

## Part II

### Outline of Programs by Geographical Region

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## Chapter 1

### The Asian Region -- Area 1:

### Eastern and Southeastern Asia

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#### Outline of the Region

##### 1. Regional Aspects

The Eastern and Southeastern Asian region extends from the tip of Hokkaido on the East to Central Asia's Pamir Knot on the West, and from the Timor Sea on the South to the Soviet border on the North. The region includes Korea, China, Hong Kong, Mongolia, the six ASEAN countries (Brunei, Indonesia, Malaysia, the Philippines, Singapore, and Thailand), three countries in Indochina (Cambodia, Laos, and Vietnam), and Myanmar (formerly Burma). Its population is higher than that of any other region in the world, partially because it contains China, home to 1.1 billion people, or one-fifth the human race.

Political systems in this region span the spectrum from market economies like those of South Korea and the ASEAN states, to socialist regimes like those found in China, Mongolia, Myanmar, and the three of the Indochinese countries. Per-capita income widely ranges from US\$10,000 at the high end (Singapore) to around \$200 at the low (Laos; statistics unavailable for Mongolia, Cambodia, or Vietnam).

The Eastern and Southeastern Asian region is also diverse in terms of political stability. On the one hand, the changes that began in Eastern Europe in the middle of 1989 have eased tensions and promoted greater democracy regardless of the system of government. Peace may now be coming to the Southeast Asian region with the formulation of a Comprehensive Peace Plan for Cambodia under the auspices of the UN; Indonesia and Singapore, key members of the ASEAN organization, have renewed their diplomatic relations with China;

dialog has begun on the Korean Peninsula; and Mongolia recently held the first free election in its history. There are, however, trouble spots. The opposition won the general elections in Myanmar, but the ruling government refuses to hand over power and keeps a military regime. Meanwhile, the military staged a coup d'etat in Thailand. But while these pockets of political instability remain, things generally appear to be stabilizing in the region.

Most of the countries in the region are well-endowed territorially and possess considerable natural resources. Economic structures are generally oriented towards earning foreign currency by exporting primary commodities, spending foreign currency to import capital and intermediate goods, and then using those imports to produce finished products for export. The Asian NIEs and such ASEAN countries as Malaysia, Thailand, and Indonesia are posting high growth from their export-led economies and positive introduction of foreign capital. This, in turn, is contributing to greater economic development and political stability for the entire region. The outstanding economic growth of the region is watched by all the world with interest. In the year 1990, however, showed gaps among individual countries. Generally, those located in the north stagnated due to slumping export demand and decreasing competitive force in export, while those in the south were active, thanks to rapid increase of direct investments from abroad.

The region's socialist countries face a number of problems, chief among them the upsurge in increasing fiscal and trade deficits, swelling foreign debts, and declining economic efficiency. Myanmar, for example, produced a bumper crop of rice this year and prices for the commodity remain stable. It even entered into a number of joint ventures with foreign companies. But sluggish exports have caused its trade deficit to expand, so the country continues to face serious difficulties. China has successfully reined in inflation with tighter credit policies, and its agricultural sector had a good year, but stagnant industrial production makes the overall picture sluggish. Having hit a dead end with their command economies, Mongolia, Laos, and Vietnam are striving to make economic structural adjustments designed to bring them free-market systems, and to improve

relationship with Western countries, in view of cutback in assistance from USSR and East European countries.

The August 1990 Iraqi invasion of Kuwait and the ensuing war between Iraq and the multinational forces in January 1991 had a profound influence on this region. The World Bank, for instance, declared the Philippines the "country most immediately impacted" by the war (the MII). Skyrocketing oil prices, export-limiting economic sanctions, and the lack of wages being sent home by workers abroad all had disastrous repercussions for its inflation rate and balance of payments. The NIEs and Thailand, however, were able to minimize the impact of the war thanks to sound macroeconomic management, while oil-exporters like China, Indonesia, and Brunei actually seem to have benefited from it. Among the socialist countries, though, damage was more serious. Soaring oil prices caused work to stop at some Mongolian factories, and the same combination of factors caused Vietnam to take a loss of about \$1 billion.

Japan is itself a member of the Eastern and Southeastern Asian region, and so has historically had deep political, economic, and cultural ties with the other countries in this area. It values its close relationship with them, and since 1975 has taken the place of the United States as the region's largest aid donor. In recent years, Japan has provided over half of the bilateral ODA received by Eastern and Southeastern Asian countries.

Japan formerly gave over 70 percent of its bilateral ODA to this region, but growing aid to other regions made its share gradually declined to about 50 percent currently. The predominant form of Japanese economic assistance to this region is loan aid to the governments, and grants account for 30 percent of Japanese ODA; though the composition of aid changes every year, thanks to sound macroeconomic management in the region and due to Japan's emphasis on policy of nation building efforts, technical cooperation has come to outweigh grant aid.

## 2. JICA Projects in the Region

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

### 2.1 Technical Cooperation

#### (1) Training Programs

In fiscal 1990, the 4,146 trainees from this region (including both newly arrived and continuing participants as well as youth invitations) accounted for 47.6 percent of all trainees trained in Japan. By country, the most numerous group was from Indonesia (786), followed by Thailand (762), China (615), Malaysia (608), and the Philippines (594). These country totals include participants under the Malaysian "Look East" program (114) and the Korean Engineers' Training Plan (78).

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

Third-country training programs were also conducted in ASEAN countries except Brunei to strengthen technical cooperation among these countries.

## (2) Youth Invitations

The youth invitation program was established in 1984 for young people from the six ASEAN countries; later, it was expanded to include Myanmar and Oceania, and since fiscal 1987, it has also included China and Korea. In fiscal 1990, a total of 1,098 youth from Eastern and Southeastern Asia were invited to Japan: 199 from China, 149 from the Philippines, 150 each from Indonesia, Malaysia, Singapore, and Thailand, 50 from Brunei, and 100 from Korea. Circumstances beyond JICA's control led to the postponement of participation by Myanmar.

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

## (3) Dispatch of Experts

In fiscal 1990, 1,848 experts, including both new and continuing assignments, were sent to this region, that is, 48 percent of all Japanese experts sent abroad. Of these, 1,399 were new assignments to 11 countries (including Hong Kong): 344 to Indonesia, 287 to China, 268 to Thailand, 201 to the Philippines, and 95 to Malaysia. Their areas of expertise newly assigned were agriculture in 189 cases, followed by 176 experts in health care and medicine, 145 in traffic control, 132 in human resources, 130 in science and culture, and 92 in industrial technology.

## (4) Independent Equipment Provision

In fiscal 1990, independent equipment (i.e., equipment whose supply is unrelated to any specific project) was provided to seven countries in this region in

17 shipments worth a total of ¥486 million; this was 20.1 percent of all equipment provided by JICA and the second largest supply of equipment to any region. The equipment supplied widely includes from broadcasting and telecommunication equipment to mineral research and analysis equipment, and the equipment for waste treatment.

#### (5) Project-type Technical Cooperation

There were 89 project-type technical cooperation projects in total carried out in this geographical area in fiscal 1990; this is more than 48 percent of all JICA project-type technical cooperation projects during the fiscal year. Of these, 22 were carried out in Indonesia, 17 each in Thailand and China, 10 in the Philippines, 8 in Malaysia, 5 in Korea, 4 in Singapore, 2 in Brunei and 3 in Myanmar.

Newly started project in fiscal 1990 widely range from environmental protection, to advanced education, and high developed technologies, such as computers and biotechnology to the more common areas related to the basic human needs, including agriculture, health and medical care. There are also projects continued from previous year, including radiology, trading and enterprize training, industrial standardization, reforestation, environmental disaster prevention in addition to the basic human needs related areas.

#### (6) Development Studies

In fiscal 1990, 40 new development studies were begun in the region, bringing to 127, the total number of studies currently in progress. The main areas where such surveys were carried out ranged from social infrastructure to transportation, traffic system, communication, agriculture and forestry. In Thailand, studies focused on planning of tourism development, in Indonesia and the Philippines, which are topographically specified as island countries, studies were carried out on nation-wide ferry network plans. In Korea, Malaysia, and China, which were endowed with rivers of rapid stream and wide rivers,

development studies focused on flood control. In Laos, on waste treatment, and in Brunei, on forest resources, a study focuses respectively.

## 2.2 Grant aid

In fiscal 1990, JICA expedited the execution of 37 grant aid projects valued at ¥35,191 million in seven countries – principally China, Indonesia, the Philippines, and Thailand. This region, because ASEAN and other newly industrializing economies are located in it, has recently seen growing emphasis on the specific development needs of each country, such as, environment issues in Indonesia, telecommunication network in Laos, satellite communication in Mongolia, agricultural land reform in the Philippines, and nursery tree supply in Thailand, in the form of basic design study, in addition to the basic human needs focused on in the past.

## 2.3 JOCV Volunteers

In fiscal 1990, 128 JOCV volunteers, 18.5 percent of all assignees, were sent on new assignments to six countries. Malaysia and the Philippines received the most (28 each), followed by 24 to China, 23 to Thailand, and 20 to Indonesia. Their areas of expertise included education and culture; agriculture, forestry, and fisheries; equipment maintenance and operation; health and sanitation; sports; industrial processing; and civil engineering.

## 2.4 Japan Disaster Relief Team

During fiscal 1990, medical teams and emergency supplies were sent to China after severe floods and to the Philippines after a destructive earthquake. For smooth procurement and speedy dispatch of rescue equipment and supplies at the request, JICA has set up a stockpile in Singapore.



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## Chapter 2

### The Asian Region – Area 2: Southwestern Asia

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#### Outline of the Region

##### 1. Regional Aspects

The Southwestern Asia region consists of seven countries – Bangladesh, Bhutan, India, the Maldives, Nepal, Pakistan, and Sri Lanka – with about one billion inhabitants, roughly one-fifth the world's population, and diverse climates and ethnic, religious, and cultural backgrounds.

Setting aside their political differences, in December 1985 the seven countries of the region founded the SAARC, a regional conference of countries in the Southwestern Asia area, to build technical and working cooperative ties among themselves.

It is evident from the per capita GNPs of the region, which range from \$170 to \$420 according to the 1990 World Bank report, that the region is one of the poorest in the world, with four of the least developed countries (Bangladesh, Bhutan, the Maldives, and Nepal). Almost every country in the region has chronic trade and balance of payments deficits, and many of their people depend heavily on money sent home by family members working abroad. The region's exports are mainly agricultural products, textiles, and minerals; its imports are mostly machinery and other capital goods.

The Gulf War provoked by the invasion by Iraq in Aug. 1990 into Kuwait territory has had a serious economic impact to the region of non oil producing countries. Especially, the region's economy was deeply affected by the drastic

decline of the foreign currency revenues in the region due to the increase of oil price and return of the migrant workers.

Japan has traditionally had friendly relations with the countries of this region; in 1979, Japan gave the region 17.9 percent of its total ODA and became the largest ODA donor to the region. Since then Japan has always been among the three largest donors in the region. Recently, 10 percent to 20 percent of Japan's ODA has been given to this region, which ranks second only to Eastern and Southeastern Asia as a recipient; Japanese aid grew 7.4-fold from \$147 million in 1977 to \$1,091 million in 1989.

The predominant form of aid has changed over the years from loans made to governments, which once accounted for over 90 percent of aid to India and Pakistan, to outright grants, reflecting the presence of four least developed countries among the region's recipients.

Japan is striving to increase its grant aid to these four least developed countries; its cooperation focuses on agricultural development, health and medical care, and other basic human needs as well as human resource development. Though its technical cooperation also focuses on basic human needs, little of Japan's ODA has normally taken the form of technical cooperation because few such requests have been received so far from countries in the region. Japan holds annual economic and technical cooperation consultations with India, Pakistan, Bangladesh, and, beginning in fiscal 1989, with Sri Lanka; at every opportunity, it conducts a dialogue on policy with interested countries and endeavors continually to implement carefully thought-out aid tailored to the needs in the economic and social development plans of recipient countries.

## 2. JICA Projects in the Region

JICA's cooperation with the region costs ¥7,400 million in fiscal 1990, 6.6 percent of its total budget. The main areas of cooperation are basic human needs and social infrastructure improvement. JICA is also carrying out cooperative

projects in cooperation with international organizations regarding flood control in Bangladesh, etc.

## 2.1 Technical Cooperation

### (1) Training Programs

In fiscal 1990, the 678 trainees from this region (including newly arrived) accounted for 7.8 percent of all trainees trained in Japan. By country, the most numerous group was from Sri Lanka (168), followed by Pakistan (142), Bangladesh (133), Nepal (100), and India (98).

### (2) Dispatch of Experts

In fiscal 1990, 218 experts (including both newly assigned and continuing experts) – that is, 5.7 percent of all Japanese experts sent to this region. Assignees were sent to all seven countries of the region: 42 were sent to Sri Lanka, 20 to Nepal, 20 to Pakistan, 23 to Bangladesh, and 17 to India; their areas of expertise were health and medical care in the case of the majority (63), followed by agriculture, transportation, and development planning in that order.

### (3) Independent Equipment Provision

In fiscal 1990, equipment totaling ¥169 million in value (8 cases) whose use was unrelated to a specific cooperation project, was sent on occasions to this region; this was 8.4 percent of equipment provided by JICA in this category. It ranged widely from quality control equipment to production equipment for automobile parts and drug traffic control devices.

### (4) Project-type Technical Cooperation

Project-type technical cooperation in 1990 was carried out in 17 projects in the region, nearly 9.2 percent of all JICA aid of this type. Five of these projects took place in Sri Lanka, four each in Nepal and Pakistan, and three in Bangladesh.

The fields in which cooperation took place included agriculture and health and medical care, as well as computers and construction machinery and technology.

#### (5) Development Studies

In fiscal 1990, 25 development studies were carried out in the region (including 12 newly started studies); In Bangladesh, social infrastructure improvement, and in Pakistan, agriculture and forestry were the main areas of cooperation; in general, a large proportion of survey work was done in public works and public utilities.

#### 2.2 Grant aid

In fiscal 1990, JICA expedited the execution of 35 grant aid projects valued at ¥28,555 billion in seven countries. Seven grant aid provisions were made to Bangladesh and three to Bhutan, five each to Nepal and India.

#### 2.3 JOCV Volunteers

During fiscal 1990, 70 JOCV volunteers, 2.6 percent of the total, were sent on new assignments to five countries in the region: 24 were sent to Bangladesh, 15 to Nepal, 17 to Sri Lanka, and seven each to Bhutan and the Maldives. The areas of cooperation they covered included education and culture; agriculture, forestry, and fisheries; equipment maintenance and operation of machinery; health and sanitation; sports; industrial processing; and civil engineering.

#### 2.4 Japan Disaster Relief Team

Medical supplies and aid equipment were sent to Pakistan after a serious earthquake in fiscal 1990 to provide flood and landslide relief.

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## Chapter 3

### The Middle East Region

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#### Outline of the Region

##### 1. Regional Aspects

A vast grouping of 21 countries, the Middle-Eastern region extends from Central Asia's Pamir Knot in the East, to the Atlantic in the West, from Subsaharan Africa's Sudan in the South to the Balkan peninsula in the North. Important geographically as the crossroads of Asia, Africa, and Europe, it is important economically as the home of 70 percent of the world's confirmed oil reserves and the source of 50 percent of the world's oil exports.

Most of the region is arid, though there are areas of high humidity along the coast of the Red Sea, Mediterranean climates along the coast of that body of water, and an alpine climate in the mountains of Yemen.

Some 17 of the 21 countries in this region are Arab, the remaining four non-Arab countries being Afghanistan, Iran, Turkey, and Israel. The Middle-Eastern region is known as the birthplace of the Muslim, Jewish, and Christian religions.

The dominant political system continues to be the kingdom and emirate. Economically, the wealth spectrum extends from oil-and-natural-gas-rich countries like Libya, Algeria, Saudi Arabia, the United Arab Emirates, and the other Gulf states, to countries whose lack of resources makes them among the poorest in the world.

The Middle-Eastern region has extremely strong ties to Europe, having historically been under the influence of such European powers as Britain and France.

To the region's usual list of problems (the Palestinians, Lebanon, and Afghanistan) was added yet another in August 1990 as Iraq invaded Kuwait and set off the Gulf War. Their impact on the world economy and even on world peace and stability have made these problems one of the main focal points of international politics.

May 1990 also saw the unification of North and South Yemen into the Republic of Yemen, where the market economy was introduced.

## 2. JICA Projects in the Region

During 1990, JICA spent ¥10.26 billion on cooperation with this region, 9.1 percent of the total JICA cooperation budget and a 2.6 percent increase over the previous year. The main recipients of this aid were Turkey (18 percent), Egypt (¥1.62 billion, 15.9 percent) and Morocco (¥1.12 billion, 10.9 percent), with the remainder of the funds distributed evenly among other countries. Many of the countries in the Middle-Eastern region are at comparatively high stages of development, so aid tends to concentrate on infrastructure and other public works areas. Japan does not recognize the current government of Afghanistan and therefore provides the country with no official aid. It has also frozen its aid to Iraq as part of the economic sanctions adopted in the wake of that country's August 1990 invasion of Kuwait. It has, in addition, called a temporary halt to technical cooperation projects in countries bordering on the Gulf conflict in order to assure the safety of its experts and JOCV volunteers in the area.

### 2.1 Technical Cooperation

#### (1) Training Programs

In fiscal 1990, the 708 trainees from this region (including both newly arrived and continuing ones) accounted for 8.1 percent of all trainees trained in Japan. This regional contingent is the fourth largest, after Asia, Africa, and Latin America. By country, the most numerous group was from Egypt (195), followed by Turkey (108), and Iran (61). Japan also conducted a third-country training

program in Egypt for seamen, nurses, and rice cultivators. The programs had 79 participants from neighboring countries like Algeria and Sudan, as well as from other countries in Africa.

## (2) Dispatch of Experts

JICA sent 305 experts to this region during fiscal 1990 (including both newly assigned and continuing ones), 7.9 percent of all Japanese experts sent abroad. Some 43 of these experts went to Egypt, 37 to Iran, and 25 to Saudi Arabia. After the Gulf War, JICA sent fact-finding missions to Saudi Arabia, Qatar, and the United Arab Emirates in order to study the environmental effects of the war. It also sent expert teams to Saudi Arabia and United Arab Emirates to work on the maintenance of sea water desalination plants.

## (3) Independent Equipment Provision

In fiscal 1990, a total of ¥284 million was provided in eleven shipments to the Middle East region. ¥57 million was directed to Morocco, ¥54 million to Turkey, ¥48 million to Algeria, and ¥40 million to Jordan.

## (4) Project-type Technical Cooperation

Project-type technical cooperation carried out in fiscal 1990 in the Middle East region involved 16 projects in eleven countries: Iran, Iraq, Jordan, Saudi Arabia, Sudan, Syria, Turkey, Yemen, Algeria, Egypt and Morocco. The areas covered included health and medical care, agriculture, fisheries, and human resources.

## (5) Development Studies

In fiscal 1990, 25 development studies were carried out in the region; of these six were carried out in Turkey, four each in Oman and Tunisia, three in Morocco and two each in Egypt and Iran. The areas covered included 5 projects of mining industry, 3 of energy, agriculture, social infrastructure and others.

## 2.2 Grant Aid

In fiscal 1990, a total of ¥11,966 million yen was granted to 5 projects in Egypt, 4 in Sudan, 2 in Morocco, and 2 in Yemen. Two basic design studies were carried out by JICA.

## 2.3 JOCV Volunteers

In fiscal 1990, 205 volunteers were sent to six countries in the region. Morocco received 88 volunteers, Jordan 32, Syria 46, Tunisia 35, and Sudan 4. The dispatch to Sudan has started in 1990.

## 2.4 Japan Disaster Relief Team

In the frame of the support to the Persian Gulf states after the Gulf War, emergency supply equivalent to a total of 300 million yen was sent to the refugees and evacuees in Jordan, Iran and Kuwait during January and March of 1991. The Japan Disaster Relief Team was also dispatched to Saudi Arabia in March 1990 to clean the spilt crude oil in the Persian Gulf.



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## Chapter 4

### The African Region

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#### Outline of the Region

##### 1. Regional Aspects

The African Region is defined as Subsaharan Africa excluding Sudan and the Republic of South Africa. Some 2,056 square kilometers in area, it comprises 45 countries, most of which are still developing.

Twenty-eight of the world's 41 least less-developed countries are located here. According to DAC category, 37 of the region's members qualify as "low-income countries", while only 4 have per-capita GNP of more than \$1,000.

When most of the African countries achieved independence during the sixties, they were blessed with a favorable international economic climate that made it possible for industrialized countries to grant them aid and helped them achieve steady growth. But despite the continued expansion in aid, most of them are now stagnant economically. Much of this must be attributed to the problems of the African countries themselves, although changes in the international economic climate are also to blame. Slumping production over the last ten years has lowered per-capita national incomes, created perennial famines, and aggravated the deterioration of the environment. With their economies now achieving little or no growth, many countries find themselves hard pressed to service their past debts.

In light of these economic difficulties, international institutions and DAC-member countries have reached an agreement to place special emphasis on aid to Africa. Much of this aid is for structural adjustments, and it is administered through the IDA "Africa Fund", the IMF's "Structural Adjustment Facilities (SAF)", and the "Special Program for Subsaharan African Aid" (SPA).

Africa has felt the influence of the easing of East-West tensions brought on by the changes in Soviet policy. Many countries are abandoning Marxism-Leninism and making the transition from single-party dictatorships to multiparty democracies. This, in turn is fostering a more-stable international political climate for the region. The situation is also looking better in southern Africa. The Republic of South Africa has embarked on internal reforms, legalizing anti-apartheid groups, releasing political prisoners, and removing martial law for all provinces except Natal. Meanwhile, civil wars in Angola and Mozambique are coming to an end. In March 1990, Namibia split off from the Republic of South Africa to form an independent country.

## 2. JICA Projects in the Region

Japan's ODA to countries in the African region is characterized by a relatively large percentage of grant aid due to the extremely difficult economic circumstances of the region and the humanitarian considerations involved. In fiscal 1990, grant aid accounted for 53.4 percent of Japan's net outlays to this region, compared to the 19.8 percent that it accounts for in total bilateral ODA.

A large proportion of technical cooperation for the African region goes for agricultural development (including post-harvest industries), human-resources development (to provide the region with the human resources required for growth over the middle term), and basic transportation and telecommunications infrastructure. Increasing in importance are forest conservation, measures to prevent desert encroachment, wildlife preservation, and other conservation areas. Now, more than ever, Japan needs to have an accurate grasp of the region's development needs and be able to respond to them in a flexible manner. In light of this, JICA has established an African Aid Study Group at its Institute for International Cooperation. Composed of authorities and experts in African aid, the group compounds various recommendations for Japan's middle- and long-term approach to Africa with respect to priority development areas for the region.

During fiscal 1990, JICA spent ¥16.67 billion on cooperation with this region, 14.7 percent of the total JICA aid budget and a 7.66 percent increase over the previous year. The main recipients of this aid were Kenya (22.9 percent), Zambia (14.2 percent) and Tanzania (10.9 percent). Major areas of cooperation included agriculture, forestry, fishing, mining, health and medical care, education, social infrastructure, telecommunications and broadcasting, transportation, and traffic control.

## 2.1 Technical Cooperation

### (1) Training Programs

In fiscal 1990, trainees received from the African region totaled 747, including both new and continuing assignments - nearly 8.6 percent of all trainees, ranking third after Asian region and Latin America. From Kenya came 135, Tanzania 110, and Ghana 51.

### (2) Dispatch of Experts

In fiscal 1990, 340 experts, including both new and continuing assignments, were sent to the African region, that is, 8.8 percent of all Japanese experts sent abroad. Of these, 124 newly assigned experts were sent to Kenya, 51 to Zambia, 47 to Tanzania.

### (3) Independent Equipment Provision

In fiscal 1990, equipment was provided to African countries in 16 shipments worth a total of ¥406 million. The equipment worth ¥110 million was provided to Côte d'Ivoire, ¥85 million to Zambia, and ¥55 million to Ghana.

### (4) Project-type Technical Cooperation

In fiscal 1990, project-type technical cooperation was implemented in this region as part of 18 projects in six countries out of 45 countries. 9 new projects were carried out in Kenya, 3 each in Tanzania and Zambia, one each in Ghana,

Nigeria and Senegal; the main areas covered were agriculture and forestry (7 projects), human resources development (5), health and medical care (5), and industrial development (1).

#### (5) Development Studies

In fiscal 1990, 35 development studies were carried out; of these 8 projects were implemented in Kenya, 5 each in Tanzania and Zimbabwe, 4 in Zambia and 2 each in Senegal and Mauritius.

### 2.2 Grant aid

In fiscal 1990, grant aid went to the African region in 75 projects valued at ¥33,787 million; of these JICA conducted 16 basic design studies. The main area covered ranged from agriculture to social infrastructure, health care and medicines, and education and culture.

### 2.3 JOCV Volunteers

In fiscal 1990, 831 volunteers, 31.4 percent of all JOCV assignees and the largest contingent to any region, were sent on new assignment to 11 countries in Africa, including Malawi, Kenya, Tanzania, Zambia and Ghana. The major field of specialty was education and culture, industry, agriculture, forestry and fisheries, social infrastructure, health and medical care, and others. The cumulative total of the volunteers dispatched to Malawi as of fiscal 1990 was 789, ranking first worldwide in terms of a number of the volunteers dispatched by country, and that to Kenya, was 765, ranking second after Malawi.

### 2.4 Japan Disaster Relief Team

In April 1990, relief supplies, such as medicine, medical equipment and materials, and tents were provided to the flood victims in Tanzania. In March 1991, relief supplies, which include tents, temporally (make-shift) water tank and

medicine, were provided to the victims in Malawi after an avalanche of rock and earth.

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## Chapter 5

### Latin America

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#### Outline of the Region

##### 1. Regional Aspects

Latin America is composed of 33 countries with comparatively high income levels. Many of these countries are at the level of "newly industrialized nations". With 20.55 million square kilometers of territory, this region accounts for 15.13 percent of the world's land mass, while its 420 million people are roughly 8 percent of the world population. Though Latin America is saddled with a number of serious problems, spiraling foreign debts chief among them, it is endowed with vast lands, is rich in both natural and human resources, and has great potential for future growth.

From north to south, the region is composed of 8 Central American, 13 Caribbean, and 12 South American states (including the Andean countries). Many of the Caribbean and Central American countries are very small. Eight of them have territories of less than 10,000 square kilometers, and 10 have populations of under 500,000. Income levels also vary widely. Haiti and Guyana had per-capita GNP of under \$500 in 1988, while 22 of the region's countries had per-capita GNPs of over \$1,000, and the Bahamas and Barbados--thanks to oil exports and tourism -- had per-capita GNPs of over \$5,000.

When the Japanese think of Latin America, they tend to think of Brazil, Mexico, Argentina and other industrialized countries with relatively high income levels. They therefore regard this region as advanced with respect to other developing countries. But with only a few exceptions, prolonged political and economic disruptions have left Latin America with an underdeveloped social infrastructure. Without cooperation from outside, the countries of Latin America

are unlikely to ever be able to overcome the distortions and inefficiencies that have built up over the last forty years and achieve economic independence.

Even those countries that are continuing their efforts in promoting industrialization and economic and social development are still very dependent on primary commodities and therefore structurally fragile. Those that have sought rapid modernization by borrowing funds from industrialized countries and financial institutions (private banks, in particular), have seen prices fall for primary commodities while global interest rates have risen. As their balance of payments worsens, debt service becomes more and more difficult and economies move closer and closer to collapse.

The countries of Latin America are, however, undergoing radical political reforms. Most have seen democratically-elected governments take power within the last couple of years.

Chile and Mexico stand at the head of these economic reforms, which, based on the policy initiatives introduced by the democratically-elected governments, seek to reduce government, reform fiscal policy and nationalized corporations, revamp tax collection systems, liberalize trade, and scrap protectionist barriers. The government of Argentina has embarked on a massive economic stabilization program designed to improve trade and privatize nationally-held companies. The new Colombian government has announced new economic liberalization measures. Peru has also recently begun to move towards large-scale reforms.

At the end of 1989, Latin American countries had a total of \$430 billion in foreign debt, the equivalent of three years worth of exports, about half the region's GNP, and one-third the unpaid debts of all developing countries. Besides increasing their economic strength and acquiring the ability to repay their debts, they must have long-term aid from creditors, international institutions, and private banks if they are to solve their foreign debt problems.

Debtor nations are now making efforts to decrease their debt burdens, working with the support of the World Bank and IMF to reduce fiscal deficits, suppress inflation, increase exports, liberalize trade, and enact other structural

reforms. But while building this foundation, they are also trying to achieve more immediate solutions such as those proposed under the Brady Plan. Mexico, Venezuela, and Costa Rica, all of which have taken advantage of the Brady Plan, are beginning to see results. The United States' new plan to support Latin America, with its goals of increasing trade with the region, promoting investment in it, and reducing its debts, is also expected to accomplish much in this regard. Japan is doing its part by serving as the major source of funds for World Bank-sponsored joint financing.

Latin America has long been a destination for Japanese emigrants. Today there are about 1.2 million Japanese nationals, Japanese emigrants, and people of Japanese ancestry living in the region, principally, in Brazil, Peru, Argentina, and Paraguay. Since the establishment of diplomatic relations with Peru in 1873, Japan and Latin America have maintained close ties of friendship through frequent exchanges of official visits and the presence of Japanese companies. As the world's largest ODA donor, Japan has major financial and technological contributions to make to the rebuilding, development, and expansion of the economies of this region.

In 1990, \$561 million, or 8.1 percent of Japan's bilateral ODA, went to this region. In 1977 and 1978, bilateral ODA to this region increased by an annual rate of over 60 percent, but in recent years its share of bilateral ODA has tended to level off. This tendency is attributable to several factors, namely that Latin America's income levels are higher than other regions' and consequently few countries are eligible for financial aid, while those that qualify for loan assistance are saddled already with such enormous swelling debts that their debts are being rescheduled. Japan is granting loan assistance to the region mainly in agriculture and such areas of economic infrastructure as transportation and traffic control, energy, and telecommunications and broadcasting.

Grant aid is being given primarily in agriculture, health and medical care, and education. Cooperation is frequent in fisheries and culture, due to the region's commercial fisheries' ties with Japan and the great value of its cultural legacy.



The region both urgently needs technical cooperation and is eminently able to assimilate technology. Therefore the conditions for technical cooperation are met and JICA activity is brisk in this area. The fields where technical cooperation is being carried out principally include agriculture, transportation and traffic control, health and medical care, telecommunications and broadcasting, manufacturing industry, mining, human resource development, and culture; its share of total Japanese technical cooperation was about 12.1 percent in 1990, ranking second worldwide after Asia. Technical cooperation accounts for 35.5 percent of all forms of ODA to Latin America.

The Caribbean region has many small islands with small populations. Japanese cooperation with them is still on a very small scale because many Caribbean nations became independent very recently and have relatively high income levels and small economies. In recent years, however, these countries have counted increasingly on Japanese aid, and Japan accordingly must study forms of cooperation adapted to the small scale of their economies.

## 2. JICA Projects in the Region

Cooperation with this region ranked second worldwide, in almost all aspects, including assistance by type of cooperation, amount of assistance, and number of personnel involved. The areas of cooperation widely range from agriculture, forestry and fishery to industry, mining, health care and medicines, and social infrastructure development. In recent years, countries in this region, primarily Mexico and Brazil, have started to work on environmental improvement projects.

Latin America is characterized by a large number of Japanese emigrants, and efficient technical transfer and effective performance in cooperation in the region result from the relatively high educational and technical level of the people.

## 2.1 Technical Cooperation

### (1) Training Programs

In fiscal 1990, JICA trained 1,883 new and continuing trainees (as well as emigrants) from this region. The total number is 21.6 percent of all JICA trainees, a contingent second only to the Asian trainees. This was a 10-person increase with respect to fiscal 1989: the training program is steadily growing. Some 398 trainees came from Brazil, 205 from Peru, 211 from Mexico, 164 from Argentina, and 107 from Paraguay.

### (2) Dispatch of Experts

In fiscal 1990, 798 experts, including both new and continuing assignments, were sent to this region, that is, 20.75 percent of all Japanese experts sent abroad, a number of assignments second only to those sent to Asia. Of these, 515 were new assignments to 18 countries: 68 to Mexico, 74 to Brazil, 46 to Chile, 43 to Peru, 7 to Colombia, and 43 to Bolivia. Their areas of expertise included almost every field, but health and medical care was the most important, followed by agriculture, mining, vocational training, fisheries, telecommunications and broadcasting, and livestock raising.

### (3) Independent Equipment Provision

In fiscal 1990, equipment worth ¥558 million, 27.6 percent of the total in this category, was provided in 21 instances to countries in Latin America. The main types of equipment supplied were agricultural equipment, electric communication equipment, fish catch processing equipment, etc., to Paraguay, Peru, Colombia, and other countries.

### (4) Project-type Technical Cooperation

Project-type technical cooperation in fiscal 1990 involved 41 projects in 13 countries, including Argentina, Bolivia, Brazil, Chile, and Colombia. Of these,

eight, including project for intensive nurse education in Honduras, project for construction of anti-mining pollution center in Brazil, and project for production increase of main crops in Paraguay were new projects that began in fiscal 1990.

The main focus of cooperation was on agriculture and forestry, but health and medical care and industrial development were also covered.

### (5) Development Studies

In fiscal 1990, 54 development studies, including both new and continuing studies, were carried out in 18 countries including Colombia, Bolivia, and Brazil. The broad range of areas covered included geothermal development, agriculture and rural development, measures to combat air pollution, forestry resources, mineral resources, airport improvement, and flood prevention.

## 2.2 Grant Aid

Grant aid to this region has long been centered on agriculture, medical care, education, and other types of social infrastructure. In fiscal 1990, JICA expedited the execution of 25 grant aid projects valued at ¥11,731 million in 14 countries. In addition to the traditional areas of grant aid, fisheries and human resource development were covered.

## 2.3 JOCV Volunteers

In fiscal 1990, JOCV volunteers were sent to ten Latin American countries: Bolivia, Colombia, Costa Rica, the Dominican Republic, Ecuador, Guatemala, Honduras, Jamaica, Paraguay, and Peru; 156 volunteers, 22 percent of all JOCV assignees, were sent on new assignments. This group comes after Asia and Africa in terms of the number of volunteers. Their fields of cooperation included education and culture; health care and medicines; agriculture, forestry, and fisheries; equipment and machinery maintenance and operation; sports; industrial processing; and civil engineering.

## 2.4 Emigration

During fiscal 1990, Japanese emigrants and people of Japanese ancestry in Brazil, Paraguay, Colombia, Bolivia, Argentina, Peru, Uruguay, Mexico, and the Dominican Republic were given farming guidance, help with residential environment improvement, and loans to start businesses. Overseas Development Youth were sent to those countries and emigrant trainees were invited to Japan.

## Chapter 6

### Oceania

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#### Outline of the Region

##### 1. Regional Aspects

Extending on either side of the Pacific equator, Oceania includes Australia, New Zealand, eleven independent island countries, and several autonomous territories, protectorates, and overseas territories of extra-regional countries. It has total land area of 9 million square kilometers, 98 percent of which is in Australia, New Zealand, and mainland Papua New Guinea. Other islands have a combined territory of only 180,000 square kilometers, and none has a population of over a million.

The region is divided along racial lines into Melanesia, Polynesia, and Micronesia. Since most of its countries are newly independent, the region's social structures are still immature and traditional society and former colonizers still have great influence on its people. While there is a wealth of cultural diversity in Oceania, Melanesia is generally characterized by atomized social structures, comparative equality, and mutually complementary societies. Polynesia and Micronesia, by contrast, are class-oriented societies based on the institution of chieftainship. Per-capita incomes in the region (excluding Australia and New Zealand) range from \$7,000 in phosphate-rich Nauru to \$350 in Tuvalu.

Oceania's economic slump worsened in 1990. International prices for wool and mining products have been low for the past several years, which has taken its toll on the Australian economy and reduced the amount of aid it is able to contribute. The region is on the whole politically stable, however, with the exception of the Bougainville incident in Papua New Guinea.

With a few exceptions, the countries of Oceania are small states with little in the way of natural resources. Their economic foundations are generally weak, they depend on primary industry and are thus subject to fluctuations in climate and international commodity prices. They are also plagued by the distances between their islands and communities, the narrowness of their domestic markets, their remoteness from international markets, and their lack of the transportation and communication infrastructure that would compensate for these handicaps. There are thus many obstacles to be overcome before economic independence is achieved. While most maintain close relations with their former colonizers, aid from this direction has tended to decrease, and countries are being forced to rethink their economic development plans. But from the planning stages right through to the factory, the biggest problems they face are a lack of human resources.

Historically, Japan has had close ties with this area, and most feel friendly towards Japan. There is thus a great demand for Japanese aid. Its programs for Oceania involve the training of the human resources necessary to build these new nations, promoting the development of their agricultural, forestry and fishing industries, and providing the fundamental infrastructure needed to meet basic human needs. Japan began its cooperation relatively recently in this region, however, and consequently lacks sufficient expertise and experience with it. It therefore hopes to work closely with Australia, New Zealand and other major aid donors, as well as with such international and regional organizations as the South Pacific Committee (SPC) and South Pacific Forum (SPF). Though Oceania only received 1.8 percent of Japan's total bilateral ODA during 1990, aid to the region quadrupled between 1985 (\$24 million) and 1989 (\$98 million). As most of the countries in the region are small, low-income island nations, the majority of Japanese aid takes the form of technical cooperation and grants. At the present time, the only recipient of loan assistance is Papua New Guinea.

## 2. JICA Projects in the Region

In fiscal 1990, JICA projects in the region spent ¥3,760 million, 3.3 percent of its total budget and 11.3 percent more than during the previous year. On a cost basis, the most money was spent on cooperation involving JOCV volunteers.

### 2.1 Technical Cooperation

#### (1) Training Programs

A cumulative total of the trainees invited as of fiscal 1990 reached 1620. In fiscal 1990, 379 new and continuing trainees, nearly 3.45 percent of all participants, took part in JICA training programs. The subjects included more human resource development, transportation and traffic control, and public administration courses than in the past. Outside of the training program, 78 young people, mainly civil service and teaching personnel, came to Japan as part of the Youth Invitation Program.

#### (2) Dispatch of Experts

A cumulative total of the experts dispatched to the region as of fiscal 1989 reached 394. In fiscal 1990, 83 experts were newly sent to this region. Assignments' characteristics differed among countries: agricultural assignments in Fiji and forestry assignments in Papua New Guinea were especially frequent, and in other countries, experts were generally involved in work related to fisheries.

#### (3) Project-type Technical Cooperation

In fiscal 1990, only 2 project-type technical cooperation with this region were carried out, which included one agriculture research in Fiji and one forestry research in Papua New Guinea.

#### (4) Development Studies

A cumulative total of development studies as of fiscal 1989 was 20. In fiscal 1990, four new development studies were carried out and one was continued from the previous year in Oceania. The areas covered were improvement of social infrastructure, agriculture, forestry, and fisheries, energy, transportation and traffic, and telecommunications.

#### 2.2 Grant aid

Grant aid was given to such projects as fisheries, agriculture, medical care projects. In fiscal 1990, ¥6,671 million was granted to 9 countries in 13 projects.

#### 2.3 JOCV Volunteers

A cumulative total of volunteers dispatched to 7 countries in the region as of fiscal 1989 was 580. In fiscal 1990, 296 volunteers were sent to seven countries on new assignments in this region. Papua New Guinea received the most (68), followed by the Solomon Islands (53). Their areas of expertise included education and culture; agriculture, forestry, and fisheries; equipment maintenance and operation; health and sanitation; sports; industrial processing; and civil engineering.

#### 2.4 Japan Disaster Relief Team

During fiscal 1990, emergency supplies were sent to the Federal States of Micronesia after a devastating typhoon in November, 1990.

#### 2.5 Project Formulation Study

In fiscal 1990, two project formulation studies on fisheries were carried out in Tonga and Kiribati.



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## Chapter 7

### The European Region

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#### Outline of the Region

##### 1. Regional Aspects

Most of the countries in Europe are modernized and economically independent. The region includes 13 of the 18 members of the Development Assistance Committee of the OECD, and therefore the majority of European countries are aid donors, not recipients. Modernization has, however, been retarded in many of the Eastern European countries due to their long years of centralized planning under communist governments. Economically, these countries are far behind their neighbors.

But in the latter half of 1989, the countries of Eastern Europe, led by Poland and Hungary, began to democratize and liberalize. They are now engaged in economic reforms designed to give them market economies administered by freely-elected governments. In response to these moves, the West has organized the G24 (the OECD member states and the EC) to provide a framework for massive assistance and active support of the reforms now in progress.

This aid to Eastern Europe is a united response on the part of the West to the new world order of freedom and democracy ushered in by the reforms that started in this region. Japan is therefore also making active contributions.

According to DAC criteria, Cyprus, Greece, Malta, Portugal, Yugoslavia, Albania and Gibraltar are classified as eligible for aid, though Poland and Hungary were also added to their number in June 1990.

## 2. JICA Projects in the Region

The main objectives of Japanese aid to Eastern Europe are to contribute to the introduction and establishment of democracies and market economies, and to assist in the solution of the region's environmental problems. Most of the cooperation takes the form of training, dispatch of experts, and development surveys.

During fiscal 1990, JICA accepted 106 participants from Poland and 94 from Hungary for training in agriculture, environmental protection, and management. Experts were also dispatched to the two countries to assist them in quality control programs. In addition, JICA performed development studies on a national transport plan and flue gas desulfurization for Kozienice power plant (feasibility study) in Poland, and on energy conservation plans and the Budapest urban waste disposal plan in Hungary.

In other areas of Eastern Europe, JICA accepted trainees from and dispatched experts to DAC-qualified Yugoslavia and Albania. Since 1984, JICA has been engaged in an ongoing project in Yugoslavia to provide lifelong education regarding primary health care.

In fiscal 1991, JICA will expand its technical cooperation in Eastern Europe to include Czechoslovakia, Bulgaria, Rumania, Yugoslavia, and Albania as well as Poland and Hungary.

It also provided training in infrastructure to Portugal, Cyprus, Greece, and Malta during fiscal 1990.

## Part III

### Performance in Fiscal 1990 by Country, Sector

140

# [ASIA]

## Bangladesh

### Public Works & Utilities

#### Equipment Supply

EQUIPMENT	EXPENSES (¥Thousand)	FACILITIES
Communication Equipment	9,476	International Criminal Police Organization Interpol Bangladesh Police

#### Development Study

NAME OF DEVELOPMENT STUDY	EXECUTING AGENCY OF THE RECIPIENT
Greater Dhaka Protection Project (Study in Dhaka Metropolitan Area of Bangladesh Flood Action Plan 8A)	Flood Plan Coordination Organization
Feasibility Study on Development Project of Container Terminal at Dhaka-Narayanganj Port	Bangladesh Inland-waterway Transport Authority
Geodetic Survey Study	Survey of Bangladesh (SOB)
North West Regional Study (Bangladesh Flood Action Plan No. 2)	Flood Plan Coordination Organization

#### Grant Aid

CASE	EXPENSES (¥Million)	ACTIVITIES CONDUCTED BY JICA
Project for Constructing Meghna Bridge	841	
Sewerage Construction and Rehabilitation Project	1,571	
Updating Study on Storm Water Drainage System Improvement Project in Dhaka City	626	
Project for Replacement of Medium Wave Transmitter	461	Basic Design Study
Project for Constructing Meghna-Gumti Bridge	140	Basic Design Study

## ||||||| Agriculture, Forestry & Fisheries |||||

### Project-Type Technical Cooperation

\*Cumulative operations since each project started

PROJECT	*EXPERT DISPATCH (Person)	*COUNTER- PART (Person)	*EQUIPMENT SUPPLY (¥Thousand)	DURATION
The Institute of Postgraduate Studies in Agriculture Project, Phase (I)	56	10	422,002	85. 7. 4 - 90. 7. 3
The Institute of Postgraduate Studies in Agriculture Project, Phase (II)	13	2	0	90. 7. 4 - 95. 7. 3

### Development Study

NAME OF DEVELOPMENT STUDY	EXECUTING AGENCY OF THE RECIPIENT
Feasibility Study on the Kurigram Irrigation and Flood Control Project (North Unit)	Bangladesh Water Development Board (BWDB)
Master Plan Study for the Model Rural Development Project, Phase II	Bangladesh Rural Development Board (BRDB)

### Grant Aid

CASE	EXPENSES (¥Million)	ACTIVITIES CONDUCTED BY JICA
Narayanganj Narsingdi Irrigation Project	1,796	Expediting of Execution
Project for Establishment of Fish Landing & Preservation Facilities in Monoharkhali		Basic Design Study
Model Rural Development Project for Homna & Daudkandi Upazila		Basic Design Study
Project for Construction of Food Storage Godown in Dhaka		Basic Design Study

## ||||||| Human Resources Development |||||

### Grant Aid

CASE	EXPENSES (¥Million)	ACTIVITIES CONDUCTED BY JICA
Institute of Postgraduate Studies in Agriculture Project	403	Basic Design Study

Public Health & Medicine

Equipment Supply

EQUIPMENT	EXPENSES (¥Thousand)	FACILITIES
Medical Equipment	66,671	Shishu Hospital, Ministry of Homes

Project-Type Technical Cooperation

*Cumulative operations since each project started				
PROJECT	*EXPERT DISPATCH (Person)	*COUNTER- PART (Person)	*EQUIPMENT SUPPLY (¥Thousand)	DURATION
Pilot Project on Control of Rheumatic Fever and Rheumatic Heart Diseases	32	9	217,163	88.11. 1 - 92.10.31

ASIA

**Bhutan**

Type of Cooperation	Sector	Public Works & Utilities												Human Resources Development		Social Welfare	Others	Expenses (N Thousand)
		Planning & Administration	Public Works	Transportation	Social Infrastructure	Telecommunications & Broadcasting	Agriculture	Livestock Farming	Forestry	Fisheries	Mining	Manufacturing	Energy	Commerce & Trade	Tourism	Human Resources	Science & Culture	
Acceptance of Trainees	Newly operations in 1990	2				3	4	1				1		1		6		1
	Continued from FY 1989						1				2					1		
	Total	2				3	5	1			2	1		1		7		1
Dispatch of Experts	Newly in 1990												2					
	Contd. from 1989												2					
	Total												2					
	Newly in 1990							1										
	Contd. from 1989																	
	Total							1										
Dispatch of Survey Teams Members	Newly in 1990																	
	Contd. from 1989												2					
	Total												2					
Dispatch of Japan Overseas Cooperation Volunteers	Newly operations in 1990	2			3	1	1											4
	Continued from FY 1989	2			3	1	1											
	Total	4			6	2	2											4
Total		19				15												130,877
Total		22				15												87,869



## Bhutan

### ||||||| Public Works & Utilities |||||

#### Development Study

NAME OF DEVELOPMENT STUDY	EXECUTING AGENCY OF THE RECIPIENT
The Study on Groundwater Development in Southern Part of the Kingdom of Bhutan	Department of Agriculture, Ministry of Agriculture

#### Grant Aid

CASE	EXPENSES (¥Million)	ACTIVITIES CONDUCTED BY JICA
Project for Development of Domestic Telecommunication Network		Basic Design Study

### ||||||| Agriculture, Forestry & Fisheries |||||

#### Equipment Supply

EQUIPMENT	EXPENSES (¥Thousand)	FACILITIES
Equipment for Instruction in Mold and Agricultural Machinery Manufacturing	11,588	Agriculture Machinery Center, Ministry of Agriculture

#### Grant Aid

CASE	EXPENSES (¥Million)	ACTIVITIES CONDUCTED BY JICA
Material and Equipment Supply for the Increase of Food Supply	250	Expediting of Execution
Material and Equipment Supply for the Increase of Food	250	Expediting of Execution Aptness Study of the Requested Equipment.
Phase II Project for the Paro Valley Agricultural Development	434	Basic Design Study

CASE	EXPENSES (¥Million)	ACTIVITIES CONDUCTED BY JICA
Establishment of the National Agriculture Mechanization Center		Expediting of Execution

||||||| Energy |||||

Grant Aid

CASE	EXPENSES (¥Million)	ACTIVITIES CONDUCTED BY JICA
Project for Micro Hydro Power Facilities	567	Expediting of Execution

**Brunei**

Type of Cooperation	Sector	Sector																	Expenses (¥Thousand)		
		Planning & Administration		Public Works & Utilities			Agriculture, Forestry & Fisheries				Mining & Industry		Energy		Commerce & Tourism		Human Resources Development			Social Welfare	Others
		Development Planning	Public Administration	Public Works	Transportation	Social Infrastructure	Telecommunications & Broadcasting	Agriculture	Livestock Farming	Forestry	Fisheries	Mining	Manufacturing			Commerce & Trade	Tourism	Human Resources	Science & Culture		
Acceptance of Trainees	Newly operations in 1990		9		3	3	4	4	1	1		1				3		50	2	1	146,155
	Continued from FY 1989	4					1		2										1		
	Total	86	9		3	3	5	4	1	3		1				3		50	3	1	
Dispatch of Experts	Newly in 1990	11							2										9		75,219
	Contd. from 1989	2							1										1		
	Total	13							3										10		
Dispatch of Specialists	Newly in 1990	2							1										1		
	Contd. from 1989	5							4												
	Total	7							5												
Dispatch of Specialists	Newly in 1990	13							3										10		
	Contd. from 1989	7							5										1		
	Total	20							8										11		
Dispatch of Specialists	Newly operations in 1990	15							11										1	3	14,869
	Continued from FY 1989																				
	Total	15							11										1	3	
Dispatch of Specialists	Newly operations in 1990																				
	Continued from FY 1989																				
	Total																				

ASIA

# Brunei

## ||||||| Agriculture, Forestry & Fisheries |||||

### Project-Type Technical Cooperation

\*Cumulative operations since each project started

PROJECT	*EXPERT DISPATCH (Person)	*COUNTER- PART (Person)	*EQUIPMENT SUPPLY (¥Thousand)	DURATION
Forestry Research Project	30	11	192,664	85.10. 1 - 92. 9.30

### Development Study

NAME OF DEVELOPMENT STUDY	EXECUTING AGENCY OF THE RECIPIENT
Study on Forestry Resources	Forestry Department, Ministry of Industry and Primary Resources

## ||||||| Human Resources Development |||||

### Project-Type Technical Cooperation

\*Cumulative operations since each project started

PROJECT	*EXPERT DISPATCH (Person)	*COUNTER- PART (Person)	*EQUIPMENT SUPPLY (¥Thousand)	DURATION
ASEAN Project on Corrosion of Reinforced Concrete Structure	32	11	104,846	87.10. 1 - 92. 9.30

**Cambodia**

Type of Cooperation	Sector	Sector											Expenses (Thousands)
		Total	Planning & Administration	Public Works & Utilities	Agriculture, Forestry & Fisheries	Mining & Industry	Energy	Commerce & Tourism	Human Resources Development	Public Health & Medicine	Social Welfare	Others	
Acceptance of Trainees	Newly operations in 1990	9	2							5			18,474
	Continued from FY 1989								1				
	Total	9	2						1	5			
Dispatch of Experts	Newly in 1990												
	Short-term												
	Contd. from 1989												
	Total												
	Newly in 1990												
	Contd. from 1989												
Dispatch of Specialists & Trainers	Newly in 1990												
	Contd. from 1989												
	Total												
Dispatch of Japan Overseas Cooperation Volunteers	Newly operations in 1990												
	Continued from FY 1989												
	Total												

ASIA

China

Sector		Public Works & Utilities										Agriculture, Forestry & Fisheries			Mining & Industry		Energy	Commerce & Tourism		Human Resources Development		Social Welfare	Others	Expenses (¥ Thousands)																	
		Planning & Administration		Public Works	Transportation	Social Infrastructure		Telecommunications & Broadcasting		Agriculture	Livestock Farming	Forestry	Fisheries	Mining	Manufacturing	Commerce & Trade		Tourism	Human Resources	Science & Culture																					
Type of Cooperation	Total	Acceptance of Trainees										Dispatch of Experts										Dispatch of Survey Teams										Dispatch of Overseas Cooperation Volunteers									
		Newly operations in 1990										Newly in 1990										Newly operations in 1990										Newly operations in 1990									
		Continued from FY 1989										Continued from 1989										Continued from 1989										Continued from FY 1989									
		Total										Total										Total										Total									
		432	1	46	4	17	8	18	26	10	10	2	3	36	9	38	210	5	35	4			1,341,544																		
		133		1		9	1	7	18	8	5	4	8	9	2	12	1	14	1	33																					
		615	1	47	4	26	9	25	44	18	15	6	11	45	11	50	1	224	6	68	4																				
		255	1	6	4	55	11	36	16	18	7	5	21	29		6		2	2	35	1																				
		40		5		7		2	5	2	2	1	6	2				1		7																					
		285	1	11	4	62	11	38	21	20	9	6	27	31		6	1	2	2	42	1																				
		32				2	1	1	3	7	4	3	1	3						7			1,291,984																		
		44				6		1	9	3	5	5	5	6		1		5	3																						
		76				8	1	2	12	10	9	8	6	9	1				10																						
		287	1	6	4	57	12	37	19	25	11	8	22	32		6		2	2	42	1																				
		84		5		13		3	14	5	7	6	11	8				1		10																					
		371	1	11	4	70	12	40	33	30	18	14	33	40	1	6	1	2	2	52	1																				
		555	4	36	20	10	22	29	112	6	7	5	41	142	12	7		40	33	24		5																			
		95		5	4				6	3	6		14							11																					
		610	4	41	24	10	22	29	120	9	13	5	55	142	12	7		40	33	35		9																			
		24		3					1		1				3			10	5	1																					
		41							2	7		1			6			17	7	7																					
		66		4					3		1	1			9			27	12	8																					

# China

## ||||||| Planning & Administration |||||

### Project-Type Technical Cooperation

\*Cumulative operations since each project started

PROJECT	*EXPERT DISPATCH (Person)	*COUNTER- PART (Person)	*EQUIPMENT SUPPLY (¥Thousand)	DURATION
Education System Development Project for Chinese Patent Information Retrieval	45	20	234,346	86.11. 1 - 91. 4.30

### Development Study

NAME OF DEVELOPMENT STUDY	EXECUTING AGENCY OF THE RECIPIENT
Study on Water Pollution Control Plan for the Lake Poyang	Jiangxi Provincial Environmental Protection Bureau

### Grant Aid

CASE	EXPENSES (¥Million)	ACTIVITIES CONDUCTED BY JICA
Project for Establishment of China-Japan Friendship Environmental Protection Center	243	Basic Design Study

## ||||||| Public Works & Utilities |||||

### Project-Type Technical Cooperation

\*Cumulative operations since each project started

PROJECT	*EXPERT DISPATCH (Person)	*COUNTER- PART (Person)	*EQUIPMENT SUPPLY (¥Thousand)	DURATION
Beijing Posts and Telecommunications Training Center	110	16	60,933	86. 2. 5 - 92. 2. 4

ASIA

PROJECT	*EXPERT DISPATCH (Person)	*COUNTER- PART (Person)	*EQUIPMENT SUPPLY (¥Thousand)	DURATION
Project of Promotion for Computer Systems on National Railway Management College	42	8	323,550	87. 7. 1 - 91. 6.30
Project of the Road Traffic Cadre Training Center	43	8	281,418	88.11.10 - 93.11. 9

### Development Study

NAME OF DEVELOPMENT STUDY	EXECUTING AGENCY OF THE RECIPIENT
Feasibility Study on the New Railway Project in Tianjin	Tianjin City Science and Arts Committee
Study on Automatic Telephone System in Dehui Prefecture, Jilin Province	Ministry of Posts and Telecommunications
Feasibility Study on Flood Forecasting System for the Hanjiang River Basin	Ministry of Water Resources
Study on Groundwater Development Project in Urumuqi	Ministry of Geology and Mineral
Study on the Development Plan of Pu-Dong New Area including Wai-gao-qiao Area in Shanghai City	Shanghai Municipality Science and Technology Committee
Study on the Solidwaste Management System Improvement Project in Xian City	Environment and Hygiene Control Bureau, Xian City Regional Construction Committee
Study on Fengman Dam Improvement Project	Ministry of Energy Resources

### Grant Aid

CASE	EXPENSES (¥Million)	ACTIVITIES CONDUCTED BY JICA
Project for the Improvement of the Changchun Purification Facilities	981	Basic Design Study
Project for Improvement of Rural Water Supply in Kweichow Province	1,500	

## ||||||| Agriculture, Forestry & Fisheries |||||

### Equipment Supply

EQUIPMENT	EXPENSES (¥Thousand)	FACILITIES
Equipment for Hydroponics of Vegetables	52,273	Zhejiang Academy of Agriculture Sciences



## Project-Type Technical Cooperation

\*Cumulative operations since each project started

PROJECT	*EXPERT DISPATCH (Person)	*COUNTER- PART (Person)	*EQUIPMENT SUPPLY (¥Thousand)	DURATION
Integrated Wood Utilization Research Project in Heilongjiang	64	24	614,647	84.10.15 - 91.10.14
Meat Food Research Center Project	49	31	231,671	85. 4.10 - 91. 3.31
Sanjianpingyuan Agricultural Research Center Project	58	27	663,453	85. 9.20 - 93. 3.19
The Shanghai Fish Processing Technique Development Center	41	17	427,401	86. 1. 1 - 92.12.31
Beijin Vegetable Research Center Project	22	16	147,022	88. 1. 1 - 92.12.31
Watershed Management Training Project on the Loess Plateau	16	5	144,306	90. 1.15 - 95. 1.14
Tianjin Dairy Farming Development Project	12	6	40,322	90. 3. 1 - 95. 2.28

## Development Study

NAME OF DEVELOPMENT STUDY	EXECUTING AGENCY OF THE RECIPIENT
Feasibility Study on Haizi Dam Agricultural Water Development Project	Ministry of Water Resources, Institute of Science for Water Conservancy and Hydroelectric Generation, Beijing Water Supply Bureau
Feasibility Study on Embankment Improvement and Agricultural Development in Qinzhou District in Guangxi Zhuang Zu Autonomous Region	Public Works Bureau, Qinzhou District Administration, Guangxi Zhuang Zu Autonomous Region
Master Plan Study on the Liao Ho Delta Agricultural Resources Integrated Development Project in the Liaoning Sheng	Water and Electricity Agency, Liaoning Province
Master Plan Study on Integrated Agriculture and Livestock Development Project in Xiangxinanzhi Shanmai	Agriculture Agency, Hunan Province

## Grant Aid

CASE	EXPENSES (¥Million)	ACTIVITIES CONDUCTED BY JICA
Material and Equipment Supply for the Increase of Food Supply	500	Expediting of Execution

CASE	EXPENSES (¥Million)	ACTIVITIES CONDUCTED BY JICA
Material and Equipment Supply for the Increase of Food Supply	500	Aptness Study of the Requested Equipment Expediting of Execution
Project for Improvement of Irrigation in Northern Area in Kohoku		Basic Design Study

#### Development Cooperation (Investment and Financing Examination and Surveys)

CASE	DURATION	PERSON ENGAGED
Pilot Project for Malting Barley Breeding in Kiangsu	90.10.11 - 90.10.19	4
Pilot Project of Cultivating Brewing Grapes and Hops in Shinkiang Uighur	90. 7.26 - 90. 8. 4	3

#### Development Cooperation (Training)

CASE	DURATION	COUNTERPART (Person)	RELATED PROJECT
Project for Culture of Soybean	91. 2.22 - 91. 3.23	5	Pilot Project for Culture of Soy Bean in Heilongjiang

### ||||||| Mining & Industry |||||

#### Project-Type Technical Cooperation

\*Cumulative operations since each project started

PROJECT	*EXPERT DISPATCH (Person)	*COUNTER- PART (Person)	*EQUIPMENT SUPPLY (¥Thousand)	DURATION
The China Mining Research Center for Non-Ferrous Metals	50	18	543,136	87. 3. 1 - 92. 2.29
The Research and Development on Resin Application	6	5	0	90. 2.21 - 94. 2.20

#### Development Study

NAME OF DEVELOPMENT STUDY	EXECUTING AGENCY OF THE RECIPIENT
Study on the Factory Modernization (Yangchow Print)	State Planning Commission
Study on the Factory Modernization (Steel Pipe)	State Planning Commission
Study on the Factory Modernization (Anshan Tractor)	State Planning Commission

NAME OF DEVELOPMENT STUDY	EXECUTING AGENCY OF THE RECIPIENT
Study on the Factory Modernization (Jiargbei Machine Factory)	State Planning Commission
Study on the Factory Modernization (Xiargtan Compressor Factory)	State Planning Commission
Study on the Factory Modernization (Liaoyang Pharmaceutical Machine Factory)	State Planning Commission
Study on the Factory Modernization (The Third Beijing Cotton Mill)	State Planning Commission
Study on the Factory Modernization (Dan Dong Hydraulic Press Works)	State Planning Commission
Study on the Factory Modernization (Santon General Tool)	State Planning Commission
Study on the Factory Modernization (Shenyan Towel)	State Planning Commission
Study on the Factory Modernization (Shanghai Heald Frame)	State Planning Commission
Study on the Factory Modernization (Changzhon Insulation Materials Factory)	State Planning Commission
Study on the Factory Modernization (Nanking Second Steel Mill)	State Planning Commission
Study on the Factory Modernization (Hubei Machine Factory)	State Planning Commission
Study on the Factory Modernization (Kwangchow oil and Fat Chemical Engineering)	State Planning Commission
Feasibility Study on Industrial Wastewater Treatment and Recycling Project	Ecology & Environment Research Institute, State Science & Technology Commission
Feasibility Study on the Quality Control System Plan for Shenfu-Dongsheng Coal Field	Coal Refinery Corporation, Ministry of Energy
Rare Metal Exploration	China National Nonferrous Metals Industry Corporation

ASIA

## ||||||| Energy |||||

### Development Study

NAME OF DEVELOPMENT STUDY	EXECUTING AGENCY OF THE RECIPIENT
Feasibility Study on Ming Tombs Pumped Storage Power Development Project	Ministry of Energy

## Commerce & Tourism

### Project-Type Technical Cooperation

\*Cumulative operations since each project started

PROJECT	*EXPERT DISPATCH (Person)	*COUNTER- PART (Person)	*EQUIPMENT SUPPLY (¥Thousand)	DURATION
The Enterprise Management Center	74	35	282,963	83.10.11 - 91.10.10

## Human Resources Development

### Grant Aid

CASE	EXPENSES (¥Million)	ACTIVITIES CONDUCTED BY JICA
Project for Providing Equipment for Haerbin Institute of Technology	452	Basic Design Study
Project for Providing the Equipment for Wuling University, Hunan Province	931	Basic Design Study
Project for Construction of the Dunhuang Research & Exhibition Center	72	Basic Design Study
Project for the Construction of the Japan-China Youth Center		Expediting of Execution

## Public Health & Medicine

### Project-Type Technical Cooperation

\*Cumulative operations since each project started

PROJECT	*EXPERT DISPATCH (Person)	*COUNTER- PART (Person)	*EQUIPMENT SUPPLY (¥Thousand)	DURATION
The China-Japan Friendship Hospital	141	208	326,038	81.11.19 - 92.10.21
Project on China Rehabilitation Research Center	109	30	226,827	86.11.25 - 91.11.24
China-Japan Medical Education Center Project	23	10	120,695	89.11.18 - 94.11.17

## Grant Aid

CASE	EXPENSES (¥Million)	ACTIVITIES CONDUCTED BY JICA
Improvement of Medical Equipment at No. 6 People's Hospital in Shanghai	1,608	Expediting of Execution
Project for Supply of Medical Equipment to the Bethune University Hospital	2,600	Basic Design Study
Project for Improvement of Medical Equipment at the International Peace Hospital for Women and Infants	157	Basic Design Study Aptness Study of the Requested Equipment

ASIA

[illegible]

India

||||||| Planning & Administration |||||

Grant Aid

CASE	EXPENSES (¥Million)	ACTIVITIES CONDUCTED BY JICA
Modernization of Fire Services in the Selected Metropolitan Cities	370	Expediting of Execution

||||||| Public Works & Utilities |||||

Development Study

NAME OF DEVELOPMENT STUDY	EXECUTING AGENCY OF THE RECIPIENT
Feasibility Study on the Improvement Plan of New Magalore Port	Ministry of Surface Transport
Feasibility Study on the Transport Infrastructure Development Project, Calcutta	Transport Department of West Bengal Government

Grant Aid

CASE	EXPENSES (¥Million)	ACTIVITIES CONDUCTED BY JICA
Project for Provision of Program Production Equipment for Mass Communication Research Center (MCRC) in Jamia University	981	Basic Design Study
Groundwater Development Project for the Rural Underground Water Development	401	Expediting of Execution

ASIA

## ||||||| Agriculture, Forestry & Fisheries |||||

### Development Study

NAME OF DEVELOPMENT STUDY	EXECUTING AGENCY OF THE RECIPIENT
Feasibility Study on the Irrigation and Drainage Development of Sharda Canal CAD Project	Ministry of Water Resources

### Grant Aid

CASE	EXPENSES (¥Million)	ACTIVITIES CONDUCTED BY JICA
Project for the Increase of Food Production	600	Aptness Study of the Requested Equipment Expediting of Execution
Expansion of Net Making Machines Project	375	

## ||||||| Mining & Industry |||||

### Development Study

NAME OF DEVELOPMENT STUDY	EXECUTING AGENCY OF THE RECIPIENT
Feasibility Study on HMT Restructuring and Development Program	Department of Heavy Industry, Ministry of Industry
Feasibility Study on the Solvent Refined Coal Development Project	Department of Steel, Ministry of Steel & Mines

## ||||||| Human Resources Development |||||

### Equipment Supply

EQUIPMENT	EXPENSES (¥Thousand)	FACILITIES
Equipment for Genetic Research	8,391	Central Institute for Cotton Research



Public Health & Medicine

Project-Type Technical Cooperation

\*Cumulative operations since each project started

PROJECT	*EXPERT DISPATCH (Person)	*COUNTER- PART (Person)	*EQUIPMENT SUPPLY (¥Thousand)	DURATION
The Sanjai Gandhi Postgraduate Institute of Medical Science	8	6	0	90. 8. 1 - 95. 7.31

Grant Aid

CASE	EXPENSES (¥Million)	ACTIVITIES CONDUCTED BY JICA
Project for the Improvement of the Medical Equipment of Regional Cancer Center (II)	616	Expediting of Execution

ASIA

Indonesia

Sector	Type of Cooperation	Planning & Administration				Public Works & Utilities			Agriculture, Forestry & Fisheries				Mining & Industry		Energy	Commerce & Tourism		Human Resources Development		Public Health & Medicine	Social Welfare	Others	Expenses (Y Thousand)
		Development Planning	Public Administration	Public Works	Transportation	Social Infrastructure	Telecommunications & Broadcasting	Agriculture	Livestock Farming	Forestry	Fisheries	Mining	Manufacturing	Commerce & Trade		Tourism	Human Resources	Science & Culture					
Acceptance of Trainers	Newly operations in 1990	670	2	72	12	37	26	68	21	21	13	7	42	13	21	1	211	4	43	18			
	Continued from FY 1989	116	3	1	9	3	5	24	3	4	6	4	17	1	1	1	16	2	16				
	Total	786	2	75	13	46	41	31	92	24	25	19	11	59	14	22	2	227	6	59	18		
Short-term	Newly in 1990	258	2	8	15	27	24	43	11	12	8	14	6	3	5	3	28	18	19	4			
	Contd. from 1989	20				2	1	6	1	3	1						1	3					
	Total	278	2	8	15	29	25	13	49	12	15	9	14	6	3	5	29	21	19	4			
Long-term	Newly in 1990	86	1	3	2	6	4	7	26	4	8	6	3	2			10	3	1				
	Contd. from 1989	187	3	5	11	18	9	18	37	9	12	9	4	12	9	4	7	8	4	1			
	Total	273	4	8	13	24	13	25	63	13	20	6	10	15	11	4	17	11	4	2			
Total	Newly in 1990	344	3	11	17	39	28	18	69	15	20	8	20	9	5	5	38	21	19	5			
	Contd. from 1989	207	3	5	11	20	10	20	43	10	15	10	4	12	9	4	8	11	4	1			
	Total	551	6	16	28	59	38	38	112	25	35	18	24	21	14	9	46	32	23	6			
Dispatch of Subject Experts / Members	Newly operations in 1990	627	11	14	85	117	27	23	106	8	17	8	40	59			41	4	19	48			
	Continued from FY 1989	14					8										5						
	Total	641	11	14	85	118	27	31	106	8	17	8	40	59			46	4	19	48			
Dispatch of Japan Overseas Cooperation Volunteers	Newly operations in 1990	20	2				5		1	2		4					2	1	3				
	Continued from FY 1989	18	1				1										8	5	3				
	Total	38	3				6										10	6	6				

## Indonesia

### ||||| Planning & Administration |||||

#### Development Study

NAME OF DEVELOPMENT STUDY	EXECUTING AGENCY OF THE RECIPIENT
The Study on the Integrated Regional development Plan for the Southern part of Sumatra	Ministry of Public Works

#### Grant Aid

CASE	EXPENSES (¥Million)	ACTIVITIES CONDUCTED BY JICA
Project for Establishment of Environmental Management Center		Basic Design Study

### ||||| Public Works & Utilities |||||

#### Equipment Supply

EQUIPMENT	EXPENSES (¥Thousand)	FACILITIES
Equipment for the Underground Water Development for Irrigation	36,565	Directorate of Irrigation, Ministry of Public Works
Equipment for Radio Wave Control	39,964	The Directorate General of Posts and Telecommunications, Ministry of Tourism, Post and Telecommunications
Equipment for Oceanological Research	8,652	The Center for Oceanological Research and Development, Indonesian Institute of Sciences

ASIA

## Project-Type Technical Cooperation

\*Cumulative operations since each project started

PROJECT	*EXPERT DISPATCH (Person)	*COUNTER- PART (Person)	*EQUIPMENT SUPPLY (¥thousand)	DURATION
The Radio and Television Training Center	53	39	495,479	83.10.21 - 92.10.20
The Telephone Outside Plant Maintenance and Training Centre	22	16	82,362	86. 4.01 - 91. 3.31

## Development Study

NAME OF DEVELOPMENT STUDY	EXECUTING AGENCY OF THE RECIPIENT
Integrated Transportation System Improvement by Railway and Feeder Services in Jabotubek Area	Directorate General of Land Transport and Inland Waterways
Study on Maintenance and Dredging of the Access Channel of Banjarmasin Port	Directorate General of Sea Communications (D.G.S.C)
Feasibility Study on Surabaya-Mojokerto Toll Road Project	Directorate General of Highways, Ministry of Public Works
Feasibility Study on Bogor-Bandung Road Project	Directorate General of Highways, Ministry of Public Works
Study on the Master Plan of Airport Maintenance and Rehabilitation	Directorate General of Air Communications (D.G.A.C)
Study on IKK System Water Supply Project in Provinces of Central Java, East Java and Bali	Directorate General of Human Settlements
Study on Long-Term and Medium Term Plan for Telecommunications Network in Surabaya and Surrounding Area	Directorate General of Post and Telecommunications
Study on Belawan-Padang Integrated River Basin Development	Directorate General of Water Resources Development, Ministry of Public Works
Feasibility Study on Chidanau and Chibanten Water Resources Development	Directorate General of Water Resources Development, Ministry of Public Works
Study on Urban Drainage and Waste Water Disposal Project in the City of Jakarta	Directorate General of Human Settlements, Ministry of Public Works
Study on Nationwide Ferry Service Routes	Ministry of Communications
Study on Coastal Roads in East Coast of Sumatra	Ministry of Public Works
Study on Wastewater Disposal for Denpasar	Directorate General of Human Settlements, Ministry of Public Works
Study on Solid Waste Management Improvement for Greater Surabaya	Ministry of Public Works

## Grant Aid

CASE	EXPENSES (¥Million)	ACTIVITIES CONDUCTED BY JICA
The Project for the Improvement of the Maintenance Equipment for the Telecommunication Facilities	200	Expediting of Execution
Project for Improvement of the Institute of Human Settlements	716	
Supplement Project for the Radio and Television Transmission	830	Basic Design Study
Project for the Development of Urban Fire Prevention and Fire Fighting	365	Expediting of Execution
Project for the Rural/IKKs Water Supply		Basic Design Study

## Development Cooperation (Expert Dispatch)

CASE	TECHNICAL GUIDANCE
Cooperation in Maintenance of Navigational Aids in Malacca Straits	For: the Study on the Renewal of Beacons the Inspection of Beacon Construction and Installation of Equipment, the Joint Inspection and Repair Technology

## ||||||| Agriculture, Forestry & Fisheries |||||

## Equipment Supply

EQUIPMENT	EXPENSES (¥Thousand)	FACILITIES
Equipment for Agricultural Development	18,180	South Kalimantan Provincial Public Works

## Project-Type Technical Cooperation

\*Cumulative operations since each project started

PROJECT	*EXPERT DISPATCH (Person)	*COUNTER- PART (Person)	*EQUIPMENT SUPPLY (¥Thousand)	DURATION
Veterinary Drug Control Project	65	35	365,151	84. 4. 1 - 91. 3.31
Strengthening of Pioneering Research for Palawija Crop Production Project	48	24	182,370	86. 4. 1 - 91. 3.31
Strengthening of Artificial Insemination Center Project	35	19	229,565	86. 4. 1 - 93. 3.31

PROJECT	*EXPERT DISPATCH (Person)	*COUNTER- PART (Person)	*EQUIPMENT SUPPLY (¥Thousand)	DURATION
The Center for Development of Appropriate Agricultural Engineering Technology	33	12	170,588	87. 4. 1 - 92. 3.31
Food Crops Protection Project (II)	20	12	178,968	87. 4. 1 - 92. 3.31
Academic Development of the Graduate Program at the Faculty of Agricultural Engineering and Technology, Institute Pertanian Bogor	33	16	105,693	88. 4. 1 - 93. 3.31
Remote Sensing Engineering Project Phase II for the Development of Agricultural Infrastructure	21	9	160,445	88. 6. 6 - 93. 6. 5
Forest Conservation Project in South Sulawesi	26	8	152,591	88. 7.21 - 93. 7.20
Strengthening the Research and Development of Coastal Aquaculture Project	17	7	208,566	88.10.26 - 93.10.25
Tropical Rain Forest Research Project	17	4	0	90. 1. 1 - 94.12.31
Integrated Agricultural and Rural Development Project in Southeast Sulawesi Province	9	0	0	91. 3. 1 - 96. 2.29

### Development Study

NAME OF DEVELOPMENT STUDY	EXECUTING AGENCY OF THE RECIPIENT
Master Plan Study on Lower Asahan River Basin Development Project	Directorate General of Water Resources Development, Ministry of Public Works
Feasibility Study on Air Selagan Irrigation Project in Bengkulu Province	Directorate General of Water Resources Development, Ministry of Public Works
Nias Island Irrigated Agriculture Development Project	Directorate General of Water Resources Development, Ministry of Public Works
Feasibility Study on the Village Irrigation for Upland and Sawah Areas in North Sumatera, West Java and West Nusa Tenggara Provinces	Directorate General of Food Crops Agriculture, Ministry of Agriculture
Rokan River Basin Overall Irrigation Development Plan Study	Directorate General of Water Resources Development, Ministry of Public Works
Feasibility Study on Upland Plantation and Land Development at Chitarik Watershed	Directorate General of Reforestation and Land Rehabilitation, Ministry of Forestry

## Grant Aid

CASE	EXPENSES (¥Million)	ACTIVITIES CONDUCTED BY JICA
Project for the Increase of Food Production	1,700	Expediting of Execution
Project for the Increase of Food Production	1,850	Basic Design Study Aptness Study of the Requested Equipment Expediting of Execution
Project for the Establishment of Forest Tree Improvement Development Center	803	Basic Design Study
Pilot Project for the Multiplication and Distribution of High Quality Seed	941	
Project on Site Selection System for the Development of Agricultural Infrastructure		Aptness Study of the Requested Equipment
Pumping Station Project for Bengawan Solo Lower Reach		Basic Design Study

## Development Cooperation (Training)

CASE	DURATION	COUNTERPART (Person)	RELATED PROJECT
Management of Plywood Processing	90. 7. 3 ~ 90. 9. 5	4	Forestry Development Project in Katingan
Manufacturing of Particle Board	91. 2.21 ~ 91. 3.22	4	Wood Processing Project in Banjarmasin

## ||||||| Mining & Industry |||||

## Project-Type Technical Cooperation

\*Cumulative operations since each project started

PROJECT	*EXPERT DISPATCH (Person)	*COUNTER- PART (Person)	*EQUIPMENT SUPPLY (¥Thousand)	DURATION
Research & Development of Indonesian Low Grade Nickel Laterites	11	9	6,113	87.12.14 ~ 91.12.13

## Development Study

NAME OF DEVELOPMENT STUDY	EXECUTING AGENCY OF THE RECIPIENT
Study on Industrial Sub-sector Development	Ministry of Industry

NAME OF DEVELOPMENT STUDY	EXECUTING AGENCY OF THE RECIPIENT
Feasibility Study on the Rehabilitation of Cipadung and Banjaran Spinning Mills, PT Industri Sandang	Directorate General of Multifarious Industry, Ministry of Industry
Mineral Exploration; Rare Metal and Rare Earth Metal Exploration in the Pegunungan Tigapuluh Area	Directorate General of Geology and Mineral Resources

#### Grant Aid

CASE	EXPENSES (¥Million)	ACTIVITIES CONDUCTED BY JICA
Establishment of the Chemical Industry		Follow-up Study

### ||||||| Energy |||||

#### Project-Type Technical Cooperation

PROJECT	*EXPERT DISPATCH (Person)	*COUNTER- PART (Person)	*EQUIPMENT SUPPLY (¥Thousand)	DURATION
Image Processing Laboratory for Oil and Gas Study	22	3	202,357	89.8. 21 - 94.9. 20

#### Development Study

NAME OF DEVELOPMENT STUDY	EXECUTING AGENCY OF THE RECIPIENT
Feasibility Study on the Mine Mouth Coal Fired Power Plant in South Sumatra	National Electric Power Corporation (PLN)
Feasibility Study on Bebrung Hydroelectric Power Development Project	National Electric Power Corporation (PLN)
Feasibility Study on Sipansiphaporas Hydroelectric Power Development Project	National Electric Power Corporation (PLN)
Study on Utilization of Photovoltaic Hybrid Systems in Rural Areas	Directorate General of Electric Power and New Energy, Ministry of Mines and Energy
Feasibility Study on Wampu Hydroelectric Power Development Project	National Electric Power Corporation (PLN)



## Commerce & Tourism

### Project-Type Technical Cooperation

\*Cumulative operations since each project started

PROJECT	*EXPERT DISPATCH (Person)	*COUNTER- PART (Person)	*EQUIPMENT SUPPLY (¥Thousand)	DURATION
The Export Training Center (IETC)	26	15	21,575	88. 9. 2 - 93. 9. 1

## Human Resources Development

### Project-Type Technical Cooperation

\*Cumulative operations since each project started

PROJECT	*EXPERT DISPATCH (Person)	*COUNTER- PART (Person)	*EQUIPMENT SUPPLY (¥Thousand)	DURATION
The Center for Vocational and Extension Service Training	79	78	220,871	83. 2.16 - 91. 3.31
The Electronic Engineering Polytechnic Institute	47	23	209,198	87. 4. 1 - 92. 3.31
ASEAN Project on Characterization of Polymeric Materials	30	11	226,963	87.10. 1 - 91. 9.30
Higher Education Development Support Project	21	21	52,591	90. 4.12 - 95. 4.11

### Grant Aid

CASE	EXPENSES (¥Million)	ACTIVITIES CONDUCTED BY JICA
Project for Providing Equipment for the Higher Education Development	600	Basic Design Study

ASIA

## Public Health & Medicine

### Project-Type Technical Cooperation

\*Cumulative operations since each project started

PROJECT	*EXPERT DISPATCH (Person)	*COUNTER- PART (Person)	*EQUIPMENT SUPPLY (¥Thousand)	DURATION
Fundamental Technology Transfer Project for Production of Live Attenuated Measles and Poliomyelitis Vaccines	17	11	220,895	89. 9. 1 - 94. 8.31
Family Planning, and Maternal and Child Health	18	4	163,663	89.11.29 - 92.11.28

### Grant Aid

CASE	EXPENSES (¥Million)	ACTIVITIES CONDUCTED BY JICA
Construction of Polio-Measles Vaccine Production Facility	1,664	
Project of Malaria Control	400	Aptness Study of the Requested Equipment Expediting of Execution Follow-up Study
Project of Construction for Nurse Education Center		Basic Design Study
Project for the National Medical Center for Infections Diseases		

## Others

### Development Cooperation (Investment and Financing Examination and Surveys)

CASE	DURATION	PERSON ENGAGED
Financial Cooperation Survey in Indonesia and Malaysia	90.11.21 - 90.11.30	5

**Korea**

Type of Cooperation	Sector	Public Works & Utilities										Mining & Industry		Commerce & Tourism		Human Resources Development		Public Health & Medicine	Social Welfare	Others	Expenses (Y thousand)
		Planning & Administration		Public Works	Transportation	Social Infrastructure	Telecommunications & Broadcasting	Agriculture	Livestock Farming	Forestry	Fisheries	Mining	Manufacturing	Commerce & Trade	Tourism	Human Resources	Science & Culture				
Acceptance of Trainers	Newly operations in 1990	264	29		5	3	8	1		1		89	3	3		102	2	11	9		599,032
	Continued from FY 1989	27	2	3	3	2	6			1		2	1	1		1	2	3			
	Total	293	31	3	8	5	14	1	1	1		91	4	4		103	4	14	9		
Dispatch of Experts	Newly in 1990	56	4		11		5			3	1	1	4			10		17			198,523
	Continued from 1989	2					2														
	Total	58	4		11		7			3	1	1	4			10		17			
Dispatch of Survey Teams	Newly in 1990	5			1						4										198,523
	Continued from 1989	6		1	1		2									2					
	Total	11		1	2		2				4					2					
Dispatch of Japan Overseas Cooperation Volunteers	Newly in 1990	61	4		12		5			3	5	1	4			10		17			289,359
	Continued from 1989	8		1	1		4									2					
	Total	69	4	1	13		9			3	5	1	4			12		17			
Dispatch of Japan Overseas Cooperation Volunteers	Newly operations in 1990	86		11		32					4	4	5			21	8	5			289,359
	Continued from FY 1989																				
	Total	86		11		32					4	4	5			21	8	5			

ASIA

## Korea

### ||||||| Public Works & Utilities |||||

#### Development Study

NAME OF DEVELOPMENT STUDY	EXECUTING AGENCY OF THE RECIPIENT
Study on River Environment for the Tributaries of Han River System in Seoul Municipality	Bureau of Sewerage, Seoul Metropolitan Government, Ministry of Construction

### ||||||| Agriculture, Forestry & Fisheries |||||

#### Project-Type Technical Cooperation

\*Cumulative operations since each project started

PROJECT	*EXPERT DISPATCH (Person)	*COUNTER- PART (Person)	*EQUIPMENT SUPPLY (¥Thousand)	DURATION
Research Project on Promoting Efficiency in the Utilization of Agricultural Lands	10	9	72,449	89. 6. 1 - 94. 5.31

### ||||||| Mining & Industry |||||

#### Project-Type Technical Cooperation

\*Cumulative operations since each project started

PROJECT	*EXPERT DISPATCH (Person)	*COUNTER- PART (Person)	*EQUIPMENT SUPPLY (¥Thousand)	DURATION
Improvement in Underground Working Environment of Mine Safety	10	3	91,350	89.11.10 - 93.11. 9

## Development Study

NAME OF DEVELOPMENT STUDY	EXECUTING AGENCY OF THE RECIPIENT
Study on Industrial Waste Water Treatment and Recycling Project	Korea Institute of Science and Technology, Technical Cooperation Bureau, Ministry of Science and Technology

## Human Resources Development

### Project-Type Technical Cooperation

\*Cumulative operations since each project started

PROJECT	*EXPERT DISPATCH (Person)	*COUNTER- PART (Person)	*EQUIPMENT SUPPLY (¥Thousand)	DURATION
The Industrial Technology Training Institute	67	24	1,524,358	86. 4.18 - 91. 4.17

## Public Health & Medicine

### Project-Type Technical Cooperation

\*Cumulative operations since each project started

PROJECT	*EXPERT DISPATCH (Person)	*COUNTER- PART (Person)	*EQUIPMENT SUPPLY (¥Thousand)	DURATION
Maternal and Child Health	56	20	286,487	84. 8. 1 - 90. 7.31
Korean Gerontology Project	8	0	115,566	90.11. 1 - 95.10.31

ASIA

Laos

Sector	Type of Cooperation	Planning & Administration		Public Works & Utilities			Agriculture, Forestry & Fisheries				Mining & Industry		Energy	Commerce & Tourism		Human Resources Development		Public Health & Medicine	Social Welfare	Others	Expenses (¥ thousand)
		Development Planning	Public Administration	Public Works	Transportation	Social Infrastructure	Telecommunications & Broadcasting	Agriculture	Livestock Farming	Forestry	Fisheries	Mining		Manufacturing	Commerce & Trade	Tourism	Human Resources				
Acceptance of Trainees	Newly operations in 1990		8		1	1	3	1		1					1	1					
	Continued from FY 1989			1																	
	Total	23	8	1	1	1	3	2	1						1	1					
Dispatch of Experts	Newly in 1990	18	5	3	5		1														
	Continued from 1989	4			1			3													
	Total	22	5	3	6		1	3													
Dispatch of Survey Team Members	Newly in 1990	1	1		1																
	Continued from 1989	1	1				1														
	Total	2			1			1													
Dispatch of Experts	Newly in 1990	19	5	3	6		1														
	Continued from 1989	5		1	1			4													
	Total	24	5	3	7		1	4													
Dispatch of Experts	Newly operations in 1990	92	2	4	23		20	22							19						
	Continued from FY 1989																				
	Total	92	2	4	23		20	22							19						
Dispatch of Experts Overseas	Newly operations in 1990	5	1		1			1						2							
	Continued from FY 1989																				
	Total	5	1		1			1						2							

# Laos

## Public Works & Utilities

### Development Study

NAME OF DEVELOPMENT STUDY	EXECUTING AGENCY OF THE RECIPIENT
Study on Tha Ngon Bridge Construction Project	Vientiane Municipality
Study on the Solid Waste Management System Improvement Project in Vientiane	Vientiane Municipality

### Grant Aid

CASE	EXPENSES (¥Million)	ACTIVITIES CONDUCTED BY JICA
Second Telecommunications Project		Basic Design Study
Project for Construction and Replacement of Equipment for Laos National TV		Basic Design Study

## Agriculture, Forestry & Fisheries

### Equipment Supply

EQUIPMENT	EXPENSES (¥Thousand)	FACILITIES
Equipment for the Sericultural Industry	25,947	Hatsayfong Silk Pilot Station Vientiane Municipality
Equipment for the Sericultural Industry	8,107	Hatsayfong Silk Pilot Station Vientiane Municipality

### Development Study

NAME OF DEVELOPMENT STUDY	EXECUTING AGENCY OF THE RECIPIENT
Master Plan Study on the Integrated Agricultural Rural Development Project in Savannakhet Province	Ministry of Agriculture and Forestry

ASIA

## Grant Aid

CASE	EXPENSES (¥Million)	ACTIVITIES CONDUCTED BY JICA
Project of Agricultural Development in the Plain of Vientiane	1,074	
Increase of Food Production	400	Aptness Study of the Requested Equipment Expediting of Execution

## ||||||| Energy |||||

### Development Study

NAME OF DEVELOPMENT STUDY	EXECUTING AGENCY OF THE RECIPIENT
Feasibility Study on Xe Katam Small-Scale Hydroelectric Power Development Project	Ministry of Industry and Handicraft

## Grant Aid

CASE	EXPENSES (¥Million)	ACTIVITIES CONDUCTED BY JICA
Project for Repair of Nam Ngum (Dam) Power Station Unit No. 3 and No. 4	396	



**Malaysia**

Sector	Type of Cooperation	Planning & Administration		Public Works & Utilities			Agriculture, Forestry & Fisheries			Mining & Industry		Energy	Commerce & Tourism		Human Resources Development		Public Health & Medicine	Social Welfare	Others	Expenses (Y Thousand)		
		Development Planning	Public Administration	Public Works	Transportation	Social Infrastructure	Telecommunications & Broadcasting	Agriculture	Livestock Farming	Forestry	Fisheries		Mining	Manufacturing	Commerce & Trade	Tourism					Human Resources	Science & Culture
Acceptance of Trainees	Newly operations in 1990	556	2	61	6	34	28	14	36	17	8	12	2	96	6	24	19	159	6	18	8	1,422,546
	Continued from FY 1989	52	6	6	2	2	2	11	1	3	3	2	7			2		2	5	4		
	Total	608	2	67	6	36	30	16	47	18	11	15	4	103	6	26	19	161	11	22	8	
	Short-term	81	2	2	7	7	1	7	5	4	2		13					9	31			
Dispatch of Experts	Continued from 1989	17				5			3				4					4	1			853,923
	Total	93	2	2		12	1	1	10	5	4	2		17				13	32			
	Newly in 1990	14			1				3	1	2			2					5			
	Continued from 1989	50	1	5	8	4		2	2	5	4		14		1	2	1	1	1			
Dispatch of Survey Teams Members	Total	64	1	5	9	4			5	3	7	4		16			1	2	6	1		
	Newly in 1990	95	2		8		1	10	6	6	2		15					9	36			
	Continued from 1989	67	1	5	13	4		5	2	5	4		18		1	6	2	1	2	1		
	Total	162	3	5	21	4	1	15	8	11	6		33		1	15	38	1				
Dispatch of Mass Cooperation Volunteers	Newly operations in 1990	240	1		56	30	1	11	6	16	10	26	48		5			8	10	6	6	1,177,022
	Continued from FY 1989	1																		1		
	Total	241	1		56	30	1	11	6	16	10	26	48		5			8	10	6	7	
	Newly operations in 1990	28	2		3	1	4		2		2		4					5	4	3		
Total	Continued from FY 1989	105	8	5	5	5		22	5	4	1		8		1			24	3	24		
	Total	133	10	10	8	9	1	26	5	6	1		12		1			29	7	27		
	Newly operations in 1990																					
	Continued from FY 1989																					

ASIA

## Malaysia

### ||||| Planning & Administration |||||

#### Project-Type Technical Cooperation

\*Cumulative operations since each project started

PROJECT	*EXPERT DISPATCH (Person)	*COUNTER- PART (Person)	*EQUIPMENT SUPPLY (¥Thousand)	DURATION
National Computer Institute	60	28	529,575	85.11.13 - 90.11.12

#### Development Study

NAME OF DEVELOPMENT STUDY	EXECUTING AGENCY OF THE RECIPIENT
Air Quality Management Study for Kelang Valley Region	Department of Environment, Ministry of Science, Technology and Environment

### ||||| Public Works & Utilities |||||

#### Equipment Supply

EQUIPMENT	EXPENSES (¥Thousand)	FACILITIES
Equipment for the Investigation and Improvement of the Sewerage System	36,159	Ministry of Housing and Local Government

#### Development Study

NAME OF DEVELOPMENT STUDY	EXECUTING AGENCY OF THE RECIPIENT
Study on the Highway Network Development	Economic Planning Unit, Prime Minister's Department
Study on the Maintenance and Rehabilitation of Bridges in Malaysia	Public Works Department (PWD)
Study on the Development of Rajang Port	The Rajang Port Authority
Feasibility Study on Rail-based Commuter Services in Klang Valley, Malaysia	Klang Valley Planning Secretariat, Prime Minister's Department

NAME OF DEVELOPMENT STUDY	EXECUTING AGENCY OF THE RECIPIENT
Study on Flood Mitigation and Drainage in Penang Island	Drainage and Irrigation Department, Ministry of Agriculture
National River Mouth Study in Malaysia	Drainage and Irrigation Department, Ministry of Agriculture

### Development Cooperation (Expert Dispatch)

CASE	TECHNICAL GUIDANCE
Cooperation in Maintenance of Navigational Aids in Malacca Straits	For: The Study on the Renewal of Beacons, the Inspection of Beacon Construction and the Installation of Equipment, the Joint Inspection and Repair Technology

## ||||||| Agriculture, Forestry & Fisheries |||||

### Equipment Supply

EQUIPMENT	EXPENSES (¥Thousand)	FACILITIES
Equipment for Aquaculture	21,022	Department of Fisheries, Sabah

### Project-Type Technical Cooperation

\*Cumulative operations since each project started

PROJECT	*EXPERT DISPATCH (Person)	*COUNTER-PART (Person)	*EQUIPMENT SUPPLY (¥Thousand)	DURATION
Malaysia ASEAN Poultry Disease Research and Training Project	28	18	199,361	86. 4.17 - 93. 4.16
Malaysia, Sabah Re-afforestation Technical Development and Training Project	26	12	186,883	87. 3.14 - 92. 3.13
Development of Biotechnology at the Faculty of Food Science and Biotechnology, University Pertanian Malaysia	7	5	59,734	90. 6. 1 - 95. 5.31

### Development Study

NAME OF DEVELOPMENT STUDY	EXECUTING AGENCY OF THE RECIPIENT
Rationalization and Crop Diversification Study on Non-Granary Irrigated Areas	Drainage and Irrigation Department, Ministry of Agriculture
Study on Fish Marketing and Distribution System	Ministry of Agriculture

### Grant Aid

CASE	EXPENSES (¥Million)	ACTIVITIES CONDUCTED BY JICA
Project for Modernization of Fisheries Training Institute	944	Basic Design Study

### Development Cooperation (Basic Development Surveys)

CASE	DURATION	PERSON ENGAGED
Multi-storied Forest Management Project	91. 1.27 - 91. 2. 7	6
Pilot Project for the Plant Development for Food Coloring (Phase II)	90. 9.10 - 90. 9.21	5
Forestry Development Project in Asia and Oceania	90.10. 9 - 90.10.30	6

## ||||||| Mining & Industry |||||

### Project-Type Technical Cooperation

\*Cumulative operations since each project started

PROJECT	*EXPERT DISPATCH (Person)	*COUNTER-PART (Person)	*EQUIPMENT SUPPLY (¥Thousand)	DURATION
The Foundry Technology Unit	41	9	338,982	88.10.12 - 93.10.11

### Development Study

NAME OF DEVELOPMENT STUDY	EXECUTING AGENCY OF THE RECIPIENT
Industrial Standardization and Quality Assurance Improvement Program	Economic Planning Unit, Prime Minister's Department
Study on Selected Industrial Product Development	Economic Planning Unit, Prime Minister's Department, Malaysian Industrial Development Agency

NAME OF DEVELOPMENT STUDY	EXECUTING AGENCY OF THE RECIPIENT
Study on the Establishment of a High-Tech and Electric Industrial Estate	Economic Planning Unit, Prime Minister's Department
Mineral Exploration: Supra-Regional Survey-Regional Survey, Central Sabah Area	Geological Survey of Malaysia, Ministry of Primary Industry
Mineral Exploration in Perak	Geological Survey of Malaysia, Ministry of Primary Industry

### Development Cooperation (Investment and Financing Examination and Surveys)

CASE	DURATION	PERSON ENGAGED	ELATED PROJECT
Experimental Project for Chinaware Raw Materials Development	90.11. 4 - 90.11.10	4	

## ||||||| Energy |||||

### Development Study

NAME OF DEVELOPMENT STUDY	EXECUTING AGENCY OF THE RECIPIENT
Feasibility Study on Small Scale Hydroelectric Power Development Project at Upper Liwagu River Basin in Sabah	Sabah Electric Bureau

## ||||||| Human Resources Development |||||

### Project-Type Cooperation

\*Cumulative operations since each project started

PROJECT	*EXPERT DISPATCH (Person)	*COUNTER-PART (Person)	*EQUIPMENT SUPPLY (¥Thousand)	DURATION
The Center for Instructor and Advanced Skill Training	65	67	319,362	82. 8.20 - 91. 3.31
ASEAN Project on Characterization of Fine Ceramics	44	9	188,894	87.11.18 - 91.11.17
The Radiation Applications Project	28	6	370,259	89. 7. 5 - 94. 7. 4

||||||| Others |||||||

**Development Cooperation (Investment and Financing Examination and Surveys)**

CASE	DURATION	PERSON ENGAGED
Financial Cooperation Survey in Indonesia and Malaysia	90.11.21 - 90.11.30	5

**Development Cooperation (Expert Dispatch)**

CASE	TECHNICAL GUIDANCE
Experimental Project in the Field of a Pollution Control	For: Development of Organic Fertilizer (Pase I, II)

**Development Cooperation (Training)**

CASE	DURATION	COUNTERPART (Person)	RELATED PROJECT
Experimental Project in the Field of Pollution Control	90.10. 7 - 90.10.27	1	Methodology for Factory Management and Business Administration

# Maldives

Type of Cooperation	Sector	Planning & Administration	Public Works & Utilities				Agriculture, Forestry & Fisheries				Mining & Industry		Energy	Commerce & Tourism		Human Resources Development		Public Health & Medicine	Social Welfare	Others	Expenses (Yr Thousand)
			Development Planning	Public Administration	Public Works	Transportation	Social Infrastructure	Telecommunications & Broadcasting	Agriculture	Livestock Farming	Forestry	Fisheries		Mining	Manufacturing	Commerce & Trade	Tourism				
Academy of Trainers	Newly operations in 1990		2			3	1	4							1				2		33,594
	Continued from FY 1989																				
	Total		2			3	1	4							1						
	Newly in 1990																				
Dispatch of Experts	Short-term																				
	Continued from 1989																				
	Total																				
	Newly in 1990																				
Dispatch of Survey Teams Members	Long-term																				
	Continued from 1989																				
	Total																				
	Newly in 1990																				
Dispatch of Japan Overseas Cooperation Volunteers	Short-term																				
	Continued from FY 1989																				
	Total																				
	Newly operations in 1990																				
Dispatch of Japan Overseas Cooperation Volunteers	Long-term																				
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	Newly operations in 1990																				
Dispatch of Japan Overseas Cooperation Volunteers	Long-term																				
	Continued from FY 1989																				
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	Newly operations in 1990																				

ASIA

# Maldives

## Public Works & Utilities

### Development Study

NAME OF DEVELOPMENT STUDY	EXECUTING AGENCY OF THE RECIPIENT
Study on the Seawall Construction Project for Male Island	Ministry of Public Works and Labour

### Grant Aid

CASE	EXPENSES (Million)	ACTIVITIES CONDUCTED BY JICA
Project for Support for the Deepening of Island Harbours		Expediting of Execution

## Agriculture, Forestry & Fisheries

### Grant Aid

CASE	EXPENSES (Million)	ACTIVITIES CONDUCTED BY JICA
Project for Coastal Fisheries Promotion		Basic Design Study
Project for the Mechanization of Additional Fishing Boats	110	

## Human Resources Development

### Grant Aid

CASE	EXPENSES (Million)	ACTIVITIES CONDUCTED BY JICA
Project for Constructing the Centre for Social Education	699	Basic Design Study



**Mongolia**

Type of Cooperation		Sector	Total											Expenses (¥ Thousand)					
			Planning & Administration		Public Works & Utilities			Agriculture, Forestry & Fisheries			Mining & Industry		Energy		Commerce & Tourism		Human Resources Development	Social Welfare	Others
Assistance of Trainers	Newly operations in 1990	12	3	2							2	2			1		3		
	Continued from FY 1989	5									1	1							
	Total	17	3	2								3	3			1		3	
Dispatch of Experts	Short-term	3	1									2							
	Long-term																		
	Total	3	1									2							
	Newly in 1990	3	1																
	Continued from 1989											2							
	Total	3	1									2							
Dispatch of Japan Overseas Cooperation Volunteers	Newly operations in 1990	18		12													6		44,461
	Continued from FY 1989	4															2		
	Total	22		12													10		

ASIA

# Mongolia

## Public Works & Utilities

### Grant Aid

CASE	EXPENSES (¥Million)	ACTIVITIES CONDUCTED BY JICA
Construction Project of an Earth Station for Satellite Communications		Basic Design Study

## Mining & Industry

### Equipment Supply

EQUIPMENT	EXPENSES (¥Thousand)	FACILITIES
Equipment for Mineral Analysis	48,925	Central Geology Laboratory, Ministry of the Energy Mining Industry and Geology

## Public Health & Medicine

### Grant Aid

CASE	EXPENSES (¥Million)	ACTIVITIES CONDUCTED BY JICA
Project for the Improvement of the Basic Medical Equipment	450	Basic Design Study

[illegible]

187

# Myanmar

## ||||||| Agriculture, Forestry & Fisheries |||||

### Project-Type Technical Cooperation

\*Cumulative operations since each project started

PROJECT	*EXPERT DISPATCH (Person)	*COUNTER- PART (Person)	*EQUIPMENT SUPPLY (¥Thousand)	DURATION
Irrigation Technology Center	8	5	2,759	88. 4. 1 - 92. 3.31
Central Forestry Development Training Center Project	8	2	0	90. 8. 1 - 95. 7.31

## ||||||| Public Health & Medicine |||||

### Project-Type Technical Cooperation

\*Cumulative operations since each project started

PROJECT	*EXPERT DISPATCH (Person)	*COUNTER- PART (Person)	*EQUIPMENT SUPPLY (¥Thousand)	DURATION
The Research on Treatment of Infectious Diseases of the Alimentary System	75	13	194,784	86. 3. 1 - 91. 2.28

# Nepal

Sector	Type of Cooperation	Planning & Administration				Public Works & Utilities				Agriculture, Forestry & Fisheries				Mining & Industry		Energy		Commerce & Tourism		Human Resources Development		Social Welfare	Others	Expenses (¥Thousand)
		Development Planning	Public Administration	Public Works	Transportation	Social Infrastructure	Telecommunications & Broadcasting	Agriculture	Livestock Farming	Forestry	Fisheries	Mining	Manufacturing	Energy	Commerce & Trade	Tourism	Human Resources	Science & Culture	Public Health & Medicine					
Acceptance of Trainees	Newly operations in 1990		7	2	8	12	8	11	1	3	1	2	2	2	3	1	4		15					
	Continued from FY 1989					1	1	5							1		2		10					
	Total		7	2	8	13	9	16	1	3	1	2	2	2	4	1	6		25					
	Newly in 1990		1			2		3			1								6					
Dispatch of Experts	Continued from 1989																		1					
	Total		1			2		3			1								7					
	Newly in 1990		1	1	1	1		8									1		4					
	Continued from 1989							8									1		16					
Dispatch of Specialists	Total			1	1	1		8									1		20					
	Newly in 1990		1	1	1	3		3			1							1	10					
	Continued from 1989							8									1		17					
	Total		1	1	1	3		11			1						1	1	27					
Dispatch of Short-Term Members	Newly operations in 1990	2		8	10	48	9	9		3	4		6	6					9					
	Continued from FY 1989																							
	Total	2		8	10	48	9	9		3	4		6	6					9					
	Newly operations in 1990					1	2	1					2				8		1					
Dispatch of Japan Overseas Cooperation Volunteers	Continued from FY 1989		3			7	5	11		2	4		6	2			15		11					
	Total		3			8	7	12		2	4		8	2			23		12					
	Newly operations in 1990																							
	Continued from FY 1989																							
Total		80	20	100	13	1	14	7	27	34	20	28	48	109	109	109	15	74	89	252,547	386,933	426,069	333,199	

ASIA

# Nepal

## Public Works & Utilities

### Equipment Supply

EQUIPMENT	EXPENSES (¥Thousand)	FACILITIES
Communication Equipment	9,476	Police Headquarters, General Secretariat of ICPO-Interpol

### Development Study

NAME OF DEVELOPMENT STUDY	EXECUTING AGENCY OF THE RECIPIENT
Topographic Mapping of Lumbini Zone	Survey Department
Study on the Kathmandu Valley Urban Road Development	Department of Roads, Ministry of Works and Transport
Master Plan Study on Water Resources Development of Karnai and Mahokari River	Ministry of Water Resources
Study on Groundwater Management Project in Kathmandu Valley	Water Supply and Sewerage Corporation, Ministry of Housing & Physical Plannings
The Study on Nationwide Hydro-Meteorological Data Management Project	Ministry of Water Resources, Dept. of Irrigation Hydrology & Meteorology

### Grant Aid

CASE	EXPENSES (¥Million)	ACTIVITIES CONDUCTED BY JICA
Regional River Training Project		Expediting of Execution
Regional River Training Project	450	Expediting of Execution
Water Supplies to Urban and Semi-urban Centers	1,241	
Project for Bridge Reconstruction in Kathmandu Valley	874	
Rural Telecommunications Network Expansion Project		Basic Design Study
Kathmandu Water Facility Improvement Project		Basic Design Study
Project for Constructing the Bus Terminal in Kathmandu		Basic Design Study

## ||||||| Agriculture, Forestry & Fisheries |||||

### Project-Type Technical Cooperation

\*Cumulative operations since each project started

PROJECT	*EXPERT DISPATCH (Person)	*COUNTER- PART (Person)	*EQUIPMENT SUPPLY (¥Thousand)	DURATION
The Horticultural Development Project	25	15	265,211	85.10.14 - 90.10.13

### Development Study

NAME OF DEVELOPMENT STUDY	EXECUTING AGENCY OF THE RECIPIENT
Master Plan Study on the Terai Groundwater Resources Evaluation and Development Project	Groundwater Resources Development Board

### Grant Aid

CASE	EXPENSES (¥Million)	ACTIVITIES CONDUCTED BY JICA
Material and Equipment Supply for the Increase of Food Production	350	Expediting of Execution
Material and Equipment Supply for the Increase of Food Production	500	Aptness Study of the Requested Equipment Expediting of Execution
Project for Natural Water Fisheries Development	298	Basic Design Study

## ||||||| Mining & Industry |||||

### Equipment Supply

EQUIPMENT	EXPENSES (¥Thousand)	FACILITIES
Equipment for Testing the Household Industry Technology	19,024	Department of Cottage and Village Industry, Ministry of Industry

ASIA

## ||||||| Energy |||||

### Development Study

NAME OF DEVELOPMENT STUDY	EXECUTING AGENCY OF THE RECIPIENT
Master Plan Study and Feasibility Study on Extension and Reinforcement of Power Transmission and Distribution System	Nepal Electricity Authority

## ||||||| Public Health & Medicine |||||

### Project-Type Technical Cooperation

\*Cumulative operations since each project started

PROJECT	*EXPERT DISPATCH (Person)	*COUNTER- PART (Person)	*EQUIPMENT SUPPLY (¥Thousand)	DURATION
Family Planning and Maternal and Child Health	19	14	133,698	85.10. 7 - 91.10. 6
Project for the National Tuberculosis Program	21	12	86,939	87. 4.17 - 92. 4.16
Medical Education Project	24	7	112,043	89. 6.20 - 94. 6.19

### Grant Aid

CASE	EXPENSES (¥Million)	ACTIVITIES CONDUCTED BY JICA
Project for the Expansion of Tribhuvan University, Institute of Medicine and the Teaching Hospital	1,291	
Western Regional Health Lab Project		Follow-up Study



# Pakistan

Sector		Type of Cooperation	Planning & Administration		Public Works & Utilities			Agriculture, Forestry & Fisheries			Mining & Industry		Energy	Commerce & Tourism		Human Resources Development		Public Health & Medicine	Social Welfare	Others	Expenses (¥ Thousand)			
			Development Planning	Public Administration	Public Works	Transportation	Social Infrastructure	Telecommunications & Broadcasting	Agriculture	Livestock Farming	Forestry	Fisheries		Mining	Manufacturing	Commerce & Trade	Tourism					Human Resources	Science & Culture	
Acceptance of Trainees	Newly operations in 1990	122	1	19		20	6	7	12	3	2	1	1	13	4	2	1	2	21	8		336,914		
	Continued from FY 1989	19		1					2				1	2	1	1		6						
	Total	142	1	20		21	6	7	14	3	2	1	2	15	5	3	5	2	27	8				
	Newly in 1990	13	1		6														6					
Dispatch of Experts	Continued from 1989	4	1																1	2		207,846		
	Total	17	2		6														7	2				
	Newly in 1990	7											1		2				4					
	Continued from 1989	18																6	11	1				
	Total	25											1		2			6	15	1				
	Newly in 1990	20	1		6								1		2				10					
	Continued from 1989	22	1															6	22	3				
	Total	42	2		6								1		2			6	22	3				
Dispatch of Survey Teams Members	Newly operations in 1990	87	2		6	31			20				7					8	13			226,684		
	Continued from FY 1989																							
	Total	87	2		6	31			20				7					8		13				
	Newly operations in 1990																							
Dispatch of Overseas Cooperation Volunteers	Continued from FY 1989																							
	Total																							

ASIA

## Pakistan

### ||||| Planning & Administration |||||

#### Grant Aid

CASE	EXPENSES (¥Million)	ACTIVITIES CONDUCTED BY JICA
Improvement of Environmental Condition in Karachi		Aptness Study of the Requested Equipment

### ||||| Public Works & Utilities |||||

#### Project-Type Technical Cooperation

\*Cumulative operations since each project started

PROJECT	*EXPERT DISPATCH (Person)	*COUNTER- PART (Person)	*EQUIPMENT SUPPLY (¥Thousand)	DURATION
Construction Machinery Training Center	20	15	70,630	85. 4.29 - 90. 4.28

#### Development Study

NAME OF DEVELOPMENT STUDY	EXECUTING AGENCY OF THE RECIPIENT
Comprehensive Study on Transportation System in Lahore	Lahore Development Authority, Government of the Punjab

#### Grant Aid

CASE	EXPENSES (¥Million)	ACTIVITIES CONDUCTED BY JICA
Establishment Project for Second T.V. Channel for Education	1,783	
Project for Exploitation of Groundwater	501	
Project for Improvement of Water Treatment System in Islamabad		Basic Design Study

## ||||||| Agriculture, Forestry & Fisheries |||||

### Development Study

NAME OF DEVELOPMENT STUDY	EXECUTING AGENCY OF THE RECIPIENT
Study on Water Resources Development in Malir Basin	Planning and Development Department, Government of Sind
Study on the Development of Irrigation based upon Flood Flows of D.G. Khan, Hill Torrents	Ministry of Water and Power

### Grant Aid

CASE	EXPENSES (¥Million)	ACTIVITIES CONDUCTED BY JICA
Material and Equipment Supply for the Increase of Food Production	1,800	Expediting of Execution
Material and Equipment Supply for the Increase of Food Production	1,500	Aptness Study of the Requested Equipment
Project for Exploitation of Ground Water	550	Expediting of Execution
Project for the Model Integrated Rural Area Development	1,254	
Genetic Resources Preservation and Seed Research Laboratory Project		Basic Design Study

## ||||||| Mining & Industry |||||

### Project-Type Technical Cooperation

\*Cumulative operations since each project started

PROJECT	*EXPERT DISPATCH (Person)	*COUNTER-PART (Person)	*EQUIPMENT SUPPLY (¥Thousand)	DURATION
Geoscience Laboratory in the Geological Survey of Pakistan	1	0	10,009	90.10. 1 - 95. 9.30

### Grant Aid

CASE	EXPENSES (¥Million)	ACTIVITIES CONDUCTED BY JICA
Project for Providing the Equipment for Lahore Laboratory	1,187	

CASE	EXPENSES (¥Million)	ACTIVITIES CONDUCTED BY JICA
Project for Construction of the Geoscience Laboratory	938	

### ||||||| Energy |||||

#### Grant Aid

CASE	EXPENSES (¥Million)	ACTIVITIES CONDUCTED BY JICA
Project for the Construction of the High Voltage and Short Circuit Testing Laboratory	794	Expediting of Execution

### ||||||| Human Resources Development |||||

#### Grant Aid

CASE	EXPENSES (¥Million)	ACTIVITIES CONDUCTED BY JICA
Project for Upgradation of Teaching Facilities of National College of Textile, Pakistan		Basic Design Study

### ||||||| Public Health & Medicine |||||

#### Project-Type Technical Cooperation

\*Cumulative operations since each project started

PROJECT	*EXPERT DISPATCH (Person)	*COUNTER- PART (Person)	*EQUIPMENT SUPPLY (¥Thousand)	DURATION
The Children Hospital, Islamabad	59	21	217,144	86. 7. 1 - 91. 6.30
Nursing Education	9	8	69,221	87. 7. 1 - 92. 6.30

## Grant Aid

CASE	EXPENSES (Million)	ACTIVITIES CONDUCTED BY JICA
Project for Improvement of Medical Equipment for Punjab Medical College		Basic Design Study
Project of Improvement of Medical Equipment in Sind State		Follow-up Study
Project of Rehabilitation & Expansion of Center of Excellence		Follow-up Study

ASIA

Type of Cooperation	Sector	Planning & Administration		Public Works & Utilities				Agriculture, Forestry & Fisheries				Mining & Industry		Energy	Commerce & Tourism		Human Resources Development		Public Health & Medicine	Social Welfare	Others	Expenses (₹ Thousand)	
		Development Planning	Public Administration	Public Works	Transportation	Social Infrastructure	Telecommunications & Broadcasting	Agriculture	Livestock Farming	Forestry	Fisheries	Mining	Manufacturing		Commerce & Trade	Tourism	Human Resources	Science & Culture					
Acceptance of Trainees	Newly operations in 1990	520	1	57	6	31	16	16	49	6	10	4	5	41	19	12	1	181	5	44	16		1,243,899
	Continued from FY 1989	74	5	17	5	2	2	17	3	5	4	12	4	1	7	2		4	1	7	2		
	Total	594	1	62	6	36	18	18	66	6	13	9	9	53	20	16	1	185	6	51	18		
	Newly in 1990	170				21	3	8	23				2	6	1	1		16	12	27	49	2	
Dispatch of Experts	Continued from 1989	11	1	1	1	1					2		2	2	8	1		16	12	28	49	2	
	Total	181	1			22	3	8	27		2		2	8				16	12	28	49	2	
	Newly in 1990	31	1	1	1	4	2	1	7	1	3		1	1	4				1	1	4		
	Continued from 1989	86	2	2	2	14	5	5	15	7	3		6	7	7			2	3	5	6	4	
Dispatch of Experts	Total	117	3	3	3	18	7	6	22	1	10	3	7	7		11		2	4	6	10	4	
	Newly in 1990	201	1	1	1	25	5	9	30	1	3		2	7	5			16	13	28	53	2	
	Continued from 1989	97	3	3	2	15	5	5	19	9	3		8	7	7			2	3	6	6	4	
	Total	298	4	4	3	40	10	14	49	1	12	3	2	15		12		18	16	34	59	6	
Dispatch of Experts	Newly operations in 1990	393	50	2	8	51	80	70				20	49	5	5			25	11	11		6	
	Continued from FY 1989	22			3	2	5	7										4					
	Total	415	50	2	11	54	85	77				20	49	5	5			29	11	11		6	
	Newly operations in 1990	28	2	2			1	5				3	9					4	2	1			
Dispatch of Experts	Continued from FY 1989	68	6	6		12	14	1	4			16						7	1	6			
	Total	96	8	8		13	19	1	7			25						11	3	7			
	Newly operations in 1990	28	2	2			1	5				3	9					4	2	1			
	Continued from FY 1989	68	6	6		12	14	1	4			16						7	1	6			
Dispatch of Experts	Total	96	8	8		13	19	1	7			25						11	3	7			
	Newly operations in 1990	28	2	2			1	5				3	9					4	2	1			
	Continued from FY 1989	68	6	6		12	14	1	4			16						7	1	6			
	Total	96	8	8		13	19	1	7			25						11	3	7			

## Philippines

### ||||||| Planning & Administration |||||

#### Equipment Supply

EQUIPMENT	EXPENSES (¥Thousand)	FACILITIES
Information Management Equipment	39,502	Planning Metro Manila Authority
Equipment for Waste Disposal	4,408	Planning Metro Manila Authority

#### Grant Aid

CASE	EXPENSES (¥Million)	ACTIVITIES CONDUCTED BY JICA
Project for Integrated Database Development and Management		Basic Design Study

### ||||||| Public Works & Utilities |||||

#### Equipment Supply

EQUIPMENT	EXPENSES (¥Thousand)	FACILITIES
Testing Equipment for Road Pavement	69,082	The Bureau of Research and Standards, the Department of Public Works and Highways

#### Project-Type Technical Cooperation

\*Cumulative operations since each project started

PROJECT	*EXPERT DISPATCH (Person)	*COUNTER- PART (Person)	*EQUIPMENT SUPPLY (¥Thousand)	DURATION
The National Maritime Polytechnic Training Center	33	25	224,017	85. 6.13 - 91.12.21

## Development Study

NAME OF DEVELOPMENT STUDY	EXECUTING AGENCY OF THE RECIPIENT
Master Plan Study on the Project Calabarzon	Department of Trade and Industry, Board of Investment
Nationwide Roll-on Roll-off Transport System Development Study	Inter-Agency Technical Committee on Transport Planning
The Rural Road Network Development Project	Department of Public Works and Highways
Study on the Restoration of Rural Roads	Department of Public Works and Highways
Study on Groundwater Development in Metro Manila	Metropolitan Waterworks and Sewerage System
Study on Agno River Basin Flood Control	Department of Public Works and Highways
Study on Master Plan on Marine Safety	Marine, Industry Authority, Department of Transport and Communication
Study on Ilog-Hilabangan River Basin Flood Control Project	Department of Public Works and Highways
Study on Balara Water Treatment Plant Rehabilitation Project in Philippines	Metropolitan Waterworks and Sewerage System

## Grant Aid

CASE	EXPENSES (Million)	ACTIVITIES CONDUCTED BY JICA
Rural Environmental and Sanitation Project	1,001	
Project of the Rehabilitation of Sewer Pipelines in Baguio City		Basic Design Study

## ||||||| Agriculture, Forestry & Fisheries |||||

### Project-Type Technical Cooperation

\*Cumulative operations since each project started

PROJECT	*EXPERT DISPATCH (Person)	*COUNTER-PART (Person)	*EQUIPMENT SUPPLY (Thousand)	DURATION
The Diversified Crops Irrigation Engineering Project	24	17	140,518	87. 5.28 - 92. 5.27
Forestry Development Project, Watershed Management in Pantabangan and Carranglan, Nueva Ecija	24	9	153,391	87. 7.24 - 92. 7.23
Soils Research and Development Center Project	18	5	20,702	89. 7.13 - 94. 6.30



## Development Study

NAME OF DEVELOPMENT STUDY	EXECUTING AGENCY OF THE RECIPIENT
Master Plan Study on Improvement of Communal Irrigation Systems through Physical and Institutional Development and Rural Development in Southern Tarlac Province	National Irrigation Administration
Feasibility Study on Improvement of Seed Production and Distribution, and Establishment of Appropriate Seed Storage System	Bureau of Plant Industries, Department of Agriculture
Feasibility Study on Integrated Jalajala Rural Development Project	Department of Agrarian Reform
Master Plan Study on the Small-Scale Irrigation Development Project	National Irrigation Administration
Mapping and Agricultural Potential Study on Integrated Rural Development Program in Panpanga	Department of Agrarian Reform

## Grant Aid

CASE	EXPENSES (¥Million)	ACTIVITIES CONDUCTED BY JICA
Material and Equipment Supply for the Increase of Food Production	2,400	Aptness Study of the Requested Equipment Expediting of Execution
Material and Equipment Supply for the Increase of Food Production		Basic Design Study
Project for Agricultural Development in Western Samar	712	Basic Design Study
Project for Capayas Irrigation	1,433	
Project for Highland Integrated Rural Development	1,142	
Project for Strengthening ATI National and Regional Training Centers		Basic Design Study
Freshwater Aquaculture Training and Laboratory Project		Follow-up Study

## Development Cooperation (Training)

CASE	DURATION	COUNTERPART (Person)	RELATED PROJECT
Farm Machinery	90.10.18 - 90.12.01	1	Pilot Project for Essential Oil Crops' Culture

## ||||||| Mining & Industry |||||

### Project-Type Technical Cooperation

\*Cumulative operations since each project started

PROJECT	*EXPERT DISPATCH (Person)	*COUNTER- PART (Person)	*EQUIPMENT SUPPLY (¥Thousand)	DURATION
Crocodile Farming Institute Project	38	9	46,417	87. 8.20 - 92. 8.19

### Development Study

NAME OF DEVELOPMENT STUDY	EXECUTING AGENCY OF THE RECIPIENT
Study on the Cavite Export Processing Zone Development and Investment Promotion Program	Department of Trade and Industry, Board of Investments
Study on Industrial Sub-Sector Development	Department of Trade and Industry, Board of Investments
Geological Assessment of Chromite, Base Metals Platinum and Related Precious Metal Occurrences in South Central Palawan and Northeastern Panay	Mines and Geo-Sciences Bureau, Department of Environment and Natural Resources

### Grant Aid

CASE	EXPENSES (¥Million)	ACTIVITIES CONDUCTED BY JICA
Petrol Laboratory Establishment Project		Follow-up Study

## ||||||| Energy |||||

### Development Study

NAME OF DEVELOPMENT STUDY	EXECUTING AGENCY OF THE RECIPIENT
Study on Rehabilitation and Renovation of Power Facilities in Luzon	National Power Corporation
Feasibility Study on Kalayaan Pumped Storage Plant Development Project (Stage II)	National Power Corporation
Feasibility Study on Coal-Fired Thermal Electric Power Development Project	National Power Corporation

||||||| Commerce & Tourism |||||

Project-Type Technical Cooperation

\*Cumulative operations since each project started

PROJECT	*EXPERT DISPATCH (Person)	*COUNTER- PART (Person)	*EQUIPMENT SUPPLY (¥Thousand)	DURATION
The Trade Training Center	36	26	69,311	87. 2.23 - 92. 2.22

||||||| Human Resources Development |||||

Equipment Supply

EQUIPMENT	EXPENSES (¥Thousand)	FACILITIES
Equipment for Science Research	9,795	Ateneo de Manila University

Project-Type Technical Cooperation

\*Cumulative operations since each project started

PROJECT	*EXPERT DISPATCH (Person)	*COUNTER- PART (Person)	*EQUIPMENT SUPPLY (¥Thousand)	DURATION
The Philippines Human Resources Development Center	119	117	269,828	82. 9. 9 - 91. 3.31
ASEAN Project on Atmospheric Corrosion Metallic Coating	37	12	232,918	87.10.30 - 92.10.29

Grant Aid

CASE	EXPENSES (¥Million)	ACTIVITIES CONDUCTED BY JICA
Project for Constructing Primary and Secondary School Building (Phase II)	2,659	
Project for Constructing Primary and Secondary School Building (Phase III)		Basic Design Study
Project for Assistance to Secondary Education Instructional Equipment	567	Basic Design Study
Project for Providing Equipment for Polytechnic University	729	

## Public Health & Medicine

### Project-Type Technical Cooperation

\*Cumulative operations since each project started

PROJECT	*EXPERT DISPATCH (Person)	*COUNTER- PART (Person)	*EQUIPMENT SUPPLY (¥Thousand)	DURATION
Food and Drugs Laboratories Project	78	22	294,397	86. 7.25 - 91. 7.24

### Grant Aid

CASE	EXPENSES (¥Million)	ACTIVITIES CONDUCTED BY JICA
Project for the Equipment Upgrading 21 Provincial Hospitals (Phase II)		Basic Design Study
Hospital Equipment Upgrading Projects		Follow-up Study

## Social Welfare

### Project-Type Technical Cooperation

\*Cumulative operations since each project started

PROJECT	*EXPERT DISPATCH (Person)	*COUNTER- PART (Person)	*EQUIPMENT SUPPLY (¥Thousand)	DURATION
Occupational Safety and Health Center Project	49	8	54,977	88. 4. 1 - 93. 3.31

## Others

### Grant Aid

CASE	EXPENSES (¥Million)	ACTIVITIES CONDUCTED BY JICA
Expansion Project for Bataan Refugee Processing Center		Follow-up Study

[illegible]

205

## Singapore

### ||||||| Public Works & Utilities |||||

#### Development Study

NAME OF DEVELOPMENT STUDY	EXECUTING AGENCY OF THE RECIPIENT
Feasibility Study of Selected Expressways	Public Works Department, Ministry of National Development

#### Development Cooperation (Expert Dispatch)

CASE	TECHNICAL GUIDANCE
Cooperation in Maintenance of Navigational Aids in Malacca Straits	For: The Study on the Renewal of Beacons, the Inspection of Beacon Construction and Installation of Equipment, the Joint Inspection and Repair Technology

### ||||||| Mining & Industry |||||

#### Project-Type Technical Cooperation

\*Cumulative operations since each project started

PROJECT	*EXPERT DISPATCH (Person)	*COUNTER- PART (Person)	*EQUIPMENT SUPPLY (¥Thousand)	DURATION
Productivity Development Project	195	194	43,020	83. 6.11 - 90. 6.10
Japan-Singapore AI Center	15	5	372,434	90. 4. 1 - 95. 3.31

Human Resources Development

Project-Type Technical Cooperation

\*Cumulative operations since each project started

PROJECT	*EXPERT DISPATCH (Person)	*COUNTER- PART (Person)	*EQUIPMENT SUPPLY (¥Thousand)	DURATION
The Japan-Singapore Institute of Software Technology (Phase II)	77	22	454,413	86. 1.13 - 91. 1.12
ASEAN Project on Prevention of Corrosion in Structures	49	11	152,923	87.10. 1 - 92. 9.30

ASIA

Sector		Type of Cooperation	Public Works & Utilities										Energy	Commerce & Tourism		Human Resources Development		Public Health & Medicine	Social Welfare	Others	Expenses (¥ Thousand)
			Planning & Administration		Public Works	Transportation	Social Infrastructure	Telecommunications & Broadcasting	Agriculture	Livestock Farming	Forestry	Fisheries		Mining	Manufacturing	Commerce & Trade	Tourism				
Acceptance of Trainees	Newly operations in 1990	135	1	26	3	11	5	11	21	1	1	2	6	3	2	1	18	2	15	6	400,363
	Continued from FY 1989	30	2				2	10			2				1	1	13		3		
	Total	168	1	28	3	11	5	13	31	1	1	4	6	3	3	1	31	2	18	6	
	Dispatch of Experts	Newly in 1990	34	1				2	3					3				3		22	
Continued from 1989		7																			
Total		41	1				2	3					3				3		22		
Dispatch of Survey Teams Members		Newly in 1990	8				1	2												5	
	Continued from 1989	18	1	1	1		2	2				1	1				2		9	2	
	Total	26	1	1	1		1	4					1				2		14	2	
	Dispatch of Grassroots Cooperation Volunteers	Newly in 1990	42	1				3	5					3				3		27	
Continued from 1989		25	1	1	1			2				1	1				2		16	2	
Total		67	1	1	1		3	7					4				5		43	2	
Dispatch of Grassroots Cooperation Volunteers		Newly operations in 1990	78	2		1	20	4	13			7						2		22	7
	Continued from FY 1989	4				4															
	Total	82	2		1	24	4	13			7						2		22	7	
	Dispatch of Grassroots Cooperation Volunteers	Newly operations in 1990	17		2								1					11	1	1	1
Continued from FY 1989		67	6				4	8	6			6					20	12	5		
Total		84	8				4	8	6			7					31	13	6	1	



## Sri Lanka

### ||||||| Public Works & Utilities |||||

#### Equipment Supply

EQUIPMENT	EXPENSES (¥Thousand)	FACILITIES
Equipment for Telecommunication Training	28,243	Telecom. Training Center, Welisara

#### Development Study

NAME OF DEVELOPMENT STUDY	EXECUTING AGENCY OF THE RECIPIENT
Study on the Development of the Port of Galle	Sri Lanka Ports Authority

#### Grant Aid

CASE	EXPENSES (¥Million)	ACTIVITIES CONDUCTED BY JICA
Project for Reconstructing the Victoria Bridge	807	Expediting of Execution
Project for the Rehabilitation of Kandy Water Supply	753	
Establishment Project of Radio Studio Facilities in Sri Lanka Broadcasting Center	647	Basic Design Study
Sri Lanka Water Supply Facilities Rehabilitation Project		Follow-up Study

### ||||||| Agriculture, Forestry & Fisheries |||||

#### Project-Type Technical Cooperation

\*Cumulative operations since each project started

PROJECT	*EXPERT DISPATCH (Person)	*COUNTER- PART (Person)	*EQUIPMENT SUPPLY (¥Thousand)	DURATION
Project of the Center for Plant Genetic Resources	14	7	87,874	88. 4. 1 - 93. 3.31

## Development Study

NAME OF DEVELOPMENT STUDY	EXECUTING AGENCY OF THE RECIPIENT
Feasibility Study on Walawe Irrigation Upgrading and Extension Project (Left Bank)	Ministry of Mahaweli Development

## Grant Aid

CASE	EXPENSES (¥Million)	ACTIVITIES CONDUCTED BY JICA
Material and Equipment Supply for the Increase of Food Production	2,300	Expediting of Execution
Material and Equipment Supply for the Increase of Food Production	1,900	Aptness Study of the Requested Equipment Expediting of Execution
Project for Integrated Rural Development	1,075	Expediting of Execution
Project for Establishment of Plant Quarantine Facilities		Basic Design Study
Rehabilitation Project of the Kiribdo Fisheries Harbour		Basic Design Study
Establishment Project of Fisheries Harbour		Expediting of Execution

## Human Resources Development

### Project-Type Technical Cooperation

\*Cumulative operations since each project started

PROJECT	*EXPERT DISPATCH (Person)	*COUNTER-PART (Person)	*EQUIPMENT SUPPLY (¥Thousand)	DURATION
The Institute of Computer Technology Project	31	10	395,346	87. 4. 1 - 91. 3.31

## Grant Aid

CASE	EXPENSES (¥Million)	ACTIVITIES CONDUCTED BY JICA
Expansion Project for the National Institute of Education and Training	931	
Project for Establishment of Audio-visual Education Center of Open University		Basic Design Study

CASE	EXPENSES (¥Million)	ACTIVITIES CONDUCTED BY JICA
Project for Provision of Educational Equipment		Follow-up Study

## Public Health & Medicine

### Project-Type Technical Cooperation

\*Cumulative operations since each project started

PROJECT	*EXPERT DISPATCH (Person)	*COUNTER- PART (Person)	*EQUIPMENT SUPPLY (¥Thousand)	DURATION
The Sri Jayewardenepura General Hospital	30	20	182,468	86. 4.18 - 91. 4.17
Population Information Project	15	8	290,000	87.11.30 - 92.11.29
Medical Research Institute Project	43	11	95,526	89. 1. 1 - 93.12.31

### Grant Aid

CASE	EXPENSES (¥Million)	ACTIVITIES CONDUCTED BY JICA
Project for Rehabilitation of Biomedical Engineering (II)		Basic Design Study
Project for Expansion of Medical Research Institute		Expediting of Execution
Pharmaceutical Formulation Center of Essential Drugs		Expediting of Execution Follow-up Study

## Social Welfare

### Equipment Supply

EQUIPMENT	EXPENSES (¥Thousand)	FACILITIES
Equipment for the Hearing Impaired Children	9,033	Association for the Hearing Impaired Children

ASIA

||||||| Others |||||||

Development Cooperation (Investment and Financing Examination and Surveys)

CASE	DURATION	PERSON ENGAGED
Financial Cooperation Study	91. 3. 2 - 91. 3. 9	4

# Thailand

Type of Cooperation	Sector	Public Works & Utilities										Mining & Industry		Agriculture, Forestry & Fisheries		Commerce & Tourism		Human Resource Development		Social Welfare	Others	Expenses (¥ Thousand)
		Planning & Administration	Development Planning	Public Administration	Public Works	Transportation	Social Infrastructure	Telecommunications & Broadcasting	Agriculture	Livestock Farming	Forestry	Fisheries	Mining	Manufacturing	Energy	Commerce & Trade	Tourism	Human Resources	Science & Culture			
Acceptance of Trainees	Newly operations in 1990	1	86	7	40	20	27	99	16	11	9	7	56	26	16	1	194	6	61	11		1,668,290
	Continued from FY 1989	108	10	4	4	1	4	15	5	5	5	3	19	2	2	2	17	3	18			
	Total	762	1	96	7	44	21	31	74	21	11	14	10	75	28	18	1	211	9	79	11	
	Short-term																					
Dispatch of Experts	Newly in 1990	215	11	5	12	10	4	43	6	6	7	7	7	7		1	44	17	95	3	4	
	Continued from 1989	23	3		2	2	2	3	3	3	3					4	2	1	1			
	Total	238	14	5	14	12	6	46	9	9	7	7	7	7		5	46	18	96	3	4	
	Long-term																					2,999,535
Dispatch of Survey Teams Members	Newly in 1990	53	1	2	3	1	4	11	3	3	1	1	9	9	1	1	8	8	1			
	Continued from 1989	126	2	9	8	8	4	29	7	6	5	1	8	3	3	1	19	3	2	1	2	
	Total	179	4	9	10	11	5	12	40	10	6	6	1	17	3	1	27	11	3			
	Short-term																					
Dispatch of Overseas Cooperation Volunteers	Newly in 1990	268	1	11	7	15	11	8	54	9	6	8	16	16	2	2	52	25	36	3	4	
	Continued from 1989	149	3	12	8	10	6	10	32	7	9	5	1	8	3	4	21	4	3	1	2	
	Total	417	4	23	15	25	17	18	86	16	15	13	1	24	3	6	73	29	39	4	6	
	Long-term																					
Dispatch of Overseas Cooperation Volunteers	Newly operations in 1990	464	15	18	36	81	5	4	112	5	21	5	4	22	44			60	14	14	4	
	Continued from FY 1989	30	13		13			4														
	Total	494	28	18	36	94	5	4	116	5	21	5	4	22	44			60	14	14	4	
	Short-term																					
Dispatch of Overseas Cooperation Volunteers	Newly operations in 1990	23	7					2	1	1			4	4				7		2		
	Continued from FY 1989	40	6					6	6				1	17				7	3			
	Total	63	13					8	8	1			1	21				14	3	2		
	Long-term																					

ASIA

## Thailand

### ||||| Planning & Administration |||||

#### Project-Type Technical Cooperation

\*Cumulative operations since each project started

PROJECT	*EXPERT DISPATCH (Person)	*COUNTER- PART (Person)	*EQUIPMENT SUPPLY (¥Thousand)	DURATION
Project on Environmental Research and Training Center	16	5	0	90. 4. 1 - 95. 3.31

#### Development Study

NAME OF DEVELOPMENT STUDY	EXECUTING AGENCY OF THE RECIPIENT
Study on the Regional Development Plan for the Upper Central Region	The National Economic and Social Development Board

#### Grant Aid

CASE	EXPENSES (¥Million)	ACTIVITIES CONDUCTED BY JICA
Establishment Project for Environmental Research and Training Center	862	Expediting of Execution

### ||||| Public Works & Utilities |||||

#### Equipment Supply

EQUIPMENT	EXPENSES (¥Thousand)	FACILITIES
Communication-related Equipment	8,770	The Telephone Organization of Thailand
Equipment related to Distributing Facilities of Electric Power	14,633	Provincial Electricity Authority

## Project-Type Technical Cooperation

\*Cumulative operations since each project started

PROJECT	*EXPERT DISPATCH (Person)	*COUNTER- PART (Person)	*EQUIPMENT SUPPLY (¥Thousand)	DURATION
The National Waterworks Technology Training Institute Project	44	30	185,983	85.12. 1 - 91.11.30

## Development Study

NAME OF DEVELOPMENT STUDY	EXECUTING AGENCY OF THE RECIPIENT
Master Plan Study on the Development of Phatthaya Area	Office of the Eastern Seaboard Development Committee
Road Development Study in the Southern Region	Department of Highways, Ministry of Transport and Communications
Toll Expressway Development Study	Department of Highway, Ministry of Transport and Communications
Study on Traffic Operation Plan for Roads	Department of Highways, Ministry of Transport and Communications
Detailed Design Study for Area Traffic Control Project in Bangkok	Bangkok Metropolitan Administration
Study on Bangkok Solid Waste Management	Department of Public Cleansing, Bangkok, Metropolitan Administration
Feasibility Study on Sewerage and Drainage Improvement Project for Phuket Municipality	Public Works Department, Ministry of Interior
Study on Application Scheme of Land Readjustment in National Urban Development	Department of Town and Country Planning, Ministry of Interior
Study on Traffic Operation Plan for Roads (Aftercare)	Department of Highway, Ministry of Communication
Study on Basic Policy of Urban Truck Terminal	Department of Transport, Ministry of Transport and Communications
Study on Regional Development Plan for Telecommunications Network in the Bangkok Metropolitan Area	Telephone Organization of Thailand

## Grant Aid

CASE	EXPENSES (¥Million)	ACTIVITIES CONDUCTED BY JICA
Project for Rama 4 Viaduct Construction in Bangkok	2,636	Expediting of Execution
Project for Bridge Construction in Rural Region in Northeast Thailand	1,229	

CASE	EXPENSES (¥Million)	ACTIVITIES CONDUCTED BY JICA
Project for Improvement of Equipment for Road Reconstruction in the Southern Region		Basic Design Study
Project for Constructing the Nakhon Si Thanmarat Fishing Port		Expediting of Execution

## ||||||| Agriculture, Forestry & Fisheries |||||

### Equipment Supply

EQUIPMENT	EXPENSES (¥Thousand)	FACILITIES
Practical Training Equipment for Agricultural Machinery	23,960	King Mongkut's Institute of Technology Ladkrabang

### Project-Type Technical Cooperation

\*Cumulative operations since each project started

PROJECT	*EXPERT DISPATCH (Person)	*COUNTER- PART (Person)	*EQUIPMENT SUPPLY (¥Thousand)	DURATION
Agricultural Cooperative Promotion Project	32	56	243,960	84. 7. 6 - 91. 7. 5
Research and Training in Re- afforestation Project, Phase II	36	21	231,553	86. 7.29 - 91. 7.28
National Animal Health and Production Institute Project	49	26	346,619	86.12. 9 - 91.12. 8
Maize Quality Improvement Research Center Project	36	13	176,565	86.12.15 - 91.12.14
Strengthening Research Activities Phase II Project at Kasesart University	53	23	207,926	87. 4.16 - 92. 4.15
Research Project for Fishery Resource Development	18	10	111,578	88. 7. 1 - 93. 6.30
Agricultural Development Research Project Phase II in North-East Thailand	17	10	57,212	88.12.20 - 93.12.19
Irrigation Engineering Center Project	0	2	31,898	90. 4. 1 - 95. 3.31



## Development Study

NAME OF DEVELOPMENT STUDY	EXECUTING AGENCY OF THE RECIPIENT
Feasibility Study on the Sukkothai Integrated Agricultural and Rural Infrastructure Project	Agricultural Land Reform Office, Ministry of Agriculture and Cooperatives
Feasibility Study on the Agricultural Water Resources Development Project on Bang Pakong River Basin	Royal Irrigation Department, Ministry of Agriculture and Cooperatives
Master Plan Study on the Integrated Rural Development of Salt Affected Land in Northeast Thailand	Department of Land Development, Ministry of Agriculture and Cooperatives
Feasibility Study for the Integrated Rural Development Project of Lower North Thailand	The Office of Accelerated Rural Development, Ministry of Interior
Feasibility Study on the Lam Dome Yai Basin Irrigation Project	The Royal Irrigation Department, Ministry of Agriculture and Cooperatives
Feasibility Study on the Integrated Agriculture and Water Resources Development Project in Chumphon and Prachuap Khiri Khan	The Royal Irrigation Department, Ministry of Agriculture and Cooperatives

## Grant Aid

CASE	EXPENSES (¥Million)	ACTIVITIES CONDUCTED BY JICA
Project for Bang Nara Irrigation and Drainage	375	
Project for Establishment of Land & Water Conservation Center in Eastern Region	320	Basic Design Study Aptness Study of the Requested Equipment
Integrated Large Scale Nursery Center Project in the Northeast Thailand		Basic Design Study

## Development Cooperation (Basic Development Study)

CASE	DURATION	PERSON ENGAGED
Development of Crops in the Northmost Hi-Land	90. 5.17 - 90. 5.24	8
Forestry Development Project in Asia and Oceania	90.10. 9 - 90. 10.30	6

## Development Cooperation (Investment and Financing Examination and Surveys)

CASE	DURATION	PERSON ENGAGED
Pilot Project for Essential Oil Crops' Culture	90.11.21 - 90. 11.28	2
Pilot Project for Vegetable Seeds Production and Pilot Project for Asparagus and Cacao Cultivation	90. 9.18 - 90. 9.26	3

## ||||||| Mining & Industry |||||

### Project-Type Technical Cooperation

PROJECT	*EXPERT DISPATCH (Person)	*COUNTER- PART (Person)	*EQUIPMENT SUPPLY (¥Thousand)	DURATION
The Metal Working and Machinery Industries Development Institute	46	22	160,137	86.10. 1 - 91. 9.30
The Industrial Standardization, Testing and Training Centre	17	4	27,810	89.12. 1 - 94.11.30

### Development Study

NAME OF DEVELOPMENT STUDY	EXECUTING AGENCY OF THE RECIPIENT
Study on the Air Quality Management Planning for the Samut Prakarn Industrial District	Office of the National Environment Board, Ministry of Science, Technology and Energy
Study on Industrial Sector Development	Department of Industrial Promotion, Ministry of Industry
Cooperative Mineral Exploration in Kra Buri Area	Department of Mineral Resources, Ministry of Industry

## ||||||| Energy |||||

### Equipment Supply

EQUIPMENT	EXPENSES (¥Thousand)	FACILITIES
Equipment for Petrochemistry Engineering	9,476	Chulalongkorn University

### Development Study

NAME OF DEVELOPMENT STUDY	EXECUTING AGENCY OF THE RECIPIENT
Feasibility Study on Lignite Briquette Development	National Energy Administration, Ministry of Science, Technology and Energy
Feasibility Study on Law Ta Khong Pumped Storage Project	Electricity Generating Authority of Thailand
Feasibility Study on Sin Pun Atmospheric Fluidized Bed Combustion Coal-Fired Thermal Power Development	Electricity Generating Authority of Thailand

# Human Resources Development

## Project-Type Technical Cooperation

\*Cumulative operations since each project started

PROJECT	*EXPERT DISPATCH (Person)	*COUNTER- PART (Person)	*EQUIPMENT SUPPLY (¥Thousand)	DURATION
The Industrial Rehabilitation Center	69	32	226,466	84. 2.23 ~ 92. 3.31
ASEAN Project on Atmospheric Corrosion-Organic Coatings	27	11	200,191	87.11.30 ~ 92. 11.29
Expansion Project of King Mongkut's Institute of Technology, Ladkrabang	65	22	644,821	88. 4. 1 ~ 93. 3.31
The Ubong Institute for Skill Development Project	38	11	173,519	88.10. 1 ~ 93. 9.30

## Grant Aid

CASE	EXPENSES (¥Million)	ACTIVITIES CONDUCTED BY JICA
Project for Providing the Equipment for Chulabhorn Research Institute	487	Basic Design Study
Project for Expansion of Engineering Institute for Research, Chulalongkorn University	701	Basic Design Study
Project for Providing the Equipment for Pathumwan Technical College, Thailand		Basic Design Study
Construction Project for Social Education and Cultural Centre		Expediting of Execution
Project for Construction of the Ayuthaya Historical Study Center		Expediting of Execution

ASIA

## Public Health & Medicine

### Project-Type Technical Cooperation

\*Cumulative operations since each project started

PROJECT	*EXPERT DISPATCH (Person)	*COUNTER- PART (Person)	*EQUIPMENT SUPPLY (¥Thousand)	DURATION
Research Promotion Project in the National Institute of Health	109	34	219,129	85. 8. 1 - 92. 7.31

## Social Welfare

### Grant Aid

CASE	EXPENSES (¥Million)	ACTIVITIES CONDUCTED BY JICA
Establishment of the Youth Welfare Center		Expediting of Execution