

FOLLOW-UP STUDY
OF
DEVELOPMENT STUDIES

MARCH 2003

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OF
DEVELOPMENT STUDIES

MARCH 2003

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 greatly contribute to development of the developing country when the findings of the study are utilized in the project, this enables effective technology transfer.

The findings and recommendations of the Development Studies are utilized according to 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 regarding the Development Studies.

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 project (specific projects).

The procedures for conducting follow-up studies as well as their findings leave room for improvement due to difficulties in understanding and analyzing the progress of projects. We welcome your comments and suggestions for improving future follow-up studies.

This study was contracted to the Japan International Cooperation Center.

March 2003

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SUMMARY

SUMMARY

1. Background and Purpose of the Follow-up Study

1-1. Background of the Follow-up Study

It has been difficult to follow the progress of completed Development Studies and to apply the findings. Three issues can be cited as contributing factors. First, a considerable amount of time is often spent before the proposed projects are implemented. Secondly, the findings are utilized in diverse ways. Thirdly, recipient countries often have limited access to information.

In order to understand the ongoing situation of the completed Development Studies, Follow-up Studies on completed Development Studies were started in (Fiscal Year) 1984.

Since then, a lot of effort has been made which can be summarized as follows.

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

Diversifying the studies as well as collecting a wider range of information from the project sites.

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

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

(3) Overseas' Office Studies (since FY 1991)

Conducting surveys through JICA's Overseas Office to update recent situations affecting the projects for local counterparts in the recipient countries.

(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 two major goals:

- (1) To ascertain the current state of the completed Development Study and its utilization and implementation; and
- (2) To verify problems and areas for improvement which can be implemented for future Development Studies by systematically analyzing the findings.

1-3. Methods Used in the Follow-up Study

Studies are conducted through the following methods described below.

(1) Domestic Follow-up Studies

- Questionnaires are sent out to domestic consultants in charge of the project
- Research analysis is conducted using information gathered from relevant agencies

(2) Overseas' Office Studies

- Questionnaires are sent out to relevant agencies of the recipient country
- Surveys are conducted through overseas diplomatic missions and JICA overseas offices

Experiences from prior Follow-up Studies show that any progress in projects under the jurisdiction of the Social Development, 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 2002 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 1996 to 2001(FY). On the other hand, all projects conducted under the jurisdiction of the Mining and Industrial Development area have been analyzed starting from the beginning of the Development Studies in 1974.

1-4. Methods Used 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 due to 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) Two indicators applied to determine the state of the utilization and implementation of the various studies are described below.

- 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 as 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 categorized 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 proposals \times 100

* The Others category 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) State of Utilization

665 studies (87.3%) 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 M/P studies are the most well-utilized type of studies (see Table 1).

Table 1

Type of Studies	Number of Studies		Rate of Utilization	
	M/P	487	(63.9%)	430
Basic Studies	104	(13.6%)	94	(90.4%)
Chinese Factories	117	(15.4%)	98	(83.8%)
Others *	54	(7.1%)	43	(79.6%)
Total	762	(100.0%)	665	(87.3%)

* The Others category 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) State of Regional Utilization

Although the utilization rate of Africa is relatively lower, findings showed 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 due to the small number of studies conducted.

Table 2

Regions	Number of Studies		Rate of Utilization	
Asia	439	(57.6%)	388	(88.4%)
Middle East	70	(9.2%)	60	(85.7%)
Africa	83	(10.9%)	67	(80.7%)
Central and South America	131	(17.2%)	116	(88.5%)
Oceania	10	(1.3%)	7	(70.0%)
Europe	22	(2.9%)	21	(95.5%)
Plural Countries	7	(0.9%)	6	(85.7%)
Total	762	(100.0%)	665	(87.3%)

(3) State of Utilization by Sectors

The utilization rate of Mining and Industrial Development was relatively low as indicated in Table 3.

Table 3

Sectors	Number of Studies	Rate of Utilization
Social Development	337 (44.2%)	306 (90.8%)
Agriculture, Forestry and Fisheries Development	118 (15.5%)	109 (92.4%)
Mining and Industrial Development	207 (40.3%)	250 (81.4%)
Total	762 (100.0%)	665 (87.3%)

(4) State of Studies "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.

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) State of “Delayed or Suspended” or “Discontinued or Cancelled” Studies

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

- 1) Political factors such as lower priority given 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 enough 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	32 (54.2%)	0 (0.0%)
Between 5 years to 9 years	11 (18.6%)	1 (2.6%)
10 years or more	16 (27.1%)	37 (97.4%)
Total	59 (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 high priority in order to improve the utilization rate of study findings. However, attempts to review and revive Development Studies which have yet to be implemented or of studies delayed, through implementation of supplementary studies and other more specific and detailed studies are also possible ways of improving the utilization rate.

2-2. F/S Studies Group

(1) State of Realization

The 669 studies of the F/S studies group that are “in progress” or “completed” have a realization rate of 59.2% (see Table 5). The rate of realization for D/D studies scored the highest of all study types. 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 process to be realized” except two cases. Each of the “delayed or suspended” and “discontinued or cancelled” categories has one case. An alternative was planned for the “discontinued or cancelled” study in order to realize the project.

Table 5

Type of Studies	Number of Studies		Rate of Realization
	F/S	780 (69.0%)	439 (56.3%)
M/P+F/S	317 (28.0%)	202 (63.7%)	
D/D	34 (3.0%)	28 (82.4%)	
Total	1,131 (100.0%)	669 (59.2%)	

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

(2) State of Regional Realization

The results show that Asia has the highest rate of realization (see Table 6).

Table 6

Regions	Number of Studies	Rate of Realization
Asia	660 (58.9%)	427 (64.1%)
Middle East	130 (11.5%)	82 (63.1%)
Africa	119 (10.5%)	55 (46.2%)
Central and South America	169 (14.9%)	83 (49.1%)
Oceania	18 (1.6%)	8 (44.4%)
Europe	24 (2.1%)	11 (45.8%)
Plural Countries	5 (0.4%)	3 (66.0%)
Total	1,131 (100.0%)	645 (59.2%)

(3) State of Realization by Study Types

There is some variance in the rates of realization for the different sectors. The longer time frame required for projects under Mining and Industrial Development is considered as the causative factor for their relatively low rate of realization (see Table 7).

Table 7

Sectors	Number of Studies	Rate of Realization
Social Development	609 (53.8%)	419 (68.8%)
Agriculture, Forestry and Fisheries Development	245 (21.7%)	144 (58.8%)
Mining and Industrial Development	277 (24.5%)	106 (38.3%)
Total	1,131 (100.0%)	669 (59.2%)

(4) State of Realizing "in Progress" or "Completed" Studies

Most of the studies identified as "completed", "partially completed" or "in progress" had already secured enough funding and had their proposed projects implemented (see Table 8). Focusing on the process towards the realization of the projects, results show that subsequent studies 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 funding was from Japan, in the form of yen loans, grant aid, and so on. Others include funds from international agencies, the private sector, other aid countries and domestic funding. Studies under 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 revenue effect, consistency with national plans, and the implementation system.

Table 8

Present Status of Studies	Rate of Realization
Completed	291 (43.5%)
Partially Completed	171 (25.6%)
Implementing	144 (21.5%)
Processing	63 (9.4%)
Total	669 (100.0%)

(5) State of Studies in the Preparatory Stage

Studies in the “Preparatory” stage can be classified into those whose concrete plans are identified, those for which requests have been made yet under process or in preparation, and those for which concrete plans are unidentified or unknown (see Table 9). 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 9

Elapsed Time after Completion of Development Study	Rate of Preparatory Stage	
Less than 5 years	94	(43.7%)
Between 5 years to 9 years	63	(29.3%)
10 years or more	58	(27.0%)
Total	215	(100.0%)

(6) State of “Delayed or Suspended” and “Discontinued or Cancelled” Studies

More than ten years have passed after completion of the main studies in 73.5 % of the studies categorized as “Delayed or Suspended”. Findings reveal that the rate of “Discontinued or Cancelled” studies for which the main study had been finished more than ten years before was higher in comparison with that of “Delayed or Suspended” studies (see Table 10).

Table 10

Elapsed Time after Completion of Development Study	Delayed or Suspended	Discontinued or Cancelled
Less than 5 years	13 (11.1%)	0 (0.0%)
Between 5 years to 9 years	18 (15.4%)	3 (2.3%)
10 years or more	86 (73.5%)	127 (97.7%)
Total	117 (100.0%)	130 (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 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 stagnated economies
- 3) Natural disasters
- 4) Civil war, insurgency, social and political unrest

(7) Possibility of Improving Realization Rate

One of the ways of improving the realization rate of study findings from the F/S Study Group is, along with effective planning, to revitalize studies that have been delayed or suspended. Among the preparatory studies are those for which their main studies have been completed more than five to ten years before, many of which could become “Delayed or Suspended” unless effective action is taken place.

Hence, in order to promote the realization of study findings (at the implementation 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 alleviating measures, 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 Mining and Industry Project follow-up studies in the Mining and Industrial Development sector.

After the completion of the development study, it had been difficult to follow the progress of the proposed project and the utilization of the study findings. The reasons for the difficulty are the considerable amount of time that is often needed to realize projects after the completion of studies, the large number of ways in which study findings are used, and limitations on the amount of information available from recipient countries.

In order to overcome the above-mentioned difficulties, follow-up studies on development studies were started in FY 1984. On-site Follow-up Studies were added in FY 1987 to collect a wide range of information from the project implementation sites. Domestic Follow-up Studies, questionnaire surveys for 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 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 evaluating development studies recently, on-site trial studies had been implemented to evaluate the impact of development studies since FY 1998. Furthermore, as more detailed evaluating studies have been conducted independently since FY 2001, this Follow-up Study has focused on understanding the current status of each project and on analyzing tendencies throughout the study.

1-2. Purpose of Follow-up Study

The follow-up study has two goals:

- (1) To grasp the current status, utilization and implementation situation of completed development studies; and
- (2) To analyze these findings systematically so as to improve 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 and Agriculture, Forestry and Fisheries Development Study Departments, and those implemented under the overseas development plan study budget, under the jurisdiction of the Mining and Industrial Development Study Department (excluding follow-up studies of special project studies conducted as part of the Grant Aid Program). The follow-up study covers main studies completed between August 1, 1974 (the date on which JICA was established) to the end of FY 2001 (March 31, 2002). A total of 1,893 studies have conformed to these standards (946 in Social Development area, 364 in Agriculture, Forestry and Fisheries Development area, and 583 in Mining and Industrial Development area).

As for the results of previous follow-up studies, it is expected that some actions within a development study implemented under the jurisdiction of the Social Development Study Department or the Agriculture, Forestry and Fisheries Development Study Department would be taken in 5 – 10 years after its completion. Hence, this follow-up study has focused on development studies completed for the last 10 years in order to allow a grasp of the status of studies under the jurisdiction of these two Departments since FY 1999. On the other hand, all development studies under the jurisdiction of the Mining and Industrial Development Study Department since their inception have been subject to analysis. Questionnaire surveys in the Follow-up Study have been implemented in cooperation with JICA overseas offices, overseas diplomatic missions, and domestic consultants. However, since experiences from prior Follow-up Studies show that it would be more important for action on a development study to be taken within five years after its completion, this year, Overseas Follow-up Studies were implemented on eight

development studies out of those completed in FY 1995 through local in-country consultants. Furthermore, questionnaire surveys were implemented for all development studies completed in FY 1996- 2001 for counterparts through JICA Overseas Offices and overseas diplomatic missions, and for domestic consultants in charge of projects

2-2. Classification by Year of Completion

The fiscal year of completion is defined as 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, financial statements, their attached specifications, the annual report of JICA, and the replies by consulting firms in charge of studies and JICA overseas offices to questionnaire surveys are referred.

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

The country and region classifications in development studies are defined by JICA. Studies that cover several countries or regions are classified as “plural countries.”

- (1) ASEAN (Brunei, Indonesia, Cambodia, Laos, Myanmar, Malaysia, Philippines, Singapore, Thailand, and Viet Nam)
- (2) East Asia (China, 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) Plural Countries

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 (Studies for formulating master plans)
2. M/P+F/S (Studies which include both M/P and Feasibility Studies (F/S))
3. F/S (Feasibility studies)
4. D/D (Studies for detailed designs)
5. Basic Studies (Studies to provide basic data, such as maps of various types, nautical charts and groundwater surveys, forestry and fishery resources studies, and agricultural verification studies)
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 match those of the Mining and Industrial Development area due to differences in characteristics. In order to conduct an overall analysis in Chapter 2, development study types 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, Chinese Factories, 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 by formulating a comprehensive sectoral or regional plan. The formulation of a master plan is the first stage in the development project cycle. It serves to coordinate and facilitate efficient implementation of various individual projects. The project proposed in a master plan study may be implemented in line with the recommendation of the study immediately after the completion of the study or may be carried out within several years after its 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 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 rationale, 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 feasible socially, technically, economically and financially, 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 making policy decision as to whether the country should proceed to implementation of the given proposed project(s). It also provides the bilateral and multilateral aid agencies with necessary information to examine whether it is appropriate to give financial assistance to the proposed project.

4) Detailed Design Studies (D/D)

A detailed design study is used to develop the design documents (including draft drawings, work specifications, and bidding documentation) needed to begin project construction work as planned. Considerable cost and time is generally required for the study during this phase, since all detailed investigations related to a project's detailed design must be covered. This type of study is followed by the selection of the contractor through competitive bidding, then the actual construction. Detailed design studies are indispensable to implement the project orderly and to facilitate the effectiveness of financial assistance.

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 region-wide plans such as river water management or irrigation plans and of integrated regional resources development plans and examination of alternative policy measures for environmental protection 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 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 condition for planning and implementation of 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 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 survey prospects for ground water and investigate the feasibility of its utilization for irrigation, supplies of drinking water and supplies of water for industry. 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 deteriorated 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 development planning based on appropriate control of resources through the studies.

e) Pilot Studies

Since FY 2000, participatory verification studies, conducted by local residents and counterpart officials, and pilot studies of agricultural verification have carried out in the process of development studies.

f) Resource Studies

This is a type of Pre-Feasibility study that is usually conducted to assess mineral and other natural resource deposits in the expected project areas to review the possibility of development.

6) Studies on Plant Renovation in ASEAN Countries

This is a series of studies concerning plant renovation begun 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 further type of study is the review study requested by the recipient country due to changes in social or natural conditions after the completion of the Development Study. Another is that conducted to investigate institutional matters independently and to encourage project implementation

2-6. Classification by Sector

Completed studies are classified into sectors, subsectors, and sub-subsectors according to the JICA System Code Table (May 1999), 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) Fish 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 (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 <i>undertake some development study or planning.</i> 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.

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 collapsing social, agricultural, and 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 categories: a) Completed or in Progress, b) Promoting, 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) Implementing, and a4) Processing.

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
a. Completed or In Progress a1. Completed a2. Partially Completed a3. Implementing a4. Processing	The proposed development project has been already completed and is in use. The proposed development project is partially completed and is in use. The implementation of the project is underway. The project concerned is at one of the following stages. 1) Tenders have been invited. 2) Financing of the project has been secured.* 3) Following the completion of the JICA feasibility study, the basic design study or some other specific step is being undertaken with bilateral or multilateral financial assistance. 4) For other reasons the project concerned is considered highly likely to be implemented in the future.
b. Promoting	The project concerned is at one of the following stages. 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.

c. Delayed or Suspended	<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.
d. Discontinued or Cancelled	<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.

In the JICA Overseas Office Survey, related information is collected through JICA overseas offices by means of responses to questionnaires distributed to counterparts in recipient countries.

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

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 by interviewing relevant JICA officers.

5. Consolidation of Study Findings

The study findings are reported in the reports "Follow-up Study of Development Studies", in both Japanese and English, and "Overseas Follow-up Studies of Development Studies".

Each report is compiled based on information from JICA Overseas Office Studies, Domestic Questionnaire Studies and interviews. In this report, completed information is consolidated and 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 technical cooperation and national plans.

Studies covered by the present Follow-up Study (studies completed between FY 1996 – 2001) and approved by counterparts in the recipient countries are list in a CD-ROM included with this report .

CHAPTER 2

AN OVERVIEW OF COMPLETED DEVELOPMENT STUDIES (Studies Completed in FY1974–FY2001)

CHAPTER 2. An Overview of Completed Development Studies
(Studies Completed in FY 1974 – FY 2001)

1. Trends in Numbers of Completed Studies

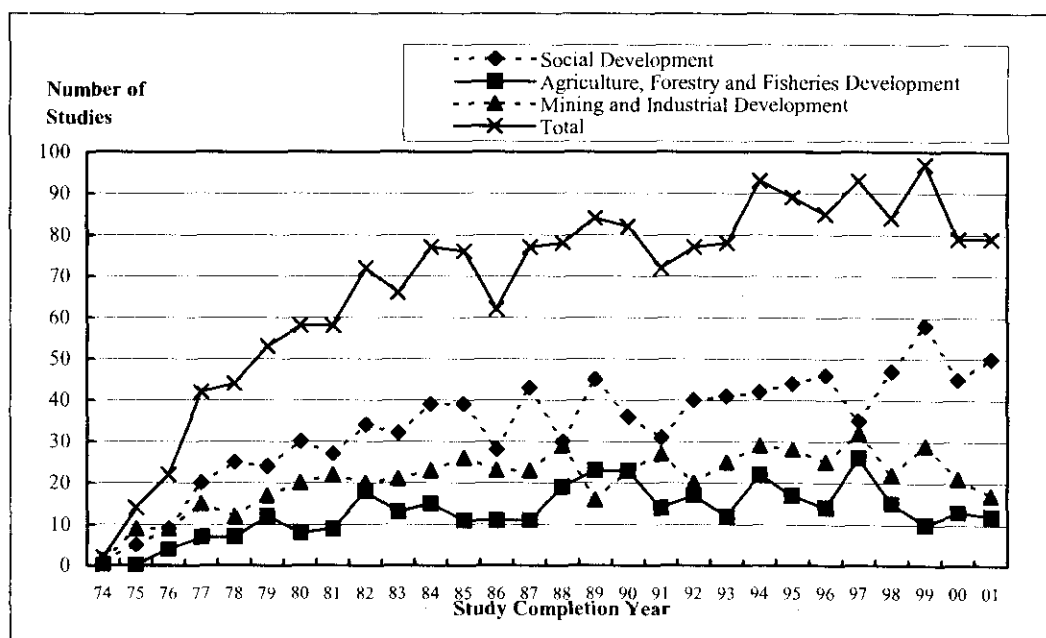
As shown in Table 2-1, the number of completed studies had been rising until 1990. This decreased to 79 in FY 2000 and FY 2001, though it has settled in a range of around 80 to 90 since FY 1994.

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	1989	45	23	16	84
1975	5	0	9	14	1990	36	23	23	82
1976	9	4	9	22	1991	31	14	27	72
1977	20	7	15	42	1992	40	17	20	77
1978	25	7	12	44	1993	41	12	25	78
1979	24	12	17	53	1994	42	22	29	93
1980	30	8	20	58	1995	44	17	28	89
1981	27	9	22	58	1996	46	14	25	85
1982	34	18	20	72	1997	35	26	32	93
1983	32	13	21	66	1998	47	15	22	84
1984	39	15	23	77	1999	58	10	29	97
1985	39	11	26	76	2000	45	13	21	79
1986	28	11	23	62	2001	50	12	17	79
1987	43	11	23	77	Total	946	363	584	1,893
1988	30	19	29	78		(50.0%)	(19.2%)	(30.9%)	(100.0%)

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

Figure 2-1 Time Trend of Numbers of Development Study



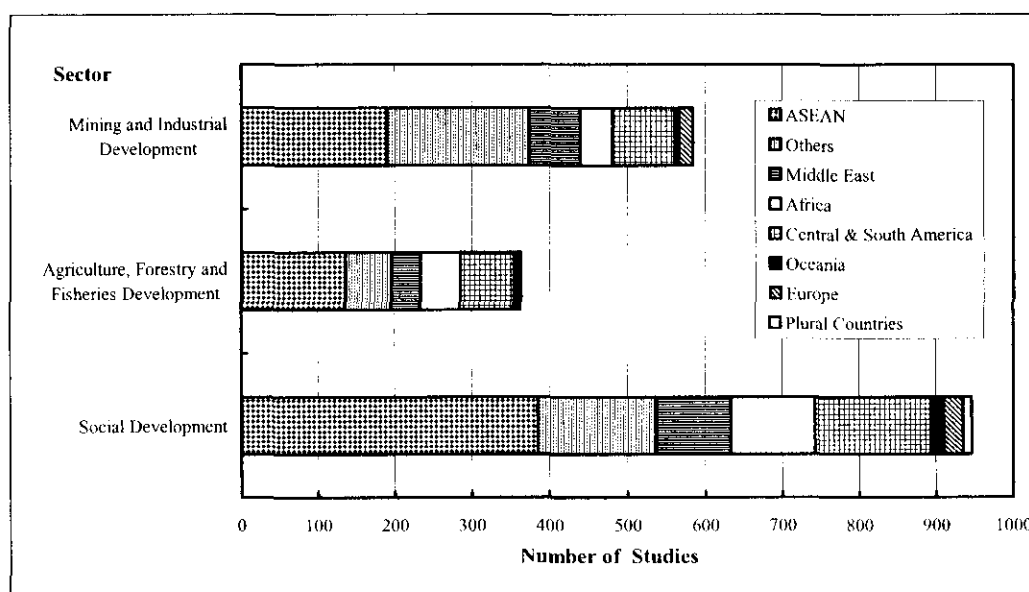
1-1. Numbers of Development Studies by Region

1,106 Development Studies (58.4% of the total) were conducted in Asia. This shows that the Japanese government has put emphasis on conducting studies in Asia, particularly in the ASEAN countries, where 710 studies (37.5% of the total) were conducted. This is followed by 300 studies (15.8%) in Central and South America, 101 studies (10.7%) in Africa, and 200 studies (10.3%) in the Middle East .

Table 2-2 Classification by Region

Region	Social Development	Agriculture, Forestry and Fisheries Development	Mining and Industrial Development	Total
Asia	537 (56.8%)	195 (53.7%)	374 (64.0%)	1,106 (58.4%)
ASEAN	385 (40.7%)	135 (37.2%)	190 (32.5%)	710 (37.5%)
Others	152 (16.1%)	60 (16.5%)	184 (31.5%)	396 (20.9%)
Middle East	96 (10.1%)	38 (10.5%)	66 (11.3%)	200 (10.6%)
Africa	109 (11.5%)	52 (14.3%)	41 (7.0%)	202 (10.7%)
Central & South America	151 (16.0%)	69 (19.0%)	80 (13.7%)	300 (15.8%)
Oceania	17 (1.8%)	6 (1.7%)	5 (0.9%)	28 (1.5%)
Europe	25 (2.6%)	3 (0.8%)	18 (3.1%)	46 (2.4%)
Plural Countries	11 (1.2%)	0 (0.0%)	0 (0.0%)	11 (0.6%)
Total	946 (100.0%)	363 (100.0%)	584 (100.0%)	1,893 (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 common type of study is Feasibility Study (F/S), followed by Master Plan (M/P) Study, and M/P + F/S Study.

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	263 (23.8%)	194 (17.5%)	450 (40.7%)	18 (1.6%)	28 (2.5%)	117 (10.6%)	36 (3.3%)	1,106 (100.0%)
ASEAN	190 (26.8%)	139 (19.6%)	324 (45.6%)	14 (2.0%)	19 (2.7%)	0 (0.0%)	24 (3.4%)	710 (100.0%)
Others	73 (18.4%)	55 (13.9%)	126 (31.8%)	4 (1.0%)	9 (2.3%)	117 (29.5%)	12 (3.0%)	396 (100.0%)
Middle East	56 (28.0%)	32 (16.0%)	89 (44.5%)	9 (4.5%)	9 (4.5%)	0 (0.0%)	5 (2.5%)	200 (100.0%)
Africa	50 (24.8%)	23 (11.4%)	93 (46.0%)	3 (1.5%)	26 (12.9%)	0 (0.0%)	7 (3.5%)	202 (100.0%)
Central & South America	93 (31.0%)	48 (16.0%)	118 (39.3%)	2 (0.7%)	31 (10.3%)	0 (0.0%)	8 (2.7%)	300 (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	20 (43.5%)	9 (19.6%)	15 (32.6%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	2 (4.3%)	46 (100.0%)
Plural Countries	1 (9.1%)	1 (9.1%)	3 (27.3%)	1 (9.1%)	5 (45.5%)	0 (0.0%)	0 (0.0%)	11 (100.0%)
Total	487 (25.7%)	317 (16.7%)	775 (40.9%)	34 (1.8%)	104 (5.5%)	117 (6.2%)	59 (3.1%)	1,893 (100.0%)

* The "Others" category 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 Transportation subsector shares the largest number of studies in all regions except other Asia, where Chinese Factory Studies (Industrial Sector) has the largest number of studies, Africa, where Social Infrastructure sector and Agricultural sector are largest, and Europe, where Planning and Administration sector and Public Works and Utilities sector are the largest.

In the Transportation subsector, the Road sub-subsector is the largest in ASEAN and Africa, and the Port sub-subsector 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 Development	Public Health and Medicine	Agriculture	Animal Husbandry	Forestry	Fishery	Mining	Industry	Energy	Others *	Total
			Road	Railway	Port	Others	Sub-Total														
Asia	46	57	85	34	53	75	247	126	47	10	1	1	165	1	18	11	8	216	130	21	1105
ASEAN	28	42	67	20	34	52	173	96	34	9	1	0	110	0	16	9	4	71	99	17	709
Others	18	15	18	14	19	23	74	30	13	1	0	1	55	1	2	2	4	145	31	4	396
Middle East	10	16	11	4	14	12	41	19	5	5	0	0	32	1	2	3	1	31	28	6	200
Africa	4	15	19	3	5	10	37	41	6	2	2	2	41	0	9	2	3	14	24	0	202
Central & South America	19	15	17	10	19	25	71	35	7	3	0	0	45	0	15	9	6	28	42	5	300
Oceania	2	3	1	0	4	2	7	3	2	0	0	0	0	0	2	4	1	0	3	1	28
Europe	8	9	0	2	1	3	6	1	0	1	0	0	2	0	1	0	0	9	6	3	46
Plural Countries	1	0	3	0	0	2	5	3	2	0	1	0	0	0	0	0	0	0	0	0	12
Total	90	115	136	53	96	129	414	228	69	21	4	3	285	2	47	29	19	298	233	36	1893

* The Others category consists of Social Development (1 in Indonesia and 1 in Honduras) and Mining and Industrial Development (34) studies.

1-2. Numbers of Studies by Country

The largest number of studies were carried out in Asia. 229 studies have been conducted in Indonesia, followed by 196 in China (117 of which are Chinese Factory Studies), 155 in the Philippines, 151 in Thailand, and 75 in Malaysia. More than 15 development studies were conducted in 26 other countries: Cambodia, Bangladesh, India, Nepal, Pakistan, Sri Lanka, Viet Nam, Mongolia, Laos (Asia), Egypt, Oman, Turkey, Jordan, Tunisia (Middle East), Kenya, Tanzania (Africa), Argentina, Bolivia, Brazil, Chile, Colombia, Honduras, Mexico, Peru, Paraguay, Guatemala (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 Development	Public Health and Medicine	Agriculture	Animal Husbandry	Forestry	Fishery	Mining	Industry	Energy	Others *	Total
				Road	Railway	Port	Others														
ASEAN	Brunei	0	0	0	0	0	1	1	0	0	0	0	0	1	0	0	1	0	0	4	
	Cambodia	0	3	1	0	1	1	2	1	0	0	4	0	0	0	0	0	2	0	15	
	Indonesia	9	11	14	7	12	13	37	19	3	1	0	27	0	7	1	1	24	37	6	229
	Laos	0	2	2	0	0	0	3	0	0	0	0	7	0	1	0	0	1	4	0	20
	Malaysia	3	5	10	3	4	4	13	4	1	0	0	5	0	3	2	0	8	9	1	75
	Myanmar	0	0	0	2	0	3	0	0	0	0	0	4	0	0	0	0	3	2	0	14
	Philippines	5	6	18	2	8	12	24	3	1	0	0	31	0	3	4	1	10	24	3	155
	Singapore	0	0	1	0	1	1	0	1	0	0	0	0	0	0	0	0	0	0	2	6
	Thailand	7	11	16	5	6	12	13	5	3	0	0	29	0	1	1	2	19	18	3	151
	Viet Nam	4	4	5	1	2	5	3	1	1	0	0	3	0	0	1	0	5	3	2	40
Asia (except ASEAN)	China	14	1	5	5	5	6	8	2	0	0	14	1	0	1	2	120	8	4	196	
	Korea	0	1	0	1	0	0	2	0	0	0	1	0	0	0	0	1	1	0	7	
	Mongolia	1	1	1	2	0	0	2	2	1	0	0	2	0	1	0	1	1	2	0	17
	Bangladesh	0	2	2	1	2	2	5	1	0	0	6	0	0	0	0	5	2	0	28	
	Bhutan	0	0	1	0	0	0	1	0	0	0	1	0	0	0	0	0	1	0	4	
	India	0	0	2	3	3	1	0	0	0	0	1	2	0	0	0	0	4	2	0	18
	Maldives	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	2	
	Nepal	0	0	3	0	0	4	7	2	0	0	0	6	0	1	0	0	3	6	0	32
	Pakistan	0	1	0	1	3	5	1	1	0	0	0	12	0	0	0	0	2	5	0	31
	Sri Lanka	0	4	3	0	6	2	0	4	0	0	0	10	0	0	1	0	5	3	0	38
	Armenia	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	0	0	0	0	0	0	0	0	0	0	0	1	0	3
	Kyrgyz	1	0	0	0	0	0	0	1	0	0	0	0	0	0	1	1	1	0	0	4
	Kazakhstan	0	1	1	0	0	1	2	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	4
East Timor	0	2	0	0	0	0	1	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	1	0	0	1	0	1	1	0	6	
	Algeria	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	2	0	0	4	
	Egypt	3	5	2	2	5	5	1	3	1	0	0	11	1	0	0	0	7	2	1	49
	Iran	1	0	0	0	1	1	1	0	0	0	0	2	0	0	0	0	2	2	1	11
	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	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	1
	Morocco	0	1	0	1	0	1	4	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	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	1
	Qatar	0	1	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	3	0	1	8
	Sudan	0	0	2	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	0	0	0	0	2	3	0	13
	Tunisia	0	1	1	0	0	0	3	0	1	0	0	1	0	1	0	0	2	3	2	15
	Turkey	2	2	3	0	3	0	0	0	0	0	0	3	0	0	1	0	1	11	0	26
Yemen	0	2	0	0	1	1	0	1	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 Development	Public Health and Medicine	Agriculture	Animal Husbandry	Forestry	Fishery	Mining	Industry	Energy	Others *	Total
			Road	Railway	Port	Others														
Angola	0	0	0	0	0	0	1	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	1	0	0	0	0	0	1
Burkina Faso	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	2
Central African Republic	0	0	0	0	0	0	1	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	4
Cote d'Ivoire	0	1	0	0	0	0	1	0	0	0	0	3	0	0	0	0	0	0	0	5
Cameroon	0	0	0	0	0	0	0	0	0	0	0	1	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	1
Djibouti	0	0	0	0	1	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	1
Ethiopia	0	0	0	0	0	0	3	0	0	0	0	2	0	1	0	0	0	1	0	7
Gabon	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	2	0	1	0	0	0	0	0	6
Guinea	0	0	0	0	0	1	1	0	0	0	0	1	0	0	0	0	0	0	0	3
Kenya	1	6	6	0	0	1	4	0	1	0	1	5	0	0	0	0	3	3	0	31
Liberia	0	0	1	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	1	0	0	0	1	0	8
Mali	0	0	0	0	0	0	2	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	0	0	0	0	0	0	0	4
Mauritania	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	2
Mauritius	0	2	2	0	0	0	1	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	2	0	0	0	2	0	0	7
Namibia	0	0	0	0	0	0	1	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	4	0	0	0	0	1	0	0	8
Nigeria	0	0	0	0	1	0	2	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	2
Senegal	0	0	0	1	0	1	3	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	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	1	0	1
Swaziland	0	0	0	0	0	1	1	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	5	0	1	0	1	2	5	0	29
Uganda	0	0	1	0	0	0	2	1	0	0	0	1	0	0	0	1	0	0	0	6
South Africa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
Zambia	0	0	1	0	0	1	3	2	0	0	0	2	0	1	0	1	3	0	0	14
Zimbabwe	1	1	0	1	0	0	0	2	0	0	0	4	0	1	0	0	3	1	0	14

		Planning and Administration	Public Works and Utilities	Transportation				Social Infrastructure	Communications and Broadcasting	Tourism	Human Resources Development	Public Health and Medicine	Agriculture	Animal Husbandry	Forestry	Fishery	Mining	Industry	Energy	Others *	Total
				Road	Railway	Port	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	0	5	0	1	0	2	1	2	0	28
	Brazil	4	1	0	1	2	1	6	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	3	0	1	0	0	2	2	0	16
	Colombia	2	0	3	0	0	3	2	0	0	0	0	5	0	1	1	0	3	5	0	25
	Costa Rica	2	0	0	0	2	1	1	0	0	0	0	1	0	0	1	0	0	4	0	12
	Dominican Republic	0	1	0	0	1	0	1	1	0	0	0	5	0	0	0	0	0	2	0	11
	Ecuador	0	0	0	0	1	1	2	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	1
	Guatemala	0	2	0	0	1	3	3	0	0	0	0	2	0	1	0	0	1	2	0	15
	Guyana	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	5	0	2	2	0	0	1	1	18
	Jamaica	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	2	0	1	0	3	4	2	2	28
	Nicaragua	0	2	2	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	6
	Panama	0	0	1	0	2	3	1	1	1	0	0	0	0	1	1	0	0	1	0	12
	Peru	1	1	0	0	1	1	3	0	1	0	0	1	0	0	2	1	1	5	0	18
	Paraguay	2	1	3	0	0	6	1	2	0	0	0	6	0	3	0	0	3	1	0	28
	El Salvador	0	1	0	0	1	0	2	0	0	0	0	1	0	0	0	0	1	0	0	6
	Trinidad and Tobago	0	1	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	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	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	1	0	0	1	0	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	1	0	0	1	0	0	8
	Solomon Islands	0	0	0	0	0	1	0	1	0	0	0	0	0	1	1	0	1	0	0	5
	Samoa	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
	Tonga	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
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	1	0	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	0	0	0	0	0	0	1	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
Slovenia	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	
Plural Countries	1	0	3	0	0	2	3	2	0	1	0	0	0	0	0	0	0	0	0	12	
Total	90	115	136	53	96	129	228	69	21	4	3	285	2	47	29	19	298	233	36	1,893	

* The Others category consists of Social Development (1 in Indonesia and 1 in Honduras) and Mining and Industrial Development (34) studies.

1-3. Numbers of Studies by Type

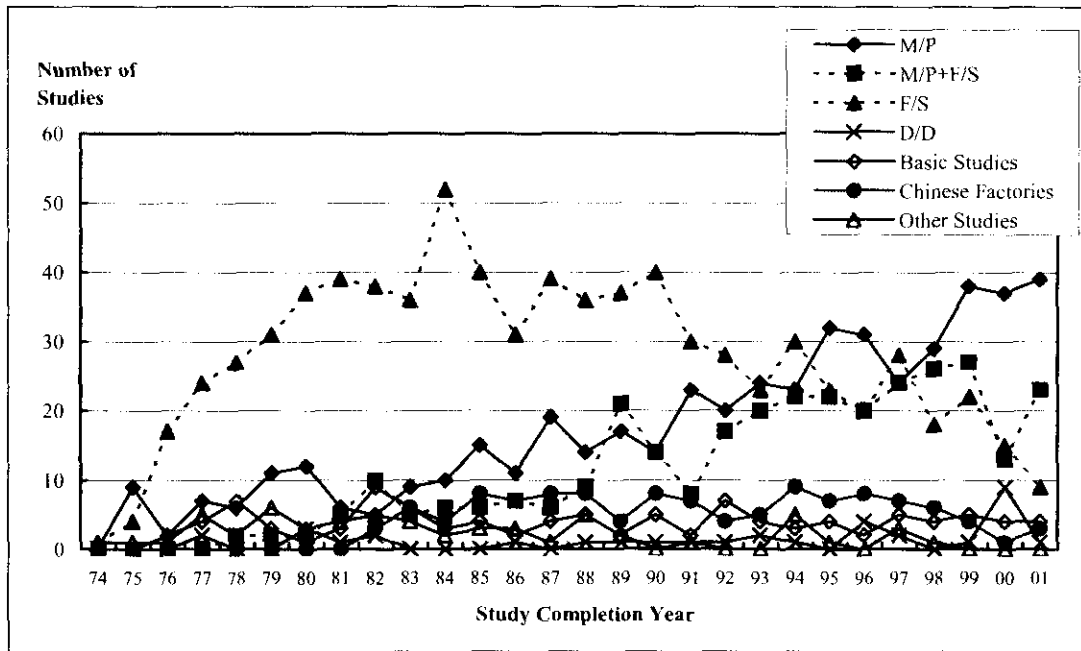
A total of 1,893 studies are classified into 775 F/S studies (40.9%), 487 M/P (25.7%), 317 M/P + F/S (16.7%), and 117 Studies on the Factories Modernization Program in China (Chinese Factories Studies) (6.2%). As for the number of studies, the numbers of M/P have remained at around 30 since FY 1995, temporarily decreasing to 24 in FY 1997, but around 40 studies have been implemented since FY 1999. The number of F/S has been decreasing in recent years. Though the number of M/P + F/S had been increasing, this figure decreased to 13 in FY 2000. In FY 2001, the figure increased again. The number of Chinese Factories Studies has been decreasing since FY 1994, and there were only three studies in FY 2000.

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	5	93
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	39	23	9	1	4	3	0	79
Total	487 (25.7%)	317 (16.7%)	775 (40.9%)	34 (1.8%)	104 (5.5%)	117 (6.2%)	59 (3.1%)	1,893 (100.0%)

* The "Others" category 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 of the Number of Development Studies by Type of Study



1-4. Numbers of Studies by Sector

There are 90 studies in the Planning and Administration sector, accounting for 4.8% of the total, 826 in the Public Works and Utilities sector (43.6%), 363 in the Agriculture, Forestry and Fishery sector (19.2%), 21 in the Commerce & Tourism sector (1.1%), 3 in the Health and Medical Care sector (0.2%), 317 in Mining and Industry sector (16.7%), and 233 in the Energy sector (12.3%). In FY 2001, 4 studies in the Human Resource sector were newly added. The most common subsector in the Public Works and Utilities sector is Transportation, which has 414 studies accounting for 21.9% of the total. This is followed by Social Infrastructure (228 studies, 12.0%). The most common subsector in the Agriculture, Forestry and Fishery sector is the Agriculture subsector, which has 285 studies (15.1% of the total). In the Mining and Industry sector, there are 317 studies (16.7% of the total) in the Industry subsector and 19 studies (1.0% of the total) in the Mining subsector.

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

M/P studies include 243 Social Development studies, which account for 49.9% of the total, 83 Agriculture, Forestry and Fishery Development studies (17.0%), and 144 Mining and Industrial Development studies (29.6%). F/S studies include 320 Social Development studies, accounting for 41.3% of the total, 183 Agriculture, Forestry and Fishery Development studies (23.6%), and 266 Mining and Industrial

Development studies (34.3%). 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 Industry sector.

Transportation is the largest subsector 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.

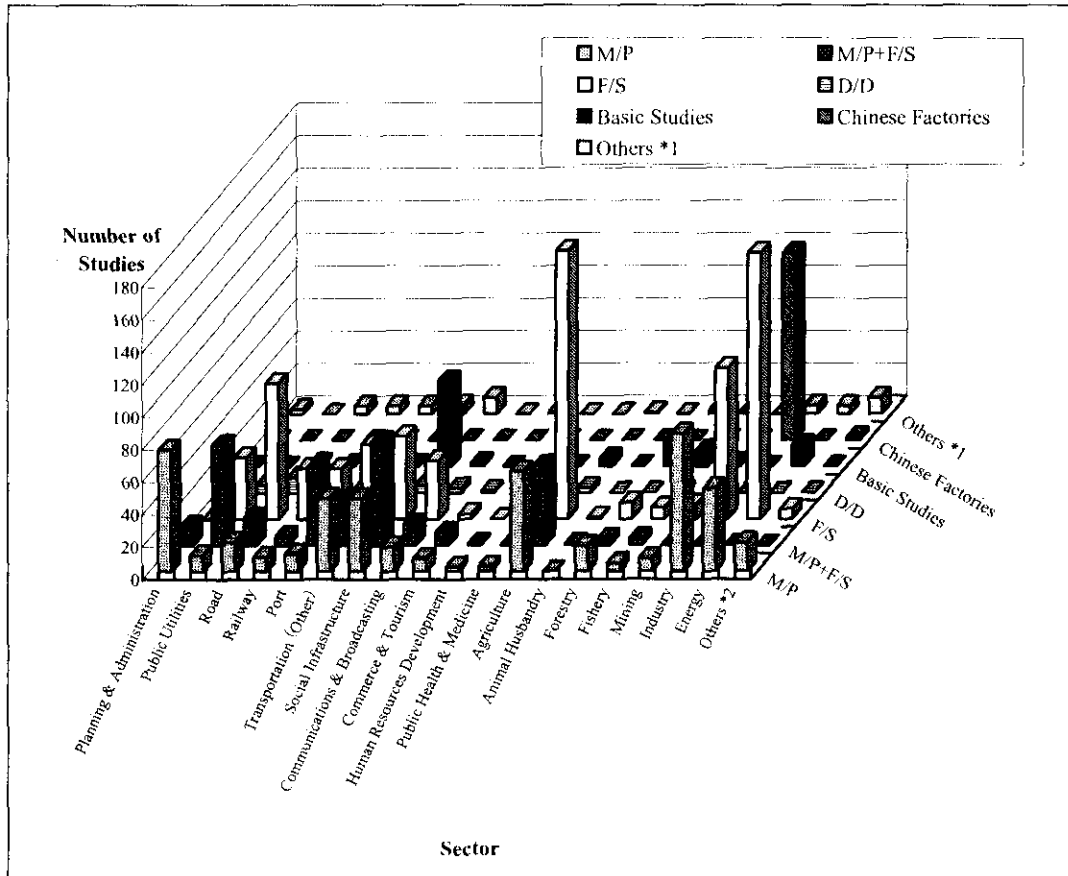
Table 2-7 Classification by Sector and Type of Study

Sector		M/P	M/P+F/S	F/S	D/D	Basic Studies	Chinese Factories	Others *1	Total		
Social Development	Planning & Administration	75 (15.4%)	12 (3.8%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	3 (5.1%)	90 (4.8%)		
	Public Works & Utilities	Public Utilities	10 (2.1%)	62 (19.6%)	38 (4.9%)	5 (14.7%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	115 (6.1%)	
		Transportation	Road	18 (3.7%)	17 (5.4%)	84 (10.8%)	10 (29.4%)	2 (1.9%)	0 (0.0%)	5 (8.5%)	136 (7.2%)
			Railway	9 (1.8%)	6 (1.9%)	31 (4.0%)	1 (2.9%)	1 (1.0%)	0 (0.0%)	5 (8.5%)	53 (2.8%)
			Port	11 (2.3%)	48 (15.1%)	31 (4.0%)	1 (2.9%)	0 (0.0%)	0 (0.0%)	5 (8.5%)	96 (5.1%)
			Others	45 (9.2%)	28 (8.8%)	46 (5.9%)	4 (11.8%)	1 (1.0%)	0 (0.0%)	5 (8.5%)	129 (6.8%)
			Sub-Total	83 (17.0%)	99 (31.2%)	192 (24.8%)	16 (47.1%)	4 (3.8%)	0 (0.0%)	20 (33.9%)	414 (21.9%)
	Social Infrastructure	45 (9.2%)	64 (20.2%)	51 (6.6%)	5 (14.7%)	53 (51.0%)	0 (0.0%)	10 (16.9%)	228 (12.0%)		
	Communications & Broadcasting	15 (3.1%)	13 (4.1%)	36 (4.6%)	3 (8.8%)	2 (1.9%)	0 (0.0%)	0 (0.0%)	69 (3.6%)		
	Sub-Total	153 (31.4%)	238 (75.1%)	317 (40.9%)	29 (85.3%)	59 (56.7%)	0 (0.0%)	30 (50.8%)	826 (43.6%)		
	Commerce & Tourism	8 (1.6%)	8 (2.5%)	3 (0.4%)	1 (2.9%)	0 (0.0%)	0 (0.0%)	1 (1.7%)	21 (1.1%)		
	Human Resources Development	3 (0.6%)	1 (0.3%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	4 (0.2%)		
Public Health & Medicine	3 (0.6%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	3 (0.2%)			
Sub-Total	243 (49.9%)	259 (81.7%)	320 (41.3%)	30 (88.2%)	59 (56.7%)	0 (0.0%)	34 (57.6%)	945 (49.9%)			
Agriculture, Forestry and Fisheries Development	Agriculture, Forestry & Fishery	Agriculture	62 (12.7%)	49 (15.5%)	165 (21.3%)	3 (8.8%)	5 (4.8%)	0 (0.0%)	1 (1.7%)	285 (15.1%)	
		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	16 (3.3%)	4 (1.3%)	10 (1.3%)	0 (0.0%)	15 (14.4%)	0 (0.0%)	2 (3.4%)	47 (2.5%)	
		Fishery	5 (1.0%)	4 (1.3%)	7 (0.9%)	1 (2.9%)	10 (9.6%)	0 (0.0%)	2 (3.4%)	29 (1.5%)	
	Sub-Total	83 (17.0%)	58 (18.3%)	183 (23.6%)	4 (11.8%)	30 (28.8%)	0 (0.0%)	5 (8.5%)	363 (19.2%)		
Mining and Industrial Development	Mining & Industry	Mining	8 (1.6%)	0 (0.0%)	9 (1.2%)	0 (0.0%)	2 (1.9%)	0 (0.0%)	0 (0.0%)	19 (1.0%)	
		Industry	85 (17.5%)	0 (0.0%)	93 (12.0%)	0 (0.0%)	0 (0.0%)	115 (98.3%)	5 (8.5%)	298 (15.7%)	
		Sub-Total	93 (19.1%)	0 (0.0%)	102 (13.2%)	0 (0.0%)	2 (1.9%)	115 (98.3%)	5 (8.5%)	317 (16.7%)	
	Energy	51 (10.5%)	0 (0.0%)	164 (21.2%)	0 (0.0%)	13 (12.5%)	0 (0.0%)	5 (8.5%)	233 (12.3%)		
Sub-Total	144 (29.6%)	0 (0.0%)	266 (34.3%)	0 (0.0%)	15 (14.4%)	115 (98.3%)	10 (16.9%)	550 (29.1%)			
Others *2	18 (3.7%)	0 (0.0%)	6 (0.8%)	0 (0.0%)	0 (0.0%)	2 (1.7%)	10 (16.9%)	36 (1.9%)			
Total	487 (100.0%)	317 (100.0%)	775 (100.0%)	34 (100.0%)	104 (100.0%)	117 (100.0%)	59 (100.0%)	1,893 (100.0%)			

*1 The "Others" category 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 The "Others" category consists of two Social Development (M/P) and 34 Mining and Industrial Development studies.

Figure 2-4 Classification by Sector and Type of Study



*1 The "Others" category 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 The "Others" category consists of two Social Development (M/P) and 34 Mining and Industrial Development studies.

1-4-2. Trends in Major Subsectors

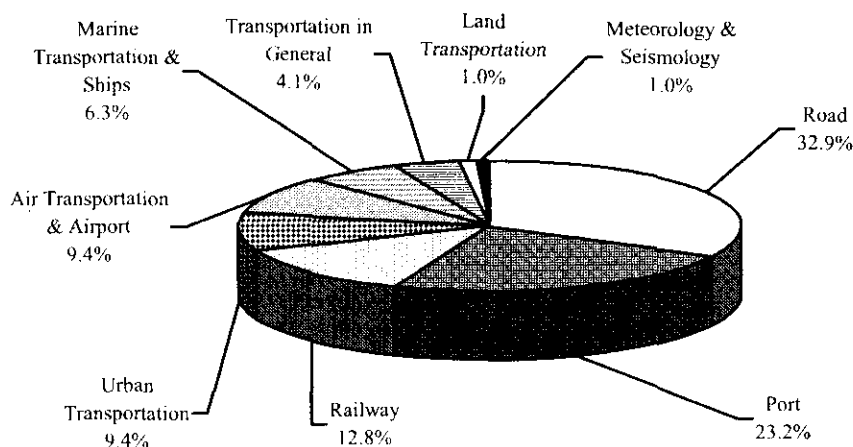
(1) Transportation

The Transportation subsector is further classified into 9 sub-subsectors, with 414 studies conducted over the last 28 years. There is a particularly large number of studies in three sub-subsectors: 136 studies in Road (32.9%); 96 in Port (23.2%); and 53 in Railway (12.8%). These three sub-subsectors account for nearly 70% of the total studies in this subsector. Air Transportation & Airport and Urban Transportation sub-subsectors follow these.

Table 2-8 Transportation

	Number of Studies	
Road	136	(32.9%)
Port	96	(23.2%)
Railway	53	(12.8%)
Urban Transportation	39	(9.4%)
Air Transportation & Airport	39	(9.4%)
Marine Transportation & Ships	26	(6.3%)
Transportation in General	17	(4.1%)
Land Transportation	4	(1.0%)
Meteorology & Seismology	4	(1.0%)
Total	414	(100.0%)

Figure 2-5 Transportation (%)



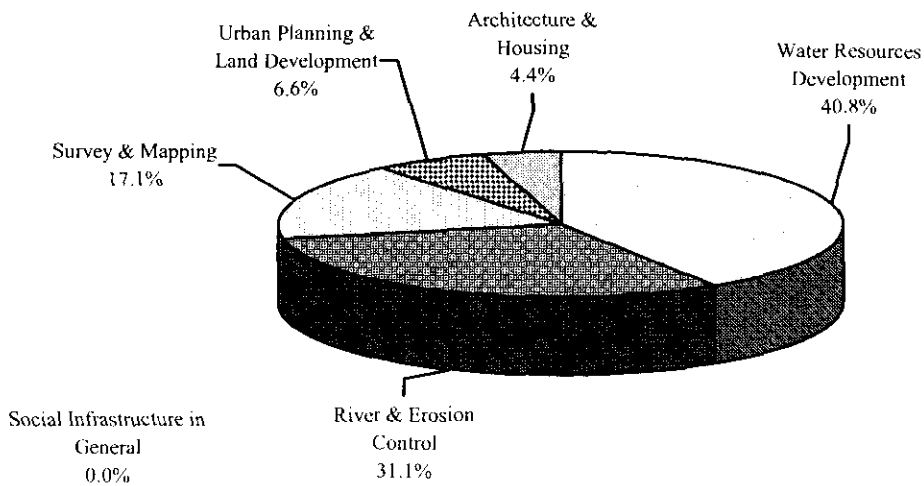
(2) Social Infrastructure

The Social Infrastructure subsector comprises 6 sub-subsectors, with 228 studies conducted for the last 28 years. Among these subsectors, the studies are concentrated in two sub-subsectors: 93 in Water Resources Development (40.8%) and 71 in River & Erosion Control (31.1%). These two sub-subsectors account for more than 72% of the total studies in this subsector.

Table 2-9 Social Infrastructure

	Number of Studies	
Water Resources Development	93	(40.8%)
River & Erosion Control	71	(31.1%)
Survey & Mapping	39	(17.1%)
Urban Planning & Land Development	15	(6.6%)
Architecture & Housing	10	(4.4%)
Social Infrastructure in General	0	(0.0%)
Total	228	(100.0%)

Figure 2-6 Social Infrastructure (%)



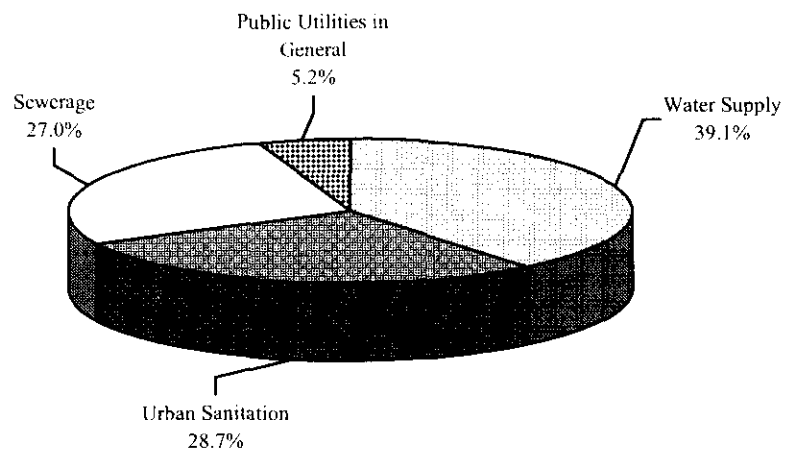
(3) Public Utilities

The Public Utilities subsector is divided into 4 sub-subsectors, with 115 studies carried out over the last 28 years. There are 45 studies (39.1%) in Water Supply, 33 (28.7%) studies in Urban Sanitation, and 31 studies (27.0%) in Sewerage.

Table 2-10 Public Utilities

	Number of Studies	
Water Supply	45	(39.1%)
Urban Sanitation	33	(28.7%)
Sewerage	31	(27.0%)
Public Utilities in General	6	(5.2%)
Total	115	(100.0%)

Figure 2-7 Public Utilities (%)



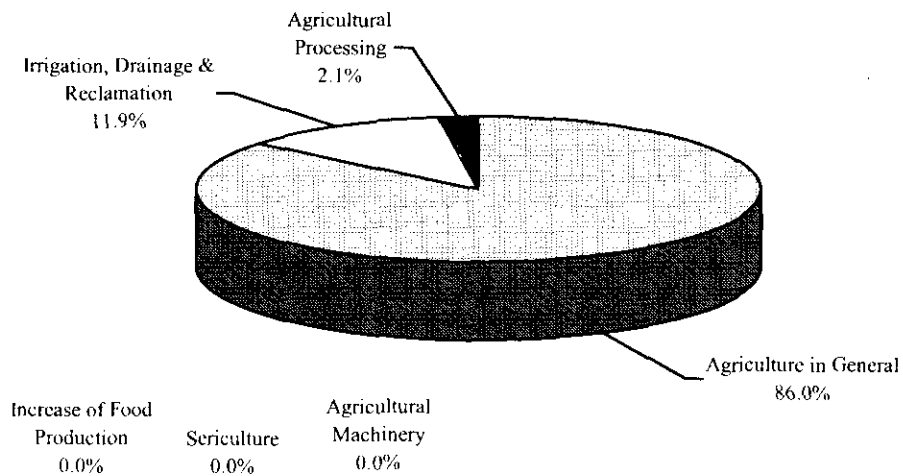
(4) Agriculture

The Agriculture subsector is classified into six sub-subsectors. Over the last 28 years, 285 studies have been conducted, of which 245 (86.0% 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-subsectors.

Table 2-11 Agriculture

	Number of Studies	
Agriculture in General	245	(86.0%)
Irrigation, Drainage & Reclamation	34	(11.9%)
Agricultural Processing	6	(2.1%)
Sericulture	0	(0.0%)
Agricultural Machinery	0	(0.0%)
Increase of Food Production	0	(0.0%)
Total	285	(100.0%)

Figure 2-8 Agriculture (%)



(5) Animal Husbandry

The Animal Husbandry subsector is classified into three sub-subsectors. Over the last 28 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 subsector is divided into two sub-subsectors. All of the 47 studies conducted in Forestry subsector over the last 28 years have been in Forestry & Forestry Conservation.

Table 2-13 Forestry

	Number of Studies
Forestry & Forest Conservation	47 (100.0%)
Timber Processing	0 (0.0%)
Total	47 (100.0%)

(7) Fishery

The Fishery subsector is also composed of two sub-subsectors. All of the 29 studies carried out have been in Fishery sub-subsector, and no study has been conducted in Fish Processing.

Table 2-14 Fishery

	Number of Studies
Fishery	29 (100.0%)
Fish Processing	0 (0.0%)
Total	29 (100.0%)

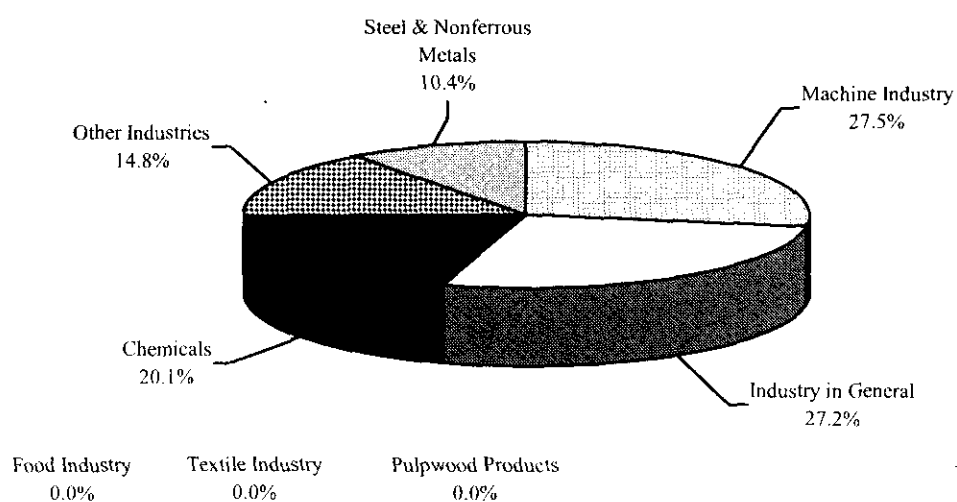
(8) Industry

Over the last 28 years, 298 studies have been carried out in the Industry subsector. There are a large number of studies in three sub-subsectors: 82 studies in Machine Industry, 81 in Industry in General and 60 in Chemicals. These three sub-subsectors account for 75% of the total studies in this subsector.

Table 2-15 Industry

	Number of Studies	
Machine Industry	82	(27.5%)
Industry in General	81	(27.2%)
Chemicals	60	(20.1%)
Other Industries	44	(14.8%)
Steel & Nonferrous Metals	31	(10.4%)
Textile Industry	0	(0.0%)
Pulpwood Products	0	(0.0%)
Food Industry	0	(0.0%)
Total	298	(100.0%)

Figure 2-9 Industry (%)



(9) Mining

19 studies have been carried out over the last 28 years in the Mining subsector, which consists of only the Mining sub-subsector.

Table 2-16 Mining

	Number of Studies
Mining	19 (100.0%)
Total	19 (100.0%)

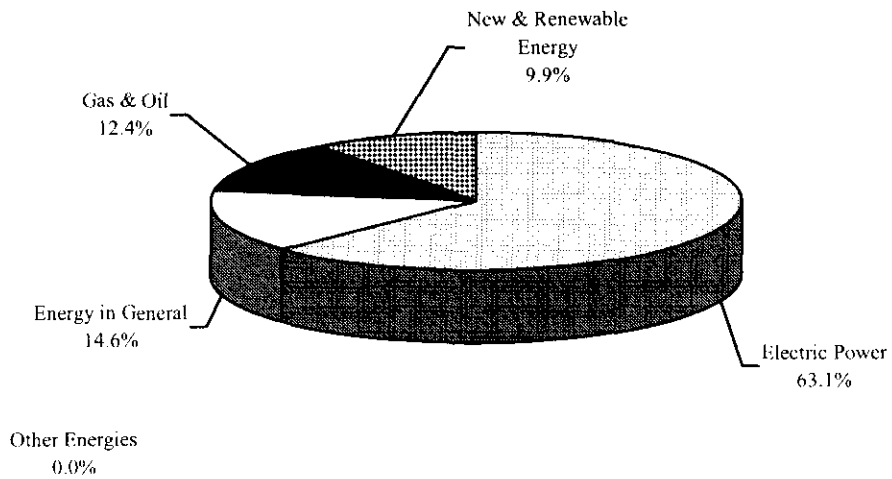
(10) Energy

The Energy subsector comprises five sub-subsectors. Over the last 28 years, 233 studies have been conducted. The Electric Power sub-subsector accounts for 63.1% of the total studies in this subsector.

Table 2-17 Energy

	Number of Studies
Electric Power	147 (63.1%)
Energy in General	34 (14.6%)
Gas & Oil	29 (12.4%)
New & Renewable Energy	23 (9.9%)
Other Energies	0 (0.0%)
Total	233 (100.0%)

Figure 2-10 Energy (%)



1-4-3. Trends in Study Expense

Table 2-18 shows the average expense per single study by region and subsector. 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 highest. A breakdown by subsector shows that the most costly one is Social Infrastructure (440 Million yen), followed by Planning & Administration (373 Million yen), Public Health & Medicine (360 Million yen), and Forestry (320 Million yen).

Table 2-18 Average Study Expense by Region and Subsector

(Unit : 1,000 yen)

Sector		Asia	Middle East	Africa	Central & South America	Oceania	Europe	Plural Countries	Average		
Social Development	Planning & Administration	402,767	304,667	258,614	367,961	127,300	379,265	370,263	373,290		
	Public Works & Utilities	Public Utilities	276,217	287,988	345,720	278,044	326,512	249,856	-	286,408	
		Transportation	Road	256,067	306,126	207,803	276,613	792,126	-	241,870	259,570
			Railway	254,313	320,023	135,619	172,982	-	452,927	-	244,703
			Port	225,985	300,535	337,621	198,047	95,878	384,263	-	233,370
			Others	241,809	274,569	104,702	321,296	158,857	401,785	68,808	245,769
			Average	249,287	291,751	195,091	248,085	213,336	430,672	172,645	249,538
		Social Infrastructure	393,879	444,635	603,558	458,888	601,134	393,645	309,620	447,411	
	Communications & Broadcasting	158,550	146,518	120,160	157,196	102,490	-	244,227	155,061		
	Average	281,759	317,904	382,535	304,267	298,751	326,648	228,054	301,398		
	Commerce & Tourism	262,788	363,630	210,931	296,402	-	168,856	-	282,188		
	Human Resources Development	349,777	-	298,334	-	-	-	78,217	256,166		
	Public Health & Medicine	334,012	-	373,409	-	-	-	-	360,276		
	Agriculture, Forestry and Fisheries Development	Agriculture, forestry & Fishery	Agriculture	241,471	273,129	303,613	277,361	-	271,819	-	259,845
Animal Husbandry			158,367	97,200	-	-	-	-	-	127,784	
Forestry			297,714	368,107	354,913	340,445	121,882	412,717	-	320,265	
Fishery			206,366	307,371	118,863	286,164	202,909	-	-	235,068	
Average			244,256	276,201	305,386	292,223	175,900	318,785	-	264,961	
Mining and Industrial Development	Mining & Industry	Mining	186,426	319,863	69,763	139,092	54,196	-	-	153,122	
		Industry	103,365	117,998	93,962	120,803	-	197,493	-	108,927	
		Average	106,332	124,307	89,692	124,031	54,196	197,493	-	111,576	
Energy	193,636	208,401	221,349	200,329	358,569	211,515	-	202,056			
Others *	140,684	454,568	-	404,996	37,663	170,016	-	231,822			
Average	231,897	268,256	313,802	272,153	248,530	281,354	214,432	252,204			

* The "Others" category consists of two Social Development (M/P) and 34 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 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. The study is classified 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 1,893 completed development studies, 762 studies are in the M/P Studies Group. 306 out of 337 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 90.8%. In the Agriculture, Forestry and Fishery Development area, 109 out of 118 completed studies are classified as “In Progress or In Use,” and the utilization rate is 92.4%. In the Mining and Industry Development area, 250 out of 307 studies are “In Progress or In Use,” and the rate is 81.4%. It can be judged 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	306	109	250	665
Utilization Rate	(90.8%)	(92.4%)	(81.4%)	(87.3%)
Delayed	15	6	38	59
Discontinued or Cancelled	16	3	19	38
Total	337	118	307	762

2-1. Utilization Rates by Region

Here, the utilization rate is analyzed by region except for Oceania, Europe, and Plural Countries, where few development studies have been conducted. The utilization rate in the ASEAN region is 91.3%, which is the highest of all the regions. This is followed by Central & South America (88.5%), Middle East (85.7%), Other Asia (85.1%), and Africa (80.7%).

Table 2-20 Utilization Rate by Region

Present Status	Asia			Middle East	Africa	Central & South America	Oceania	Europe	Plural Countries	Total
	ASEAN	Other Asia	Sub-Total							
In Progress or In Use	211	177	388	60	67	116	7	21	6	665
Utilization Rate	(91.3%)	(85.1%)	(88.4%)	(85.7%)	(80.7%)	(88.5%)	(70.0%)	(95.5%)	(85.7%)	(87.3%)
Delayed	10	25	35	4	9	7	2	1	1	59
Discontinued or Cancelled	10	6	16	6	7	8	1	0	0	38
Total	231	208	439	70	83	131	10	22	7	762

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 are Indonesia, Malaysia, Philippines, Thailand and Viet Nam, and their utilization rates are 94.5%, 88.0%, 88.5%, 89.4% and 100.0% respectively. There are other 14 countries where more than 10 studies were carried out. They are China, with a utilization rate of 86.0%, Sri Lanka (92.3%), Mongolia (90.0%), Nepal (80.0%), Oman (90.9%), Egypt(81.8%), Kenya (84.6%), Tanzania (80.0%), Mexico (81.3%), Colombia (78.6%), Paraguay (85.7%), Brazil (100.0%), Argentina (100.0%) and Bolivia (90.9 %).

Table 2-21 Utilization Rate by Country

(*) ASEAN ten countries

	In Progress or In Use	Utilization Rate	Delayed	Discontinued or Cancelled	Total
Brunei *	1	33.3%	0	2	3
Cambodia *	4	100.0%	0	0	4
Indonesia *	69	94.5%	2	2	73
Laos *	7	100.0%	0	0	7
Malaysia *	22	88.0%	2	1	25
Myanmar *	1	100.0%	0	0	1
Philippines *	46	88.5%	4	2	52
Singapore *	3	100.0%	0	0	3
Thailand *	42	89.4%	2	3	47
Viet Nam *	16	100.0%	0	0	16
China	123	86.0%	16	4	143
Korea	3	100.0%	0	0	3
Mongolia	9	90.0%	1	0	10
Bangladesh	4	80.0%	0	1	5
India	1	33.3%	1	1	3
Nepal	8	80.0%	2	0	10
Pakistan	7	87.5%	1	0	8
Sri Lanka	12	92.3%	1	0	13
Armenia	0	0.0%	1	0	1
Azerbaijan	1	50.0%	1	0	2
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
United Arab Emirates	1	50.0%	1	0	2
Egypt	9	81.8%	2	0	11
Iran	6	100.0%	0	0	6
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	1	100.0%	0	0	1
Tunisia	8	100.0%	0	0	8
Turkey	5	83.3%	0	1	6
Yemen	2	100.0%	0	0	2
Angola	1	100.0%	0	0	1
Benin	1	100.0%	0	0	1
Burkina Faso	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	2	100.0%	0	0	2
Guinea	1	100.0%	0	0	1
Kenya	11	84.6%	1	1	13
Liberia	0	0.0%	0	1	1
Madagascar	1	50.0%	0	1	2
Mali	3	75.0%	1	0	4
Mozambique	3	75.0%	1	0	4

	In Progress or In Use	Utilization Rate	Delayed	Discontinued or Cancelled	Total
Mauritius	1	100.0%	0	0	1
Malawi	3	75.0%	1	0	4
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
Swaziland	2	100.0%	0	0	2
Tanzania	8	80.0%	1	1	10
Uganda	3	100.0%	0	0	3
South Africa	1	100.0%	0	0	1
Zambia	5	100.0%	0	0	5
Zimbabwe	4	66.7%	2	0	6
Argentina	12	100.0%	0	0	12
Bolivia	10	90.9%	1	0	11
Brazil	13	100.0%	0	0	13
Chile	9	100.0%	0	0	9
Colombia	11	78.6%	2	1	14
Costa Rica	3	75.0%	0	1	4
Dominican Republic	1	100.0%	0	0	1
Ecuador	3	100.0%	0	0	3
Guatemala	5	100.0%	0	0	5
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	12	85.7%	1	1	14
El Salvador	3	75.0%	0	1	4
Uruguay	3	75.0%	1	0	4
Bolivarian Republic of Venezuela	2	66.7%	0	1	3
Republic of the Fiji Islands	4	100.0%	0	0	4
Kiribati	2	100.0%	0	0	2
Palau	0	0.0%	1	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
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
Plural Countries	6	85.7%	1	0	7
Total	665	87.3%	59	38	762

2-3. Utilization Rates by Study Type

430 out of 487 studies in M/P Studies are "In Progress or In Use" and the utilization rate is 88.3%, which is the highest of all study types. For Basic Studies, 94 out of 104 studies are "In Progress or In Use" and the utilization rate is 90.4%. For Studies on the Factories Modernization Program in China and Other Studies, the utilization rates are 83.8% and 79.5% respectively. It can be judged 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	430	94	98	43	665
Utilization Rate	(88.3%)	(90.4%)	(83.8%)	(79.6%)	(87.3%)
Delayed	36	4	16	3	59
Discontinued or Cancelled	21	6	3	8	38
Total	487	104	117	54	762

* 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 337 studies, with a utilization rate of 90.8%. The number of studies in the Agriculture, Forestry and Fishery Development area is 118, with a utilization rate of 90.8%. The number of studies in the Mining and Industrial Development area is 307; the utilization rate here is 81.4%.

In the Transportation subsector, which is the largest subsector of the Social Development area, 96 of 108 studies are "In Progress or In Use" and the utilization rate is 88.9%. 97 of 107 studies in the Social Infrastructure subsector are "In Progress or In Use" and the utilization rate is 90.6%. In the Agriculture subsector, 64 of 68 studies are "In Progress or In Use" and the utilization rate is 94.1%. The largest subsector in the Mining and Industrial Development area is the Industry subsector. 165 of 202 studies in the Industry subsector are "In Progress or In Use," and the utilization rate is 77.6%.

Table 2-23 Utilization Rate by Sector

Present Status	Social Development										
	Planning & Administration	Public Utilities	Transportation				Social Infrastructure	Communications & Broadcasting	Tourism	Human Resources Development	Public Health and Medicine
			Road	Railway	Port	Others					
In Progress or In Use	73	9	23	14	14	46	96	16	8	3	2
Utilization Rate	(93.6%)	(90.0%)	(92.0%)	(93.3%)	(87.5%)	(90.2%)	(88.9%)	(94.1%)	(88.9%)	(100.0%)	(66.7%)
Delayed	4	1	1	0	0	2	5	0	1	0	1
Discontinued or Cancelled	1	0	1	1	2	3	7	1	0	0	0
Total	78	10	25	15	16	51	108	17	9	3	3

Present Status	Agriculture, Forestry and Fisheries Development				Mining and Industrial Development			Others *	Total
	Agri-culture	Animal Husbandry	Forestry	Fishery	Mining	Industry	Energy		
In Progress or In Use	64	0	30	15	8	165	52	27	665
Utilization Rate	(94.1%)	(0.0%)	(90.9%)	(88.2%)	(80.0%)	(81.7%)	(77.6%)	(90.0%)	(87.3%)
Delayed	4	0	2	0	1	28	8	1	59
Discontinued or Cancelled	0	0	1	2	1	9	7	2	38
Total	68	0	33	17	10	202	67	30	762

* The "Others" sector consists of two Social Development studies, and 28 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”, “Promoting”, “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 1,893 completed development studies, 1,131 belong to the F/S Studies Group. 419 of 609 studies in the F/S Studies Group of Social Development area are “Completed or In Progress” and the realization rate is 68.8%. In the Agriculture, Forestry and Fishery Development area, 140 out of 245 studies are “Completed or In Progress” and the rate is 58.8%. In the Mining and Industry development area, 106 out of 277 studies are “Completed or In Progress” and the rate is 38.3%.

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	164	60	67	291
	Partially completed	118	43	10	171
	Implementing	95	35	14	144
	Processing	42	6	15	63
	Sub-Total	419	144	106	669
Rate of Realization		(68.8%)	(58.8%)	(38.3%)	(59.2%)
Promoting		114	56	45	215
Delayed or Suspended		23	16	78	117
Discontinued or Cancelled		53	29	48	130
Total		609	245	277	1,131

3-1. Realization Rates by Region

The realization rate in this case is analyzed by region except for Oceania, Europe, and Plural Countries where a few development studies have been carried out. The realization rate in Asia is 64.1%, which is higher than the average utilization rate of all studies in the F/S Studies Group. In ASEAN, the realization rate is 65.3%, which is the highest of all the regions. This is followed by the Middle East (63.1%), Central and South America (49.1%) and Africa (46.2%).

Table 2-25 Realization Rate by Region

Present Status	Asia			Middle East	Africa	Central & South America	Oceania	Europe	Plural Countries	Total
	ASEAN	Others	Sub-Total							
Completed	153	51	204	27	32	25	3	0	0	291
Partially Completed	68	28	96	21	12	31	4	6	1	171
Implementing	64	22	86	26	7	19	1	4	1	144
Processing	27	14	41	8	4	8	0	1	1	63
Sub-Total	312	115	427	82	55	83	8	11	3	669
Rate of Realization	(65.3%)	(61.2%)	(64.1%)	(63.1%)	(46.2%)	(49.1%)	(44.4%)	(45.8%)	(60.0%)	(59.2%)
Promoting	66	43	109	21	30	42	3	9	1	215
Delayed or Suspended	36	18	54	17	19	20	3	4	0	117
Discontinued or Cancelled	64	12	76	10	15	24	4	0	1	130
Total	478	188	666	130	119	169	18	24	5	1,131

3-2. Realization Rates by Country

As stated above, ASEAN has the highest realization rate of all the regions. The ASEAN countries where more than 10 development studies were completed and where the realization rate is more than 60%, are Cambodia, Indonesia, Thailand, Philippines, Malaysia, Viet Nam and Laos. Their realization rates are 72.7%, 63.5%, 71.2%, 62.1%, 62.0%, 79.2% and 61.5% respectively. There are another eight countries that have more than ten completed studies and also whose realization rate is more than 60%. These include China (realization rate: 71.7%), Sri Lanka (68.0%), Bangladesh (60.9%), Egypt (78.9%), Turkey (60.0%), Tanzania (63.1%), Paraguay (71.4%) and Colombia (63.6%).

Table 2-26 Realization Rate by Country

(*) ASEAN ten countries

	Completed or In Progress				Sub-Total	Realization Rate	Promoting	Delayed or Suspended	Discontinued or Suspended	Total
	Completed	Partially Completed	Implementing	Processing						
Brunei *	0	0	0	0	0	0.0%	0	1	0	1
Cambodia *	1	4	3	0	8	72.7%	2	1	0	11
Indonesia *	59	16	16	8	99	63.5%	25	15	17	156
Laos *	6	1	1	0	8	61.5%	3	2	0	13
Malaysia *	16	9	6	0	31	62.0%	6	3	10	50
Myanmar *	6	0	1	0	7	53.8%	2	1	3	13
Philippines *	24	16	16	8	64	62.1%	17	6	16	103
Singapore *	0	1	1	0	2	66.7%	0	0	1	3
Thailand *	41	18	12	3	74	71.2%	6	7	17	104
Viet Nam *	0	3	8	8	19	79.2%	5	0	0	24
China	17	10	8	3	38	71.7%	10	4	1	53
Korea	3	0	0	0	3	75.0%	1	0	0	4
Mongolia	3	1	1	0	5	71.4%	2	0	0	7
Bangladesh	8	2	2	2	14	60.9%	5	3	1	23
Bhutan	0	0	0	2	2	50.0%	1	1	0	4
India	1	1	3	0	5	33.3%	5	1	4	15
Maldives	1	0	0	0	1	50.0%	1	0	0	2
Nepal	6	7	0	0	13	59.1%	4	3	2	22
Pakistan	5	5	2	0	12	52.2%	4	5	2	23
Sri Lanka	7	2	3	5	17	68.0%	5	1	2	25
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	1	0	1	50.0%	1	0	0	2
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	14	10	4	2	30	78.9%	4	0	4	38
Iran	0	1	1	1	3	60.0%	1	1	0	5
Iraq	0	0	0	0	0	0.0%	0	0	1	1
Jordan	2	1	5	0	8	88.9%	0	1	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	2	0	4	33.3%	8	0	0	12
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
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	0	0	0.0%	1	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	25.0%	2	1	0	4
Ghana	1	0	0	0	1	25.0%	2	0	1	4
Guinea	0	0	0	0	0	0.0%	1	0	1	2
Kenya	4	1	3	0	8	44.4%	7	1	2	18

	Completed or In Progress				Sub-Total	Realization Rate	Promoting	Delayed or Suspended	Discontinued or Suspended	Total
	Completed	Partially Completed	Implementing	Processing						
Liberia	1	0	0	0	1	100.0%	0	0	0	1
Madagascar	3	0	1	1	5	83.3%	1	0	0	6
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%	1	0	0	1
Swaziland	0	0	0	0	0	0.0%	0	1	1	2
Tanzania	6	4	0	2	12	63.2%	3	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
Argentina	0	0	0	0	0	0.0%	1	1	3	5
Bolivia	3	6	0	1	10	58.8%	3	3	1	17
Brazil	2	1	2	1	6	54.5%	4	0	1	11
Chile	2	1	2	0	5	71.4%	2	0	0	7
Colombia	1	4	1	1	7	63.6%	0	3	1	11
Costa Rica	0	2	1	0	3	37.5%	2	2	1	8
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	0	0	0	0.0%	1	0	0	1
Guatemala	1	3	1	0	5	50.0%	4	1	0	10
Honduras	1	2	0	0	3	30.0%	4	1	2	10
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	60.0%	2	0	0	5
Panama	0	5	1	0	6	66.7%	1	1	1	9
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	1	1	50.0%	1	0	0	2
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
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	1	1	0	0	2	100.0%	0	0	0	2
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
Plural Countries	0	1	1	1	3	60.0%	1	0	1	5
Total	291	171	144	63	669	59.2%	215	117	130	1131

3-3. Realization Rates by Study Type

28 out of 34 D/D studies have been classified as “Completed or In Progress” and the realization rate is 82.4%, 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. 202 out of 317 M/P + F/S studies are “Completed or In Progress” and the realization rate is 63.7%. 439 out of 780 F/S studies are “Completed or In Progress” and the realization rate is 56.3%.

There are many F/S and M/P + F/S studies classified as being in the “Promoting” category. For F/S studies, the rate of “promoting” studies in relation to total studies is 14.5%. For M/P + F/S studies, the rate is 30.9%.

Table 2-27 Realization Rate by Type of Study

Present Status	M/P+F/S	F/S *	D/D	Total
Completed	46	236	9	291
Partially Completed	78	89	4	171
Implementing	60	76	8	144
Processing	18	38	7	63
Sub-Total	202	439	28	669
Rate of Realization	(63.7%)	(56.3%)	(82.4%)	(59.2%)
Promoting	98	113	4	215
Delayed or Suspended	11	105	1	117
Discontinued or Cancelled	6	123	1	130
Total	317	780	34	1131

* 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 1,131 completed studies in the F/S Studies Group, 609 are in the Social Development area, 245 are in the Agriculture, Forestry and Fishery Development area, and 277 are in the Mining and Industrial Development area. The realization rates are 68.8%, 58.8%, and 38.3%, respectively.

Out of all the subsectors in which have more than 50 studies were conducted, the Communications and Broadcasting subsector has the highest realization rate, 86.5%. This is followed by the Transportation subsector (69.7%), Public Works and Utilities (64.8%), Social Infrastructure (60.8%), Agriculture (60.4%), Industry (40.6%) and Energy (37.3%).

The average realization rate in the Social Development area is 68.8%, 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 (38.4%) are relatively low. There are, however, many studies classified as “Promoting” or “Delayed or Suspended” in these two development study areas (rates for the “Promoting” or “Delayed or Suspended” categories; Social Development area: 22.5%, Agriculture, Forestry and Fishery Development area: 29.5%, Mining and Industrial Development area: 44.4%). 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
			Road	Railway	Port	Others					
Completed	2	23	31	10	18	19	23	37	1	0	0
Partially Completed	1	19	25	7	16	20	21	6	3	0	0
Implementing	3	19	18	1	14	12	20	2	5	1	0
Processing	2	7	13	1	6	3	9	0	1	0	0
Sub-Total	8	68	87	19	54	54	73	45	10	1	0
Rate of Realization	(66.7%)	(64.8%)	(78.4%)	(50.0%)	(67.5%)	(69.2%)	(60.8%)	(86.5%)	(83.3%)	(100.0%)	(0.0%)
Promoting	4	29	14	7	18	9	31	1	1	0	0
Delayed or Suspended	0	6	3	1	0	4	9	0	0	0	0
Discontinued or Cancelled	0	2	7	11	8	11	7	6	1	0	0
Total	12	105	111	38	80	78	120	52	12	1	0

Present Status	Agriculture, Forestry and Fisheries Development				Mining and Industrial Development			* Others	Total
	Agri-culture	Animal Husbandry	Forestry	Fishery	Mining	Industry	Energy		
Completed	56	0	3	1	2	31	34	0	291
Partially Completed	38	0	1	4	0	4	4	2	171
Implementing	31	0	3	1	0	3	10	1	144
Processing	6	0	0	0	0	1	14	0	63
Sub-Total	131	0	7	6	2	39	62	3	669
Rate of Realization	(60.4%)	(0.0%)	(50.0%)	(50.0%)	(22.2%)	(40.6%)	(37.3%)	(50.0%)	(59.2%)
Promoting	45	1	5	5	0	8	36	1	215
Delayed or Suspended	15	0	1	0	4	25	48	1	117
Discontinued or Cancelled	26	1	1	1	3	24	20	1	130
Total	217	2	14	12	9	96	166	6	1131

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