

Part 3
Outline of JICA Activities

Chapter 1

Identification, Formulation and Planning

Identification and formulation

In order to improve the content of JICA's cooperation programs and to enhance the effects of technical cooperation, consistent control and management of programs is essential from the planning stage through to the stages of implementation and assessment. The following points in particular are important at each stage of a project:

(1) Planning: Formulating the goals, scope and content of a project and deciding how it should be implemented;

(2) Implementation: Incorporating the three elements of a project (people, materials, funds) according to plan and inducing the expected results;

(3) Evaluation: Analyzing whether the expected goals have been achieved following implementation and the causes of the results actually achieved, and making use of the information gained thereby when formulating similar projects in the future.

In Part 3 of this report, we shall be examining JICA projects from the three following angles:

(1) Identification, formulation and planning (this chapter);

(2) Project Implementation (Chapter 2);

(3) Evaluation and Follow-up (Chapter 3).

Identification and formulation as the starting point for cooperation

JICA projects are based on the principle that the government of the recipient country should submit a request for aid through diplomatic channels.

However, there are some developing countries that have not reached the stage of being able to determine for themselves the nature of the projects that need to be implemented for their national development. Also, even though a country may be able accurately to grasp its own needs and to formulate specific issues, it may still not be adequately equipped to receive aid from other countries.

JICA adopts the country-specific approach when dealing with such countries. We first analyze the conditions and issues facing a country and take a close look at the direction of its development. On the basis of our findings, we then go about formulating actual cooperation projects. It is this process that we refer to as the identification and formulation of projects.

We place great importance on such activities as the starting point for cooperation in the belief that these activities, together with the evaluation made at the final stage, are indispensable for ensuring the success of a cooperation project. (For details of evaluation, please refer to Chapter 3, Evaluation and Follow-up.)

JICA has allocated funds specifically for enhancing the efficiency of aid projects. These are used to carry out evaluation studies for measuring the effectiveness of cooperation projects to ensure that the identification, formulation and evaluation of projects, related studies and research, and the gathering of information occur in the most appropriate manner. Of the work carried out with

*Terms marked with an asterisk are defined in the "Glossary of Development Aid Terminology and JICA Terminology" at the end of this report.

these funds, we will now take a look at the following three points bearing on the identification and formulation of projects:

- (1) Studies for the identification and formulation of worthwhile projects;
- (2) Research aimed at the efficient and effective implementation of aid programs;
- (3) Collection and ordering of information on developing countries.

Studies for the identification and formulation of worthwhile projects

Project formulation studies

There are occasions where the details of requests from developing countries have been insufficiently thought out and other occasions where the circumstances of a developing country make it difficult for that country to present a request, notwithstanding the priority which needs to be given to the issue concerned. In such cases, on-site studies are needed in connection with the issues, and specialized discussions must be held with the government of the recipient country concerning the appropriateness of the cooperation details, the capability of institutions in the recipient country to implement the project and the systems they will employ to do so, and the impact and repercussions that the effects of cooperation are likely to have on the economy and society of the recipient country. These discussions should then serve as the basis for formulating the optimum plan for cooperation.

Project formulation studies are designed to identify and formulate such projects. They may be carried out either by study teams sent from Japan or by JICA overseas offices.

In FY1996, the following 49 studies were conducted with the aim of identifying projects in 46 developing countries and regions:

- (1) Asia: 23 (47%)
- (2) Middle East: 5 (10%)
- (3) Africa: 11 (22%)
- (4) Latin America: 2 (4%)
- (5) Oceania: 2 (4%)
- (6) Eastern Europe: 5 (10%)
- (7) Others: 1 (2%)

In FY1996, studies were conducted in Indonesia and Thailand in connection with South-South cooperation*, a form of cooperation whereby Japan cooperates with a developing country to provide cooperation to another developing country. Environmental studies have been carried out in collaboration with the United States and Canada in Palao, Vietnam and Zimbabwe. Including studies on development of the Mekong River basin, many studies have been conducted in connection with disease and environmental problems spreading on a global scale and with regional development. Many studies have also been carried out on BHN*, for instance in connection with education, medical care, waterworks, sewerage and waste.

Project confirmation studies

These studies take the following forms:

(1) Policy dialogs on Japanese government aid plan and the development plan of the recipient country, and the gathering and discussion of information needed for adopting projects in line with Japan's aid policy;

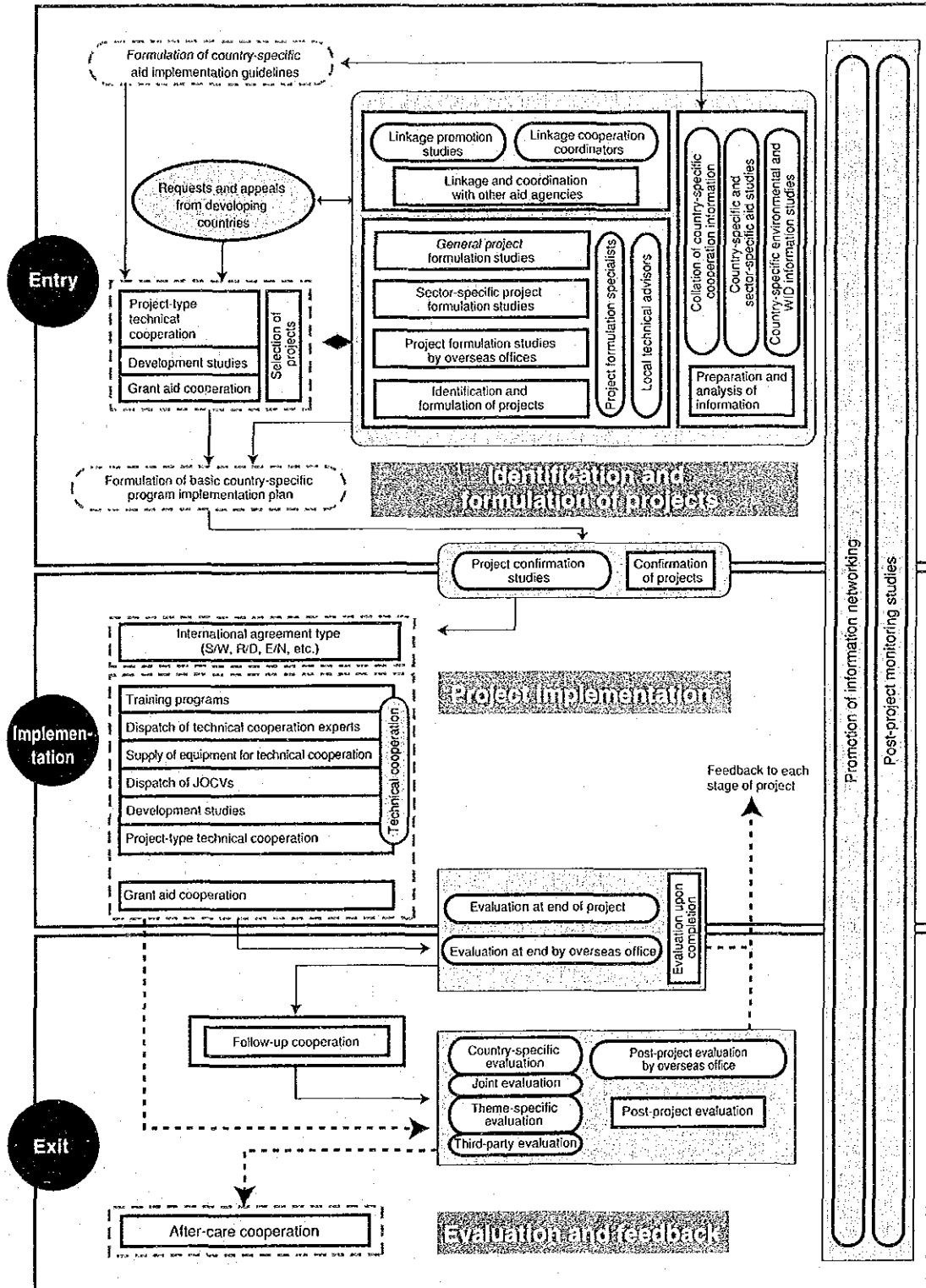
(2) Processing requested projects (confirming the order of priority and details), ascertaining the state of implementation and problems related to the projects under implementation, discussing measures to solve problems, explaining aid schemes, and holding discussions with the recipient country on other topics bearing on the implementation of aid.

These studies are intended to determine the future direction of cooperation and permit the effective and efficient implementation of projects.

In FY1996, 21 study teams were sent to 30 developing countries to confirm and discuss the direction of cooperation for the projects for which requests had been submitted. These study teams can be itemized according to region as follows:

- (1) Asia and Oceania: 11 (52%)
- (2) Middle East: 3 (14%)
- (3) Africa: 3 (14%)
- (4) Latin America: 1 (5%)
- (5) Europe: 2 (10%)
- (6) Central Asia: 1 (5%)

Figure 1-1 Flow of individual technical cooperation projects



Dispatch of project formulation specialists

In order to provide cooperation which really does offer a helping hand to developing countries, we need to investigate which fields and forms of cooperation are best suited to the recipient country and to formulate projects which tally with Japan's system of cooperation. Potential cooperation projects must be planned and promoted taking account of compatibility with the recipient country's development plans and linkage with other aid projects.

To satisfy these requirements, experts (project formulation specialists) thoroughly versed in priority fields of development in developing countries are dispatched to identify and formulate worthwhile projects and to coordinate and arrange projects for which requests have been made.

In FY1996, 40 project formulation specialists were sent to formulate projects from their specialized standpoints to 38 countries and 7 regions including the Philippines, Vietnam, Cambodia, Bolivia, Palestine, Kenya, Estonia, Latvia and Lithuania.

Placement of local technical advisors

The capacity of overseas offices to gather information bearing directly and indirectly on projects for which requests have been made needs to be strengthened because of the need to get hold of technical and related information on such matters as the number of technical experts in the employ of the organization targeted for cooperation, the organization's levels and financial capacity, and the local availability of related infrastructure. Local technical advisors consisting of technicians thoroughly familiar with local conditions are thus employed in their capacity as technical staff of overseas offices to gather and analyze technical information gleaned principally from field studies.

In FY1996, 40 overseas survey specialists were allocated to 24 countries and 4 regions.

Studies contributing to the effective and efficient implementation of aid projects

Country-specific and sector-specific aid studies

Studies of these types center on the Institute for International Cooperation and are carried out with the participation of Japanese scholars and experts from outside the agency. They focus especially on priority fields, topics and regions bearing on the major recipient countries and specific aid issues.

In FY1996, studies were carried out on Peru, Tanzania and Mongolia. The subjects for sector-specific studies were *Regional Development and the Role of Government* and *DAC New Development Strategy**.

Basic research for improving project efficiency

Basic research is conducted on issues common to several JICA projects in order to improve the efficiency with which projects are implemented.

Research of this type conducted in FY1996 included *Wide-Area Environmental Aid Research (Mekong River Basin)*, *Basic Research on the Introduction of Social Gender Studies and Analysis at the Planning Stage of Regionally Implemented Cooperation*, *Basic Research on Support for South-South Cooperation (Thailand)*, and *Systems for the Implementation of Official Development Assistance under Administrative and Fiscal Reform (New Zealand)*.

Collection and collation of information on developing countries

Preparation of country-specific aid information

In order to introduce further refinements into JICA operations as a whole and to facilitate cooperation tailored to the development needs of recipient countries, it is important to prepare and analyze information on developing countries, in

particular basic social and economic information, technical information, and information on the activities of aid agencies other than JICA. At the same time, it is important to systemize and keep comprehensive records of Japanese aid provision and past experience and information relating to aid implementation. *Country-specific information on cooperation is available for this purpose.*

In FY1996, country-specific cooperation information on 111 countries for which files were kept up to the previous year was updated. Four countries, Turkmenistan, Palestine, Angola and Haiti, were newly added to bring the total up to 115.

Country-specific environmental and WID information studies

To ensure that more consideration can be given to the environment when JICA projects are being implemented, information is gathered and ordered in connection with environmental problems and the current status and systems of WID* in developing countries. At the same time, studies are carried out on how environmental agencies and government departments in recipient countries are tackling environmental problems and in connection with the current state of such problems in the countries in question.

In FY1996, there was a major increase in the number of countries covered by these studies, and assistance was gained from local consultants with thorough knowledge of conditions in the areas. Studies were performed in 15 countries including Indonesia, Pakistan, Mexico, and Senegal.

Chapter 2

Project Implementation

Development studies

A description of development studies

Outline and aims

Development studies are carried out to provide support in the formulation of development plans for public projects (see Table 2-1) which contribute to the social and economic development of developing countries. At the same time, while the studies are

actually being performed, they serve as mediums for technology transfer* (planning formulation methods, survey and analytical skills, etc.) to counterparts* in the recipient country.

Development studies are performed on the basis of detailed rules of implementation (S/W) agreed between JICA and the governments of developing countries. They are actually carried out by consultants selected by JICA. Reports are produced under the guidance and supervision of JICA in

Field	Main contents
Planning and administration	Regional development plans, economic development plans
Public works	Water supply and sewerage, urban sanitation, waste disposal
Social infrastructure	Urban planning, rivers, erosion control, water resources, housing, cartography
Transportation	Traffic planning, roads, railways, ports, airports, urban traffic
Communications and broadcasting	Mail, telecommunications, television and radio broadcasting
Health care and medicine	Administration of health, medical treatment and hygiene, population and family planning
Agriculture	Development of agricultural methods and villages, irrigation and drainage, processing and distribution of agricultural produce, livestock raising
Forestry	Resource studies, social forestry, forestry management planning, processing of forestry produce
Fishery	Resource studies, processing and distribution of seafood produce, development of fishing villages, aquaculture, fishing ports
Mining and industry	Resource studies, industrial promotion, factory modernization
Energy	Energy development, energy-saving
Environment	Measures against air and water pollution, environmental conservation
Others	Development of human resources, education, commerce and tourism, management, etc.

Table 2-1 Fields covered by development studies

cooperation with the governments of developing countries. Technology transfer occurs while the studies are being performed.

The reports prepared at the conclusion of development studies provide the governments of recipient countries with data for assessing policies bearing on social and economic development. They also provide international organizations and donor countries with materials for studying funding and technical cooperation. In most cases, the plans proposed by the studies are realized with funds obtained from Japanese yen loans and grant aid. Technology and skills transferred in the course of the studies are then used by the recipient country itself in the implementation of projects and other studies.

Types of study

1. Master Plan Studies (M/P)

These studies are conducted with a view to formulating comprehensive development plans and long-term sectoral development plans for a country as a whole or for specific regions. Master plans permit the efficient implementation of a plan by

- 1) ensuring compatibility between projects and
- 2) clarifying the order of priority of projects.

Projects ranked in order of priority in the master plan may then become the object of feasibility studies.

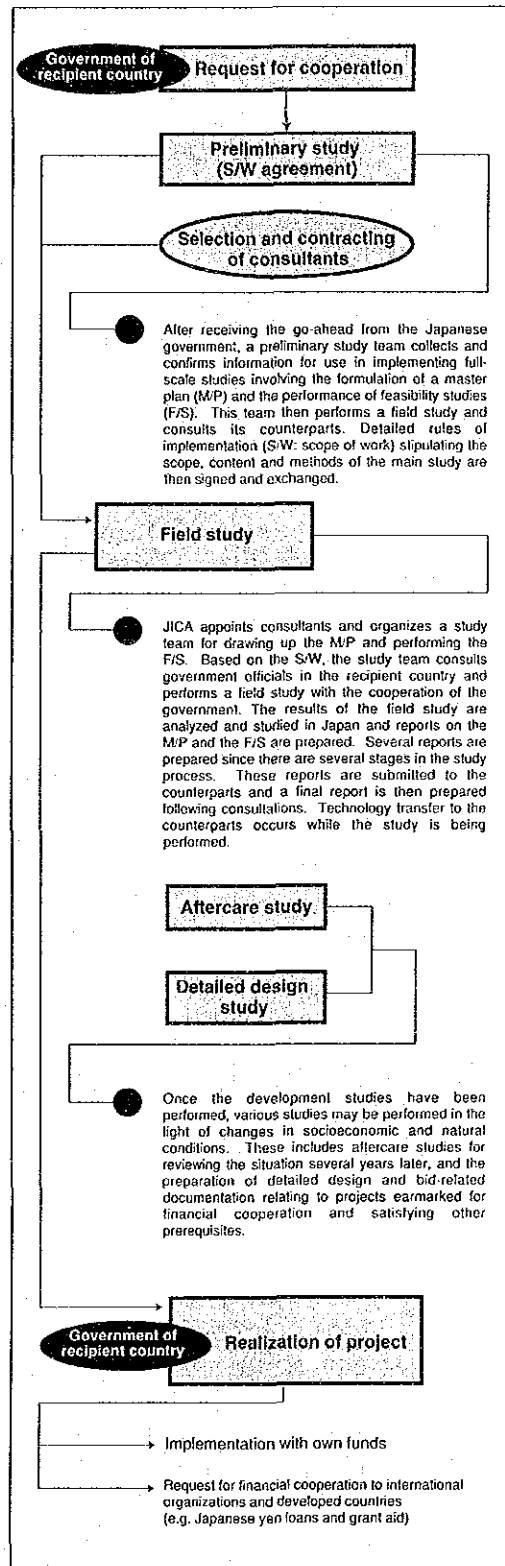
2. Feasibility Studies (F/S)

Feasibility studies are conducted to examine objectively whether individual projects accorded a priority ranking in accordance with development plans and policies can actually be implemented and to formulate the most appropriate plan for their implementation. The feasibility of a project is examined from various angles including technical concerns, the national economy, government finances, social concerns, administrative organization, institutions, and last but not least the environment. Reports on feasibility studies are used as materials for studying financial cooperation from international agencies and aid donor countries.

3. Preparation of basic data

The following studies are conducted in order to arrange, gather and submit the information needed for the formulation of development plans:

Figure 2-1 Procedures of development studies





A member of a study team giving instruction on waste disposal to tradespeople at a Tanzanian market.

(1) Preparation of topographical charts

Studies involving the preparation of topographical charts (basic maps of national territory and urban areas) for use as the most basic data in the formulation of development plans.

(2) Development of ground water

Studies to ascertain the development potential of

ground water reserves.

(3) Development of forestry and fishery resources

Studies for preparing basic data to ascertain the state of forestry and fishery resources.

(4) Development of mineral resources

Studies to ascertain the state of mineral resources conducted by means of geological surveys, physical investigation, geological surveys, and boring, etc.

(5) Corroborative studies

Studies involving corroborative investigation of technical possibilities in connection with projects requiring new technical development likely to extend over a long period owing to the absence of practical data.

4. Supplementary and aftercare studies

Once a development study has been completed, it may happen that a revision study is needed on account of sudden changes in socioeconomic conditions or natural conditions in the developing country where the study has been carried out or simply because a long period of time has elapsed since the original study. In such cases,

Biological environment study of the Red Sea

- Studying ecosystems to protect coral reefs -

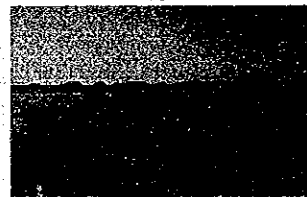
Coral reefs might justifiably be described as tropical forests in the sea. They are home to a wealth of life forms, and their importance as invaluable environmental resources abounding with biodiversity* is recognized internationally. However, there are various parts of the world where reefs have become critically threatened by environmental destruction over the past few years. International cooperation to protect coral reefs is now under way.

The Red Sea possesses one of the world's most splendid coral reefs, and it is known also as a favorite spot for divers. All kinds of biological environments and an abundant world of living things are supported by the coral reefs of the Red Sea. But there is concern now that population growth and the development of coastal cities are having the

effect of destroying the biological environment along the coast. The Saudi Arabian government regards the northern part of the Red Sea, where there is a particularly high risk of environmental damage, as a priority area within the protected zone and is striving to preserve the coral reefs and other forms of wildlife.

In order to prepare the basic information needed for this purpose, JICA has been methodically organizing information by analyzing the results of previous surveys carried out over an area of 1,000 kilometers on the north coast of the Red Sea as well as by taking aerial photographs, conducting on-site surveys, and gaining a general picture of the distribution of life in the area. The biological environment charts and inventories compiled on the basis of these studies are to be summarized in a report for

Mangroves are important formative elements in biological environments



submission to the Saudi Arabian government.

JICA has previously carried out studies aimed at preservation of the environment and sustainable development, but this is JICA's first ever attempt to investigate the whole ecosystem of a coastal area. More such studies are likely to be conducted in the future as awareness of biodiversity increases.

supplementary or "aftercare" studies involving revision of the previous survey results or the performance of additional work in line with changes in such conditions are carried out to ensure that effective use can be made of the results of the original survey and that these results will be of use in realizing the plan in question.

5. Detailed design studies

Detailed design studies are carried out for the purpose of creating the design drawings, work specifications and tender documentation needed before construction work can begin (construction and supervision are dealt with separately) in the case of projects earmarked for financial cooperation such as yen loans whose implementation has received approval. These studies, which are more detailed than feasibility studies, involve preparation of design drawings needed in the construction process and precise calculation of construction costs.

6. Studies to support the transition to a market economy

These studies are conducted with the aim of formulating basic strategy and comprehensive implementation plans for promoting policies aimed

at effecting a transition to a market economy and liberalizing markets as manifest in monetary and financial reform, adjustment of legal systems, and privatization of state and public enterprises. Workshops and seminars are also held to improve the administrative capability of the authorities in recipient countries and to provide training.

The studies also look into possibilities for the execution of privatization plans. Practical implementation plans are prepared and manuals and texts are produced in connection with the implementation process.

7. Follow-up studies

These studies are conducted in order to ascertain how plans and projects based on development studies carried out in the past have been progressing, the idea being to ensure that development studies are performed as effectively and efficiently as possible. The results are then reflected in the implementation of future development studies.

8. Work related to studies

(1) Seminars are held and texts in local languages are prepared in connection with the results of surveys in order to encourage technology transfer on

Studies for supporting the transition to a market economy

- Supporting the former communist countries in their efforts to establish market economies -

Since the late 1980s, the countries of the former Soviet Union and the former communist countries of Central and Eastern Europe have been implementing political reforms which include changing the economic system from one centering on state enterprises to one led by private companies. Once stagnant economies have now picked up in countries such as Poland and Hungary where economic reforms have been proceeding smoothly, but many of these countries continue to suffer under stagnant economic conditions.

JICA is cooperating with countries striving to effect the transfer to a market economy in fields in which development aid has not previously been provided,

notably economic management as a whole and reforms of state enterprises.

The Republic of Kyrgyz is a small landlocked country in Central Asia with a population of around five million. Its electrical, electronics, machine and textile industries flourished when it was a republic within the Soviet Union. However, in the wake of the collapse of the Soviet Union, operational rates of factories declined dramatically and many factories were forced to close owing to their inability to acquire parts and the disappearance of their markets. On the request of the Kyrgyz government, JICA conducted a development study involving the formulation of a master plan for industrial reconstruction.

As well as gathering information on government policy and on industry as a whole within the country, visits were paid to more than seventy factories in order to ascertain the exact nature of the problems being faced by those directly involved in industry. The information gathered thereby was then used to formulate effective proposals.

The Kyrgyz government thought highly of the results of this study, and the study team were given the opportunity to explain their proposals directly to Prime Minister Djumagulov. President Akaev later sent a personal letter of thanks for the study to Prime Minister Hashimoto.

the basis of the development studies.

(2) Documentation concerning development planning in developing countries and basic study methods possessed by related organizations is gathered and analyzed. Research is then conducted aimed at ensuring that such documentation contributes to enhancing the effectiveness of development studies.

In FY1996, 57 development studies were carried out in the field of agriculture and forestry, 93 in the field of mining and industry, and 150 in the field of social development.

Issues and responses in development studies

People-centered development

Development studies in the past involving specific projects have focused on technical, economic and financial matters such as the location, structure and design of the planned facilities together with possible effects on the environment.

But a people-centered approach to development has now become essential in development studies. Study methods incorporating a participatory approach are currently being put into practice. Taking full account of the culture, institutions and customs of the recipient country, seminars are held and support is provided for public hearings with a view to seeking the widest possible participation from local residents and others who will be affected by development.

Diversification of aid requirements

Aid has tended in the past to center on economic infrastructure* in such forms as the construction of roads, bridges, ports and irrigation facilities, but in recent years there has been an increase in the number of projects involving support with the formation of institutions and policies in individual countries, for instance the reshaping of legal systems, personnel training, and the formulation of government policy in connection with economic planning, educational systems, and health and medical care. Since the collapse of the Cold War

Study for the development of micro fishing villages

- Alleviating poverty through the promotion of industry -

Owing to the enormous variety of marine resources in the tropics, the fishery industry which makes use of these resources has the capacity to support the lives of large numbers of people. Small-scale fishing and fishing villages thus play an important role in providing people with the means to support themselves. This is because even members of the poorest social classes who possess no land and have very little choice as to how to earn a living are able to catch fish in the sea and lakes.

The fishing industry makes a major contribution to the acquisition of foreign currency in Morocco, for instance. But most of this income comes from the work of large fishing vessels operated by foreign crew members, and too little is being done

to stimulate small-scale fishing in coastal waters.

A development study concerned with the stimulation of small fishing villages was thus carried out to examine the state of such villages scattered along the shores of the Mediterranean and the northern Atlantic with a view to promoting the small-scale coastal fishing industry. Plans are now being drawn up to alleviate poverty in these villages by encouraging small-scale fishing in such a way as to permit the sustainable use of marine resources through the provision of infrastructure needed by the local people in this connection.

In the past, development surveys concerned with the fishing industry have generally involved surveys of fishery resources,

gathering of information, improvements to fishing ports, and modernization of distribution systems. Today, however, taking account of the importance of coastal fishing and fishing villages in developing countries, the focus of such studies is increasingly veering toward the formulation of development projects which encourage small-scale, sustainable fishing, alleviate poverty in fishing villages, and allow for the participation of women in the development process. This is being done by fostering fishermen's organizations, improving the basic infrastructure for daily living in fishing villages, and stimulating a heightened awareness of the importance of resource management.

status quo, values such as democracy and the market economy are becoming increasingly widespread among the former communist countries and developing countries which are now on the receiving end of aid, and the need for aid to support the processes of democratization and introduction of the market economy is constantly growing.

On the other hand, there is still a considerable need for cooperation with infrastructural improvements. JICA is thus adopting a dynamic, flexible approach to development studies so that we are able to respond fully to the needs of developing countries on both the infrastructural and applied fronts (software policy aspects).

Environmental problems continue to be as serious as ever. These are problems of global significance

not restricted to individual countries and including acid rain, oceanic pollution, global warming, depletion of the ozone layer, and decrease in biodiversity. The topics dealt with in development studies thus include environmental management planning of rivers and lakes, planning for the creation of urban environmental model zones, waste disposal, and surveys aimed at integrated air quality management. Other recent environmental projects have included surveys on plans for conserving coral reefs and other forms of marine life.

Linkage with financial cooperation and other forms of aid

The aid needs of developing countries are growing ever more sophisticated, diverse and complex. Such

On the front line of regional international cooperation

The first regional seminar as part of a development study

Hokuriku Branch (Ishikawa Prefecture)

The Jilin Province Integrated Regional Development Project Study Seminar, sponsored by Ishikawa Prefecture, JICA and the International Development Center, was held at the Ishikawa Prefecture International Exchange Center at Honmachi in Kanazawa on February 12, 1997 to debate the question of international exchange between Japan and China.

The Chinese government requested the Japanese government to formulate an integrated regional development plan with sights set on the year 2010 for the Chinese province of Jilin, which is still lagging behind in terms of foreign investment despite having a plentiful supply of agricultural produce and mineral resources. This seminar held as part of the project study was attended by around 50 economics specialists from local governments, universities and other organizations in the Hokuriku region (Ishikawa, Toyama and Fukui prefectures), who engaged in a lively exchange of opinions on this topic.

Zhang Xiaoping, deputy director of the National Economic Development Institute and a member of the Jilin Province Planning Committee, began the seminar by describing the economic situation of the province. As one of the key policies in promoting economic development, Mr. Zhang referred to the need to stimulate external demand through the automobile and petrochemical industries with inexpensive labor as the principal weapon. Since Jilin is the main producer of corn in China, Mr. Zhang went on to express his hope that foreign capital would be brought to the province, attracted by Jilin's ascendancy in corn production.

Mr. Zhang was followed by Liu Hong, deputy director of the National Regional Bureau and a member of the Chinese National Planning Committee. Mr. Liu pointed out that economic exchange between Japan and China had so far generally involved negotiations between Chinese provinces and Japanese prefectures, and stated his opinion that economic exchange



between small and medium companies should be encouraged on the level of relations between individual towns and cities.

This was the first time that a seminar of this type had been held in Japan in connection with a JICA development study project. We look forward to many more such stimulating seminars in the future.

needs cannot be satisfied with sole recourse to development studies. JICA is thus striving to strengthen the linkage with other forms of aid such as technical cooperation, grant aid, and indeed with yen loans. Closer links are also being forged with international financial institutions such as the World Bank, financial institutions concerned with regional development such as the Asian Development Bank, bilateral aid organizations, and NGOs*.

On the other hand, in the rapidly growing nations of Asia, there has been an increase in the number of cases of public works projects being implemented with private funds and involving no government expenditure based on methods such as BOT*. A circumspect approach needs to be adopted to such projects owing to the risks involved in private sector initiatives in infrastructure development. However, private sector initiatives in infrastructure development are regarded as one method for implementing plans and projects in development studies which take account of every stage up to project implementation. Cooperation for creating an attractive climate to provide the foundations on which this method can be applied is likely to increase in the future.

Development Studies

Total No	NO	Area/Country	Project
		ASIA	
1	1	Bangladesh	The Study on Establishment of Jute Based Pulp and Paper Mill
2	2		The Master Plan and Feasibility Study for the Development of Sewerage System in North Dhaka
3	1	Bhutan	The Study on National Highway/Bridge Replacement Project
4	1	Cambodia	The Study on Construction of Mekong Bridge
5	2		The Reconnaissance Survey Project for the Establishment of an Emergency Rehabilitation and Reconstruction
6	3		The Study on Drainage Improvement and Flood Control for the Municipality of Phnom Penh
7	4		The Master Plan and Feasibility Study on the Shihanouk Ville Port
8	5		The Agricultural Development Study of the Mekong Flooded Area
9	6		The Study on Ground Water Development in Southern Cambodia
10	7		The Study on Siem Reap Water Supply System
11	8		The Topographic Mapping for Angkor Archaeological Area in Siem Reap Region
12	1	China	The Study on the Hydraulic Model Test for Baishi Dam in Liaoning Province
13	2		The Study on Utilization of Coal in Ningxia
14	3		Mineral Resource Exploration in the Yangtzedeltai Area
15	4		The Study on Entrophication Control of Tai Lake
16	5		The Master Plan Study on the Integrated Management of the Water Environment of Li-Jiang River
17	6		The Study on Pumped Storage Hydroelectric Power Development in Koseki Dam
18	7		The Study for the Factory Modernization (Shandong Tractor Works)
19	8		The Study for the Factory Modernization (Dalian Fuel Injection Equipment)
20	9		The Study for the Factory Modernization (Wujin Electric Machine Works)
21	10		The Study for the Factory Modernization (Henan Textile Machinery)
22	11		The Study for the Factory Modernization (Qian'an Flax Textile)
23	12		The Study for the Factory Modernization (Suzhou Medical Instruments)
24	13		The Study for the Factory Modernization (Ezhou Galvanized Nee)
25	14		The Study for the Factory Modernization (Jiangsu Wuxi Steel Group)

Development Studies

Total No	NO	Area/Country	Project
		ASIA	
26	15	China	The Detailed Design Study on Waste Water Treatment Project in Dexing Copper Mine
27	16		The Study on the Integrated Management Plan for the Water Environment of Min River in Chengdu District
28	17		The Jilin Province Integrated Regional Development Plan
29	18		The Detailed Design Study on Shanghai Pu-dong International Airport
30	19		The Study on the Environmental Management Plan for the Environmental Model Zone in Dalian Municipality
31	20		The Study on Groundwater Development in Togtoh County, Inner Mongolia
32	21		The Study for the Factory Modernization (Taiyuan Chemical Industry-Organic Plant)
33	22		The Study for the Factory Modernization (Taiyuan Tool Works)
34	23		The Study for the Factory Modernization (Taiyuan Heavy Industry)
35	24		The Study for the Factory Modernization (Taiyuan Chemical Industry-Chemical Plant)
36	25		The Study for the Factory Modernization (Baoji Brewery)
37	26		The Study for the Factory Modernization (Baoji North Lightning)
38	27		The Study for the Factory Modernization (Machinery Industry in Baoji)
39	28		Mineral Resource Exploration in the Southwestern Part of Yunnan Province
40	1	India	The Master Plan Study on Pumped Storage Hydroelectric Power Development in Maharashtra State
41	2		The Study on Master Plan of the Port of Bombay
42	3		The Study on Rehabilitation of Minor Irrigation Tanks for Rural Development in Tamil Nadu
43	4		The Study on Highway Bypasses
44	1	Indonesia	The Study on Integrated Air Quality Management for the Jakarta Metropolitan Area
45	2		The Detailed Design Study on Medan Flood Control Project
46	3		The Revise of the Jakarta Water Supply Development Project
47	4		The Study on Economic Model for Planning Exercises; Long Term Programming Model
48	5		The Study on Comprehensive River Water Management Plan in Jabotabek
49	6		The Study on the Development of Poko Hydroelectric Power
50	7		The Study on Industrial Sector Development - Supporting Industries

Development Studies

Total No	NO	Area/Country	Project
		ASIA	
51	8	Indonesia	<i>The Study on Arterial Road System Development in Surabaya Metropolitan Area</i>
52	9		<i>The Study on the Integrated Development Project for Rural Cooperatives</i>
53	10		<i>The Study for Social Forestry and Agro-Forestry Development Project in the Upper Musi Watershed</i>
54	11		<i>The Study on Development of the Raw Material of the Ceramic Industry</i>
55	12		<i>The Study on Human Resources and Technology Development Plan for Coal Mining</i>
56	13		<i>The Study on Urban Gas Development</i>
57	14		<i>The Study on the Third Umbrella Cooperation for Integrated Agricultural and Rural Development</i>
58	15		<i>The Comprehensive Development Plan for the Western Part of Kalimantan</i>
59	16		<i>The Study for Urban Drainage Project in the city of Jakarta</i>
60	17		<i>The Study on Flood Control for Ambon and Pasahari Area</i>
61	18		<i>The Study on the Comprehensive Management Plan for the Water Resources of the Brantas River Basin</i>
62	19		<i>The Road Network Study on Central and South-East Sulawesi</i>
63	20		<i>The Study on the Development of Kelai-II Hydro Electric Power Project</i>
64	21		<i>The Study on the Project for Technology Introduction and Development of Advanced Run-off-River Power</i>
65	22		<i>The Study on Improvement in Quality of Tropical Fruits</i>
66	23		<i>The Study on Nationwide Ferry Service Routes (II)</i>
67	24		<i>The Study on Land Provision for Housing and Settlements Development through KASIBA and Land Readjustment in Jakarta Metropolitan Area</i>
68	25		<i>The Detailed Design of Flood Control and Water Resources Development Project in Semarang</i>
69	1	Laos	<i>The Study on Construction of Mekong Bridge at Pakse</i>
70	2		<i>The Study on the Integrated Agricultural Rural Development Project in Boloven Plateau</i>
71	3		<i>The Study on Watershed Management Plan for Forest Conservation in Vangvieng District</i>
72	1	Malaysia	<i>The Study on Standardization of the Bridge Design</i>
73	2		<i>The Study on Kuala Lumpur Outer Ring Road</i>
74	3		<i>Mineral Exploration in the Central Saba Area</i>

Development Studies

Total No	NO	Area/Country	Project
		ASIA	
75	4	Malaysia	The Study on Forestry Development Plan in Northern Sabah
76	5		The Study on Integrated Urban Transportation Strategies for Environmental Improvement in Kuala Lumpur
77	6		The Coal Exploration and Assessment Project, Sabah
78	7		The Study on Promotion of Energy Efficiency in Malaysia
79	8		The Study on Modernization of Irrigation Water Management System in the Granary Areas of the Peninsular Malaysia
80	9		The Study on the Establishment of the River Basin Information System
81	1	Mongolia	The Topographic Mapping of Ulaan Tsav Area
82	2		The Forest Resources Management Study in Selenge Aimak
83	3		The Study on the Rehabilitation Project of the Mongolian Railway
84	4		The Study on Strengthening of Agricultural Cooperatives
85	5		The Master Plan and Feasibility Study on Telecommunications Network In Ulaan Baatar City
86	6		The Study on Groundwater Development for Altai City
87	7		Mineral Exploration in the Tsagaan Tsakhir Uul Area
88	1	Nepal	The Study on Integrated Watershed Management in the Western Hills
89	2		The Study on the Disaster Prevention Plan in Severe Affected Districts in the Middle and South Area
90	3		The Study on Trishuli Irrigation Project
91	1	Pakistan	The Study on the Lining of Distributaries and Minors in Punjab
92	2		The Irrigation Water Resources Development with Delayed-Action Dams Project in Balochistan
93	3		The Study on Munda Dam Multipurpose Project
94	4		The Taunsa Barrage Irrigation System Rehabilitation
95	1	Philippines	The Study on Flood and Mudflow Control for Sacobia Bamban/Abacan River Draining from Mt. Pinatubo
96	2		The Study on Environmentally Sustainable Tourism Development Plan for Northern Palawan
97	3		The Study on the Western Legazpi Irrigation and Rural Development Project
98	4		The Detailed Design Study on Pan-Philippine Highway Improvement Project (Mindanao Section)
99	5		The Study on Selected Airports Master Planning Project

Development Studies

Total No	NO	Area/Country	Project
		ASIA	
100	6	Philippines	The Study on Metro Manila Urban Transport Integration
101	7		The Study on Sobo and Flood Control in the Laoag River Basin
102	8		The Study on Development of Agrarian Reform Communities in Marginal Areas
103	9		The Study on the Transfer of Facilities and Management of the 69KV Transmission Lines and Systems from the National Power Corporation (NPC) to Private
104	10		The Master Plan Study on Water Resources Management
105	11		The Study on Solid Waste Management in Metropolitan Manila
106	12		The Master Plan Study on Visayas and Mindanao Islands Strategic Road Network Development Project
107	13		The Study on Jalaur Irrigation System and Rural Area Development Project
108	14		The Mapping and Land Cover Assessment of Mangrove Areas Using Small Format Aerial Photo
109	15		The Study on the Subic Bay Port Master Plan
110	16		Davao Integrated Development Program
111	1	Sri Lanka	The Master Plan on Development of the New Port of Colombo
112	2		The Master Plan Study on Bridge Development
113	3		The Study on Telecommunication Networks
114	4		The Southern Area Development Plan Study
115	5		The Study on the Rehabilitation of Irrigation and Drainage Systems in the River Basins of Southern Sri Lanka
116	6		The Master Plan Study for Development of the Transmission System of the Ceylon Electricity Board
117	7		The Study (After-Care) on Industrial Sector Development (Electroplating and Waste Water Treatment)
118	1	Thailand	The Study on Urban Environmental Improvement Program in Bangkok
119	2		The Master Plan Study on the Integrated Agriculture and Water Resources Development Project of Huai Mon Nam Suai and Huai Luang River Basin
120	3		Mineral Exploration in Chiang Khong/Doi Chong/Ratchaburi Area
121	4		The Study on Coal Exploration and Assessment
122	5		The Study on Bang Saphan Industrial Complex

Development Studies

Total No	NO	Area/Country	Project
		ASIA	
123	6	Thailand	<i>The Study on Fishery Complex on Andaman Sea Coast</i>
124	7		<i>The Western Seaboard Regional Development Master Plan Study</i>
125	8		<i>The Study on the Kok-In-Nan Water Diversion Project</i>
126	9		<i>The Detailed Engineering Design of Lampang-Chiang Mai Motorway Project</i>
127	10		<i>The Study on Integrated Plan for Inundation Mitigation and Agricultural Land Conservation in Chao Phraya River Basin</i>
128	11		<i>The Study on the Integrated Agricultural Development in the Agricultural Land Reform Areas in the Upper Northeastern Region</i>
129	1	Vietnam	<i>The Master Plan Study on Dong Nai and Surrounding Basins Water Resources Development</i>
130	2		<i>The Study on New Development Plan of Hanoi International Airport</i>
131	3		<i>The Study on Water Supply Development for Hanoi City</i>
132	4		<i>The Master Plan Study on Coastal Shipping Rehabilitation and Development Project</i>
133	5		<i>The Study on Urban Transportation for Hanoi City</i>
134	6		<i>The Marine Resources Survey</i>
135	7		<i>The Study on the Economic Development Policy in terms of Transition toward Market Oriented Economy (Phase I)</i>
136	8		<i>The Study on the Integrated Regional Socio-Economic Development Master Plan for the Key Area of the Central Region</i>
137	9		<i>The Model Rural Development in Nam Dan District Nghe An Province</i>
138	10		<i>The Study on Master Plan of Steel Industry Development</i>
139	11		<i>The Master Plan Study on National High Tech Park Project, Hanoi</i>
140	12		<i>Mineral Exploration in the Bo Cu Area</i>
141	13		<i>The Study on the Port Development Plan in the Central Region of the Key Area of Vietnam</i>
142	14		<i>The Study on the Development of Industrial Standardization, Metrology Testing, and Quality Management</i>
143	15		<i>The Study of Thanh Tri Bridge and the Southern Section of Ring Road No.3 in Hanoi</i>
144	16		<i>The Study on the Can Tho Bridge Construction</i>
145	17		<i>The Study on the Economic Development Policy in terms of Transition toward Market Oriented Economy (Phase II)</i>
146	1	unclassifiable	<i>The Four Nation Joint Re-Survey of Critical Areas and Investigation of Dangerous/Unconfirmed Shoals and Wrecks in the Straits of Malacca and Singapore</i>

Development Studies

Total No	NO	Area/Country	Project
		MIDDLE EAST	
147	1	Egypt	The Study on a Bridge over the Northern Part of the Suez Canal
148	2		The Master Plan Study for the Egypt National Railways
149	3		The Study on South Sinai Groundwater Resources (II)
150	4		The North Sinai Integrated Rural Development Project (Phase II)
151	5		The Study on Viability of a Project to Produce Steel Flats (Phase I)
152	6		The Study on Viability of a Project to Produce Steel Flats (Phase II)
153	7		The Detailed Design Study on the Project for Construction of the Suez Canal Bridge
154	8		The Study of Tourism Promotion and Potential Tourism Development Project
155	1	Iran	The Study on the Integrated Master Plan for Air Pollution Control in the Greater Tehran Area
156	2		The Analysis of Energy Conservation and Rational Use of Energy in the Social and Economic Sectors
157	3		The Evaluation of Environmental Impact of Thermal Power Plants
158	1	Jordan	The Study on Industrial Development in the Southern Districts
159	2		The Study on the Improvement of Water Supply System for the Zarqa District
160	3		The Study on Electric Power Loss Reduction of Transmission and Distribution Networks
161	1	Morocco	The Study on Rural Water Supply in the Pre-rif Region
162	2		The Study on the National Guideline for Solid Waste Management
163	3		The Master Plan Study on Decentralized Rural Electrification of Haouz Region
164	4		The Study on Fishing Villages Development Plan
165	1	Oman	The Agricultural Development Project in Nejd Region
166	2		Mineral Exploration in the Central Batinah Coast
167	3		The Detailed Design Study on Road Development Project
168	4		The Study on Establishment of Industrial Research Center
169	1	Palestine	The Study on Sewerage Development Plan in the Municipality of Khan Yunis
170	1	Saudi Arabia	The Study for Development of Standardization Organization (Consumer Protection)
171	2		The Study on Coastal/Marine Habitat and Biological Inventories in the Northern Part of the Red Sea Coast

Development Studies

Total No	NO	Area/Country	Project
		MIDDLE EAST	
172	1	Syria	<i>The Study on Ports Development Plan</i>
173	2		<i>The Study on National Telecommunications Network Expansion Plan</i>
174	3		<i>The Study on the Improvement and Extension of Water Distribution System for Damascus City</i>
175	4		<i>The Study on the Cement Plan Development</i>
176	5		<i>The Study on the Introduction of the Integrated Photovoltaic Systems</i>
177	6		<i>The Master Plan Study on Water Resources Development in the Northwestern and Central Basins</i>
178	7		<i>The Study on the Development of Textile Industry</i>
179	8		<i>The Preparation of National Tourism Development Plan</i>
180	1	Tunisia	<i>The Study on the Irrigated Area Improvement in Oases in the South</i>
181	2		<i>The Study for Productivity Improvement in Machinery & Electric Sectors</i>
182	1	Turkey	<i>The Study on the Maintenance and Rehabilitation of Highway Bridges</i>
183	2		<i>The Study on Rational Use of Energy</i>
184	3		<i>The Master Plan Study for the Ports Development at the Sea of Marmara</i>
185	4		<i>Mineral Exploration in the Esriye Area</i>
186	5		<i>The Study for the Coruh-Berta River Hydroelectric Power Development Project</i>
187	6		<i>The National Small-Scale Irrigation and Rural Development Project</i>
188	7		<i>The Study on Arterial Highway Maintenance</i>
189	1	United Arab Emirates	<i>The Master Plan Study on Groundwater Resources for Agricultural Development Around Al Dhaid City</i>
		AFRICA	
190	1	Angola	<i>The Establishment of Comprehensive Geographic Database System for the National Rehabilitation and Development</i>
191	1	unclassifiable	<i>The Study on the Proposed New Bridge over the Zanbezi River at Chirundu Border Post</i>
192	1	Cameroon	<i>The Study on Memve-Ele Hydroelectric Power Development Project</i>
193	1	Central Africa	<i>The Study on Groundwater Development in Bangui City</i>
194	1	Eritrea	<i>The Study on Small Towns Water Supply and Sanitation Development</i>

Development Studies

Total No	NO	Area/Country	Project
		AFRICA	
195	1	Ethiopia	<i>The Study on Forest Resources in the South Western Part</i>
196	2		<i>The Study on Addis Ababa Flood Control Project</i>
197	1	Ghana	<i>Topographic Mapping of Southern Part of Ghana</i>
198	2		<i>The Study for the Rehabilitation of Irrigation Projects</i>
199	3		<i>The Study on Reserve Forest Management in Transitional Zone</i>
200	1	Kenya	<i>The Study on the Water Supply for Seven Towns in Eastern Province</i>
201	2		<i>The Study on the Solid Waste Management for Nairobi City</i>
202	3		<i>The Study on Community-Based Small Holder Irrigation Development Project for Horticulture</i>
203	4		<i>The Study on KISMU Water Supply and Sanitation Project</i>
204	5		<i>The Study on Strengthening Regional Health System in Western Kenya</i>
205	6		<i>The Mutonga Grand Falls Hydropower Project</i>
206	1	Madagascar	<i>The Groundwater Development Study in the South-Western Region (Phase II)</i>
207	2		<i>The Study on Watershed Ecosystem Management</i>
208	1	Malawi	<i>The Master Plan Study on Sustainable Multiple-use Resources Management of the Nkhosakota Wildlife Reserve</i>
209	1	Mauritania	<i>The Study on Irrigation and Agricultural Development Project in Upper Delta of the Senegal River Basin</i>
210	2		<i>The Study on Groundwater Development for Kiffa City</i>
211	1	Mauritius	<i>The Study on Long-Term National Energy Plan</i>
212	1	Mozambique	<i>The Study for Maintenance and Improvement Plan of Access Channel of Beira port</i>
213	1	Namibia	<i>Mineral Exploration in the Otavi Mountainland Area</i>
214	2		<i>The Electricity Master Plan</i>
215	1	Sao Tome and Principe	<i>The Study on Construction of Mini Hydro-electric Power Stations</i>
216	1	Senegal	<i>The Study on the Development Program for Northern Fishing Areas</i>
217	1	South Africa	<i>The Study on the Expansion of the Capacity of Magalies Water</i>
218	1	Tanzania	<i>The Study on the Solid Waste Management for Dar es Salaam City</i>

Development Studies

Total No	NO	Area/Country	Project
		AFRICA	
219	2	Tanzania	<i>The Study on the Low Cost Smallholder Irrigation Project in Central Wami River Basin</i>
220	3		<i>The Study on Lower Moshi Integrated Agriculture and Rural Development Project</i>
221	4		<i>The Study on Groundwater Development for Hanang, Singida rural, Manyoni and Igunga district</i>
222	1	Uganda	<i>The Topographic Mapping of Kampala and Jinja Blocks, North of Lake Victoria</i>
223	2		<i>The Study on Rural Water Supply in the Mpigi, Mubende and Kiboga Districts</i>
224	3		<i>The Study of Improvement of Trunk Road at Kampala Urban Interface Sections</i>
225	1	Zimbabwe	<i>The Study on Water Pollution Control in Upper Manayme River Basin</i>
226	2		<i>Mineral Exploration in Snake Head Area</i>
227	3		<i>The Study on Dissemination of Photovoltaics for Rural Electrification</i>
		LATIN AMERICA	
228	1	Argentina	<i>The Study of Economic Development (II)</i>
229	1	Bolivia	<i>The Study on Provincial Ground Water Development</i>
230	2		<i>The Master Plan Study on Flood Control in the Northern Rural Region of Santa Cruz</i>
231	3		<i>The Study on Evaluation of Environmental Impact of Mining Sector in Potosi</i>
232	4		<i>The Study on Rural and Agricultural Development of Achacachi Area, La Paz</i>
233	1	Brazil	<i>The Fishery Resources Study of the Amazon and Tocantins River Mouth Areas</i>
234	2		<i>The Study on Evaluation of Environmental Quality in Regions under Influence of Coal Steam Power Plant</i>
235	3		<i>The Study on Recuperation of Mined-out Areas in South Region of Santa Catarina State</i>
236	4		<i>The Integrated Development Study for Agriculture and Livestock in Tocantins State</i>
237	1	Chile	<i>The Rehabilitation and Conservation Program on Bridges (II)</i>
238	2		<i>Mineral Exploration in Pastos Largos Area</i>
239	3		<i>Mineral Exploration in the Guanaca Cholqui Area</i>
240	1	Colombia	<i>The Study on Transport Plan in Satate City, Bogota</i>
241	1	Ecuador	<i>Mineral Exploration in the Imbaeeste Area</i>
242	1	El Salvador	<i>The Study on Integrated Agricultural Development in the Jiboa River Basin</i>

Development Studies

Total No	NO	Area/Country	Project
		LATIN AMERICA	
243	2	El Salvador	<i>The Master Plan Study on Comprehensive Flood Control for the Rio Grande de San Miguel</i>
244	3		<i>The Study on Port Reactivation in La Union Department</i>
245	1	Grenada	<i>The Study on Road Rehabilitation and Improvement</i>
246	1	Guatemala	<i>The Study on the Project of Urban Transportation in the Metropolitan Area of Guatemala</i>
247	2		<i>The Study on the Improvement of Wastewater Management in the Guatemala Metropolitan Area</i>
248	3		<i>The Master Plan Study on Forest Management in Baja Verapaz</i>
249	1	Honduras	<i>The Study on the Strategies and Plans for the Upgrading of Public Health Status</i>
250	2		<i>The Maintenance Project of the Vehicle Traffic System in Teguchigalpa</i>
251	3		<i>The Forest Resources Management and Development Study in Teupassenti</i>
252	4		<i>The Master Plan Study on the Small Scale Fisheries Development on the North Coast</i>
253	5		<i>Mineral Exploration in the San Antonio Area</i>
254	1	Mexico	<i>Mineral Exploration in the Campo Seco Area, Guerrero State</i>
255	2		<i>The Study on Master Plan for the Promotion of Supporting Industries</i>
256	3		<i>The Study on Formulation of Tourism Development and Promotion Strategies for the Selected Tourism Destinations</i>
257	4		<i>The Study on Sustainable Development Plan of Forests in the Village of Sierra Juarez in Oaxaca</i>
258	1	Nicaragua	<i>The Study on the Improvement of Urban Sanitation Environment of Principal Cities (Leon, Cinandega and Granada)</i>
259	2		<i>The Study on Agricultural Development in Second & Fourth Frontier Regions along the Pacific Coast</i>
260	1	Panama	<i>The Study on the Development of the Balboa</i>
261	1	Paraguay	<i>The Master Plan Study on the Program for Supporting Small Farmers</i>
262	2		<i>The Study on Arterial Road Development Project in the Central Eastern Area</i>
263	1	Peru	<i>Mineral Exploration in the Eastern Area</i>
264	2		<i>The Study on the Integrated Water Pollution Control for Puno Bay of Lake Titicaca</i>
265	3		<i>The Master Plan Study of National Tourism Development of Peru</i>
266	4		<i>The Study on Integrated Water Resources Development in the Canete River Basin</i>
267	1	Venezuela	<i>The Study on Environmental Improvement Program of the Upper and Middle Stream of the Tuy River Basin</i>

Development Studies

Total No	NO	Area/Country	Project
		OCEANIA	
268	1	Fiji	<i>The Preparation of Nautical Charts in the Northern Lau Islands Region</i>
269	2		<i>Mineral Exploration in the Vanualevu Area</i>
270	3		<i>The Watershed Master Planning & Flood Control of Four Major Viti Levu Rivers</i>
271	1	Marshall Islands	<i>The Cooperative Study on Deep Sea Mineral Resources in Selected Areas of the SOPAC Region around Tonga, Marshall Islands, Micronesia, Fiji</i>
272	1	Papua New Guinea	<i>The Study on Sewerage System of Port Moresby</i>
		EUROPE	
273	1	Albania	<i>Mineral Exploration in the Shebenik Area</i>
274	2		<i>The Study on Sewerage System in Metropolitan Tirana</i>
275	1	Bulgaria	<i>The Study on Maritsa East No.1 Replacing Thermal Power Plant for Improvement of the Performance of the Units and the Environmental Protection</i>
276	2		<i>The Project for Agricultural Reform</i>
277	3		<i>The Master Plan Study on Long Term Management of Bulgarian Railways</i>
278	4		<i>The Study on Environmental Management for Water Pollution Control in Maritza River Basin</i>
279	1	Hungary	<i>The Study on the Environmental Improvement Project for Lake Balaton</i>
280	2		<i>The Restructuring of the State-Owned Automotive Parts Company</i>
281	3		<i>The Study on Facility Improvement and Environmental Protection of Borsod Power Plant</i>
282	1	Kazakhstan	<i>The Study for Development of Road Network in Western Kazakhstan</i>
283	2		<i>The Master Plan Study on Promotion of the Nonferrous Metals Industry</i>
284	3		<i>The Mineral Exploration in the Dzhaman Aybat and Samalsky Area</i>
285	4		<i>The Study for the Air Transportation Development</i>
286	5		<i>Kzyl-Orda irrigation/Drainage and Water Management Improvement Project</i>
287	6		<i>The Urgent Revision of National Basemap Southern Area</i>
288	1	Kyrgyz	<i>The Study on Master Plan of Industrial Development Plan</i>

Development Studies

Total No	NO	Area/Country	Project
		EUROPE	
289	2	Kyrgyz	<i>Mineral Exploration in the Talas Area</i>
290	1	Macedonia	<i>The Study on Air Quality Monitoring System</i>
291	1	Poland	<i>The Study on Restructuring of National Railway Enterprise</i>
292	2		<i>The Study on Restructuring Plan of Enterprises Controlled by the State</i>
293	3		<i>The Master Plan Study for Energy Conservation</i>
294	4		<i>The Study on Integrated Regional Development of Konin Province</i>
295	1	Romania	<i>The Study on Forest Restoration in Romanian Plain</i>
296	1	Slovenia	<i>The Study for the Sanitation of the Drave River by Waste Water Pretreatment and Conservation in Industry in the City of Maribor</i>
297	1	Uzbekistan	<i>The Study on Water Supply Systems in Six Cities of Aral Sea Region</i>
298	2		<i>The Mineral Exploration in the Eastern Bukantau Area</i>
299	3		<i>The Study on Construction of Electric Locomotive Repair Workshop</i>
300	4		<i>The Study for the Air Transportation Development</i>

Project-type technical cooperation

The meaning of project-type technical cooperation

Project-type technical cooperation is a type of aid conducted over a fixed period of time in order to realize specific goals, centering on the development of human resources in developing countries. Each project is based on an organic linkage between three forms of cooperation, namely the dispatch of Japanese experts, taking in participants for training in Japan, and the provision of equipment and materials. It is a method of cooperation involving joint operations over a period of five years which aims to give developing countries the subsequent capacity to implement projects on their own initiative. Technology transfer* occurs at every stage from planning through to implementation and evaluation. Once a project has been completed, it is taken over by the developing country.

Project-type technical cooperation aims at the fostering of human resources, research and development, and diffusion of skills and technology in five specific areas, namely social development, health and medical care, population and family planning, agriculture, forest and fishery and the development of mining and industry.

The skills and experience needed for the implementation of a project are transferred from the experts sent from Japan to the technical staff (referred to as the "counterparts*" of the Japanese experts) responsible for managing the project in the recipient country. To ensure the success of this transfer, it is essential that both sides have a thorough understanding of one another's cultures and societies and that skills and technology based on those available in Japan but fully in tune with local conditions are transferred.

This type of cooperation includes not only specific technical guidance aimed at technical development, training and diffusion: it also incorporates the establishment of organizational and institutional structures needed to guarantee that skills and technology transferred to the recipient country take root and that the recipient country is

able to execute projects on its own initiative once Japanese cooperation has come to an end.

The experts sent to take part in a project are usually organized into teams consisting of several people under a team leader and provide guidance on this basis.

The training part of a project involves counterparts coming to Japan to study at related governmental or private research institutes, hospitals, laboratories or educational institutions in order to receive training and improve their technical expertise in fields connected with implementation of the project. Training in Japan also provides trainees with an ideal opportunity not only to acquire specific skills but also to reach an understanding on the conditions under which these skills were originally developed and are being maintained.

Equipment and materials are made available when needed for the execution of projects in cases where budgetary considerations preclude the possibility of the recipient country providing its own. As part of technology transfer, experts provide instruction to enable counterparts to make use of analytical devices, machine tools and experimental instruments in activities requiring the use of such items.

Project management aiming at autonomous development

The costs required for the execution of a project are on principle borne by the recipient country. However, in cases where a developing country is unable adequately to provide the necessary funds, Japan pays the costs for creating or upgrading farming land and experimental and research facilities, research costs and expenses required for holding study sessions. Japanese expenditure is thereafter decreased as the years go by with a corresponding increase in expenditure by the recipient country. Once cooperation has come to an end, the recipient country is thus the driving force behind activities related to the project.

In cases where the recipient country is unable to

provide the buildings required for technical cooperation, Japan provides grant aid for procuring the necessary facilities, materials and equipment, including the buildings themselves, which are then used as the headquarters for technical cooperation. In FY1996, 74 (32%) of the total of 228 projects included an element of grant aid.

Cooperation is generally provided for five years. However, in the final year of a project, an evaluation is carried out of the results so far achieved through the cooperation and of the prospects for the recipient country to be able to take over the project by itself. When considered necessary, the length of the project may be extended by one to two years. Aftercare cooperation may occasionally be provided three years or more after the conclusion of a project. This involves the short-term dispatch of experts, the training of small numbers of people in Japan, and the provision of small quantities of spare parts and other such materials in order to provide further assistance and stimulation to the recipient country in managing projects by itself.

Participatory Project Cycle Management (PCM*) methods are employed to make project-type technical cooperation that much more effective. Finely tuned planning, project management and evaluation activities are also strengthened for the same purpose.

Content of projects

Social development cooperation

The training of technicians and other personnel is essential if we hope to achieve harmonious development in developing countries with adequate attention being paid to environmental conservation. The following types of cooperation are being provided in the social development category:

- Education (training of science and mathematics teachers at elementary and middle school levels and of engineering teachers at industrial high school and university levels);
- Vocational training (education of training

Project on strengthening Sulawesi rural community development to support poverty alleviation programmes

- Taking on the challenge of global issues -

Open up an atlas and look at Indonesia. In between the islands of Borneo and New Guinea you will notice the unusual K-shaped island of Sulawesi.

The project on village development to support policies to alleviate poverty in Sulawesi is taking place in the model district of Takalar in the southwest of the island. The aim of the project is to alleviate poverty by reducing to about 12 million by 2002 the number of people classified as "absolute poor" (those who cannot afford a calory intake of between 2,150 and 2,250 kilocalories per day, this being considered by the World Bank and the United Nations Food and Agriculture Organization as the minimum necessary caloric intake per person per day), among a total Indonesian population of 25.9 million (figure for

1993) falling into this category. The project is helping to improve the implementation capacity of the Directorate General of Rural Community Development of the Indonesian Ministry of Home Affairs.

First, local governments get together with local communities to stimulate specific regions. A feature of this project is the creation of a participatory development system while extensive preparations are made through social studies.

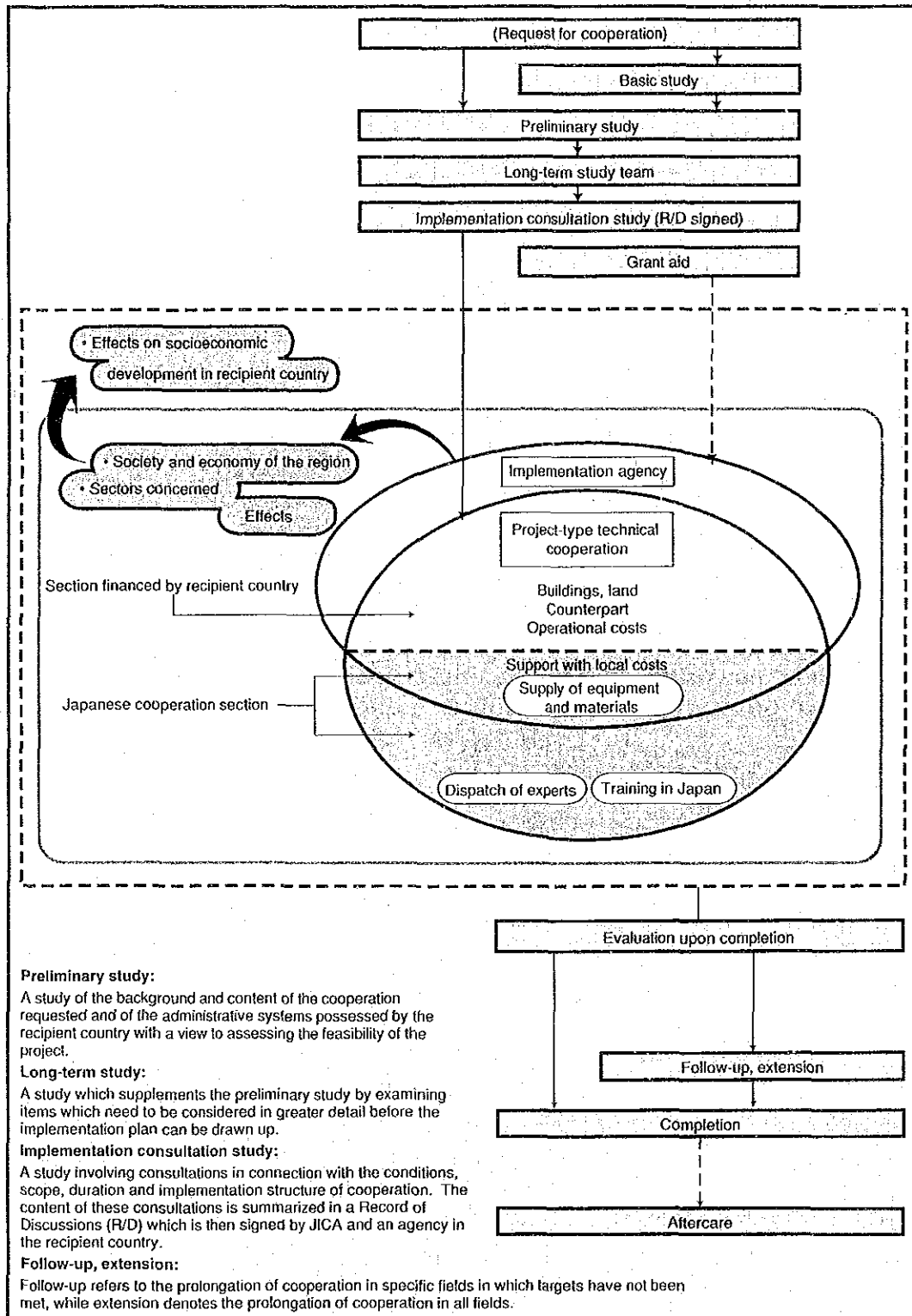
Second, links are formed with NGOs* in Japan. The Karaimo Exchange Foundation in Kagoshima Prefecture and the Central Committee of National Agricultural Cooperatives are taking part by making available their experience in the organization of local communities. Tie-ups with local NGOs are also

envisaged.

Third, consideration has to be given to gender questions. Women have an indispensable role to play in the revitalization of local communities and this project takes particular note of this fact.

This is a project which suggests how JICA is likely to provide cooperation to alleviate poverty in the future.

Figure 2-2 Flow of project-type technical cooperation



instructors);

- Labor safety and hygiene (consolidation of safety and hygiene training);
- Traffic and transportation (training of train drivers, rolling stock and track maintenance engineers, navigation officers and engineers);
- Communications (training of telecommunications engineers specializing in telephone circuitry and digital switching);
- Building (training of architects and building supervisors, construction machinery operators and maintenance engineers);
- Environment (training of air and water analysts and monitors, specialists in maintenance of biodiversity* and waterworks engineers);
- Disaster prevention (training of specialists in earthquake disaster prediction, seismic force measurement and aseismic structures, flood control and soil erosion);
- Poverty measures (regional development by raising the administrative capacity of local

government officials and organizing local communities).

Social development cooperation has a key role to play in school education from basic to higher education, in the fostering of human resources through formal education at vocational training colleges and in the training of engineers at research institutes and implementation agencies in line with development issues in individual countries.

In FY1996, cooperation was provided with 54 projects in 18 countries, centering primarily on response to global issues such as education, the environment and disaster prevention. In terms of region, the largest number of projects were implemented in Asia, which accounted for 65 percent of all projects. Asia was followed in order by Latin America, the Middle East and Africa.

Requests from developing countries are increasing especially in the areas of the environment, disaster prevention and education. In order to enhance the effectiveness of cooperation in

Agricultural and rural development project in Vientiane Province, Laos

- Aiming at sustainable rural development with local participation -

The most important policy for stimulating the introduction of a market economy in Laos involves raising the productivity of the agricultural sector, which accounts for about 58 percent of GDP and supports the livelihoods of 71 percent of the population. In particular, raising the standard of living in rural villages is the main priority.

However, one of the main factors standing in the way of increasing agricultural productivity and raising the standard of living in farming areas is the inadequate infrastructure* in these areas. This situation is aggravated by the fact that rice, Laos's main agricultural product, is cultivated in fields which rely exclusively on rain water. Rice crops are thus easily affected by weather conditions. Harvests are unstable and Laos is far from achieving self-sufficiency in this

crop.

The first step in dealing with these problems was to formulate a plan for low-cost, sustainable development of agriculture and rural villages based on awakening needs and achieving a consensus among local farming communities. Aimed at training personnel to undertake this project, the Agricultural and Rural Development Project in Vientiane Province was carried out over a period of two years beginning in November 1995.

In the next five-year period of full-scale cooperation, we will be working together with the Laotian central and regional governments and with local farming communities on the building of villages in model areas in order to validate the development plan prepared in the first stage.

The features of this project include the presentation of work-



shops with local farmers (using project cycle management (PCM) methods), ascertaining needs through community participation from the planning stage, increasing the enthusiasm of local people to participate, and raising the awareness of local people that they themselves are the main agents and beneficiaries of the project. Another feature of the project is the importance placed on the role of women (WID) in rural villages within development planning.

these areas, networks are being strengthened to enable counterparts and experts in neighboring countries working on similar projects to exchange information and experience.

Cooperation in health and medical care

It goes without saying that wishing to live a healthy life without having to worry about disease is one of the most basic of human aspirations. But the *severe natural conditions and poor state of hygiene* in most developing countries mean that these countries are chronically affected by infectious ailments including a variety of endemic diseases. Such diseases threaten the lives of many people, in particular children with poor resistance to infections. This problem is compounded by the fact that many people living in poverty are unable to gain sufficient nutrition and are forced to lead far from healthy lives. This situation has been aggravated in recent years by the AIDS problem: measures to prevent further increases in the number of HIV carriers and AIDS patients are now taking place on a global scale.

The health and medical care sector of aid operations is concerned with solving problems affecting developing countries such as the shortage of doctors, medical examiners, nurses and other medical practitioners and the inadequacy of medical facilities and systems. Of all the forms of cooperation provided by JICA, this is the one most directly linked to the needs of people in developing countries. JICA is therefore implementing a wide range of projects in this area. These include cooperation with clinical medicine in hospitals and research conducted at research institutes, training of personnel with skills in health and medical care and safety and quality control in connection with foodstuffs, medicines and vaccines.

There has been a notable increase in recent years especially in projects in the field of public hygiene and local health care in accordance with the Primary Health Care Approach*, aimed at benefiting local communities in the broadest sense. Such cooperation on the grass-roots level is likely to increase in the future. Thirty-eight projects of this type were implemented in FY1996, with efforts

being made to train a broad spectrum of personnel ranging from health administrative officers and doctors who will play important roles in their respective countries to local health care workers.

In addition to project-type technical cooperation, equipment and pharmaceutical products are being supplied to developing countries suffering from a shortage of medical equipment and medicines. Four out of five cases of infant mortality in developing countries are caused by infectious diseases. To the gratitude of many recipient countries, JICA's cooperation is being obtained through the World Health Organization (WHO) and the United Nations Children's Fund (UNICEF) in distributing large quantities of vaccines to deal with infectious diseases such as measles and polio which can be prevented by inoculation. Provision of examination equipment is also making a considerable contribution to improving the capacity of developing countries to diagnose cases of AIDS.

Population and family planning cooperation

The total global population in 1996 was about 5.8 billion, of which around 80 percent is concentrated in developing countries. The world population is still continuing to increase today, and this increase is accounted for almost entirely by countries in the developing world. The problems of poverty currently being faced by developing countries are closely connected with high rates of population growth, which is also likely in the future to cause difficulties as regards obtaining food and to have a deleterious influence on the environment. Dealing with such problems is a task which must be tackled globally and is not one restricted to the developing countries alone.

International developments in recent years in the field of population and family planning have begun to focus on the concept of "reproductive health*," which includes safe childbirth and other aspects of women's health, and protection of human rights, rather than simply on population education and the diffusion of family planning methods. In its population and family planning cooperation projects, JICA is thus working on joint family planning and maternal and child health projects

which include raising the standards of maternal and child health activities in regional communities. Nine projects were executed in FY1996, with efforts being made to train family planning workers and maternal and child health workers.

In addition to project-type technical cooperation, JICA is providing developing countries with simple medical equipment for improving standards of maternal and child health care, contraceptive devices and basic pharmaceutical products, and audiovisual teaching aids for spreading awareness of family planning. These items are made available to promote the activities (known as "Population Front Line") of the JOCVs or in linkage with the United Nations Population Fund (UNFPA).

Cooperation in the population field is stipulated together with AIDS under the Japan-U.S. Common Agenda*. This is a field of cooperation into which JICA has been directing much effort in recent years, and it is likely to be expanded in the future especially in priority countries under the Common Agenda. Even more than in other fields, this is one which requires social sensitivity only to be acquired through a knowledge of the recipient country's history and culture. A standpoint rooted in WID

(Women in Development) is also indispensable in this context.

Cooperation in agriculture, forestry and fishery

Cooperation in the fields of agriculture, forestry and fishery is intended to contribute to increased food production, increased income for farmers, improvements in standard of living, effective use of resources and environmental conservation. These aims are achieved through the development of the agricultural, forestry and fishing industries in developing regions, training of agricultural extension workers, research conducted at universities and in laboratories and the conservation and appropriate use of forestry and marine resources.

Eighty-seven projects in the field of agriculture, forestry and fishery were undertaken in 36 countries in FY1996, in comparison with 25 projects in 16 countries in FY1975, marking increases of more than twice the number of countries and three times the number of projects over this period.

Among the features of recent cooperation in this field have been the increase in the number of

Primary health care project in Lusaka

- Transferring expertise in the field of regional health care in linkage with NGOs -

Although well-known as an important producer of copper, Zambia is one of the poorest countries in Africa with a per capita GNP of \$420. Both its economic and social sectors are continuing to deteriorate. This applies equally to health care, which constitutes one of the most basic human needs. JICA is implementing a primary health care project in Lusaka over a term of five years starting in April 1997, and has begun working on improvements in the state of health care.

Support is being received from the Niigata prefectural government, Niigata University, and the Asian Medical Doctors Association (AMDA), the aim being to transfer skills and expertise relating to regional health

care.

Practical activities in the area are being carried out in linkage with AMDA, an organization which has plentiful experience of treating refugees and of emergency medical treatment on the front line. Since NGOs have been involved from the planning stage, this project is classified as involving tie-ups with NGOs. We can thus look forward to activities which take advantage of the strong points of ODA and NGOs.

The project actually involves the formulation of a regional health care program under the guidance of Japanese experts and incorporating the Zambian counterparts and the implementation of primary health care activities based on local participation in the model areas. It also

includes implementation of regional health care, provision of medical equipment needed for personnel training and the education of experienced medical practitioners.

We also have our sights set on establishing appropriate links with tertiary medical treatment (regional health care, university hospitals, etc.) and intend to establish close working relationships with those involved in health care administration. The Japanese and Zambian contingents are working enthusiastically together on these activities in order to make a broad contribution to improvements in the health of the people of Lusaka.

projects and the diversification of their content. We are seeing, for instance, 1) cooperation projects in which elements relating to poverty, local participation and WID are combined with other sectors (integrated rural development, improvements in living conditions in rural villages, social forestry), 2) cooperation projects relating to applied fields such as agricultural statistics, residual agricultural chemicals, monitoring of coastal sea environments and distribution of agricultural produce, 3) projects connected with resources and the environment (sustainable agricultural development, genetic resources, forest conservation and control over fishery resources), and 4) support for the processes of democratization and the introduction of a market economy (Laos, Romania and Bulgaria).

It has thus become an important task to respond appropriately to this diversification of content. To do so demands that we inform ourselves thoroughly on the content of requests made by recipient countries and of the state of technical development in each country and take the utmost care to formulate projects which are entirely in line with the needs of the recipient country. At the same time, we need to encourage linkage with other forms of cooperation, to expand our expert recruitment system through linkage with local governments and to strengthen the domestic support structure for projects.

The expansion in the area over which projects are being implemented is resulting in an increase in cooperation provided in areas with severe living conditions. This means that projects must be executed with adequate consideration being given to the safety and health of the experts themselves.

Cooperation in mining and industry

Cooperation in the field of mining and industry is occurring over a wide range of areas from the promotion of small and medium scale industries in developing countries to supporting the cultivation and consolidation of the basic industries which will underpin future economic development.

Forty projects were implemented in 19 countries in FY1996. There have been increases recently in cooperation with the establishment of institutions

for upgrading the industrial infrastructure through, for instance, industrial standardization, quality control and increased productivity which are needed to keep pace with rapid advances in industrialization. There has also been an increase in cooperation with issues incorporating technology transfer in areas such as responses to environmental and energy problems.

Recent examples of cooperation of particular note have all given consideration to the three points described hereunder. The first of these is the adoption of environmental conservation measures.

In their headlong rush toward economic development, developing countries often tend to overlook measures to prevent pollution and other environmental concerns. This is because they have directed all their available personnel and funds into development and have no leeway to direct any further resources to environmental questions. In order to deal with such problems, "offer-type" projects (active cooperation for environmental conservation) are being carried out. The idea behind these projects is to propose environmental conservation methods appropriate to the conditions in recipient countries through recourse to the extensive technology in the field of prevention of pollution accumulated by the Japanese industrial world, and to enable cooperation to start immediately on the basis of the proposals made.

Cooperation of this type was carried out in FY1996 in the four countries of Brazil, Malaysia, Thailand, and China.

The second point is expansion of support for countries attempting to make the transition to market economies.

Positive support is being provided particularly in connection with new aid requirements in Eastern Europe, Central Asia, and the three Indo-Chinese nations of Vietnam, Laos and Cambodia. In FY1996, cooperation in the fields of productivity enhancement, energy-saving policy and information processing was extended to Hungary, Bulgaria and Vietnam.

The third point is the promotion of linked cooperation between projects, the aims here being to encourage trade and investment and to provide support with liberalization centering on the

countries of ASEAN and the Asia Pacific Economic Cooperation (APEC) constantly in view. In FY1996, three seminars in which ASEAN nations participated were held on the topic of industrial standardization with reference specifically to projects under way in the Philippines, Thailand and Singapore.

Detailed, wide-ranging cooperation in the field of mining and industry is thus being provided over an area ranging from the cultivation of traditional local industries to support for the varied aid needs of developing countries including those striving to affect the transfer to a market economy.



An expert instructing counterparts in the Faculty of Veterinary Science at the University of Zambia.

Project-type Technical Cooperation

NO	Area/Country	Project	Duration
	ASIA		
1	Cambodia	The Maternal and Child Health Project	1995/04/01~2000/03/31
2	China	The Laboratory Animal Science and Technology Training Center Project	1992/07/01~1997/06/30
3		The Dalian Energy Conservation Training Center Project	1992/07/09~1997/07/08
4		The Pilot Scheme for Technological Development on River Information System Project	1993/06/01~1998/05/31
5		The Computer Software Technology Training Center of SSTC	1993/11/12~1998/11/11
6		The Research Center of Mineral Resources Exploration Project	1994/09/01~1999/08/31
7		The Project of the Training Center for Instructors of Vocational Training of Ministry of Labor	1994/11/01~1999/10/31
8		The Polio Control Project	1991/12/04~1999/12/03
9		The Tianjin Drug Quality Control Project	1993/11/06~1998/11/05
10		The Tianjin Dairy Farming Development Project	1990/03/01~1997/02/28
11		The Forestry Development Project in Fujian Province	1991/07/01~1998/06/30
12		The Technology and Training Project for Repair and Maintenance of Agricultural Machinery	1992/04/01~1998/03/31
13		The Rice and Wheat Research Project in the Yellow River Basin in Henan Province	1993/04/01~1998/03/31
14		The Irrigation and Drainage Engineering Development and Training Center Project	1993/06/10~1998/06/09
15		The Forest Protection Research Project in Ningxia Hui Autonomous Region	1994/04/01~1999/03/31
16		The Dairy Product Manufacturing Technology Development Project, Inner Mongolia	1994/06/01~1999/05/31
17		The Research Center for Water Pollution and Water Re-Use	1992/11/19~1997/11/18
18		The Project for the Improvement of Forage Crops production and Utilization Technique in the Hebei Province	1995/04/01~2000/03/31
19		The Clinical Medical Education Project for the China-Japan Medical Education Center	1995/04/26~2000/04/25
20		The Project on Research and Training Center on New Technology for Housing	1995/09/01~2000/08/31
21		The Hubei Province Forest Tree Improvement Project	1996/01/15~2000/01/14
22		The Japan-China Friendship Environmental Protection Center Project Phase II	1996/02/01~2001/01/31
23		The Technology for Petrochemical Waste Water Gases Treatment	1996/11/01~2001/10/31
24		The Integrated Development Project in the Waterlogged Area in the Four-Lake Area of Jiangnan Plain, Hubei Province	1997/01/10~2002/01/09

Project-type Technical Cooperation

NO	Area/Country	Project	Duration
	ASIA		
25	China	The Environmental Protection and Safety Training Center of the Ministry of Coal Industry	1997/03/01-2002/02/28
26	India	The Sanjay Gandhi Post Graduate Institute of Medical Science: SGPGI	1990/08/01-1997/07/31
27		The Bivoline Sericulture Technology Development Project	1991/06/01-1997/03/31
28	Indonesia	The Higher Education Development Support Project HEDS	1990/04/12-1999/07/31
29		The Water Supply and Environmental Sanitation Training Center	1991/04/01-1997/09/30
30		The Sabo Technical Center Project: STC	1992/04/01-1997/03/31
31		The CEVEST Vocational Training Development Project	1992/06/01-1997/05/31
32		The Modernization of Perumka's Education and Training System in Jabotabek	1992/09/01-1997/07/31
33		The Environmental Management Center	1993/01/01-1997/12/31
34		The Development of Appropriate Technology for Multi-Story Residential Building and Its Environmental Infrastructures for Low Income People	1993/11/01-1998/10/31
35		The Telephone Outside Plant Construction Center Project	1994/11/20-1998/11/19
36		The Project for Development of Vocational Rehabilitation System in the National Rehabilitation Center for the Physically Disabled People, PROFDR, Surakarta	1994/12/20-1997/12/19
37		The Fundamental Technology Transfer Project for Production of Live Attenuated Measles and Poliomyelitis Vaccines	1989/09/01-1996/08/31
38		The Project for Upgrading the Emergency Medical Care System of the Dr. Soetomo Hospital in Surabaya/East Java	1995/02/01-2000/01/31
39		The Integrated Agricultural and Rural Development Project in Southeast Sulawesi Province	1991/03/01-1998/02/28
40		The Forest Tree Improvement Project	1992/06/01-1997/05/31
41		The Seed Potato Multiplication and Training Project	1992/10/01-1997/09/30
42		The Research and Development for the Multispecies Hatchery Project	1994/04/02-1999/04/01
43		The Irrigation Engineering Service Center Project	1994/06/10-1999/06/09
44		The Agricultural Statistics Technology Improvement and Training Project	1994/10/01-1999/09/30
45		The Tropical Rain Forest Research Project Phase 3	1995/01/01-1999/12/31
46		The Training Project in Industrial Pollution Prevention Technology	1993/10/08-1998/10/07

Project-type Technical Cooperation

NO	Area/Country	Project	Duration
	ASIA		
47	Indonesia	The Biodiversity Conservation Project	1995/07/01~1998/06/30
48		The Project to Enhance Education and Training of Industrial Safety and Health	1995/11/15~2000/11/14
49		The Forest Fire Prevention Management Project	1996/04/15~2001/04/14
50		The Quality Soybean Seed Multiplication and Training Project	1996/07/01~2001/06/30
51		The Project on Strengthening Sulawesi Rural Community Development to Support Poverty Alleviation Programmes	1997/03/01~2002/02/28
52		The Human Resource Development in the Trade Sectors	1997/03/01~2001/02/28
53		The Dairy Technology Improvement Project	1997/03/03~2002/03/02
54	Korea	The New Materials Evaluation Center Project	1991/10/15~1996/10/14
55		The Project for Prevention of Occupational Diseases	1992/04/13~1997/04/12
56		The Project for Development of Water Quality Renovation System	1993/09/01~1998/08/31
57	Laos	Joint Japan/WHO Technical Cooperation for the Primary Health Care Project	1992/10/01~1997/09/30
58		The Agricultural and Rural Development Project in Vientiane Province	1995/11/01~1997/10/31
59		The Forest Conservation and Afforestation	1996/07/16~1998/07/15
60	Malaysia	The Malaysia AI System Development Laboratory	1995/03/01~2000/02/29
61		The Project for Upgrading Accident & Emergency Care Service at Sarawak	1992/08/01~1997/07/31
62		The Effective Wood Utilization Research Project in Sarawak	1993/04/01~1998/03/31
63		The Project on Evaluation and Analysis of Hazardous Chemical Substances and Biological Treatment of Industrial Wastes	1993/09/09~1997/09/08
64		The Malaysia External Trade Development Corporation	1994/07/01~1999/06/30
65		The Measurement Center of SIRIM (Phase 2)	1995/09/15~2000/09/14
66		The Project for the Development of Technology related to the Processing of Feed based on Agro-industrial By-products of Oil Palms Production	1997/03/15~2002/03/14
67	Mongolia	The Institute of Geology and Mineral Resources	1994/03/09~1999/03/08
68	Myanmar	The Irrigation Technology Centre	1988/04/01~1999/03/31
69		The Central Forestry Development Training Centre Project	1990/08/01~1997/07/31

Project-type Technical Cooperation

NO	Area/Country	Project	Duration
	ASIA		
70	Nepal	The Water Induced Disaster Prevention Technical Center Project: DPTC	1991/10/07-1999/03/31
71		The Medical Education Project	1989/06/20-1996/06/19
72		The Primary Health Care Project	1993/04/01-1998/03/31
73		The National Tuberculosis Control Project Phase 2	1994/07/05-1999/07/04
74		The Project for Natural Water Fisheries Development	1991/11/01-1998/10/31
75		The Horticulture Development Project Phase 2	1992/11/12-1997/11/11
76		The Community Development and Forest/Watershed Conservation Project	1994/07/16-1999/07/15
77	Pakistan	The Genetic Resources Preservation and Research Laboratory Project	1993/06/01-1998/05/31
78		The Geoscience Laboratory in the Geological Survey	1990/10/01-1997/03/31
79		The Maternal and Child Health Project	1996/06/15-2001/06/14
80	Philippines	The Rural Livelihood Generation Project: RLGP	1991/10/01-1996/09/30
81		The National Center for Transportation Studies: NCTS	1992/04/01-1999/03/31
82		The National Construction Productivity Development Project: NCPDP	1993/04/01-1998/03/31
83		The Project for Enhancing Vocational Training of the IVTD-NMYC: PEVOTI	1994/04/01-1999/03/31
84		The Science and Mathematics Education Manpower Development Project: SMEMDP	1994/06/01-1999/05/31
85		The Philippine Software Development Institute	1995/01/01-1999/12/31
86		The Public Health Development Project	1992/09/01-1997/08/31
87		The Family Planning and Maternal and Child Health Project	1992/04/01-1997/03/31
88		The Philippine Rice Research Institute Project	1992/08/01-1997/07/31
89		The Diversified Crops Irrigation Engineering Project Phase 2	1993/05/28-1998/05/27
90		The Soil Research and Development Center Project Phase 2	1995/02/01-2000/01/31
91		The Industrial Standardization and Electrical Testing	1993/08/24-1997/08/23
92		The Training Services Enhancement Project for Rural Life Improvement	1996/06/15-2001/06/14
93		The Project for Prevention and Control of AIDS	1996/07/01-2001/06/30
94		The Bohol Integrated Agriculture Promotion Project	1996/11/11-2001/11/10
95		The Pesticide Monitoring System Development Project	1997/03/31-2002/03/30

Project-type Technical Cooperation

NO	Area/Country	Project	Duration
	ASIA		
96	Sri Lanka	The Agricultural Extension Improvement Project in Gampaha	1994/07/01~1999/06/30
97		The National Plant Quarantine Services Project	1994/07/01~1999/06/30
98		The Foundry Technology Development Project	1995/12/01~2000/11/30
99		The Quality Improvement of Textile and Clothing Products	1996/04/01~2001/03/31
100		The Construction Equipment Training Center	1996/10/01~2000/09/30
101		The Nursing Education Project	1996/10/01~2001/09/30
102	Thailand	The Project on Environmental Research and Training Center	1990/04/01~1997/03/31
103		The National Computer Software Training Center	1991/05/01~1996/10/31
104		The Railway Training Center Project	1992/06/01~1997/05/31
105		The Training in the Distribution Automation System	1992/06/30~1997/06/29
106		The Project for the Expansion and Modernization of Merchant Marine Training Center	1993/03/03~1998/03/02
107		The Development of Mechatronics Engineering Course at Bachelor Degree Level in Pathumwan Technical College	1993/04/01~1998/03/31
108		The Project to Enhance the Capacity of the Faculty of the Engineering at Thammasat University	1994/04/01~1999/03/31
109		The National Waterworks Technology Training Institute Project (Phase 2)	1994/09/01~1999/08/31
110		The Community Health Project	1991/09/01~1996/08/31
111		The Project for Prevention and Control of AIDS	1993/07/01~1996/06/30
112		The Project for Strengthening of Food Sanitation Activities	1994/04/01~1999/03/31
113		The Family Planning and Maternal and Child Health Project	1991/06/01~1996/05/31
114		The Irrigation Engineering Center Project Phase 2	1990/04/01~1997/03/31
115		The Reforestation and Extension Project in the Northeast of Thailand	1992/04/01~1998/09/30
116		The Land and Water Conservation Center Project in the East of Thailand	1993/06/10~1998/06/09
117		The Chiang Mai University Plant Biotechnology Research Project	1993/08/01~1998/07/31
118		The Dairy Farming Development Project in the Central Region	1993/08/01~1998/07/31
119		The National Institute of Animal Health Project Phase 2	1993/12/09~1998/12/08
120		The Research Project on the Quality Development of Fishery Products	1994/04/01~1999/03/31

Project-type Technical Cooperation

NO	Area/Country	Project	Duration
	ASIA		
121	Thailand	The Northern Ceramic Development Center	1992/10/14-1997/10/13
122		The Productivity Development Project	1994/02/18-1999/02/17
123		The Training Center for Sewage Works	1995/08/01-2000/07/31
124		The Industrial Property Information Center	1995/07/01-2000/06/30
125		The Automotive Fuel Research for Environmental Improvement	1996/03/01-2000/02/29
126		The Research Project for Higher Utilization of Forestry and Agricultural Plant Materials	1996/08/01-2001/07/31
127		The Testing and Inspection Technology Upgrading for Textile and Garment Products	1997/03/01-2001/02/28
128	Vietnam	The Cho Ray Hospital Project	1995/04/01-1998/03/31
129		The Vietnam Information Technology Training	1997/03/24-2002/02/25
130		The Afforestation Technology Development Project on Acid Sulphate Soil in the Mekong Delta	1997/03/20-2000/03/19
	MIDDLE EAST		
131	Egypt	The Cairo University Pediatric Hospital Phase 2	1989/07/01-1996/06/30
132		The Project for the High Institute of Nursing, Cairo University	1994/04/01-1999/03/31
133	Iran	The Yazd Signaling Training Center (YSTC)	1993/12/01-1996/11/30
134	Morocco	The Training Center for Road Construction Machinery and Road Maintenance	1992/04/16-1997/04/15
135		The Fisheries Technical Training Project	1994/06/20-1999/06/19
136		The Higher Institute of Merchant Marine Project	1996/04/01-2001/03/30
137	Oman	The Fisheries Training and Development Project	1993/05/07-1998/05/06
138	Saudi Arabia	The Royal Technical Electronics Institute	1974/06/12-1996/09/30
139	Syria	The 2nd Phase of National Standards and Calibration Laboratory	1995/12/01-1999/11/30
140	Tunisia	The Project for the Promotion of Family Planning Education	1993/03/23-1998/03/22
141	Turkey	The Earthquake Disaster Prevention Research Center	1993/04/01-1998/03/31
142		The Port Hydraulic Research Center	1995/01/01-1999/12/31
143		The Project of Development and Evaluation of Quality Control on Biological Products	1993/01/01-1996/06/30
144		The Project of Promotion of Population Education Phase 2	1993/11/08-1998/11/07
145		The Improvement of Mine Safety Technologies	1995/11/01-2000/10/31

Project-type Technical Cooperation

NO	Area/Country	Project	Duration
	MIDDLE EAST		
146	Yemen	The Project for Tuberculosis Control Program 2	1993/02/21-1998/02/20
	AFRICA		
147	Ghana	The Noguchi Memorial Institute Project, Phase 2	1991/10/01-1997/09/30
148	Côte d'Ivoire	The Agricultural Machinery Training Project for Irrigated Rice Cultivation	1992/08/01-1997/07/31
149	Kenya	The NYS Engineering Institute	1988/01/01-1997/12/31
150		The Jomo Kenyatta University College of Agriculture and Technology (Undergraduate Program): JKUCAT	1990/04/19-1997/04/18
151		The Kenya Institute of Surveying and Mapping	1994/10/01-1999/09/30
152		The Research and Control of Infectious Diseases Project	1990/05/01-1996/04/30
153		The Population Education Promotion Project (2)	1993/12/16-1998/12/15
154		The Mwea Irrigation Agricultural Development Project	1991/02/01-1998/01/31
155		The Social Forestry Training Project Phase 2	1992/11/26-1997/11/25
156		The Research and Control of Infectious Diseases Project: Phase II	1996/05/01-2001/04/30
157	Malawi	The Community Health Science Project	1994/09/01-1999/08/31
158		The Research Project for Small-Scale Aquaculture of Malawian Indigenous Species	1996/04/01-1999/03/31
159	Mauritius	The Coastal Resources and Environment Conservation Project	1995/12/01-2000/11/30
160	Tanzania	The Maternal and Child Health Service Project	1994/12/01-1999/11/31
161		The Kilimanjaro Village Forestry Project Phase 2	1993/01/15-1998/01/14
162		The Kilimanjaro Agricultural Training Center Project	1994/07/01-1999/06/30
163	Zambia	The Infectious Diseases Control Project	1995/04/01-2000/03/31
164		The University of Zambia Veterinary Education Project Phase 2	1992/07/22-1997/07/21
165	Zimbabwe	The Project of Infectious Diseases Control	1996/07/01-2001/06/30
	LATIN AMERICA		
166	Argentina	The Informatics Training Center Project	1991/12/13-1997/06/12
167		The Assessment and Monitoring of Fisheries Resources	1994/12/01-1999/11/30
168		The Plant Virus Research Project	1995/03/01-2000/02/29

Project-type Technical Cooperation

NO	Area/Country	Project	Duration
	LATIN AMERICA		
169	Argentina	<i>The Industrial Energy Conservation Project</i>	1995/07/01-2000/06/30
170		<i>The Population Statistics Project</i>	1995/09/15-2000/09/14
171	Bolivia	<i>The Health and Medical Care Delivery System in Santa Cruz</i>	1994/12/15-1998/12/14
172		<i>The Fisheries Development Research Center Project</i>	1991/06/15-1998/06/14
173		<i>The Beef Cattle Improvement Project</i>	1996/07/01-2001/06/30
174	Brazil	<i>The Technological Capacitation in Materials Project</i>	1992/12/15-1997/12/14
175		<i>The Gastrointestinal Diagnosis and Research Center of the State University of Campinas</i>	1990/07/06-1996/07/05
176		<i>The Public Health Development Project for the North-East Brazil in Pernambuco</i>	1995/02/10-2000/02/09
177		<i>The Amazon Agricultural Research Cooperation Project</i>	1990/06/28-1997/06/27
178		<i>The Forest and Environment Conservation Research Project in the State of Sao Paulo</i>	1993/02/01-1998/01/31
179		<i>The Project of Sustainable Agricultural Development and Natural Resources Conservation in the Cerrado Region</i>	1994/08/01-1999/07/31
180		<i>The Training Center for Mine Pollution Control</i>	1990/06/28-1996/06/27
181		<i>The Industrial Waste Management Project</i>	1993/08/27-1998/08/26
182		<i>The Brazilian Amazon Forest Research Project</i>	1995/06/01-1998/05/31
183		<i>The Brazilian Institute of Quality and Productivity Project</i>	1995/06/01-2000/05/31
184		<i>The Maternal and Child Health Improvement Project in North-East Brazil</i>	1996/04/01-2001/03/31
185		<i>The Research Project on Small-Scale Horticulture in Southern Brazil</i>	1996/12/01-2001/11/30
186		<i>The Quality Improvement of Foundry Technology in Small and Medium Scale Industry</i>	1997/03/01-2002/02/28
187	Chile	<i>The Digital Telecommunications Training Center</i>	1992/07/27-1997/07/26
188		<i>The Erosion Control and Afforestation Project in Watersheds of Semi-Arid Area</i>	1993/03/01-1998/02/28
189		<i>The Mine Safety and Environment Training Center Project</i>	1994/07/01-1999/06/30
190		<i>The National Center for Environment</i>	1995/06/01-2000/05/31
191	Colombia	<i>The Irrigated Agriculture Development Project in Sloping Areas</i>	1991/10/01-1997/09/30
192	Costa Rica	<i>The Project for the Early Detection of Gastric Cancer</i>	1995/03/01-2000/02/28

Project-type Technical Cooperation

NO	Area/Country	Project	Duration
	LATIN AMERICA		
193	Costa Rica	<i>The Technical Instructor and Personnel Training Center for Industrial Development of Central America</i>	1992/09/01-1997/08/31
194	Dominican Republic	<i>The Research and Clinical Project for Gastroenterological Diseases</i>	1990/01/01-1996/12/31
195		<i>The Pepper Culture Development Project Phase 2</i>	1992/07/07-1997/07/06
196	Ecuador	<i>The National Aquaculture and Marine Research Center Project</i>	1990/08/01-1997/07/31
197	Guatemala	<i>The Project of Research for Control of Tropical Diseases</i>	1991/10/01-1998/09/30
198	Honduras	<i>The Swine Production Development Project</i>	1993/05/15-1998/05/14
199		<i>The Technology Development Project on Irrigation and Drainage</i>	1994/10/01-1999/09/30
200	Mexico	<i>The Earthquake Disaster Prevention Project</i>	1990/04/01-1997/03/31
201		<i>The National Actualization Center for the General Directorate for the Industrial Technological Education Project</i>	1994/09/01-1999/08/31
202		<i>The Family Planning and Maternal and Child Health Project</i>	1992/04/01-1998/03/31
203		<i>The Project for Agricultural Development in Mining Towns in the Arid Areas</i>	1990/03/01-1997/02/28
204		<i>The Mineral Processing Plant Operation Technology</i>	1992/08/17-1996/08/16
205		<i>The National Center for Environmental Research and Training</i>	1995/07/01-1997/06/30
206		<i>The Project on the Improvement of Techniques for the Production of Vegetables in Morelos</i>	1996/03/01-2001/02/28
207		<i>The Refinery Safety Training Center Project</i>	1996/12/01-2001/11/30
208	Panama	<i>The Project of Telecommunication Training Center</i>	1990/08/01-1996/07/31
209		<i>The Panama Nautical School Up-Grading Project</i>	1993/10/01-1998/09/30
210		<i>The Forest Conservation Technical Development Project</i>	1994/04/01-1999/03/31
211	Paraguay	<i>The Telecommunications Training Center</i>	1992/04/01-1999/03/31
212		<i>The Community Health Project</i>	1994/12/01-1999/11/30
213		<i>The Main Grain Crops Production</i>	1990/06/01-1997/03/31
214		<i>The Marketing Improvement Project on Fruit and Vegetables</i>	1991/03/06-1998/03/05
215		<i>The Rural Development Project in the Region South of Pilar</i>	1994/07/01-1999/06/30

Project-type Technical Cooperation

NO	Area/Country	Project	Duration
	LATIN AMERICA		
216	Paraguay	<i>The Quality Control Project for Textile Industry</i>	1992/02/28~1997/02/27
217		<i>The Forest Extension Project in the Eastern Region of Paraguay</i>	1996/04/24~2001/04/23
218	Trinidad and Tobago	<i>The Regional Fisheries Training Project</i>	1996/04/01~2001/03/31
219	Uruguay	<i>The Forest Tree Improvement Cooperation Project</i>	1993/03/10~1998/03/09
220		<i>The Fruit Tree Protection Project</i>	1995/03/01~2000/02/28
221		<i>The Veterinary Laboratories Improvement Project</i>	1996/10/01~2001/09/30
	OCEANIA		
222	Papua New Guinea	<i>The Forest Research Project Phase 2</i>	1995/04/01~2000/03/31
223	Solomon Islands	<i>The Project for Promotion of Primary Health Care</i>	1991/09/01~1996/08/31
224	Tonga	<i>The Aquaculture Research and Development Project</i>	1991/10/02~1998/10/01
	EUROPE		
225	Bulgaria	<i>The Energy Efficiency Center Project</i>	1995/11/01~2000/10/31
226	Hungary	<i>The Productivity Development Project</i>	1995/01/01~1999/12/31
227	Poland	<i>The Polish-Japanese Institute of Computer Techniques</i>	1996/03/08~2001/03/07
228	Romania	<i>The Irrigation System Readjustment Project</i>	1996/03/01~2000/02/28

Acceptance of technical training participants and the youth invitation program

Aims and significance

Providing technical training to participants from overseas is one of the most basic programs implemented by JICA. The aim of this program is to bring technicians, researchers and administrators from developing countries for training in Japan and certain developing countries in order to provide them with the knowledge required in their own countries and to transfer skills and technology to these countries.

As is evident from records of the discussions engaged in by the Development Assistance Committee* (DAC) of the Organization for Economic Cooperation and Development, the importance of this training program is internationally recognized; it is considered to be a key to the effective development of human resources and the establishment of organizations and institutions in developing countries.

The scale of this program has been steadily increasing since it was launched in 1954. It has also been growing more and more diversified and sophisticated in content. In FY1996, training was provided to 9,081 new participants from 148 countries and four areas. The total number of people who have received training in Japan since the inauguration of this program is approaching 122,000.

The technical participants have included many who have gone on to assume high-level governmental posts, including the present Prime Minister of Mongolia, the Paraguayan Minister of Health and Welfare, and the Romanian Minister of Tourism. The JICA training program is thus playing an important role in training the people who will come to play leading roles in social and economic development in developing countries, i.e. the "leaders of tomorrow."

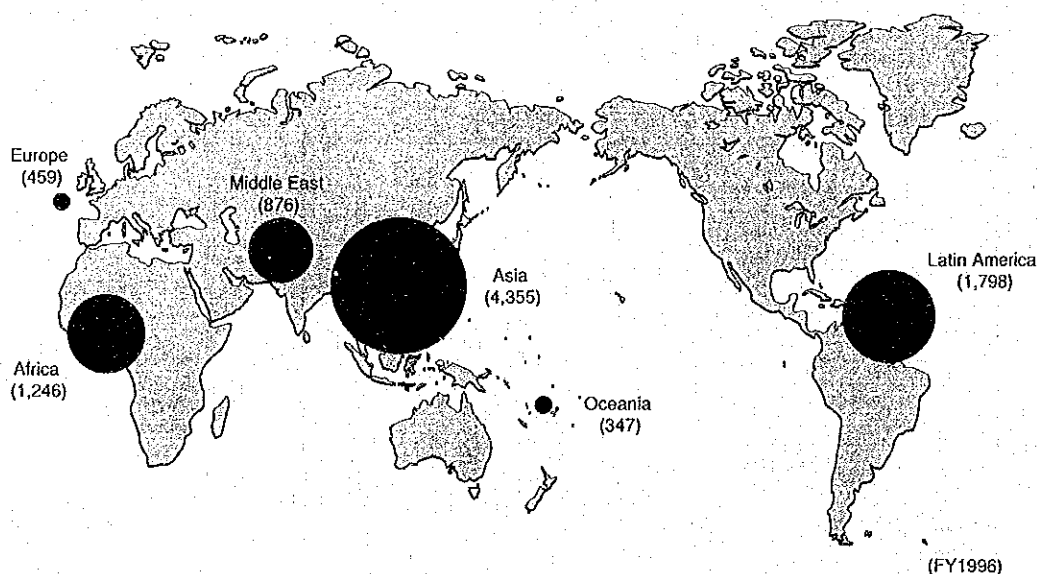


Figure 2-3 Technical training participants by region

Features of the program

The main feature of JICA's technical training program is that it is carried out largely in Japan, and in this respect differs from other forms of cooperation, which are generally conducted in developing countries. The program is implemented with the participation of related government ministries and agencies, universities and research institutions, hospitals, companies and other places where trainees are given the opportunity to study, interpreters and supervisors, travel agencies, hotel staff, people involved in the running of the JICA international centers where the trainees live during their stay in Japan, international exchange organizations, and local people.

Another feature of the program is that it covers almost the whole of the developing world: participants from almost 150 countries have visited Japan so far, and the subjects in which training is available have increased enormously in range.

Yet another feature is the capacity of the program to respond actively and flexibly to new aid requirements and new recipient nations which emerge in accordance with changes in global issues and in the structure of the international community.

Supported thus by the cooperation and participation of many people, the JICA training

program is being implemented throughout Japan. As well as fulfilling its primary role of transferring technology from Japan to the developing world, the program gives participants the opportunity to meet people from other countries, and in this respect offers a valuable opportunity to enhance friendly relations with other countries and to build relationships based on mutual trust.

Recent trends

Since the end of the Cold War, training programs have been started for the benefit of several regions and countries newly singled out for aid including Palestine, Central Asia, Bosnia-Herzegovina and the three eastern Baltic states. Training is being provided centering on courses tailored to the development needs of these regions and countries as follows:

- (1) Business management and primary education in Palestine;
- (2) Support for the transition to a market economy in the countries of Central Asia;
- (3) Measures to combat leakage of water pipes in Bosnia-Herzegovina.

In terms of the proportions of technical participants per region in FY1996, 48 percent of them were from Asia, followed by 19.8 percent from

Support for cooperation within APEC

- Furthering commerce and economic and technical cooperation in Asia and Oceania -

The "Partners for Progress" (PFP) concept was proposed at the sixth APEC summit conference held in Indonesia in 1994 and was incorporated into the joint communique issued on the occasion of the APEC ministerial meeting held in Osaka in 1995. The PFP concept, as later refined on the basis of the opinions expressed by member states and regions, was then realized as a project based on third-country training* from February 1997.

The project got off to a start with three courses entitled "Industrial Ownership Rights*,"

"Competition Policy," and "Standards and Conformity Assessment." JICA dispatched between five and seven experts to each of these courses. Several lecturers were also sent from New Zealand and Australia.

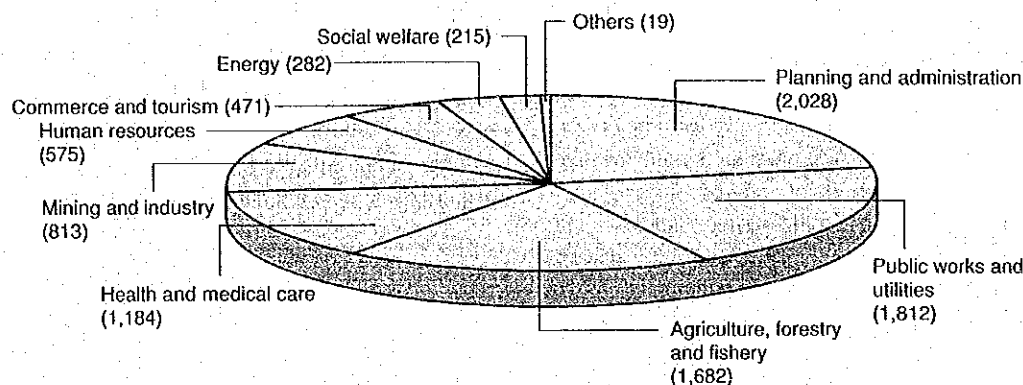
It is hoped that such third-country training will contribute to the liberalization and facilitation of trade and investment in APEC countries and regions and to the promotion of economic and technical cooperation.

It is also likely to play a positive role in achieving the goal of free and open trade and invest-



ment in Asia and Oceania by 2010 in the case of developed countries and by 2020 in the case of developing countries.

Figure 2-4 Technical training participants by sector



Latin America, 13.7 percent from Africa, 9.7 percent from the Middle East, 5.0 percent from Europe, and 3.8 percent from Oceania. The major increases in numbers per region in recent years have been from Africa, Europe and Oceania.

Efforts are being made to deal with various new development issues, especially environmental problems of global significance, support for the new field of aid represented by the transition to a market economy and democratization, social welfare and WID*.

In the environmental field, for instance, 102

training courses are being implemented in connection with matters such as measures to prevent global warming, preservation of coral reefs, and methods for the management of mangrove ecosystems.

Sixty-two courses are currently being implemented in the field of support for the transition to a market economy and democratization. Especially worthy of note are the following:

(1) Seminars aimed at promoting the transition to a market economy in Central and Eastern Europe, Vietnam, Syria, etc.;

Country-focused training course on regional development for poverty alleviation

- Supporting regional development in Peru -

About 400,000 people out of the total Peruvian population of 23 million live in very poor regions. There is an enormous difference in standard of living between urban and rural areas, and regional development has become one of the main issues for the government of President Fujimori.

A country-focused training program on regional development for alleviating poverty was held in Japan in March 1997 with the participation of fifteen senior staff involved in regional development activities from the President's Office and state

development corporations.

The training program was planned so as to be of use for regional development in Peru. Lectures on regional development past and present were held at the Hokkaido Development Bureau and the University of Hokkaido.

The Peruvian participants were highly positive about the program. They pointed out that although communications were difficult because Peru is a very large and topographically varied country, they were certain that if they managed to transmit the fruits of their studies in Japan to

all those concerned in Peru, the country would be able to extricate itself from poverty.

The training took place at a time when the occupation by guerrillas of the Japanese ambassador's official residence in Lima was still continuing and there was still no prospect of the hostages being released. But the Japanese and Peruvian contingents remained undaunted by these difficulties to complete a project which contributed significantly to enhancing friendly relations between the two countries.

- (2) Macroeconomic management in Central Asia;
- (3) Modernization of legal systems in Vietnam and Mongolia.

In the field of social welfare and WID, two courses are being held in connection with methods for supporting people with visual disabilities and the seminar for senior officers on the advancement of women.

Support for South-South cooperation* is an important topic which encourages developing countries to act as donors themselves, but we need to strive harder in the field of third-country training,

which is the central vehicle for such cooperation.

In FY1996, 99 courses were implemented in 23 countries, and the number of technical participants was 1,692. We have been striving in recent years to formulate training courses which enable an immediate response to contemporary needs, as manifest in the following projects:

- (1) Training courses based on partnership programs in Thailand and Singapore;
- (2) Training courses aimed at supporting the Palestinian peace process;
- (3) Training courses based on "partnership for

Figure 2-5 Types of training program and number of new participants accepted for training in FY 1996

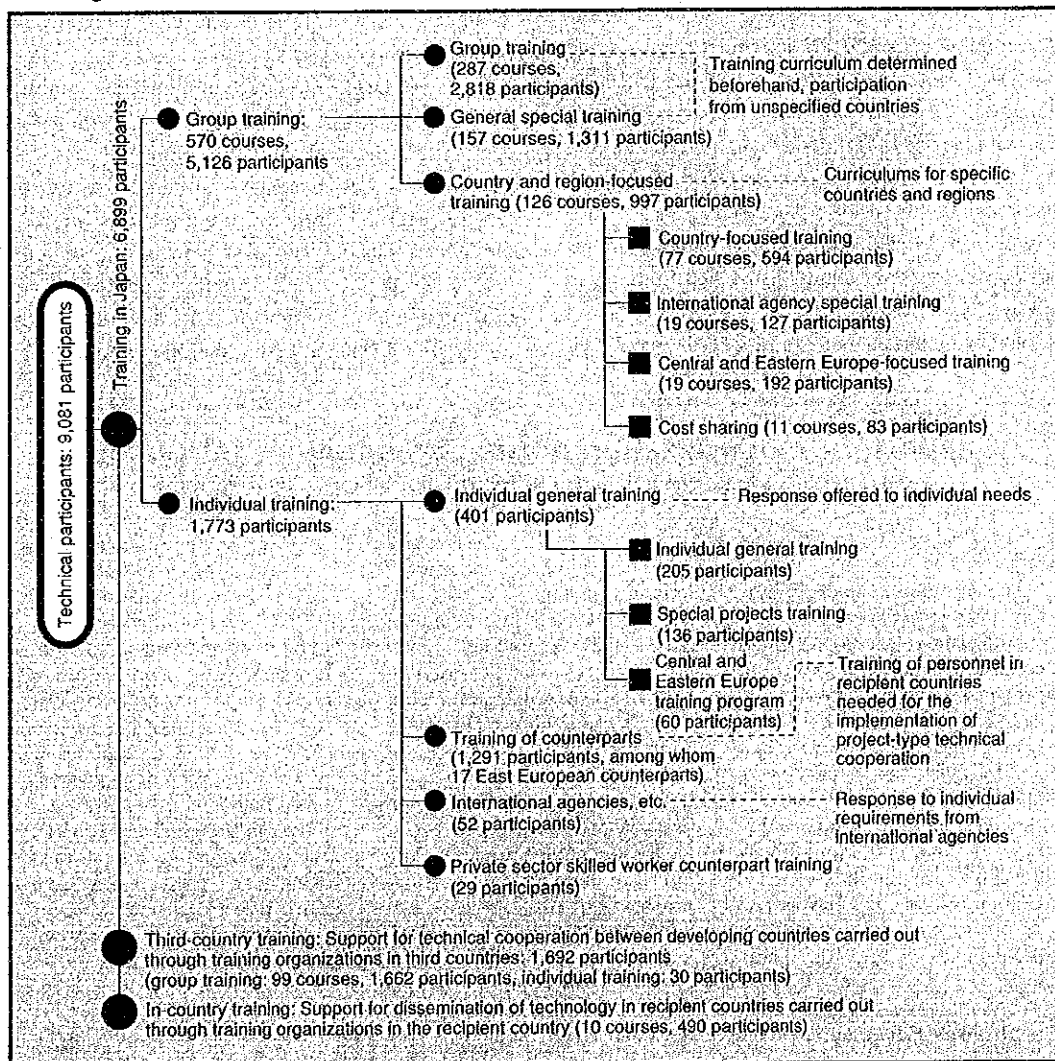
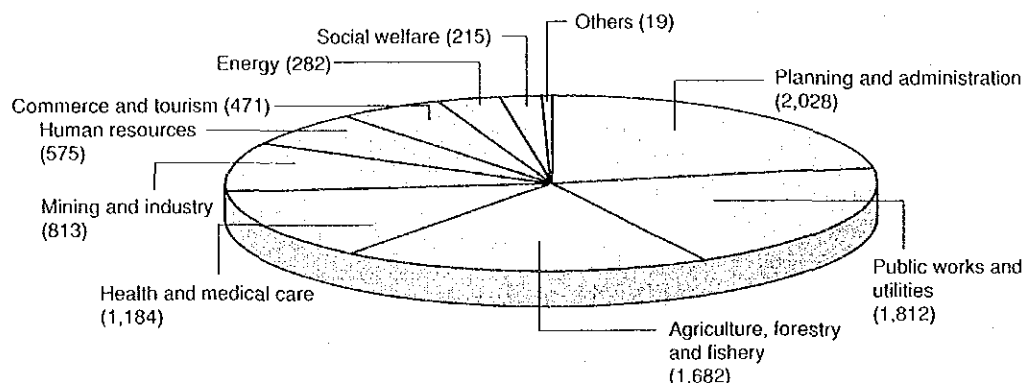


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progress" (PFP) in APEC;

(4) Training courses based on tie-ups with international agencies.

Tasks ahead

Training programs must be based on an accurate assessment of the training needs of developing countries. High-level training programs are pointless unless they meet the needs of recipient countries.

JICA's Training Affairs Department is being reorganized along regional lines to ensure that the needs of the recipient country are properly ascertained and to ensure a finely tailored response to these needs. It is now possible to draw up the ideal training programs for individual countries and regions. More specifically, there has been an increase in the number of training courses set up to deal with the needs of individual countries. In order to ascertain more accurately the training requirements of specific countries, we are also striving to raise the thoroughness of field studies carried out by study teams dispatched from Japan and by JICA's overseas offices.

Another important issue is raising the quality of

training programs. More than 570 group courses are being examined with a view to improving their content, and study sessions are being held aimed at preparing courses responsive to changes in training needs. These study sessions have concerned themselves with the environment, agriculture, WID, industry, information processing and health and medical care.

Another point is that these training programs should not be regarded as ends in themselves: their effectiveness in developing human resources in developing countries needs to be enhanced by forging organic links between them and other programs. From this standpoint, close links must be made with the dispatch of experts, project-type technical cooperation, grant aid and the supply of equipment and materials.

Japan's ODA policy emphasizes public participation in aid projects and it is within the context of this policy that training projects are implemented nationwide to make effective use of the outstanding training organizations present throughout Japan. The idea here is that training programs should make a major contribution to promoting public participation in aid projects by taking full advantage of the facilities available for

Support for modernization of the Cambodian legal system

- Training for legal specialists centering on the Japanese legal system -

The Cambodian judicial system is a three-stage system consisting of the supreme court, high courts and regional courts in each province. However, the system as it is at present is almost entirely non-functional. The main reason for this is that most lawyers and judges were either killed or escaped abroad during the Pol Pot era, and although judges have been appointed since the United Nations established an administration in Cambodia, their numbers are still inadequate.

Under these conditions, Japan has been providing support in the

form of training of legal specialists with a view to improving the legal system, which must inevitably stand at the foundations of any national administration. The training is taking place with cooperation from the Ministry of Justice, the Supreme Court and the Japan Federation of Bar Associations and is covering a wide range of topics including the Japanese judicature, prosecution and defense systems, introduction to criminal, civil and commercial law, systems of correction, criminal defense and the resolution of civil disputes. The Japanese legal

system is a compromise between the British and American systems on the one hand and continental European systems on the other, and we hope that its study will prove beneficial to Cambodia.

Training aimed at supporting the consolidation of legal systems is being planned and implemented in Vietnam and Laos as well as Cambodia, and is provoking considerable interest as a form of direct intellectual support for the consolidation of national institutions and systems.

cooperation within Japan.

Comprehensive range of training courses

JICA is currently providing training for an annual total of about 9,000 overseas participants, 7,000 of whom receive training in Japan and 2,000 of whom receive in-country training* or third country training. A wide variety of courses is available to enable programs to be executed effectively and efficiently. They can be classified into two major categories:

(1) Training of overseas participants in Japan for the purpose of technology transfer* (group training, individual training, special training restricted to certain regions and countries, etc.);

(2) Training outside Japan aimed at transferring skills and technology appropriate to the social, cultural and linguistic conditions of developing

regions (in-country training, third country training).

In-country training and third country training are a particular focus of attention in both Japan and overseas in that they aim to disseminate systematic and basic technology in line with the recipient's needs through the host country (i.e. the country where the training is provided) or a key region.

In-country training: disseminating the fruits of technical cooperation

In-country training denotes a method of training under which instruction is provided in their home countries to their fellow-countrymen by people who have themselves previously been trained through technical cooperation provided by Japan.

This method makes it possible to transfer technology from Japan to the fringe areas of developing countries in a highly effective manner. Since it has a direct impact on raising standards of

On the front line of regional international cooperation

Support for national reconstruction in South Africa through special training

Nagoya International Training Center (Aichi Prefecture)

The Republic of South Africa was for many years the scene for the policy of blatant discrimination against black Africans known as apartheid. Today, when a degree of harmony has at last been achieved between the different races who make up the country, South Africa stands in need of programs for supporting self-reliance on the part of the black population.

In conjunction with the United Nations Educational and Training Programme for Southern Africa (UNETPSA), the Japanese government has been providing technical training for South Africa through JICA since FY1990, and has been cooperating with the South Africa government in the field of human resources development aimed at assisting the black population to achieve self-reliance and making a success of

national reconstruction.

One example of this training being provided specifically for South African participants is the training course in electrical engineering being offered at JICA's Nagoya International Training Center.

South African electrical technicians are brought to Japan, where they attend lectures and demonstrations, visit related facilities and engage in technical debates on the subject of electrical engineering in order to raise their technical capabilities. This program has been in effect since FY1992 and has been attended so far by 38 participants.

The training program consists primarily of wiring with the emphasis on practical work and practical training using CAD systems. Through the goodwill of cooperating companies, the vis-



its to the electrical facilities at Hida-Takayama give training participants the chance to enjoy Japanese nature and culture by enjoying the snowclad scenery of this region and by experiencing ikebana flower arrangement.

Local companies have shown themselves highly sympathetic to this training program, and this has been one of the factors which have made this course so popular every year.

living in these countries, the method is highly thought of in Japan and overseas. Since local technicians are trained in their own languages, linguistic communication presents no problems and technology transfer can take place smoothly in line with local conditions.

Aftercare: Maintaining personal ties

After returning home, training participants come to occupy positions of leadership and stature within developing countries. Their experience of life in Japan will have brought them close to Japan and its people. For these reasons, Japan values past training participants very highly.

Ongoing instruction and support to ensure that the fruits of technical training in Japan are displayed to

the full have an important role to play in the effective implementation of projects.

Follow-up surveys on the training participants after their return home are also important in that they provide information which contributes to improvements in existing training courses and the development of new courses.

Aftercare activities targeting training participants after they have returned to their home countries are carried out to deal with these matters. They take forms such as the dispatch of follow-up teams, provision of technical information in the form of documentation and data and support with the fostering of alumni associations consisting of past participants.

On the front line of regional international cooperation

Training aimed at the conservation and transmission to future generations of cultural properties with regional qualities

Osaka International Center (Osaka Prefecture)

It might appear on the surface that activities involving the preservation of regional and national cultures and handing on the legacy of mankind have little to do with technical cooperation. But even in such fields as these, Japanese skills and technology are contributing to improvements in the standards applying to the protection of cultural assets in many countries through the training of experts from developing nations.

Taking advantage of its position close to the Japan's historical cities of Kyoto and Nara, the Osaka International Center runs two training courses providing instruction in the techniques of protection, collection and organization of cultural properties.

One of these courses is concerned with methods of restoring cultural properties as applied specifically to artifacts discovered in the course of archaeological excavations. Training participants are presented with a wide curriculum which includes study of techniques of conserva-

tion and repair, such as measuring and chemical processing and restoration. Training is provided with the cooperation of the Kyoto prefectural and municipal governments and related institutions in Kyoto and its environs, where there are many archaeological sites and repair workshops.

To enable participants to select a curriculum in line with their areas of specialization, training is provided in connection not only with buried cultural properties but also with the conservation and repair of buildings and urban environments. These courses last about five months and have been attended over the past five years by 32 participants.

There is also a museum skills course concerned with the collection and display of excavated cultural properties. Training participants who have taken part together in a joint three-month course are allocated according to their respective specialties to the National Museum of Ethnology or to museums in Osaka and Nara, where they spend about six



months receiving individually tailored instruction on a variety of skills required by museum curators such as collecting, conservation and display.

Twenty-five participants have studied in this course over the past three years. Since returning to their countries, they have gained positions at museums presenting exhibitions of these countries' invaluable cultural assets.

Nationwide bases for human resource development

There are fourteen JICA International Centers in various parts of Japan providing overseas participants with accommodation and training.

The Chugoku International Center was opened in FY1996 as part of JICA's policy of expanding training projects throughout the country and strengthening ties with local government.

Providing better training environments

JICA as a rule provides instruction in English, but Japanese courses are provided as necessary. This Japanese language training falls into two main categories, general evening courses aimed at enabling training participants to cope with everyday life in Japan and to deepen their understanding of the country and intensive daytime courses for those requiring a knowledge of the Japanese language for training purposes.

Before starting on technical training, the participants attend a three-day orientation session focusing on the content of the training, tips for everyday living and an understanding of Japanese society and culture.

In order for the participants to realize their educational objectives in the unfamiliar environment of Japan, it is of course vital that they remain in good health during their stay in the country. Various recreational events are thus arranged especially by the international training centers. These include bus outings, sporting events, parties, and home stays.

Each international center has its own doctors and nurses who provide health consultations, carry out medical examinations and offer first-aid treatment. Depending on the circumstances, they are also able to provide introductions to appropriate medical institutions.

Expectations of alumni associations of former training participants

The first alumni association consisting of JICA training participants who had returned to their own

countries was formed in 1967 in the Philippines. The aim of these associations is to satisfy the wishes of former training participants who wish to polish up the skills they have acquired in Japan, to maintain their connections with Japan after they have returned home, to deepen their knowledge of Japan and to communicate with others who have also received training in Japan. Similar alumni associations were subsequently formed in many countries. As of the end of March 1997, there were 73 alumni associations in 67 countries, and moves are underway to establish associations in several other countries.

In association with JICA overseas offices and Japanese embassies, the alumni associations welcome newly returned training participants into their circle. The members act as bridges for establishing friendly relations between their countries and Japan. For its part, JICA receives opinions and information from each country through the alumni associations. There are strong hopes that these associations will contribute to the effectiveness of training program and other cooperation programs.

Training of people of Japanese descent

Various projects involving people of Japanese descent living outside Japan have hitherto been implemented. As part of the program of technical training through people of Japanese descent, funds have been provided since FY1996 for technical training projects, and a program designed specifically for the training of people of Japanese ancestry has now begun.

This program involves inviting people of Japanese ancestry (e.g. the descendants of emigrants to Latin America) to Japan, training them in fields required in the development of the regions where they live, including the Japanese communities to which they belong, and giving them the chance to acquire skills and knowledge. A total of 176 people of Japanese descent received training in the fields of Japanese language tuition, agriculture and medicine in FY1996.

Youth invitation program

Aims and achievements

The youth invitation program forms a part of JICA's technical cooperation with developing countries. Young people who will determine the future of their countries are invited to Japan for one month to study various specialized subjects as they are taught in Japan. These young people mix with Japanese young people of the same age and with the same interests as themselves. This experience is intended to enhance mutual understanding and to foster true friendship and trust.

This program was launched in May 1983 when Japan's then prime minister, Yasuhiro Nakasone, visited the ASEAN countries. In 1984, the first year of the program, 748 young people came to Japan. The number of countries and visitors on this

program subsequently increased, with 1,555 young people from a total of 73 countries and regions (ASEAN, Cambodia, Oceania, China, South Korea, Southwest Asia, Mongolia, and Africa) visiting in FY1996. A total of 15,009 young people have visited Japan on this program during the thirteen years it has been in operation.

The young people invited on this program are aged between 18 and 35 and occupy leading positions in the fields of economics, education, social development, agriculture, environmental conservation, social welfare and health care in the case of ASEAN countries and as workers, public officials, youth leaders and economic development officials in the case of countries outside ASEAN.

Methods of invitation

Invitations are extended to either single-

On the front line of regional international cooperation

Mutual exchange born out of the youth invitation program: "Wings of Youth" in Tatebayashi City

Kanto Branch (Saitama Prefecture)

Tatebayashi City is an ancient castle town with a population of 80,000 located in a region on the eastern edge of Gunma Prefecture between Saitama and Tochigi Prefectures.

It was in 1988 that Tatebayashi for the first time became the site for the implementation of a regional part of the Youth Invitation Program. The Gunma Prefecture Implementation Committee of the ASEAN Youth Invitation Program was asked to cooperate by JICA. Several years later, in 1993, the Tatebayashi city authorities organized their own Tatebayashi City Implementation Committee of the ASEAN Youth Invitation Program. This committee has since been planning and executing the regional part of the Youth Invitation Program on an ongoing basis.

Participation in this program has provided impetus for the start of "Wings of Youth," a project conceived autonomously by Tatebayashi City to encourage exchanges with young workers from ASEAN. Its point is to dis-

patch young local residents, mainly from the families who have played host to young people invited to Japan on the regional Youth Invitation Program to the countries of the overseas participants. Young people are being sent to Indonesia, a country which has a close relationship with Tatebayashi City in connection with the city's Youth Invitation Program.

Seven young people were sent in FY1996, this being the fourth such occasion to date. Although not invariably implemented in a methodical manner, "invitation" and "dispatch" are taking place alternately. Forty-six young Japanese people from Tatebayashi have so far been sent to Indonesia. These young people gain the opportunity to learn about Indonesia through first-hand experience on a one-week program which includes a period of time spent in the homes of the Indonesian young people who have previously visited Japan on the Youth Invitation Program.



Young people from Tatebayashi visiting Indonesia

On an individual level, this kind of "alternate exchange" is practiced by every regional cooperation organization taking part in the Youth Invitation Program, but Tatebayashi City is the only place in the Kanto district where it is occurring in an organized manner as a project autonomously implemented by a local government body.

The significance of the Youth Invitation Program is likely to be enhanced further if there is an increase in the number of cooperative organizations venturing out into the field of alternate exchange in the manner of Tatebayashi City.

nationality or mixed-nationality groups in connection with specific fields. Participants study in Japan for one month and take part in programs as described hereunder.

Before arriving in Japan, the participants attend a briefing program lasting several days in their home countries.

The first week of their stay in Japan focuses on lectures on Japanese society and economics. During their second week, they visit related facilities in Tokyo and attend residential seminars. The third and fourth weeks include visits to related facilities outside Tokyo, opportunities to fraternize with their Japanese peers, and stays in ordinary Japanese homes. Forty-four prefectures played host to participants in this program in FY1996. Before returning home, participants also have the chance to visit such cities as Hiroshima and Kyoto.

Alumni associations consisting of former participants in this program have been established in individual ASEAN countries. Meetings of a liaison committee made up of representatives of the national alumni associations within ASEAN have been held regularly since FY1987. The meeting in FY1996 was held in Singapore and featured debates on various topics including how this program might be improved and supported.

In order to solidify the bonds of friendship and trust established in the course of the participants' visits to Japan, the young Japanese people and host families who came into contact with the visitors during their stay, together with aftercare teams made up of officials from related organizations are dispatched to the participants' countries.

In FY1996, such groups were sent to six ASEAN countries and China, where they renewed their friendship with the participants. Efforts to create fresh opportunities for building on the friendships established through the invitation program have multiplied in recent years, especially at the individual, group and local government levels.



An overseas participant visits a local primary school close to his temporary residence

Dispatch of technical cooperation experts

Dispatch of experts takes place on the basis of requests received from developing countries. The experts transmit skills and knowledge which meet the needs of recipient countries in the requested fields, thereby contributing to personnel training, institution-building and nation-building. This is one of the most basic and important forms of technical cooperation.

Experts may be sent in connection with project-type technical cooperation and development cooperation or in response to individual requests made by developing countries or international agencies. Experts falling within the latter category are referred to as individual experts.

Individual experts are generally allocated to government administration, research, education and training institutions in developing countries, where they provide advice and instruction to administrators, researchers and technicians (known as counterparts*). For instance, they may give advice on policy making, instruction on joint research, education and training and guidance in the operation, maintenance and supervision of machines and equipment.

Individual experts dispatched at the request of international agencies work at the headquarters of the agencies or on actual projects.



Aquacultural development project in Zambia involving the dispatch of a team of individual experts

Features of individual experts

The main features of individual experts are their extremely broad range of activities, the fact that they provide cooperation directly linked to nation-building such as improvements to institutions and structures and their close connections with other economic and technical cooperation projects.

One important development in recent years has been the enormous increase in demand for experts involved in practical policy decisions in government ministries such as those of agriculture and public works and for experts who can offer advice on policy in secretarial sectors of, for example, the prime minister's office or the ministry of finance. A system of recruitment must be instituted to respond to these needs, and this is a field in which the dispatch of experts has a major role to play.

Expansion as a key ingredient in human resources development

Japanese experts were dispatched overseas for the first time in FY1955, when 28 experts were sent to five countries in Southeast Asia on the basis of the Colombo Plan for Economic and Social Development in Asia and the Pacific. By the end of FY1996, 21,110 experts had been sent to countries all over the world, including several industrialized countries. 1,807 experts, including those continuing in the field from the previous year, were dispatched in FY1996. The 1,005 individual experts sent anew in FY1996 were dispatched to the following regions in the numbers and proportions indicated hereunder:

- 1) Asia: 563 (56.0%)
- 2) Middle East: 101 (10.0%)
- 3) Africa: 48 (4.8%)
- 4) Latin America: 195 (19.4%)
- 5) Oceania: 20 (2.0%)
- 6) Europe: 44 (4.4%)
- 7) International agencies: 34 (3.4%)

These experts provided guidance in the methods

and techniques involved in such fields as agriculture, mining and industry, transportation, electrical engineering and telecommunications, nuclear energy, electronics and extending further on to economic development and environmental measures.

In the past, the dispatch of experts was generally based on requests made to related government departments, local public bodies, universities and private companies for the recommendation of appropriate persons. However, with the diversification of demands made by developing countries in recent years, there has been an increase in the dispatch of experts based on the screening of development specialists, associate specialists and candidates registered at JICA's Institute for International Cooperation.

Types of individual expert dispatch

Dispatch of individual experts is classified in accordance with the purpose and period of dispatch and the content of the project into bilateral programs and multilateral programs.

Bilateral programs

The bilateral method involves the dispatch of experts on the basis of individual requests received from the governments of developing countries. 1,715 experts (744 continuing, 971 new) were sent in FY1996. This includes experts sent on the basis of special plans intended to provide appropriate responses to the varied demands of developing countries as outlined hereunder.

1. Support in the formulation of key governmental policies

The aim here is to provide intellectual support to former communist countries attempting to break away from their previous political systems and establish a market economy. This type of support was systematized in FY1995. Support is provided with the creation of legal systems and with financial and monetary policy, development of human resources and other important policies which stand at the foundations of national government, together with the training of people to undertake such work. Twelve experts were sent in FY1996 to Vietnam,



A seminar organized by experts sent to Uzbekistan to support the formulation of key government policies

Poland and Uzbekistan.

2. Research cooperation*

Researchers from Japan and developing countries conducted joint research on subjects useful to social and economic development in developing countries. This type of cooperation began in FY1977. 110 experts (30 continuing, 80 new) were sent in FY1996 to research 17 subjects in 13 countries, including seismology in Egypt and measures to deal with soft clay foundation in Thailand.

3. Dispatch of teams of experts

The dispatch of teams of individual experts to provide advice and guidance on specific technical topics was begun in FY1989. In FY1996, 108 experts (42 continuing, 66 new) were sent to deal with 26 issues in 15 countries, including support for the establishment and implementation of development policies in eastern Indonesia and support for occupational health in Brazil.

4. Cooperation for revitalization

This form of cooperation has as its aims the revitalization of facilities and equipment not being fully used owing to inadequate technical capacity and funds together with the provision of technical guidance relating to the maintenance and management of such facilities and equipment. In FY1996, 14 experts (6 continuing, 8 new) were sent to deal with 5 issues in 5 countries including Mexico and Cambodia.

5. Dispatch of skilled workers from the private sector

The idea behind this type of cooperation is to dispatch skilled workers from private companies

active in areas such as shipbuilding, steel and machine industries to government agencies and state enterprises to provide technical guidance and to develop the professional skills of technicians in response to the needs of Japanese corporate globalization. This program began as a joint project with the Employment Promotion Corporation in FY1987. Including those continuing from the previous year, 37 experts (21 continuing, 16 new) were on assignment in Indonesia, Jordan and three other countries in FY1996.

Multilateral programs

Multilateral programs involve the dispatch of experts at the request of international agencies such as the Economic and Social Commission for Asia and the Pacific (ESCAP) and the Southeast Asian Fishing Development Center (SEAFDEC). Ninety-two experts (58 continuing, 34 new) were sent to 23 international agencies in FY1996.

There are also a dispatch program employing experts on overseas Japanese communities and a third-country expert system employing experts resident in developing countries. In the former case, experts are sent to Japanese communities abroad, where they ascertain the needs of these communities

through their members and disseminate skills and technology through the whole region from the grass roots. In the latter case, use is made of experts from developing countries in order to implement Japanese cooperation more effectively and to provide support for South-South cooperation*. On the basis of these systems, eight experts in the field of overseas Japanese communities and 15 third-country experts were dispatched in FY1996.

Dispatch of study teams

The following studies are carried out to ensure that dispatch of individual experts proceeds efficiently and smoothly:

Preliminary studies

Before experts are dispatched, preliminary studies are carried out to look into the background of requests, technology transfer* plans, the type of instruction required and local conditions. In FY1996, 22 study teams were dispatched for these purposes.

Studies and guidance

The aim here is to study and provide guidance on the problems which experts may face on the

Dispatch of advisory experts from the private sector

- Joint dispatch of experts by the government and business circles -

Indochina, Central Asia, the Middle East and Africa are going ahead with the transition to a market economy with stable economic development as their goal. In recent years, there has been a growing demand in these countries for advice based on the knowledge and experience possessed by the private sector in areas such as the development of exports, promotion of investment, privatization of state enterprises and the reorganization of the industrial structure.

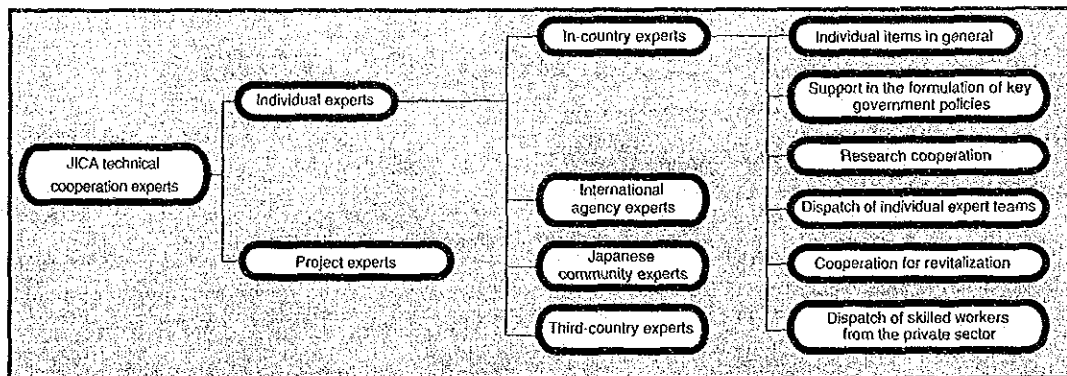
Having achieved economic reconstruction and high-level

growth since the end of World War II, Japan has become the object of strong demand for the dispatch of experts who possess the knowledge and experience gained during this process of national reconstruction.

On the other hand, backed by an increasing awareness in recent years of international cooperation, the Japanese business world has striven for greater linkage with government in contributing to support for developing countries. In linkage with projects involving the dispatch of qualified personnel conceived

independently by the private sector, outstandingly well equipped people from private institutions are being sent as advisors to government agencies and public enterprises in recipient countries to strengthen support for developing countries. For this purpose, funds are being set aside from FY1997 onward for the dispatch of "private sector advisory experts" marking the start of new types of cooperation activities involving cooperation between the government and the business community.

Figure 2-6 Types of expert dispatch



professional and the personal levels in the countries to which they have been assigned. Thirteen such study teams were dispatched in FY1996.