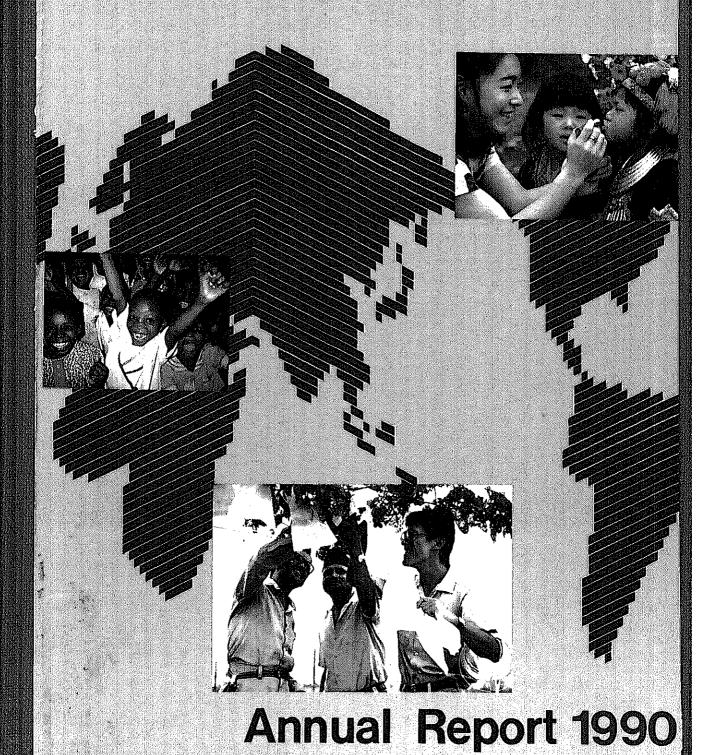
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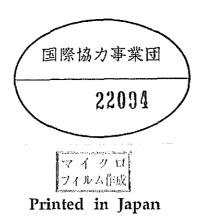
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Japan International Cooperation Agency

Annual Report 1990



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FOREWORD

The Japan International Cooperation Agency (JICA), since its establishment in 1974, has implemented government-based assistance to developing countries mainly in the field of technical cooperation and grant aid cooperation. Through this period, Japan's Official Development Assistance (ODA) has increased dramatically, and JICA activities have also expanded.

Some of the developing nations, such as the Asian NIEs, have achieved remarkable economic growth, but most developing economies labor under accumulating debts and slack exports, as well as many other problems; this is why further efforts by donor countries are called for. Although Japanese ODA in 1989 was the world's largest, Japan's role and the responsibilities it should assume henceforth are likely to grow continually. Under these circumstances, JICA feels an ever greater responsibility for its part in Japan's ODA activities.

JICA, in order to implement more effective assistance, has sectoral/country guidelines for development assistance; it aims to carry out assistance tailored to meet the needs of each individual developing country from a long-term perspective. And in order to expand its cooperative base, it intends to make every effort to coordinate its activities with those of domestic and foreign aid organizations and to tie up with local governments' international cooperation programs.

Today, it is becoming ever more important to address global environmental concerns, as well as problems such as poverty, on a worldwide scale. The loss of tropical rain forests, population growth, and food shortages are among the major problems confronting many developing nations in the process of achieving sustainable development. JICA intends to contribute actively to the solution of these global problems.

We compile this annual report on our performance in fiscal 1990, with full consideration to these recent trends of development cooperation. We hope this

report will help to deepen the public understanding towards JICA activities and Japan's international cooperation

October 1990

Kensuke Yanagiya

Kensuke Ganagiya

President

Japan International Cooperation Agency

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Part I International Cooperation and the Japan International Cooperation Agency

Chapter 1 Japan's Official Development Assistance

Section 1. Outline of Official Development Assistance

Economic cooperation in order to alleviate such problems as the starvation that threatens basic conditions for people's existence in the developing nations is carried out from a humanitarian standpoint, as well as from an awareness that the developing nations' economic and social growth and stability are indispensable to the whole world's peace and prosperity.

Economic cooperation is not limited to action by governments of the advanced nations but also takes place among developing nations; international organizations, private enterprises, and many volunteer organizations are involved in activities in a variety of forms and with various characteristics.

Official development assistance (ODA) refers to a part of this economic cooperation, namely the capital grant assistance and technical cooperation provided by governments to developing nations.

In its 1969 recommendation on financial terms and conditions for assistance, the Development Assistance Committee, an organ of the Organization for Economic Cooperation and Development, defines economic cooperation as "the flow of capital to developing nations." It further categorizes economic cooperation into three types: ODA, other official flows (OOF), and private flows (PF); of these, ODA is defined as meeting the following conditions:

- (1) It is provided by governments or their executive agencies to developing nations or international organizations;
- (2) It is intended primarily to contribute to the economic development or welfare of developing nations;

(3) Financial aid as a part of ODA should include a grant element of at least 25 percent. ("Grant element" is an index of the financial terms of capital assistance, and as the terms (interest rate, repayment period, grace period) are relaxed, the figure of the grant element rises, reaching 100 percent in the case of an outright grant.

Total ODA given by the 18 DAC member countries in 1989 was \$46.5 billion; this was 91 percent of the world's total ODA; the rest was contributed by COMECON and Arab countries.

In 1989, Japan's total ODA, ¥1,235.8 billion or \$8,958 million, was the world's largest, surpassing the United States, whose ODA was \$7,664 million. On a yen basis, Japan's ODA increased by 5.6 percent from the previous fiscal year's level, though on a dollar basis it decreased by 1.9 percent because the yen was weak on exchange markets. It was 0.32 percent of GNP, ranking twelfth among DAC members (compared to thirteenth the year before), and its share of total DAC members' ODA increased from 19.0 percent to 19.3 percent.

Section 2. The Breakdown of Japan's ODA and Main Recent Policies

1. How ODA is organized

ODA is divided according to type into three categories:

- (1) Bilateral grants;
- (2) Bilateral loans;
- (3) Financial subscriptions and contributions to international organizations.

Bilateral grants are divided into grant aid (funds provided to developing nations without imposing an obligation of repayment) and technical cooperation (technology transfers).

Under grant aid, funds are provided to build schools, hospitals, laboratories, and other facilities, to provide educational and training materials and medical equipment and supplies, and to relieve debts. Grant aid is divided into six categories: i) general grant aid, ii) grant aid for fisheries, iii) grant aid for disaster-relief, iv) grant aid for cultural activities, v) food aid, and vi) grant aid for increased food production.

Of these, the Japan International Cooperation Agency is involved in i) general grant aid, ii) grant aid for fisheries, and vi) grant aid for increased food production; it is in charge of drawing up basic design and specifications needed to procure materials and supplies as well as to build facilities (called basic design survey work) and of implementing surveys and providing services (including liaison service) needed to build facilities and smoothly carry out the procurement of materials and supplies (called implementation promotion work). About 70 percent of the grant aid projects require basic design survey work and implementation promotion work.

Technical cooperation is intended to transfer technologies, skills, and knowledge that will help developing nations' economies and societies to develop

and to contribute to improving the level of their technology. The specific basis of technical cooperation is the inviting of technical personnel from the developing countries to Japan for training and the dispatch of experts from Japan to the developing countries to cooperate with them in human resource development and in the planning and preparation of development programs; necessary equipment is also provided to support the above activities. JICA carries out about 70 percent of all Japan's bilateral cooperation in the area of technical cooperation.

Bilateral loans, commonly referred to as "international yen loans" or "yen credits," are funds needed for development by developing nations and lent to them for long periods at low interest. Bilateral loans are made mainly for development and improvement projects in the area of economic and social infrastructure--for roads, dams, telecommunications facilities, and agricultural development, etc.--but if necessary, they are also used to relieve debts and finance commodity purchases to improve the recipient nations' balances of international payments. The bilateral loan budget is under the jurisdiction of the Ministry of Finance, and bilateral loans are granted by the Overseas Economic Cooperation Fund (OECF) through consultation among the Ministries of Foreign Affairs, Finance, and International Trade and Industry, and the Economic Planning Agency.

Financial subscriptions and contributions to international organizations (multilateral aid) is indirect aid channeled through international organizations. Contributions to the United Nations Development Programme, the United Nations Fund for Population Activities, the Asian Productivity Organization, and other U.N. organizations are administered by the Ministry of Foreign Affairs, and subscriptions to the World Bank, the IDA, the Asian Development Bank, and other international development financing organizations are administered by the Ministry of Finance.

2. Main Recent Policies

Japan's total ODA in 1989 was ¥1,235,800 million (\$8,958 million), more than the U.S. total, \$7,664 million; in 1989 Japan became the DAC's biggest ODA donor. Japan became an aid donor by joining the Colombo Plan in 1954.

From 1953 to 1966, Japan borrowed \$860 million in development funds from the World Bank to build the Bullet Train and the Kurobe Dam, etc. It was a net borrower, on the one hand, and gave aid on the other. In 1990, the year after Japan became the world's largest aid donor, it fully paid off its debts, terminating its thirty-year history of being an aid recipient while being a donor at the same time.

The rate of increase in Japan's ODA in 1989 compared to the previous year was a steady 5.6 percent (a 1.9 percent decrease on a dollar basis, however, due to the weakness of the yen on currency markets). In the "Fourth Medium-Term ODA Target," announced in June 1988, Japan signified its intention to increase ODA, namely by committing itself to the provision of at least \$50 billion in the five-year period between 1988 and 1992, and progress toward that goal was made continuously in 1989. Japan's ODA in both 1988 and 1989 was 0.32 percent of its GNP; this figure ranks twelfth among the DAC countries (it was thirteenth in 1988); Japan contributed 19.3 percent of the DAC total in 1989, compared to 19.0 percent in 1988.

The grant aid was increased and debt relief measures were strengthened to aid the least developed countries, as mentioned in the "Fourth Medium-Term ODA Target," by providing untied non-project grant aid in equipment and materials urgently needed by African countries to promote structural adjustment. In the first non-project grant aid program, some \$500 million was given between 1987 and 1989, and this aid was highly appreciated; since then, at the July 1989 Paris Summit, Japan announced the second non-project grant aid program, in which \$600 million in aid will be given over a three-year period beginning in fiscal 1990.

Likewise, the untying of loans, cited in the medium-term target, was vigorously followed up by increasing the rate of untied loans from 61.6 percent in 1987 to 77.4 percent in 1988; the untied rate of Japan's aid was 72.1 percent of total aid, higher than the other DAC countries, whose average untied rate was 54.8 percent in 1987. With regard to a JICA development survey, under certain

conditions, the path is open to the employment of non-Japanese consultants, a further step toward the untying of aid.

In order to improve the quality of aid, Japan has taken steps to implement aid in accordance with sectoral/country aid guidelines, to enlarge the dialogue with recipients, and to improve evaluation measures to use aid experience in future aid programs. Aid study panels are set up and aid strategies are studied within JICA to formulate the said country and sectoral aid guidelines. Dialogue with recipient nations is enlarged and promoted by sending missions and survey teams to hold annual consultations and to formulate projects. Evaluation activities include ordinary project evaluations as well as country evaluations from an overall viewpoint, joint studies according to objective and international evaluation criteria in cooperation with recipient countries, and evaluations by experts from other countries.

In 1989 the world paid attention on an unprecedented scale to global environmental problems. Japan took an active stance at the Paris Summit of July 1989 and promised at least ¥300 billion within a three-year period in aid for environmental problems. Poverty, the role of women in development, population, health care, and other tasks requiring urgent action, in addition to the environment, have been energetically discussed and efforts toward specific solutions have been made in a concerted manner. In the future, it will also be important to address such issues as drugs, education, disaster prevention and relief, and private sector support.

The year 1989 was also the year of change in Eastern Europe. Japan has for the first time begun to receive trainees from Hungary and Poland; this expansion of the program has been given from the viewpoint that Japan's cooperation with Eastern Europe is linked to more stable East-West relations in the context of major political upheaval.

In Japan, with increasing internationalization of local communities and diversification of aid requests, the technical know-how and institutions of local governments are being called for in a growing number of cases; JICA is seeking

further tie-ups based on the findings of a committee set up to study local government bodies and international cooperation.

Aid to non-governmental organizations (NGOs) is another important task that must be assumed in order both to strengthen the foundation of national participation in economic cooperation and to respond to the diversified requirements of developing countries. A ¥110 million program was established for the first time in fiscal 1989 to subsidize NGO projects. Furthermore, in order to support grassroots-level development projects on a smaller scale, a program of small-scale grant aid was established in the same fiscal year, enabling fund contributions outside of governmental aid organizations; in fiscal 1989, about 50 percent of this fund went toward NGOs in Japan and the developing countries.

Chapter 2 Main Activities in Fiscal 1989

Section 1. Formulation of Country Aid Implementation Guidelines

JICA implements its cooperation program in such forms as acceptance of trainees, dispatch of experts, development surveys, etc., in such sectors as social development, health and medical care, agriculture, mining, and industry. This calls for efforts by JICA to facilitate its work implementation through inter-program adjustments and tie-ups as well as country program assessments.

With recent changes in developing countries' circumstances, both economic and social, both domestic and foreign, development needs are diversifying and being upgraded to extend from social infrastructure improvement and the meeting of basic human needs (development of rural communities and agriculture and provision of drinking water, health care, family planning, and other areas directly benefiting the people of a nation and necessary to establish a minimum standard of living), as done in the past, to encompass growing requests for cooperation in export promotion, high technology, and related areas.

In order to tailor responses to the individual circumstances of less developed nations, the establishment of rational and consistent aid implementation systems according to what we call the cooperation project cycle--identification of feasible cooperation projects; formulation of optimum projects; planned, effective, and efficient implementation; monitoring while the project is underway; evaluation at the final stage; and feedback of the evaluation findings to other projects--is a growing necessity.

Because national circumstances and levels of development vary, it is essential to accurately determine the real development needs of recipients and to determine the priority of regions, sectors, and issues of cooperation as well as to formulate guidelines for deciding what types of cooperation and plans are best suited for the implementation of specific projects.

Since 1986, JICA has set up country aid study groups for the main recipients of Japanese ODA to conduct basic studies and analyses of approaches to aid. Since 1988, sectoral study groups have also been set up and are studying approaches to sector aid.

In fiscal 1989, country aid studies focused on four countries--Pakistan, Indonesia, Bangladesh, and Brazil--and sectoral studies addressed two themes: alleviation of poverty and women in development. With the aim of reflecting the findings of these studies in the formulation and implementation of projects, JICA's overseas offices have played a central role in studying the specific development needs of developing countries and, by selecting projects with potential for implementation, both strengthening JICA's implementation system of country programs and indicating directions for the formulation of country assistance implementation guidelines.

Section 2. Cooperation for the Environment

Because deforestation and desertification have worsened since the 1980s, the environmental problems of the developing countries have been brought to the world's attention; given the serious economic situation of the developing nations, both efforts by the developing countries themselves and strong support from the advanced nations are needed. The Paris Summit of July 1989 was dubbed "the environment summit"; it issued a declaration calling for stronger support for the developing world in order to preserve our planet's environment for future generations and achieve sustainable growth by the developing nations, and at the summit, Japan announced environment-related aid of some ¥300 billion over a three-year period. Japan's support for the developing world in the area of environmental protection became an important concern in September 1989, when the first global environment protection symposium under Japanese sponsorship was held in Tokyo.

JICA for a long time has carried out cooperation in various forms in environmental areas such as forest conservation, urban antipollution measures, soil conservation, and improvement of sewage and water systems. In the developing countries, because they have weak natural and social infrastructures, paying attention to environmental considerations from the initial stages of the implementation of development projects is especially important. For this reason, on recommendation from an aid study group on the environment that was established in June 1988, JICA studied organizational reforms and specific methods to incorporate environmental considerations into cooperation projects. JICA set up, in August 1989, an environment office in the planning department and designated staff in charge of environmental issues in each department. The role of the environment office will be to coordinate the effective implementation of environmental considerations through contacts with personnel in charge of environmental issues, to gather information, and to provide international coordination in order to continue to expand JICA's environment-related projects. Aid organizations are formulating guidelines, etc., to effectively implement environmental considerations; JICA is pursuing to formulate guidelines for each

project area; in February 1990, guidelines were completed relative to dam construction projects. Study of guidelines will continue in such other key sectors as transportation, agricultural development, and industrial plants.

In general, environment-related projects have low priority in developing countries and rarely lead to a request of Japan for assistance; it is therefore necessary to actively approach recipients in order that they may request such projects of Japan. In 1989, project formulation survey teams were sent to Brazil in May, to Mexico in June, and to South East Asia in November. These surveys confirmed that a considerable number of environmental programs exist in developing countries, and these countries are very willing to accept Japanese assistance. It is therefore apparent that further efforts are needed to identify and formulate meaningful projects.

In October 1989, an environmental symposium was held and attended by representatives from seven developing nations in Kita-Kyushu City to share Japan's urban pollution reduction experiences and technology and to make JICA's cooperative projects more effective through tie-ups with local government agencies.

Thanks to these efforts, JICA's environment-related cooperation activity amounted to \times10 billion, including 27 project-type technical cooperation efforts, 57 development surveys, 24 training courses, the sending of 152 experts, the sending of 59 JOCV volunteers. The Environmental Study and Training Center in Thailand, on which subject a Record of Discussions was signed on April 1, 1990, will build a facility with grant aid and cooperate over the next five years in project-type technical cooperation; it is expected to foster human resources in the area of the environment in developing countries.

Section 3. Approaches to the Poverty Issue

According to World Bank statistics, over one billion people in the whole world are forced to live in absolute poverty. The causes of poverty and its forms present a variety of aspects in different regions of the world. The elimination of poverty is a major task which donor countries and aid organizations have been tackling for a long time. Although the focus of aid has shifted gradually toward basic human needs from the mid-1970s on, after two decades of placing priority on economic growth in aid during the 1950s and 1960s, there is still no sign that the number of poverty stricken people is declining. The DAC and other aid organizations are groping now for "alternative development path" methods that enlist the participation of local residents, leading them toward self-reliance. Japan is fully aware of the importance of the problem of poverty. In the June 1989 House of Councillors resolution on international development, conquering poverty was affirmed as one of the basic principles of Japan's international development cooperation. It is hoped that Japan will take further effective steps to eliminate poverty.

In September 1989, JICA established an aid study group on poverty and began efforts to improve and expand anti-poverty aid programs in the framework of Japan's ODA and to formulate new aid methods and strategies. This study group identified constraints preventing Japanese aid from working directly on poor populations and made recommendations deserving attention in implementing effective measures against poverty.

Prompted by the formulation in 1977 of Japan's first medium-term target for boosting its ODA, Japan has sought to expand and strengthen aid. Aid for basic human needs accounted for 25.9 percent of total ODA in 1988; it rose as high as 63.2 percent regarding grant aid and technical cooperation alone. These forms of aid do benefit the poorest segments of society in developing countries, both directly and indirectly, but as things now stand, surveys and studies into the formulation, implementation, and management of anti-poverty projects are inadequate, optimum anti-poverty aid methods have yet to be established, and the

organizations and personnel needed to act directly on the poor are inadequate. The study group is drafting recommendations regarding: i) common awareness of anti-poverty measures, ii) the development and strengthening of the system for implementing aid, iii) the improvement of systems and the increase of budgets, iv) new methods for planning and implementing aid tailored to local needs, v) participation by related local community people and concern for sustainable growth, and vi) the setting up of schemes to study and assess anti-poverty measures.

The study group's recommendations are to be drawn up and published sometime during the first half of fiscal 1990; it is hoped that its findings will improve aid implementation and the budget system.

Section 4. Women in Development

Women in developing countries play important roles in their societies' economic development. Their contribution spans a vast range from family food production, water and fuel fetching, and performance of other domestic chores that promote their families' health and nutrition, to working and earning money to purchase household necessities and community activities in the local society. But often their contribution to society is given scant attention by government organizations and planners involved in economic development programs, and as a result, women have limited opportunities to participate actively in development and women are neglected as development beneficiaries.

On the occasion of the United Nations Decade for Women (from 1976 to 1985), people in developing and developed nations and international organizations became jointly aware of the importance of promoting women's participation in and benefits from development through correct understanding of their role in development. At the World Women's Conference held in Nairobi, Kenya, in 1985, the "Forward-Looking Strategies for the Advancement of Women," targeted for the year 2000, was adopted to further advance and promote the decade's achievements. In Japan, the Headquarters to Promote Women's Programs, headed by the Prime Minister, cited international cooperation as an important item to be promoted in the Domestic Program Plan drafted in 1977. "The DAC Guiding Principles for Supporting Women's Role in Development," a document calling on member nations for stronger aid efforts concordant with these principles, was adopted by the DAC in 1983.

JICA has long worked in agreement with these aims through training courses mainly for women (public administration of women's affairs, farm household development, specialized nursing management, etc.), project-type technical cooperation (nursing education, maternal and child health, etc.), and basic design for grant aid (construction of nursing schools, water supply facilities, etc.).

However, technical cooperation and financial aid programs have not yet formulated comprehensive guidelines regarding how to incorporate the viewpoint of women in development into aid planning, implementation, and evaluation. For this reason, JICA set up an aid study group on women in development in February 1990 to study basic approaches in Japan's ODA to contribute to wider participation by women in development and the incorporation of women's viewpoints in each sector and task addressed by ODA.

The study group's purpose is to provide an overview of the present situation of women in developing countries and the problems they face in each priority area --including health, education, employment, agriculture, and the environment--and to analyze, according to guidelines, actual cases of activities carried out by the governments of developing countries themselves, by international organizations, by other advanced donor nations, and by non-governmental organizations regarding solutions to their problems, the future of development aid, and development based on a women's viewpoint. Based on this analysis, it will draft recommendations in the report for priority tasks and organizational improvements needed in order to support women in developing countries through Japanese ODA. As a part of the study group's activities, exchange of information and viewpoints with the United Nations Women's Development Fund (UNIFEM) and other international organizations, as well as seminars intended mainly for JICA staff, are being held to increase understanding of women in development.

Section 5. Local Internationalization and International Cooperation

With ODA projects expanding every year, requests from developing countries for cooperation have come to cover a more diverse and wider range of sectors than in the past, from infrastructure to support services. In order to respond to these requests, JICA, which has hitherto implemented technical cooperation programs mainly through central governments, needs to expand its cooperation program by actively involving local governments. Local governments have an especially rich stock of knowledge about technology to support local industries (programs for smaller businesses) and to solve urban problems (antipollution measures, environmental protection, transportation planning, urban planning, sewer and water system construction and improvement, etc.), and it is hoped that local government agencies will take part in technical cooperation in these areas. Some local governments have taken the initiative to extend their international cooperation programs through exchanges of international amity with sister cities and are actively interested in participating in JICA activities.

During the 1989 fiscal year, through ties with local governments, JICA organized 20 training courses which were carried out by local governments and involved 158 trainees. In the same year JICA sent 129 experts from local governments and 72 JOCV volunteers overseas. Youth Invitation Programmes have been carried out since 1984 through tie-ups with local governments; in fiscal 1989, JICA received 1,031 youth.

Participation in international cooperation projects by local governments is growing more frequent every year, but approaches vary from one local government body to another. Hence, it is necessary for JICA to support local governments' participation in international cooperation from the viewpoint of each local government's degree of experience and other circumstances. Since fiscal 1986, the Institute for International Cooperation has trained local government officials; in fiscal 1988, JICA held two seminars on international cooperation and

local governments that were attended by major city and prefectural government representatives.

These seminars addressed the problem of overcoming local communities' insufficiency of personnel and information when they carry out international cooperation and sought to identify the justification and ideals of local governments' need for involvement in international cooperation. Based on this discussion, a study group on local governments and the future of international cooperation was set up in January 1990; it is composed of eminent people and representatives of local governments, the Ministry of Foreign Affairs, and JICA. The group's mandate is to study and write a report on how local governments should take the initiative in international cooperation and in tie-ups between local governments and JICA in order to implement such cooperation. The report is to cover the following topics: i) ODA: the reality and the challenge, ii) assessing international cooperation in the context of foreign local governments' programs, iii) why local governments should be involved in international cooperation, iv) directions and prospects for local governments' international cooperation, and v) examples of international cooperation in local governments.

Section 6. Cooperation with Eastern Europe

During his trip to Europe in January 1990, Prime Minister Toshiki Kaifu announced that, because Japan viewed technology transfers through direct interpersonal exchanges as important, Japan would give a total of \$25 million in technical cooperation to Poland and Hungary over the next several years through the receiving of trainees and the dispatch of experts in environmental protection and business management.

To facilitate technical cooperation with these two countries, therefore, JICA sent project formulation survey teams to Poland and Hungary at the end of January 1990; they met with government and administrative officials and discussed the extent of JICA's future cooperation.

It was subsequently decided that two training programs consisting of seminars on business management and production control would be held in fiscal 1989; on March 21, 1990, 50 trainees from Hungary and on March 25, 50 trainees from Poland were received for seminars in Japan. In the 1990 fiscal year, the Eastern European training program was quantitatively increased and the scope of coverage was enlarged to invite 90 people from each country and include four subjects--business administration, production control, agriculture, and environmental protection--as well as to invite ten people from each country to attend existing group and individual courses, therefore accepting a total of 200 people.

In connection with the dispatch of experts, Hungary has requested that Japan send experts to present seminars on quality control, and is considering requests to have experts sent in finance and market training; Poland is studying a request for the sending of experts to hold business administration seminars and to agencies for human resource development. Both Hungary and Poland have also shown a strong interest in the receiving JOCV volunteers, and both will probably submit requests before the end of the 1990. Development studies are scheduled to be carried out in fiscal 1990 in response to requests from Poland in the area of factory modernization and environmental protection. Beginning on March 17, a team was

sent to both countries to identify development study requests in the area of mining and industry.

In mid-April, a development survey team was sent to Poland to find and formulate development studies in social and economic infrastructure. Project formulation specialists with three-month mandates were sent to both countries to conduct surveys that will ensure more effective technical cooperation and identify more accurately actual development requirements of these countries.

Other planned aid to Poland and Hungary, in addition to technical cooperation, includes \$150 million in commodity loans from the Overseas Economic Cooperation Fund, \$500 million in loans from the Export-Import Bank of Japan, \$350 million to underwrite trade insurance, and emergency food aid worth \$25 million (including 90,000 tons of wheat).

Chapter 3 Types of JICA Activities

Section 1. Aid Efficiency Promotion

In answer to growing international appeals, it is extremely important for JICA actively to look for and formulate good projects, based on developing country realities and JICA's implementation structures, in order to contribute to yet greater technical cooperation and effective and efficient implementation. It is also vital to carry out project evaluations when cooperation nears completion and comprehensive evaluations of the effects of JICA activities on the recipients' economic and social development and to feedback these findings to future activities. This has also been proposed by the Interim Administrative Improvement Promotion Council and the Overseas Economic Cooperation Council; the budget for project formulation and evaluation has therefore been systematically reorganized and increased, and in fiscal 1988 a new budget line was established to promote aid efficiency.

Aid efficiency promotion covers four categories: i) planned project implementation surveys, ii) individual and inter-sector project evaluations, iii) basic research to improve project efficiency, and iv) project promotion costs.

1. Surveys Related to Planned Project Implementation

1.1 Project Formulation Surveys

The project formulation survey process involves the dispatch of expert survey teams who engage in the study of official requests for technical cooperation from the governments of developing countries to decide whether they conform fully to the real development needs of that country, to decide what type, or combination of types, of JICA cooperation is best suited to the request and most

likely to be effective, and to discuss and coordinate the findings with the recipient governments, and cooperate in the formulation of appropriate projects.

1.2 Project Identification Surveys

Based on the results of the project formulation survey, survey teams are sent to study the orientation of future cooperation regarding individual development requests and to select and define implementation projects through discussions with the government that made the request.

1.3 Country and Sector Studies

In the case of main aid recipient countries and specific aid sectors, country/sectoral aid studies are conducted by a wide range of outside knowledgeable experts through analysis and discussion and local field surveys with the purpose of implementing country/sectoral aid effectively and efficiently.

1.4 Project Formulation Specialists

In the case main recipient countries make large numbers of project requests in any given sector of aid, more detailed, long-term local studies of individual projects are necessary from a specialists' standpoint for certain priority development areas, while taking into account the results of country and sector studies. From the standpoint also of harmony with overall development planning and tie-ins with other projects, project formulation specialists are sent to plan and facilitate project formulation.

2. Aid Evaluation

An evaluation study committee was set up in July 1981 with the objective of studying requirements for evaluation of project implementation effectiveness, thus contributing to smooth and effective project implementation. The committee established a working group that is studying evaluation methods under its authority.

The types of evaluation carried out by JICA fall into the following categories:

2.1 Individual Project Evaluation Surveys

At the completion of individual projects or after elapse of the period of prolongation of cooperation, an expert survey team is sent to measure the effect and the degree to which the objectives of cooperation have been met, to study the orientation of future cooperation related to the project under study, and to advise and instruct regarding the formulation of similar future projects.

2.2 Other Types of Evaluation Surveys

(1) Country Evaluation Surveys

Cooperation projects that have passed a given period of time after completion are selected by country and the cross-sector effect and problems encountered in the implementation of cooperation with that country are evaluated.

(2) Third-party Evaluation Surveys

Outsiders or third parties with long experience in the study or implementation of international cooperation (former technical cooperation experts or scholars) perform evaluation surveys from specialized, objective viewpoints.

(3) Joint Evaluation Surveys

Together with recipient countries' development planning or executing organizations, or with local researchers, etc., completed projects are jointly selected and comprehensively evaluated.

(4) Special Area Evaluation Surveys

Special themes – such as specific forms of activities carried out by JICA or programs in specific sectors – are selected and evaluated, and problems and needed improvements are summarized.

(5) Overseas Office Staff Evaluations

JICA overseas offices well acquainted with local situations perform evaluation surveys making ample use of the research organizations of the recipient country.

3. Basic Research for Project Efficiency Improvement

In an effort to ensure greater efficiency, basic research is conducted on issues common to various JICA activities.

4. Project Implementation Promotion

When the insufficiency of project-related infrastructure might seriously impede smooth execution of a project currently being implemented, support is given for infrastructure improvement by the building of additional facilities, including water, electricity, and air conditioning, as well as laboratories and workshops.

During fiscal 1989, the following research and surveys were carried out:

1. Surveys Related to Planned Project Implementation

1.1 Project Formulation Surveys

Forty survey teams were sent to thirty developing nations or regions to formulate projects, in the following geographical areas:

Asia 20 (50 %) Middle East 1 (2%)

Africa	11	(28 %)
Latin America	5	(13 %)
Oceania	1	(2%)
Europe	2	(5%)

1.2 Project Identification Surveys

Twenty-one survey teams were sent to twenty-nine developing nations or regions to discuss and identify orientations of cooperation in development requests in the following geographical areas:

Asia	9	(43 %)
Middle East	4	(19 %)
Africa	3	(14 %)
Latin America	2	(10 %)
Oceania	1	(4%)
Europe	2	(10%)

1.3 Country and Sector Studies

Committees were set up to make country aid studies on Pakistan, Indonesia, Bangladesh, and Brazil and a aid study on the African region. The areas covered in the sector aid study were poverty alleviation and the role of women in development, both worldwide issues; the panels made basic studies of approaches to these problems in development and presented the findings in reports.

1.4 Sending of Project Formulation Specialists

Project formulation specialists were sent to Indonesia, Bangladesh, Thailand, Poland, Hungary, and six other countries to formulate projects from their expertise.

2. Aid Evaluations

2.1 Individual Project Evaluation Surveys

A total of 51 evaluation surveys were performed, principally at the completion of individual projects. Broken down according to type, these included six training programs, two projects involving the sending of experts, 11 social development cooperation projects, 13 health and medical cooperation projects, 10 agriculture, forestry, and fisheries cooperation projects, 2 industrial development cooperation projects, and 7 grant aid projects.

2.2 Other Types of Evaluation Surveys

(1) Country Evaluation Surveys

Three missions were sent to four countries: Bangladesh, Papua New Guinea, Fiji, and Tanzania.

(2) Third-party Evaluation Surveys

Two survey teams were sent to three countries, Egypt, Turkey, and Paraguay.

(3) Joint Evaluation Surveys

A joint evaluation was made in the Philippines by JICA and local authorities.

(4) Special Sector Evaluation Surveys

Three evaluations of special sectors were made: studies of water resources in Peru and Guatemala, of aid for increased food production in Bolivia and Haiti, and of medical care in Kenya and Zambia.

(5) Overseas Office Staff Evaluations

Overseas office staff with thorough knowledge of the country where they were stationed made an evaluation of projects in Malaysia and others.

3. Basic Research for Project Efficiency Improvement

Four studies were made: i) on systems affecting JICA technical cooperation activities, ii) on evaluation methods II, iii) on ex post facto field surveys, and iv) on legal considerations affecting the sending of experts abroad.

4. Project Implementation Promotion

Twelve projects were supported for infrastructure improvement. The areas covered break down as follows:

Water, electricity, and air conditioning facilities	ϵ
Construction of laboratories and workshops	5
Reservoir improvement, etc.	1

Section 2. Technical Cooperation

The objective of technical cooperation is to contribute to the improvement of developing countries' technology, including public and business administration. Because these technologies are basically possessed and transmitted by individuals, technical cooperation takes two forms: training of technicians and engineers invited to Japan from developing countries at Japanese research institutions, etc. (the training program [covered in subsection 1] and the youth invitation program [covered in subsection 2]) or the sending of Japanese experts to developing countries where they transfer technology to local technicians and engineers at that country's research institutions, etc. (the expert dispatch program [covered in subsection 3]). Necessary equipment is also supplied to make more effective instruction or use of the transmitted technology (provision of equipment for technical cooperation [covered in subsection 4]).

Technical cooperation also involves project-type technical cooperation and development surveys. Project-type technical cooperation [covered in subsection 5] is based at research institutions, etc., in developing countries and implements planned and relatively long-term cooperation in conjunction with the above-mentioned sending of experts abroad, training of technicians and engineers in Japan, and provision of equipment. Development studies [covered in subsection 6] first carry out studies needed in order to formulate developing countries' development plans then formulate draft plans, thereby transferring the technology needed to make surveys and formulate plans as the surveys and plans are made.

Subsection 1. Technical Training Programs

Training is given in Japan to technicians and engineers, government officials, and other people from developing countries with the aim of transferring specialized knowledge and skills to them in their respective areas; after the participants in the training program return to their country, they are expected to play active roles in their country's economic and social development. Because

participants live in Japan for a time, these programs also play a major role in promoting international goodwill by fostering better mutual understanding with developing countries through participants' direct contacts with Japanese society and culture.

Japan began receiving participants when it became a member of the Colombo Plan in 1954; in 1989, 5,340 participants (not including those still in Japan from previous years) came to Japan; as of the end of March 1990, a cumulative total of 77,259 participants (excluding participants in third-country training and the youth invitation program) had come to Japan. participants come from 161 countries, and both participants from long ago and such recent participants as the Eastern European countries count very strongly on this training.

The training subjects taught to participants are varied; in addition to agriculture, medicine, and other areas in which Japan has received many participants in the past, recently, training in services and related skills has been increasingly sought in the areas of electronics and computers, remote sensing and other high-technology fields, as well as business administration, production control, quality control, and environmental protection. It has become urgent to improve JICA organization to respond to these diversified requests, and as part of this response and in response to requests to establish new courses arising through internationalization of local communities, JICA is seeking to expand training in locations outside of Tokyo in association with local governments.

Training takes place at JICA's Tsukuba International Agricultural Training Center, the Kanagawa International Fisheries Training Center, and the Okinawa International Center, as well as at national and local government and private research and training institutions and at colleges and universities; the courses range in length from about ten days to one year.

Participants can be accepted either in groups or individually; third-country training takes place outside of Japan.

1. Group Training

Group training covers very important subjects that affect many developing countries equally. The curriculum and study period are set ahead of time and registration data are sent to interested countries, which recruit participants; usually, groups of about ten people take part.

In fiscal 1989, 289 courses were held on such topics as crime prevention, local government administration, agricultural cooperatives, and the prevention and cure of tuberculosis.

2. Individual Training

Individual training involves the preparation of individual programs to meet the specific requirements of a specific country, that are not or cannot be covered by group training programs; these courses fall into the following categories:

2.1 Ordinary Individual Training

These answer individual requests from developing countries; a quota is allotted to each country so that no country has unfairly large access to this kind of program.

2.2 Special Courses

These courses are organized for groups; they are held either once or limited to a period of several years, or are held especially for certain countries or areas.

2.3 Cost Sharing

Whereas JICA pays all training costs in most cases, under the cost sharing arrangement, developing countries pay round-trip overseas and domestic travel and accommodation expenses, and JICA pays the actual training costs.

2.4 Counterpart Training

In the framework of JICA's dispatch of experts and project-type technical cooperation, JICA also invites the Japanese experts' local counterparts, namely the technicians and engineers to whom technology has been transferred in a developing country, to Japan for a limited period for training to enhance the synergistic effects of the technology transferred to them in their home country.

2.5 International Organizations

JICA trains individuals for international organizations, either assuming only the cost of training, but not travel or accommodation expenses, at the request of the World Health Organization, the United Nations Industrial Development Organization, or other international institution, or paying the full cost at the request of the United Nations Relief and Works Agency (UNRWA), or other organizations.

2.6 Special Programs

These are organized for certain countries under special circumstances or in response to strong policy requests; usually a relatively large number of participants is accepted at once from a single country. In most cases, the travel, accommodations, and training costs are shared by JICA and the recipient country.

(1) Malaysian "Look East" Policy

In concert with the "Look East" Policy promoted by the Malaysian government, Malaysians are being trained in industrial technology and business administration methods by participating private companies in Japan.

(2) Japan-Mexico Exchange Program

In the framework of cultural exchange proposed by former Mexican president Echeverria Alvarez, one hundred people a year are invited for ten

months each to the partner country, and JICA receives the Mexican participants in Japan.

(3) Korean Engineer Training Program

In response to a request made while former Japanese prime minister Nakasone visited South Korea in 1983, Korean smaller business engineers are being trained in Japanese companies.

(4) Korean Farm and Fishery Produce Distribution Program

Since former Korean president Chun Doo-Hwan's visit to Japan in 1984, agricultural and fishery produce distribution specialists have been trained at special seminars.

(5) Pakistan's Human Resources Development Program

In answer to requests made when former Japanese prime minister Nakasone and former Pakistani president Zia-Ul Haq met in 1983 and 1984, JICA gives industrial training to Pakistanis.

(6) Brunei's Human Resources Development Program

Inspired by Malaysia's "Look East" Policy, Brunei's development minister Raman requested in 1984 that Japan train his country's young engineers; training in transportation and machinery began in fiscal 1985; costs are shared by Brunei and Japan.

2.7 Eastern Europe Assistance Program

In answer to requests from Poland and Hungary, which are shifting from a planned to a market economy, 50 people from each country were trained in business administration and production control as part of Japan's efforts to support Eastern European economic reconstruction.

2.8 Private-Sector Skilled Worker Counterpart Program

Participants are invited to Japan from Indonesia, Sri Lanka, and Pakistan in a program begun in 1988 to train the local counterparts of the Japanese private-sector skilled workers sent to these countries as cooperation experts.

3. Third-country Training

Unlike other training programs described above, which are carried out in Japan, third-country training enrolls participants from the host country and neighboring countries for training at local research and educational institutions. There are two types: group training and local counterpart training. Third-country training began because of its advantages: not only does it enable participants to study in climates and social and cultural environments similar to their own, but it also enables them to acquire technologies that are relatively easy to put to use in their own countries and contributes to the promotion of technical cooperation by and between developing countries. JICA supports this third-country training by sending instructors from Japan and paying training costs.

It is hoped that organizations where training is held will implement training independently in the future, thus contributing to mutual cooperation and amity with neighboring countries. In fiscal 1989, 925 people from 89 countries took part in 47 group training courses in 18 host countries, and 23 people from 13 countries took part in local counterpart training courses held in 10 host countries.

4. Related Activities

In relation to the training programs described above, the following activities are also carried out:

4.1 Establishment and Operation of Training Centers

In order to prepare a training environment and carry out training in a planned fashion, JICA has established international training centers in eleven locations in Japan, including Tokyo, Osaka, and Nagoya, and provides participants

with lodgings and the type of food to which they are accustomed; in addition, it has facilities at the Tsukuba International Agricultural Training Center, the Kanagawa International Fisheries Training Center, and the Okinawa International Center (the latter is equipped with computers and audiovisual equipment), where the needed facilities and equipment for technical training are available and technical training can be carried out independently. At the Kyushu International Center established in 1989 as the training base in the Kyushu region, training courses that exploit that region's strengths, such as one on Industrial Pollution Control Practice, are offered.

4.2 Japanese Language Training

General Japanese language courses are held for all participants to facilitate their daily lives while they are in Japan and to increase their understanding of Japan; some receive intensive Japanese instruction because their technical studies require it. JICA develops its own original teaching materials for intensive courses because participants must acquire both colloquial expressions and technical terms needed for their studies in a short time.

4.3 Orientation

During the first three days after training program participants (mainly in group programs) arrive in Japan and before technical training begins, JICA conducts orientations to acquaint participants with the curriculum and give them needed information about living in Japan.

4.4 Welfare and Recreation

Japan is a different environment from what participants are used to at home; for participants to accomplish their training goals, they must be in good health, comfortable, and relaxed. For this purpose, the international training centers at which participants are lodged hold bus trips, theater and cinema excursions, sports events, welcoming parties, and other recreational programs and foster exchange and friendship between participants and local community residents through

home-stays and special events sponsored by international exchange organizations. Each international training center has a staff nurse, and doctors are on call for consultations, checkups, and emergency treatment or, if necessary, referral to an appropriate outside medical facility. Participants are comprehensively insured against injury, illness, and death, with full coverage of costs of medical treatment.

4.5 Follow-up Service for Ex-participants

To support participants technically and to promote friendship after they return to their country, the following activities are carried out:

(1) Technical Follow-up Service

In fiscal 1989, 38 teams of experts were sent abroad to acquaint ex-participants with new technology and to give technical advice adapted to local conditions.

(2) Fostering Alumni Association

As of 1989, alumni associations have been formed by ex-participants in 45 countries. JICA provides subsidies to support the formation of these associations and their activities and holds seminars in Japan for their representatives.

(3) Equipment Supply

In order to enable the ex-participants to fully utilize their technical capabilities gained in Japan, JICA supplies the necessary equipment to organizations with which the ex-participants are affiliated in their home country.

(4) Supply of Technical Literature

For two years after a participant's return to his or her country, JICA continues to send English-language periodicals and technical publications with the latest technical information to the participant and the organization to which the ex-participant belongs.

(5) Publication of Kenshu-in

In order to maintain close contact between ex-participants and JICA and among ex-participants, JICA publishes *Kenshu-in*, a magazine that contains JICA topics and information on trends in Japanese culture and society, the latest developments in science and technology, alumni association activities, and letters from ex-participants. *Kenshu-in* is published and distributed biannually.

Subsection 2. Youth Invitation Program

The youth invitation program was first proposed during former Prime Minister Nakasone's ASEAN trip in 1983 under the name of the Friendship Program for the 21st Century, and it was inaugurated in fiscal 1984. Its original coverage has gradually expanded, from the six ASEAN countries to 23 countries, including Oceania, Myanmar, China, and Korea, as of fiscal 1989. In fiscal 1988, the original five-year plan affecting ASEAN was completed, and from 1989 the second phase began, with a new five-year plan.

The program invites young people from developing countries, who will have a role in the future building of their nations, to Japan; through exchange with Japanese young people, mutual understanding is increased and a strong basis for friendship and trust between Japan and the countries of Asia and the Pacific is built to last into the 21st century.

The young people who visit Japan under this program are aged from 18 to 35 and have leadership positions in rural communities, business enterprises, youth groups, and sports, cultural, and social service organizations; some are public officials, journalists, teachers, and students.

The invitation procedure involves the formation of country groups in different areas, as well as component groups where the participants are active in the same field but come from different countries; in the case of ASEAN countries, an additional procedure is followed whereby, beginning in 1989, certain groups are organized according to a specific theme. The invitations are for a one-month period, sometime between May and December, and for a few days

before departure, participants take part in a briefing program in their home country. Their schedule during their stay in Japan consists mostly of lectures in Japanese society and the Japanese economy during the first week, visits to related facilities in Tokyo and stay-over group seminars during the second week, visits to related facilities outside of Tokyo, exchange with Japanese youth, and weekend stays in Japanese homes in local areas during the third week, and finally, sightseeing around Japan during the last week before they return home.

During the initial year, fiscal 1984, 748 people were invited from six ASEAN countries; since then, the number of countries represented and people invited has grown to 1,031 people from 21 countries in fiscal 1989.

Associations of former participants have been established in the ASEAN countries. After fiscal 1987, reunions of alumni associations were held by representatives of the ASEAN countries and in fiscal 1989 a conference was held in Manila to discuss improving and giving wider support to the program.

With the objective of further strengthening the bonds of friendship and trust forged during these stays in Japan, some of the young Japanese and staff members involved in the youth invitation program were sent in fiscal 1989 to the six ASEAN countries to foster exchange with former participants.

Subsection 3. Expert Dispatch Program

Technical cooperation experts are sent abroad either in connection with project-type technical cooperation or development cooperation, or in response to a particular request from a developing country or international organization. The latter type of assignment is usually called individual expert dispatching or individual dispatching. Here, we describe only the latter type.

These individual experts are normally seconded to developing country governments' administrative, research, or educational institutions, where they instruct government officials, technicians, engineers, and other counterparts by giving advice on policy making, guidance regarding training and education, consulting services, and instruction on the operation and preventive maintenance

of equipment and machinery; they are sometimes also sent to supervise the smooth execution of loan aid (yen loans) or grant aid projects. Experts sent to international organizations are usually active at the headquarters and in projects of these organizations.

Experts are generally appointed on the basis of recommendations from qualified persons in Japanese ministries and other national and local government organizations and agencies, universities, and businesses; and an increasing number of people who register as volunteers with JICA are also being sent.

Some expert missions are as short as two weeks, but many are about two years long; in some cases, the recipient government insists that the expert's stay last longer than ten years. Some experts are sent alone, others in groups.

The remuneration given to experts is not much different from that of other international organizations and agencies of advanced countries, and in some cases better. The local governments and private businesses from which experts are sent can benefit from a program that compensates companies for wages paid to experts after being dispatched.

Under the original fiscal 1955 Colombo Plan, 28 experts were sent to five countries in Southeast Asia; since then, as of fiscal 1989, a total of 13,562 experts have been sent to many locations, including some to advanced industrialized countries. In fiscal 1989, 1,784 people were sent abroad, including those with continuing assignments. The areas in which they offered guidance included agriculture, mining, transportation, telecommunications, atomic energy, electrical engineering, and other technical areas, as well as Japanese gardening and Japanese language instruction.

1. Dispatch of Individual Experts

Individual experts are normally sent under either a bilateral or a multilateral program.

1.1 Bilateral Programs

In this case, JICA normally assumes the full cost. Bilateral programs also send experts under the following sorts of special programs.

(1) Joint Study Projects

Under this arrangement, researchers from Japan and from developing countries do joint research on a topic contributing to the social and economic development of the recipient country; begun in fiscal 1977, research in fiscal 1989 was conducted by 37 experts (28 new, 9 from previous years) on ten topics in seven countries, including a basic survey of rural development in Bangladesh, basic urban housing in China, and aseismatic architectural design in Chile.

(2) Revitalization Cooperation

With the purpose of technical guidance in the area of maintenance and control and to revitalize facilities and equipment fallen into disuse due to lack of technical capability or funds, 23 experts including continuing experts were sent in fiscal 1989, including railroad experts to Indonesia and Bolivia and bus experts to the Philippines.

(3) Dispatch of Mini-project Teams

A form of intermediate technical cooperation representing a combination of project-type technical cooperation and the dispatch of individual experts began in fiscal 1989. Fifteen mini-projects were carried out in the first year in ten countries, including Egypt, Kenya, and Colombia.

(4) Dispatch of Private-sector Skilled Workers

People from the private sector with technical skills in shipbuilding, steelmaking, and machinery are sent to developing countries to give technical guidance to governmental organizations and national enterprises; this joint project with the Employment Promotion Corporation was begun in fiscal 1987 with the

object of developing the professional skills of technicians and engineers in response to the internationalization of Japanese companies. In fiscal 1989, 50 people, including those with assignments continuing from the previous year, were sent to eight countries, including Indonesia and Pakistan.

1.2 Multilateral Programs

Upon request, JICA sends experts to such international organizations as the United Nations Development Programme (UNDP), the United Nations Economic and Social Commission for Asia and the Pacific (ESCAP), and the Southeast Asian Fisheries Development Center (SEAFDEC). As of fiscal 1989, 86 experts have been sent by JICA to 29 international organizations.

2. Sending of Survey Teams

The following sorts of surveys are carried out to facilitate the effective performance of assignments by the above-described individual experts.

2.1 Preliminary Surveys

During fiscal 1989, prior to the assignment of experts JICA sent 17 teams to investigate the background on requests for cooperation, recipients' technology transfer programs, the type of guidance desired, local circumstances, and other information.

2.2 Implementation Surveys

Regarding research cooperation, records of discussions are written up and exchanged after formulation of master plans for cooperation through discussion with recipient countries' implementing organizations. In fiscal 1989, five teams were sent for this purpose.

2.3 Fact Finding and Guidance

Twenty-three teams were sent in fiscal 1989 to investigate and advise experts regarding problems they had encountered in the course of their duties or daily life in their country of assignment.

Subsection 4. Provision of Equipment for Technical Cooperation

Equipment is provided either in connection with project-type technical cooperation, disaster-related aid, and other projects, or unrelated to those categories in connection with training programs or the dispatch of experts or JOCV volunteers; in the latter case, this corresponds to the provision of equipment for technical cooperation or what we usually call independent equipment provision. Independent equipment provision is the providing, upon request from a developing country, of equipment needed by participants after they return to their country to use the technology they acquired in Japan, or needed in order for experts or JOCV volunteers to instruct their counterparts in developing countries, or needed for local counterparts to use the technology they have acquired.

This provision of equipment began in fiscal 1964; the cumulative total worth of equipment supplied as of fiscal 1989 was ¥19 billion. In fiscal 1989, equipment worth ¥1.47 billion was supplied to 40 countries receiving 62 shipments, including deliveries covered in the budget for the previous fiscal year.

Equipment provision projects are divided into the following categories:

1. Ordinary Independent Equipment Supply

This is the normal supply of equipment; in fiscal 1989, 47 equipment shipments worth ¥1.14 billion (including carry-overs from the previous budget) were made to 35 countries.

2. Small Independent Equipment Supply

This category covers the supply of equipment worth not more than ¥10 million per shipment. In fiscal 1989, ¥99 million worth of equipment (including carry-overs from the previous budget) was sent in 15 shipments to 12 countries.

3. Supply of Reference Books, etc.

This covers the supply of reference materials, etc. In fiscal 1989, ¥10 million was sent in ten shipments to ten countries.

4. Supply of Audiovisual Information

This includes the production or purchase of videotape recordings presenting technical information. In fiscal 1989, 36 shipments of audiovisual information worth ¥41 million were made to 34 countries.

5. Supply of Parts for Repairs

This covers the supply of parts needed to repair equipment supplied in the framework of ordinary projects. In fiscal 1989, 37 shipments worth ¥29 million were made to 29 countries.

Miscellaneous

6.1 Sending of Experts to Supervise Equipment Installation

This covers the sending of experts to supervise the installation of and to instruct users in the use of equipment supplied by JICA; in fiscal 1989, 25 people were sent on 20 missions.

6.2 Sending of Repair Specialists

Often it is impossible for users in developing countries to repair their own advanced equipment due to the lack of manufacturers' agents, technicians, and

parts supplies. For this reason, JICA sends experts to repair important equipment. In fiscal 1989, five people were sent to three countries.

6.3 Implementation Plan Surveys

In fiscal 1989, five teams were sent to nine countries to ascertain the intended use, detailed specifications, accessories, and supplies of consumables for equipment requested by developing countries.

Subsection 5. Project-type Technical Cooperation

Project-type technical cooperation is a type of program whereby three forms of cooperation are combined into one: training of overseas participants, dispatch of experts, and provision of equipment.

In most cases, the developing country is expected to provide the buildings and land (farmland, etc.) where technical cooperation can take place and to pay the operating costs; JICA ties together the above-mentioned three facets of cooperation and may in some cases pay some of the operating costs. Recently, in a growing number of cases, Japan also provides, through grant aid, the facilities and equipment, including buildings, needed to implement technical cooperation.

This project-type technical cooperation, because it continues over a relatively long period, enables research and development of technology suited to local conditions and enables technology transfers to be made in a planned manner and by methods suited to local conditions. And because of the great number of local counterpart administrators, technicians, and engineers involved, the technology transfer is broader and deeper and more efficient and effective. Depending on the project, facilities for training and education of the ordinary population also often contributes in a major way to increasing the general public's access to the technology.

In project-type technical cooperation as described above, the attribution of roles must be clearly defined between JICA and the recipient and a cooperation plan must be drafted; therefore before cooperation begins, discussions are held

between a R/D mission dispatched by JICA and the people in charge on the recipient side, and a record of discussions (R/D) stipulating agreement on cooperation is drawn up and exchanged.

Depending on the size of the project, anywhere from a handful to over a dozen experts may be sent abroad in connection with these projects. A team has a leader under whose leadership experts engage in technology transfer; if necessary, an expert known as a coordinator is assigned to assist the leader in administrative negotiations with the recipient as well as in other project activities. In the case of some projects, JOCV volunteers, whose role is discussed below, also participate.

Another characteristic of project-type technical cooperation is the organization of ample burden bearing of operating costs by the Japanese side. Normally, the recipient is expected to pay the operating costs, but in general, developing countries often find it hard to find the necessary financing. JICA budget allocations are able to cover the costs of preparing land for cultivation, research expenses, and spending necessary to hold lectures, for example.

Cooperation of this sort normally lasts five years, but the cooperation period may be extended if evaluation at completion of the initial period warrants its continuation.

Because project-type technical cooperation is relatively long-lasting and large-scale, it is necessary for both sides to coordinate and adjust the project's contents and methods prior to commencement of cooperation or even during the project. JICA sends survey teams of the following sorts in accordance with the stage of progress in cooperation.

- (1) Basic survey: collection of basic data needed for cooperation.
- (2) Preliminary survey: investigation of the general situation and the background to the request and general discussion of cooperation with the recipient government.
- (3) Implementation discussions: drafting and exchange of a Record of Discussions providing the framework for future cooperation.

- (4) Implementation design: design, execution, and supervision of work.
- (5) Plan coordination: discussion of project administration.
- (6) Itinerant technical advisory survey: outside advice and guidance to the experts in charge of the project.
- (7) Equipment management: guidance regarding operation and maintenance of equipment provided by JICA and repair of broken equipment.
- (8) Evaluation: evaluation of the effects of cooperation at the end of the cooperation period and, if necessary, discussion with the recipient government about its continuation.
- (9) Ex post facto survey: study of how well the project continues to function after completion of cooperation.
- (10) Post-completion service: discussions based on the findings of the ex-post-facto survey to determine the nature of cooperation if supplementary cooperation is to be carried out after completion of the initial project.

In terms of JICA's organization and budget, the implementation of project-type technical cooperation is divided among five items:

- (1) Social development cooperation: education, vocational training, science and technology, telecommunications, construction, and transportation.
- (2) Health and medical cooperation: health and sanitation, medicine, and nursing.
- (3) Population and family planning cooperation: population and family planning, and maternal health care.
- (4) Agriculture, forestry, and fisheries cooperation: agriculture, forestry, animal husbandry, and fisheries.
- (5) Industrial development cooperation: mining, industry, small and medium-scale businesses, distribution, and trade.

Project-type technical cooperation implemented in fiscal 1989 involved 174 projects, including those completed within the fiscal year. Of these, 53 involved social development, 30 involved health and medicine, 9 involved population and family planning, 63 were in agriculture, forestry, and fisheries, and 19 were in industrial development. By region, 105 were carried out in Asia, 16 in the Middle East, 14 in Africa, 36 in Latin America, two in Oceania, and one in Europe.

Subsection 6. Development Studies

Development studies are carried out by study teams who are sent mainly to formulate draft plans for public development planning, which plays an important role in the economic and social development of developing countries, to draw topographical maps and charts as basic materials for development, and to identify the presence of minerals, fisheries, and other natural resources; the teams then submit reports of their findings, plans, maps, etc., to the country that submitted the request.

At the same time, local counterpart technicians and engineers are instructed and given guidance regarding study methods, survey equipment use, and other technology through these study activities; technology transfer is therefore one of the objects of development studies.

Development studies are organized in response to requests from developing countries. JICA first sends a preliminary study team to the country that studies conditions in the region where the program is to be implemented, collecting all the necessary data, discussing with the appropriate authorities of the recipient government the scope of cooperation, the study schedule, and the assignment of duties involved in cooperation between both parties, and exchanging a memorandum called the "Scope of Work" detailing the agreements reached after discussions with the other party. Some preliminary study teams have the additional objective of finding good projects.

Next, based on the Scope of Work, a full-scale study team is sent. This study team, if necessary, will carry out measurements, borings, soil analyses,

aerial photography, observations, market studies, or price studies, and collect data needed to formulate draft plans or draw topographical maps or charts. Using these data, it will draw maps and charts and a report presenting the plan, the estimated costs, and its evaluation of the draft plan from an economic, financial, social, and environmental standpoint.

This type of full-scale study is usually carried out by a consulting firm under contract to JICA. These studies are often both detailed and broad in scope and take a relatively long time to carry out, some as long as three or four years. For this reason, JICA sets up an advisory committee to examine whether the consultant's study work and results comply with the objectives and guide the firm. It asks university researchers and officials from related ministries and agencies to serve on the advisory committee.

Once the findings of the study are available, a report explanatory study team is sent to explain it in detail and to confirm the adequacy of the findings; if corrections or additions are needed, they are made, and the final report is submitted to the recipient government.

After submission of the report, the recipient country's government must decide whether to implement the proposed development plan. If it decides to implement it, but that country's finances cannot cover the costs, funds are procured by submitting requests to the World Bank, the Asian Development Bank, or other international financial institutions, to other governments, and to private financial institutions for loans and grant aid. Development studies are divided into the following types according to the object studied.

1. Master Plan Studies

Master plans are development plans for a given geographical area; they include three types: i) comprehensive development planning, covering land use, industrial siting, transportation and communications systems, and public services; ii) comprehensive development planning for a defined sector such as rural development, covering irrigation and drainage, improvement of road networks in

farming areas, electric power, and processing facilities for agricultural produce; and iii) long-term development planning for a specific project.

2. Feasibility Studies

Feasibility studies are used in planning, including planning of estimated costs and economic impacts, of the construction and improvement of such public services and social infrastructure as roads, airports, power stations, irrigation, factories, hospitals, water and sewage systems, afforestation and flood control projects, and environmental pollution control, as well as disaster prevention and environmental preservation measures.

3. Topographical Studies

Topographical studies are used to draft the basic drawings used in national land and urban planning that provide basic data for the formulation of diverse development plans.

4. Ground-water Development Studies

These surveys prospect for ground water and investigate the feasibility of its exploitation for irrigation and to supply drinking water and water for industry.

5. Detailed Design Studies

Detailed design studies are used to develop data and draft drawings, specifications, and other detailed design documents needed to begin project construction work.

6. Resource Development Basic Studies

These are carried out to prospect for mineral resources and study the possibility of their exploitation.

7. Forestry and Fishery Resource Studies

These identify forestry and fish resources and study the possibility of their development and use.

8. The Study of Alternatives to the Panama Canal

Under a diplomatic agreement among Japan, the United States, and Panama, this study examines the possibility of building a canal to supplant the Panama Canal.

Section 3. Grant Aid Program

The Grant Aid Program is a form of financial assistance offered to developing countries in accordance with an international agreement without imposing an obligation of repayment.

Grant aid is divided into the following six categories: i) general grant aid, ii) grant aid for fisheries, iii) grant aid for cultural activities, iv) grant aid for disaster relief, v) food aid, and vi) grant aid for increased food production. These funds are provided directly from the budget of the Ministry of Foreign Affairs.

Under this program JICA is involved in three of these categories: i) general grant aid, ii) grant aid for fisheries, and vi) grant aid for increased food production, all of which are closely related to technical cooperation.

General grant aid provides funds for the construction and equipping of such facilities as research laboratories, schools and hospitals, and for the improvement and construction of ports, roads, bridges, etc. Grant aid for fisheries provides funds for the construction and improvement of fishing ports and training vessels and other facilities and equipment related to fisheries. Grant aid for increased food production provides funds for buying fertilizer, agricultural chemicals, and farm machinery.

The general flow of grant aid for a project can be summarized in the following way.

- (1) An official request for a grant aid project is submitted by the government of a developing country to the Japanese embassy located there. After preliminary screening by the embassy, the request is then sent to Japan's Ministry of Foreign Affairs, and the project's appropriateness for grant aid is studied by the Japanese Government.
- (2) JICA conducts a basic design study to clarify the basic concepts and nature of the requested project and proposes the relevant work to be undertaken. The study findings are then compiled as a report and submitted to the requesting government.

- (3) After discussions among the ministries concerned and cabinet approval in Japan, an Exchange of Notes(E/N) is signed by the recipient government and the Japanese Government.
- (4) In accordance with the Exchange of Notes, the government of the recipient country concludes contracts with Japanese nationals (a consulting firm and contractors) relative to the detailed design, supervision of work, construction, and equipment procurement, and the project commences.

JICA conducts the following activities relative to grant aid for a project.

1. Basic Design Study

JICA, when so instructed by the Ministry of Foreign Affairs, conducts the Basic Design Study(B/D) in order to work out an optimum plan for the project. This study examines the project's position in the requesting country's national development plan, and makes sure that attainable objectives as well as expected results are clear and a competent management system is ready to carry out the project effectively. The results of these studies are compiled as a report and submitted to the recipient government. In fiscal 1989, 72 basic design study teams were dispatched.

When grant aid is mainly connected with the procurement of equipment, an Aptness Study of the requested equipment is carried out instead of a basic design study to look into the equipment's technical specifications, etc. Until recently, such studies had been made only in Japan, but in fiscal 1989, JICA began on-the-spot checking. In fiscal 1989, 82 Aptness Studies of equipment were carried out, four of which were accompanied by on-the-spot checking.

2. Expediting of Execution

Expediting of execution is conducted to ensure that the project is carried out smoothly after the Exchange of Notes is signed. In addition to providing liaison, consultation, and good offices when the recipient government signs a contract

with a Japanese national (consulting firm or contractor), JICA examines the contract, studies specifications for facilities and equipment and undertakes contacts with banks needed for the recipient government to make Banking Arrangements(B/A) on funds payments, and studies the provisions of these arrangements. In fiscal 1989, 57 teams were dispatched on 113 projects.

3. Follow-up Cooperation

If follow-up cooperation is necessary for the operation and maintenance of facilities or equipment procured under previous grant aid, JICA sends a survey team and takes measures including the provision of spare parts and the dispatch of engineers for repairs needed to increase the effectiveness of a cooperation project. In fiscal 1989, seven such teams were dispatched in connection with ten grant aid projects and eleven projects received spare parts and repair materials.

Section 4. Japan Overseas Cooperation Volunteers

Japan Overseas Cooperation Volunteers subsidizes and provides strongly motivated young Japanese with opportunities to cooperate in the social and economic development of developing countries through its programs. JOCV volunteers usually stay for two years in a developing country; there, they carry out technology transfers to local technicians and engineers in laboratories, industry, schools, and local communities, offering guidance and training through direct contacts with farmers and students. On their own initiative, some also take part in road repair and maintenance and irrigation and waterway construction projects.

Their activities span a wide range from agriculture, forestry, and fisheries to civil engineering and architecture, manufacturing, maintenance and operations, education and information services, health and welfare, and sports.

JOCV was founded in 1965; in the first year, 40 volunteers were sent to five countries, including Laos, the Phillipines, Cambodia, and Malaysia. Since then, the number of volunteers and countries involved has grown every year. In fiscal 1989, 814 volunteers (plus 40 senior volunteers) were sent on new assignments to 41 countries. New agreements were reached with three countries, Yemen, the Marshall Islands, and the Ivory Coast, making the total of countries with which Japan has exchanged agreements now 51. Ordinarily, JOCV volunteers are young, but a special category of senior volunteers with previous JOCV experience who qualify by passing a special exam are sent on further assignments. JOCV also organizes the sending of U.N. volunteers upon request from the United Nations.

To promote these programs, the secretariat of the JOCV in Hiroo, Shibuya-ku, Tokyo, carries out the following types of work.

1. Recruiting and Selection of Volunteers

The recruiting of JOCV volunteers takes place nationwide twice a year, in spring and fall, with the cooperation of Japanese prefectural and municipal governments and private organizations. During the spring recruiting campaign, public meetings were held in about 200 locations nationwide, attended by 5,566, of whom 2,757 submitted applications; during the fall campaign, public meetings were held in 205 locations and were attended by 7,924, of whom 3,665 submitted applications. The selection process takes place in two stages, first a written exam, then an interview and medical checkup. The written exam consists of an aptitude test, an English language test, and a test of the applicant's specialty.

2. Pre-assignment Training

Successful applicants undergo 77 days of pre-assignment training as volunteer candidates. The curriculum covers North-South problems, understanding of other cultures, health and hygiene to increase one's understanding of one's state of health and to promote better stamina, traffic safety, and other information and technical and linguistic skills necessary to prepare for and adapt to life in a developing country. Language instruction is available in 11 languages, including English, French, Spanish, Swahili, and Nepali.

Training takes place three times a year, at the Hiroo Center in Shibuya, Tokyo, or at the Komagane Center in Nagano Prefecture.

In fiscal 1989, 814 people were sent abroad after undergoing this training.

3. Technical Training

A certain number of applicants who pass the second stage of selection are given supplementary technical training if this is judged to be necessary to be able to answer the request of a developing country, or others are given supplemental technical training if it will permit them to reach the level necessary for qualification.

In fiscal 1989, 210 people underwent supplementary technical training and nine underwent "booster" technical training.

4. Accident Compensation

From the beginning of pre-assignment training to the day they return to Japan after completion of their volunteer assignment, a compensation system is available for volunteers or their beneficiaries through solatia payment of medical treatment or transportation costs in the event of death, illness, injury, or other accident.

Career Counseling for Repatriated Volunteers

Many JOCV volunteers either quit their jobs to join, or joined JOCV immediately after graduating from high school or college; to facilitate re-entry into Japanese society and stabilize their social status after their return, career counselors are on call to discuss.

Within twelve months of their return during fiscal 1989, a total of 369 out of 758 repatriated volunteers either returned to their original jobs (141), or found new jobs (186), or decided to run their own business or continue their schooling (the remainder).

6. Related Activities

In addition to the above activities directly connected with volunteers' overseas assignments, the following activities are carried out to further the program.

6.1 Publicity

Informing the public of JOCV's programs, encouraging more people to apply, and exchanging information with people in related areas are carried out through the following activities.

- (1) Publication of the JOCV monthly, *Crossroads*
- (2) Publication of the JOCV biweekly, JOCV News
- (3) Publication of the JOCV quarterly, *JOCV Quarterly*, for an overseas readership

(4) Production of films

In fiscal 1989, seven films were produced: four films in a JOCV job category series called *From the Field* (civil engineering and construction, health and sanitation, education and culture, and sports) as well as *We Earthlings* intended for the general public.

- (5) Overseas dispatch of report writers and cameramen to take photographs and obtain other information needed to publicize JOCV's activities.
- (6) Provision of information related to developing countries through KIS, Kyoryokutai Information Service.

6.2 Promotion of Programs to Permit JOCV Assignment without Quitting Work

Often, potential applicants decide not to join JOCV because their employer does not guarantee their reinstatement upon their return to Japan, and other potential applicants must quit their jobs to join. JOCV is therefore working actively to persuade companies and local government bodies to enable employees to accept a JOCV assignment without quitting their jobs. Since 1973, a program has also been established to compensate companies for wages paid to volunteers during assignment, and since 1975 another program has been in effect to supplement indirect expenses to alleviate the burden on the volunteers' employers.

As a result of these activities and programs, the number of employers that facilitate JOCV participation is increasing, and in fiscal 1989, 200, or 73 percent, of 274 applicants could take part without quitting their jobs.

6.3 Cooperation with Related Organizations

- (1) A foundation, the Supporting Organization of JOCV was established to support the activities of the JOCV in April 1976; it performs public relations, provides backing for repatriated volunteers who are looking for jobs, exchanges information, and carries out other activities. JOCV cooperates with this foundation in these activities, as well as providing materials and sending speakers to local youth organizations, the Japan High School Association for International Education, and other organizations that hold related events and training sessions.
- (2) A foundation, Japan Overseas Cooperative Association (JOCA) was established in December 1983 to support and promote JOCV alumni activities; its business is putting JOCV volunteers' experience to good use by, for example, enlisting the cooperation of former volunteers to meet JOCV's temporary staffing needs and to participate in various events to recruit and select volunteers.
- (3) Because it is vital to have the cooperation of local government bodies in the promotion of JOCV programs, JOCV periodically holds conferences for the competent authorities and officials of prefectural governments and sends several of these officials overseas each year to create opportunities for them to observe volunteers in action.

Section 5. Development Cooperation

If Japanese companies cannot obtain financing from the Export-Import Bank of Japan or the Overseas Economic Cooperation Fund for development projects in social development, agriculture and forestry, or mining and industry in developing countries, whether due to the risks, low profitability, or technical problems, JICA's development cooperation program provides financing under good conditions, offers technical guidance if needed, and facilitates project implementation.

This work is characterized by its contribution to developing countries' economic and social development through tie-ups between government and the private sector mediated by implementation of projects by Japanese businesses.

There are two types of development cooperation: development project investment and financing and surveys and technical guidance.

1. Development Project Investment and Financing

JICA makes long-term, low-interest loans to Japanese companies that either themselves undertake a development project in a developing country or invest in a local company in a developing country that is undertaking such a project. Projects eligible for this financing are of two main types:

1.1 Related Facilities Improvement Projects

The following types of facilities involved in the preparation of surrounding land and needed for the implementation of a project are regarded as necessary to the company itself, and contributing to the public welfare by improving the lives and welfare of people living in surrounding communities and are eligible for financing.

- (1) Public facilities that contribute to the lives and welfare of the local community: for example, schools, hospitals, public meeting places, churches, temples, public offices, post offices, fire stations.
- (2) Facilities that are needed to carry out a project and also improve public services: for example, roads, port facilities, sewers and water systems, meeting places, vocational training centers, electric power facilities.

In fiscal 1989, no loans were made for either purpose.

1.2 Experimental Projects

These are projects of an experimental nature which seek to develop and improve technology needed to create business opportunities.

Experimental projects include, for example, crop cultivation; animal breeding; afforestation; processing of yet-unused types of wood; mining, dressing, and refinement of limestone, phosphates, rock salt, and other minerals; construction of low cost housing; and the preparation of land for building (except in oil, natural gas, and metallic ore projects).

Financing of experimental projects during fiscal 1989 was approved for seven projects valued at about ¥1.6 billion, including an experimental pasture and livestock development project in Vanuatu and an experimental natural rubber effluent recycling project in Malaysia, and 17 loans totaling ¥2.3 billion were granted.

2. Surveys and Technical Guidance

Surveys and technical guidance involve technical support for implementation of the above-described projects eligible for JICA financing; they take the form of surveys and overseas assignment of experts to give technical guidance, as well as the training of local counterparts needed to implement a project.

2.1 Surveys

In fiscal 1989, JICA sent 29 survey teams overseas to conduct the following types of surveys needed to implement projects.

(1) Basic development surveys: In the place of the companies implementing projects, JICA studies local conditions, gathers data, and investigates the feasibility of a project and formulates basic concepts and implementation plans for the project at no cost. The different types of basic development surveys are shown in the table below.

Survey Name	Principal Survey Issues		
< Related facilities improvement projects > Preliminary survey < Experimental projects > First basic survey Second basic survey	 Gathering basic materials regarding environmental conditions, the economic situation, the investment environment, and the conditions of the related facilities. Investigate a project's likely success as a business Determine the basic conception of projects Select appropriate business sites and related facilities 		
 Related facilities improvement projects > Implementation survey Experimental projects > Development plan survey 	 Gather materials with detailed information Prepare implementation plans Determine the basic design of related facilities 		

- (2) Plan coordination: JICA coordinates plans in collaboration with the recipient government and the local company implementing the project.
- (3) Field demonstration surveys and work supervision: In agriculture and forestry, if JICA thinks that the project will promote regional development, that data is scarce, and that the project will require several years to turn into a business, JICA will send surveyors for relatively long periods and study the project's feasibility as well as send a guidance team at regular intervals to supervise work and ensure proper survey work implementation.

- (4) Regional development impact assessment surveys: JICA undertakes these surveys to determine to what degree a given project is contributing after the elapse of a certain period to the surrounding region's development and growth and how it is stimulating that country's development and growth.
- (5) Investment and financing examination and surveys: The following items are studied. i) Prior to financing, determination of the adequacy of the planning, eligibility for JICA financing, cooperation effects. ii) After lending, determination of how the project is being implemented and study of policy on problems that arise after commencement. iii) In cases where the financing period is very long, study of the above-mentioned items, etc., during the financing period. iv) With the cooperation of the local branch of the Japan Chamber of Commerce and Industry, holding of meetings overseas to explain the investment and financing system and to respond to individual inquiries about financing, as well as to determine demand and scout for and foster prospective loan candidates overseas.

2.2 Technical Guidance

The following types of technical support facilitating project implementation can be offered at the request of a loan recipient. The costs are sometimes assumed by the requester; this support is sometimes also offered in the context of projects other than JICA investment and financing.

- (1) In fiscal 1989, JICA sent 36 (including both new and continuing assignments) technical guidance experts (called "development cooperation experts").
- (2) In fiscal 1989, JICA invited 43 local counterpart technicians and engineers to Japan for training.

Section 6. Emigration

Emigration from Japan began in 1868 (usually considered the first year of Japan's modern era). So far, about 1.03 million Japanese have emigrated, and approximately 1.65 million people of Japanese ancestry are living overseas, including the third generation. These people of Japanese ancestry contribute greatly to the industrial development of the countries that accepted them, and many today occupy leading positions in politics, economics, and so on.

Japan's postwar emigration resumed in 1952 and as of fiscal 1989 JICA has helped 73,000 Japanese emigrate to 16 countries. About 53,600 have moved to Brazil; about 7,100 to Paraguay, 5,100 to Canada, and 2,700 to Argentina. Emigration to Australia began in 1978; and currently 421 Japanese have settled there. With the exception of counseling and information services, JICA does not conduct any direct support services for emigration to the United States, a nation that accepts the largest number of Japanese immigrants, in conformity with the U.S. Government's immigration policies.

To promote understanding and awareness of emigration in Japan, JICA provides information, conducts counseling services and preparatory arrangements, organizes lectures and training, implements support activities covering certain travel expenses and other pertinent arrangements for prospective emigrants, dispatches overseas development youths, organizes training programs for emigrants' descendant generations in Japan, and so forth. In such countries, besides agricultural experiments and research at JICA's agricultural experiment stations and state research stations and guidance in farming management, JICA has improved the social infrastructure through promotional measures in medical care and public health improvement, road construction, and electrification to support emigrants as well as in buying, clearing, and selling land, and making loans to finance projects.

Details are as follows.

1. Publicity

JICA carries out the following activities to promote public awareness of emigration in Japan by publicizing the activities of emigrants and people of Japanese ancestry:

- (1) Publication of the monthly *Kaigai Iju* (Overseas Settlement),
- (2) Advertising in newspapers,
- (3) Organization of meetings, lectures, movies, exhibitions, research, and report sessions to publicize emigration,
- (4) Partial subsidies of the activities of the Japan High School Association for International Education and sponsoring of overseas travels to observe technical cooperation sites by high school teachers,
- (5) Partial subsidies for sending students overseas to experience the nature of emigrants' business by the Japan Student Federation for the Studies of Migration,
- (6) Sending of celebrity intellectuals to Latin America and other countries where Japanese have settled,
- (7) Inviting prominent Japanese emigrants to Japan,
- (8) Partial subsidies for the Convention of Japanese Abroad.

2. Counseling and Preparatory Arrangements

JICA provides information on emigration inquired by the general public and produces many relevant information materials. In fiscal 1989, JICA counseled about 3,000 new inquiries and the following types of materials were produced:

- (1) Publicity materials on Overseas Development Youth
- (2) Living Together, a film about migration settlements in Australia.

3. Training and Lectures for Emigrants

JICA provides lectures and training opportunities for prospective emigrants and Latin American students of Japanese ancestry through the following programs:

- (1) Long-term training
 - One-year training in basic agricultural technologies, languages, and introductory lectures on the countries accepting emigrants.
- (2) Short-term training for prospective emigrants to Latin American countries
 - Ten days of language training and introductory lectures about living conditions in Latin American countries.
- (3) Short-term training for prospective emigrants to advanced industrial countries
 - Fifteen to twenty days of language training and introductory lectures about countries accepting emigrants.
- (4) Information for prospective female emigrants
 - Forty-five days of language training and introductory lectures about life in foreign countries for prospective female emigrants, with the cooperation of the International Women's Training Center in Chigasaki, Kanagawa Prefecture.
- (5) Training for Latin American students of Japanese ancestry
 With the cooperation of the Overseas Japanese Association, JICA
 organizes training twice every fiscal year for Latin American students
 of Japanese ancestry studying in Japan under the principal auspices of
 prefectural governments.

4. Travel Expenses

JICA provides travel expenses and offers accommodation to help emigrants to settle overseas. In fiscal 1989, JICA helped 47 people emigrate to Latin

America, 16 to Canada, and 25 to Australia, and provided the travel expenses of 13 emigrants on of the 47 people for Latin America.

5. Dispatch of Overseas Development Youth

JICA dispatches those Japanese youth with appropriate technical capabilities and strong interest in emigration for a certain time, initially for three years, enabling them to acquire foreign experiences and facilitate their mature decisions on migration to those countries in need of proper vitalization of local communities of Japanese emigrants through the integration of technical and other social involvements of those young people. This scheme was inaugurated in 1985, and JICA has dispatched 28 Overseas Development Youth, eight of which are women, up to 1989, having screened 275 applicants in their capabilities and aptitude.

6. Training of Emigrants and Their Descendants in Japan

JICA accepts emigrants and their descendants for the following sorts of training.

- (1) Technical training for emigrants' descendants

 JICA accepts about 40 emigrants' descendants every fiscal year for technical training from 18 to 24 months.
- (2) Training for local Japanese language teachers

 About 30 teachers who teach Japanese language in overseas schools established by Japanese emigrant groups for teaching Japanese to emigrants and their descendants are accepted for training in Japan every fiscal year for three months or a year.

(3) Local doctor training

JICA has accepted five doctors who have completed university-level medical schools in their countries for two years every fiscal year since 1979 under this program. Formerly, the number of accepted doctors was three. They are required to serve at JICA-designated medical

facilities for one year in their countries after training. In addition, in fiscal 1989, JICA accepted three doctors who had undergone this program for refresh training up to six months in Japan.

(4) Social welfare workers' training

JICA has accepted two officers or staff people of local social welfare associations of Japanese descendants for about one month every fiscal year since 1983.

(5) Skill improvement training program for middle-level officials

JICA has accepted 10 emigrant association officials in middle-level positions for six months every fiscal year since 1984. The objectives of this program are 1) providing opportunities for training in advanced technology and knowledge, and 2) vitalizing future activities of those associations, and fostering their future leadership.

(6) Training for students at Japanese language schools

Every fiscal year since 1987, from 10 to 13 outstanding students at Japanese language schools established by Japanese emigrant groups have been invited to Japan for one-month training to acquaint them with Japanese life and culture through home stay experiences and to contribute to their understanding of Japan and proficiency in their Japanese language abilities.

(7) Training for researchers

This program began in fiscal 1989 to enable prominent researchers of educational and research institutions to receive training in advanced technology and knowledge so as to enhance human resource development with the aim of contributing to the total development of their countries and to establish a human resources linkage between Japan and their countries. In the first year, JICA accepted 12 researchers from Brazil for three months on the average.

7. Counseling and Guidance for Emigrant Farmers

JICA has set up a horticultural experiment station in Argentina, a livestock breeding experiment station in Bolivia, and an agricultural experiment station in Paraguay. By dispatching experts to those stations, JICA supports experimental studies at these stations and provides farm management counseling and agricultural guidance for local farmers irrespective of whether they are Japanese emigrants, their descendants or national farmers. And to support improvements in agricultural technology by emigrants, JICA also dispatches agricultural experts from Japan and from Brazil, offers training in advanced agricultural areas, subsidizes emigrant agricultural research groups, takes special measures to improve farm management, and provides agricultural information via its agricultural information division of the JICA São Paulo Representative Office in Brazil.

8. Living Environment Improvement

The following activities were carried out in fiscal 1989 to support emigrants and improve the environment of their communities:

(1) Medical care and public health improvement

JICA subsidized five clinic facilities in Paraguay and Bolivia. In addition to giving medical care to emigrants by contract with local doctors in Paraguay, Bolivia, and the Dominican Republic, JICA provided scholarships for medical students and nursing students and conducted mobile doctor consultation visits around remote areas settled by Japanese emigrants.

(2) Education

In relation to education, JICA subsidized the construction of schools, teachers' houses, dormitories, etc., provided teaching materials to local schools, subsidized construction of model Japanese schools in Manaus and Belo Horizonte, Brazil, dispatched Japanese language teachers to five countries including Brazil, assigned Silver Japanese

language experts to Paraguay and Mexico, and granted scholarships to students to promote Japanese language education for Japanese emigrants' children.

(3) Improvements of living conditions

JICA subsidized 15 emigrant associations in Brazil and other countries for the construction and furnishing of a civic center, the improvement of sewerage and drainage systems in Japanese colonies, and the construction of home establishments for the aged.

(4) Roads

JICA subsidized three emigrant associations in two countries for road repavement and repair vehicles, machinery, and construction work.

(5) Electricity

JICA provided subsidies for two emigrant associations in Brazil and Paraguay to assist electrification projects.

9. Acquisition, Reclamation, and Allotment of Land for Settlement

JICA acquires land and sells it to Japanese emigrants; in fiscal 1989, JICA sold eight plots in Iguazu and 22 plots, including urbanized land, in Pirapo to Japanese emigrants in Paraguay.

10. Project Fund Loans

JICA conducts fund assistance schemes for emigrants and organizations contributing to the permanent settlement and economic stability of emigrants. In fiscal 1989, it lent approximately ¥1.1 billion in total to organizations and individuals in Paraguay, Argentina, Bolivia, and the Dominican Republic. It also sent two survey teams to Brazil, Argentina, Peru, Bolivia, Paraguay, Mexico, and the Dominican Republic to review these schemes.

11. Surveys on Emigration

Every year, JICA conducts several surveys to gather basic data to attain understanding and awareness of emigration, and support and guidance for emigrants. In fiscal 1989, it performed surveys to study the living standards of emigrants in Bolivia, the state of development of emigrant agriculture, Japanese language instruction in communities of Japanese ancestry in Latin America, revision of the emigration financing programs, population dynamics in the tenth and fifteenth years after emigration of the Japanese who settled in Latin America in fiscal 1975 and 1980, and the status and the environment of emigrants in Canada, which has been the object of much public interest in recent years. In addition, JICA conducts yearly surveys on the economic status of farmers; in 1989 it interviewed about 1,000 families who settled in 37 colonies in five countries of Latin America with respect to their farming income, assets, and debts.

Section 7. Disaster Relief Aid and Cooperation

Disaster relief and related cooperation includes emergency aid activities such as the sending of rescue, medical, and expert teams and the provision of equipment and supplies at the request of an international organization or a foreign country, especially a developing country, struck by a major natural disaster.

Such emergency aid activities began with the sending of medical teams in December 1984 to save Ethiopians who were starving because of drought. Since then, Japan has sent relief to Mexico after the earthquake of September 1985, to Colombia after the volcanic eruption in November of the same year, to Cameroun after the poisonous gas eruption in September 1986, to Ecuador after the earthquake of March 1987, to Bangladesh after the floods of August 1988, to Soviet Armenia after the earthquake of December 1988, to China during the floods of June 1989, and to other regions struck by typhoons, floods, earthquakes, forest-fires, etc. As of fiscal 1989, JICA has responded to a total of 37 natural catastrophes through emergency relief.

During this time, public awareness has grown of the unpreparedness of Japan's aid response to international emergencies. In September 1987, the Law Concerning the Dispatch of the Japan Disaster Relief Team was promulgated and came into effect, and subsequently systems have been reorganized through cooperation among the National Police Agency, National Land Agency, Maritime Safety Agency, Ministry of Construction, Fire Defence Agency, and other government authorities. In addition to sending rescue teams, Japan's international disaster relief program involves the stocking of emergency equipment and supplies. The following areas are covered:

1. Dispatch of the Japan Disaster Relief Team (JDR)

JDR consists of rescue, medical care, and other expert teams; suitable staff combinations are put together to meet the needs of the type of disaster and request from the country where the disaster occurred.

(1) Rescue teams

Rescue teams are sent to save human lives in danger; they must be able to arrive at the scene of a disaster and begin to act within two days, or three days at the most. Because rescue activities require skills, experience, cooperation, and teamwork, teams are composed of National Police Agency, Maritime Safety Agency, and Fire Defence Agency personnel who generally must be constantly ready to leave for a disaster site within 24 hours of its occurrence. No team was sent in fiscal 1989.

(2) Medical teams

Medical teams treat and assist disaster victims, but they also act if necessary to secure drinking water, prevent the spread of disease, and disinfect places of refuge. Teams are composed of volunteer doctors and nurses from national, local, or private health care organizations and other health care professionals who register with JICA in advance. As of fiscal 1989, 113 doctors and 67 nurses are on JICA's list of volunteers. In 1989, medical teams were dispatched twice: to give flood relief in China and to help the Liberian refugees in the Ivory Coast.

(3) Expert teams

The purpose of expert teams is to take emergency measures and restore conditions to normal after a disaster; generally, they work for ten to 15 days after a disaster to restore water supplies, electricity, transportation services, and telecommunications. They are selected according to need from among qualified personnel in Japanese government ministries and agencies.

Though no team was sent during fiscal 1989, teams of experts and researchers in earthquake, volcano, disaster-prevention, and aseismatic structures were sent in previous years to the sites of the above-mentioned Armenian and Mexican earthquakes and to Lake

Nyos in Cameroun where the poisonous gas eruption took place to investigate the causes and study preventive measures.

2. Related Activities

Disaster-related cooperation work, in addition to sending of the above-mentioned teams, includes the following activities:

(1) Procurement and stockpiling of rescue equipment and supplies

Because equipment and supplies needed to rescue and relieve victims
and restore activity to normal must be procured and sent to disaster
sites as speedily as possible, JICA has set up stockpiles in Japan and
overseas of blankets, tents, water purification equipment, generators,
telecommunications equipment, drugs, and medical supplies and
equipment. The domestic stockpile is currently located in Narita
(Chiba Prefecture) and overseas stockpiles are located in Singapore,
Mexico City, and Pisa (Italy).

(2) Training and lectures

JICA holds lectures and gives training based on various scenarios, since rescue activities overseas involve different languages and practices, as well as traffic and communications situations that differ from those in Japan. Training includes emergency treatment and transport of injured people which is basic to rescue work as well as the operation of fiberscopes, sonar, and other special apparatus, the dismantling and reassembly of helicopters, the use of other equipment, and the learning of foreign languages.

Section 8. Recruiting and Training of Qualified Japanese Experts for Technical Cooperation

Technical cooperation is the transfer of Japan's knowledge and technology by Japanese experts to counterpart technicians, engineers, and administrative officials in developing countries. The Japanese experts who transfer this technology must have not only a full command of the knowledge and technologies they transfer but also the ability, including linguistic skills, to transmit this information effectively and efficiently. Plus, they are required to have other skills and abilities: for example, the ability to stay healthy and lead a wholesome life in a country with a different climate, sometimes under a very harsh natural environment or living conditions, and to understand the society and culture of the country where they are living so they can relate well with the people there.

It is still difficult to find enough people in Japan with sufficient abilities and experience in technical cooperation overseas. But given the inevitability of greater technical cooperation by Japan in the future, there is now strong awareness of the need to recruit and train such human resources. When JICA was formed in 1974, one of its priority tasks was therefore to secure these human resources in the long term. During fiscal 1985, the Institute for International Cooperation was established to actively carry out this task.

This work is as follows:

1. Training of Technical Cooperation Experts

The following types of training are carried out to train qualified experts.

1.1 Pre-assignment Training

Experts whose assignment, normally lasting at least one year, has been decided are given the following sorts of training:

(1) Group pre-assignment training

This training last 30 days, and covers the role of technical cooperation experts, information on the country of assignment, personal health care, and a foreign language; eight such training sessions are held each year. The main focus, however, is on the expert's foreign language; English, Chinese, Indonesian, Thai, and other courses are held as necessary; courses amply cover the sentences and expressions experts will need in their technical cooperation work; this necessitates the use of individualized training materials. During the first two weeks of group training, experts' spouses attend parallel courses.

During fiscal 1989, 586 experts and 213 spouses participated in this training.

(2) Individual language training

Experts who require further language training after the group pre-assignment training described above or who for an unavoidable reason were unable to attend can go to private language schools; the cost is subsidized by JICA.

(3) Third-country language training

Experts who will be sent to French- or Spanish-speaking countries are sent to France or to Mexico on the way to the country of assignment for six weeks of training in the language of their assignment.

In fiscal 1989, three people were taught French and one was taught Spanish in this way.

(4) Individual technical training

In fiscal 1989, JICA trained 107 Japanese in a specialized technology or in the operation, maintenance, or management of equipment.

1.2 General Technical Cooperation Training

Leaders and coordinators who will be sent as experts in project-type technical cooperation are given training in project administration and management; such sessions are held eight times a year. In fiscal 1989, 40 leaders and 49 coordinator were given this training.

1.3 Interim Pre-assignment Training

Experts who will be sent in the near future and whose assignment has been tentatively made or is very probable are trained in 75-day courses given three times yearly. In fiscal 1989, 119 experts were given this training.

1.4 Development Expert Course

A special anti-polio course is offered to train experts to fight polio, one of the grave problems menacing developing countries, especially in the tropics. This training is held both in Japan and overseas and was given to four people in 1989.

1.5 Long-term Technical Training in Japan

This technical training is given to repatriated experts who have tentatively been assigned to another overseas assignment; it lasts no more than one year and takes place at a university or research institution in Japan. In fiscal 1989, six experts were given this training.

1.6 Long-term Training Overseas

To create human resources with future leadership potential, about 30 people are selected every year and sent to an overseas university or research institution for a period not exceeding two years.

In fiscal 1989, 26 were sent abroad for this purpose, principally to the United States, Great Britain, and Mexico.

2. Finding and Retaining Experts

Because it is not easy immediately to find and send outstanding experts to swiftly meet developing countries' requests, JICA has designed the following programs to ensure that enough experts are always available.

2.1 Special Technical Advisors

To ensure the availability of outstanding human resources with the advanced specialized technology and knowledge and ample experience required, JICA has people under contract, currently one person each in agriculture, construction, and industry, to advise it on the whole spectrum of technical cooperation.

2.2 Development Specialists

To ensure the availability of outstanding human resources with the required personality and experience in technical cooperation as well as the required technologies, a system was established in 1978 that sends project-type technical cooperation leaders and other experts with important roles overseas..

In fiscal 1989, five more people were added to this pool, making a total of 47 people under contract as of March 1990; more than half are now overseas on assignment.

2.3 Special Assistants

This program puts those repatriated experts, who performed outstandingly in fields where they are very likely to be assigned again, under a contract that normally lasts less than one year; about 30 such people are constantly available throughout the year.

2.4 Registration of Volunteers for Assignments

A list is kept of volunteers who wish to serve as an expert if the occasion arises; people from this list are sent when a pertinent request is received. As of end fiscal 1989, 834 have been registered and 80 have been assigned overseas.

3. Surveys and Research on Technical Cooperation

In order to implement effective cooperation programs in response to diversifying requests from developing countries, it is important to fully understand the circumstances of development in each individual country and area and, on that basis, to study what types of cooperation are generally effective and to promote better cooperation planning based on the study findings. The systematic collection of instructive cases revealed by compilation and analysis of cooperation achievements thus far, the furnishing of this information to experts, and its use as teaching materials in expert training programs are effective ways to improve the quality of cooperation. To conduct these studies and develop these teaching materials, the following activities are carried out:

3.1 Country Aid Studies

Beginning in fiscal 1986, aid study groups were established for individual countries; a wide spectrum of outside researchers and knowledgeable people participate; the respective national situations are analyzed and studies are made of aid programs and the results are written up as reports at the rate of three or four countries each year. In fiscal 1989, studies begun in fiscal 1988 on Indonesia and Bangladesh were concluded and new studies were begun on Pakistan, the African region, and Brazil.

3.2 Sector Aid Studies

Committees similar to the country aid study groups described above are also established to draft aid guidelines for individual sectors; in fiscal 1989, they studied poverty and women in development.

3.3 Miscellaneous

JICA carries out other activities in addition to the above: studies on technology transfer methods, studies on improving implementation methods, development of teaching materials for expert training programs, and organization of international conferences on technology transfers.

4. Preparation and Provision of Information

4.1 The JICA Library

Located at the Institute for International Cooperation, the JICA Library has a collection open to the public of some 77,000 volumes, including ordinary books, JICA reports, and books and documentary materials collected in developing countries.

4.2 Organization and Provision of Information

The following activities are performed to organize survey findings and data and information on developing countries and to make them available to experts and other interested people.

- (1) Kokusai Kyoryoku Kenkyu: International Cooperation Research is published twice yearly in Japanese, once yearly in English.
- (2) Organization of developing country technical information: Technical information related to developing countries is collected and organized by country and by area.
- (3) Provision of technical information to experts: JICA procures literature, manuals, and other technical data related to technology needed in technical guidance by experts and makes them available to cooperation experts.
- (4) Collection of information on countries of assignment: Materials are currently available on 67 countries, giving information that experts will need regarding prices, dress, and so on, in each country. This information is also available to the general public via Japan Airlines' AXESS travel information system.
- (5) Case studies of project-type technical cooperation activities: Six case studies were completed in fiscal 1989.
- (6) Writing technical manuals on equipment: A new program, JICA has written 13 technical manuals for guidance on the use of equipment.

5. Related Activities

5.1 Invitations of Overseas Development Experts

To increase understanding of aid trends in the advanced countries and the status of development policies and projects in developing countries, JICA invites foreign development problem researchers and experts and officials in charge of developing countries' development programs to Japan to give seminars and lectures, primarily to international cooperation staff. In fiscal 1989, JICA invited 18 authorities to Japan from the United States, West Germany, Canada, Sweden, and other countries.

5.2 International Cooperation Staff Training

Whenever appropriate, officials engaged in international cooperation work in local governments and nongovernmental organizations are given training to acquaint them with the theory and realities of international cooperation, conditions in developing countries, and the nature of international cooperation work. In fiscal 1989, 18 officials from 17 prefectural governments and 15 members of NGOs participated in these training sessions.

Section 9. Welfare and Recreational Benefits for Technical Cooperation Experts

A variety of programs have been established for the purpose of providing cooperation experts with welfare and recreational benefits. The main benefits are described below:

(1) Temporary repatriation

Experts on an assignment lasting at least two years (or two years and six months, in some regions) may return to Japan on vacation once every two years.

(2) Personal health care travel

JICA will subsidize the costs of travel to a region with a better climate for health reasons in the case of experts sent for more than one year to extreme climates in the Middle East or Africa or to areas where living conditions are particularly poor, as in Bolivia or Ethiopia.

(3) Personal health care

Beginning in fiscal 1987, consulting physicians and nurses were appointed to give checkups and advice on their health to cooperation experts; itinerant medical advisory teams are sent periodically overseas, principally to promote the health of experts on assignment in regions where medical services and sanitary conditions are poor. During fiscal 1989, five such teams were sent to 19 countries.

(4) Security program

Primarily by JICA's overseas offices, information on public security is provided and exchanged and regular contacts are established; in regions where public security is especially poor, telecommunications equipment is provided to enable emergency messages to be sent, security systems are installed, and the hiring of security guards is subsidized by JICA.

(5) Compensation

All cooperation experts are specially covered under workers' compen-

sation insurance in the event of injury or accident (including illness) in their official capacity; they benefit from an overseas mutual aid program that provides solatia and the cost of medical treatment and convalescence, transportation, etc., in the event of injury or accident outside their official capacity.

(6) Improvement of living conditions

In cases where the experts' basic living conditions are poor and their comfort is severely impaired, supplementary efforts are made to provide facilities and equipment, primarily to supply electricity, water, and sewerage and sanitary facilities.

(7) "Expert"

To improve communication among experts on assignment, repatriated experts, and support associations in Japan, the quarterly magazine Expert is published to present experts' reports on their activities and inform readers of changes in expert-related programs.

Part II
Outline of Programs by Geographical Region
and Major Developing Country

Chapter 1
The Asian Region — Area 1:
Eastern and Southeastern Asia

Outline of the Region

1. Regional Aspects

This region includes China, Korea, Mongolia, the six ASEAN countries (Brunei, Indonesia, Malaysia, the Philippines, Singapore, and Thailand), three Indo-Chinese countries (Cambodia, Laos, and Vietnam), and Myanmar. Japan is also a part of this region and has had a very close relationship on the political, economic, and cultural planes with these countries over many years.

In this region, governments span the political spectrum from free economies, as in Korea and ASEAN, to socialist economic regimes in China, Mongolia, and Vietnam. The continuing presence of destabilizing factors is shown by frequent coups-d'etat in the Philippines, the movement for democracy in China, intra-regional conflicts on the Indonesian peninsula, and the tense dialogue between North and South Korea; progress toward solutions through dialogue and the dramatic changes in East-West relations are signs, however, of a general trend toward increasing stability.

Each country of the region is generally well endowed territorially and possesses considerable natural resources; basically, their economic structure is oriented toward earning foreign currency by selling primary commodities, spending the foreign currency to import capital and intermediate goods, and using these capital and intermediate goods to export manufactured products. The newly industrialized Asian economies – Korea, Taiwan, and Singapore – and ASEAN are making major contributions to regional economic development and political stability by stepping up their efforts to achieve high-level economic growth

through promotion of export-oriented economies. This is the context in which the NIEs, whose growth lagged after 1986, successfully implemented economic retrenchment policies. In ASEAN, as prices of primary commodities recovered, the yen strengthened, and weaker local currencies contributed to strengthening ASEAN's relative international competitiveness, its economies also picked up from their mid-1980s recession and have gradually been recovering. In 1988 especially, every ASEAN country achieved even better economic growth than the previous year, an improvement on a par with that of the Asian NIEs.

The socialist countries with controlled economies, however, all face swelling budget and trade deficits and foreign debts and declining economic efficiency. Myanmar, which has taken an original path toward socialism, faces an especially serious economic crisis due to slack primary commodity prices for rice, etc., and the failure of its domestic economic policies; consequently, it was designated by the General Assembly of the United Nations in December 1987 as one of the least developed countries.

Japan values its close relationship with this region and since 1975 has taken the place of the United States as its largest aid donor. Japan has provided over 50 percent of the bilateral ODA received by this region in recent years.

Japan formerly gave over 70 percent of its bilateral ODA to this region, but as a result of growing aid to other regions, its share has gradually declined to about 50 percent currently. Grants account for more than 30 percent of Japanese ODA; though the composition of aid changes every year, in recent years, in accordance with requests from countries in the region and due to Japan's emphasis on cooperation in nation building efforts, technical cooperation has come to outweigh grant aid.

2. JICA Projects in the Region

JICA's cooperation with this region of the globe is on the largest scale in nearly every respect, including the number of types of aid, volume of spending, and the number of people involved. It is also a very aid-intensive area, since almost every one of the twenty countries receiving the most Japanese ODA is located in this region. It has a greater diversity of cooperation themes and areas than other regions, as well as a pronounced tendency toward increasingly high-level aid. Included among the recipients are countries that are already economically prominent, as well as countries that no longer qualify for grant aid, signs of a dawning age of new forms of cooperation.

2.1 Technical Cooperation

(1) Training Programs

In fiscal 1989, the 3,821 trainees from this region (including both newly arrived and continuing participants as well as youth invitations) accounted for 45.5 percent of all trainees trained in Japan. By country, the most numerous group was from Indonesia (782), followed by Thailand (739), Malaysia (596), the Philippines (588), and Korea (291). These country totals include participants under the Malaysian "Look East" program (123) and the Korean Engineers' Training Plan (74).

Training covers a wide variety of areas, from corporate planning to local government administration, transportation and traffic control, telecommunications and broadcasting, machinery, agriculture, forestry, and fisheries, mining, energy, health care and medicine, and social welfare. In recent years, training in the Japan-ASEAN Science and Technology Cooperation Project has also covered Japan's high technology, including microelectronics, biotechnology, and materials science.

Third-country training programs are also conducted in Indonesia and Thailand on such subjects as assistantic engineering, telecommunications technology, and road traffic engineering.

(2) Youth Invitations

The youth invitation program was established in 1984 for young people from the six ASEAN countries; later, it was expanded to include Myanmar and

Oceania, and since fiscal 1987, it has also included China and Korea. In fiscal 1989, a total of 897 youth from Eastern and Southeastern Asia were invited to Japan: 150 each from Indonesia, Malaysia, the Philippines, Singapore, and Thailand, 48 from Brunei, and 99 from Korea. Circumstances beyond JICA's control led to the postponement of participation by China and Myanmar.

In terms of the participants' backgrounds, each country's group included workers, farmers, students, youth group leaders, teachers, and civil service employees. The proportion of teachers and students was especially high in the groups from Brunei, Indonesia, Korea, and Thailand; the proportion of civil service employees was especially high in the groups from Malaysia and Singapore.

(3) Dispatch of Experts

In fiscal 1989, 1,983 experts, including both new and continuing assignments, were sent to this region, that is, 51.5 percent of all Japanese experts sent abroad. Of these, 1,305 were new assignments to 13 countries: 316 to Indonesia, 314 to Thailand, 249 to China, 130 to the Philippines, and 116 to Malaysia. Their areas of expertise were agriculture in 173 cases, followed by 138 experts in transportation and traffic control, 131 in health care and medicine, 122 in social infrastructure, 120 in human resources, and 94 in industrial technology.

(4) Independent Equipment Provision

In fiscal 1989, independent equipment (i.e., equipment whose supply is unrelated to any specific project) was provided to six countries in this region in 16 shipments worth a total of ¥380 million; this was 28 percent of all equipment provided by JICA and the largest supply of equipment to any region. The equipment supplied ranged widely from electromagnetic surveillance equipment to medical equipment, and supplies for research on protection of the Japanese crested ibis.

(5) Project-type Technical Cooperation

There were 88 project-type technical cooperation projects in total carried out in this geographical area in fiscal 1989; this is more than 50 percent of all JICA project-type technical cooperation projects during the fiscal year. Of these, 23 were carried out in Indonesia, 17 each in Thailand and China, 11 in the Philippines, 9 in Malaysia, 4 in Korea, 3 in Singapore, and 2 each in Brunei and Myanmar.

The broad range of areas covered reflect the region's diverse development needs: in addition to agriculture, health and medical care, fields ranged from high technology research into computers, radiology, and advanced ceramics to the more common areas of labor accident prevention and industrial safety, cooperation with industrialization standards and planning, reforestation, and environmental disaster prevention.

(6) Development Studies

In fiscal 1989, 37 new development studies were begun in the region, bringing to 131 the total number of studies currently in progress. In countries, such as Indonesia, where many such surveys were carried out, areas covered ranged from social infrastructure to broadcasting, agriculture and forestry, human resource development, energy, transportation and traffic control; in the Philippines, development studies tended to focus on agriculture and forestry and social infrastructure. In Malaysia, a study was begun to combat air pollution in the capital.

2.2 Grant aid

In fiscal 1989, JICA expedited the execution of 26 grant aid projects valued at ¥40,040 million in seven countries – principally China, Indonesia, the Philippines, and Thailand. This region, because ASEAN and other newly industrializing economies are located in it, has recently seen growing emphasis on

cooperation in export promotion, in the form of basic design study, in addition to the basic human needs focused on in the past.

2.3 JOCV Volunteers

In fiscal 1989, 112 JOCV volunteers, 13.1 percent of all assignees, were sent on new assignments to five countries. Malaysia received the most (43), followed by 23 to the Philippines, 19 to Thailand, and 15 to China. Their areas of expertise included education and culture; agriculture, forestry, and fisheries; equipment maintenance and operation; health and sanitation; sports; industrial processing; and civil engineering.

2.4 Japan Disaster Relief Team

During fiscal 1989, medical teams and emergency supplies were sent to China after severe floods and to Vietnam after a destructive typhoon.

2.5 Country Aid Studies

The country aid study committee set up for Indonesia in fiscal 1988 sent a long-term survey team to make a field study whose findings were analyzed and studied by the committee and written up in a report during fiscal 1989.