows the regional distribution of Japan's technical cooperation by other means. In this case also over 70 per cent is concentrated in Asia. Project-basis agricultural cooperation, such as agricultural co-operation and primary products development cooperation, is limited to Asia and has not been extended to other regions.

As is clear by this regional distribution, over 70 per cent of the assistance has been concentrated in Asia with that for other regions showing an extremely low rate. It can be said that this is one of the major features of Japan's technical cooperation.

This is because Japan is geographically close to the Asian countries, and historically, Japan's cultural and economic relationships with these countries are much closer than with African and Latin American countires.

Thus, the high technical level of Japan's agricultural, industrial and other sectors are well-known to the Asian countries and the strong demand for Japan's technical cooperation by the Asian countries can be attributed to this fact. In recent years, however, great influence has come to be exerted by the Japanese economy on the various parts of the world, and there is increasing recognition by the African and Latin American countries of the Japan's industrial level, resulting in greater requests for Japan's technical cooperation by these countries. It is believed necessary therefore that Japan's technical cooperation with regions other than Asia should be expanded. Generally speaking, with advance of economic development, the ability to make effective use of aid funds will increase, and the need for technical assistance will diminish.

According to the Pearson Report, nearly half the amount of the world's total economic and technical assistance in 1965 went to the Asian countries, but with respect to technical assistance, only one-fourth went to these countries. On the other hand, about one-fourth of the world's total assistance went to the African countries, but with respect to technical assistance, about half went to these countries, showing a very high ratio. As for Latin America, one-sixth of the world's total assistance and one-fifth of its technical assistance went to the countries of the region.

From the standpoint of the developing regions of the world, Africa most urgently requires technical assistance. More than half of the regional distribution of technical assistance by the DAC member countries, is concentrated in Africa, while that by the United States and Japan is centered in Asia.

As far as economic and technical cooperation is concerned, it may be that Japan is considered as a remote, far-off country by the peoples of the African and Latin American countries.

Accordingly, Japan's technical cooperation, which has given priority to Asia, should be also directed toward other regions so that Japan may contribute to the promotion of well-being of the peoples of all the developing countries in the world.

Section 2. Regional Orientation of Technical Co-operation

The importance of acquiring new knowledge and modern techniques from the advanced countries by the developing countries in their economic development in pursuit of self-sufficiency is clearly shown in the case of Japan itself, which in the early stages of the Meiji era (1868 to 1912) adopted a positive policy of absorbing the advanced civilization of the United States and European countries. At that time, Japan made every effort to adopt the knowledge and techniques of the advanced countries by engaging high-level foreign technical advisors who were paid large salaries and by dispatching able Japanese youths abroad for study.

In the case of Japan, it can be said this was an exceptional phenomenon in the world history of civilization because the national level of elementary education was already high and also because of the diligence tion was already high and also because of the diligence to absorb and digest modern science and technology in a comparatively short time and to make a start toward a modern industrial state. Today, with the rapid advance of science and technology, social environment has drastically changed from that of Japan in the Meiji era. Therefore, with the North-South gap continuing to widen, it would be impossible to expect the developing countries to achieve the same results as Japan did in the past.

Viewing Japan's experience on technical cooperation up to now, it has extended cooperation to wide areas such as Asia, the Near and Middle-East and Africa, and Latin America, where ethnic characteristics and religious and social institution as well as economic development levels and technical basis differ widely. Economic and social factors are closely interlocked in technical cooperation which is extended on a person-to-person basis. Unless these factors are fully grasped and understood, it is impossible to achieve effective result in technical cooperation. In other words, the mere mechanical transfer of knowledges and knowhow at the unilateral initiative of an advanced country can not be considered as being useful to the recipient countries.

Today, the tempo of industrial development is being accelerated by huge capital and technological innovation in the industrially advanced countries, and the economic and technical gap with the developing countries is tending to grow wider. It is impossible to close the gap only through the self-supporting efforts of the developing countries. It is required that the assisting

countries adopt a bold-oriented policy so that the method of cooperation will be suited to the different regions and countries.

Be that as it may, during the ten-odd years of technical cooperation since Japan's entry into the Colombo Plan in 1954, all its knowledge and experience acquired during this period were not systematically organized and often were not necessarily fed back into the implementation level of technical cooperation, although reports and observations on the surveys conducted were submitted by experts dispatched to different countries with respect to the trend in technical cooperation in specific regions and countries and with respect to the researches conducted by in relation to their technical basis and social institutions.

It must be pointed out that Japan's technical cooperation is conducted under vertical chain of command by governmental administrative agencies. Therefore, although knowledge and experience are available for each field such as, for example, the agricultural and industrial sectors, there is a lack of accumulation or research of such experience, based on a regional orientation of technical cooperation is not confined to a merely mechanically transfer of technology or of manpower and materials, and acceptable to the peoples of the developing countries and takes root among them. It is necessary that the regional and national climates, customs, and social institutions of the developing countries be fully studied, and systems be designed to apply the results of such studies to actual implementation. It is only in this manner that Japan can fulfil its role in contributing toward the promotions of the well-being of the local population, which is the ultimate objective of technical cooperations.

As pointed out in the International Development Strategy for the Second United Nations Development Decade, a well-planned approach on a regional or national basis is required in extending technical cooperation; and with respect to the developing countries, particularly less-blessed countries, consideration must be given to the speedy strengthening of their capacity to accept assistance; and with respect to countries rich in natural resources, a policy must be adopted to promote the welfare of their inhabitants through development of these resources.

Under the existing situation in which Japan's position in the world economy is becoming increasingly difficult, it is important that Japan be well informed of the true situation in the developing countries and implements cooperation on projects in unity with their peoples, instead of thinking merely in terms of an expansion in technical cooperation in form only. Without this, there can be no cooperation which will be truly trusted and appreciated by the recipient countries.

CHAPTER 4

OUTLOOK AND PROBLEMS OF JAPAN'S TECHNICAL COOPERATION

Section 1. Two-Front Tactics for Economic and Social Development

It has been regarded up to now that technical cooperation merely corresponds to capital cooperation, since there has been no strict definition, its concept and objectives have not been made clear. However, cooperation today has become diversified and its volume has been expanded.

If objectives are not established under a clear concept, and measures necessary for achieving these objectives are not taken, cooperation will only be a halfway measure and end up as an act of charity of a temporary nature or as a self-centered cooperative measure taken as a matter of expedience that will benefit neither the recipient countries nor Japan, the donor country.

In view of this, it is necessary that technical cooperation be oriented in the following two directions in the expectation that the two directions will interdependently multiply the effects of technical cooperation.

1. Technical Cooperation for the Promotion of Economic Development

It goes without saying that the development program projected by a developing country should be designed to promote its economic development or to expand production as quickly as possible and in the shortest period of time. It should be realized that the program is not a plan with expectations placed in the distant future but a plan of action for the present.

One problem of assistance, to which the advanced countries should give primary consideration, is direct and immediate cooperation to bring to fruition the development program projected by a developing country. For this purpose, the three elements of techniques, equipment, and money must be strengthened. Needless to say, technical cooperation should be promoted from

this point of view. It is no exaggeration to say that the effectiveness with which a project can be implemented by introducing equipment and investing money depends upon the techniques including those for management and operation. In this sense, it is not appropriate to regard technical cooperation as being simply the act of teaching techniques. Rather, it should be taken as an important means to effectively promote economic development. In executing technical cooperation based on this way of thinking, the pursuit of economic effects should be the primary goal, and a project thus undertaken must be aimed at immediately expanding the production activities of the recipient country, increasing its wealth, and distributing the wealth fairly among the people. Since technical cooperation is directed toward the economic development of a recipient country, it goes without saying that without the self-supporting effort of the country concerned, it will be difficult to achieve the primary goal. Mutual understanding and cooperation are required in the accomplishment of a technical cooperation project. This is why technical cooperation is quite different in nature from a mere "donation for a festival" and should not be an expression of temporary, sentimental, cheap, and self-satisfying sympathy.

Basically, however, economic efficiency and the self-supporting effort of the recipient country are sought in technical cooperation. Moreover, strategy and tactics adopted to achieve the efficiency and effort will vary according to the development level of the recipient country and the substance of the technical cooperation project. Therefore, the implementation of such projects uniformly on the basis of fixed standards should be avoided and a system of implementation must be established to take appropriate steps in accordance with varying circumstances. In dealing, in particular, with a less-blessed country that is not equipped with modern production methods, the supply of goods as the basis of production must, first of all, be considered. It is self-explanatory that a full recognition of such real situation of a recipient country and the discovery of development systems based on it are vital for technical cooperation aiming at economic development.

2. Technical Cooperation for the Promotion of Social Development

As noted in the preceding section, the primary goal of the development program projected by a developing country should be economic development, but economic development inevitably demands changes in a country's social structure. Structural change implies a revolution in the people's consciousness, and assistance in such revolution is cooperation for social development. This social development is an effective tool for producing multiplying effects in economic development. In other words, unless the customs, manners, culture, religion and other social criteria of an old, traditional society are changed, it is impossible to construct a new rational society. Nor is it possible to hope for the advent of a modern economy. In view of this, in parallel with the promotion of economic development, it must be realized that cooperation in providing an impetus to the people to seek a better life through the active dissemination of new knowledge and health management measures, through modern science and technology and to build a better living environment is a prerequisite as a supporting approach to economic development.

The goal of such cooperation for social development, unlike from cooperation for economic development, is not to immediately seek the expansion of economic production, but to elevate the standard of living, to supply amenities and facilities, and to enable the people live free from unrest and in peace and happiness. Therefore, it is not always appropriate to seek economic efficiency in such projects for social development. Such projects should rather be implemented from a humanitarian point of view, in the interest of other peoples in the same ways a country implements its social policies for promoting the well-being of its own people.

Cooperation for social development is an area in which Japan's cooperation has made almost no progress and which presents great future problems. One thing we must bear in mind in extending cooperation in this area is that a national community is the product of its long living history, extending over several centuries. Social institutions established over such a long time defy likes and dislikes of peoples of foreign countries and cannot easily be altered. The old-established social institutions should be reformed or improved optionally by the people who live there and are accustomed to the institutions. However well-wishing improvements or reforms may be, it should not be forced upon a people by another, since this will only invite antipathy rather than produce the desired effects.

In facing the new era of diversification and enlargement of the scale of assistance, as mentioned earlier, the promotion of both cooperation for economic development and social development, just like the two wheels of a cart, and the improvement of the social structure of a developing country as the basis of the people's livelihood must be established as the basic concept of assistance, as mentioned earlier.

Section 2. Container and People for the New Age

The implications of technical cooperation expected to play a crucial role in economic and social development in the developing countries is explained above, but to make fullest use of technical cooperation, several reforms must be made on the past technical coopera-

tion. It is expected that the system, machinery and other technical aspects of technical cooperation will be improved step by step by those concerned, but the most essential and basic points of technical cooperation are as follows.

1. Securing Public Support

Japan's technical cooperation in the past was small in scale. Domestically, it was executed on a scale comparatively unnoticed by the Japanese people. Internationally, it gradually grew in scale following the wake of other advanced countries. On the other hand, the Japanese economy has grown to the extent that it exerts great external influences and has come to assume an international economic mission to develop the world's resources and to supply it with products. Thus, it should be recognized that as in the case of the social mission to be discharged by a domestic enterprise, Japan also should fullfil the mission to promote the well-being of the international community. If and when the Japanese people fully realize that they must devote their total energies into development assistance, it will come to fruition, and Japan will become a nation that will be appreciated and trusted by the world. It is necessary that technical cooperation be promoted by the entire people as a national undertaking rather than be executed, as has been done, with sincerity by but a very few people. For this purpose, it is of prime necessity that those concerned devise a method that will enable them to propose a convincing plan for technical cooperation and to seek, by direct and indirect means, the consent and support of the people for the plan proposed.

2. Enactment of a Fundamental Law for External Development Cooperation

If it is recognized that full-scale international cooperation in the 1970s has begun and that Japan should exist in peace in the world through international cooperation, external development cooperation, as mentioned above, must be conducted as a national policies with the backing of the the Japanese people. For this purpose, the Government must expedite the enactment of a fundamental law regulating external development cooperation with respect to its objectives, policy and financial measures as well as methods of reporting its plans and accomplishments to the National Diet in order to implement projects according to the law. Otherwise, however, much money may be invested in such projects, their smooth operation cannot be expected. Since all existing administrative and financial systems in Japan are designed to promote the interests of domestic administration, it is very difficult to conduct international cooperation within the framework of these systems. It is believed that the public support for international cooperation can be obtained by reporting its plans and accomplishments to the National Diet.

3. Establishment of a Simple but Powerful Administrative Machinery

Fundamentally different from charitable projects organized by the advanced countries in the past, economic, technical and other types of international cooperation have come to assume the character of work handled as a part of administration, which Japan must tackle in earnest. Economic and technical cooperation should, of course, be directed to developing untapped resources in the recipient countries and to increasing their wealth. But, on the other hand, this contributes to the stabilization of Japan's economic activities. The time has past when trade simply meant buying and selling. It is now the age when an equilibrium must be maintained between a country and its trading partners in their mutual relations through the exchange of goods and services. International cooperation must be considered as a link in the chain of administration. However, if it is handled within the present administrative machinery in which affiliated agencies are under the vertical chain of command, this will of course disunite in external policies and will impede the enforcement of policies in the most effective and comprehensive manner. Projects for international cooperation must, by their nature, be implemented outside of present administrative machinery because such projects are not necessarily consistent with the machinery. In view of this, unless an independent administrative machinery is established, Japan will not be able to cope with the new age of massive cooperation. At the very least, if it leaves its international cooperation in the new age to the existing domestic administrative machinery which lacks an international outlook. Japan will fall further behind the world in international cooperation. This has already been pointed out by the DAC and other international organizations and is viewed with distrust as revealing Japan's negative posture toward international cooperation.

4. Establishment of Joint Promotional System by Both Public and Private Sector

Development assistance is provided for the purpose of establishing a stable international welfare community through the promotion of economic development and social progress in the developing countries. This can be achieved by mobilizing the total strength of the government and people of Japan. As had been noted earlier, it is an outdated idea to think that private enterprise only seeks profits, while the government seeks only to promote national well-being. Private enterprises should be regarded as having an important share in the development of trade and resources in the world, in the location of production equipment and facilities, and in other areas of development. Accomplishments of Japan's cooperation will be highly evaluated, if and

when the economic activities of the private sector, with the cooperation of the public sector, produce favorable effects on the recipient countries' economic and social activities. If international cooperation is undertaken separately by the two sectors without maintaining close liaison, its effects will be reduced to half. Rather, it will be criticized by the recipient countries and produce adverse effects. Consequently, it is necessary that a system should be built in the afore-mentioned administrative machinery to enable both the public and the private sectors to join their efforts in the promotion of international cooperation.

PART II

DETAILED DISCUSSION

CHAPTER 1

ACCEPTANCE OF TRAINEES

Section 1. Outline of Program

In 1954, Japan joined the Colombo Plan as a donor country, and took the first step in overseas technical assistance. Since then, as international attention became focused on the North-South problem, technical assistance on the part of many donor countries rapidly gathered momentum. Together with this trend, the rapid expansion of Japanese domestic economy contributed to the promotion of overseas technical assistance.

It was truly an epoch-making event for Japan to gain membership in an organization for international aid in the early post-World War II era when she had not yet recovered full status in international society. However, the level of assistance at its outset did not go far beyond the limits of token participation, as her economic power was too poor to sustain full-scale assistance, and also the trust in Japan had not yet fostered among the Asian nations.

Nevertheless, for the developing nations of Asia, which were engaged in various projects for economic development, the need for training of their people became an acute problem, and accordingly requests for assistance in this field increased every year. Japan, while expanding her assistance in response to this increasing requests, also took up the assistance to the countries in the Middle and Near East, Africa, and Latin America since 1958.

In the meantime, with the rapid expansion of aid in quantity, improvement in the facilities for acceptance of trainees became an important issue. Various laboratories and research institutes of government agencies, of local governments and of private enterprises were called upon for cooperation to receive the trainees. In the field of agriculture and fisheries which were in great demand, OTCA itself established training centres with lodging facilities for the exclusive use of receiving trainees at Uchihara, Ibaraki Prefecture and Misaki in Kanagawa Prefecture. Apart from these, lodging facilities were established in Tokyo, Nagoya, and Osaka respectively.

The trainees acceptance program is roughly divided into the following two systems. First, the group training system, which was planned to receive as many as possible trainees in a most efficient way, and presents certain pre-arranged courses to recipient countries. This system was established in such fields where demand is great, where there is seasonal limitation, and where the demand is internationally wide. Second, the individual training system receives the trainees on a individual basis for specific subjects.

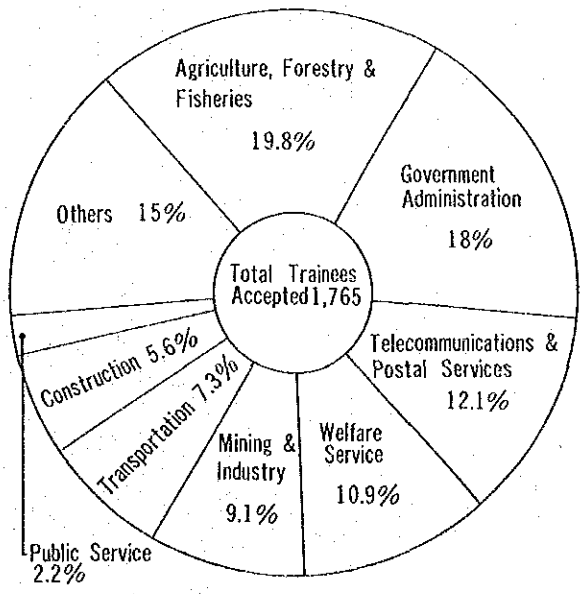
Increasing emphasis is put, in the recent years, on the acceptance of so called "counter-part" trainees who are personally engaged in various development projects which Japan is carrying out abroad, since the acceptance and training of these trainees in Japan will significantly influence the result of such projects.

As was already stated above, although the system of accepting the trainees and the training facilities have been gradually improved year after year to meet the quantitative increase and to enrich the program of training, there is further room for improvement in the following aspects; namely, more delicate care in meeting local needs of respective recipient countries, and the introduction of audio-visual equipment and other equipment of a similar nature in the course of training, as the language barrier is a major problem in carrying out the training programs.

Section 2. General Situation of Trainees Acceptance in Fiscal 1970

For the current fiscal year (1970), a total of 1765 trainees were accepted of whom 1001 came under the group training program consisting of 90 courses and 764 under individual programs. Of the above, new courses established in 1970 are the United Nations trade seminar, agriculture and fisheries statistics, city planning, tourism, customs technique, fire-service ad-

Fig. 1. Number of Trainees Accepted by Fields in Fiscal 1970



ministration, agriculture extension work, and microbial diseases research. These courses were carried out successfully with the cooperation and understanding of various goevrnment agencies concerned considering the needs on the part of the developing countries.

Four courses which were not held in fiscal 1969, namely Asian Highways seminar, cancer control, carrier telephony engineering, and Asian statistics, were resumed in 1970 owing to the strong requests from the recipient countries. It should be pointed out here that the acceptance of these trainees is the result of deep understanding, zealous devotion and cooperation extended by various research training testing institutes of the government, public agencies and of private industries. The principal role of carrying out the training of this magnitude was assumed by the Tokyo International Centre, the Osaka International Training Centre, the Nagoya International Training Centre, the Uchihara International Agricultural Training Centre and the Misaki International Fisheries Training Centre with the cooperation of various other organizations.

When the number of trainees accepted are broken down by fields, agriculture and fisheries, government administration, tele-communication, and postal service show a high proportion. The ratio is shown in the following diagram.

1. Group Training Course

Group Training Courses Held in Tokyo, Osaka and Nagoya

(* indicates new courses)

Name of Course	Duration	Main Institution and Facilities	Number of Participants by Country			
Prevention and Treatment of Crime and Delinquency	Sept. 15, 1970 through Dec. 14, 1970	United Nations Asia and Far East Institute for the Prevention of Crime and Treatment of Offenders	India 1 Korea 1 Pakistan 1 Singapore 1 Rep. of China 1 Malaysia 1	Iran 2 Laos 1 Indonesia 1 Nepal 1 Thailand 1 Sri Lanka 1 Total 13		
Local Government Administration	Jan. 14, 1971 through Apr. 9, 1971	Local Autonomy College, Ministry of Home Affairs	Bhutan 1 Philippines 1 Malaysia 1 Rep. of China 1 Indonesia 1 Laos 1 Sri Lanka 1	India 1 Nepal 1 Korea 1 Vietnam 1 Thailand 1 Pakistan 1 Total 13		
Agricultural Cooperatives	Sept. 1, 1970 through Dec. 27, 1970	Institute for the Development of Agricultural Cooperation in Asia	Sudan 1 Iraq 1 Mexico 1 Philippines 1 Laos 1 Ethiopia 2 Ghana 1 Peru 1 Brazil 2	Pakistan 2 Afghanistan 1 India 1 Nepal 1 Indonesia 2 Iran 1 Malaysia 2 Thailand 1 A.R.E. 2 Total 24		
Fresh-Water Fish Culture Propagation Research	Oct. 20, 1970 through Mar. 27, 1971	Fresh-Water Fisheries Research Laboratory, Fisheries Agency	Pakistan 1 Mexico 1 Indonesia 2	Thailand 1 Iraq 1 Singapore 1 Total 7		
Rice Cultivation Research	May 11, 1970 through Nov. 27, 1970	Central Agricultural Experimental Station, Ministry of Agriculture and Forestry	Burma 2 Thailand 2 Sri Lanka 3 Malaysia 1	Brazil 2 Peru 1 Nigeria 1 Indonesia 1 Total 13		
Livestock Hygiene Research	May 1, 1970 through Oct. 31, 1970	National Institute of Animal Health, Ministry of Agriculture and Forestry	Indonesia 1 Sri Lanka 1 Laos 1 India 1	Malaysia 1 A.R.E. 1 Syria 1 Brazil 2 Total 9		
International Telegraph and Telephone Services		Kokusai Denshin Denwa Co., Ltd.	Thailand 1 Afghanistan 1 Indonesia 1 Singapore 1 Iran 1	Argentina 1 Kuwait 1 Ethiopia 2 A.R.E. 2 Brazil 1 Total 13		
Water-Works Engineering	June 1, 1970 through Aug. 31, 1970	Environmental Sanitation Bureau, Ministry of Health and Welfare	Afghanistan 1 Thailand 1 Iran 1 Nigeria 1 Singapore 1	Korea 1 Ethiopia 1 Sri Lanka 1 Iraq 1 Total 9		

Name of Course	Duration	Main Institution and Facilities	Number of Participants by Country			
Waste Disposal Facilities	Mar. 1, 1971 through May 31, 1971	Environmental Sanitation Section, Environmental Sanitation Bureau, Ministry of Health and Welfare	Rep. of China 1 India 1 Malaysia 1 Pakistan 2		Indonesia 1 Philippines 1 Sudan 1 Thailand 1 Total 9	
Family Planning (Seminar)	Feb. 26, 1971 through Mar. 19, 1971	Japanese Organization for International Cooperation in Family Planning	Indonesia 5 Philippines 1 Vietnam 2 Rep. of China 1 Iran 1		Pakistan 1 Singapore 1 Korea 1 India 1 Thailand 1 Total 15	
Seminar on Economic Planning	Mar. 17, 1971 through Apr. 19, 1971	Economic Research Institute, Economic Planning Agency	Thailand 1 Pakistan 1 India 2 Iran 2		Vietnam 1 India 1 Rep. of China 1 Total 9	
Tuberculosis Control	Mar. 18, 1970 through Oct. 7, 1970	Tuberculosis Research Institute, Japan Anti-Tuberculosis Association	Malaysia 1 Philippines 2 Indonesia 3 Afghanistan 1 Iran 2		Thailand 2 Turkey 1 A.R.E. 1 Korea 3 Rep. of China 2 Total 18	
Surgical Treatment of Pulmonary Tuberculosis	Nov. 1, 1970 through Mar. 31, 1970	Tuberculosis Research Institute, Japan Anti-Tuberculosis Association	Rep. of China 1 Vietnam 1		Indonesia 1 Thailand 2 Total 5	
Educational Television Broadcasting Program	June 29, 1970 through Oct. 6, 1970	Central Training Institute, Japan Broadcasting Corporation	Korea 1 Vietnam 2 Philippines 1 Rep. of China 2 Indonesia 1 Malaysia 1		Singapore 1 Uganda 1 Sudan 1 Nigeria 1 Thailand 2 Total 14	
Television Broadcasting Management	May 4, 1970 through June 27, 1970	Central Training Institute, Japan Broadcasting Corporation	Pakistan 1 Rep. of China 2 Vietnam 2		Singapore 1 Korea 1 Uganda 1 Total 8	
Mining Engineering	Oct. 1, 1970 through July 31, 1971	Japan Mining Association	Colombia 1 Iran 1 Malaysia 1 Thailand 1		Philippines 1 Ecuador 1 Peru 3 Bolivia 1 Total 10	
Ground Water Resources Development	June 1, 1970 through Dec. 26, 1970	Geological Survey Station, Ministry of International Trade and Industry	Afghanistan 1 Iran 1 Indonesia 1 Laos 1 Philippines 1 Korea 1		Saudi Arabia 1 Rep. of China 1 Burma 1 Turkey 1 Argentina 1 Total 11	
Hydro-Electric Power Engineering	Aug. 3, 1970 through Nov. 26, 1970	Overseas Electric-Power Research Association	Brazil 5 Argentina 1 Ecuador 1 Colombia 1		Peru 2 Rep. of China 1 Tanzania 1 Total 12	
Thermal-Electric Power Engineering	Aug. 3, 1970 through Nov. 26, 1970	Overseas Electric-Power Research Association	Turkey 1 Rep. of China 1 Thailand 1		Nepal 1 Malaysia 1 Iran 2 Total 7	
National Government Administration	Jan. 10, 1971 through Apr. 17, 1971	Institute of Public Administration, National Personnel Authority	Korea 1 Singapore 1 Indonesia 2 Thailand 1 Nepal 1 Philippines 1		Pakistan 2 Malaysia 1 Bhutan 1 Rep. of China 1 Tanzania 1 Sudan 1 Total 14	
Trade Promotion	Nov. 10, 1970 through Dec. 20, 1971	World Trade Center of Japan	Pakistan 1 Korea 1 Philippines 1 Sri Lanka 1 Rep. of China 1 Indonesia 1 Vietnam 1 Guatemala 1 Peru 2		Venezuela 1 Iran 1 A.R.E. 1 Malta 1 Colombia 1 Ecuador 1 Cuba 1 Nicaragua 1 Syria 1 Total 19	

Name of Course	Duration	Main Institution and Facilities	Number of Participants by Country			
Industrial Standardization and Quality Control	Jan. 5, 1971 through May 31, 1971	Agency of Industrial Science and Technology, Ministry of International Trade and Industry	Sri Lanka 2 India 1 Indonesia 1 Korea 1 Pakistan 2 Philippines 1 Thailand 1	Rep. of China 1 Nigeria 1 Brazil 1 Mexico 1 Peru 1 Turkey 1 A.R.E. 2 Total 17		
Offshore Mineral Resources Prospecting	May 10, 1970 through Dec. 20, 1970	Geological Survey Station, Ministry of International Trade and Industry	A.R.E. 1 Saudi Arabia 1 India 1 Burma 1 Malaysia 1 Korea 1	Vietnam 1 Philippines 1 Pakistan 1 Indonesia 1 Thailand 1 Rep. of China 1 Total 12		
Computer Technology	Oct. 19, 1970 through Dec. 12, 1970	UNESCO Japanese National Commission, Ministry of Education	Cambodia 1 Singapore 1 Korea 1 Mexico 1 Rep. of China 1 Vietnam 2 Laos 1 Indonesia 1	Iran 2 Burma 1 Sri Lanka 1 Malaysia 2 Pakistan 1 Thailand 2 Ghana 1 Total 19		
Telephone Outside Plant Engineering	July 1, 1970 through Sept. 30, 1970	Nippon Telegraph and Telephone Public Corporation, Kokusai Denshin Denwa Co., Ltd.	Iraq 2 Thailand 1 Brazil 3 Guatemala 1 Peru 1 Kuwait 1 Bolivia 1 Mexico 1	Korea 1 Pakistan 3 Nepal 1 Ghana 1 Nigeria 1 Turkey 1 Philippines 1 Total 20		
Television Engineering	June 29, 1970 through Nov. 7, 1970	Central Training Institute, Japan Broadcasting Corporation	Thailand 2 Nigeria 1 Indonesia 2	Rep. of China 2 Korea 2 Total 8		
Postal Executives Seminar	Feb. 8, 1971 through Feb. 28, 1971	Bureau of Posts, Ministry of Posts and Telecommunications	Zambia 1 Ethiopia 1 Rep. of Tanzania 1 Senegal 1 Ghana 1	Uganda 1 Gambia 1 Nigeria 1 Somalia 1 Kenya 1 Total 10		
Short-Wave Radio Engineering	June 1, 1970 through Aug. 31, 1970	Kokusai Denshin Denwa Co., Ltd.	A.R.E. 1 Ghana 1 Iraq 1 Indonesia 1 Ethiopia 2	Turkey 1 Afghanistan 1 Peru 1 Sudan 1 Total 11		
Seminar on Tele-Communications Management	Sept. 1, 1970 through Sept. 14, 1970	Administrative Director's Office of Telecommunications, Ministry of Posts and Telecommunications	Libya 1 Ethiopia 1 Ghana 1 Kuwait 1	Iran 1 A.R.E. 1 Uganda 1 Somalia 1 Total 8		
Satellite Communications Engineering	Sept. 20, 1970 through Dec. 19, 1970	Kokusai Denshin Denwa Co., Ltd.	Paraguay 1 Kuwait 1 Indonesia 1 Iran 1	Mexico 1 Rep. of China 2 Korea 1 Pakistan 1 Total 9		
Southeast Asia Telecommunications Development Seminar	Mar. 23, 1971 through Apr. 6, 1971	Ministry of Posts and Telecommunications, Nippon Telegraph and Telephone Public Corporation, Kokusai Denshin Denwa Co., Ltd.	Vietnam 1 Laos 1 Rep. of China 1 Nepal 1 Korea 1	Indonesia 1 Singapore 1 Sri Lanka 1 India 1 Philippines 1 Total 10		
Flood Warning (Seminar)	Aug. 15, 1970 through Oct. 14, 1970	Ministry of Construction	Rep. of China 1 Korea 1 Laos 2	Thailand 2 Philippines 2 Total 8		

Name of Course	Duration	Main Institution and Facilities	Number of Participants by Country			
Microwave Engineering	Sept. 22, 1970 through Dec. 23, 1970	Nippon Telegraph and Telephone Public Corporation	India	1	Laos	1
			Iran	2	Costa Rica	1
			Colombia	1	El Salvador	1
			Ethiopia	1	Malaysia	1
			Nigeria	1	Thailand	1
			Philippines	1	Chile	1
			Indonesia	1	Guatemala	1
					Total	15
Telephone Exchange Engineering	Feb. 10, 1971 through May 10, 1971	Nippon Telegraph and Telephone Public Corporation	Sri Lanka	1	Bolivia	1
			Pakistan	1	Brazil	2
			Kuwait	2	Colombia	2
			Thailand	1	Mexico	1
			Lebanon	1	Rep. of China	1
					Total	13
Telex Communications Engineering	July 11, 1970 through Nov. 30, 1970	Kokusai Denshin Denwa Co., Ltd.	Iran	1	Syria	1
			Ethiopia	1	Turkey	1
			Indonesia	1	Sudan	1
			Korea	1	Argentina	1
			Thailand	1	Mexico	2
			Kuwait	1	Panama	1
					Total	13
Prevention of Narcotic Offenses (Seminar)	Sept. 1, 1970 through Sept. 30, 1970	Safety Division, Criminal Investigation Bureau, National Police Agency	Singapore	1	Iran	2
			Philippines	1	India	2
			Indonesia	2	Malaysia	1
			Vietnam	2	Rep. of China	1
			Korea	2	Pakistan	1
					Total	15
Vocational Training (Seminar)	Oct. 1, 1970 through Nov. 30, 1970	Institute of Vocational Training, Vocational Training Bureau, Ministry of Labor	Iran	2	Rep. of China	1
			Sudan	1	Laos	1
			Uganda	2	Singapore	1
			Philippines	1	Nigeria	1
			Ethiopia	1	Malaysia	1
			Indonesia	1	Pakistan	1
			Korea	1	Vietnam	1
			A.R.E.	1	Thailand	1
					Total	18
Supervisory Training Seminar	Apr. 7, 1970 through June 6, 1970	Ishikawajima Harima Heavy Industries, Co., Ltd. Institute of Vocational Training, Vocational Training Bureau, Ministry of Labor	Korea	1	Laos	1
			Sri Lanka	1	Vietnam	1
			Ethiopia	1	Indonesia	1
			Turkey	2	Malaysia	1
			Singapore	1	Rep. of China	1
			India	1	Thailand	1
			A.R.E.	1	Iraq	1
					Total	15
Vocational Training Instructors (Seminar)	Apr. 7, 1970 through Mar. 31, 1971	Institute of Vocational Training	Kenya	1	A.R.E.	1
			Burma	1	Vietnam	1
			Sri Lanka	3	Sudan	1
			Indonesia	1	Saudi Arabia	1
			Iraq	2	Nepal	1
			Korea	2	Uganda	2
			Laos	2	India	2
			Thailand	3	Total	24
Railway Planning Operation (Seminar)	Aug. 1, 1970 Sept. 30, 1970	Headquarters, Japanese National Railways	Argentina	1	Mexico	2
			Korea	1	Pakistan	1
					Total	5
Women's Administration (Seminar)	Mar. 20, 1971 through Apr. 19, 1971	Women and Youth Division Ministry of Labor	India	1	Philippines	1
			Sri Lanka	1	Korea	1
			Malaysia	1	Indonesia	1
			Burma	1	Rep. of China	1
			Thailand	2	Total	10
Asia Taxation (Seminar)	Aug. 25, 1970 through Oct. 10, 1970	Tax Bureau, Ministry of Finance	Indonesia	2	Malaysia	1
			Rep. of China	2	Philippines	2
			Korea	2	Singapore	2
			Sri Lanka	2	Laos	1
			Thailand	2	Total	16

Name of Course	Duration	Main Institution and Facilities	Number of Participants by Country			
Automobile Service Engineering	June 1, 1970 through Dec. 17, 1970	Toyota Motor Sales Co., Ltd. Chubu Nippon Automobile Service Engineering School, Nissan Motors Co., Ltd.	Laos	1	Dominican Rep.	1
			Burma	2	Korea	1
			Indonesia	2	Sri Lanka	1
			Thailand	1	Nepal	1
			Pakistan	1	Singapore	1
			Philippines	1	Kenya	2
			Sudan	2	Total	17
Railway Signal and Communication Engineering	Mar. 20, 1971 through July 19, 1971	Japanese National Railways, Japan Signal Industry Association	Thailand	1	Pakistan	1
			Argentina	1	Rep. of China	1
			Brazil	1	Korea	1
					Total	6
Railway Rolling Stock Engineering	July 1, 1970 through Oct. 31, 1970	Japanese National Railways, Japan Railway Rolling Stock Export Association	Iraq	1	Thailand	1
			Argentina	1	Pakistan	1
					Total	4
Bridge Engineering	Jan. 15, 1971 through Apr. 15, 1971	Ministry of Construction, Japan Highway Public Corporation	Indonesia	2	India	2
			Laos	1	Brazil	1
			Thailand	1	Pakistan	1
			Iran	1	Turkey	1
			Vietnam	1	Iraq	1
			Philippines	1	Singapore	1
					Total	14
Surveying and Mapping	Mar. 10, 1970 through Nov. 9, 1970	Geographical Survey Institute, Ministry of Construction	Malaysia	1	Indonesia	1
			Iran	2	Nepal	1
					Total	5
Seismology and Earthquake Engineering	Sept. 1, 1970 through Aug. 31, 1971	Architectural Research Institute, Ministry of Construction	Philippines	1	Colombia	1
			Venezuela	1	Ecuador	1
			Bolivia	1	India	1
			Rep. of China	1	Mexico	1
			Iran	2	Indonesia	1
			Peru	2	Turkey	1
			Chile	1	Total	15
Ports and Harbors Engineering	Aug. 1, 1970 through Nov. 30, 1970	Ports and Harbors Technical Research Institute, Ports and Harbors Bureau, Ministry of Transport	India	1	Tunisia	1
			Philippines	1	Argentina	1
			A.R.E.	1	Brazil	1
			Sri Lanka	1	Iraq	1
			Indonesia	2	Lebanon	1
			Venezuela	1	Pakistan	1
			Thailand	2	Total	15
Ports and Harbors Engineering (Seminar)	Feb. 1, 1971 through May 31, 1971	Ports and Harbors Technical Research Institute, Ports and Harbors Bureau, Ministry of Transport	Thailand	1	Turkey	1
			Indonesia	1	Pakistan	1
			A.R.E.	1	Iraq	1
			Colombia	1	Chile	1
			Singapore	1	Rep. of China	1
			India	1	Syria	1
			Korea	1	Philippines	1
			Argentina	1	Vietnam	1
			Malaysia	1	Sudan	1
			Sri Lanka	1	Total	19
Forest Products Research	Mar. 15, 1970 through Nov. 14, 1970	Government Forestry Experimental Station, Forestry Agency	Indonesia	2	Thailand	1
Forestry Research	May 15, 1970 through Nov. 14, 1970	ditto	Ethiopia	1	Colombia	1
					Total	5
Marine Fisheries Research (including Fishing Gear and Methods)	(1)June 1, 1970 through Nov. 30, 1970 / (2)Sept. 15, 1970 through Mar. 14, 1971	Tokai Regional Fisheries Laboratory, Fisheries Agency	Brazil	2	Thailand	1
			Peru	2	Chile	1
					Total	6
Bamboo Processing	July 1, 1970 through Dec. 31, 1970	Kyushu Branch, Manufacturing Science Research Institute, Ministry of International Trade and Industry	Indonesia	1	Sri Lanka	1
			Nepal	1	Laos	2
			Thailand	1	Philippines	1
			Uganda	1	Total	8
Criminal Judicial Administration	Sept. 30, 1970 through Dec. 14, 1970	United Nations Asia and Far East Institute for the Prevention of Crime and Treatment of Offenders	Indonesia	2	Pakistan	2
			Iran	1	Singapore	2
			Korea	1	Malaysia	1
			Sri Lanka	1	Nepal	1
			Laos	1	Total	12

Name of Course	Duration	Main Institution and Facilities	Number of Participants by Country			
Crime Prevention (Senior Course)	Aug. 1, 1970 through Aug. 31, 1970	United Nations Asia and Far East Institute for the Prevention of Crime and Treatment of Offenders	Pakistan Malaysia India Indonesia Korea	1 1 1 1 1	Rep. of China Philippines Vietnam Thailand Total	1 1 1 1 9
UN Trade Seminar*	Apr. 6, 1970 through June 30, 1970	OTCA, United Nations Asian Institute	Afghanistan Indonesia Laos Philippines Thailand Rep. of China Cambodia	1 2 1 1 3 1 1	India Korea Pakistan Singapore Vietnam Hong Kong Total	4 1 2 1 2 1 21
Agriculture and Fisheries Statistics*	Sept. 1, 1970 through Oct. 31, 1970	Statistics and Survey Department, Ministry of Agriculture and Forestry	Indonesia Pakistan Thailand Philippines	1 1 1 2	Iran Sri Lanka Vietnam Nepal Total	1 1 1 1 9
Cancer Control	Feb. 1, 1971 through Apr. 30, 1971	National Cancer Center	Brazil Colombia Pakistan Iran	4 1 1 1	Uruguay Chile Nigeria Rep. of China Total	1 2 1 3 14
Carrier Telephony Engineering*	Mar. 1, 1970 through July 31, 1970	Nippon Telegraph and Telephone Public Corporation	Bolivia Mexico Pakistan Afghanistan	1 2 1 1	Brazil Colombia Iran Total	2 1 1 9
Asian Statistics	June 1, 1970 through Mar. 31, 1971	Asian Statistical Institute	Afghanistan Laos Philippines Vietnam Sri Lanka Rep. of China	1 1 1 1 1 1	India Korea Pakistan Thailand Indonesia Iran Total	1 1 1 1 1 1 12
City Planning and Housing*	Mar. 1, 1971 through Mar. 31, 1971	Ministry of Construction	Thailand Korea Rep. of China Iran	1 2 2 2	Vietnam Indonesia Singapore Laos Total	1 1 2 1 12
Tourism*	June 5, 1970 through July 4, 1970	Tourist Industry Department, Ministry of Transport	Bhutan Iran Malaysia Afghanistan Korea Vietnam Rep. of China Thailand	1 1 1 1 1 1 1 2	Laos Burma Nepal Pakistan Philippines Indonesia India Total	1 1 1 1 2 1 1 17
Customs Technique*	Nov. 1, 1970 through Nov. 30, 1970	Customs Bureau, Ministry of Finance	Malaysia Rep. of China Thailand Korea	1 2 2 2	Indonesia Vietnam Philippines Total	2 2 1 12
Asian Highway Construction Seminar*	Nov. 1, 1970 through Nov. 30, 1970	Road Bureau, Ministry of Construction	Pakistan Vietnam Singapore Iran	2 1 1 2	Malaysia Indonesia India Total	1 1 1 9
Fire Service Administration*	Sept. 15, 1971 through Oct. 14, 1971	Fire Defense Agency, Ministry of Home Affairs	Singapore Laos Nepal Malaysia Indonesia	1 1 1 1 2	Thailand Afghanistan Vietnam Philippines Rep. of China Total	1 1 1 1 1 11
Agriculture Extension Work*	June 15, 1971 through Sept. 14, 1971	Agricultural Administration Bureau, Ministry of Agricuture and Forestry	Thailand India Malaysia Indonesia Laos	2 3 1 1 1	Vietnam Pakistan Philippines Brazil Total	1 1 1 3 14
Training of High Skilled Workers	Apr. 7, 1970 through Mar. 31, 1971	Higashi Yodogawa Vocational Training Center	Sri Lanka Indonesia Laos	1 1 1	Pakistan Thailand Rep. of China Total	1 1 1 6

Name of Course	Duration	Main Institution and Facilities	Number of Participants by Country			
Microbial Diseases Research*	Oct. 1, 1970 through June 30, 1971	Research Institute of Microbial Diseases, Osaka University	India	1	Rep. of China	1
			Philippines	1	Indonesia	1
					Total	4
Dentistry	Apr. 7, 1970 through Mar. 31, 1971	Osaka Dental College	Indonesia	4	Thailand	1
			Korea	1	Bolivia	2
			Pakistan	1	Total	9
Printing	Apr. 6, 1970 through Sept. 8, 1970	Nakata Printing Co., Ltd. Yamato Printing Co., Ltd. Shinko Bijutsu Co., Ltd.	Korea	1	Ethiopia	1
			Laos	1	Dominican Rep.	1
			Malaysia	1	A.R.E.	1
			Philippines	1	Rep. of China	1
			Singapore	1	Total	9
Textile Engineering	Mar. 1971 through Sept. 1971	Owari Textile Technological Center, Mikawa Textile Laboratory, Nagoya Industrial Laboratory, Toyota Automatic Loom Manufactory	Ghana	1	Philippines	1
			Indonesia	1	Thailand	1
					Total	4
Regional Development	Jan. 1971 through May 1971	U.N. Program of Regional Development and Training, Central Center	Brazil	1	Laos	1
			Sri Lanka	1	Malaysia	1
			Rep. of China	2	Nepal	1
			Indonesia	2	Pakistan	1
			Iran	1	Singapore	1
			Korea	2	Total	14
Foundry	Jan. 1971 through July 1971	Industrial Technological Board, National Industrial Research Institute, Nagoya, Ministry of International Trade and Industry, Aichi Industrial Training Institute, Kunimitsu Foundry, Japan Rolling Stock Co., Ltd., Aichi Jewelry Store Co., Ltd., Shinto Industry	Brazil	1	Malaysia	1
			Indonesia	1	Nigeria	1
			Korea	1	Thailand	2
					Total	7
Poultry Farming	July 1970 through Dec. 1970	Okazaki National Livestock Breeding Station, Ministry of Agriculture and Forestry, Nagoya University, Enya Co., Ltd., Goto Poultry Farm	Indonesia	1	Thailand	1
			Laos	1	Turkey	1
			Malaysia	1	Vietnam	1
			Syria	1	Total	7
Ceramic Engineering	Apr. 1970 through Dec. 1970	Industrial Technological Board, Ministry of International Trade and Industry, National Industrial Research Institute, Nagoya, MITI	Brazil	1	Chile	1
			Iran	1	Turkey	1
			Pakistan	1	Thailand	1
			A.R.E.	1	Uganda	1
					Total	8
Automobile Service Engineering Techniques	June 1, 1970 through Dec. 17, 1970	Toyota Motor Sales Co., Ltd., Central Japan Motor Service School, Nissan Motors Co., Ltd.	Sri Lanka	1	Burma	2
			Indonesia	1	Kenya	2
			Laos	1	Philippines	1
			Thailand	1	Total	9
Electric Plating Techniques	June 1970 through Dec. 1970	Industrial Technological Board, Ministry of International Trade and Industry, National Industrial Research Institute Nagoya, MITI	Argentina	1	Turkey	1
			Rep. of China	1	Vietnam	1
			Korea	1	Total	5
Smaller Enterprises Develoment (Seminar)	Sept. 1970 through Nov. 1970	Nagoya International Training Centre, OTCA	Argentina	1	Paraguay	1
			Brazil	1	Peru	1
			Chile	1	Philippines	1
			Rep. of China	1	Thailand	1
			Indonesia	1	Turkey	1
			Malaysia	1	A.R.E.	1
			Pakistan	1	Venezuela	1
					Total	14
Maintenance and Improvement of Permanent Ways	July 1, 1970 through Sept. 30, 1970	Osaka Railway Management Bureau, Japanese National Railways	Indonesia	2	Cote d'Ivoire	1
			Pakistan	1	Argentina	1
			Philippines	1	Brazil	1
			A.R.E.	2	Total	9
Plastics	Oct. 1, 1970 through Mar. 31, 1971	Osaka Municipal Industrial Research Institute	Korea	1	Turkey	1
			Philippines	1	El Salvador	1
			Thailand	1	Total	5
Mint	Mar. 1, 1971 through July 31, 1971	Osaka Mint Bureau, Ministry of Finance	India	1	Nepal	1
			Indonesia	1	Pakistan	2
			Iran	1	Thailand	1
			Korea	1	Rep. of China	1
					Total	9

Name of Course	Duration	Main Institution and Facilities	Number of Participants by Country			
Electronics	Oct. 1, 1970 through Dec. 31, 1970	Osaka Prefectural Industrial Promotion Center, Engineering Department of Osaka University	Iran	1	Rep. of China	1
			Korea	1	Cote d'Ivoire	1
			Pakistan	1	Chile	1
			Thailand	1	Ecuador	1
					Total	8
Glass Technology	Oct. 1, 1970 through Mar. 19, 1971	National Industrial Research Institute, Osaka, Ministry of International Trade and Industry	India	1	Thailand	1
			Korea	1	Syria	1
			Pakistan	1	Total	5
Agricultural Machinery Repair and Maintenance	June 15, 1970 through Dec. 14, 1970	Kubota Iron and Machinery Works, Ltd., Yanmar Diesel Co., Ltd.	India	1	Indonesia	1
			Iran	1	Malaysia	1
			Nepal	1	Philippines	1
			Thailand	1	Vietnam	1
			Dominican Rep.	1	Guatemala	1
					Total	10
Smaller Enterprises Management	Jan. 19, 1971 through Apr. 18, 1971	Industrial Efficiency Research Institute of Osaka Prefecture	Sri Lanka	1	Indonesia	1
			India	1	Malaysia	1
			Iran	1	Nepal	1
			Pakistan	1	Thailand	1
			Philippines	1	Rep. of China	1
			A.R.E.	1	Peru	1
			Brazil	1	Total	13

Group Training Courses Held at Uchihara International Agricultural Training Centre

Rice Cultivation and its Extension Work	From early Apr. 1970 through late Feb. 1971	Uchihara International Agricultural Training Centre, OTCA	Sri Lanka	1	Colombia	1
			Indonesia	2	Thailand	2
			Laos	1	Nigeria	1
			Nepal	1	Malaysia	1
			Burma	1	Total	11
Agricultural Machinery Utilization	ditto	ditto	Sri Lanka	1	Afghanistan	1
			Indonesia	2	Nigeria	1
			Laos	1	Malaysia	1
			Thailand	1	Bhutan	1
			Rep. of Tanzania	1	Total	10
Land Improvement	ditto	ditto	Sri Lanka	1	Iran	1
			Laos	1	Afghanistan	1
			Thailand	3	Burma	1
					Total	8
Truck Farming	ditto	ditto	Sri Lanka	1	Pakistan	1
			Indonesia	2	Philippines	1
			Jordan	1	Thailand	1
			Laos	1	A.R.E.	2
			Malawi	1	Rep. of Tanzania	1
			Nepal	1	Total	13

Group Training Courses Held at Misaki International Fisheries Training Centre

Coastal Fisheries	Apr. 6, 1970 through Mar. 5, 1971	Misaki International Fisheries Training Centre, OTCA	Burma	1	Lebanon	1
			Sri Lanka	1	Brazil	2
			Indonesia	2	Colombia	1
			Iran	2	Ecuador	2
			Malaysia	2	Guyana	1
			Singapore	1	Mexico	1
			Thailand	2	Panama	1
			Kenya	1	Peru	1
			Sudan	1	Trinidad	
			Nigeria	1	Tobago	1
					Total	25

2. Individual Training Course

The total number of trainees accepted for individual training courses for fiscal 1970 was 764. The greater effectiveness of individual training courses lies in the fact that by the flexible operation of their program, the requests of the countries sending the trainees can be met and the training courses can be adapted to the technical levels of the participating trainees. In particular, in the long training courses from six months to a year in the experimental stations, the research institutes of the various ministries and the research institutions of universities and other organizations, the trainees have had opportunities to accomplish adequate research in their particular fields of specialization and

achieved significant results.

In the training courses involving short-term inspection tours, the acceptance of high-level technicians is increasing (52 for the current fiscal year). These government officials, by deepening their knowledge and understanding of Japan and strengthening the ties of friendship between their countries and Japan, are playing an important role in the further enhancement of the achievements in technical cooperation.

Since individual training courses have had considerable success in comparison to group training courses due to the advantages mentioned above, requests for individual training courses from various countries are increasing yearly. However, the insufficiency of institutions and problems of labor and expenses in accepting trainees make it difficult to meet all these requests. Especially, since temporary training instructors are often used in order to supplement the shortage of regular instructors. 'Language' is an important problem. In some cases, temporary instructors lack expert knowledge, and they have much difficulty in providing training. Therefore, in individual training courses there are comparatively many trainees from Korea and the Republic of China who can be trained using the Japanese language.

Compared with trainees in large cities, those who are scattered in local places experience inconveniences in lodging, medical and other facilities and welfare activities. It is considered necessary to improve health and welfare activities for these trainees.

3. Business Incidental to Trainees Acceptance

(1) Orientation

It is necessary for trainees, most of whom come to Japan for the first time, to acquire a general knowledge of their daily life in Japan, a basic knowledge of Japan's social, cultural and economic affairs and history to deepen their understanding of the objectives of training. Therefore, prior to the commencement of training, OTCA provides trainees with a week of general orientation upon arrival. For this fiscal year a total of 50 orientation courses were given at Tokyo and other local Centres in which about 1,280 persons participated. The lectures by the staff members of the Agency in Tokyo were mainly on *Japanese History, Geography, Economy, Culture,* etc., and on living in Japan. The local Centres provided lectures mostly in line with the ones in Tokyo.

(2) Japanese Language Course

The language problem is a big obstacle in accepting trainees in Japan. To lighten this obstacle is to heighten the effect of training. With this view, the Agency has arranged for many trainees to attend Japanese Language Courses, and has grouped a General Daily Conversation Course into three classes, elementary, intermediate and advanced. While for the trainees who need Japanese for their courses, the Agency has established a special Intensive Course. The General Courses were given at night so that trainees could attend freely, and the Intensive Courses were provided for a certain short period so as to heighten the effect and help the participants make use of it directly for their training courses. In this fiscal year, a total of 547 persons participated in Japanese Courses, among whom 297 attended the courses in Tokyo.

(3) Health and Welfare

In order to protect trainees from illnesses and accidents and to enable them to experience a full and enjoyable period of training in Japan, medical treatment, including inoculations, equipment of household medicines, appointing non-regular doctors, and regular physical checkups, were provided, while recreational activities, such as bus trips, social gatherings, visits to Japanese homes, movies, sport events, lectures on flower arrangement, theatre-goings, records, and use of sport equipment, were organized by each Centre. The various recreational activities help trainees who are pursued by the uneasiness due to tensions of the training, the different climate, food, customs and other circumstances, to relax.

Furthermore, during this fiscal year as well as the previous year, measures to insure trainees against accidents were taken. These included insurance policies amounting to 5,000,000 yen for trainees engaged in practical training courses involving considerable danger, such as the Tunnel Course and the Mining Course, as well as highway accident insurance amounting to 2,000,000 yen for trainees participating in bus tours during orientation or other bus trips.

(4) Evaluation

In providing the training, it is difficult to put all trainees who come from various developing countries together into one group. Also the needs for training of the developing countries varies yearly according to the degree of their development in technology and to their contemporary social and economic situation. From this point of view, estimation and evaluation of the result of training are conducted at the end of the training period. From the trainees' opinions, the insufficiency of the objectives of the training courses, the divergence between the needs of the countries sending trainees and the objectives of the training courses, the propriety of the training period, and problems concerning daily life are re-examined, thus helping to enrich and consolidate the training programs for the following year.

(5) After-Care of Returned Trainees

a. Tour to Guide Returned Trainees

Succeeding the survey of the actual situation of returned trainees conducted up to the previous fiscal year, the training instructors of the institutes accepting trainees were sent with staff members of the OTCA to tour and guide the returned trainees during this fiscal year. As the first trial, an agricultural

party (1 forestry industry instructor, 1 livestock hygiene instructor, 1 staff member of the OTCA) was sent to 4 Southeast Asian countries for 23 days, in order to give proper guidance about problems that were being faced by returned trainees. The party obtained valuable information such as on the actual situation of returned trainees, which helped to improve training programs. Further, for fiscal 1971, in order to cope with a plan to accept many trainees from Mexico, a staff member of the OTCA was sent to countries in Latin America including Mexico. In this survey, valuable informations and data were obtained, which helped to carry on the acceptance of trainees smoothly.

b. 'KENSHU-IN' Quarterly, and Supplying of Other Literature

Six years have past since 'KENSHU-IN', the Agency's quarterly journal, was first published for the purpose of strengthening the amicable relations between OTCA and each returned trainee or among returned trainees themselves. For this fiscal year, 4 volumes (from the 20th to the 23rd) were sent: 4,200 copies per quarter. Expectations of and responses to them from returned trainees have been increasing every year.

With respect to the supplying of literature, periodicals mainly on agriculture and manufacturing industry and literature on special technology in each field were supplied, as can be seen in the followig table.

c. Supplying of Machinery and Equipment

For this fiscal year, as seen in the following table, there were 10 cases (7 countries) in which machinery and equipment were provided for returned trainees.

Literature Provided	Destination	Items
Periodicals		
FARMING JAPAN (quarterly)	Returned trainees engaged in agriculture, forestry and livestock breeding fields	700
LOOK JAPAN (monthly)	Returned trainees engaged in management and administration of iron and steel, mechanical engineering, heavy chemistry, and telecommunication industries	500
TECHNOCRAT (monthly)	Returned trainees engaged in industry, production of information-gathering industry, research of technology and others	500
Literature on Special Technology		
Electric Power Industry in Japan (in English)	Returned trainees engaged in electric power industry	170
The First Step in Starting Smaller Enterprises in Japan (in English)	Returned trainees engaged in smaller enterprises	200
Modernization of Agricultural Machines in Japan (in English)	Returned trainees engaged in agricultural machineries	135
Agriculture Extension Work in Japan (in English)	Returned trainees engaged in agricultural cooperatives	300
Questions and Practices of Training Instructors for Extension of Agricultural Work (in English)	Returned trainees engaged in agricultural cooperatives	300
Report on Tuberculosis Control (in English)	Returned trainees engaged in tuberculosis surgery and tuberculosis control	120
Handbook for JIS Iron and Steel, and Nonferrous Metals (in English)	Returned trainees engaged in iron and steel industry, shipbuilding industry, metal-working industry and alchemic industry	50

Recipient Country	Machinery and Equipment Provided	Destination
Indonesia	Measuring Apparatus for Foundry	Foundry Center of Sabang Merauke National Company
Iran	Brinell Hardness Tester etc.	Iran National Railways
Philippines	Equipment for Use in Experiment and Research of Electronics	Philippine College of Arts and Trade
Bolivia	Micro-seismograph	San Caliyto Meteorological Station of Earthquake
Brazil	Equipment for Use in Research of Citrus Cancer	Agricultural Affairs Bureau in Sao Paulo Province
Indonesia	Equipment for Use in Research of and Treatment of Cancer	Faculty of Medicine, University of Indonesia
Indonesia	Equipment for Dental Surgery	Faculty of Dentistry, Gadjah Mada University
Argentina	Equipment for Use in Examination of Cancer of Stomach	Medical Education Center in Buenos Aires City
Peru	Equipment for Use in Research and Treatment of Cancer	Cayetano Hereda Medical University in Lima City
Brazil	Equipment for Use in Research and Treatment of Cancer	Servidores do Estado Hospital in Belen City

d. Alumni Associations

In recent years, there has been a growing trend among ex-trainees to form alumni associations in their respective countries. Already, in Malaysia, the Philippines, Argentina, and India, such associations have been formed for the past several years, and are carrying on various activities, such as Japanese language instruction, study of the state of affairs in Japan, movies and technical skill competitions.

Recently in A.R.E., preparations to establish an alumni association are well under way, and also in the Republic of China, Pakistan, and Indonesia, the time is just ripe to form such bodies.

It is to be desired that such alumni associations will be established in respective countries. However, various difficulties, including raising funds for its establishment and its operation, are expected to be met. From this point of view, OTCA has made an effort to extend assistance to the activities of the alumni associations. For fiscal 1970, it has sent educational and other material, such as textbooks and lingua-phone records on Japanese conversation and slides to introduce Japanese things.

(6) Operation of Training Centres

In accepting trainees, problems concerning lodging facilities are very important. In order to solve the problem, the OTCA operates training centres with lodging facilities and lecture rooms in Tokyo, Nagoya, and Osaka where many training institutions are available, and at Uchihara and Misaki agricultural and fishery centres with both training and lodging facilities.

The number of trainees to be admitted at each centre is as follows.

Tokyo International Centre	291
Nagoya International Training Centre	100
Osaka International Training Centre	70
Uchihara International Agricultural Training Centre	54
Misaki International Fisheries Training Centre	29

For the trainees' convenience, these training centres, as stated before, provide general orientation, Japanese language courses, medical treatment and recreational activities as extra-curricular programs. In particular, inoculations and physical checkups by a non-regular doctor are provided in a sense of medical treatment and as recreational activities, sightseeings, sporting events, social gatherings, movies and theater-goings are organized to enable them to experience an enjoyable period of training in Japan.

CHAPTER 2

DISPATCH OF EXPERTS

Section 1. Outline of Activities

The dispatch of experts abroad financed by the Japanese Government has been carried out for the past fifteen years as of the end of the fiscal 1970. That year was the last year of the 10 year period which had been declared the First United Nations Development Decade in 1961, during which the task to be undertaken was a joint multi-national activity for international development.

A problem common to many developing countries which gained their independence since the end of World War II has been that their economic standards have remained on a low level as a result of the lack of funds and skilled human resources. Experts from the advanced countries have been dispatched to assist in training personnel as one step in contributing to the economic development programs of these developing countries. This has been done to overcome the lack of technical skills and to effectively utilize available funds and natural resources.

For this purpose, the Japanese Government initiated a unique technical assistance program in 1958 for countries in the Middle-East and Africa as well as South America in addition to its participation in the Colombo Plan. Later, in 1960, it initiated a technical assistance program for the Republic of China as an additional

Fig. 2. Ratio of Total Expenditure and Total Number of Dispatched Experts to Expenditure and Number of Dispatched Experts by Fiscal Year and by Plan

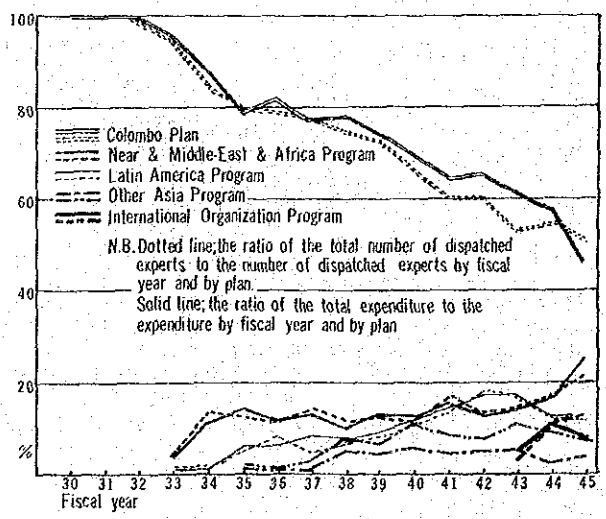


Fig. 3. Number of Experts Newly Dispatched by Fiscal Year and by Plan

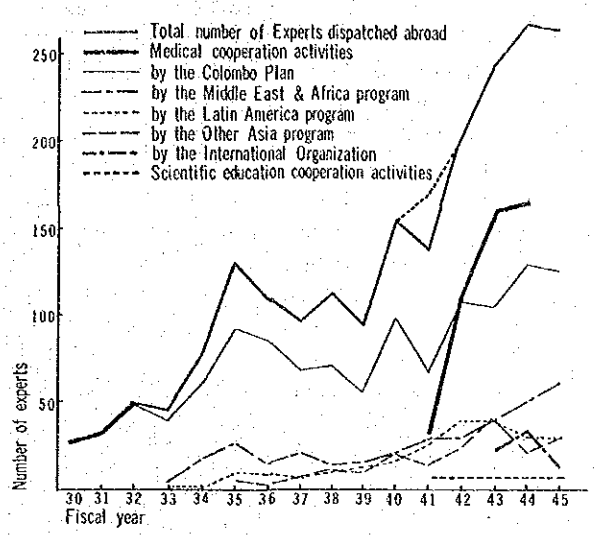
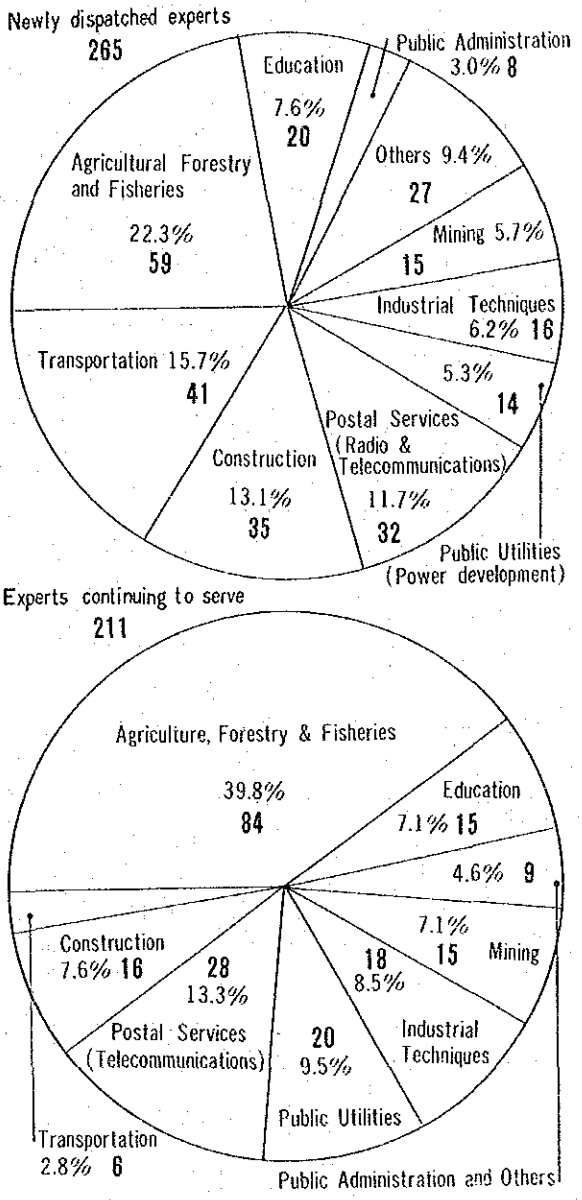


Fig. 4. Number of Experts Dispatched by Fields in Fiscal 1970



Note: Including those concerned with general government and scientific education.

part of its Asia program. Then in 1963, it added a program of dispatching Senior Experts in order to encourage friendship between Japanese youths and the youths of the developing countries through technical cooperation. Later in fiscal 1965, this youth program was expanded into the independent dispatch of young people under the Japan Overseas Cooperation Volunteers Scheme.

The technical assistance programs mentioned above are of a bilateral nature based on governmental agreements between individual developing countries and Japan. Since being admitted to membership in the United Nations in December 1956, Japan has joined in offering technical cooperation to the developing countries under the United Nations auspices by recommending experts and procuring equipment. At the same time, the Japanese Government, as requested by such international organizations at the U.N., has, at its own expenses, dispatched experts to ECAFE, ECA, UNCTAD/GATT trade center, ADB, AIT, SEAFDEC, APU/ADC, etc. All these activities are carried out on a multilateral basis.

With the increase in the volume of these activities, the government started a technical assistance program for international organizations from fiscal 1968, which brought together the multilateral-based dispatch programs. In addition, there is also an overseas scientific education cooperation program following the bilateral-based dispatch of technical cooperation experts. This program aims at training young people of ability in basic scientific technical knowledge by the maximum utilization of facilities for scientific education. This is the most fundamental basis for providing technical education to the youth of the developing countries where technical know-how is in very short supply.

Based on resolution adopted at the Second Education Minister's Conference of UNESCO member countries in the Asian region held in Bangkok in 1965, the Japanese Government has dispatched one expert each to five Afro-Asian countries every year for a period of six months. They give lectures and demonstrations on scientific education and guidance methods for secondary school teachers of physics and science with the Japanese Government purchasing and sending the necessary equipment.

Government has also dispatched experts for longer periods to follow up preliminary surveys for yen credit projects, and roving experts to assist and offer guidance to experts dispatched on project basis. The govern-

ment has also dispatched experts to offer guidance for the maintenance and operation of equipment sent according to equipment supply programs.

The coordinated dispatch of experts in a broad range of subjects can be said to be the starting point as well as the terminal point in this field of technical cooperation.

This program for the dispatch of experts, which started in 1955 with a budget of only ¥11,495,000 and 28 experts sent abroad, has grown over 100 times in term of funds and 17 times in terms of the numbers sent abroad within 15 years. After the establishment of the OTCA as a special corporation in July 1962, the expansion has been remarkable with a budget covering not only the costs of dispatching experts, including their travel allowances, but also the costs of such equipment that is necessary for the experts to carry out their duties. The Japanese government also produces textbooks in local languages and prepares reports on programs to support the work of the experts on the spot.

Section 2. Status of Program Implementation in Fiscal 1970

The budget for fiscal 1970 totaled ¥1,155,213,000, an increase of 7.4 per cent over the previous year.

Emphasis was placed on preparing, to the greatest extent possible, to improve the system of the program's activities, a point long considered a problem, in order to meet the tremendous expansion in the scale of activities in the future, although there may be no particular increase in the number of experts dispatched.

The total expenditure for dispatching experts and sending equipment came to ¥1,110,359,000.

The total number of experts newly dispatched was 458 persons and an aggregate of 2,538.2 months, excluding those experts concerned with general government and scientific education. The breakdown of these figures is as follows; 14 experts or 26.4 months for those continuing to serve on a short-term basis; 185 or 1,588.4 months for those continuing to serve on a long term basis; 170 experts or 343.4 months for those newly dispatched for short-terms; 89 experts or 580 months for those newly dispatched for long-terms.

The total number of experts dispatched for long-terms came to 274 or 2,168.4 or an average of 7.9 months per expert, while the total number of experts dispatched for short-terms was 184 persons or 369.8 months or an average of 2.0 months per expert. The number of experts newly dispatched was 259 or 923.4 months or 3.6 months per expert, while the number of those who continued to serve was 199 or 1,614.8 months or 8.1 months per expert.

Note: (Short-term service means terms within one year and long-term service means more than one year.)

CHAPTER 3

EQUIPMENT SUPPLY PROJECT

Section 1. Outline of Equipment Supply Project

This work is planned with a view to providing developing countries with necessary equipment, when these countries, in their task of economic and social development, cannot carry out development, conveyance, propagation, education or training in technology since they do not posses sufficient knowledge and equipment or cannot themselves procure equipment necessary for these activities. With other services such as the dispatch of experts abroad or acceptance of trainees, they form a part of the Japanese technical cooperation work and, therefore, different from grant aid, they aim at realizing efficient technical cooperation under systematic correlation with other technical cooperation activities.

Thus, since 1964 when the first budget was appropriated for this work, we have selected and executed equipment supply projects giving priority to following cases to assure the systematic combination with other technical cooperation works:

(1) Those which make the technical guidance activities of experts and JOCV volunteers more efficient,

(2) Those which assist effectively the partners in developing countries in carrying out propagation, education or training after the return of experts to Japan,

(3) Those which enable making efficient use of the technical knowledge which the trainees of developing countries have learned in Japan.

Ninty-eight equipment supply projects amounting to ¥435,338,000 were carried out for 38 countries during the period up to 1969. Of 22 projects planned for 21 countries during 1969, and costs estimated at 140 million yen, there were 7 cases for 7 countries in which the total amount of purchase and delivery costs had to be carried over to 1970, and 6 cases for 5 countries in which the equipment purchase was completed in 1969 but its delivery had to be carried over to 1970. The breakdown of these cases by region is shown in Table 1.

Table 1. Execution of Equipment Supply Projects Carried Over from Fiscal 1969 (Yen 1,000)

Plan Region	Number of Countries	Number of Cases	Amount	Remarks
Colombo Plan Region	4	4	68,073	Total amount of purchase and delivery cost carried over. (Korea, Laos, Vietnam, Cambodia)
〃	2	3	480	Amount of delivery cost carried over. (Nepal 2 cases, Burma)
Middle East and Africa Plan Region	3	3	17,828	Total amount of purchase and delivery cost carried over. (Ethiopia, Morocco, Nigeria)
〃	3	3	773	Amount of delivery cost carried over. (Kenya, Lebanon, Sudan)
Total	12	13	87,154	

Section 2. Achievements in Fiscal 1970

The equipment supply program for fiscal 1970 was begun with a budget of 180 million yen, an increase of 28.6 per cent over 140 million yen for the preceding fiscal year. But, through the economizing of expenses, 25 equipment supply projects for 19 countries, such as infrared spectrophotometer sent to Myanma Oil Corporation of Burma, were planned and executed with an amount of 165 million yen. These 25 projects met however only a part of 66 requests from 29 countries and roughly estimated at 710 million yen. Out of these 25 projects, 16 cases amounting to ¥121,235,-000 were planned for the Colombo Plan Region (Burma and 11 other countries), 3 cases amounting to ¥11,-179,000 for the Middle East and Africa Region (Ethiopia and 2 other countries) and 6 cases amounting to ¥33,186,000 for the Latin America Region (Bolivia and 3 other countries) (Table 2).

As for the implementation of these approved projects, both purchase and delivery of equipment were completed within fiscal 1970 in 7 cases amounting to ¥51,713,000, and in another 7 cases amounting to ¥22,940,000 purchase were completed but delivery carried over to the following year. The breakdown of these cases by regions is shown in Table 3.

Therefore, there were 10 cases of both equipment purchase and delivery carried over to 1971 and 7 cases of only equipment delivery carried over. The breakdown of these cases by region is shown in Table 4.

Table 2. Equipment Supply Projects Approved for Fiscal 1970 (Yen 1,000)

Plan Region	Number of Countries	Number of Cases	Amount
Colombo Plan Region	12	16	121,235
Middle East and Africa Region	3	3	11,179
Latin America Region	4	6	33,186
Total	19	25	165,600

Table 3. Equipment Supply Projects Approved for and Executed in Fiscal 1970 (Yen 1,000)

Plan Region	Number of Countries	Number of Cases	Amount	Remarks
Colombo Plan Region	7	6	47,481	Purchase and delivery completed
〃		2	8,321	Purchase of equipment completed, delivery carried over to '71
Near and Middle East and Africa	3	2	4,232	Purchase and delivery completed
〃		1	3,390	Purchase of equipment completed, delivery carried over to '71
Latin America	2	4	11,229	Purchase of equipment completed, delivery carried over to '71
Total	13	15	74,653	

Table 4. Equipment Supply Projects Carried Over from Fiscal 1970 to 1971 (Yen 1,000)

Plan Region	Number of Countries	Number of Cases	Amount	Remarks
Colombo Plan Region	8	10	58,885	In 2 cases: delivery only
Near and Middle East and Africa Region	1	1	288	delivery only
Latin America Region	4	6	21,371	In 2 cases: delivery only
Total	13	17	80,514	

Annexed Table 1. Execution of Equipment Supply

No.	Country	Equipment	Quantity	Cost			Destination
				Equipment	Delivery	Total	
1	Korea	Acquation system (sea water thermostatic tank)	1 unit	12,080	286	12,366	Fisheries Research and Development Agency
2	Laos	Ceramics equipment	1 unit	2,569	321	2,890	Center for the Promotion of Manual Industry, Ministry of Economy
3	Lebanon	Fishing nets and other equipment	1 unit	— (already purchased)	371	371	Ministry of Agriculture
4	Sudan	Vocational training equipment	1 unit	— (already purchased)	117	117	Kattoum Vocational Training Institute
5	Kenya	Aviation wireless equipment	1 unit	— (already purchased)	285	285	Aviation Bureau
6	Nepal	Japanese paper manufacturing machine	1 unit	— (already purchased)	254	254	Ministry for Cottage Industry
7	Vietnam	Educational television equipment	1 unit	46,668	3,272	49,940	Ministry of Education
8	Nepal	Bamboo processing equipment	1 unit	— (already purchased)	155	155	Ministry for Cottage Industry
9	Burma	Biological microscope	50 pieces	— (already purchased)	71	71	Rangoon Veterinary University
10	Nigeria	Agricultural machinery	1 unit	1,131	284	1,415	Federal Agricultural Institute
11	Cambodia	Railways vehicles with flexible laddar	2 vehicles	2,450	427	2,877	Postal and Telecommunication Agency
12	Morocco	Agricultural machinery	1 unit	1,674	459	2,133	Ministry of Agriculture
13	Ethiopia	Well-digging equipment	1 unit	12,550	1,730	14,280	Department of Water Resources

Annexed Table 2. Equipment Supply

1	Burma	Infrared spectrophotometer	1 unit	10,290	143	10,433	Myanma Oil Corporation
2	Bhutan	Bhutanese character typewriters	20 pieces	2,623	83	2,706	Government of Bhutan
3	Indonesia	Equipment for foundry measuring	1 unit	1,871	— carried over to 1971	1,871	National Foundry Center at P.N. "SABAN MERAUKE"
4	Iran	Brinel hardness testing machines and others	1 unit	2,460	167	2,267	National Railways of Iran
5	Pakistan	Equipment for preventing the leakage in water supply	1 unit	17,319	2,007	19,326	Central Development Authority
6	Philippines	Equipment for simultaneous translation	1 unit	9,567	709	10,276	Ministry of Foreign Affairs
7	Philippines	Electronic machinery	1 unit	6,540	— carried over to 1971	6,450	College of Technology
8	Thailand	Equipment for hydrographical survey in harbor	1 unit	2,667	46	2,113	Port and Harbor Department, Ministry of Communications
9	Ethiopia	Equipment for well-digging	1 unit	3,701	296	3,997	Department of Water Resources

Projects in 1970 Carried over from Fiscal 1969 (Yen 1,000)

Objective of Project and Background of Request	Remarks
To contribute to the progress of culture technics in Korea through the study concerning generation of fishes and shell fishes, production of artificial seeds and seedlings, culture of feed, etc. To enhance the study of returned trainees.	Follow-up measures for returned trainees
To contribute to the development of ceramic industry in Laos. To assist the dispatched JOCV volunteers in their technical cooperation activities.	Follow-up measures for dispatched JOCV volunteers
To contribute to the development of fishery in Lebanon through the diffusion of circular moored net fishing. To further the study of returned trainees.	Follow-up measures for returned trainees
To contribute of the progress to technical guidance in Sudan through the training of engineers of cars, electricity, wood working, machines, etc. To further the study of returned trainees of vocational training.	Follow-up measures for returned trainees
To contribute to the progress of aviation radio wave services in Kenya through the technical guidance on aviation wireless. To assist the dispatched experts in their technical guidance activities.	Follow-up measures for dispatched experts
To contribute to the development of cottage industry and technical training through the technical guidance on Japanese paper manufacturing and bamboo and cane working. To assist the dispatched experts in their activities.	Follow-up measures for dispatched experts
To improve the school education in Vietnam through the survey on system, organization and present situation of educational broadcasting, and the production and transmission of educational programs.	Special cooperation
To contribute to the development of bamboo processing industry in Nepal and to the export promotion of bamboo processed articles. To assist the dispatched experts in their technical guidance activities.	Follow-up measures for dispatched experts
To contribute to the development of agriculture in Burma through the veterinary education. To further the study of returned agricultural trainees.	Follow-up measures for returned trainees
To contribute to the increase of production of hill rice and acquatic rice through the technical guidance on the culture of hill rice. To assist the dispatced experts in their activities.	Follow-up measures for dispatched experts
To contribute to the progress of technics in the field of telecommunication in Cambodia through the activities for development of wiring and maintenance of existing lines.	Follow-up measures for dispatched experts
To contribute to the agricultural development in Morocco through the diffusion of agricultural machinery. To promote the agricultural cooperation activities of JOCV volunteers.	Follow-up measures for dispatched JOCV volunteers
To contribute to the exploitation of underground water resources in Ethiopia through development researches such as underground water investigation, well digging, utilization of water, etc. To further the study of returned trainees.	Follow-up measures for dispatched experts and returned trainees

Projects Newly Executed in Fiscal 1970 (Yen 1,000)

To contribute to the establishment of the method of organic analysis through the analytical study of crude oil and of raw materials for petroleum industry. To assist the dispatched activities in their technical guidance activities.	Follow-up measures for dispatched experts
To contribute to the development of education in Bhutan through the use of Tibetan character typewriters and the promotion of the plan to increase learning hours of national language.	Special request by the secretary of the King of Bhutan
To contribute to the progress of foundry technics in Indonesia through the intensification of basic study with new equipment for foundry. To further the study of returned trainees of foundry.	Follow-up measures for returned trainees
To contribute toward raising the technical level of National Railways of Iran through the basic study such as test and study on metallic material. To further the study of returned trainees.	Follow-up measures for returned trainees
To contribute to maintenance and control of metropolitan water-works and improvement of environment sanitation in Pakistan by taking preventive measures against leakage in water supply at Rawalpindi.	Measures to follow-up the pre-investment survey by Development Survey Mission
To fulfill Japan's international duty to assure, in cooperation with other aid-according countries, a successful meeting of the Committee and at the same time to display the high technical level of Japan in the field of electronics.	Cooperation for a meeting of the Consultative Committee of the Colombo Plan
To contribute to the development of electronic industry in the Philippines by training competent electronic engineers in research and experiment. To enhance the further study of returned trainees.	Follow-up measures for returned trainees
To contribute to the promotion of the Development Plan of South Thai Harbors by collecting hydrographical data about tidal current, tidal level, drift sand, etc. To assist the dispatched experts in their technical guidance activities.	Follow-up measures for dispatched experts
To contribute to the agricultural development in Ethiopia through the development survey on underground water resources. To assist the dispatched experts in their technical guidance activities.	Follow-up measures for dispatched experts

No.	Country	Equipment	Quantity	Cost			Destination
				Equipment	Delivery	Total	
10	Kenya	Equipment for checking and repairing of vehicles	1 unit	215	20	235	National Youth Services Corps
11	Nigeria	Equipment for civil engineering researches	1 unit	3,390	— carried over to 1971	3,390	Yaba College of Technology
12	Bolivia	Micro-seismograph	1 unit	4,854	— 〃	4,854	
13	Brazil	Equipment for plant pathology researches	1 unit	1,500	— 〃	1,500	North Brazil Agricultural Research and Experiment Institute
14	Brazil	Equipment for researches on citrus fruits diseases	1 unit	1,705	— 〃	1,705	Biological Institute of Sao Paulo
15	Mexico	Equipment for fishery training	1 unit	3,170	— 〃	3,170	Regional Center for Fishery Training in La Paz

CHAPTER 4

OVERSEAS TECHNICAL COOPERATION CENTRES

Section 1. Outline of Overseas Technical Cooperation Centres

Overseas technical cooperation centres of various types have, since the initial establishment of an agricultural training centre in East Pakistan in 1960, been set up in Asia, the Middle East, Africa, and Central and South America, and at present there are a total of 32 with 2 centres under construction.

The cooperation centres program, based on governmental agreement, abides with the following principles by which the centres are established and operated: Japan sends technical training specialists as well as donating necessary machinery and equipment; the corresponding self-help endeavors of the recipient nation consists of bearing all expenses for the land of the centre, for its building, for the wages of the local personnel and miscellaneous costs deriving from the maintenance and management of the facilities.

The centres are broadly classified into such forms as: (1) cooperation in the training and development of technical skills, (2) cooperation in the introduction, improvement and dissemination, as well as adaptation of advanced scientific knowledge and techniques, (3) cooperation in the improvement of production, and (4) cooperation in the furtherance of public works and regional development projects. Seventeen overseas technical cooperation centres in all carried out their duties in fiscal 1970, and furthermore as a small scale project for the same year, there is the cooperation program for the expansion of national schools for industrial technology in El Salvador.

The geographical distribution of the centres indicates (See Table on Technical Training Centres) that there are considerably more in Asia than in other districts; for, Asia has 12, the Middle East and Africa has 3, and Central and South America has 3 including small scale projects. Due to the efforts of the Japanese personnel and the self-help endeavors of the recipient countries, each centre has to this day achieved numerous and fruitful results.

Section 2. Achievements in Fiscal 1970

1. Technical Training Centre for Technology in the Republic of Korea

Acting on the exchange of letters between Japan and the Republic of Korea, this Centre commenced such necessary operation as selection of personnel and procurement of donation equipment on October 25, 1967; and towards the end of August, 1968, a chief adviser and 3 experts in the fields of mechanics, chemical analysis, and forging were dispatched to the Centre.

Objective of Project and Background of Request	Remarks
To contribute to the intensification of NYS member's technical training in checking before work and regular examinations of vehicles and constructing machinery. To assist the experts and JOCV volunteers in their technical guidance activities.	Follow-up measures for dispatched experts
To contribute to the progress of scientific researches such as metallic strength testing by providing the University with experiment equipment. To assist the dispatched experts in their technical guidance activities.	Follow-up measures for dispatched experts
To contribute to the earthquake forecast study in Bolivia through the basic survey and research on earthquakes. To further the study of returned earthquake trainees.	Follow-up measures for returned trainees
To cope with plant diseases in Brazil through the researches, such as confirmation of virus, by means of the reproduction of conditions of the natural world. To assist the dispatched experts in their technical guidance activities.	Follow-up measures for dispatched experts
To contribute to the development of citrus cultivation through researches for the extermination of citrus fruits diseases. To further the study of returned trainees.	Follow-up measures for returned trainees
To contribute to the modernization of fisheries in Mexico through demonstrations of stationary nets fishing, etc. To assist the dispatched experts in their technical guidance activities.	Follow-up measures for dispatched experts

Machinery amounting to 75 million yen from the 1966 budget was donated at the time of the Centre's opening, and 45 million yen from the 1968 budget was alloted for additional equipment for the above 3 courses.

In 1969, in response to the request from the Korean Government to enlarge the existing 3 courses by creating courses in maintenance of motor vehicles and in electronics, 23 million yen worth of equipment for the above mentioned fields was donated from the budget of fiscal 1970.

The further request from the Korean Government to send specialists in the maintenance of motor vehicles and in electronics is presently under consideration, with the prospect of being approved.

The original 3 courses of the Centre are to be transferred to Korean administration prior to the date of termination of the exchange of letters which falls on October 24, 1971. To enable a smooth execution of this transfer, four Koreans have been invited to Japan to receive practical training from 1970 to 1971, and at the same time operations for sending supplementary and equipment are being undertaken.

Moreover, with the annual capacity of 30 students for each of the original 3 courses and 40 each for the 2 new courses, the Centre has been elevated, according to the Korean educational system, from a miscellaneous school to a professional school in industrial technology. After the Centre's rise in status to that of a professional school in industrial technology, a retraining program for enterprise-employed personnel has been established besides the regular curriculum, and is comprised, as is the regular program, of five courses with a maximum of 30 students each: (A) program for 3 months' training, (B) program for 6 months and (C) program for one year.

2. Vocational Training Centre in the Republic of China (Taiwan)

The Government of Japan dispatched a preliminary survey team, comprised chiefly of personnel from the Ministry of Foreign Affairs to the Republic of China in late February of 1969, and followed this up with an implementation survey team in June of the same year. On the basis of the surveys, a project for cooperation was devised, and on December 5, 1969, an agreement for cooperation was formally signed between the two countries.

According to the agreement, Japan donated ¥126,760,000 worth of machinery and equipment, and from July to August of 1970, sent a senior advisor and a 15 member team to the Republic of China. At the Northern Centre (Keelung), training was conducted in the fields of machinery, welding, canning, ship equipment and electricity, and about 200 trainees have already graduated. The Southern Centre (Kaohsiung) gave training in the fields of machinery, electric welding, finishing, electric appliances, wood molding, and draftsmanship, and the trainees there number approximately 200.

Furthermore, Japanese personnel are proceeding with the creation of training criteria for the seven vocational fields of machinery, finishing, electricity, draftsmanship, shipbuilding iron work, welding, and ship equipment at the Northern Centre, and for the four vocational fields of general iron work, general welding, wood molding, and casting at the Southern Centre.

3. Technical Development Centre for Small-Scale Domestic Industries in the Philippines

As a result of the preliminary survey conducted by Japan in March, 1965 which was followed up by an implementation survey in November of the same year,

the following five fields were to be established at the Centre: (1) forging and the manufacture of small-sized machine parts, (2) ceramics, (3) textile manufacturing and weaving, (4) bamboo and wisteria handicraft, and (5) woodworking. Besides these training fields, additional facilities for the research and management consulting of small-scale industries were made, bringing the number of the fields to six.

After a delay on the part of the Philippine Government in the choice of a suitable site for the Centre, Marikina City, 20 kilometres east of Manila, was chosen in September, 1966. A construction budget of 30 million yen was secured and on September 29, 1966, an agreement on the establishment of the Centre was concluded. Equipment worth 50 million yen was sent in March, 1967 for the purpose of an early opening, and in August of the same year, a team of three persons was dispatched in advance, followed several months later by a six man team.

In accordance with a request from the Philippine Government, 8 million yen worth of extra machinery and appliances consisting mainly of bamboo plywood was donated in 1967; nevertheless, due to the delay in construction work, the opening ceremony was not performed until October 7, 1969.

The following training programs were carried out in 1970.

(1) First Period Training
Eligibility—Nacida Technologist
Term—3 mnoths (April 1970 to June 1970)
Number of trainees—30

(2) Second Period Training
Eligibility—employees of small-scale industries, those interested in management and unemployed persons, all chosen from general public.
Term—3 months (July 1970 to September 1970)
Number of trainees—52

(3) Third Period Training
Eligibility—same as that of second period trainees.
Term—6 months (October 1970 to March 1971)
Number of trainees—70

The term of the Centre cooperation agreement, which was to expire on September 29, 1970, was extended two more years at the strong request of the Philippine Government. At the same time, the director-general and 5 others were replaced and at present the Japanese team consists of 9 members.

The Philippino assistant instructors of the Centre participated in a three month training course in the management of small-scale industries. Moreover, the operation for sending supplementary machinery and equipment amounting to 25 million yen has been completed.

4. Prototype Production and Training Centre in Singapore

Upon sending a preliminary survey team to Singapore in March, 1965 and an implementation survey team in June, 1966, and having studied the results, the Japanese Government decided to cooperate in the establishment of this Centre and on October 15, 1966, an agreement for the establishment was signed.

The Centre, placed under the jurisdiction of the Economic Development Board, is composed of individual departments for machinery, tool manufacturing, heat treatment, designing, grinding, plating, welding, and forging. In the actual process of production, training was to be given to engineers, technicians, and skilled workers on an integrated basis in design, development, trial production of metal products, tools, machines and accessories as well as in their manufacture. To cover building expenses, 45 million yen was added to the 80 million yen budget of 1966 and in addition 125 million yen worth of equipment was donated in 1967.

A total of 12 Japanese employees, 11 in 1967 and one in 1969, were dispatched to the Centre. Training began in all departments in June, 1968 and the opening ceremony was held on February 14, 1969.

As for prototype production, various kinds of metal patterns consisting mainly of table-type boring machines and manual fork lifts are being manufactured. Several training courses open also to shift term trainees from outside the Centre are in progress, and the number of trainees in all is approximately 300 a year. In 1968 and 1969 additional donations of 30 million yen were made respectively.

Upon the termination on October 14, 1970 of the original term of cooperation for the Centre, cooperation was extended for two more years in compliance with the Singapore Government's request. With the extension of the agreement period, it was decided that Japan will continue cooperation in the departments of machinery, tool manufacturing, designing, forging, dye-casting, heat treatment, plating, and welding. Also upon this occasion, a shipbuilding consulting department was newly created.

5. Technical Cooperation Project for Fishing Industry in Indonesia

Since January, 1970, four long-term experts (in the fields of marine product industry, fishing techniques, processing of fish, and marine production) and two short-term specialists (in the fields of installment of freezers and shipbuilding) have been dispatched to Indonesia in connection with this project. As the submission of a donation request list by the Government of Indonesia was delayed that year, the purchase and shipment of supplementary machinery and equipment was carried over to the next year. Furthermore, supplementary machinery and equipment is scheduled to be donated to individual research institutions connected with this project, i.e., (1) Djakarta Fishing Techniques Research Institute, (2) Oceanic Resources Research In-

stitute, (3) Fishing Boats Construction Research Institute, and (4) Djakarta Fisheries Academy.

The activities of each department are as follows.

A. Fishing

In May, a survey on lobster trawling in the southern part of Sumatra was conducted using the survey ships, Taburasasa Maru and Gurta Maru. During July and August, on-the-job training (with stick-held dip nets, trawl lines and trawl nets) and surveys on bonito bait, ichthyology, shoals, and the ocean in general were conducted at Celebes, Kemdari, Timor, Kupang, Bali and Benoa.

In November, at northern Java and in December, at western Java, instructions on bivalve cultivation were given and in southern Sumatra surveys on lobster fishing were conducted, and in January, a research on lobsters took place in Butung Bay.

B. Processing of Marine Products

The objectives of this year's research and examinations were the experimentation, improvement, and examination of the quality of: (1) salted jelly fish, (2) smoked fish, (3) marinade fish, and (4) bait.

C. Storing and Processing Marine Products

The equipmnet consisting of freezers, etc. supplied for this department was put into operation in late December. The goals for 1970 are: (1) the processing of milky fish as tuna bait, and (2) various tests of the spontaneous coloration, etc. of peeled and cooked shrimp. Also on the agenda is experimentation in freezing and canning especially that of tuna, bonito, mackerel, sea bream, sardines, and shellfish, as well as experimentation in meat, frozen goods, fruits, and vegetables.

6. Training Centre for Mechanization of Agriculture in East Pakistan

As a result of survey in January, 1958 concerning the technical cooperation program in East Pakistan, the pertinent Japanese bureau on technical cooperation decided to consider a plan for the establishment of a technical cooperation centre for agriculture. Following a request from the Government of Pakistan for the establishment of a Centre, Japan sent an implementation survey mission in July, 1959, and upon study of the results, it was decided to establish a technical training centre for agriculture in Dacca. An agreement was formally signed between the two Governments in July, 1960.

In accordance with the agreement, Japan donated farming machinery, repairing machinery, tools for experimentation and meteorological observation instruments totaling ¥36,390,000, together with the dispatch of the director-general and 6 technical specialists. The opening ceremony was held in September, 1960.

This Centre maintains as its objectives, the re-education through practical training of agricultural extension workers of each district in East Pakistan, the diffusion of the Japanese agricultural technology among the native farmers through these workers, and at the same time research and examination for the agricultural improvement.

The training year is divided into two terms with 40 trainees to each term. Departments were inaugurated in fertilization, crop cultivation, farming machinery and tools, and prevention of damage from disease-carrying insects, with paddy-field cultivation as the principle objective, and in 1962, a department in horticulture was added with the assignment of an extra specialist. Also, an additional donation of ¥4,360,000 was included to cover the cost of the necessary machinery and equipment.

Although the initial period of the agreement concerning this Centre was to end in July 1962, it was extended for two years at the request of the Government of Pakistan, thereby terminating on July 29, 1965. At this time, seven of the Japanese members at the Centre had returned to Japan, having fulfilled their terms of office, and during the five years since the Centre's opening, nine training terms were completed with a total of 315 graduates who had successfully concluded their courses. Meanwhile, after the termination of the cooperation period for the Centre's establishment, the Government of Pakistan decided to reorganize the Centre as a training centre for agricultural mechanization and to continue its operation. In response to the request on the part of Pakistan for continued cooperation, Japan sent in November of 1965, for a term of two years, in accordance with the Colombo Plan, a chief advisor and 4 experts in the fields of rice crop cultivation, farming machinery and tools, cultivation, and horticulture.

The purpose of this training centre for agricultural mechanization was to educate technicians in agricultural mechanization, who would be in need as the mechanization of agriculture progressed in East Pakistan. Three month training courses were given for agricultural extension workers, and village youths, and by the time of the return of the four Japanese specialists to Japan in November, 1966, seven training terms with 249 trainees in all had been completed.

Following this, there was a further appeal from the Government of Pakistan for Japanese advisors in each field. However, the OTCA concentrated the extent of cooperation to two departments, cultivation and farming machinery, and in July, 1969, again through the Colombo Plan, sent two experts for a term of two years. These experts continued the original training courses and in each three month course trained 10 extension workers and 30 village youths. By their return to Japan in August, 1970, the total number of trainees reached 270.

7. Telecommunications Research Centre in Pakistan

Since the conclusion of a centre agreement on

November 16, 1963, a total of 15 specialists have been dispatched to Pakistan and at present, experts in the respective fields of micro-wave, telephone, transmission and wireless are there. Machinery and equipment amounting to 94 million yen has also been provided.

The activities of each department are as follows:

A. Telephone Switchboard Department

The objectives of research and experimentation in this department are: (1) utilization of public telephones, (2) trial production of joint subscription telephones, (3) improvement of relay repeaters for VHF links, and (4) improvement of telephone communication between Islamabad and Karachi.

B. Transmission Department

The aims of this department are: (1) trial production of transmission appliances (appliances for the interchange of telephone lines), (2) training in PCB equipment, (3) lectures on the theory and drafting of bilateral relays, (4) drawing up instructions for the use of microwave transmission stations, (5) trial production of CR vibrators, (6) repairs of transmission appliances and (7) plans for identical-axis method, etc.

C. Micro-wave Department

The following activities are being conducted: (1) technical advice concerning the micro-wave circuits in East and West Pakistan constructed with loans from IDA, (2) regarding future circuits scheduled to be established by the T&T authorities, the selection of circuit stations for Lahore, Multan, Karachi, Quetta, DI Khan and Peshawar, (3) repairs of 7GHZ micro-wave equipment for countermeasuring identical-axis failures, (4) equisition of measuring techniques through the use of basic measuring appliances of the micro-wave 4GHZ model, (5) drafting of the instructions on the use of micro-wave equipment between Mazaffarabad and Haripur and (6) surveys of circuits between Rawalpindi and Peshawar, etc.

Furthermore, in connection with VHF, improvement in the efficiency of the trial equipment of DC-DC convertors and the improvement of transmitters, cables and antennas of the VHF circuit between Murree and Haripur, for prevention of partial technical breakdown, are being conducted.

D. Wireless Department

The activities of this department include: (1) drafting and assembly of 100W ISB transmitters, (2) establishment of ISB transistor transmission stations, (3) drafting and assembly of transistor receivers, (4) construction of antennas for experimentation, (5) selection of a tentative site for a new short wave transmission station, and (6) repairs of short-wave transmission and receiving equipment.

8. Technical Training Centre for Road Construction in Thailand (Songkhla)

Having dispatched a preliminary survey team in September, 1963, and an implementation team in late May, 1964, it was decided to establish a technical training centre for road construction in the city of Songkhla, in southern Thailand, and an agreement for cooperation in its establishment was formally signed on November 6, 1964. The purpose of the Centre was to faciliate traffic conditions between Samrong and Natawee, which are in the vicinity of Songkhla, by constructing a road approximately 52 kilometres long between the two, and at the same time through this construction to educate and train Thai technicians in the operation, repair and maintenance of construction machinery as well as in the planning, construction, and maintenance of roads. The personnel for this Centre was sent in February, 1966, and comprised of a director-general, two civil engineers, six machinery experts, and one regulator. Equipment amounting to a total of approximately 300 million yen was donated between fiscal 1965 and 1967 while expenditures covered by Thailand came to roughly 1,000 million yen during the years 1964 to 1968. Of the 163 trainees, 59 took a machinery operation course, 46 took a repairs course, 5 took a course on electric construction machinery, 20 took a surveyors' course, 7 took a geology course, and 24 took various other courses.

Since then, the dispatch of specialists and donation of machinery have been conducted through the Colombo Plan. Two specialists, one in engineering and the other in machinery, have been sent for a term of two years in 1969 and are presently cooperating with the construction of smaller branch roads as well as with the Songkhla Road Construction Centre. As for machinery and equipment, extra engines, jet-propelled pump testers for diesel engines, and various spare parts have been donated.

9. Technical Training Centres for Road Construction in (Surat Thani) Thailand

The Japanese Government dispatched a preliminary survey team to Thailand from May 25 to June 25, in 1970. Following this, an implementation survey team was sent from October 18 to the 25 of the same year for the purpose of: (1) consultation on the selection of machinery and equipment to be donated by Japan, and on the selection of machinery and equipment to be bought by Thailand, (2) drawing up the program to receive Thai assistant instructors in Japan for training, (3) consultation for receiving the equipment and personnel by the Thai Government, and (4) consultation on the road construction plan and training programs, etc.

As a result of the implementation survey, it was decided to send a team composed of 4 members in the field of engineering and 6 members in the field of construction machinery during 1970. It was also planned to send machinery amounting to 205 million yen for the initial year, most of which was to be composed

of construction machinery. However due to the circumstances of the Thai Government, the signing of the agreement was postphoned until May 19, 1971, and thus the execution of this program was carried over to fiscal 1971.

10. King Mongkut Institute of Technology (the former Training Centre for Telecommunication in Thailand)

Technical cooperation to King Mongkut Institute of Technology was extended under the name of "Training Centre for Telecommunication in Thailand," in accordance with the agreement concerning the establishment of the centre signed on August 24, 1960. Later the name was changed to "Nonburi University of Telecommunication" in May, 1964, and to the present name of King Mongkut Institute of Technology on July 6, 1970. Furthermore, a new site of 300,000 tsubo (1 tsubo=3.3m²) in Lard Krabung, 20 kilometres east northeast of Bangkok, was decided upon in January, 1971, and the Institute is scheduled to move there in the future.

The courses offered are those in wireless, microwaves, radio broadcasting, telecommunication, telephone, telecommunication lines, transmission etc. At present, there are 475 students in all, comprising of 178 first year students (4 classes), 114 second year students (4 classes), 101 third year students (2 classes), 36 fourth year students (one class), and 46 fifth year students (one class). Among these are included 27 female students. Educational equipment is mostly donated by Japan, and in fiscal 1970, the specialized and basic experiment equipments amounted to 30 million yen. A total of 140 million worth of educational equipment has been donated up to this time.

Moreover, the bilateral technical cooperation agreement for this project, which was extended from the initial three years by two more years, terminated on August 23, 1965. However in response to the request from the Thai Government, Japan is continuing assistance by dispatching specialists under the Colombo Plan as instructors.

11. Technical Training Centre for Small-Scale Industries in Iran

The Japanese Government sent a survey team to Iran in June, 1960; and as a result it was decided to establish a technical training centre for small-scale industries in Karaji near Tehran, and an agreement was signed formally in September, 1960.

Under this agreement, together with the dispatch of technical experts, Japan donated wooden molds, machinery for casting, forging, welding, and plastic molds costing ¥58,550,000, and also invited 7 Iranian assistant instructors to Japan to undergo necessary training. The opening ceremony of the Centre was held in October, 1962. In order to educate trainees as workers and mechanics in the machinery and plastics fields, the Centre gives instructions in both theory and practice; and furthermore the Centre conducts research and experiments necessary for the improvement of technology in Iran. The term of training is one year, and those who have graduated primary school or have the knowledge equivalent to or more than such graduates are eligible to become trainees.

The first term of cooperation under the agreement terminated in September, 1963. However, at the request of the Government of Iran, the term was extended two more years. Though the extended term ended in September, 1965, due to difficulties in the continuation of the operations of the Centre by the Iran side, technical experts are being supplied through the Colombo Plan.

12. Research Centre for Telecommunication in Iran

After dispatching a preliminary survey team to Iran from July 20 to August 4, in 1968, the Government of Japan decided to cooperate for the establishment of a "Research Centre for Telecommunication" operated under the Centre formula. The expenditures for the donation of machinery and equipment amounted to a total of 120 million yen of the 1969 budget for technical cooperation. Following this, an implementation survey team was sent in June, 1969, and as a result, Aryamehr University was scheduled for the site of the Centre and was to be named Iran Telecommunication Research Centre. With one adviser, research departments were established in the fields of micro-wave, regulation of broadcasting waves, transmission lines, telegraphic communication, telephone, and wireless. However, as the Iran side requested an alteration of the Centre's site to Tehran University, a survey team was again dispatched from December, 1969 to January, 1970 for the selection of the site.

Donation of machinery and equipment to the Centre amounts to a total of approximately 120 million yen, and consists of equipment for the departments in microwave, transmission, transmission lines, telegraphic communication, telephone, broadcasting, wireless, interdepartmental research and books, etc. Seven Iranian assistant instructors arrived in Japan on December 12, 1970 and are receiving training for an estimated period of 8 months. On the other hand, Japan sent three experts (one adviser, one team member and, one coordinator) in March, 1971.

13. Technical Training Centre for Small-Scale Industries in Kenya

The Government of Japan sent a research mission to Kenya in August, 1963. As a result, a decision was reached to cooperate in the establishment of a training centre, and a formal agreement was signed between the Governments of Japan and Kenya on July 30, 1964.

The Japanese Government donated the necessary machinery and equipment amounting to ¥54,900,000 and dispatched a team of 12 persons during the period from September to December, 1964.

In the Centre, there were technical training courses established in the following six departments: metal working, assembly and repair of electric appliances, machine sewing, woodworking, assembly and repair of machines, and processing leather and hide. Training is given to those who are to become future operators of small-scale industries and furthermore, specialists on management are conducting follow-up surveys and research on small-scale industries owned by Centre graduates. In August, 1970, a new department in casting iron is to be established and instruction in both actual casting and theory is to be offered.

Though the period of cooperation extended to the Centre under the agreement was to terminate in July, 1968, Japan complied to the request of the Government of Kenya to extend the cooperation agreement for two more years, and replacements were sent for the majority of the Japanese personnel at the Centre who had completed their term of service. The Japanese Government purchased and shipped ¥1,400,000 worth of supplementary machinery and equipment with the budget of 1967. It also sent 20 million yen worth of machinery and equipment necessary for enlargening the departments in the maintenance of motor vehicles and in casting iron, with the budget carried forward from 1968.

At the termination of the extended agreement in July, 1970, there was a request from the Government of Kenya for a further two year extension, to which Japan consented. Although it was decided that Kenyan assistant instructors train the departments in machine sewing, machinery, and processing of leather and hide, Japan is cooperating toward the transfer of the Centre's operations to the Kenya side through the continued guidance to trainees and training of local instructors in the departments of metal working, electric appliances, woodworking, maintenance of motor vehicles, casting iron, and management. Over the past five terms, 249 have graduated and in the present sixth term, 64 are undergoing training.

14. Technical Training Centre in Textiles in Ghana

The training at this Centre is carried out on two levels. The Centre offers a general course for graduates of Junior Technical Institutes to educate them as junior technicians, and an advanced course for graduates of Senior Technical Institutes to educate them as senior technicians. In both courses, the term is for one year and instruction is given in the physics of textile fabrics, chemical analysis, production of knitted fabrics and towels, dye finishing, and processing of sewed goods.

The Government of Japan donated ¥52,940,000 worth of cotton fabric, equipment for dye finishing and sewing equipment, laboratory instruments and operation machinery. From January 1965, 8 technical experts were dispatched from Japan, and on the other hand, Ghana assistant instructors were invited to participate in a practical training program in Japan.

This Centre opened informally on February 27, 1967, however due to the delay in the construction of the Centre building, the agreement was extended for three more years upon the termination of the agreement in May, 1969. Though the extended agreement came to an end in May, 1970, cooperation was continued for two more years in compliance with the strong request from the Ghana Government. Three replacements who are to build up and promote the operational ability of the Ghana side in preparation for the transfer of the Centre's administration were sent to fill the vacancies made by the return of four Japanese members of the Centre.

In 1970, approximately 5.5 million yen worth of supplementary machinery and equipment was purchased and shipped to Ghana. The total number of the graduates of July, 1969 and of July, 1970, who had successfully completed the two year course offered by the Centre, reached 59. For the present fiscal of 1970, there are 31 trainees in the regular course and 31 in the advanced course, both being fourth term trainees. Furthermore, the operation of this Centre is to be transferred to Ghana in May, 1972; 3 assistant instructors from Ghana are scheduled to be invited to Japan to receive training in order that the Centre can be technically operated by the Ghana side after its transfer.

15. Vocational Training Centre in Uganda

Based on the results of a preliminary survey team sent in February, 1966, Japan decided to cooperate in the establishment of a centre in Uganda for the training of skilled labourers necessary for the promotion of small-scale industries. A budget of 155 million yen was drawn up in 1967 for this purpose. An implementation survey team was dispatched in October, 1967 to study concrete policies for the establishment and administration of the Centre.

The agreement for the establishment of this Centre was signed on June 28, 1968 and consequently, the following six departments were established: machinery, finishing of machinery, welding and metal plate processing, electric finishing and motor vehicle repairing. Though Japan donated iron frames in fiscal 1968 as a part of construction material, due to delays in the construction of the building, the purchase and shipment of training machinery and equipment were carried over to fiscal 1969.

As much of the training machinery and equipment, which arrived in Uganda from February through June of 1970, were found damaged, an investigation team was dispatched in October of that year. As a result of their investigation, it was found that the loss amount-

ed to a total of 2 million yen. Due to these circumstances, another survey team was sent in December and a program for cooperation until the opening of the Centre was exchanged in the form of a memorandum. On the basis of this memorandum, Japan purchased and shipped supplementary and spare parts for the damaged machinery and equipment and also dispatched Japanese personnel to Uganda by March, 1970. In addition to this, Japan donated machinery for loading, such as forklifts, in order to prevent the future recurrence of damage to machinery and equipment.

Three Ugandan assistant instructors are receiving six months' training in Japan from December, 1970; and the Centre is scheduled to be formally opened in October, 1971. At present, necessary work for the opening of the Centre, such as the acceleration of construction work, preparatory installation of machinery and the drawing up of a training curriculum etc., is in progress.

16. Technical Training Centre for Fibre Industry in Brazil

An initial donation of machinery and equipment equivalent to 80 million yen was made to Brazil, and in August, 1964, 6 Japanese experts were dispatched there. Since the informal opening of this Centre in July, 1965, the initial three year period of cooperation was extended by one more year, thereby lengthening the period of cooperation until July, 1968. During this time, 4 specialists completed their duties and returned to Japan.

Acting on the results of a survey team sent in March, 1968, it was decided that a department in dye finishing be added and that machinery and appliances necessary for this expansion amounting to 80 million yen be donated in fiscal 1968. Furthermore, the period of cooperation was extended by two more years in view of the completion of and training for this new department. In this connection, a specialist was dispatched in October of that year to be in charge of an advanced course in cotton fabrics.

Cooperation under the Centre agreement came to an end in July, 1970 with the return of one Japanese expert. However, two remained to pursue their official duties until December, 1971, under the Latin American Program. A specialist was sent to give assistance in the dye finishing department in November, 1970 for a period of three years. In fiscal 1970, machinery and appliances equivalent to approximately 3.3 million yen were donated to strengthen and supplement the departments in examination and inspection. The first term graduates were sent out in 1965, and by fiscal 1970, a total of 440 had graduated from the Centre. Furthermore, cooperation is to terminate in November, 1973 for the department in dye finishing, and in December, 1970 for those in spinning and cotton fabrics. As a part of an overall plan to build up and promote the abilities of the Brazilian side for the transfer of the administration, a training course is scheduled to be given in Japan for the Brazilian director-general (a second-generation Japanese) of the Centre in early 1971.

17. Technical Training Centre for Telecommunication in Mexico

A. Outline of Establishment

Since November, 1964, Japan has been cooperating with Mexico by sending experts through the Latin American Technical Cooperation Program, and in 1965, the policy to establish a training centre in Mexico was determined, whereby a local survey was conducted by an implementation survey team in June, 1966. From a study of the results, it was decided that this Centre was to concentrate on the training of engineers who would contribute to the development of telecommunications technology; and training courses were established in micro-waves, automatic switchboards for telegraphic communications, transmissions, and drafting of telephone networks.

In accordance with the agreement for the establishment of this Centre, which was signed in July, 1967, the Government of Japan dispatched 8 persons at the end of August of the same year. The purchase and shipment of machinery and equipment, consisting chiefly of that for micro-waves, was conducted with a total budget of 80 million yen, which was comprised of 30 million yen from fiscal 1966 and 50 million yen from fiscal 1967. With the arrival of all the machinery and equipment in June, 1968, the preparations for the Centre progressed steadily and it was formally opened on December 5, 1967. Since then, it has been operating smoothly.

B. Activities

In fiscal 1970, nine permanent training courses were conducted for periods of two to six months, and a total of 183 students were trained. The characteristics of the training courses in fiscal 1970 were as follows:

(1) A curriculum was drawn up with the principle objective of teaching necessary and immediately useful techniques.

(2) As there were many courses with new contents, the period needed for their completion was considerably prolonged.

(3) The discrepancy between the enthusiastic trainees and the idle was extreme, and there were quite a large number of dropouts.

18. Small-Scale Project for Fiscal 1970

Cooperation Program for the Expansion of National Technical Schools for Industry in El Salvador.

The Government of Japan began sending specialists to El Salvador in 1960 and the present total is 14 experts. As for the donation of machinery and equipment, approximately 7 million yen worth has been

Technical Training Centres

(as of March 31, 1971)

Name of Centre \ Item	Contents of Training	Period of Agreement	Period of Extension	Number of Personnel	Purchased and Shipped Equipment: Fiscal Year	Purchased and Shipped Equipment: Amount (¥1,000)	Date of Opening	Remarks
I Presently under Agreement								
I-I Asia								
(1) Technical Training Centre for Industry in the Republic of Korea	(1) processing of machinery (2) chemical analysis (3) casting iron (4) electronic engineering (5) maintenance of motor vehicles	Oct. 25, 1967 ~ Oct. 24, 1971		4	1966 1966 1967 1968 1970 total	50,000 25,000 1,000 45,000 23,000 144,000	Oct. 30, 1968	
(2) Vocational Training Centre in the Republic of China								
(2)-1. Northern (Keelung) 6 personnel	(1) canning (2) machinery (3) welding (4) electric appliances	Dec. 5, 1969 ~ Dec. 4, 1973		15 (including 5 CP)	1969 1969 total	96,762 30,000 126,762	Oct. 3, 1970	
(2)-2. Southern (Kaohsiung) 8 personnel	(1) iron work (2) machinery (3) finishing (4) welding (5) electric appliances							
(3) Technical Development Centre for Domestic and Small-Scale Industry in the Philippines (Marikina)	(1) forging, small machine parts production (2) ceramics (3) wood works (4) bamboo and wisteria handicraft (5) processing of fabrics and woven cloth (6) management consulting	Sept. 29, 1966 ~ Sept. 28, 1970	Sept. 29, 1970 ~ Sept. 28, 1972	9	1966 1967 1969 total	50,000 expanded 8,000 diverted 25,000 83,000	Oct. 7, 1969	
(4) Training Centre for Prototype Production in Singapore	(1) processing of machinery (2) tool manufacturing (3) heat treatment (4) designing of machinery metal (5) forging (6) plating (7) welding (8) dye casting (9) shipbuilding consulting	Oct. 15, 1966 ~ Oct. 14, 1970	Oct. 15, 1970 ~ Oct. 14, 1972	7	1967 1968 1969 total	124,348 diverted 30,000 expanded 30,000 184,348	(training commenced) June 1, 1968 (formal opening) Feb. 14, 1969	
(5) Technical Cooperation Program for Fishing Industry in Indonesia	(1) fishery (2) marine products (3) processing and storage of marine products	July 18, 1969 ~ July 17, 1972		4		145,000		
(6) Research Centre for Telecommunication in Iran (Tehran)	(1) micro-waves (2) wireless (3) transmission (4) telegraphy (5) telephone (6) telephone lines (7) regulation of broadcasting waves	Mar. 29, 1971 ~ Mar. 29, 1975		3 (6)	1969	120,000		
I-II Middle East and Africa								
(1) Technical Training Centre for Small-Scale Industries in Kenya (Nakuru)	(1) processing of metals (2) assembly and repair of electric appliances (3) machine sewing (4) wood works (5) processing of hide and leather (6) assembly and repair of machinery (7) welding (8) management consulting	July 30, 1964 ~ July 25, 1968	July 26, 1968 ~ July 25, 1970 July 26, 1970 ~ July 25, 1972	8	1964 1967 1968 1968	54,961 supplementary 1,345 supplementary 84 expanded 20,000	July 1965	

Name of Centre / Item	Contents of Training	Period of Agreement	Period of Extension	Number of Personnel	Purchased and Shipped Equipment: Fiscal Year	Purchased and Shipped Equipment: Amount (¥1,000)	Date of Opening	Remarks
	(9) maintenance of motor vehicles (10) forging				1969 1970 total	supplementary 1,000 supplementary 3,000 80,390		
(2) Technical Training Centre for Textiles in Ghana (Tema)	(1) physics of fabrics, chemical experimentation (2) cotton fabrics, towels (3) dyeing (4) processing of sewed goods	May 23, 1963 ~ May 22, 1967	May 23, 1967 ~ May 23, 1970 May 23, 1970 ~ May 22, 1972	7	1963 1966 1968 1970 1970 total	51,863 expanded 1,539 supplementary 406 supplementary 1,372 supplementary 5,500 60,080	Feb. 27, 1967	
(3) Vocational Training Centre in Uganda	(1) processing of machinery (2) welding (3) plating (4) finishing by machinery (5) electric finishing (electric wiring) (6) motor vehicle repairing	June 28, 1968 ~ June 27, 1972		10	1967 1968 1969 1970 total	3,200 diverted 15,050 136,750 additional 5,861 160,861	July 1971 (scheduled)	
I-III Central and South America (1) Technical Training Centre for Telecommunication in Mexico	(1) micro-wave (2) automatic switchboard for telegraphy (3) wireless communication (4) transmission (5) drafting telephone networks	July 25, 1967 ~ July 24, 1971		7	1967 1968 1969 1969 1970 total	80,000 supplementary 320 supplementary 1,210 diverted 2,500 expanded 10,000 94,030	Dec. 5, 1967	
II Centres not operated under agreement (Those by CP, etc.)								
II-I Asia								
(1) Research Centre for Telecommunication in Pakistan (Haripur)	(1) micro-waves (2) telephone switchboard (3) transmission (4) wireless	Nov. 16, 1963 ~ Nov. 15, 1967	Nov. 16, 1967 ~ June 30, 1969	4	1962 1967 1968 total	58,700 expanded 35,000 supplementary 697 93,697	July 1964	CP until Oct. 4, 1971
(2) King Mongkut Institute of Technology (former Training Centre for Telecommunications in Thailand)	(1) wireless (2) transmission (3) telegraphic communications (4) telephone (5) telephone lines (6) television broadcasting (7) radio broadcasting (8) micro-waves	Aug. 24, 1960 ~ Aug. 23, 1963	Aug. 24, 1963 ~ Aug. 23, 1965	8	— 1967 1969	104,736 accompanied equipment 2,826 supplementary small-scale project 30,000 accompanied	Jan. 1961	CP until June 23, 1972

Name of Centre \ Item	Contents of Training	Period of Agreement	Period of Extension	Number of Personnel	Purchased and Shipped Equipment: Fiscal Year	Purchased and Shipped Equipment: Amount (¥1,000)	Date of Opening	Remarks
						equipment		
					1969	2,500		
					total	140,062		
(3) Technical Training Centre for Road Construction in Thailand (Songkhla)	laterigta technical training in paving and construction (engineering machinery)	Nov. 26, 1964 ~ Apr. 15, 1968		2	1963 ~ 1966	201,681	Apr. 1965	CP until Aug. 26, 1972
					1967	expanded 90,000		
					total	291,681		
II-II Middle East and Africa								
(1) Technical Training Centre for Small-Scale Industries in Iran	agricultural machinery	Sept. 12, 1960 ~ Sept. 11, 1965		1	—	64,899	Oct. 1962	Agreement valid till May 22, 1972
					1969	special supplementary 20,000		
					total	84,899		
II-III Central and South America								
(1) Technical Training Centre for Fibre Industry in Brazil	(1) mixing and carding (2) glossing and course spinning (3) fine spinning and twisted yearn (4) preparation of cotton fabrics (5) cotton fabrics (6) examination and quality control (7) dyeing	Mar. 28, 1962 ~ July 23, 1968	July 24, 1968 ~ July 23, 1970	3	1960	80,000	July 1965	Latin American Plan until Dec. 23, 1971
					1965	diverted 2,545		
					1968	expanded 80,000		
					1969	supplementary 290		
					1970	supplementary 5,000		
					total	167,835		
III Agreements not yet concluded								
(1) Technical Training Centre for Road Construction in Thailand (Surat Thani)	About 80km of road construction between Surat Thani and Sichong and training of road construction engineers	5 years		(10)				
(2) Technical Training Centre for Fishing Industry in East Pakistan	To train official propagators for the retraining of coastal fishermen, through which development of marine food in the Bengal Bay may be realized (1) operation of small scale motor powered fishing boats (2) maintenance and handling of ocean going engines (3) modern fishing implements and techniques (4) handling of catch etc. (scheduled)							
(Small scale project for fiscal 1970) Cooperation program for the Expansion of the National Technical School of Industry in El Salvador	(1) machinery (2) maintenance of motor vehicles (3) electricity (4) electronics							