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FOLLOW-UP STUDY
OF
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JAPAN INTERNATIONAL COOPERATION AGENCY

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PREFACE

The Japan International Cooperation Agency (JICA) has conducted a large number of Development Studies as part of its technical cooperation program designed to assist in the nation-building of developing countries.

A Development Study is basically completed when a final report is submitted to the recipient government. However, since the Development Study is conducted at the preparatory stage of a project, it can help to transfer technology and greatly contribute to development of the recipient country when the findings of the study are utilized or lead to development projects.

The findings and recommendations of the Development Studies are utilized in accordance with the initiatives of the recipient governments, and they are employed in a wide variety of ways. In view of the importance of securing traceability on the impact of completed studies, JICA has been conducting follow-up studies annually since fiscal 1984 to gather and compile relevant information on the status of proposed projects and how their studies were being utilized in the recipient countries.

As in previous years, we prepared this year's report by collecting information from implementing agencies of recipient governments and from consultants in charge of each Development Study.

The procedures for conducting follow-up studies as well as their findings leave room for improvement due to difficulties in monitoring and analyzing how the study results are utilized. We welcome your comments and suggestions for the improvement of future follow-up studies.

This study was contracted out to the Japan International Cooperation Center (JICE).

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SUMMARY

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1. Background and Purpose of the Follow-up Study

1-1. Background of the Follow-up Study

It has been difficult to monitor how the results of the Development Studies are utilized in the recipient countries. Three issues can be cited as attributable factors. First, a considerable amount of time is often elapsed before the proposed project implementation. Secondly, the findings are utilized in diverse ways. Thirdly, it is difficult to obtain the relevant information from developing countries.

In order to understand the ongoing situation of the completed Development Studies, follow-up studies of Development Studies were started in Japanese Fiscal Year (FY) of 1984.

Since then, a lot of effort has been made to collect information from a wide range of sources by diversifying the studies that can be summarized as follows.

(1) On-site Follow-up Studies (FY 1987 – 2000)

(2) Domestic Follow-up Studies (since FY 1988)

Conducting surveys through questionnaires to domestic consultants in charge of the Development Studies.

(3) Overseas Office Studies (since FY 1991)

Conducting surveys, through JICA overseas offices, on local counterparts in the recipient countries to update recent situations after the Development Studies.

(4) Overseas Follow-up Studies through foreign consultants (since FY 1994)

(5) Overseas Follow-up Studies through local in-country consultants (since FY 1995)

1-2. Purpose of the Follow-up Study

The follow-up study has the following two goals:

- (1) To monitor how the results of the Development Studies are utilized in the recipient countries; and
- (2) To verify problems and areas for improvement which can be integrated into future Development Studies through systematic analyzation of the findings.

1-3. Methods of Follow-up Study

Studies are conducted through the following three methods.

- (1) Domestic Follow-up Studies
 - Analyzation of replies to questionnaires sent to domestic consultants in charge of the Development Studies
 - Analyzation of information gathered from relevant agencies
- (2) Overseas Office Studies
 - Analyzation of replies to questionnaires sent to relevant agencies of the recipient countries through overseas diplomatic establishments and JICA overseas offices
- (3) Studies of relevant materials in Japan
 - Studies of locally available materials issued by the Ministry of Foreign Affairs, JICA, and Japan Bank for International Cooperation (JBIC).

As mentioned above, this follow-up study was conducted by means of questionnaires. The current state of the projects was judged by the replies of the questionnaires and no further study was made to confirm the replies other than the studies of the materials available in Japan. Therefore, the current status does not necessarily show the latest state of the project or can be different in part.

Experiences from prior follow-up studies show that any progress in projects under the jurisdiction of the social development area or the agriculture, forestry and fisheries area is likely to be made within five to ten years after completion of the Development Studies. For this reason, follow-up studies in FY 2003 for the projects under the jurisdiction of these two areas focused on the current state of projects for which the studies had been completed in a period from 1997 to 2002(FY). On the other hand, in the area of the mining and industrial development, studies completed in 1988 and between 1993 and 2002 have been analyzed.

1-4. Methods for Compiling the Results

The following are the methods used for compiling the results of the studies.

- (1) Comparison and examination of the difference in the utilization of survey findings among various types of studies (seven types including M/P, basic study, Chinese Factories Study, others*, M/P + F/S, F/S, and D/D), different target regions, and target sectors (social development area, agriculture, forestry and fisheries development area, and mining and industrial development area).
- (2) The following two indicators are used to describe how the various studies are utilized in the recipient countries.

1) Utilization Rate (%)

This evaluation metric for determining the state of utilization is used for master plan studies (M/P), basic studies, Studies on the Factory Modernization Program in China (Chinese Factory Studies), other studies, and other studies (M/P) which were categorized in the M/P studies group.

2) Realization Rate (%)

This evaluation metric for determining the realization of proposed projects and their implementation rate is used for another category group, the F/S studies group. This group includes master plan / feasibility studies (M/P + F/S), feasibility studies (F/S), detailed design studies (D/D), and other studies (F/S) which are evaluated according to the rate of realization of the project. This can be determined by the equation below.

Equation

Number of proposed projects that have been or are being implemented / total number of studies x 100.

Figures in the tables may not show 100% in sum due to the round off fractions.

* Others is a combination of other studies from social development and agriculture, forestry and fisheries Development Studies, and other (M/P-type) and other (F/S-type) studies from mining and industrial Development Studies.

2. Summary of Survey Findings

2-1. M/P Studies Group

(1) Status of Utilization

706 studies (87.6%) out of the total completed studies have shown a positive state of utilization, i.e., were effectively utilized through the implementation of a project or the formulation of a national development plan. Findings also show that basic studies are the most frequently utilized type of studies, followed by M/P (see Table 1).

Table 1

Type of Studies	Number of Studies		Rate of Utilization	
	M/P	525	(65.1%)	468
Basic Studies	110	(13.6%)	100	(90.9%)
Chinese Factories	117	(14.5%)	95	(81.2%)
Others *	54	(6.7%)	43	(79.6%)
Total	806	(100.0%)	706	(87.6%)

* "Others" is a combination of other studies from social development and agriculture, forestry and fisheries Development Studies, and other (M/P-type) studies from mining and industrial Development Studies.

(2) Status of Utilization by Region

Findings shows only minor differences among the other regions compared (see Table 2). The marked variation of the rate of utilization in some Oceanic and European countries is attributed to the small number of studies conducted.

Table 2

Regions	Number of Studies		Rate of Utilization	
Asia	463	(57.4%)	407	(87.9%)
Middle East	74	(9.2%)	63	(85.1%)
Africa	94	(11.7%)	80	(85.1%)
Central and South America	136	(16.9%)	120	(88.2%)
Oceania	10	(1.2%)	8	(80.0%)
Europe	22	(2.7%)	21	(95.5%)
Multiple Countries *	7	(0.9%)	7	(100.0%)
Total	806	(100.0%)	706	(87.6%)

* Studies that cover more than one single country or regions are classified as "Multiple Countries".

(3) Status of Utilization by Sectors

The utilization rate in the area of mining and industrial development was relatively low as indicated in Table 3.

Table 3

Sectors	Number of Studies	Rate of Utilization
Social Development	357 (44.3%)	329 (92.2%)
Agriculture, Forestry and Fisheries Development	131 (16.3%)	123 (93.9%)
Mining and Industrial Development	318 (39.5%)	254 (79.9%)
Total	806 (100.0%)	706 (87.6%)

(4) Studies Categorized as “In Progress” or “In Use”

The ways in which the studies are classified as “In Progress” or “In Use” can be summarized as follows.

- 1) Studies are incorporated in national development plans or national policies
- 2) Studies of the following stage are conducted and are geared towards implementation
- 3) Funding is secured and implementation is planned for proposed projects

Findings show that many proposed projects that have been realized are those for which the subsequent study has been conducted and funding secured within five years after the completion of the main study.

In addition, effective utilization of study findings is likely to depend on consistency with national development plans or the prioritization of the project itself of the recipient country.

(5) Studies Categorized as “Delayed or Suspended” or “Discontinued or Cancelled”

Factors attributable to the delay, discontinuance or cancellation of studies can be listed as below (see also Table 4).

- 1) Political factors such as lower priority given to studies by the recipient government as well as changes in development policy
- 2) Mismatch of proposed project in terms of scale and details
- 3) Difficulty in obtaining sufficient foreign funding
- 4) Natural disasters
- 5) Social and political unrest

Table 4

Elapsed Time after Completion of Development Study	Delayed	Discontinued or Cancelled
Less than 5 years	23 (37.1%)	0 (0.0%)
Between 5 years to 9 years	21 (33.9%)	1 (2.6%)
10 years or more	18 (29.0%)	37 (97.4%)
Total	62 (100.0%)	38 (100.0%)

(6) Possibility of Improving Utilization Rate

Projects proposed through Development Studies must be consistent with national plans of the recipient government and have been given high priority in order to improve the utilization rate of study findings. However, further attempts should be made to review and revive the Development Studies whose proposals have yet to be implemented, through implementation of supplementary studies and other more specific and detailed studies to improve the utilization rate.

2-2. F/S Studies Group

(1) Status of Realization

The 697 studies of the F/S studies group categorized as “In Progress” or “Completed” have a realization rate of 59.6%. The rate of realization of D/D studies scored the highest of all studies. The D/D study is conducted at the final stage before the actual implementation of the project. Furthermore, projects for D/D studies, which have not yet been realized, are “in the processes to be realized except six cases. As for “delayed or suspended” and “discontinued or cancelled” category, one discontinued by introduction of alternative plan, the other delayed due to the budget shortage of the recipient country. Other four cases are categorized as “Under Promotion”.

Type of Studies	Number of Studies		Rate of Realization	
	F/S *	790 (67.5%)	445 (56.3%)	
M/P+F/S	342 (29.2%)	220 (64.3%)		
D/D	38 (3.2%)	32 (84.2%)		
Total	1,170 (100.0%)	697 (59.6%)		

* The category F/S includes “Other (F/S-type)” mining and industrial Development Studies.

(2) Status of Realization by Region

The results show that Middle East has the highest rate of realization, followed by Asia (see Table 5).

Table 5

Regions	Number of Studies	Rate of Realization
Asia	694 (59.3%)	445 (64.1%)
Middle East	132 (11.3%)	85 (64.4%)
Africa	120 (10.3%)	59 (49.2%)
Central and South America	176 (15.0%)	85 (48.3%)
Oceania	18 (1.5%)	8 (44.4%)
Europe	25 (2.1%)	12 (48.0%)
Multiple Countries	5 (0.4%)	3 (60.0%)
Total	1,170 (100.0%)	697 (59.6%)

(3) Status of Realization by Study Type

There is some variance in the rates of realization for the different sectors. Longer time frame required for project realization under mining and industrial development is considered as the attributable factor for their relatively low rate of realization (see Table 6).

Table 6

Sectors	Number of Studies	Rate of Realization
Social Development	639 (54.6%)	443 (69.3%)
Agriculture, Forestry and Fisheries Development	250 (21.4%)	147 (58.8%)
Mining and Industrial Development	281 (24.0%)	107 (38.1%)
Total	1,170 (100.0%)	697 (59.6%)

(4) Studies Categorized as “in Progress” or “Completed” Studies

Most of the studies identified as “Completed”, “Partially Completed” or “Under Implementation” had already secured sufficient funds and had their proposed projects implemented or partially implemented (see Table 7). Focusing on the process towards the realization of the projects, results show that subsequent study such as D/D and E/S in most of these had already been completed, with funding secured within five years after the completion of the main study.

The major source of fund came from Japan, in the form of yen loans, grant aid, and the like. Others include funds from international agencies, the private sector, other aid countries and domestic funding. Studies “In Process” are those which have secured or materialized funding. This is similar to the state of subsequent study or the state of securing funds after the completion of the main study.

Contributing factors for the realization of proposed projects are the priority level, the extent of the benefits, consistency with national plans, and the implementation system.

Table 7

Present Status of Studies	Rate of Realization
Completed	298 (42.8%)
Partially Completed	173 (24.8%)
Under Implementation	162 (23.2%)
In Process	64 (9.2%)
Total	697 (100.0%)

(5) Studies Categorized as “At the Preparatory Stage”

Studies categorized as “At the Preparatory Stage” can be classified into those whose concrete plans are identified, those for which requests have been made yet under consideration or in preparation, and those for which concrete plans are unidentified or unknown (see Table 8). However, some are studies in which subsequent studies have already been conducted or funding secured.

There are also studies in which five to ten years have elapsed after requests were made, but are still on hold. Such cases could be categorized as “Delayed” unless certain measures are taken in near future.

Table 8

Elapsed Time after Completion of Development Study	Rate of Preparatory Stage
Less than 5 years	85 (39.4%)
Between 5 years to 9 years	62 (28.7%)
10 years or more	69 (31.9%)
Total	216 (100.0%)

(6) Studies Categorized as “Delayed or Suspended” and “Discontinued or Cancelled”

For 71% of the studies categorized as “Delayed or Suspended” more than ten years have passed since completion of the main studies. Findings reveal that the rate of “Discontinued or Cancelled” studies for which the main study had been finished more than ten years ago reached 97.7% and was higher in comparison with that of “Delayed or Suspended” studies (see Table 9).

Table 9

Elapsed Time after Completion of Development Study	Delayed or Suspended	Discontinued or Cancelled
Less than 5 years	13 (10.5%)	0 (0.0%)
Between 5 years to 9 years	23 (18.5%)	3 (2.3%)
10 years or more	88 (71.0%)	130 (97.7%)
Total	124 (100.0%)	133 (100.0%)

Some of the underlying factors for the “non-realization” of the proposed projects can be summarized as follows:

- 1) Political factors, such as lower priority given to the projects or changes in development policy
- 2) Economic factors, such as funding problems due to tighter financial situations in the recipient countries and overall economic stagnation
- 3) Natural disasters
- 4) Civil war, insurgency, social and political unrest

(7) Possibility of Improving Realization Rate

One of the ways to improve the realization of study findings from the F/S studies group is to revitalize studies that have been delayed or suspended along with effective planning. Many of the studies completed more than five to ten years ago but categorized as “At the Preparatory Stage” may become “Delayed or Suspended” unless effective actions are taken.

Hence, in order to promote the realization of study findings (at the preparatory stage level) there are a number of approaches that need to be considered. Methods include steps such as focusing on the studies for which the main study was completed at least five years ago but have not been realized, then identifying the inhibiting factors for implementation and finding countermeasures, as well as promoting implementation of the studies.

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CHAPTER 1

OUTLINE OF THE STUDY

CHAPTER 1. OUTLINE OF THE STUDY

1. Background and Purpose of Follow-up Study

1-1. Background of Follow-up Study

The Social Development Study Department of JICA conducts follow-up studies in the social development and agriculture, forestry and fisheries development sectors, while the Mining and Industrial Development Study Department of JICA conducts follow-up studies in the mining and industrial development sector.

After the completion of the Development Study, it has been difficult to monitor the status of proposed projects and how their studies were utilized. The reasons for the difficulty are such that the considerable amount of time often appears necessary to realize projects after the completion of studies, the various ways in which study findings are used, and limitations on the amount of information accessible in recipient countries.

In order to overcome the above-mentioned difficulties, follow-up studies on Development Studies were started in Japanese fiscal year (FY) 1984. On-site follow-up studies were started in FY 1987 to collect a wide range of information from the project sites. Domestic follow-up studies, questionnaire surveys on domestic consultants in charge of projects, were also started in FY 1988. The scope of follow-up studies has been extended to the agriculture, forestry and fisheries sector since FY 1989. In addition, studies of counterpart agencies (JICA Overseas Office Studies) have been conducted through the study teams of JICA overseas offices and cooperating volunteer coordinators offices since FY 1991. Studies by local consultants from developed countries since FY 1994 and studies by local in-country consultants since FY 1995 (Overseas Follow-up Studies) have been conducted. Since there has been increased interest in evaluation of development studies recently, on-site studies had been conducted to evaluate the impact of Development Studies and compiled as "Evaluation Survey Report: Follow-up Studies" since FY 1998. Furthermore, as more detailed evaluation of studies have been conducted independently since FY 2001, this follow-up study has focused on understanding the current status of each project and analyzation of overall tendencies.

1-2. Purpose of Follow-up Study

The follow-up study has two goals:

- (1) To monitor the status of proposed projects and how the results of the completed Development Studies are utilized.
- (2) To systematically analyze these findings to identify problems and their solutions for the implementation of future Development Studies.

2. Methodology of Follow-up Study

2-1. Coverage

The follow-up study covers studies implemented by the Development Study budget under the jurisdiction of the Social Development Study Department and Agriculture, Forestry and Fisheries Development Study Department, and those implemented under the overseas development plan study budget, under the jurisdiction of the Mining and Industrial Development Study Department (except Development Studies of specific project conducted as part of the Grant Aid). The follow-up study covers studies completed between August 1, 1974 (the day on which JICA was established) to the end of FY 2002 (March 31, 2003). A total of 1,976 studies have conformed to these criteria (996 in social development area, 381 in agriculture, forestry and fisheries development area, and 599 in mining and industrial development area).

As for the results of previous follow-up studies, it is observed that some actions would be taken where the results deems viable within five to ten years after the implementation of a Development Study under the jurisdiction of the Social Development Study Department or the Agriculture, Forestry and Fisheries Development Study Department. Hence, since 1999, this follow-up study had focused on Development Studies completed during the last 10 years in order to allow a grasp of the status of studies under the jurisdiction of these two departments. From these follow-up studies, it is identified that the actions must be taken within five years after the completion of the studies. In FY2003, questionnaires surveys were conducted for all the Development Studies completed in the period of 6 years, from FY1997 to 2002 on counterparts through JICA overseas offices and diplomatic establishments as well as on domestic consultants in charge of the project.

As for the Development Studies under the jurisdiction of Mining and Industrial

Development Study Department, surveys and analysis were conducted on studies completed from 1993 to 2002 and the ones specifically completed in FY 1988.

2-2. Classification by Year of Completion

The definition of fiscal year of completion is the fiscal year in which the final report of the Development Study was submitted to JICA. In order to determine the fiscal year of completion, reference are being made to financial statements and their attached specifications, annual report of JICA of each year while the studies were undertaken, along with the replies to the questionnaire surveys on domestic consults in charge of studies and JICA overseas offices.

2-3. Classification of Development Studies by Country and Region

The classification of country and region in Development Studies are defined by JICA. Studies that cover several countries or regions are classified as “multiple countries.”

- (1) ASEAN (Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, Philippines, Singapore, Thailand, and Viet Nam)
- (2) East Asia (China, South Korea, and Mongolia)
- (3) South West Asia (Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan, and Sri Lanka)
- (4) Central Asia (Armenia, Azerbaijan, Georgia, Kazakhstan, Kyrgyz, Tajikistan, Turkmenistan, and Uzbekistan)
- (5) Other Asia (East Timor)
- (6) Middle East (Including Northern Africa: Algeria, Egypt, Libya, Morocco, Sudan, and Tunisia)
- (7) Africa (Excluding Northern Africa)
- (8) Central and South America
- (9) Oceania (countries classified as “Pacific” for mining and industry sector)
- (10) Europe
- (11) Multiple Countries (Studies covering more than one single country)

Note: “Central Asia” had been regarded as a part of “Europe” until FY 2000

2-4. Classification of Development Study by Study Type

Development Studies are classified by study type as shown in Table 1-1.

Table 1-1 Type of Development Study

1. M/P (Including formulating master plans M/P studies and pre-feasibility F/S studies)
2. M/P+F/S (Studies which conducts M/P and feasibility studies (F/S) as one study)
3. F/S (Feasibility studies)
4. D/D (Studies for detailed designs)
5. Basic Studies (Long-term surveys and studies to provide basic data, such as topological maps, nautical charts or to conduct groundwater development surveys etc.)
6. Chinese Factories (Studies on the Factories Modernization Program in China)
7. ASEAN Plant Renovation Studies (Studies on Plant Renovation in ASEAN Countries)
8. Others (Studies for Aftercare Services, etc.)

Note: *Resource studies in the mining and industry sector are classified as basic studies.

*Overseas Development Studies through local in-country consultants are not included in this Development Study.

The categories of follow-up studies of the social development area and agriculture, forestry and fisheries development area do not necessarily match those of the mining and industrial development area due to differences in characteristics. In order to conduct an overall analysis in Chapter 2, types of Development Study are classified as shown in Table 1-2. Detailed analyses in Chapters 3 and 4 have been conducted based on respective study categories.

Table 1-2 Category of Development Studies

M/P Studies Group	Social Development, Agriculture, Forestry and Fisheries Development	M/P, Basic Studies, Others
	Mining and Industrial Development	M/P, Studies on Factories Modernization Program in China, Resources Studies, Other (M/P)
F/S Studies Group	Social Development, Agriculture, Forestry and Fisheries Development	M/P+F/S, F/S, D/D
	Mining and Industrial Development	F/S, ASEAN Plant Renovation Studies, Other (F/S)

2-5. Definition of Development Studies by Type of Study

Each type of Development Study is defined as follows:

1) Master Plan Studies (M/P)

A master plan study is carried out to determine a basic development strategy in general by formulating long-term plans for national, regional or sectoral development with specific target and target year. The formulation of a master plan is the first stage of Development Study where the coordination of many projects is essential for efficient implementation. For a project prioritized by a master plan, feasibility studies are sometimes implemented.

2) Master Plan / Feasibility Studies (M/P + F/S)

These are studies in which both the master plan studies and feasibility studies (described below) are undertaken in one step.

3) Feasibility Studies (F/S)

A feasibility study is a study undertaken to examine the feasibility, appropriateness, investment effects, etc. of a particular development project. In general, it is used to determine systematically and objectively whether the proposed project is viable and socially, technically, economically and financially feasible, while incorporating other important considerations, e.g. operation and maintenance, organizations and institutions, and preservation of social and natural environment. A feasibility study report serves as an important reference for concerned government agencies and officials in policy decision making as to whether the country should proceed to implementation of the given proposed project(s). It also provides the bilateral and multilateral aid agencies to which a request for financial assistance is addressed with necessary information to examine whether it is appropriate for the proposed project to be given such assistance.

4) Detailed Design Studies (D/D)

A detailed design study is used to develop the design documents (including draft drawings, work specifications, and tender documents) necessary to begin approved project construction work. In comparison to M/S studies or F/S studies, considerable time is generally required for the study during this phase, since all detailed investigations related to design of the project must be covered such as detail design, cost estimation and work schedules. This type of study is followed by the selection of the contractor through competitive bidding to inaugurate actual construction. Detailed design study is indispensable to implement the project orderly and it plays a significant role in providing smooth access to financial assistance as well.

5) Basic Studies (Long-term Studies, Topographical Studies, Groundwater Development Studies, Forestry and Fishery Resources Studies, Agricultural Verification Studies, etc.)

a) Long-term Studies

Formulation of basin-wide flood control, water use plans and comprehensive water resources development plans and examination of alternative policy measures for environmental protection such as countermeasures against air and water pollution often require long-term and continuous accumulation of relevant basic data. The lack of such data or of abilities to collect and compile such data in developing countries may become a major impeding factor against the implementation of development plans. In this type of study, a team of experts is sent to stay for an extended period in the recipient country, where they collect, record, compile and analyze relevant basic data through long-term observation.

b) Topographical Studies

The presence of basic maps of national land and cities is often a necessary precondition for planning and implementing development projects. In many regions of developing countries, however, topographical drawings of national territories and cities have been virtually non-existent, or if they happen to exist, they are too old from the colonial era and not appropriate for practical use due to the lack of standardized methods of drawing and filling in the information presented. This situation leads to difficulties in formulating and implementing development projects as well as in coping with urban problems that are becoming increasingly serious. The results of these studies greatly serve to overcome such difficulties in developing countries by providing basic data and information.

c) Groundwater Development Studies

These studies investigate to identify groundwater resources and their exploitation with aims to secure the drinking water supply to the general population in developing countries. It is an urgent task to secure drinking water in such places as dry lands where severe droughts hit frequently or regions where the quality of water is not suitable for drinking. Also, some regions face such problems of drinking water becoming unsuitable for drinking or dried up due to over-consumption. Thus, groundwater development is urgently needed in order to improve the lives of the residents in those regions.

d) Forestry and Fishery Resources Studies

These studies aim to collect basic data on the distribution of forestry and fishery resources, and contribute to various policymakings of comprehensive protection of the forest and stable supply of the animal proteins.

e) Pilot Studies

Since FY 2000, under Development Studies, outcomes of participatory verification studies conducted on local residents and counterpart officials are reflected in the reports along with the pilot studies, which facilitate project formation.

f) Resource Studies

This is a type of pre-feasibility study usually conducted to assess mineral and other natural resources deposits in the expected project areas to review the possibility of development.

6) Studies on Plant Renovation in ASEAN Countries

A series of studies concerning plant renovation has been initiated as a result of Prime Minister Nakasone's announcement of cooperation during his tour of ASEAN countries in May 1983.

7) Studies on the Factories Modernization Program in China

These studies have been conducted since May 1981 with the aim of researching modernization procedures in existing Chinese factories. The studies resulted from a proposal made by the Chinese National Economic Commission (currently the Chinese National Economic and Trade Commission) to the Ministry of International Trade and Industry during the "Japan-China High Level Administrative Meeting".

8) Other Studies

One is the review study requested by the recipient country due to the reasons such as changes in social or natural conditions after the completion of the Development Study. Another is to collect and prepare basic data useful for national development and development plan etc.

2-6. Classification by Sector

Completed studies are classified into sectors, subsectors, and sub-subsectors according to the JICA System Code Table (October 2000), as shown in Table 1-3 on the following page.

Table 1-3 Sector of Studies

Sector	Subsector	Sub-subsector
1. Planning & Administration	(1) Development Plan	1) (Development Plan in) General 2) Integrated Regional Development Plan
	(2) Administration	1) (Administration in) General 2) Public Finance & Banking 3) Environmental Problems 4) Statistics 5) Information & Public Relations
2. Public Works & Utilities	(1) Public Utilities	1) (Public Utilities in) General 2) Water Supply 3) Sewerage 4) Urban Sanitation
	(2) Transportation	1) (Transportation in) General 2) Road 3) Land Transportation 4) Railway 5) Marine Transportation & Ships 6) Port 7) Air Transportation & Airport 8) Urban Transportation 9) Meteorology & Seismology
	(3) Social Infrastructure	1) (Social Infrastructure in) General 2) River & Erosion Control 3) Water Resources Development 4) Urban Planning & Land Development 5) Architecture & Housing 6) Survey & Mapping
	(4) Communications & Broadcasting	1) (Comms. & Broad. in) General 2) Post 3) Telecommunication 4) Broadcasting
3. Agriculture, Forestry & Fishery	(1) Agriculture	1) (Agriculture in) General 2) Sericulture 3) Irrigation, Drainage & Reclamation 4) Agricultural Machinery 5) Agricultural Processing 6) Increase of Food Production
	(2) Animal Husbandry	1) Animal Husbandry 2) Animal Health 3) Livestock Processing
	(3) Forestry	1) Forestry & Forest Conservation 2) Timber Processing
	(4) Fishery	1) Fishery 2) Marine Products Processing

Sector	Subsector	Sub-subsector
4. Mining & Industry	(1) Mining	1) Mining
	(2) Industry	1) (Industry in) General 2) Chemicals 3) Steel & Nonferrous Metals 4) Machine Industry 5) Textile Industry 6) Pulpwood Products 7) Food Industry 8) Other Industries
5. Energy	(1) Energy	1) (Energy in) General 2) Electric Power 3) Gas & Oil 4) New & Recycled Energy 5) Other Energies
6. Commerce & Tourism	(1) Commerce & Trade	1) Business Management 2) Trade
	(2) Tourism	1) (Tourism in) General 2) Tourism Infrastructure
7. Human Resources Development	(1) Human Resources Development	1) (Human Resources in) General 2) Physical Education 3) Education 4) Vocational Training
	(2) Science & Culture	1) Science 2) Culture
8. Public Health and Medicine	(1) Public Health and Medicine	1) Public Health and Medicine 2) Population & Family Planning
9. Social Welfare	(1) Social Welfare	1) Social Welfare 2) Labor 3) Disaster Relief 4) Food Assistance 5) Other Welfare
10. Others	(1) Others	1) Others

3. Criteria to Classify Utilization Status of Development Study

Studies are classified into two groups, each according to its own clearly defined evaluation criteria in order to ascertain the progress of projects and utilization of study findings accurately.

3-1. M/P Studies Group

Master plan studies (M/P), basic studies (B/S), Studies on Factory Modernization Program in China and other studies and other (M/P-type) studies are classified as being in the M/P studies group. Information is sought on whether or not study findings have been adopted or utilized. The present status is classified as being in one of three categories: 1) In Progress or In Use, 2) Delayed, and 3) Discontinued or Cancelled.

The criteria for determining the present status of studies in the M/P studies group are shown in Table 1-4.

Table 1-4 Status for M/P Studies Group

Present Status	Criteria
a. In Progress or In Use	<p>A Study is classified in this category when its findings or proposals are sufficiently utilized in the following manner.</p> <ol style="list-style-type: none"> 1) Based on the proposals, subsequent studies are or have been undertaken. Alternatively, the study findings are utilized to undertake some Development Study or planning. 2) Further Japanese technical cooperation is started on the basis of the proposals or study findings. 3) Proposals are incorporated into the development policy or plan of the recipient country. Alternatively, study findings are utilized to formulate the development policy or plan. 4) The government of the recipient country is taking some preparatory step to utilize the proposals.
b. Delayed	<p>A study is classified as "delayed" when its findings or proposals are in one of the following conditions.</p> <ol style="list-style-type: none"> 1) No significant action has been taken by the government of the recipient country to utilize the proposals or findings. 2) The government of the recipient country began to act on the proposals, or utilize the findings, but the effort was halted for some reason. 3) As it is not long after the completion of the study, no adequate information on the project is available(tentative classification)

c. Discontinued or Cancelled	<p>A study is classified in this category when its findings or proposals meet one of the following conditions.</p> <ol style="list-style-type: none"> 1) The government of the recipient country made an explicit decision not to act on the proposals. 2) The government decided to act on, or utilize, different proposals or findings from other sources. 3) No actions have been or will be taken “for a considerable period of time.”
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* As there is no category in the social and agricultural sector that corresponds to the classification “unknown” in the mining and industry sector, the sector covering social, agricultural, mining and industry categorizes these as “discontinued or cancelled.”

3-2. F/S Studies Group

The F/S studies group consists of feasibility studies (F/S), master plan / feasibility studies (M/P + F/S), detailed design studies (D/D) and other studies (other F/S-type studies). Information is sought on whether or not the projects or programs they appraised or proposed have been implemented. The present status is classified as being in one of four following categories: a) Completed or in Progress, b) Under Promotion, c) Delayed or Suspended, and d) Discontinued or Cancelled. The "Completed or in Progress" category is further divided into four sub-categories: a1) Completed, a2) Partially Completed, a3) Under Implementation, and a4) In Process.

The criteria for classification of the F/S studies group are shown in Table 1-5.

Table 1-5 Status for F/S Studies Group

Present Status	Criteria
<p>a. Completed or In Progress</p> <p>a1. Completed</p> <p>a2. Partially Completed</p> <p>a3. Under Implementation</p> <p>a4. In Process</p>	<p>The proposed development project has been already completed and is in use.</p> <p>The proposed development project is partially completed and is in use.</p> <p>The implementation of the project is underway.</p> <p>The project concerned is at one of the following stages.</p> <ol style="list-style-type: none"> 1) Tenders have been invited. 2) Financing of the project has been secured.* 3) Following the completion of the JICA feasibility study, the detailed design study or some other specific step is being undertaken with bilateral or multilateral financial assistance, including Japan. 4) For other reasons the project concerned is considered highly likely to be implemented in the future.
<p>b. Under Promotion</p>	<p>The project concerned is at one of the following stages.</p> <ol style="list-style-type: none"> 1) The government of the recipient country is requesting financial support from international organizations and/or foreign governments including Japan. 2) The government of the recipient country has been undertaking the detailed design study or other additional studies subsequent to the JICA feasibility study. 3) The recipient country is actively promoting the implementation of the project in some other way.

<p>c. Delayed or Suspended</p>	<p>The project concerned is at one of the following stages.</p> <ol style="list-style-type: none"> 1) The government of the recipient country has not taken any specific action after the completion of the JICA study. 2) The government of the recipient country has at one point promoted the proposed project but suspended the effort for some reason. 3) As it is not long after the completion of the study, no adequate information on the project is available (tentative classification)
<p>d. Discontinued or Cancelled</p>	<p>The project concerned is at one of the following stages.</p> <ol style="list-style-type: none"> 1) The government of the recipient country officially cancelled the proposed project. 2) The government of the recipient country implemented an alternative, which was substantially different from the proposal of the JICA Study. 3) No actions have been or will be taken “for a considerable period of time.”

* Here the term “secured” is used to mean that either a loan agreement is signed, or a government commitment is confirmed in the form of an official pledge or exchange of notes that has been executed.

4. Collection of Related Information

Related basic information is collected from the documents and the reports from JICA headquarters and Institute for International Cooperation.

JICA Overseas Office Survey collects related information through JICA overseas offices by means of replies to questionnaires distributed to counterparts in recipient countries.

By the Domestic Questionnaire Survey, related information is collected by means of replies to questionnaires distributed to the consulting firms in charge of development studies.

These questionnaires accompany list of proposals formulated on the results of studies. Replies to the questionnaires as well as addition, exclusion and correction of the list are solicited. Each report is compiled based on information from JICA Overseas Office Studies, Domestic Questionnaires Survey and interviews etc. Information concerning the studies completed recently and information that is unclear in the above-mentioned surveys is complemented by referring to documents from JICA headquarters and the Institute for International Cooperation, and relevant materials available from related parties in Japan.

5. Consolidation of Study Findings

The study findings are published in the reports "Follow-up Study of Development Studies: Report on Current Status", in Japanese and in English.

Each report is compiled based on information from JICA Overseas Office Studies, Domestic Questionnaire Surveys and interviews. In this report, information is analyzed based on survey type, survey sector, survey region and country, ascertaining trends by study type, sector, and region in order to grasp the current utilization of completed development studies. In addition, the report provides a grasp of issues including whether M/P studies were used in subsequent feasibility studies, as well as for the technical cooperation and national plans.

Studies covered by the present follow-up study (studies completed between FY 1997 – 2002) and approved by counterparts in the recipient countries are list in a CD-ROM attached to this report.

CHAPTER 2

AN OVERVIEW OF COMPLETED DEVELOPMENT STUDIES (Studies Completed in FY1974-FY2002)

CHAPTER 2. An Overview of Completed Development Studies
(Studies Completed in FY 1974 – FY 2002)

1. Trends in Numbers of Completed Studies

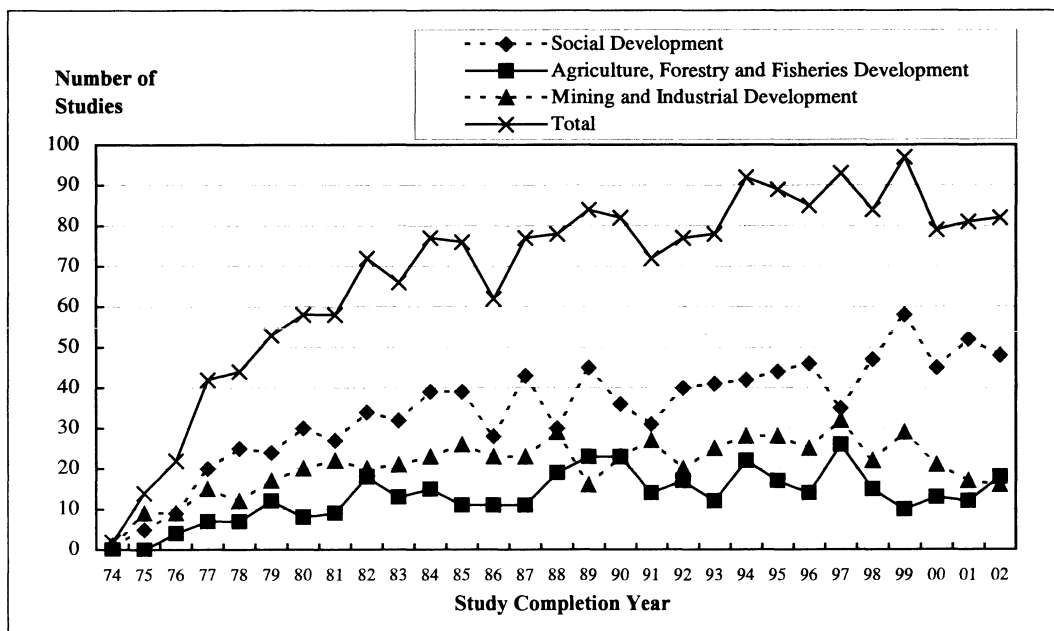
As shown in Table 2-1, the number of completed studies had been rising and reached a peak in FY 1999, after which the number has settled in a range of around 80.

Table 2-1 Time Trend of Numbers of Development Study

Study Completion Year	Social Development	Agriculture, Forestry and Fisheries Development	Mining and Industrial Development	Total	Study Completion Year	Social Development	Agriculture, Forestry and Fisheries Development	Mining and Industrial Development	Total
1974	1	0	1	2	1990	36	23	23	82
1975	5	0	9	14	1991	31	14	27	72
1976	9	4	9	22	1992	40	17	20	77
1977	20	7	15	42	1993	41	12	25	78
1978	25	7	12	44	1994	42	22	28	92
1979	24	12	17	53	1995	44	17	28	89
1980	30	8	20	58	1996	46	14	25	85
1981	27	9	22	58	1997	35	26	32	93
1982	34	18	20	72	1998	47	15	22	84
1983	32	13	21	66	1999	58	10	29	97
1984	39	15	23	77	2000	45	13	21	79
1985	39	11	26	76	2001	52	12	17	81
1986	28	11	23	62	2002	48	18	16	82
1987	43	11	23	77	Total	996	381	599	1,976
1988	30	19	29	78		(50.4%)	(19.3%)	(30.3%)	(100.0%)
1989	45	23	16	84					

* Studies subject to the current follow-up began on August 1, 1974, few studies were completed between FY 1974 and 1976.

Figure 2-1 Time Trend of Numbers of Development Study



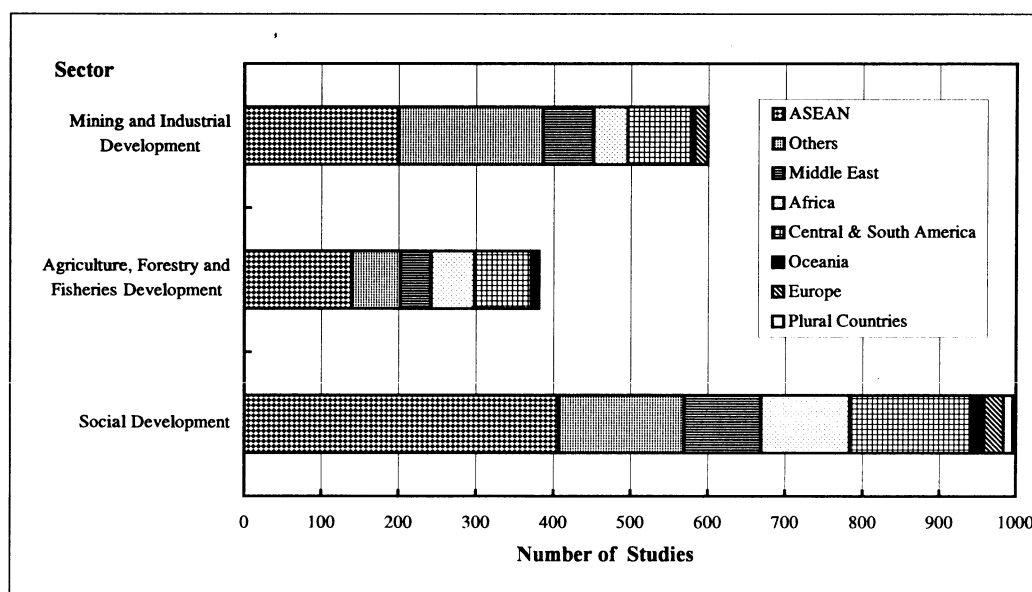
1-1. Numbers of Development Studies by Region

1,157 Development Studies (58.6% of the total) were conducted in Asia. This shows that the Japanese government has put emphasis on Asia, particularly on the ASEAN countries, where 745 studies (37.7% of the total) were conducted. This is followed by 312 studies (15.8%) in Central and South America, 214 studies (10.8%) in Africa, and 206 studies (10.4%) in the Middle East.

Table 2-2 Classification by Region

Region	Social Development	Agriculture, Forestry and Fisheries Development	Mining and Industrial Development	Total
Asia	569 (57.1%)	202 (53.0%)	386 (64.4%)	1,157 (58.6%)
ASEAN	407 (40.9%)	139 (36.5%)	199 (33.2%)	745 (37.7%)
Others	162 (16.3%)	63 (16.5%)	187 (31.2%)	412 (20.9%)
Middle East	100 (10.0%)	40 (10.5%)	66 (11.0%)	206 (10.4%)
Africa	114 (11.4%)	56 (14.7%)	44 (7.3%)	214 (10.8%)
Central & South America	158 (15.9%)	73 (19.2%)	81 (13.5%)	312 (15.8%)
Oceania	17 (1.7%)	6 (1.6%)	5 (0.8%)	28 (1.4%)
Europe	26 (2.6%)	4 (1.0%)	17 (2.8%)	47 (2.4%)
Multiple Countries	12 (1.2%)	0 (0.0%)	0 (0.0%)	12 (0.6%)
Total	996 (100.0%)	381 (100.0%)	599 (100.0%)	1,976 (100.0%)

Figure 2-2 Classification by Region



The relative numbers of study types conducted in each region is nearly the same, except for Oceania and Europe, where few studies were conducted. The most prevalent type of study is feasibility study (F/S) (39.7% on an average), followed by master plan (M/P) study (26.6%) and M/P + F/S study (17.3%).

Table 2-3 Classification by Region and Study Type

Region	M/P	M/P+F/S	F/S	D/D	Basic Studies	Chinese Factories	Other * Studies	Total
Asia	282 (24.4%)	211 (18.2%)	458 (39.6%)	21 (1.8%)	31 (2.7%)	117 (10.1%)	37 (3.2%)	1,157 (100.0%)
ASEAN	204 (27.4%)	151 (20.3%)	329 (44.2%)	15 (2.0%)	21 (2.8%)	0 (0.0%)	25 (3.4%)	745 (100.0%)
Others	78 (18.9%)	60 (14.6%)	129 (31.3%)	6 (1.5%)	10 (2.4%)	117 (28.4%)	12 (2.9%)	412 (100.0%)
Middle East	60 (29.1%)	34 (16.5%)	89 (43.2%)	9 (4.4%)	9 (4.4%)	0 (0.0%)	5 (2.4%)	206 (100.0%)
Africa	58 (27.1%)	24 (11.2%)	93 (43.5%)	3 (1.4%)	29 (13.6%)	0 (0.0%)	7 (3.3%)	214 (100.0%)
Central & South America	98 (31.4%)	52 (16.7%)	120 (38.5%)	3 (1.0%)	31 (9.9%)	0 (0.0%)	8 (2.6%)	312 (100.0%)
Oceania	4 (14.3%)	10 (35.7%)	7 (25.0%)	1 (3.6%)	5 (17.9%)	0 (0.0%)	1 (3.6%)	28 (100.0%)
Europe	21 (44.7%)	10 (21.3%)	15 (31.9%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	1 (2.1%)	47 (100.0%)
Multiple Countries	2 (16.7%)	1 (8.3%)	3 (25.0%)	1 (8.3%)	5 (41.7%)	0 (0.0%)	0 (0.0%)	12 (100.0%)
Total	525 (26.6%)	342 (17.3%)	785 (39.7%)	38 (1.9%)	110 (5.6%)	117 (5.9%)	59 (3.0%)	1,976 (100.0%)

* "Other Studies" is a combination of "Other Studies" from the Social Development and Agriculture, Forestry and Fisheries Development Studies, and "Other (M/P-type)" and "Other (F/S-type)" studies from the Mining and Industrial Development Studies.

The number of studies in industrial sector has been outstanding in other Asia (except ASEAN), where Chinese Factory Studies (industrial sector) has the largest number of studies, The Transportation sub-sector shares the largest number of studies in all regions except Asia, Africa, where social infrastructure sector and agricultural sector are the largest, and Europe, where planning and administration sector and public works and utilities sector are the largest.

In the transportation sub-sector, the road sub-sub-sector is the largest in ASEAN and Africa, and the port sub-sub-sector is the largest in other Asian countries and in Central and South America. Furthermore, the communications and broadcasting sector is relatively larger in ASEAN than in other regions.

Table 2-4 Classification by Region and Sector

Region	Planning & Administration Public Works & Utilities		Transportation					Social Infrastructure	Communications & Broadcasting	Tourism	Human Resources *1 Development	Public Health and Medicine	Social Welfare	Agriculture	Animal Husbandry	Forestry	Fishery	Mining	Industry	Energy	Others *2	Total
			Road	Railway	Port	Others	Sub-Total															
Asia	49	58	88	34	54	81	257	134	49	10	2	2	8	168	1	20	12	9	217	136	25	1157
ASEAN	30	42	69	20	35	58	182	101	35	9	2	1	5	111	0	17	10	4	72	103	21	745
Others	19	16	19	14	19	23	75	33	14	1	0	1	3	57	1	3	2	5	145	33	4	412
Middle East	10	16	11	4	14	14	43	19	5	5	0	0	2	34	1	2	3	1	31	28	6	206
Africa	4	15	20	3	5	10	38	42	7	2	3	3	0	42	0	9	5	3	14	27	0	214
Central & South America	19	16	18	10	20	25	73	35	7	4	0	1	2	47	0	16	10	7	28	42	5	312
Oceania	2	3	1	0	4	2	7	3	2	0	0	0	0	0	0	2	4	1	0	3	1	28
Europe	8	9	0	2	1	3	6	2	0	1	0	0	0	3	0	1	0	0	9	5	3	47
Multiple Countries	1	0	3	0	0	2	5	3	2	0	1	0	0	0	0	0	0	0	0	0	0	12
Total	93	117	141	53	98	137	429	238	72	22	6	6	12	294	2	50	34	21	299	241	40	1976

*1 Agriculture, forestry and fishery project (Thailand: The Development Study on Human Resources Training / Development in the Context of Economy in the Rural Areas in the Kingdom of Thailand) is included in the human resources development sector.

*2 The "Others" category consists of Social Development (1 in Indonesia and 1 in Honduras) and 38 Mining and Industrial Development Studies.

1-2. Numbers of Studies by Country

The largest number of studies were carried out in Asia. 236 studies have been conducted in Indonesia, followed by 197 in China (117 of which are Chinese Factory Studies), 160 in the Philippines, 158 in Thailand, and 78 in Malaysia. More than 15 Development Studies were conducted in 27 other countries: Cambodia, Laos, Myanmar, Viet Nam, Mongolia, Bangladesh, India, Nepal, Pakistan, Sri Lanka (Asia), Egypt, Jordan, Oman, Tunisia, Turkey (Middle East), Kenya, Tanzania (Africa), Argentina, Bolivia, Brazil, Chile, Colombia, Guatemala, Honduras, Mexico, Peru, Paraguay (Central and South American countries).

Table 2-5 Classification by Country

		Planning and Administration	Public Works and Utilities	Transportation				Social Infrastructure	Communications and Broadcasting	Tourism	Human Resources *1	Development	Public Health and Medicine	Social Welfare	Agriculture	Animal Husbandry	Forestry	Fishery	Mining	Industry	Energy	Others *2	Total
				Road	Railway	Ports and Harbors	Others																
ASEAN	Brunei	0	0	0	0	0	1	1	0	0	0	0	0	0	0	1	0	0	0	1	0	0	4
	Cambodia	0	3	2	0	1	1	3	1	0	0	0	1	4	0	0	0	0	0	0	2	0	18
	Indonesia	9	11	14	7	12	14	38	19	3	1	0	2	28	0	7	2	1	24	38	6	236	
	Laos	0	2	3	0	0	0	4	1	0	0	1	0	6	0	1	0	0	1	6	0	25	
	Malaysia	4	5	10	3	4	4	13	4	1	0	0	0	5	0	3	2	0	9	9	2	78	
	Myanmar	0	0	0	2	0	3	1	0	0	0	0	0	4	0	0	0	0	3	2	0	15	
	Philippines	5	6	18	2	8	15	24	3	1	0	0	1	31	0	3	4	1	10	24	4	160	
	Singapore	0	0	1	0	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	2	6
	Thailand	8	11	16	5	6	13	14	5	3	1	0	0	30	0	1	1	2	19	18	5	158	
	Viet Nam	4	4	5	1	3	6	3	1	1	0	0	1	3	0	1	1	0	5	4	2	45	
Asia (except ASEAN)	China	14	1	5	5	5	6	8	2	0	0	0	14	1	1	1	2	120	8	4	197		
	Korea	0	1	0	1	0	0	2	0	0	0	0	0	1	0	0	0	0	1	1	0	7	
	Mongolia	2	1	2	2	0	0	2	3	1	0	0	0	2	0	1	0	1	1	3	0	21	
	Bangladesh	0	2	2	1	2	2	6	1	0	0	0	1	6	0	0	0	0	5	2	0	30	
	Bhutan	0	0	1	0	0	0	1	0	0	0	0	0	2	0	0	0	0	0	1	0	5	
	India	0	0	2	3	3	1	1	0	0	0	1	0	2	0	0	0	0	4	2	0	19	
	Maldives	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	2	
	Nepal	0	0	3	0	0	4	7	2	0	0	0	0	7	0	1	0	0	3	7	0	34	
	Pakistan	0	1	0	1	3	5	1	1	0	0	0	0	12	0	0	0	0	2	5	0	31	
	Sri Lanka	0	5	3	0	6	2	0	4	0	0	0	2	10	0	0	1	0	5	3	0	41	
	Armenia	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	
	Azerbaijan	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	1	0	4	
	Georgia	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	
	Kyrgyz	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	1	0	0	4	
	Kazakhstan	0	1	1	0	0	1	2	0	0	0	0	0	1	0	0	0	0	2	0	0	8	
	Uzbekistan	1	1	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	
	East Timor	0	2	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	3	
Middle East	United Arab Emirates	0	0	0	0	0	0	2	0	0	0	0	1	0	0	1	0	1	1	0	6		
	Algeria	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	2	0	0	4	
	Egypt	3	5	2	2	5	7	1	3	1	0	0	11	1	0	0	0	7	2	1	51		
	Iran	1	0	0	0	1	1	1	0	0	0	0	1	3	0	0	0	0	2	2	1	13	
	Iraq	0	0	0	0	0	1	1	0	0	0	0	1	0	0	0	0	1	0	0	4		
	Jordan	2	1	1	0	1	0	3	0	2	0	0	0	2	0	0	0	0	3	2	0	17	
	Lebanon	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
	Morocco	0	1	0	1	0	1	4	0	0	0	0	0	2	0	1	1	0	0	1	0	12	
	Oman	0	0	2	0	2	0	1	0	0	0	0	0	5	0	0	0	1	5	3	1	20	
	Palestine	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
	Qatar	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
	Saudi Arabia	2	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	3	0	1	8	
	Sudan	0	0	2	0	0	0	0	0	0	0	0	0	2	0	0	0	0	1	0	0	5	
	Syria	0	2	0	1	1	1	1	1	1	0	0	0	1	0	0	0	0	2	3	0	14	
	Tunisia	0	1	1	0	0	0	3	0	1	0	0	0	1	0	1	0	0	2	3	2	15	
	Turkey	2	2	3	0	3	0	0	0	0	0	0	1	3	0	0	1	0	1	11	0	27	
	Yemen	0	2	0	0	1	1	0	1	0	0	0	0	1	0	0	0	0	1	0	0	7	

	Planning and Administration	Public Works and Utilities	Transportation				Social Infrastructure	Communications and Broadcasting	Tourism	Human Resources *1	Development	Public Health and Medicine	Social Welfare	Agriculture	Animal Husbandry	Forestry	Fishery	Mining	Industry	Energy	*2	Total
			Road	Railway	Ports and Harbors	Others																
Angola	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Benin	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
Burkina Faso	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	2
Botswana	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
Central African Republic	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Democratic Republic of the Congo	0	0	1	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Cote d'Ivoire	0	1	0	0	0	0	1	0	0	0	0	0	3	0	0	0	0	0	0	0	0	5
Cameroon	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	2	0	3
Cape Verde	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Djibouti	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Eritrea	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Ethiopia	0	0	0	0	0	0	3	1	0	0	0	0	2	0	1	0	0	0	1	0	0	8
Gabon	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
Ghana	0	0	0	0	1	0	1	0	0	1	0	0	2	0	1	1	0	0	0	0	0	7
Guinea	0	0	0	0	0	1	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	3
Gambia	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Kenya	1	6	7	0	0	1	4	0	1	0	1	0	5	0	0	0	0	3	3	0	32	
Liberia	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	2	
Madagascar	0	1	1	0	1	0	2	1	0	0	0	0	0	0	1	0	0	0	1	0	8	
Mali	0	0	0	0	0	0	2	0	0	0	0	0	4	0	0	0	0	0	1	0	7	
Mozambique	1	0	1	0	1	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	5	
Mauritania	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	1	0	0	0	0	3	
Mauritius	0	2	2	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	6	
Malawi	0	0	1	0	0	0	0	0	0	1	1	0	1	0	2	0	0	0	3	0	9	
Namibia	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	2	
Niger	0	1	0	0	0	1	1	0	0	0	0	0	4	0	0	0	0	1	0	0	8	
Nigeria	0	0	0	0	1	0	2	0	0	0	0	0	1	0	0	0	0	1	0	0	5	
Rwanda	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	2	
Senegal	0	0	0	1	0	1	3	0	0	0	0	0	2	0	0	1	0	0	2	0	10	
Sierra Leone	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	2	
Saotome and Principe	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	
Swaziland	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	2	0	4	
Tanzania	1	2	3	0	0	2	5	0	1	1	0	0	5	0	1	1	1	2	6	0	31	
Uganda	0	0	1	0	0	0	2	1	0	0	0	0	1	0	0	0	1	0	0	0	6	
South Africa	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	2	
Zambia	0	0	1	0	0	1	3	2	0	0	0	0	2	0	1	0	1	3	0	0	14	
Zimbabwe	1	1	0	1	0	0	0	2	0	0	0	0	4	0	1	0	0	3	1	0	14	

Africa

		Planning and Administration	Public Works and Utilities	Transportation				Social Infrastructure	Communications and Broadcasting	Tourism	Human Resources Development *1	Public Health and Medicine	Social Welfare	Agriculture	Animal Husbandry	Forestry	Fishery	Mining	Industry	Energy	Others *2	Total
				Road	Railway	Ports and Harbor	Others															
Central & South America	Argentina	2	0	0	1	1	0	1	1	0	0	0	1	0	1	0	0	3	5	1	17	
	Bolivia	1	1	4	3	0	2	5	1	0	0	1	0	5	0	1	0	2	1	2	0	29
	Brazil	4	1	0	1	2	1	6	0	0	0	0	0	3	0	0	1	0	1	3	1	24
	Chile	1	1	3	1	1	0	1	0	0	0	0	0	3	0	1	0	1	2	2	0	17
	Colombia	2	0	3	0	0	3	2	0	0	0	0	1	5	0	1	1	0	3	5	0	26
	Costa Rica	2	0	0	0	2	1	1	0	0	0	0	0	2	0	0	1	0	0	4	0	13
	Dominican Republic	0	1	0	0	1	0	1	1	0	0	0	0	5	0	1	0	0	0	2	0	12
	Ecuador	0	0	0	0	1	1	2	0	0	0	0	0	2	0	1	1	0	2	3	0	13
	Grenada	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	Guatemala	0	2	0	0	1	3	3	0	1	0	0	0	3	0	1	0	0	1	2	0	17
	Guyana	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
	Honduras	0	1	0	0	1	2	2	1	0	0	0	1	5	0	2	2	0	0	1	1	19
	Jamaica	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	2
	Mexico	3	2	0	4	3	1	0	0	1	0	0	0	2	0	1	0	3	4	2	2	28
	Nicaragua	0	2	3	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	7
	Panama	0	1	1	0	2	3	1	1	1	0	0	0	0	0	1	1	0	0	1	0	13
	Peru	1	1	0	0	1	1	3	0	1	0	0	0	1	0	0	2	1	1	5	0	18
	Paraguay	2	1	3	0	0	6	1	2	0	0	0	0	6	0	3	0	0	3	1	0	28
	El Salvador	0	1	0	0	2	0	2	0	0	0	0	0	1	0	0	1	0	1	0	0	8
	Trinidad and Tobago	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	2
Uruguay	0	0	0	0	1	1	0	0	0	0	0	0	0	0	2	0	0	4	0	0	8	
Bolivarian Republic of Venezuela	1	0	0	0	1	0	3	0	0	0	0	0	0	0	0	0	0	2	2	0	9	
Oceania	Cook Islands	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	
	Republic of the Fiji Islands	0	0	0	0	0	0	3	0	0	0	0	0	0	2	1	0	0	0	0	6	
	Kiribati	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	1	0	3	
	Palau	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
	Papua New Guinea	0	3	1	0	0	1	0	1	0	0	0	0	0	0	1	0	0	1	0	8	
	Solomon Islands	0	0	0	0	0	1	0	1	0	0	0	0	0	0	1	1	0	1	0	5	
	Samoa	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	
Europe	Albania	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
	Bulgaria	1	1	0	1	0	0	0	0	0	0	0	1	0	0	0	0	1	2	0	7	
	Bosnia-Herzegovina	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	3	
	Czechoslovakia	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	
	Greece	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	
	Hungary	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	1	7	
	Macedonia	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	2	
	Poland	1	1	0	1	0	1	0	0	0	0	0	0	0	0	0	0	2	1	1	8	
	Portugal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	
	Romania	1	2	0	0	1	1	0	0	0	0	0	1	0	1	0	0	1	0	0	8	
	Slovakia	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	2	
	Croatia	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
	Latvia	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
	Lithuania	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	2	
	Moldova	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	
	Slovenia	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	
Multiple Countries	1	0	3	0	0	2	3	2	0	1	0	0	0	0	0	0	0	0	0	12		
Total		93	117	141	53	98	137	238	72	22	6	6	12	294	2	50	34	21	299	241	40	1,976

*1 Agriculture, forestry and fishery project (Thailand: The Development Study on Human Resources Training / Development in the Context of Economy in the Rural Areas in the Kingdom of Thailand) is included in the human resources development sector.

*2 Others consists of Social Development (1 in Indonesia and 1 in Honduras) and 38 Mining and Industrial Development Studies.

1-3. Numbers of Studies by Type

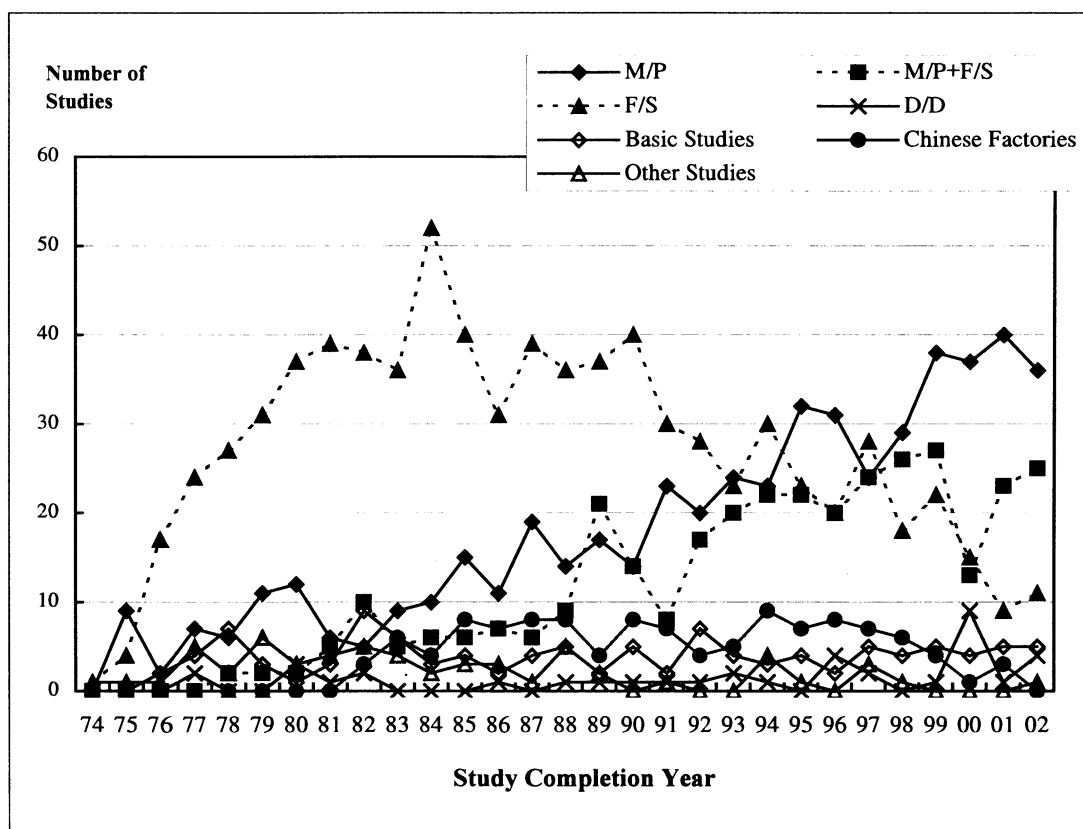
A total of 1,976 studies are classified into 786 F/S studies (39.8%), 524 M/P (26.5%), 342 M/P + F/S (17.3%), which accounts over for 80% of the total. As for the number of studies on a fiscal year basis, the numbers of M/P recently remained at around mid 30, although temporarily decreased in FY 1997. The numbers of F/S have been decreasing in recent years. The number of M/P + F/S remained at around mid 20, and there were 25 studies in FY 2000. As for the Chinese Factories Studies, the number has been decreasing since FY 1994, and there were only three studies in FY 2001, and no study was implemented in FY 2002.

Table 2-6 Time Trend of the Number of Development Studies by Type of Study

Study Completion Year	M/P	M/P+F/S	F/S	D/D	Basic Studies	Chinese Factories	Other Studies *	Total
1974	0	0	1	0	0	0	1	2
1975	9	0	4	0	0	0	1	14
1976	2	0	17	0	2	0	1	22
1977	7	0	24	2	4	0	5	42
1978	6	2	27	0	7	0	2	44
1979	11	2	31	0	3	0	6	53
1980	12	2	37	3	1	0	3	58
1981	6	5	39	1	3	0	4	58
1982	5	10	38	2	9	3	5	72
1983	9	5	36	0	6	6	4	66
1984	10	6	52	0	3	4	2	77
1985	15	6	40	0	4	8	3	76
1986	11	7	31	1	2	7	3	62
1987	19	6	39	0	4	8	1	77
1988	14	9	36	1	5	8	5	78
1989	17	21	37	1	2	4	2	84
1990	14	14	40	1	5	8	0	82
1991	23	8	30	1	2	7	1	72
1992	20	17	28	1	7	4	0	77
1993	24	20	23	2	4	5	0	78
1994	23	22	30	1	3	9	4	92
1995	32	22	23	0	4	7	1	89
1996	31	20	20	4	2	8	0	85
1997	24	24	28	2	5	7	3	93
1998	29	26	18	0	4	6	1	84
1999	38	27	22	1	5	4	0	97
2000	37	13	15	9	4	1	0	79
2001	40	23	9	1	5	3	0	81
2002	36	25	11	4	5	0	1	82
Total	524 (26.5%)	342 (17.3%)	786 (39.8%)	38 (1.9%)	110 (5.6%)	117 (5.9%)	59 (3.0%)	1,976 (100.0%)

* "Others" is a combination of "Other Studies" from Social Development and Agriculture, Forestry and Fisheries Development Studies, and "Other (M/P-type and F/S-type) studies" from Mining and Industrial Development Studies.

Figure 2-3 Time Trend the Number of Development Studies by Type of Study



1-4. Numbers of Studies by Sector

There are 93 studies in the planning and administration sector, accounting for 4.7% of the total. There are 856 studies in the public works and utilities sector (43.3%), 380 in the agriculture, forestry and fishery sector (19.2%), 22 in the commerce & tourism sector (1.1%), 6 each in the health and medical care and the human resources development sector (0.3%), 320 in the mining and industry sector (16.2%), and 241 in the energy sector (12.2%). In FY 2002, 12 studies (0.6%) in the social welfare sector were completed. The most common subsector in the public works and utilities sector is transportation, which has 429 studies accounting for 21.7% of the total followed by social infrastructure (238 studies, 12.0%). The most common sub-sector in the agriculture, forestry and fishery sector is the agriculture sub-sector, which has 294 studies (14.9% of the total). In the mining and industry sector, there are 299 studies (15.1% of the total) in the industry sub-sector and 21 studies (1.1% of the total) in the mining sub-sector.

1-4-1. Numbers of Studies by Main Sectors

M/P studies include 258 Social Development Studies, which account for 49.1% of the total, 93 Agriculture, Forestry and Fishery Development Studies (17.7%), and 153 Mining and Industrial Development Studies (29.1%). F/S studies include 324 Social Development Studies, accounting for 41.3% of the total, 186 Agriculture, Forestry and Fishery Development Studies (23.7%), and 268 Mining and Industrial Development Studies (34.1%). M/P + F/S studies include 282 Social Development Studies, which account for 82.5% of the total, 60 Agriculture, Forestry and Fishery Development Studies (17.5%), and 0 Mining and Industrial Development Studies (0%). Social development is the largest sector in all types of study. In the Mining and Industrial Development Studies, there are 117 studies on the Factories Modernization Program in China, which do not exist in social development or agriculture, forestry and fisheries development, and 115 of these studies are in the industrial sector.

Transportation is the largest sub-sector in all types of study except basic studies and Studies on the Factories Modernization Program in China. These types of studies concentrate on hardware such as infrastructures. Due to this characteristic, basic studies focuses on social infrastructure and Studies on the Factories Modernization Program in China on industry.

Table 2-7 Classification by Sector and Type of Study

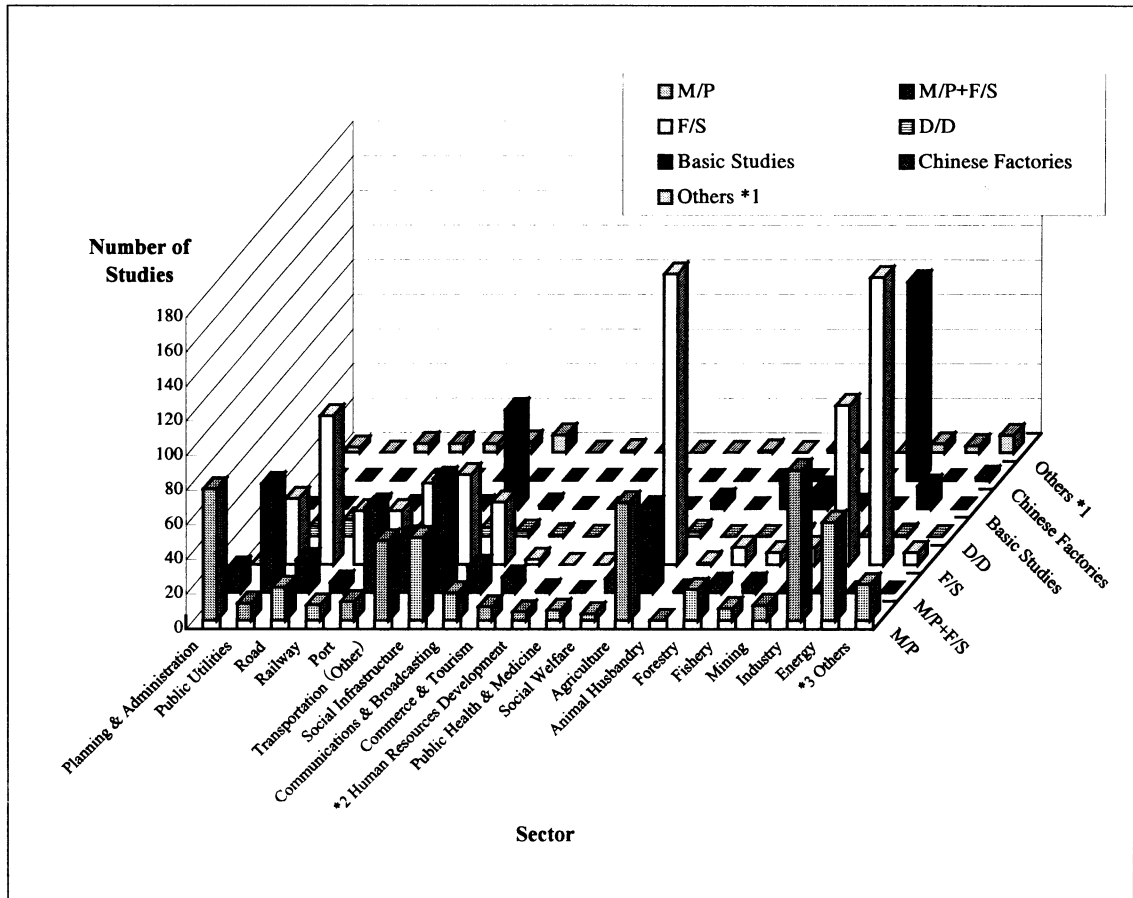
Sector		M/P	M/P+F/S	F/S	D/D	Basic Studies	Chinese Factories	Others *1	Total		
Social Development	Planning & Administration	76 (14.5%)	14 (4.1%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	3 (5.1%)	93 (4.7%)		
	Public Works & Utilities	Public Utilities	10 (1.9%)	63 (18.4%)	38 (4.8%)	6 (15.8%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	117 (5.9%)	
		Transportation	Road	19 (3.6%)	19 (5.6%)	86 (11.0%)	10 (26.3%)	2 (1.8%)	0 (0.0%)	5 (8.5%)	141 (7.1%)
			Railway	9 (1.7%)	6 (1.8%)	31 (3.9%)	1 (2.6%)	1 (0.9%)	0 (0.0%)	5 (8.5%)	53 (2.7%)
			Port and Harbor	11 (2.1%)	49 (14.3%)	31 (3.9%)	2 (5.3%)	0 (0.0%)	0 (0.0%)	5 (8.5%)	98 (5.0%)
			Others	46 (8.8%)	32 (9.4%)	47 (6.0%)	5 (13.2%)	1 (0.9%)	0 (0.0%)	6 (10.2%)	137 (6.9%)
		Sub-Total	85 (16.2%)	106 (31.0%)	195 (24.8%)	18 (47.4%)	4 (3.6%)	0 (0.0%)	21 (35.6%)	429 (21.7%)	
	Social Infrastructure	48 (9.1%)	66 (19.3%)	52 (6.6%)	5 (13.2%)	57 (51.8%)	0 (0.0%)	10 (16.9%)	238 (12.0%)		
	Communications & Broadcasting	16 (3.0%)	15 (4.4%)	36 (4.6%)	3 (7.9%)	2 (1.8%)	0 (0.0%)	0 (0.0%)	72 (3.6%)		
	Sub-Total	159 (30.3%)	250 (73.1%)	321 (40.9%)	32 (84.2%)	63 (57.3%)	0 (0.0%)	31 (52.5%)	856 (43.3%)		
	Commerce & Tourism	8 (1.5%)	9 (2.6%)	3 (0.4%)	1 (2.6%)	0 (0.0%)	0 (0.0%)	1 (1.7%)	22 (1.1%)		
	Human Resources *2 Development	5 (1.0%)	1 (0.3%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	6 (0.3%)		
	Public Health & Medicine	6 (1.1%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	6 (0.3%)		
	Social Welfare	4 (0.8%)	8 (2.3%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	12 (0.6%)		
Sub-Total	258 (49.1%)	282 (82.5%)	324 (41.3%)	33 (86.8%)	63 (57.3%)	0 (0.0%)	35 (59.3%)	995 (50.4%)			
Agriculture, Forestry and Fisheries Development	Agriculture, forestry & Fishery	Agriculture	68 (13.0%)	49 (14.3%)	168 (21.4%)	3 (7.9%)	5 (4.5%)	0 (0.0%)	1 (1.7%)	294 (14.9%)	
		Animal Husbandry	0 (0.0%)	1 (0.3%)	1 (0.1%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	2 (0.1%)	
		Forestry	18 (3.4%)	5 (1.5%)	10 (1.3%)	0 (0.0%)	15 (13.6%)	0 (0.0%)	2 (3.4%)	50 (2.5%)	
		Fishery	7 (1.3%)	5 (1.5%)	7 (0.9%)	1 (2.6%)	12 (10.9%)	0 (0.0%)	2 (3.4%)	34 (1.7%)	
	Sub-Total	93 (17.7%)	60 (17.5%)	186 (23.7%)	4 (10.5%)	32 (29.1%)	0 (0.0%)	5 (8.5%)	380 (19.2%)		
Mining and Industrial Development	Mining & Industry	Mining	9 (1.7%)	0 (0.0%)	10 (1.3%)	0 (0.0%)	2 (1.8%)	0 (0.0%)	0 (0.0%)	21 (1.1%)	
		Industry	87 (16.6%)	0 (0.0%)	92 (11.7%)	0 (0.0%)	0 (0.0%)	115 (98.3%)	5 (8.5%)	299 (15.1%)	
	Sub-Total	96 (18.3%)	0 (0.0%)	102 (13.0%)	0 (0.0%)	2 (1.8%)	115 (98.3%)	5 (8.5%)	320 (16.2%)		
	Energy	57 (10.9%)	0 (0.0%)	166 (21.1%)	1 (2.6%)	13 (11.8%)	0 (0.0%)	4 (6.8%)	241 (12.2%)		
Sub-Total	153 (29.1%)	0 (0.0%)	268 (34.1%)	1 (2.6%)	15 (13.6%)	115 (98.3%)	9 (15.3%)	561 (28.4%)			
Others *3	21 (4.0%)	0 (0.0%)	7 (0.9%)	0 (0.0%)	0 (0.0%)	2 (1.7%)	10 (16.9%)	40 (2.0%)			
Total	525 (100.0%)	342 (100.0%)	785 (100.0%)	38 (100.0%)	110 (100.0%)	117 (100.0%)	59 (100.0%)	1976 (100.0%)			

*1 "Others" is a combination of "Other Studies" from Social Development and Agriculture, Forestry and Fisheries Development Studies, and "Other (M/P-type and F/S-type) studies" from Mining and Industrial Development Studies.

*2 Agriculture, forestry and fishery project (Thailand: The Development Study on Human Resources Training / Development in the Context of Economy in the Rural Areas in the Kingdom of Thailand) is included in the human resources development sector.

*3 "Others" consists of two Social Development (M/P) and 38 Mining and Industrial Development Studies.

Figure 2-4 Classification by Sector and Type of Study



*1 "Others" is a combination of "Other Studies" from Social Development and Agriculture, Forestry and Fisheries Development Studies, and "other (M/P-type and F/S-type) studies" from Mining and Industrial Development Studies.

*2 Agriculture, forestry and fishery project (Thailand: The Development Study on Human Resources Training / Development in the Context of Economy in the Rural Areas in the Kingdom of Thailand) is included in the human resources development sector.

*3 "Others" consists of two Social Development (M/P) and 38 Mining and Industrial Development Studies.

1-4-2. Trends in Major Sub-sectors

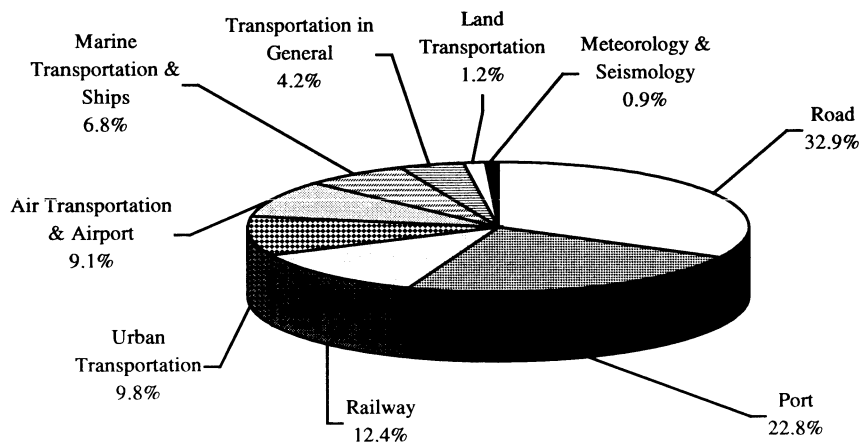
(1) Transportation

The transportation sub-sector is further classified into 9 sub-sub-sectors, with 429 studies conducted over the last 29 years. There are particularly large numbers of studies in three sub-sub-sectors: 141 studies in road (32.9%); 98 in ports and harbors (22.8%); and 53 in railway (12.4%). These three sub-sub-sectors account for nearly 70% of the total studies in this sub-sector. Air transportation & airport and urban transportation sub-sub-sectors follow these with 42 and 39 studies conducted respectively.

Table 2-8 Transportation

	Number of Studies	
Road	141	(32.9%)
Ports and Harbors	98	(22.8%)
Railway	53	(12.4%)
Urban Transportation	42	(9.8%)
Air Transportation & Airport	39	(9.1%)
Marine Transportation & Ships	29	(6.8%)
Transportation in General	18	(4.2%)
Land Transportation	5	(1.2%)
Meteorology & Seismology	4	(0.9%)
Total	429	(100.0%)

Figure 2-5 Transportation (%)



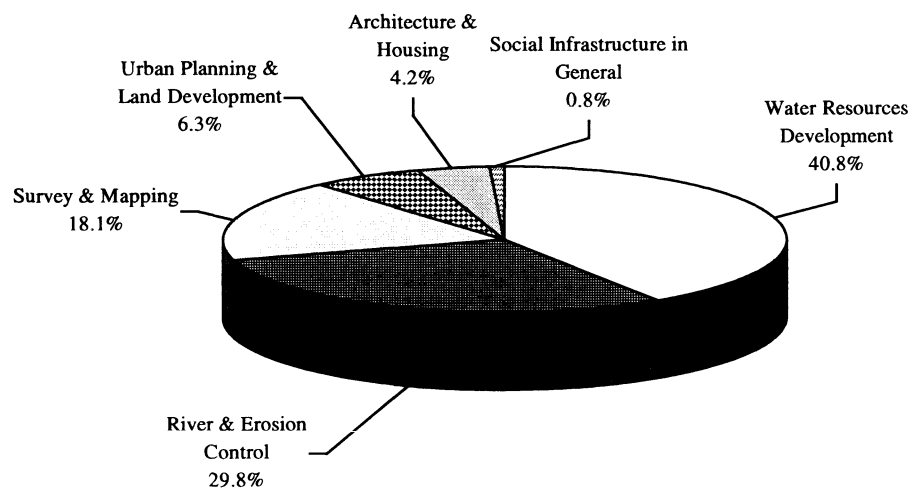
(2) Social Infrastructure

The social infrastructure sub-sector comprises 6 sub-sub-sectors, with 238 studies conducted in the last 29 years. Among these sub-sectors, the studies are concentrated in two sub-sub-sectors: 97 in water resources development (40.8%) and 71 in river & erosion control (29.8%). These two sub-sub-sectors account for more than 70% of the total studies in this sub-sector.

Table 2-9 Social Infrastructure

	Number of Studies	
Water Resources Development	97	(40.8%)
River & Erosion Control	71	(29.8%)
Survey & Mapping	43	(18.1%)
Urban Planning & Land Development	15	(6.3%)
Architecture & Housing	10	(4.2%)
Social Infrastructure in General	2	(0.8%)
Total	238	(100.0%)

Figure 2-6 Social Infrastructure (%)



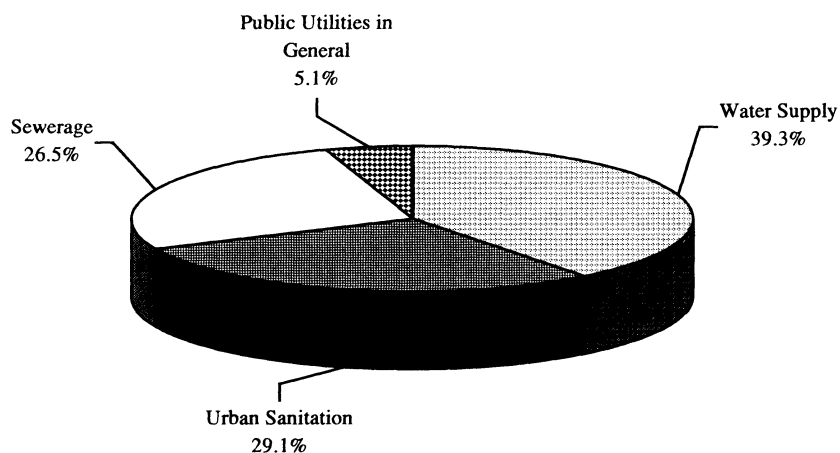
(3) Public Utilities

The public utilities sub-sector is divided into 4 sub-sub-sectors, with 117 studies carried out over the last 29 years. There are 46 studies (39.3%) in water supply, 34 (29.1%) studies in urban sanitation, and 31 studies (26.5%) in sewerage.

Table 2-10 Public Utilities

	Number of Studies	
Water Supply	46	(39.3%)
Urban Sanitation	34	(29.1%)
Sewerage	31	(26.5%)
Public Utilities in General	6	(5.1%)
Total	117	(100.0%)

Figure 2-7 Public Utilities (%)



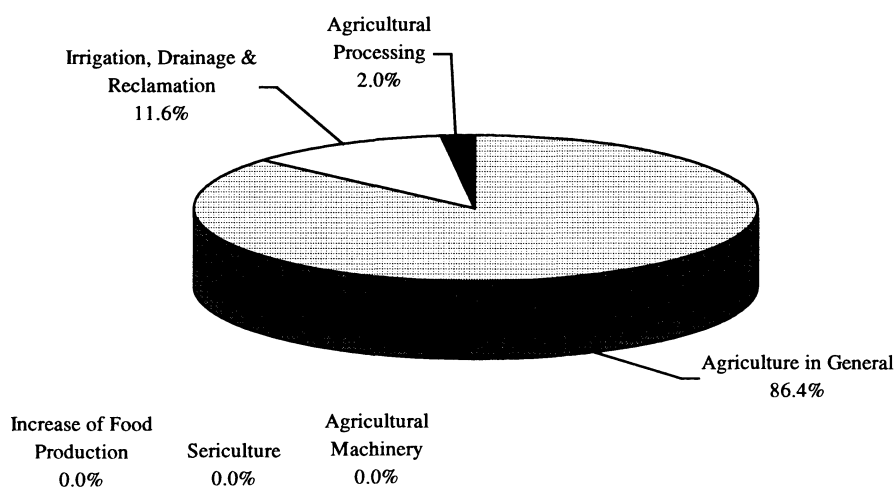
(4) Agriculture

The agriculture sub-sector is classified into six sub-sub-sectors. Over the last 29 years, 294 studies have been conducted, of which 254 (86.4% of the total) are in agriculture in general. No studies have been carried out in the sericulture, increase of food production, and agricultural machinery sub-sub-sectors.

Table 2-11 Agriculture

	Number of Studies	
Agriculture in General	254	(86.4%)
Irrigation, Drainage & Reclamation	34	(11.6%)
Agricultural Processing	6	(2.0%)
Sericulture	0	(0.0%)
Agricultural Machinery	0	(0.0%)
Increase of Food Production	0	(0.0%)
Total	294	(100.0%)

Figure 2-8 Agriculture (%)



(5) Animal Husbandry

The animal husbandry sub-sector is classified into three sub-sub-sectors. Over the last 29 years, only two studies (one in animal husbandry and one in livestock processing) have been conducted.

Table 2-12 Animal Husbandry

	Number of Studies	
Animal Husbandry	1	(50.0%)
Livestock Processing	1	(50.0%)
Animal Health	0	(0.0%)
Total	2	(100.0%)

(6) Forestry

The forestry sub-sector is divided into two sub-sub-sectors. All of the 50 studies conducted in forestry sub-sector over the last 29 years have been in forestry & forestry conservation.

Table 2-13 Forestry

	Number of Studies	
Forestry & Forest Conservation	50	(100.0%)
Timber Processing	0	(0.0%)
Total	50	(100.0%)

(7) Fishery

The Fishery sub-sector is also composed of two sub-sub-sectors. All of the 34 studies carried out over the last 29 years have been in fishery sub-sub-sector, and no study has been conducted in marine products processing.

Table 2-14 Fishery

	Number of Studies	
Fishery	34	(100.0%)
Marine Products Processing	0	(0.0%)
Total	34	(100.0%)

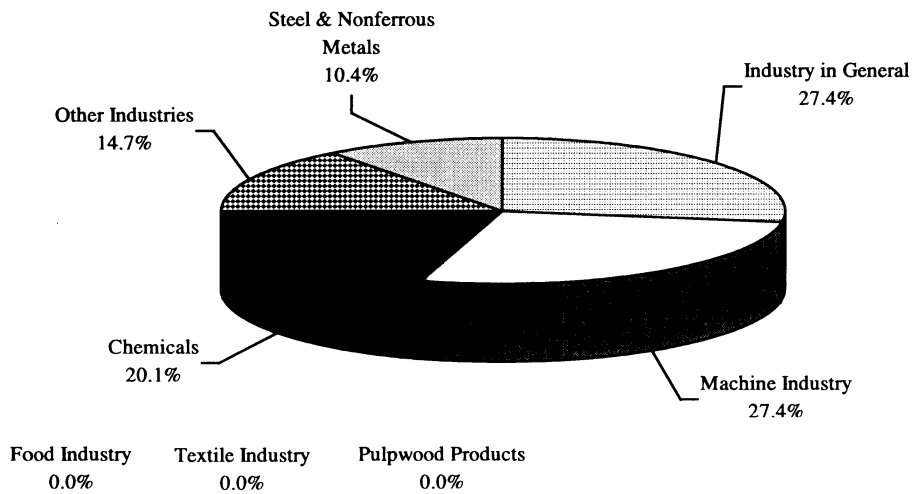
(8) Industry

Over the last 29 years, 299 studies have been carried out in the industry sub-sector. There are a large number of studies in three sub-sub-sectors: 82 studies in machine industry, 82 in industry in general and 60 in chemicals. These three sub-sub-sectors account for 75% of the total studies in this sub-sector.

Table 2-15 Industry

	Number of Studies	
Industry in General	82	(27.4%)
Machine Industry	82	(27.4%)
Chemicals	60	(20.1%)
Other Industries	44	(14.7%)
Steel & Nonferrous Metals	31	(10.4%)
Textile Industry	0	(0.0%)
Pulpwood Products	0	(0.0%)
Food Industry	0	(0.0%)
Total	299	(100.0%)

Figure 2-9 Industry (%)



(9) Mining

21 studies have been carried out over the last 29 years in the Mining sub-sector, which consists of only the Mining sub-sub-sector.

Table 2-16 Mining

	Number of Studies	
Mining	21	(100.0%)
Total	21	(100.0%)

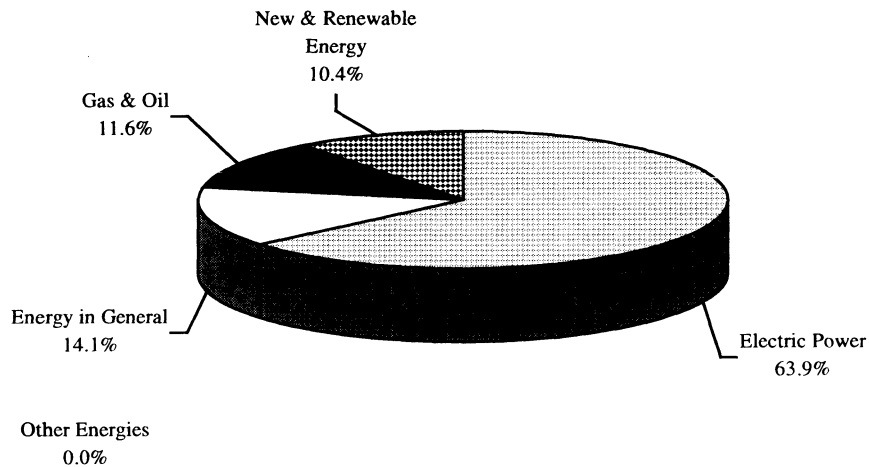
(10) Energy

The energy sub-sector comprises five sub-sub-sectors. Over the last 29 years, 241 studies have been conducted. 154 studies were carried out in the electric power sub-sub-sector which accounts for 63.9% of the total studies in this sub-sector. 34 studies in the energy in general (14.1%) and 28 studies in the gas and oil (11.6%) sub-sector follow this.

Table 2-17 Energy

	Number of Studies	
Electric Power	154	(63.9%)
Energy in General	34	(14.1%)
Gas & Oil	28	(11.6%)
New & Renewable Energy	25	(10.4%)
Other Energies	0	(0.0%)
Total	241	(100.0%)

Figure 2-10 Energy (%)



1-4-3. Study Expense

Table 2-18 shows the average expense per single study by region and sub-sector. There is no major difference in the average expense by region, with the expense in each region being around 250 million yen, though expenses in Africa are the highest. A breakdown by sub-sector shows that the most costly one is social infrastructure (450 million yen), followed by social welfare (440 million yen), planning & administration (370 million yen), health and medical care (350 million yen), and forestry (320 million yen).

Table 2-18 Average Study Expense by Region and Sub-sector

(Unit : 1,000 yen)

Sector		Asia	Middle East	Africa	Central & South America	Oceania	Europe	Plural Countries	Average		
Social Development	Planning & Administration	395,738	304,667	258,614	367,961	127,300	379,265	598,608	369,364		
	Public Works & Utilities	Public Utilities	291,445	287,988	345,720	278,498	326,512	249,856	-	293,860	
		Transportation	Road	254,187	306,126	209,499	272,773	792,126	-	241,870	257,826
			Railway	254,313	320,023	135,619	172,982	-	452,927	-	244,703
			Ports and Harbors	230,445	300,535	337,621	218,830	95,878	384,263	-	239,633
			Others	263,420	285,968	117,514	296,757	158,857	431,304	68,808	260,466
			Average	252,125	196,318	213,336	430,672	299,035	252,538	172,645	252,892
	Social Infrastructure	397,965	444,635	598,450	463,111	601,134	341,284	309,620	447,622		
	Communications & Broadcasting	161,722	146,518	141,261	157,196	102,490	-	244,227	158,883		
	Average	287,052	380,095	298,751	324,429	321,048	306,874	228,054	304,726		
	Commerce & Tourism	262,788	363,630	210,931	313,225	-	168,856	-	285,893		
	Human Resources Development *1	223,357	-	285,744	-	-	-	78,217	230,361		
	Public Health & Medicine	348,009	-	362,839	287,823	-	-	-	345,393		
	Social Welfare	418,720	498,729	-	447,970	-	-	-	436,930		
Agriculture, Forestry and Fisheries Development	Agriculture, forestry & Fishery	Agriculture	239,790	271,283	304,471	286,318	-	291,095	-	260,634	
		Animal Husbandry	158,367	97,200	-	-	-	-	-	127,784	
		Forestry	302,850	368,107	354,913	345,557	121,882	412,717	-	323,457	
		Fishery	211,941	307,371	248,423	292,021	202,909	-	-	248,217	
		Average	243,997	307,573	175,900	321,500	274,478	300,083	-	267,090	
Mining and Industrial Development	Mining & Industry	Mining	165,712	319,863	69,763	119,222	54,196	-	-	138,539	
		Industry	102,889	117,998	93,962	120,803	-	197,493	-	108,563	
		Average	105,391	89,692	54,196	197,493	124,307	120,487	-	110,530	
	Energy	185,094	208,401	196,755	200,329	358,569	211,515	-	194,541		
Others *2	120,503	454,568	-	404,996	37,663	170,016	-	207,817			
Average		233,803	271,985	309,500	276,251	248,530	282,518	246,447	254,142		

*1 Agriculture, forestry and fishery project (Thailand: The Development Study on Human Resources Training / Development in the Context of Economy in the Rural Areas in the Kingdom of Thailand) is included in the human resources development sector.

*2 Others consists of two Social Development Studies (1 in Indonesia and 1 in Honduras) and 38 Mining and Industrial Development Studies.

2. Overview of M/P Studies Group

Based on Table 1-4, the present status of the utilization of Development Studies in the M/P studies group is classified into one of following three categories: “In Progress or In Use”, “Delayed”, and “Discontinued or Cancelled”. A study whose status is unclear in this follow-up study is temporarily classified into “Delayed.”

The studies in the M/P studies group are evaluated by “utilization rate,” which is calculated as (the number of studies in progress or in use) / (the total number of studies) × 100. They are classified either into “In Progress or In Use” if (1) a proposed project has been either implemented or completed after the fund(s) have been procured, or (2) the study findings are incorporated into the development policy or plan of the recipient country.

Out of 1,976 completed Development Studies, 806 studies are in the M/P studies group. 329 out of 357 studies in the M/P studies group of the social development area are classified as “In Progress or In Use” and the utilization rate is 92.2%. In the agriculture, forestry and fishery development area, 123 out of 131 completed studies are classified as “In Progress or In Use,” and the utilization rate is 93.9%. In the mining and industry development area, 254 out of 318 studies are “In Progress or In Use,” and the rate is 79.9%. It can be concluded that the results of the Development Studies have been well utilized by recipient countries.

Table 2-19 Utilization Rate by Category of Development Study

Present Status	Social Development	Agriculture, Forestry and Fisheries Development	Mining and Industrial Development	Total
In Progress or In Use	329	123	254	706
Utilization Rate	(92.2%)	(93.9%)	(79.9%)	(87.6%)
Delayed	12	5	45	62
Discontinued or Cancelled	16	3	19	38
Total	357	131	318	806

2-1. Utilization Rates by Region

Here, the utilization rate is analyzed by region except for Oceania, Europe, and multiple countries, where few Development Studies have been conducted. The utilization rate in the ASEAN region is 92.0%, which is the highest of all the regions, above average of 87.6%. followed by Central & South America (88.2%), Middle East and Africa (85.1%), other Asian countries (83.2%).

Table 2-20 Utilization Rate by Region

Present Status	Asia			Middle East	Africa	Central & South America	Oceania	Europe	Multiple Countries	Total
	ASEAN	Other Asia	Sub-Total							
In Progress or In Use	229	178	407	63	80	120	8	21	7	706
Utilization Rate	(92.0%)	(83.2%)	(87.9%)	(85.1%)	(85.1%)	(88.2%)	(80.0%)	(95.5%)	(85.7%)	(87.6%)
Delayed	10	30	40	5	7	8	1	1	0	62
Discontinued or Cancelled	10	6	16	6	7	8	1	0	0	38
Total	249	214	463	74	94	136	10	22	7	806

2-2. Utilization Rates by Country

As mentioned above, ASEAN has the highest utilization rate. In the ASEAN region, the countries where more than 10 studies were conducted, the rates in each country is as follows: Indonesia (94.7%), Laos (90.0%), Malaysia (92.6%), Philippines (86.8%), Thailand (92.6%) and Viet Nam (100.0%). There are other 14 countries where more than 10 studies were carried out. Rates of other countries are as follows; China, 84.0%, Mongolia (90.0%), Nepal (90.0%) Sri Lanka (85.7%)(Asia), Egypt (81.8%), Oman (90.9%), (Middle East), Kenya (92.9%), Tanzania (83.3%)(Africa), Argentina (100.0%), Bolivia (75.0 %), Brazil (100.0%), Colombia (86.7%), Mexico (81.3%), Paraguay (92.9%)(Central & South America). The result shows that utilization rate exceeds 80% in almost all countries.

Table 2-21 Utilization Rate by Country

		In Progress or In Use	Utilization Rate	Delayed	Discontinued or Cancelled	Total
ASEAN	Brunei	1	33.3%	0	2	3
	Cambodia	5	100.0%	0	0	5
	Indonesia	71	94.7%	2	2	75
	Laos	9	90.0%	1	0	10
	Malaysia	25	92.6%	1	1	27
	Myanmar	2	100.0%	0	0	2
	Philippines	46	86.8%	5	2	53
	Singapore	3	100.0%	0	0	3
	Thailand	50	92.6%	1	3	54
	Viet Nam	17	100.0%	0	0	17
Asia (except ASEAN)	China	121	84.0%	19	4	144
	Korea	3	100.0%	0	0	3
	Mongolia	9	90.0%	1	0	10
	Bangladesh	3	60.0%	1	1	5
	Bhutan	1	100.0%	0	0	1
	India	1	25.0%	2	1	4
	Nepal	9	90.0%	1	0	10
	Pakistan	7	87.5%	1	0	8
	Sri Lanka	12	85.7%	2	0	14
	Armenia	0	0.0%	1	0	1
	Azerbaijan	2	66.7%	1	0	3
	Georgia	1	100.0%	0	0	1
	Kyrgyz	4	100.0%	0	0	4
	Kazakhstan	2	66.7%	1	0	3
	Uzbekistan	2	100.0%	0	0	2
East Timor	1	100.0%	0	0	1	
Middle East	United Arab Emirates	1	50.0%	1	0	2
	Egypt	9	81.8%	2	0	11
	Iran	7	100.0%	0	0	7
	Iraq	0	0.0%	0	3	3
	Jordan	8	100.0%	0	0	8
	Morocco	6	100.0%	0	0	6
	Oman	10	90.9%	1	0	11
	Saudi Arabia	4	66.7%	0	2	6
	Syria	3	100.0%	0	0	3
	Tunisia	8	100.0%	0	0	8
	Turkey	5	71.4%	1	1	7
	Yemen	2	100.0%	0	0	2
Africa	Angola	1	100.0%	0	0	1
	Benin	1	100.0%	0	0	1
	Burkina Faso	1	100.0%	0	0	1
	Botswana	1	100.0%	0	0	1
	Democratic Republic of the Congo	1	100.0%	0	0	1
	Cote d'Ivoire	0	0.0%	1	0	1
	Cape Verde	1	100.0%	0	0	1
	Ethiopia	3	100.0%	0	0	3
	Gabon	0	0.0%	0	1	1
	Ghana	3	100.0%	0	0	3
	Guinea	1	100.0%	0	0	1
	Gambia	1	100.0%	0	0	1
	Kenya	13	92.9%	0	1	14
	Liberia	0	0.0%	0	1	1
	Madagascar	1	50.0%	0	1	2

		In Progress or In Use	Utilization Rate	Delayed	Discontinued or Cancelled	Total
Africa	Mali	3	75.0%	1	0	4
	Mozambique	5	100.0%	0	0	5
	Mauritania	1	100.0%	0	0	1
	Mauritius	1	100.0%	0	0	1
	Malawi	5	83.3%	1	0	6
	Namibia	2	100.0%	0	0	2
	Niger	4	100.0%	0	0	4
	Nigeria	0	0.0%	1	2	3
	Rwanda	1	100.0%	0	0	1
	Senegal	4	100.0%	0	0	4
	Sierra Leone	2	100.0%	0	0	2
	Saitama and Principe	10	83.3%	1	1	12
	Swaziland	3	100.0%	0	0	3
	Tanzania	2	100.0%	0	0	2
	Uganda	5	100.0%	0	0	5
	South Africa	4	66.7%	2	0	6
	Zambia	3	75.0%	1	0	4
Zimbabwe	5	100.0%	0	0	5	
Central & South America	Argentina	12	100.0%	0	0	12
	Bolivia	9	75.0%	3	0	12
	Brazil	13	100.0%	0	0	13
	Chile	9	100.0%	0	0	9
	Colombia	13	86.7%	1	1	15
	Costa Rica	3	75.0%	0	1	4
	Dominican Republic	2	100.0%	0	0	2
	Ecuador	3	100.0%	0	0	3
	Guatemala	6	100.0%	0	0	6
	Guyana	1	100.0%	0	0	1
	Honduras	7	87.5%	0	1	8
	Mexico	13	81.3%	1	2	16
	Nicaragua	1	100.0%	0	0	1
	Panama	3	100.0%	0	0	3
	Peru	4	80.0%	1	0	5
	Paraguay	13	92.9%	0	1	14
	El Salvador	4	80.0%	0	1	5
Uruguay	3	75.0%	1	0	4	
Bolivarian Republic of Venezuela	1	33.3%	1	1	3	
Oceania	Republic of the Fiji Islands	4	100.0%	0	0	4
	Kiribati	2	100.0%	0	0	2
	Palau	1	100.0%	0	0	1
	Papua New Guinea	1	100.0%	0	0	1
	Solomon Islands	0	0.0%	1	0	1
	Tonga	0	0.0%	0	1	1
Europe	Bulgaria	3	100.0%	0	0	3
	Bosnia-Herzegovina	1	100.0%	0	0	1
	Greece	1	100.0%	0	0	1
	Hungary	3	100.0%	0	0	3
	Macedonia	2	100.0%	0	0	2
	Poland	5	100.0%	0	0	5
	Portugal	1	100.0%	0	0	1
	Romania	1	100.0%	0	0	1
	Slovakia	2	100.0%	0	0	2
	Latvia	1	100.0%	0	0	1
	Lithuania	0	0.0%	1	0	1
	Slovenia	1	100.0%	0	0	1
Multiple Countries	7	100.0%	0	0	7	
	Total	706	87.6%	62	38	806

2-3. Utilization Rates by Study Type

100 out of 110 studies in basic studies are well utilized, and the utilization rate is 90.9%, which is the highest of all study types. For M/P, 468 out of 525 studies are "In Progress or In Use" and the utilization rate is 89.1%. For Studies on the Factories Modernization Program in China and other studies, the utilization rates are 81.2% and 79.6% respectively. It can be concluded that the results of the Development Studies have been well utilized in all types of study.

Table 2-22 Utilization Rate by Study Type

	M/P	Basic Studies	Chinese Factories	Others *	Total
In Progress or In Use	468	100	95	43	706
Utilization Rate	(89.1%)	(90.9%)	(81.2%)	(79.6%)	(87.6%)
Delayed	36	4	19	3	62
Discontinued or Cancelled	21	6	3	8	38
Total	525	110	117	54	806

* Others consists of "Other Studies" from Social Development, Agriculture, Forestry and Fishery Development, and Mining and Industrial Development Studies; and "Other (M/P-type) Studies" from Mining and Industrial Development Studies.

2-4. Utilization Rates by Sector

The social development area has had 357 studies out of completed 806 M/P studies with the utilization rate of 92.2%. 131 studies have been conducted in agriculture, forestry and 131 in fishery development area with a utilization rate of 93.9%, and 318 studies in the mining and industrial development area with the utilization rate of 79.9%.

In the social infrastructure sub-sector, which is the largest sub-sector of the social development area, 104 of 115 studies are "In Progress or In Use" with the utilization rate of 90.4%. 102 of 110 studies in the transportation sub-sector are "In Progress or In Use" with the utilization rate of 92.7%. In the agriculture sub-sector, 70 of 74 studies are "In Progress or In Use" and the utilization rate is 94.6%. The largest sub-sector in the mining and industrial development area is the industry sub-sector. 163 of 204 studies in the industry sub-sector are "In Progress or In Use," with the utilization rate of 79.9%.

Table 2-23 Utilization Rate by Sector

Present Status	Social Development											
	Planning & Administration	Public Utilities	Transportation				Social Infrastructure	Communications & Broadcasting	Tourism	* 1 Human Resources Development	Public Health and Medicine	Social Welfare
			Road	Railway	Port	Others						
In Progress or In Use	77	9	25	14	14	49	104	17	8	5	3	3
Utilization Rate	(97.5%)	(90.0%)	(96.2%)	(93.3%)	(87.5%)	(92.5%)	(90.4%)	(94.4%)	(88.9%)	(100.0%)	(50.0%)	(75.0%)
Delayed	1	1	0	0	0	1	4	0	1	0	3	1
Discontinued or Cancelled	1	0	1	1	2	3	7	1	0	0	0	0
Total	79	10	26	15	16	53	115	18	9	5	6	4

Present Status	Agriculture, Forestry and Fisheries Development				Mining and Industrial Development			* 2	Total
	Agriculture	Animal Husbandry	Forestry	Fishery	Mining	Industry	Energy	Others	
In Progress or In Use	70	0	33	19	9	163	55	29	706
Utilization Rate	(94.6%)	(0.0%)	(94.3%)	(90.5%)	(81.8%)	(79.9%)	(76.4%)	(87.9%)	(87.6%)
Delayed	4	0	1	0	1	32	10	2	62
Discontinued or Cancelled	0	0	1	2	1	9	7	2	38
Total	74	0	35	21	11	204	72	33	806

*1 Agriculture, forestry and fishery project (Thailand: The Development Study on Human Resources Training/Development in the Context of Economy in the Rural Areas in the Kingdom of Thailand) is included in the human resources development sector.

*2 "Others" consists of two Social Development Studies, and 31 Mining and Industrial Development Studies.

3. Overview of F/S Studies Group

Based on Table 1-5, the status of Development Studies in the F/S studies group is classified into four categories; “Completed or in Progress”, “Under Promotion”, “Delayed or Suspended”, and “Discontinued or Cancelled”.

The studies in the F/S studies group are evaluated by the “realization rate”. The realization rate is calculated as the rate of projects either completed or being implemented against all the proposed projects.

Out of 1,976 Development Studies completed, 1,170 belong to the F/S studies group. 443 of 639 studies in the F/S studies group of social development area are “Completed or In Progress” with the realization rate of 69.3%. In the agriculture, forestry and fishery development area, 147 out of 250 studies are “Completed or In Progress” with the realization rate of 58.8%. In the mining and industry development area, 107 out of 281 studies are “Completed or In Progress” with the realization rate of 38.1%.

Table 2-24 Realization Rate by Sector

Present Status		Social Development	Agriculture, Forestry and Fisheries Development	Mining and Industrial Development	Total
Completed or In Progress	Completed	168	62	68	298
	Partially Completed	118	44	11	173
	Under Implementation	112	35	15	162
	In Process	45	6	13	64
	Sub-Total	443	147	107	697
Rate of Realization		(69.3%)	(58.8%)	(38.1%)	(59.6%)
Under Promotion		118	56	42	216
Delayed or Suspended		24	18	82	124
Discontinued or Cancelled		54	29	50	133
Total		639	250	281	1,170

3-1. Realization Rates by Region

The realization rate in this case is analyzed by region except for Oceania, Europe, and multiple countries where study has covered more than one single country, where few Development Studies have been carried out. The realization rate in Asia is 64.1%, which is higher than the average utilization rate of 59.6% of all studies in the F/S studies group. In ASEAN, the realization rate is 64.5%, which is the highest of all the regions. This is followed by the Middle East (64.4%), Africa (49.2%), Central and South America (48.3%),

Table 2-25 Realization Rate by Region

Present Status	Asia			Middle East	Africa	Central & South America	Oceania	Europe	Multiple Countries	Total
	ASEAN	Others	Sub-Total							
Completed	154	53	207	28	33	26	4	0	0	298
Partially Completed	71	29	100	21	12	30	3	6	1	173
Under Implementation	68	29	97	30	9	20	1	4	1	162
In Process	27	14	41	6	5	9	0	2	1	64
Sub-Total	320	125	445	85	59	85	8	12	3	697
Rate of Realization	(64.5%)	(63.1%)	(64.1%)	(64.4%)	(49.2%)	(48.3%)	(44.4%)	(48.0%)	(60.0%)	(59.6%)
Under Promotion	70	39	109	20	26	48	3	9	1	216
Delayed or Suspended	40	21	61	17	20	19	3	4	0	124
Discontinued or Cancelled	66	13	79	10	15	24	4	0	1	133
Total	496	198	694	132	120	176	18	25	5	1,170

3-2. Realization Rates by Country

As stated above, ASEAN has the highest realization rate of all the regions. There are 7 countries in ASEAN where more than 10 Development Studies were completed with the realization rate of more than 60%, namely Cambodia (61.5%), Indonesia (62.1%), Laos (66.7%), Malaysia (64.7%), Philippines (62.6%), Thailand (70.2%), Viet Nam (71.4%). There are other ten countries that have more than ten completed studies with realization rate of more than 60%. These include China (realization rate: 75.5%), Mongolia (72.7%), Bangladesh (64.0%), Sri Lanka (70.4%) (Asia), Egypt (77.5%), Turkey (60.0%)(Middle East), Tanzania (68.4%)(Africa), Colombia (63.6%), Panama (60.0%), Paraguay (71.4%) (Central and South America).

Table 2-26 Realization Rate by Country

		Completed or In Progress					Sub-Total	Realization Rate	Under Promotion	Delayed or Suspended	Discontinued or Suspended	Total
		Completed	Partially Completed	Under Implementation	In Process							
ASEAN	Brunei	0	0	0	0	0	0.0%	0	1	0	1	
	Cambodia	1	4	3	0	8	61.5%	2	3	0	13	
	Indonesia	59	16	17	8	100	62.1%	28	16	17	161	
	Laos	6	1	2	1	10	66.7%	3	2	0	15	
	Malaysia	16	10	7	0	33	64.7%	5	2	11	51	
	Myanmar	6	0	1	0	7	53.8%	2	0	4	13	
	Philippines	25	17	15	10	67	62.6%	18	6	16	107	
	Singapore	0	1	1	0	2	66.7%	0	0	1	3	
	Thailand	41	19	11	2	73	70.2%	7	7	17	104	
	Viet Nam	0	3	11	6	20	71.4%	5	3	0	28	
Asia (except ASEAN)	China	18	10	9	3	40	75.5%	7	5	1	53	
	Korea	3	0	0	0	3	75.0%	1	0	0	4	
	Mongolia	3	2	3	0	8	72.7%	3	0	0	11	
	Bangladesh	8	2	4	2	16	64.0%	5	3	1	25	
	Bhutan	1	0	0	0	1	25.0%	2	1	0	4	
	India	1	1	3	1	6	40.0%	3	1	5	15	
	Maldives	1	0	0	0	1	50.0%	1	0	0	2	
	Nepal	6	7	0	0	13	54.2%	5	4	2	24	
	Pakistan	5	5	2	0	12	52.2%	3	6	2	23	
	Sri Lanka	7	2	4	6	19	70.4%	5	1	2	27	
	Azerbaijan	0	0	0	0	0	0.0%	1	0	0	1	
	Kazakhstan	0	0	1	2	3	60.0%	2	0	0	5	
	Uzbekistan	0	0	1	0	1	50.0%	1	0	0	2	
East Timor	0	0	2	0	2	100.0%	0	0	0	2		
Middle East	United Arab Emirates	1	0	0	0	1	25.0%	0	3	0	4	
	Algeria	0	0	0	0	0	0.0%	0	3	1	4	
	Egypt	15	10	5	1	31	77.5%	5	0	4	40	
	Iran	0	1	2	0	3	50.0%	2	1	0	6	
	Iraq	0	0	0	0	0	0.0%	0	0	1	1	
	Jordan	2	1	5	0	8	88.9%	1	0	0	9	
	Lebanon	0	0	0	0	0	0.0%	1	0	0	1	
	Morocco	0	2	1	0	3	50.0%	2	1	0	6	
	Oman	2	1	3	0	6	66.7%	0	3	0	9	
	Palestine	0	1	0	0	1	100.0%	0	0	0	1	
	Qatar	1	0	0	0	1	100.0%	0	0	0	1	
	Saudi Arabia	1	0	0	0	1	50.0%	0	0	1	2	
	Sudan	2	0	1	0	3	60.0%	0	1	1	5	
	Syria	0	2	4	0	6	54.5%	4	1	0	11	
	Tunisia	1	2	3	0	6	85.7%	0	1	0	7	
	Turkey	0	1	6	5	12	60.0%	4	2	2	20	
	Yemen	3	0	0	0	3	60.0%	1	1	0	5	
Africa	Burkina Faso	0	0	0	0	0	0.0%	1	0	0	1	
	Central African Republic	0	0	0	0	0	0.0%	1	0	0	1	
	Democratic Republic of the Congo	1	0	0	0	1	33.3%	0	2	0	3	
	Cote d'Ivoire	0	0	1	0	1	25.0%	1	1	1	4	
	Cameroon	0	0	0	1	1	33.3%	0	1	1	3	
	Djibouti	1	0	0	0	1	100.0%	0	0	0	1	
	Eritrea	0	0	0	0	0	0.0%	1	0	0	1	
	Ethiopia	1	0	0	0	1	20.0%	3	1	0	5	
	Ghana	1	0	1	0	2	50.0%	1	0	1	4	
	Guinea	0	0	0	0	0	0.0%	1	0	1	2	
	Kenya	5	1	3	0	9	50.0%	6	1	2	18	
	Liberia	1	0	0	0	1	100.0%	0	0	0	1	
	Madagascar	3	0	1	1	5	83.3%	1	0	0	6	

		Completed or In Progress				Sub-Total	Realization Rate	Under Promotion	Delayed or Suspended	Discontinued or Suspended	Total
		Completed	Partially Completed	Under Implementation	In Process						
Africa	Mali	1	1	0	0	2	66.7%	0	0	1	3
	Mauritania	0	0	1	0	1	50.0%	1	0	0	2
	Mauritius	1	0	0	0	1	20.0%	2	0	2	5
	Malawi	2	0	0	1	3	100.0%	0	0	0	3
	Niger	1	0	0	0	1	25.0%	2	1	0	4
	Nigeria	0	1	0	0	1	50.0%	0	0	1	2
	Rwanda	0	0	0	0	0	0.0%	0	1	0	1
	Senegal	1	1	0	0	2	33.3%	2	1	1	6
	Sierra Leone	0	1	0	0	1	50.0%	0	1	0	2
	Sao tome and Principe	0	0	0	0	0	0.0%	0	1	0	1
	Swaziland	0	0	0	0	0	0.0%	0	1	1	2
	Tanzania	6	4	1	2	13	68.4%	2	2	2	19
	Uganda	1	1	0	0	2	66.7%	0	1	0	3
	Zambia	4	0	1	0	5	55.6%	1	3	0	9
Zimbabwe	3	2	0	0	5	62.5%	0	2	1	8	
Central & South America	Argentina	0	0	0	0	0	0.0%	1	1	3	5
	Bolivia	3	6	0	1	10	58.8%	4	2	1	17
	Brazil	2	1	2	1	6	54.5%	4	0	1	11
	Chile	2	1	2	0	5	62.5%	3	0	0	8
	Colombia	2	3	1	1	7	63.6%	0	3	1	11
	Costa Rica	0	2	1	0	3	33.3%	3	2	1	9
	Dominican Republic	4	0	1	0	5	50.0%	3	1	1	10
	Ecuador	0	0	3	0	3	30.0%	2	2	3	10
	Grenada	0	0	1	0	1	100.0%	0	0	0	1
	Guatemala	1	3	1	0	5	45.5%	5	1	0	11
	Honduras	1	2	0	0	3	27.3%	5	1	2	11
	Jamaica	0	0	1	0	1	50.0%	0	0	1	2
	Mexico	4	0	1	1	6	50.0%	2	0	4	12
	Nicaragua	0	2	1	0	3	50.0%	3	0	0	6
	Panama	0	5	1	0	6	60.0%	2	1	1	10
	Peru	0	2	2	2	6	46.2%	3	2	2	13
	Paraguay	5	3	1	1	10	71.4%	2	1	1	14
	El Salvador	0	0	0	2	2	66.7%	1	0	0	3
	Trinidad and Tobago	0	0	0	0	0	0.0%	1	1	0	2
	Uruguay	1	0	0	0	1	25.0%	1	1	1	4
Bolivarian Republic of Venezuela	1	0	1	0	2	33.3%	3	0	1	6	
Oceania	Cook Islands	0	0	0	0	0	0.0%	2	0	0	2
	Republic of the Fiji Islands	0	0	0	0	0	0.0%	0	2	0	2
	Kiribati	0	0	1	0	1	100.0%	0	0	0	1
	Papua New Guinea	2	1	0	0	3	42.9%	1	1	2	7
	Solomon Islands	0	2	0	0	2	50.0%	0	0	2	4
	Samoa	2	0	0	0	2	100.0%	0	0	0	2
Europe	Albania	0	0	0	0	0	0.0%	1	0	0	1
	Bulgaria	0	1	2	1	4	100.0%	0	0	0	4
	Bosnia-Herzegovina	0	0	0	0	0	0.0%	1	1	0	2
	Czechoslovakia	0	1	0	0	1	100.0%	0	0	0	1
	Hungary	0	1	0	0	1	25.0%	2	1	0	4
	Poland	0	2	0	0	2	66.7%	0	1	0	3
	Romania	0	0	2	0	2	28.6%	4	1	0	7
	Croatia	0	0	0	0	0	0.0%	1	0	0	1
	Lithuania	0	1	0	0	1	100.0%	0	0	0	1
	Moldova	0	0	0	1	1	100.0%	0	0	0	1
Multiple Countries	0	1	1	1	3	60.0%	1	0	1	5	
	Total	298	173	162	64	697	59.6%	216	124	133	1,170

3-3. Realization Rates by Study Type

32 out of 38 D/D studies have been classified as “Completed or In Progress” with the realization rate of 84.2%, which is the highest among the different study types. Due to the nature of the studies, the realization rate for D/D studies is high. 220 out of 342 M/P + F/S studies are “Completed or In Progress” with the realization rate of 64.3%. 445 out of 790 F/S studies are “Completed or In Progress” with the realization rate of 56.3%.

There are many F/S and M/P + F/S studies classified as being in the category of “Under Promotion”. For F/S studies, the rate of studies “Under Promotion” in total studies is 14.1%. For M/P + F/S studies, the rate is 29.5%.

Table 2-27 Realization Rate by Type of Study

Present Status	M/P+F/S	F/S *	D/D	Total
Completed	49	240	9	298
Partially Completed	78	91	4	173
Under Implementation	69	82	11	162
In Process	24	32	8	64
Sub-Total	220	445	32	697
Rate of Realization	(64.3%)	(56.3%)	(84.2%)	(59.6%)
Under Promotion	101	111	4	216
Delayed or Suspended	14	109	1	124
Discontinued or Cancelled	7	125	1	133
Total	342	790	38	1,170

* The category F/S includes “Other (F/S-type)” Mining and Industrial Development Studies.

3-4. Realization Rates by Sector

As stated above, out of 1,170 studies completed in the F/S study group, 639 are in the social development area, 250 are in the agriculture, forestry and fishery development area, and 281 are in the mining and industrial development area. The realization rates are 69.3%, 58.8%, and 38.1%, respectively.

Out of all the sub-sectors in which more than 50 studies were conducted, the communications and broadcasting sub-sector has the highest realization rate of 83.3%, followed by the transportation sub-sector (69.6%), public works and utilities (70.1%), social infrastructure (63.4%), agriculture (60.0%), industry (41.1%) and energy (37.3%).

The average realization rate in the social development area is 69.3%, which is the highest of all areas of the Development Studies. On the other hand, the average realization rates in agriculture, forestry and fishery development (58.8%) and mining and industrial development areas (38.1%) are relatively low. There are, however, many studies classified as "Under Promotion" or "Delayed or Suspended" in these two Development Study areas (rates for the "Under Promotion" or "Delayed or Suspended" categories; social development area: 22.2%, agriculture, forestry and fishery development area: 29.6%, mining and industrial development area: 44.1%). Therefore, it is expected that these realization rates should rise once these studies move into the implementation stage.

Table 2-28 Realization Rate by Sector

Present Status	Social Development											
	Planning & Administration	Public Utilities	Transportation				Social Infrastructure	Communications & Broadcasting	Tourism	Human Resources Development	Public Health and Medicine	Social Welfare
			Road	Railway	Ports and Harbors	Others						
Completed	2	23	33	10	19	20	23	37	1	0	0	0
Partially Completed	1	20	25	7	15	20	21	6	3	0	0	0
Under Implementation	5	24	21	1	15	14	23	2	5	1	0	1
In Process	2	8	9	1	8	4	11	0	1	0	0	1
Sub-Total	10	75	88	19	57	58	78	45	10	1	0	2
Rate of Realization	(71.4%)	(70.1%)	(76.5%)	(50.0%)	(69.5%)	(69.0%)	(63.4%)	(83.3%)	(76.9%)	(100.0%)	(0.0%)	(25.0%)
Under Promotion	4	24	15	7	17	10	30	3	2	0	0	6
Delayed or Suspended	0	6	4	1	0	5	8	0	0	0	0	0
Discontinued or Cancelled	0	2	8	11	8	11	7	6	1	0	0	0
Total	14	107	115	38	82	84	123	54	13	1	0	8

Present Status	Agriculture, Forestry and Fisheries Development				Mining and Industrial Development			* Others	Total
	Agri-culture	Animal Husbandry	Forestry	Fishery	Mining	Industry	Energy		
Completed	57	0	3	2	2	32	34	0	298
Partially Completed	39	0	1	4	0	4	5	2	173
Under Implementation	30	0	4	1	0	3	11	1	162
In Process	6	0	0	0	0	0	13	0	64
Sub-Total	132	0	8	7	2	39	63	3	697
Rate of Realization	(60.0%)	(0.0%)	(53.3%)	(53.8%)	(20.0%)	(41.1%)	(37.3%)	(42.9%)	(59.6%)
Under Promotion	47	1	4	4	1	6	33	2	216
Delayed or Suspended	15	0	2	1	4	25	52	1	124
Discontinued or Cancelled	26	1	1	1	3	25	21	1	133
Total	220	2	15	13	10	95	169	7	1,170

* The seven studies classified as "Other" are all Mining and Industrial Development Studies.

