

Countries scattered over the Pacific across the equator

Oceania, which covers a wide north-south area of the Pacific Ocean straddling the equator, includes Australia and New Zealand and 12 other independent island countries, many dominions, trust territories and overseas possessions. The land area is no more than 9 million square kilometers, 98% of which is comprised by Australia, New Zealand and Papua New Guinea.

The other island nations are small countries with a total land area of only 18 square kilometers and some nations such as Tuvalu and Nauru have a population of less than 10,000. The population of the Oceania region is a mere 6.30 million, except for Australia and New Zealand.

The area can be racially divided into Melanesians, Polynesians and Micronesians. The countries, which have had little experience of independence, have diverse social environments with mixed traditional cultural backgrounds and the influences from the former suzerains.

While the components of social groups can

be subdivided, forming a comparatively equal and mutually complementary social structure in Melanesia, social stratifications in Polynesia and Micronesia are based on tribal systems under chieftains.

The per-capita GNP, except for Australia and New Zealand, ranges widely from approximately \$10,000 in Nauru, which has phosphorus ore reserves, to \$650 in Tuvalu, which has no resources.

Political stability with a lack of economic independence

The Oceania region maintains political stability as a whole. The countries in this region, with some exceptions, are small and have no natural resources.

The economic structure tends to depend largely on primary production and it is a fragile system subject to climate and the fluctuation of international prices. At the same time, economic independence is not easily attained given that the countries are divided into many islands, the scale of the domestic market is small, the countries are isolated from the international market and the means of transport

and communication to make up for this isolation are lacking. The relationship between these island nations and their former suzerains is generally a close one.

Japanese cooperation with Oceania

Japanese cooperation with Oceania has mainly taken the form of both the dispatch of experts and Japan Overseas Cooperation Volunteers and of the training of local technical experts in Japan, necessary for building the nations.

There has been cooperation to encourage the development of agriculture, forestry and fisheries, which is characterized by research in forestry and rice cultivation, the provision of fishing ports, technical cooperation in aquaculture and the provision of basic infrastructure relevant to BHN such as the construction of schools, hospitals and water supply facilities.

Since the island countries of Oceania are small in terms of population and economic scale and are scattered throughout the region, it is vital to take a comprehensive approach to the region.

The history of Japanese cooperation with Oceania is comparatively short and knowledge and experience have not yet been adequately accumulated. Therefore, it is expected that Japan will reinforce coordination with major donor countries such as Australia and New Zealand, regional and international organizations such as the South Pacific Commission (SPC) and the South Pacific Forum (SPF).

Although the proportion of bilateral aid to Oceania was limited to only 1.3% in 1994, there was a rapid rate of increase from \$24 million in 1985 to \$160 million in 1995, an increase of approximately 6.7 times in ten years. Since the countries in the region are generally small and have low incomes, technical cooperation and grant aid form the core of support in the region. Thus far, yen loans have been seen only in Papua New Guinea and the Solomon Islands.

Grass-roots grant aid* is the most notable

form of aid to these small island countries. Since this form of grant aid can be given mainly by local Japanese diplomatic missions and is a flexible, practicable and wide ranging form, it has been extended to the Oceania countries in the form of audio-visual equipment, information management and the construction of small bridges. The development needs identified by senior cooperation experts and Japan Overseas Cooperation Volunteers are increasingly being realized in the aid projects and it is expected that their active coordination will be encouraged in the future.

Priority items for JICA programs

In order to extend aid to Oceania in a more elaborate and considerate manner, JICA set up the "Oceania Region Aid Study Group" in 1991, which studied the development needs and the preferable forms of future aid and compiled its results in a report.

In this report, it was considered necessary to give aid which takes into account the diversity of Oceania and factors restricting development in the island nations. The report suggests that the three priority areas for the future aid should be to support economic independence, overcome isolation and limitedness in the area and strengthen aid in support for conservation development (which contributes to the preservation of traditional values).

As deforestation and the ecological destruction of beaches has advanced in Oceania, the conservation of the environment and the protection of resources are important subjects. The island countries of this region use their marine and forest resources to acquire foreign currency to promote economic growth and raise living standards, but overfishing and rapid depletion of forested areas have to a large extent become serious problems.

It is imperative that natural resources be utilized in a sustainable manner in concert with the natural ecosystem and environmental considerations should be taken into account at the planning and implementation stages when aid is extended.

As one way of addressing these problems,

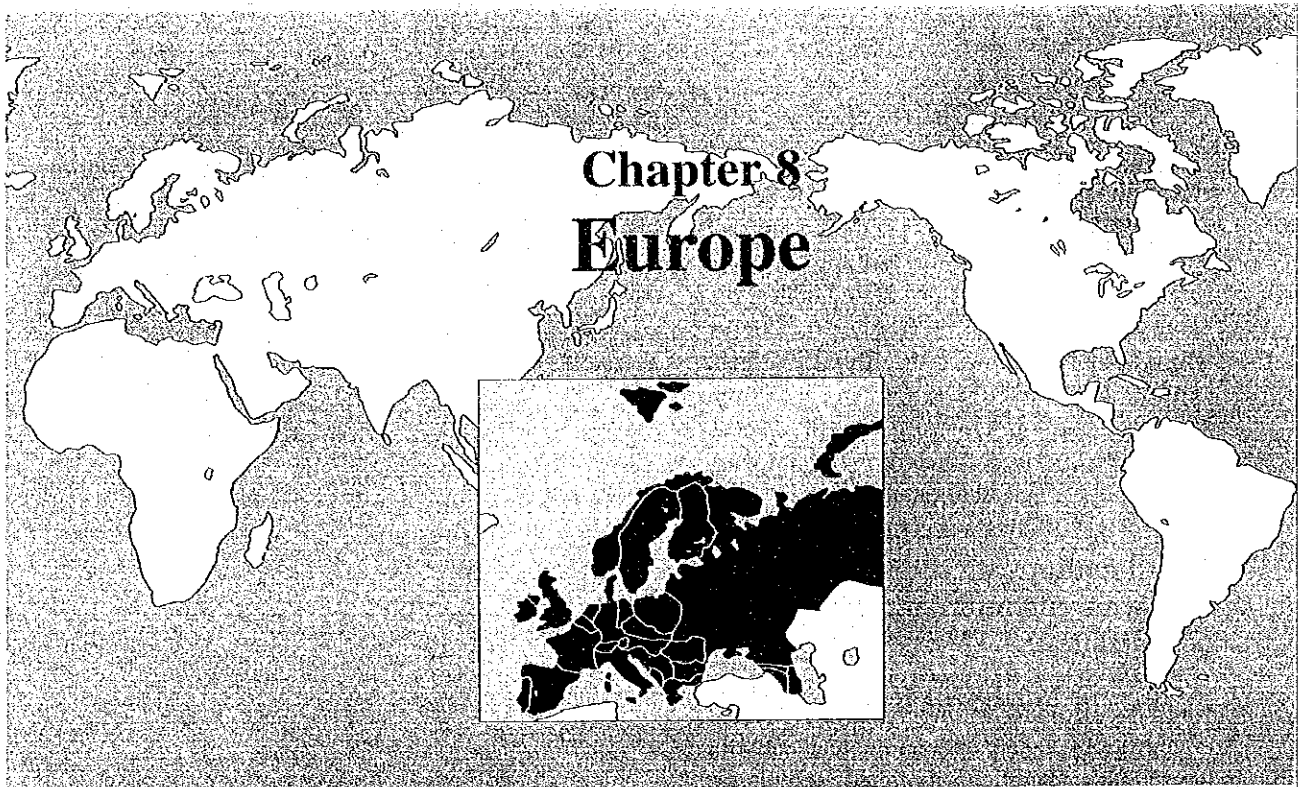
* Grass-roots grant aid: cooperation through Japanese diplomatic missions to support relatively small-scale projects which are difficult to address under conventional grant aid, requested by local public organizations and NGOs in developing countries.

JICA is carrying out project-type technical cooperation, entitled "Aquaculture Research and Development Project" with the aim of developing technology for farming fish and shellfish in Tonga. In Papua New Guinea, the "Forest Research Project Phase II" is under way. Following on the highly acclaimed, "Forest Research Project" implemented from 1989 to 1994, this project started in 1995 as research cooperation with the aim of improving testing and research standards for the development of forest resources.

Coordination with other donor countries and international organizations

As part of development aid extended to the whole of Oceania by regional international organizations, Japan, under an agreement with the South Pacific Applied Geoscience Commission (SOPAC), has been carrying out the "South Pacific Seabed Mineral Resources Study" since 1985 with the aim of assessing potential seabed resources and supporting their management.

In addition, as a joint project with Australia, another donor country, Japan has begun the "Health Promotion Project." With the aim of disseminating information about health and medical care into Fiji, this project is used to highlight health issues by using printed materials such as posters and pamphlets as well as television and radio programs. This project is notable for being the first joint project in Oceania between Japan and Australia.



Cooperative support of G24 for the former Central and Eastern European countries

Europe, on the whole, is modernized and has established complete economic independence and, from the point of view of economic cooperation, the majority of the countries in the region are donors rather than recipients of aid. However, the Central and Eastern European countries were under Communist regimes for a long period after World War II and their economies lagged far behind due to their centrally planned economies.

From late 1989, however, the Eastern European countries, led by Poland and Hungary, began economic reforms for the transition to a market economy under democratic administrations.

In response to these movements towards democratization, advanced countries have actively supported the reforms through the framework of cooperative aid extended by the group of nations involved in aid to Eastern Europe (G24).

The G24 was established on the basis of the founding declaration of the Paris Summit in

July 1989 with the aim of discussing aid to Poland and Hungary. Subsequently, the former East Germany, the former Czechoslovakia, Bulgaria, the former Yugoslavia, Romania, Albania and the Baltic States (Estonia, Latvia and Lithuania) were added to the list of recipients of aid. However, the former East Germany, which was integrated into Germany, and the former Yugoslavia, in which the military conflicts intensified, were removed from the list of recipient countries in October 1991. On the other hand, Slovenia became a recipient country in October 1992 and Macedonia in November 1993.

There are 24 participants in G24 - 12 countries from the European Union, Japan, the United States, Canada and Australia as well as international organizations such as the IMF, the World Bank and the OECD.

Japanese cooperation in the European region

In response to these trends, Japanese aid to the Central and Eastern European countries began with the five countries of Poland, Hungary, the former Czechoslovakia (after the

revolution in November 1989, Czechoslovakia changed its name from the Socialist Republic of Czechoslovakia to the Czech and Slovak Federal Republic in April 1990. The federation was subsequently dissolved on 1 January 1993 and separated into the Czech Republic and the Republic of Slovakia.), Bulgaria and Romania. Japan has actively supported the reforms under the cooperative support of the G24.

The total bilateral ODA extended by Japan to the European region in 1995 was \$153 million, 1.5% of total Japanese ODA.

The Central and Eastern European countries are pushing ahead with economic reforms to transfer to a market economy under a democratic administration based on a free election. However, in addition to political chaos and ethnic confrontations, they are faced with the severe economic hardship caused by the loss of resources for energy supplies and markets for exports, as a result of the dissolution of COMECON. In these circumstances, disparities have appeared in the degree of democratization and transition to a market economy between Slovenia, Poland, Hungary, the Czech Republic and other Central and Eastern European countries.

In March 1996, a project formulation study team was dispatched to Poland and Bulgaria to support transition to a market economy.

Since it is of concern in Japanese diplomatic relations that the ethnic conflicts in the former Yugoslavia should not spread to Macedonia and Albania, Japan confirmed active aid to these countries as part of a strategy of preventive diplomacy. In August 1994, a project confirmation study team was dispatched to Macedonia and Albania and project researchers were dispatched to analyze aid needs and to collect relevant information on these countries in March 1996.

However, since there are considerable discrepancies in the rate of economic development between these two countries and those of Slovenia, the Czech Republic, Poland, Hungary, Slovakia, Bulgaria and Romania, it is desirable to use similar forms of aid in all of them, as in the case of traditional developing

countries.

Priorities in JICA's programs

In order to achieve a smooth transition to a market economy in the countries of Central and Eastern Europe, it is necessary to introduce knowhow such as management techniques from the Western liberal economic sphere and to supply capital. The serious environmental problems which developed under the former communist regimes affect not only the Central and Eastern European countries but also their neighbouring countries. Moreover, the infrastructure built up under the centrally planned economy was ill-maintained and is now exhausted.

Therefore, JICA's aid to the Central and Eastern European countries focuses on the transition to a market economy, environmental problems and the reconstruction and expansion of social and economic infrastructure.

JICA's aid will give priority to the following items.

- (1) The transition from a planned economy to a market economy (economic policy, improvement of productivity, management etc.).
- (2) Environmental problems, mainly air pollution and waste disposal.
- (3) Reconstruction of economic infrastructure

The Central and Eastern European countries have characteristics peculiar to themselves, such as a high standard of basic technology, and the priority for aid has been placed mainly on projects requiring a high standard of technology, development studies, support for democratization, the transition to a market economy and the environment.

These are broken down as follows:

- Acceptance of participants for training and dispatch of experts for production and business management in factories to support the introduction of a market economy.
- Development studies for the provision of social and economic infrastructure in correspondence with the transitive

process to a market economy.

- Preparations of master plans and feasibility studies on environmental problems for which countermeasures are less developed in the industrial facilities in the region (studies have been already carried out on waste disposal plans and plans for desulphurization of power station emission).

Results of JICA's activities in 1995

In 1995, such programs included the acceptance of participants for training in business management, production management and environmental issues from Poland, Hungary, the Czech Republic, Slovakia, Bulgaria, Romania, Slovenia, Macedonia and Albania. Experts have also been dispatched as advisors to Poland for productivity improvement, to Slovakia for railway organization and economic development, to Bulgaria for milk fermentation technology and to Romania for economic development.

Development studies were carried out as the "Solid Waste Management for Poznan City" in Poland, the "Integrated Air Pollution Control Plan for Sajo Valley Area" in Hungary, the "Heating System Modernization Plan" in Slovakia, the "Restructuring and Modernization Plan for the Steel Industry" in Bulgaria and the "Environmental Pollution Control and Energy Saving in the Integrated Iron and Steel Works 'SIDEX' S.A. Galati," the "Irrigation Project in Ruginesti-Pufesti-Panciu District Vrancea" and the "Solid Waste Management System for the Municipality of Bucharest" in Romania.

Project-type technical cooperation has included the long-term dispatch of three experts for the "Productivity Improvement Project" to Hungary, the Polish-Japanese Institute of Computer Techniques in Poland, the "Irrigation System Readjustment Project" in Romania and the "Energy Efficiency Center Project" in Bulgaria.

As of 1996, under the dispatch agreement between the Japan Overseas Cooperation Volunteers and Poland, Hungary, Bulgaria and

Romania, volunteers have been dispatched mainly in the field of human resources, except for Romania.

At the Japan-U.S. Economic Framework Consultation during the Hosokawa-Clinton summit meeting in February 1994, an agreement was reached on the joint Japan-U.S. plan for environmental improvement in the Central and Eastern European region and Japan announced that it would offer financial cooperation of up to \$1 billion for environmental improvement in Central and Eastern Europe.

In order to support this plan, JICA attended the First Japan-U.S. Joint Committee on the Eastern European Environment held in Budapest in May 1994. Subsequently, in order to identify possibilities for cooperation in the field of the environment in the Central and Eastern European region, Eastern European Environmental Project Formulation Specialists were dispatched (for almost one year from January 1995) with the aim of collecting basic information in this field and project formulation studies in the field of the environment were carried out in Bulgaria and Romania in November 1995. Active support for environmental improvement in this region is expected to continue in the future.

Bulgaria Computer graphics education starting at the school "abandoned by God"

.....Computer Graphics Education

Computer graphics education started with great expectations.

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In the midst of turmoil in a transitive period

"There are many who come to take, but few come to offer something." These were the words of the principal of Sofia Industrial School when visiting the school for the first time to discuss the dispatch of the Japan Overseas Cooperation Volunteers.

Bulgaria is in a transitive period from the communist system and has been thrown into turmoil. All of its schools suffer from insufficient budgets and there are always delays in purchasing necessary teaching materials and even in paying salaries to teaching staff. The schools often suffer from thefts of teaching materials and equipment. It is easy to understand why the principal feels the way he does.

This industrial school, which the principal personally calls a school "abandoned by God," is a small school with a shabby appearance. Although approximately 360 students from the eighth to twelfth grades are learning the subjects of knitting, visual design, toy making, metal molding and sculpture, there is a shortage of classrooms. JICA has managed to offer a dual system of teaching in the morning and the afternoon. The very old computer set in the principal's office, naturally, did not have the capacity for computer graphics.

Cooperation in computer graphics education became a priority, and work was begun by dispatching the Japan Overseas Cooperation Volunteers in July 1995, aimed at removing many obstacles lying ahead of the commencement of actual lessons.

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Great expectation for Computer Graphics education

Since personal computers were considered vital equipment, two were supplied by a foundation and



another was supplied using funds from the cooperation allowance. Once personal computers were set up, it was essential to secure an exclusive computer room, complete wiring and install a burglar alarm system. Everything did not proceed smoothly and it took half a year to launch actual lessons.

The school expected much from the lessons. It thought that everything would work well just by pressing a single key. It was necessary therefore for the students to learn indispensable operational methods before pressing that key.

During this preparatory period, however, students showed their interest and keenness to start the new lessons by looking into the computer room and asking when the lessons would start. After completing the instalment of personal computers, computer graphics lessons finally began for 90 students in the eleventh and twelfth grades in the subjects of knitting, visual design and toy making. The extra teaching hours outside lessons were also created.

The basic approach taken by the volunteers to teaching is that lessons should be interesting. It is just like the volunteers to personally organize a comic storytelling circle from their university days and to call themselves the "Experts of Laughter." And now, students with

their eyes sparkling, listen to the explanation of the volunteers, who have learned to speak Bulgarian to some extent.

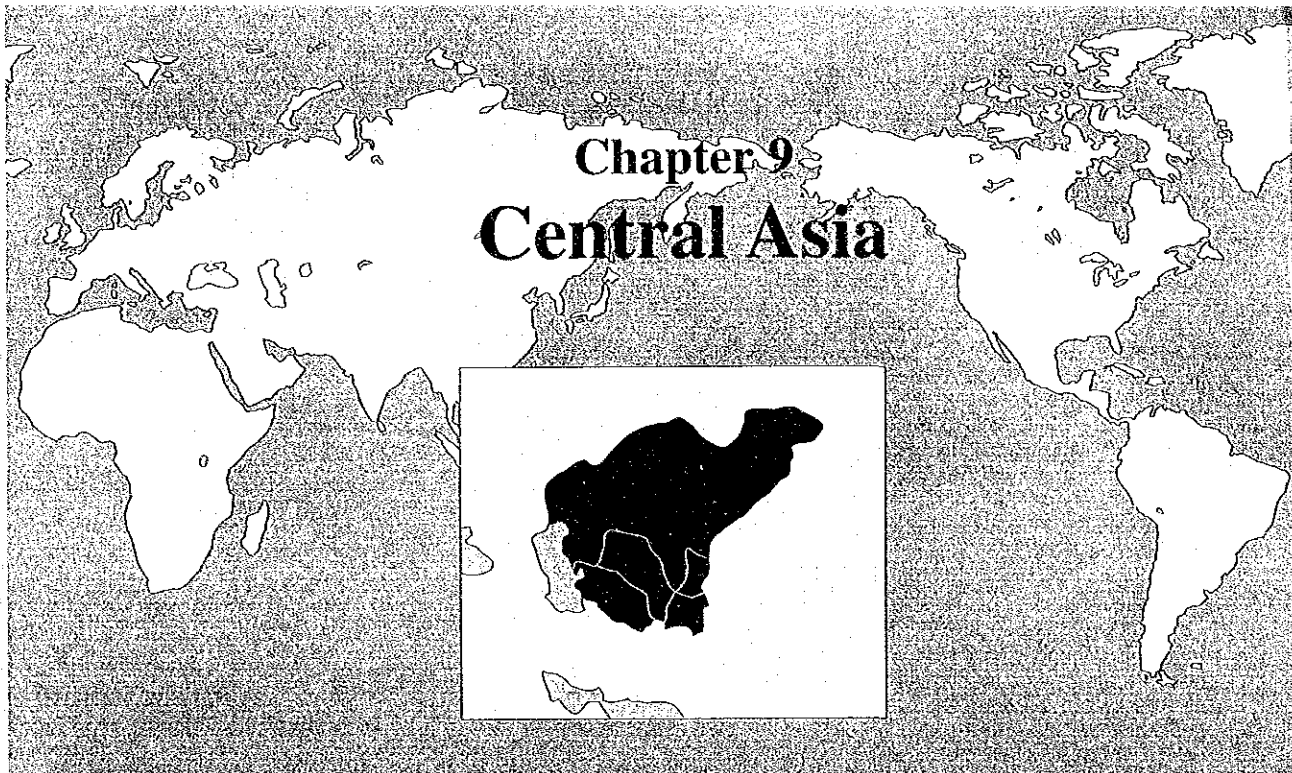
The remaining two lessons of metal molding and sculpture have recently been started. A teacher training course has been set up on Fridays.

Lessons in the computer room, a room big enough for only ten people, have a cheerful atmosphere and are full of chatter. Students respond in a straightforward manner and the busy volunteers get a feeling of a satisfaction from their activities.

(JICA Bulgaria Office)

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Computer graphics education

A Japan Overseas Cooperation Volunteers project. The history of activities in Central and Eastern Europe is short, having begun only in 1992. The results of computer graphics education are significant in that they represent a new field in addition to such conventional activities as Japanese language education and instruction of kendo and judo.



Countries which gained independence after the disintegration of the former Soviet Union

Following the disintegration of the former Soviet Union, the Central Asian countries (Kazakhstan, Uzbekistan, Turkmenistan, Kyrgyz and Tajikistan) gained their independence between August and December 1991.

The total area of these five countries is approximately 4 million square kilometers and they have a total population of approximately 53 million people. Each country is multinational, with a mixture of Russians and Uzbeks along with the native population and a small number of Koreans and Germans. The major religion is Islam (Sunni).

Under the strong leadership of President Nazarbaev, Kazakhstan is promoting policies of democratization and economic reform. Although the former Communist party still has a great influence in the upper legislative chamber, Kazakhstan maintains relative political stability. In Uzbekistan, President Karimov has shown signs of promoting a gradual political and economic reform. In

Turkmenistan, since the majority consists of the conservative wing of the former Communist party under President Nyazov and the opposition forces have not emerged, the country is now politically stable.

Kyrgyz, under the leadership of President Akaev backed up by his supporters, has taken the most active stance towards democratization and economic reform. In Tajikistan, the unstable political situation has continued. In addition, President Nazarbaev in Kazakhstan and President Karimov in Uzbekistan have extended their terms of office until the year 2000 as a result of the referendums.

Turbulence induced by a transition to a market economy

A common problem within the region is the turbulence induced by a transition from a centrally planned economy to a market economy. This has a great influence on the economy of each country and such economic difficulties are expected to continue for a while.

Each country faces such social problems as the presence of Russians and other ethnic minorities, the outflow of Russian talents, those

who operated the governmental system, due to the disintegration of the former Soviet Union, and a rapidly growing population and unemployment rate.

Since it is necessary to simultaneously implement national development and economic reconstruction in order to raise living standards, many difficulties lie ahead of each country.

Kyrgyz has adopted the most positive stance towards the introduction of a market economy. Kazakhstan, Uzbekistan and Turkmenistan are promoting gradual economic reforms, taking the position that they should avoid social upheaval caused by rapid economic reforms. In Tajikistan the economy is stagnant due to the unstable political situation.

Each country has adopted the introduction of a national currency to control inflation caused by the fall of the rouble. The first was the Kyrgyz som in May 1993, followed by the Uzbekistan som, the Turkmenistan manat and the Kazakhstan tenge in November of that year and the Tajikistan rouble in May 1995.

Although the main industry of all the countries is agriculture, Kazakhstan is relatively industrialized. While Kazakhstan, Turkmenistan and Uzbekistan are rich in underground resources such as natural gas and oil, Kyrgyz and Tajikistan are poor in resources and have developed only a few light industries besides agriculture.

Japanese cooperation in Central Asia

In the light of the new international situation after the disintegration of the former Soviet Union, Japan has adopted a policy of active support in the Central Asian region, reflecting the importance of this region in Asia. Accordingly, Japan began cooperation through the acceptance of participants for training and the dispatch of experts in 1991, before the Central Asian countries were added to the developing countries list of DAC.

In addition, Japan worked actively for the Central Asian countries to be added to the developing countries list of the DAC and this was achieved on 1 January 1993.

Japanese bilateral ODA to the Central Asian countries amounts to \$67 million (0.6% of the total). In terms of the form of aid, \$15 million goes for technical cooperation, \$30 million for yen loans and \$22 million for grant aid. The expenditure of JICA programs amounts to ¥1.318 billion, 0.9% of total aid.

Prioritized fields for aid to the Central Asian countries

The prioritized fields of Japan's aid to Central Asia are (1) support for transition to a market economy, (2) countermeasures against environmental problems and (3) reconstruction and provision of social and economic infrastructure.

The Central Asian countries are in a transitive stage from a centrally planned economy to a market economy and none of them has proved capable of establishing a market economy smoothly because of the economic difficulties since independence.

In the field of the environment, one urgent problem is the shrinking and pollution of the Aral Sea, which extends into Uzbekistan and Kazakhstan. The flows of the two international rivers, the Amu Darya and the Syrdarja, which flow into the Aral Sea, have been markedly reduced due to large-scale irrigation for cotton cultivation in the desert. Moreover, the problems with water pollution due to the chemicals used in agricultural development and with the deterioration of the health of local residents have emerged.

Although social and economic infrastructures were provided during the existence of the former Soviet Union, these fields are in urgent need for development because of poor maintenance systems, the exhaustion of facilities and increase in demand.

JICA has extended active aid through acceptance of participants for training, dispatch of experts and development studies. The "Special Central Asia Courses," which cover the support for a transition to a market economy and the preservation of the environment, were set up for four years from 1993 to 1996 and there were 116 participants in

1995, a total of 303 during 1993 and 1995, from the five countries.

Since 1993, experts on aid for the transition to a market economy and mining have been dispatched to Kyrgyz and Kazakhstan and the development studies have been implemented in the sectors of transport, communication and broadcasting, the environment, mining and manufacturing and agriculture in Kazakhstan, Kyrgyz and Uzbekistan.

Since 1994 in Kyrgyz and Uzbekistan there have been basic design studies and expeditions for the execution of grant aid for the provision of equipment and materials for children's hospitals, health and medical care.

Project formulation studies and basic studies were also carried out in the fields of mining and manufacturing and mineral resources development in 1994 and a project confirmation study team was dispatched to Kyrgyz and Turkmenistan in 1995 to proceed with policy dialogue. At the same time, a project formulation study team in the field of transport was dispatched to Uzbekistan in 1995.

Although all the Central Asian countries face similar problems such as lack of infrastructure and deterioration of the environment, there are discrepancies among the countries in their political and economic situations and in the extent to which a market economy has been introduced. Therefore, it is considered necessary that the aim of future cooperation in the Central Asian region should be to carry out precisely appropriate cooperation according to the situation in each country, referring to the results of the studies conducted.

Part 3
Approaches to programs

Chapter 1

Identification, Formulation and Planning

Project identification and formulation

Towards more effective implementation of cooperation

In order to give substance to the structure and contents of various cooperation implemented by JICA, and to enhance the effects of technical cooperation, it is not sufficient merely to allocate personnel and budgets to the projects themselves. Like any project aiming at making a profit, it is extremely important to consider the following points:

- (1) Planning = to decide what is implemented in what way
- (2) Evaluation = to analyze the cause for successful and unsuccessful results of implementation

JICA's development projects have been managed and administered in order of planning, implementation and evaluation.

Therefore, in Part 3, JICA's projects will be introduced in the following three categories.

- (1) Identification, Formulation and Planning
- (2) Implementation of programs
- (3) Evaluation and follow-up

Since the point of development studies is to adopt a basic plan for development projects in developing countries and to examine their feasibility, the planning stage of a development project is considered part of category (1).

Identification and formulation as the starting point for cooperation

The basic requirement of all JICA's projects is that the recipient countries request aid.

However, several developing countries have not yet reached a stage where they can grasp clearly what kinds of projects should be implemented for national development. In addition, even though they have the ability to understand their domestic needs and formulate projects, some countries do not yet have the machinery in place to receive aid from abroad.

JICA has been carrying out studies to formulate cooperation projects by analyzing the current situations in the recipient countries and looking at development issues as well as the right course of action to be taken. This process is called the identification and formulation of projects.

As the starting point of cooperation, these projects are considered as important in the successful implementation of subsequent cooperation projects as the evaluation of the results. (More on evaluation, see Chapter 3: Evaluation and Follow-up).

JICA allocated funds for aid efficiency promotion as a new budgetary item in 1988, targeting studies and research for the precise identification and formulation of projects. Within these projects, the following items are addressed:

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

Studies for the identification and formulation of worthwhile projects

Project formulation studies

In some cases requests from developing countries are insufficiently detailed or developing countries find it difficult to make requests due to their own circumstances despite the urgency of aid. In such cases, it is necessary to carry out field studies in the relevant sectors and to consult with the governments of the recipient countries about the validity of cooperation and the capability and systems of the administrative organizations responsible for implementation. The impact of the results of cooperation on the economic and social development of the recipient countries must also be considered before the most favorable cooperation plan can be adopted.

Project formulation studies are designed to identify and formulate these kinds of projects and they are implemented by either study teams from Japan or JICA overseas offices.

In 1995, 44 studies on the formulation of projects were implemented in 37 developing countries/regions and one advanced country in the following geographical areas:

- (1) Asia: 21 (48%)
- (2) Near and Middle East: 2 (5%)
- (3) Africa: 10 (23%)
- (4) Oceania: 1 (2%)
- (5) Latin America: 5 (11%)
- (6) Central and Eastern Europe: 3 (7%)
- (7) Central Asia: 1 (2%)
- (8) Advanced country: 1 (2%)

In 1995, studies on population and HIV/AIDS were implemented in cooperation with the United States in 6 countries, including India, and many other studies aimed at dealing with disease and environmental issues on a global scale were also implemented. Good examples of these are studies on anti-pollution measures for the Donau and measures to improve the use of domestic fuel while conserving forests in Zimbabwe.

Project confirmation studies

These studies take the following forms:

- (1) Policy dialog on Japanese aid policies

and the development plan of the recipient country, and the collection and discussion of the information necessary to adopt projects which conform to Japanese aid policies and schemes.

- (2) Arrangement of projects requested (to confirm their priority and content), understanding the circumstances and problems which may arise during implementation, discussion of problem-solving measures, explanation of aid schemes, and notification of the requests of the recipient countries regarding the execution of aid.

The aim is to give a direction to future cooperation and implement projects effectively and efficiently. In 1995, the following 22 study teams were dispatched to 27 developing countries to confirm and discuss the course of cooperation in requested projects:

- (1) Asia/Oceania: 11 (50%)
- (2) Near and Middle East: 2 (9%)
- (3) Africa: 3 (13%)
- (4) Latin America: 4 (18%)
- (5) Europe: 1 (5%)
- (6) Central Asia: 1 (5%)

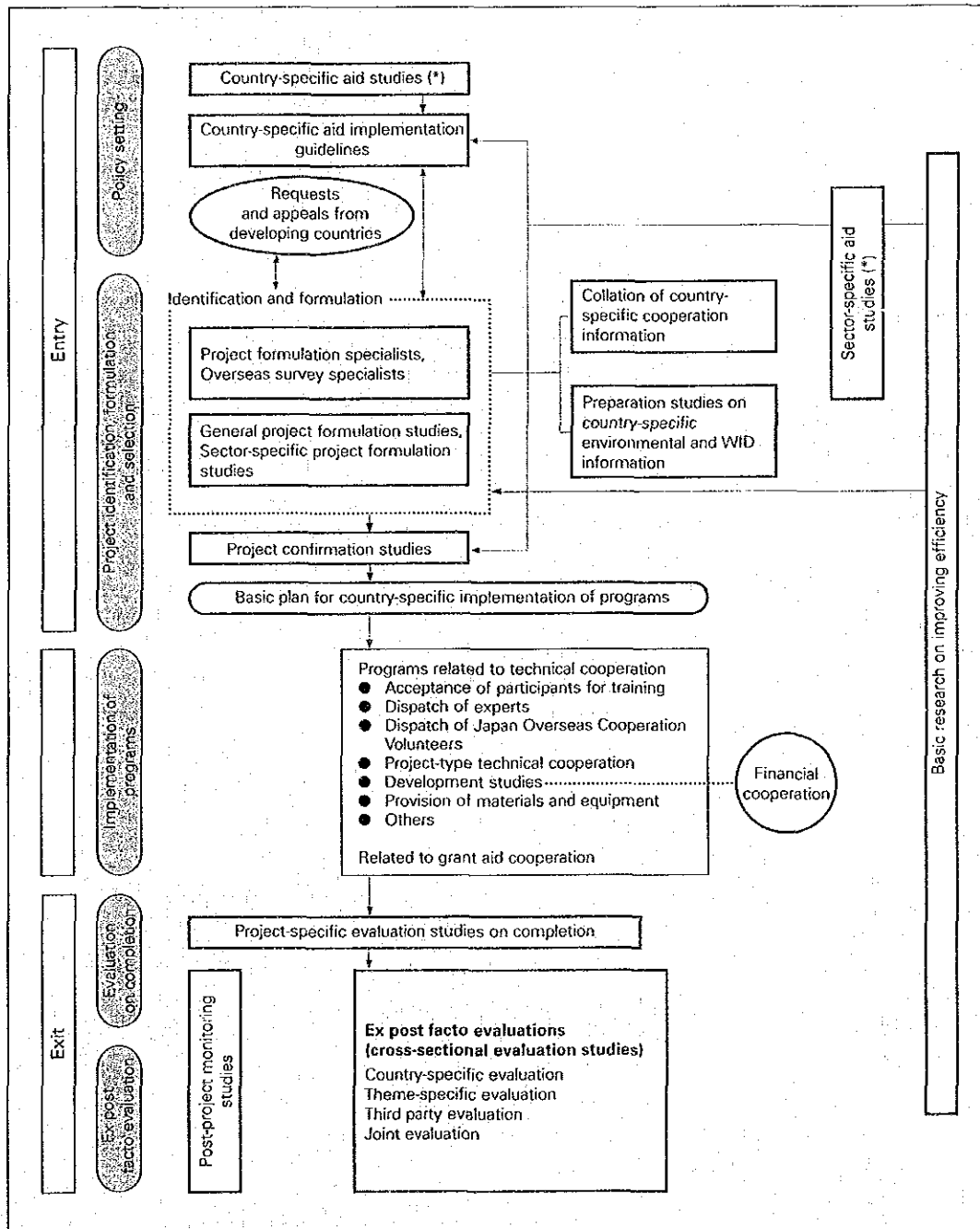
Dispatch of project formulation specialists

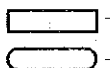
It is necessary to study which areas and forms of cooperation are the most appropriate for a developing country and to formulate projects which conform to Japan's cooperation mechanisms in order to implement effective cooperation for the development of the country. It is also necessary to plan and promote the formulation of potential cooperation projects by taking into account the compatibility of projects with the recipient countries' development plans and any connection to other aid programs.

In order to meet these needs, experts (project formulation specialists) familiar with prioritized areas of development in developing countries are dispatched to identify and formulate worthwhile projects and to coordinate and arrange requested projects.

In 1995, 40 project planning specialists were dispatched to formulate projects in their fields of specialization to 32 countries and 4 regions

Figure 1-1 The relationship between identification, formulation, implementation and evaluation of cooperation projects



 Administration by the Planning Department and Project Formulation Study Department

(*) The Institute for International Cooperation is responsible for implementation.

including the Philippines, Vietnam, India, Bolivia, Syria and Kenya.

Overseas survey specialists

On the grounds of strengthening the collection of relevant information for requested projects in JICA's overseas offices, it is necessary to gather technical and related information on the number of technical experts in those organizations targeted for cooperation. Their level of expertise, their financial capacity and the conditions of provision of relevant infrastructure at the project site are all taken into account. To this end, overseas survey specialists (technical specialists with a thorough knowledge of the local conditions in recipient countries) have been employed and they have been gathering and analyzing technical information mainly from field studies, acting as technical staff in the overseas offices.

In 1995, 39 overseas survey specialists were posted in 24 countries and 4 regions.

Studies to Implement Effective and Efficient Aid Projects

Country-specific and sector-specific aid study

This study, mainly led by the Institute for International Cooperation (see Chapter 2: The Recruitment and Training of Technical Cooperation Experts), involves studies on the areas, problems and regions to be prioritized when discussing major recipient countries and specific aid issues, with the participation of a wide range of experts in Japan.

In 1995, country-specific studies were implemented in Thailand (Phase II), Pakistan (Phase II) and Jordan, and "Regional Development and the Role of the Government" was conducted as a sector-specific study.

Basic Research to Improve Project Efficiency

These studies are to conduct basic research into common issues within JICA's various projects with the aim of making projects more efficient.

In 1995, several studies were conducted such as research into effective feedback from the evaluation results of projects, a basic study of the examination method of PCM-methods in project-type technical cooperation projects, a basic study of educational aid and a study of the consideration of WID in project-type technical cooperation.

Collection and Collation of Information on Developing Countries

Country-specific environmental/WID information collation studies

In order to increase environmental considerations in implementing all JICA's programs, these studies involve the analysis of current situations faced by both the organizations and governmental agencies responsible for environmental issues in recipient countries, and of overall current environmental issues. They also involve the collection and collation of information on the current status and systems of WID in developing countries.

In 1995, a total of 3 studies were implemented in the field of the environment in Turkey and Syria and in the field of WID in Vietnam and Cambodia.

Collation of country-specific aid information

In order to facilitate cooperation precisely tailored to the development needs of the recipient countries and to enhance JICA's overall activities, it is crucial to collate and analyze basic social and economic information, technical information and also information on the activities of other aid organizations in developing countries. It is also crucial to systemize and compile records on Japan's aid and the experiences and information of past implementation of aid, for which information on country specific cooperation has been provided.

In 1995, country specific cooperation

information on 107 countries was updated, for which files have been prepared up until the previous year and the 4 countries of Azerbaijan, Armenia, Georgia and Jamaica were added to make a total of 111.

Development Studies

The purpose of Development Studies

Description and aims

The purpose of development studies is to provide support for public development plans (for sectors such as urban planning, waterworks, telecommunications and energy. See Table 1-1), which are the basis for building the nation in developing countries, and provide basic data necessary for development plans.

Although development studies are implemented based on a Scope of Work (S/W)* agreed between JICA and the governments of developing countries, consultants selected by JICA actually undertake the studies.

The consultants prepare reports in cooperation with the governments of developing countries under the instruction and supervision of JICA. In the course of the implementation of their studies, they carry out technology transfer to the counterparts in recipient countries in the form of planning methods, studies and analytic techniques.

The reports prepared as a result of development studies provide the governments of recipient countries with the data for their policy decisions on social and economic development, and international organizations

and aid-giving countries also utilize the data when examining financial and technical cooperation. In most cases, the plans incorporated in the reports are linked with the realization of financial plans such as Japanese yen loans and grant aid.

In 1995, 306 development studies were implemented, and 144 were in the field of social development, 60 in agriculture, forestry and fisheries and 102 in mining and industry.

In terms of region, 156 were in Asia, 38 in the Near and Middle East, 37 in Africa, 44 in Latin America, 5 in Oceania and 26 in Europe.

Types of studies

1. Master Plan Studies (M/P)

Master Plan Studies are conducted to create comprehensive basic plans for various types of development and involve the preparation of long-term plans at the national or regional level or for specific sectors. The adoption of master plans makes possible:

- (1) Compatibility among numerous plans.
- (2) Clarification of the priority of the plans and their effective implementation

Master plans include studies of the overall economy of recipient countries, namely, adoption of economic development plans and comprehensive development strategies and development plans in specific regions.

Large-scale environmental studies

- Engagement in environmental issues from a comprehensive point of view -

Development studies aim to research and analyze comprehensively the various environmental problems in order to adopt the basic environmental improvement plans and the broad environmental improvement plans, which are well balanced within the whole of environmental concerns.

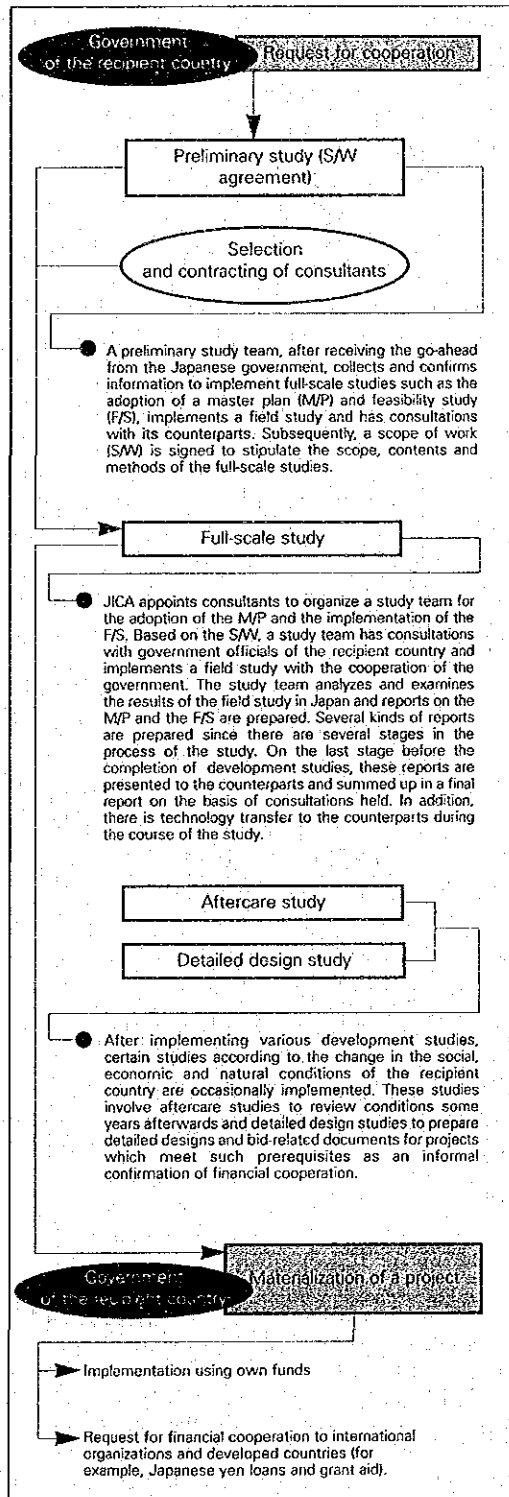
Let's look at the case of

Bangkok, the capital of Thailand, where the deterioration of the environment has been getting serious due to rapid economic growth and concentrated population. JICA has been studying the current situations from various aspects such as air, water quality, residential conditions, noise and waste, and analyzing the causes of

the environmental pollution by using simulation. Subsequently the studies have been implemented to adopt a master plan for the comprehensive improvement of the urban environment including roads, transportation, land use and the provision of the public facilities.

* Scope of Work: Regulations for implementation. A written agreement signed by the JICA preliminary study team and the recipient country, outlining the scope and contents of the full development study and granting special exemptions, etc. to study team members.

Figure 1-2
Sequence of development studies



2. Feasibility Studies (F/S)

The studies are conducted to objectively consider whether each project given priority in development policy and planning is feasible from the technological, economical, financial, social, organizational/systematic, and environmental points of view, and to adopt optimal project plans for implementation.

3. Collation of basic data

The following studies are conducted in order to collate, collect and supply the information necessary to adopt development studies:

(1) Preparation of topographical maps

Studies to prepare topographical maps (basic maps of the national lands and the cities), which are the most fundamental elements in the adoption of development plans.

(2) Development of underground water

Studies on the development potential of underground water reserves.

(3) Development of forestry and fishery resources

Studies to prepare basic data on forestry and fishery resources.

(4) Development of mineral resources

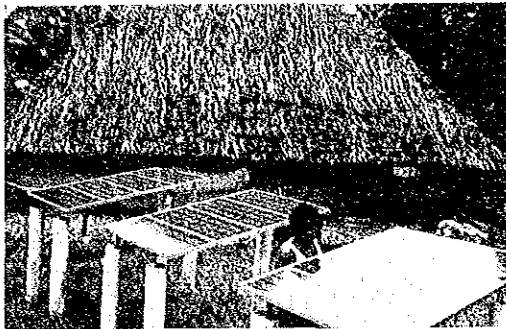
Studies on mineral resources via geological surveys, physical and geo-scientific studies and boring.

(5) Demonstrative studies

Studies demonstrating technological possibilities used for projects which require long-term new technological development, with data on actual results being unavailable.

4. Supplementary studies and Aftercare Studies

In some cases, after completing development studies, a review is required due to either rapid changes in social and economic conditions and in the natural conditions in developing countries, or changes in conditions after the implementation of the studies. In such cases, Aftercare Studies are conducted based on the changes in these conditions to facilitate the effective utilization of study results and the realization of plans through a review of study results or supplementary work.



An experiment of solar power generation utilizing the natural conditions. Electricity supply project in Killibas.

5. Detailed Design Studies

Detailed Design Studies (D/D)* are implemented as part of development studies to prepare the design drawings necessary to launch construction work, work specifications and bid documents for projects (excluding construction and supervision), for which financial cooperation such as yen loans have been arranged and their implementation authorized.

The precision of detailed design studies is greater than that of feasibility studies. Design drawings and calculation of work costs necessary for construction work and project commencement are included in detailed design studies.

6. Studies to support transition to a market economy

The aim of these studies is to create basic strategies and comprehensive implemen-

tation plans to promote transfer to a market economy and policies of economic liberalization, such as monetary and financial reforms, provision of a legal system and the privatization of state and public enterprises. They also aim to improve the administrative capabilities of the authorities in recipient countries and train personnel by holding workshops and seminars.

In addition, the studies look at the feasibility of privatization plans adopted as a result of primary studies, set out practical and realistic implementation plans and prepare manuals and texts for these.

7. Studies for improving project efficiency

There are three types of studies for improving project efficiency:

- (1) Follow-up studies reviewing the subsequent progress of the projects that have been studied and reflecting the results in future development studies with a view to making their implementation more effective and efficient.
- (2) Studies to promote technology transfer through seminars and the preparation of texts in the local language.
- (3) Project research aimed at facilitating the implementation of more effective development studies by collecting and analyzing information from relevant organizations on development plans and

Rural energy development

- For well-balanced regional development -

The most sought after development in LLDCs is electricity supply utilizing renewable energy as the common key to securing living standards, the creation of employment, alleviation of poverty, economical use of natural resources and environmental conservation.

Renewable energy is a general term used to describe limitless natural energy such as water, solar

and wind power and geothermal energy, as distinguished from limited natural energy such as oil.

It does not pay to transmit electricity from a large-scale electric power plant to areas without electricity using diesel generated power. However, there are many possibilities of obtaining electricity, which is cheap, pollution-free and easy to maintain and man-

age, by utilizing water power from brooks and rivers near the villages, and solar power.

In line with large-scale energy development for industrial development, it becomes more important to address the development of small-scale renewable energy and implement development studies to promote well-balanced regional development.

* Detailed Design Studies (D/D): studies to prepare the design drawings for construction work and the specifications of projects under grant aid cooperation, for which implementation has been authorized.

basic study methods in developing countries.

Issues and solutions in development studies

Responses to increasingly complicated and diversified needs

In recent years, the needs of development studies in developing countries have become increasingly complicated and diversified. In order to meet these needs, besides conventional areas focusing mainly on the provision of infrastructure, JICA has been actively involved in the studies of management-related fields such as policy advice, the establishment of organizations/systems and support for a transition to a market economy, on global issues such as poverty, the environment and WID.

Environmental issues are still a serious problem. Development studies have attempted to incorporate measures to counteract, alleviate or avoid those practices which are potentially

harmful to the environment. They also incorporate measures for improving conservation of the environment. Environmental experts are attached to those projects where environmental issues are key.

The aim has also been to adopt a more sustainable approach to development by focusing on humanitarian social aspects such as WID.

In Asian countries, which have shown rapid growth, one of the implementation methods for projects involves the introduction of private capital via such systems as BOT*, which do not impose cost burdens on the government.

Although it is necessary to examine cautiously the private sector initiative* since it involves a potentially high risk, future development studies are expected to provide an environment in which the basis for the utilization of private sectors can be founded.

A wider area for aid

With the changes in the international community after the end of the Cold War, the number of countries receiving aid has grown to include the former socialist countries of

Field	Main contents
Planning and administration	Regional development plans, economic development plans
Public works	Water supply and sewerage, urban sanitation
Social infrastructure	Urban planning, rivers, erosion control, water resources, housing, cartography
Transport	Transport planning, roads, railways, ports, airports, urban transport
Communications and broadcasting	Post, electrical communications, television and radio broadcasting
Health care and medicine	Administration for health care, medicine and sanitation, population and family planning
Agriculture	Agricultural and farming village development, irrigation and drainage, agricultural product processing and distribution, livestock raising
Forestry	Resource studies, social forestry, forestry management plans, forest product processing
Fisheries	Resource studies, seafood product processing and distribution, fishing village development, aqua-farming, fishing ports
Mining and industry	Resource studies, industrial promotion, factory modernization
Energy	Energy development
Environment	Countermeasures against air and water pollution, environmental preservation
Others	Human resources development, education, commerce and tourism, management etc.

Table 1-1 Fields of development studies

* BOT: Build, Operate and Transfer: A method of providing infrastructure by private sector initiative in developing countries. Private enterprises operate building plants on their own initiative and hand them over to the governments of developing countries after collecting their capital.
* Private Sector Initiative: As an investment project, private enterprises in advanced countries undertake the improvement of economic infrastructure which has initially been provided by official capital from the governments of developing countries or ODA.

Eastern Europe and Central Asia, as well as Mongolia and Indochina. Development studies to support reconstruction after civil war have been implemented in Indochinese countries. In addition, studies have commenced into support for Palestine as part of the promotion of the Middle East peace process, as well as support for the black population in the Republic of South Africa.

Cooperation with international organizations

In order to respond to more detailed requests, JICA has been endeavoring to strengthen cooperation with international financial organizations such as the World Bank, regional financial organizations such as the Asian Development Bank, bilateral aid organizations and NGOs.



"Study of the Environmental Improvement Program of the Upper and Middle Stream of the Tuy River Basin". Aiming to purify water contaminated by industrial and human waste.

Development Studies

Total No	NO	Area/Country	Project
		ASIA	
1	1	Bangladesh	The Study on Industrial Development of Chittagong Region
2	2		The Geodetic Survey Study
3	1	Bhutan	The Study on Groundwater Development in Wangduephodrang District
4	1	Cambodia	The Study on Telecommunication Network for Phnom Penh City
5	2		The Study on Construction of Mekong Bridge
6	3		The Reconnaissance Survey Project for the Establishment of an Emergency Rehabilitation and Reconstruction
7	4		The Study on Drainage and Sewerage System in Phnom Penh
8	5		The Master Plan and Feasibility Study on the Shihanouk Ville Port
9	6		The Agricultural Development Study of the Mekong Flooded Area
10	1	China	The Integrated Air Quality Management Study for the City of Liuzhou and the Monitoring of Acid Precipitation in the Four Cities
11	2		The Study on Comprehensive Transportation System in Dalian City
12	3		The Study on Basic Planning for Shanghai Pu-dong International Airport
13	4		The Study on the Hydraulic Model Test for Baishi Dam in Liaoning Province
14	5		The Study for Factory Modernization (Suzhou Testing Instruments)
15	6		The Study for the Factory Modernization (Suzhou Textile Accessories)
16	7		The Study for the Factory Modernization (Changshu Carburettor)
17	8		The Study for the Factory Modernization (Yangzhou Cylinder Liner)
18	9		The Study for the Factory Modernization (Wuxi Radio Component Factory NO.2)
19	10		The Study for the Factory Modernization (Wuxi Pump Works)
20	11		The Study on Waste Water Treatment Project in Dexing Copper Mine
21	12		The Study on Utilization of Coal in Ningxia
22	13		Mineral Resource Exploration in the Yangzreditai Area
23	14		The Study on Entrophication Control of Tai Lake
24	15		The Master Plan Study on the Integrated Management of the Water Environment of Li-Jiang River
25	16		The Study on Pumped Storage Hydroelectric Power Development in Koseki Dam
26	17		The Study on Development of Water Resource, Shenfu-Dongsheng
27	18		The Study for the Factory Modernization (Anqing Piston Ring)

Development Studies

Total No	NO	Area/Country	Project
		ASIA	
28	19		The Study for the Factory Modernization (Shandong Tractor Works)
29	20		The Study for the Factory Modernization (Dalian Fuel Injection Equipment)
30	21		The Study for the Factory Modernization (Wujin Electric Machine Works)
31	22		The Study for the Factory Modernization (Henan Textile Machinery)
32	23		The Study for the Factory Modernization (Qian'an Flax Textile)
33	24		The Study for the Factory Modernization (Suzhou Medical Instruments)
34	25		The Study for the Factory Modernization (Ezhou Galvanized Nee)
35	26		The Study for the Factory Modernization (Jiangsu Wuxi Steel Group)
36	27		The Detailed Design Study on Waste Water Treatment Project in Dexing Copper Mine
37	28		The Study on the Integrated Management Plan for the Water Environment of Min River in Chengdu District
38	29		The Jilin Province Integrated Regional Development Plan
39	30		The Detailed Design Study on Shanghai Pu-dong International Airport
40	31		The Study on Shanghai Pu-dong International Airport
41	1	India	The Study on the Industrial Model Town
42	2		The Master Plan Study on Pumped Storage Hydroelectric Power Development in Maharashtra State
43	1	Indonesia	The Study on the Master Plan of Container Cargo Handling Ports & Dry Ports and its Connecting Railway
44	2		The Study on Kampar-Indragiri River Basin Development Project
45	3		The Master Plan and Feasibility Study on Waste Water and Solid Waste Management for the City of Ujung Pandang
46	4		The Study on Integrated Air Quality Management for the Jakarta Metropolitan Area
47	5		The Study on Engineering Manpower Development Planning
48	6		The Detailed Design Study on Medan Flood Control Project
49	7		The Revise of the Jakarta Water Supply Development Project
50	8		The Study on Economic Model for Planning Exercises ; Long Term Programming Model
51	9		The Study on Comprehensive River Water Management Plan in Jabotabek
52	10		The Study on the Gilirang Irrigation Project
53	11		The Study on Land Rehabilitation of Semi-Arid Zone in East Nusa Tenggara
54	12		The Study on the Embung Development Project (Small Scale Impounding Pond Development Project) in East Nusa Tenggara and West Nusa Tenggara
55	13		The Study for the Upper Cisokan Pumped Storage Hydroelectric Power Development Project

Development Studies

Total No	NO	Area/Country	Project
		ASIA	
56	14		The Study on the Warsamson Hydroelectric Power Development Project
57	15		The Master Plan Study on Electric Power Development
58	16		The Feasibility Study on Ujung Pandang Coal Fired Steam Power Plant Development Project
59	17		The Study on Master Plan of the Industrial Standardization and the Promotion of Quality Control
60	18		The Study on the Development of Poko Hydroelectric Power
61	19		Mineral Exploration in the Tasikmalaya Area
62	20		The Study on Industrial Sector Development - Supporting Industries
63	21		The Study on Arterial Road System Development in Surabaya Metropolitan Area
64	22		The Study on the Integrated Development Project for Rural Cooperatives
65	23		The Study for Social Forestry and Agro-Forestry Development Project in the Upper Musi Watershed
66	24		The Study on Development of the Raw Material of the Ceramic Industry
67	25		The Study on Human Resources and Technology Development Plan for Coal Mining
68	26		The Study on Urban Gas Development
69	27		The Study on the Third Umbrella Cooperation for Integrated Agricultural and Rural Development
70	28		The Comprehensive Development Plan for the Western Part of Kalimantan
71	29		The Study for Urban Drainage Project in the city of Jakarta
72	30		The Study on Flood Control for Ambon City
73	1	Laos	The Topographic Mapping of Bolikhamxai Province
74	2		The Study on Groundwater Development for Champasak and Saravan Provinces
75	3		The Study on Construction of Mekong Bridge at Pakse
76	4		The Study on the Integrated Agricultural Rural Development Project in Boloven Plateau
77	5		The Master Plan Study on Hydro Electric Power Development in the Se Kong Basin
78	6		The Study on Watershed Management Plan for Forest Conservation in Vangvieng District

Development Studies

Total No	NO	Area/Country	Project
		ASIA	
79	1	Malaysia	The Study on Introduction of Land Readjustment to Malaysia
80	2		The Study on Standardization of the Bridge Design
81	3		The Study on Kuala Lumpur Outer Ring Road
82	4		The Study on Comprehensive Management Plan of the Muda River Basin
83	5		The Study on Management and Planning of Techno Centre for KULIM I.P
84	6		The Study on Industrial Sector Development - Supporting Industries
85	7		Mineral Exploration in the Central Saba Area
86	8		The Study on Forestry Development Plan in Northern Sabah
87	1	Mongolia	The Topographic Mapping of Ulaan Tsav Area
88	2		The Study on Water Supply System in Ulaanbaatar and Surroundings
89	3		The Forest Resources Management Study in Selenge Aimak
90	4		The Master Plan Study on the Integrated Agricultural and Rural Development in Central Region
91	5		The Study on a Comprehensive Coal Development and Utilization Plan
92	6		Mineral Exploration in the Altan Tal Area
93	7		The Study for the Development in Tsau Area
94	8		The Follow-up Study for Mineral Exploration in Uudam - tal Area
95	9		The Study on the Rehabilitation Project of the Mongolian Railway
96	10		The Study on Strengthening of Agricultural Cooperatives
97	11		The Master Plan and Feasibility Study on Telecommunications Network in Ulaanbaatar City
98	1	Nepal	The Study on Integrated Watershed Management in the Western Hills
99	2		The Study on the Disaster Prevention Plan in Severe Affected Districts in the Middle and South Area
100	3		The Master Plan Study on the Rehabilitation for Government Developed Irrigation Schemes in the Kathmandu Basin
101	4		The Master Plan Study on the Terai Groundwater Resources Evaluation and Development Project

Development Studies

Total No	NO	Area/Country	Project
		ASIA	
102	1	Pakistan	The Study on the Lining of Distributaries and Minors in Punjab
103	2		The Irrigation Water Resources Development with Delayed-Action Dams Project in Balochistan
104	1	Philippines	The Master Plan Study on West Central Luzon Development Program
105	2		The Study on Flood and Mudflow Control for Sacobia Bamban/Abacan River Draining from Mt. Pinatubo
106	3		The Cavite Water Supply Development Study
107	4		The Study on Pan-Philippine Highway Rehabilitation Project (Mindanao Section)
108	5		The Preparation of Provincial Water Supply, Sewerage and Sanitation Sector Plan
109	6		The Study on the Water Supply and Sewerage Master Plan of Metro Manira
110	7		The Study on Environmentally Sustainable Tourism Development Plan for Northern Palawan
111	8		The Study on the Western Legazpi Irrigation and Rural Development Project
112	9		The Conceptual Approach to the Development of Exploration Strategies for Gold, Precious and Base Metal Mineralization in the Island of Catanduanes
113	10		The Detailed Design Study on Pan-Philippine Highway Improvement Project (Mindanao Section)
114	11		The Study on Selected Airports Master Planning Project
115	12		The Study on Metro Manila Urban Transport Integration
116	13		The Study on Sabo and Flood Control in the Laoag River Basin
117	14		The Study on Development of Agrarian Reform Communities in Marginal Areas
118	15		The Study on the Transfer of Facilities and Management of the 69KV Transmission Lines and Systems from the National Power Corporation (NPC) to Private
119	16		The Study on Upland Irrigation and Rural Development Project in Southern Luzon
120	17		The Study on Malaya Power Plant Reliability Improvement Project
121	1	Sri Lanka	The Master Plan on the Development of the New Port of Colombo
122	2		The Master Plan Study on Bridge Development
123	3		The Study on Telecommunication Networks
124	4		The Southern Area Development Plan Study
125	5		The Study on the Rehabilitation of Irrigation and Drainage Systems in the River Basins of Southern Sri Lanka
126	6		The Master Plan Study for Development of the Transmission System of the Ceylon Electricity Board
127	7		The Study (After-Care) on Industrial Sector Development (Electroplating and Waste Water Treatment)

Development Studies

Total No	NO	Area/Country	Project
		ASIA	
		Thailand	
128	1		The Study on Improvement Plan for Railway Transport In and Around Bangkok Metropolis in Consideration of Urban Development
129	2		The Study on Road Disaster Prevention Plan
130	3		The Study on Urban Environmental Improvement Program in Bangkok
131	4		The Study on the Agricultural Land Rehabilitation and Conservation Project in Surat Thani and Nakhon Si Thammarat Provinces
132	5		The Master Plan Study on the Integrated Agriculture and Water Resources Development Project of Huai Mon Nam Suai and Huai Luang River Basin
133	6		The Study on Power Distribution System Improvement and Expansion Plan in the Metropolitan Area
134	7		Mineral Exploration in Chiang Khong/Doi Chong/Ratchaburi Area
135	8		The Study on Coal Exploration and Assessment
136	9		The Study on Bang Saphan Industrial Complex
137	10		The Study on Fishery Complex on Andaman Sea Coast
138	11		The Western Seaboard Regional Development Master Plan Study
139	12		The Study on the Kok-In-Nan Water Diversion Project
140	13		The Detailed Engineering Design of Lampang-Chiang Mai Motorway Project
141	1	Viet Nam	The Study on the Rehabilitation and Improvement of the Railway
142	2		The Master Plan Study on Dong Nai and Surrounding Basins Water Resources Development
143	3		The Study on New Development Plan of Hanoi International Airport
144	4		The Study on Water Supply Development for Hanoi City
145	5		The Study on the Highway No.18 Improvement
146	6		The Master Plan Study on Coastal Shipping Rehabilitation and Development Project
147	7		The Study on Urban Transportation for Hanoi City
148	8		The Marine Resources Survey
149	9		The Master Plan Study on Electric Power Development
150	10		The Study on Rehabilitation of Da Nhim Power System
151	11		The Study on Master Plan of Industrial Development in the Hanoi Area
152	12		Mineral Exploration in Vanven and Western Thanh Hoa Area
153	13		The Study on the Economic Development Policy in terms of Transition toward Market Oriented Economy
154	14		The Study on the Integrated Regional Socio-Economic Development Master Plan for the Key Area of the Central Region

Development Studies

Total No	NO	Area/Country	Project
155	15	ASIA	The Model Rural Development in Nam Dan District Nghe An Province
156	1		The Four Nation Joint Re-Survey of Critical Areas and Investigation of Dangerous/Unconfirmed Shoals and Wrecks in the Straits of Malacca and Singapore

Development Studies

Total No	NO	Area/Country	Project
		MIDDLE EAST	
	157	Egypt	The Study on a Bridge over the Northern Part of the Suez Canal
	158		The Master Plan Study for the Egypt National Railways
	159		The Study on Farmland Environmental Improvement Project in the Omoum Area
	160		The Study on South Sinai Groundwater Resources (II)
	161		The North Sinai Integrated Rural Development Project (Phase II)
	162		The Study on Viability of a Project to Produce Steel Flats
	163		The Port Sector Study
	164	Iran	The Study on the Integrated Master Plan for Air Pollution Control in the Greater Tehran Area
	165		The Analysis of Energy Conservation and Rational Use of Energy in the Social and Economic Sectors
	166		The Study on Brackish Groundwater Desalination
	167	Jordan	The Study on the Improvement Plan of the Port of Aqaba
	168		The Study on the Tourism Development Plan
	169		The Study on Industrial Development in the Southern Districts
	170		The Study on the Improvement of Water Supply System for the Zarqa District
	171		The Study on Electric Power Loss Reduction of Transmission and Distribution Networks
	172		The Study on Rural Water Supply in the Pre-rif Region
	173	Morocco	The Study on the National Guideline for Solid Waste Management
	174		The Master Plan Study on Decentralized Rural Electrification of Haouz Region
	175		The Agriculture Development Project in Nejd Region
	176	Oman	Mineral Exploration in the Central Batinah Coast
	177		The Detailed Design Study on Road Development Project
	178		The Study on Establishment of Industrial Research Center

Development Studies

Total No	NO	Area/Country	Project
		MIDDLE EAST	
179	1	Syria	The Study on Ports Development Plan
180	2		The Study on National Telecommunications Network Expansion Plan
181	3		The Study on the Improvement and Extension of Water Distribution System for Damascus City
182	4		The Master Plan Study on Rehabilitation and Man Power Training
183	5		The Study on the Cement Plant Development
184	6		The Study on Introduction of Integrated Photovoltaic Systems
185	7		The Master Plan Study on Water Resources Development in the Northwestern and Central Basins
186	1	Tunisia	The Study on the Irrigated Area Improvement in Oasis in the South
187	1	Turkey	The Study on the Maintenance and Rehabilitation of Highway Bridges
188	2		The Study for Kucuk Menderes River Basin Irrigation Project
189	3		The Study on Rational Use of Energy
190	4		The Master Plan Study for the Ports Development at the Sea of Marmara
191	5		Mineral Exploration in the Espiye Area
192	6		The Study for the Coruh-Berta River Hydroelectric Power Development Project
193	1	United Arab Emirates	The Master Plan Study on Groundwater Resources for Agricultural Development Around Al Dhaid City
194	1	Palestine	The Study on Sewerage Development Plan in the Municipality of Khan Yunis

Development Studies

Total No	NO	Area/Country	Project
		AFRICA	
195	1	Côte d'Ivoire	The Master Plan Study for the Integrated Rural Development Project in the N'zi River Middle Basin
196	1	Central Africa	The Study on Groundwater Development in Bangui City
197	1	Ethiopia	The Study on Eleven Centers Water Supply and Sanitation
198	2		The Study on Becho Plain Agricultural Development Project
199	3		The Study on Forest Resources in the South Western Part
200	1	Ghana	The Topographic Mapping of Southern Part of Ghana
201	2		The Study for the Rehabilitation of Irrigation Projects
202	1	Kenya	The Road Network Development Master Plan Study
203	2		The National Tourism Master Plan Study
204	3		The Mutonga Grand Falls Hydropower Project
205	4		The Study on the Water Supply for Seven Towns in Eastern Province
206	1	Madagascar	The Groundwater Development Study in the South-Western Region
207	1	Mali	The Study on Agricultural Development Project for the Nara Basin
208	1	Malawi	The Master Plan Study on Sustainable Multiple-use Resources Management of the Nkhotakota Wildlife Reserve
209	1	Mauritania	The Study on Irrigation and Agricultural Development Project in Upper Delta of the Senegal River Basin
210	1	Mauritius	The Study on Long-Term National Energy Plan
211	1	Namibia	Mineral Exploration in the Otavi Mountainland Area
212	1	Niger	The Topographic Mapping of the South-Western Region
213	2		The Follow-up Study for Mineral Exploration in Sirba Area

Development Studies

Total No	NO	Area/Country	Project
		AFRICA	
214	1	Sao Tome and Principe	The Study on Construction of Mini Hydro-electric Power Stations
215	1	South Africa	The Study on the Expansion of the Capacity of Magalies Water
216	1	Senegal	The Study on Development of Electric Power System in the Dakar Area
217	2		The Study on the Development Program for Northern Fishing Areas
218	1	Tanzania	The Monduli Urban Water Supply Study, Arusha
219	2		Mineral Exploration in the Southern Lake Victoria Area
220	3		The Study on the Solid Waste Management for Dar es Salaam City
221	4		The Study on the Low Cost Smallholder Irrigation Project in Central Wami River Basin
222	1	Uganda	The Topographic Mapping of Kampala and Jinja Blocks, North of Lake Victoria
223	2		The Study on Rural Water Supply in the Mpigi, Mubende and Kiboga Districts
224	1	Zambia	The National Water Resources Master Plan Study
225	2		The Study on Mongu Rural Development Project in Zanbezi River Flood Plain Area
226	3		The Forest Resources Management Study for Zambia Teak Forests in South-Western Zambia
227	4		Mineral Exploration in the Chambishi Southeast Area
228	1	Zimbabwe	The Master Plan Study on the Lower Munyati Basin Agricultural Development
229	2		The Study on Water Pollution Control in Upper Manayme River Basin
230	3		Mineral Exploration in Snake Head Area
231	4		The Study on Dissemination of Photovoltaics for Rural Electrification

Development Studies

Total No	NO	Area/Country	Project
		LATIN AMERICA	
232	1	Argentina	The Study of Economic Development (II)
233	2		The Forest Resources Management Study at Chaco
234	1	Bolivia	The Topographic Mapping of La Paz-Beni Region
235	2		The Study on Provincial Ground Water Development
236	3		The Environmental Impact Assessment of Road Improvement between San Borja and Trinidad
237	4		The Master Plan Study on Flood Control in the Northern Rural Region of Santa Cruz
238	5		The Master Plan Study on Agricultural Marketing Systems in Santa Cruz
239	6		Mineral Exploration in the Huanuni Area
240	7		The Study on Improvement Project of the Oruro-Cochabamba Line
241	1	Brazil	The Master Plan for the Utilization of Water Resources in Parana State
242	2		The Fishery Resources Study of the Amazon and Tocantins River Mouth Areas
243	3		The Study on Evaluation of Environmental Quality in Regions Under Influence of Coal Steam Power Plant
244	4		The Study on Recuperation of Mined-out Areas in South Region of Santa Catarina State
245	1	Chile	The Master Plan on Industrial Solid Waste Management in the Metropolitan Region
246	2		The Rehabilitation and Conservation Program on Bridges (II)
247	1	Colombia	The Study on Transport Plan in Satafe City, Bogota
248	1	Costa Rica	The Study on Los Lanos Hydroelectric Power Development Project
249	1	Dominican Republic	The Study on Cartography of the Southwest Region
250	2		The Study on the Limon del Yuna Area Agricultural Development Project

Development Studies

Total No	NO	Area/Country	Project
		LATIN AMERICA	
251	1	Ecuador	The Study on the Master Plan for the Port of Guayaquil
252	2		Mineral Exploration in the Jurin and Cuelaje Area
253	1	El Salvador	The Study on Integrated Agricultural Development in the Jiboa River Basin
254	2		The Master Plan Study on Comprehensive Flood Control for the Rio Grande de San Miguel
255	1	Guatemala	The Study on Groundwater Development in the Central Plateau Area
256	2		The Study on the Project of Urban Transportation in the Metropolitan Area of Guatemala
257	3		The Study on the Improvement of Wastewater Management in the Guatemala Metropolitan Area
258	4		The Master Plan Study on Forest Management in Baja Verapaz
259	1	Honduras	The Study on the Strategies and Plans for the Upgrading of Public Health Status
260	2		The Maintenance Project of the Vehicle Traffic System in Teguchigalpa
261	3		The Forest Resources Management and Development Study in Teupassenti
262	4		The Master Plan Study on the Small Scale Fisheries Development on the North Coast
263	1	Mexico	The Study on the Combustion Technologies for the Air Pollution Control in the Metropolitan Area of the City of Mexico
264	2		The Master Plan Study on the Integrated Agriculture, Livestock and Rural Development in the Coast of Jalisco
265	3		Mineral Exploration in the Campo Seco Area, Guerrero State
266	4		The Study on Master Plan for the Promotion of Supporting Industries
267	5		The Study on Formulation of Tourism Development and Promotion Strategies for the Selected Tourism Destinations
268	1	Nicaragua	The Study on the Improvement of the Solid Waste Management System for the City of Managua
269	2		The Study on the Improvement of Urban Sanitation Environment of Principal Cities (Leon, Cinandega and Granada)

Development Studies

Total No	NO	Area/Country	Project
		LATIN AMERICA	
270	1	Panama	The Study on Tourism Development in the Coastal Area
271	2		The Study on the Development of the Balboa
272	1	Paraguay	The Master Plan Study on the Program for Supporting Small Farmers
273	2		The Study on Arterial Road Development Project in the Central Eastern Area
274	1	Peru	Mineral Exploration in the Eastern Area
275	1	Venezuela	The Study on the Environmental Improvement Program of the Upper and Middle Stream of the Tuy River Basin

Development Studies

Total No	NO	Area/Country	Project
		OCEANIA	
276	1	Fiji	The Study on Groundwater Development in North Viti Levu
277	2		The Preparation of Nautical Charts in the Northern Lau Islands Region
278	3		Mineral Exploration in the Vanualevu Area
279	4		The Watershed Master Planning & Flood Control of Four Major Viti Levu Rivers
280	1	Tonga	The Cooperative Study on Deep Sea Mineral Resources in Selected Areas of the SOPAC Region around Tonga, Marshall Island, Micronesia, Fiji

Development Studies

Total No	NO	Area/Country	Project
		EUROPE	
281	1	Albania	Mineral Exploration in the Shebenik Area
282	2		The Study on Sewerage System in Metropolitan Tirana
283	1	Bulgaria	The Study on Restructuring and Modernization of Steel Industry
284	2		The Study on Maritsa East No.1 Replacing Thermal Power Plant for Improvement of the Performance of the Units and the Environmental Protection
285	3		The Master Plan for the Investment Priorities of the Transport Infrastructure
286	4		The Project for Agricultural Reform
287	1	Hungary	The Restructuring of the State-Owned Automotive Parts Company
288	2		The Study on Improvement and Environmental Protection of Borsod Power Plant
289	3		The Study on an Integrated Air Pollution Control Plan for Sajó Valley Area
290	4		The Study on the Environmental Improvement Project for Lake Balaton
291	1	Romania	The Study on Irrigation Project in Ruginesi-Pufesti-Panciu District Vrancea
292	2		The Study on the Solid Waste Management System for Bucharest Municipality
293	3		The Study on Forests Restoration in Romanian Plain
294	1	Poland	The Study on Restructuring of Polish State Railways
295	2		The Study on Restructuring Plan of Enterprises Controlled by the State
296	1	Slovenia	The Study for the Sanitation of the Drave River by Waste Water Pretreatment and Conservation in Industry in the City of Maribor

Development Studies

Total No	NO	Area/Country	Project
		EUROPE	
297	1	Kazakhstan	The Study for Development of Road Network in Western Kazakhstan
298	2		The Master Plan Study on Promotion of the Nonferrous Metals Industry
299	3		The Mineral Exploration in the Dzhaman Aybat and Samalsky Area
300	4		The Study for the Air Transportation Development
301	5		Kzyl-Orda irrigation /Drainage and Water Management Improvement Project
302	1	Kyrgyz	The Study on Master Plan of Industrial Development Plan
303	2		Mineral Exploration in the Talas Area
304	1	Uzbekistan	The Study on Water Supply Systems in Six Cities of Aral Sea Region
305	2		The Mineral Exploration in the Eastern Bukantau Area
306	1	Turkmenistan	The Study on the National Road Network Development Plan, Road Rehabilitation and Maintenance System

