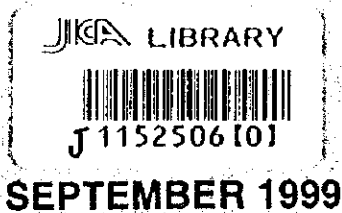


JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

DEPARTMENT OF INDUSTRIAL PROMOTION,
MINISTRY OF INDUSTRY
THE KINGDOM OF THAILAND

**THE FOLLOW-UP STUDY
ON
SUPPORTING INDUSTRIES DEVELOPMENT
IN
THE KINGDOM OF THAILAND**



**UNICO INTERNATIONAL CORPORATION
INTERNATIONAL DEVELOPMENT CENTER OF JAPAN**

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JR
99-168



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SEPTEMBER 1999

**UNICO INTERNATIONAL CORPORATION
INTERNATIONAL DEVELOPMENT CENTER OF JAPAN**



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Preface

In response to a request from the Government of the Kingdom of Thailand, the Government of Japan decided to conduct a Follow-up Study on "the Development of Supporting Industries -- in the Kingdom of Thailand", and entrusted the study to the Japan International Cooperation Agency (JICA).

JICA sent to the Kingdom of Thailand a study team headed by Mr. Shozo Inakazu of UNICO International Corporation, and organized by UNICO International Corporation and International Development Center of Japan, four times from February to August 1999.

The team held discussions with the officials concerned of the Thai Government, and conducted field surveys including a questionnaire survey. After the team returned to Japan, further studies and analysis were made and this report was prepared.

I hope that this report will contribute to the development of the Small and Medium-Scaled Enterprises (SMEs) in Thailand and enhancement of friendly relations between our two countries.

I wish to express my sincere appreciation to the officials concerned of the Thai Government for their close cooperation extended to the team.

September 1999



Kimio FUJITA

President

Japan International Cooperation Agency



September 1999

Mr. Kimio Fujita
President
Japan International Cooperation Agency
Tokyo, Japan

Dear Mr. Fujita

Letter of Transmittal

We are pleased to submit to you the final report on the Follow-up Study on Supporting Industries Development in the Kingdom of Thailand. The report contains studies on the present state of small and medium-sized enterprises (SMEs) in Thailand, analysis of the underlying conditions affecting the restructuring of supporting industries mainly in automotive, electrical and electronic industries, formulation and recommendations for a master plan and development programs based on the foregoing studies and analysis.

This report presents a total of five strategies with seventeen supporting programs as a master plan of SMEs development, in addition to the direction of SMEs development in Thailand. Scheduling and potential benefits of implementation of the programs are also mentioned in the report. The Thai Government has been implemented the Industrial Restructuring Plan (IRP) as a countermeasure for the economic crisis which was occurred in July, 1997. The Government particularly understands through implementation of IRP that it is an indispensable and urgent need for further development of Thai industries, to develop the small and medium-sized enterprises (SMEs), and intends to make a master plan to develop them. We believe that the programs recommended in the report serve as a basis for plans for developing SMEs, which will substantially contribute to the industrial development of the country.

We wish to take this opportunity to express our sincere gratitude to your Agency, the Ministry of Foreign Affairs and the Ministry of International Trade and Industry. We also wish to express our deep gratitude to the Ministry of Industry and other authorities concerned of the Kingdom of Thailand for the close cooperation and assistance extended to us during our investigations and study.

Very truly yours,



Shozo Makazu

Team Leader

Follow-up Study on

Supporting Industries Development

In the Kingdom of Thailand



List of Abbreviation

ASEAN	Association of South East Asian Nations
ASID	Asian Supporting Industries Database
ATSME	Association of Thai Small and Medium Entrepreneurs
BAAC	Bank Agriculture and Agriculture cooperative
BCHID	Bureau of Cottage and Handicraft Industries Development
BINED	Bureau of Industrial Enterprise Development
BIPA	Bureau of Industrial Promotion Administration
BIPPP	Bureau of Industrial Promotion Policy and Planning
BISD	Bureau of Industrial Sectors Development
BOI	Board of Investment
BOT	Bank of Thailand
BSID	Bureau of Supporting Industries Development
BUILD	BOI's Unit of Industrial Linkage Development
CEE	Certified Enterprise Evaluator
CPA	Certified Public Accountant
CDRAC	Corporate Debt Restructuring Advisory Committee
DEP	Department of Export Promotion
DIP	Department of Industrial Promotion
DIW	Department of Industrial Works
DMR	Department of Mineral resources
DOVE	Department of Vocational Education
DSD	Department of Skill Development
EDP	Entrepreneurship Development Program
EEI	Electrical and Electronics Institute
FTI	Federation of Thai Industries
GDP	Gross Domestic Product
GSB	Government Saving Bank
GTZ	Deutsche Gesellschaft für Technische Zusammenarbeit GmbH
HRD	Human Resource Development
IEAT	Industrial Estate Authority of Thailand
IFCT	Industrial Finance Corporation of Thailand
IPC	Industrial Promotion Center
IRP	Industrial Restructuring Plan
ISMED	Institute of SMEs Development
ISO	International Organization of Standardization

List of Abbreviation

JICA	Japan International Cooperation Agency
JPPCC	Joint Public/Private Sector Consultative Committee
J/V	Joint Venture
KMITT	King Mongkut's Institute of Technology, Thonburi
MLSW	Ministry of Labour and Social Welfare
MOC	Ministry of Commerce
MOE	Ministry of Education
MOF	Ministry of Finance
MOI	Ministry of Industry
MSCI	Management System Certificate Institute
MSTE	Ministry of Science, Technology and Environment
NESDB	National Economic and Social Development Board
NFI	National Food Institute
NPL	Non Performing Loan
NSO	National Statistics Office
NSTDA	National Science and Technology Development Agency
OEM	Original Equipment Manufacturing
OIE	Office of Industrial Economics
OJT	On-the-job training
PIO	Provincial Industrial Offices
PMO	Prime Minister's Office
PRID	Promotion of Rural Industrial Development Project
REM	Replacement Equipment Manufacturing (after sales)
SICGC	Small Industrial Credit Guarantee Corporation
SIFC	Small Industrial Finance Corporation
SMEs	Small and Medium-sized Enterprise(s)
SMEPO	SMEs Promotion Office
SMEs	Small and Medium-sized Industry(s)
SSIPP	Small-Scale Industry Promotion Project
TAI	Thailand Automotive Institute
TCC	Thai Chamber of Commerce
TGI	Thai-German Institute
TISI	Thai Industrial Standards Institute
TPA	Technological Promotion Association (Thai-Japan)
TTI	Thailand Textile Institute

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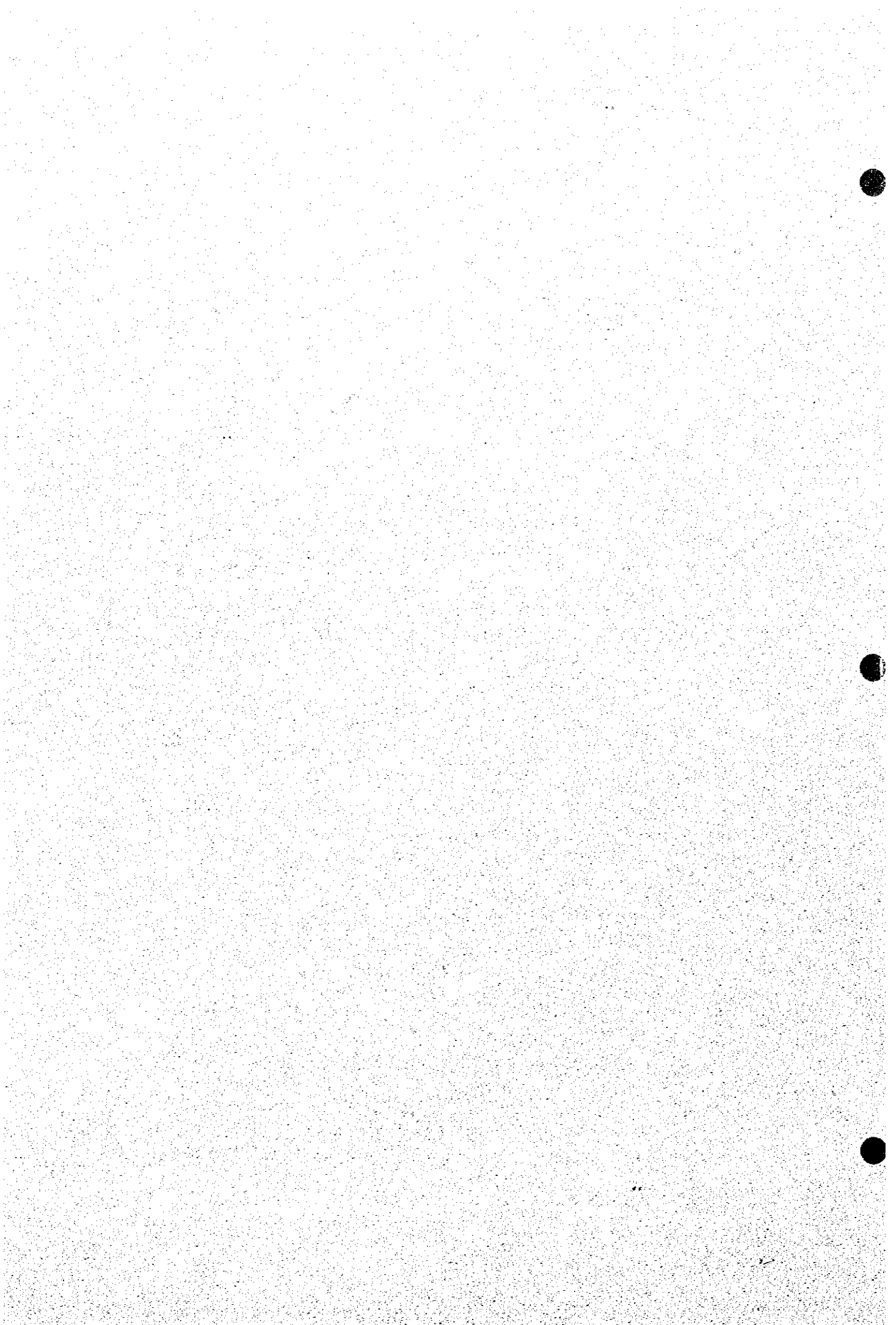
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6

INTRODUCTION



INTRODUCTION

This is the Final Report of the follow-up Study on Supporting Industries Development in the Kingdom of Thailand.

The Study was commenced in February 1999 on the basis of the Scope of the Study in the minutes of meeting signed between Japan International Cooperation Agency (JICA) and the Department of Industrial Promotion (DIP) of the Ministry of Industry of Thailand on December 16, 1998. At almost the same period of the Study, the Japanese government, in response to the request from the Thai government, dispatched Mr. Shiro Mizutani, ex-Director of the Consumer Goods Industries Bureau of the Ministry of International Trade and Industry, as a special adviser to the Minister of Industry and the Minister of Finance of Thailand on measures to promote small and medium-sized enterprises. Consequently, JICA Study Team carried out the present Study in cooperation with Mr. Mizutani and his advisory team.

1. Background of the Study

The present study is defined as a follow-up study for the "Study on Industrial Sector Development-Supporting Industries", which was started in September 1993 and the final report on which was submitted to the Thai government in March 1995. Since the end of that study, the Ministry of Industry of Thailand has implemented various measures to promote its industries in accordance with proposals made by the study team of JICA. However, the economic crisis that occurred in July 1997 revealed the fragility of the domestic industries of Thailand, especially among the local small and medium-sized enterprises (SMEs). To improve the situation, the Thai government established Industrial Restructuring Plan Subcommittee led by the Ministry of Industry with the aim of reinforcing its domestic industries and formulated some urgent country measures. This effort was promoted by the JICA Project Finding Mission which visited Thailand in November 1998. After discussions with the Ministry of Industry of Thailand, JICA decided to carry out a follow-up study for its previous study from the viewpoint of supporting the Industrial Restructuring Plan (IRP) that was being propelled by the Thai government.

2. Purpose of the Study

The main purpose of the study is to formulate a long-term (five-year) master plan and a short-term action programs giving due consideration to the current severe economic conditions in order to promote small and medium-sized enterprises, mainly those in the supporting industries. In the long-term master plan, a project related to the introduction of a business enterprise/factory diagnostic system is included. In the short-term acting programs, a project of establishing "Institutes for the automotive and electric & electronics industries" is also included.

3. Scope of the Study

Areas covered: In the original plan, the study was to cover the whole area of Thailand. Since the study period was not very long, however, it was eventually decided to give priority to the areas in which small to medium-sized enterprises concentrate. The three main areas covered are Greater Bangkok, Eastern Seaboard, and Nakhon Rachasima.

Industry types covered: In the original plan, the study was to give priority to the 13 types of industry that are included in the Industrial Restructuring Plan (IRP). Of them, the iron & steel and petrochemical industries are relatively large in scale and do not meet the purpose of the study. Therefore, these two industries were excluded from the scope of the survey. The 11 industries covered are as follows.

- | | |
|------------------------------------|---|
| 1) Food and Animal Feeds | 7) Plastic products |
| 2) Textile and Garment | 8) Ceramic and glassware |
| 3) Footwear and Leather | 9) Electrical appliances and electronic |
| 4) Wooden products and furniture | 10) Vehicles and parts |
| 5) Pharmaceutical and chemical | 11) Gems and jewelry |
| 6) Para rubber and rubber products | |

The Study focused on SMEs in the manufacturing sector only in this report.

4. Method of the Study

The present conditions of the industries were analyzed mainly through direct hearing from enterprises/factories managers and questionnaire surveys of those enterprises. Concerning policies, systems and financial conditions for SMEs, the study team visited relevant institutions. The numbers of institutions and business enterprises the survey team has visited so far and the number of enterprises that have responded to the questionnaire survey so far are as follows.

(1) Visits to government-related agencies (includes educational/training and financial institutions)	24
(2) Visits to business enterprises/factories (by members of the survey team)	97
(3) Questionnaire survey of business enterprises (by local consultant)	244

The names of the business enterprises the survey team visited are shown in ANNEX IV, and the analysis on the collected questionnaires by industry type is described in detail in Chapter 1.2.

5. Review of Proposals Made In Previous Study

The previous study was carried out on supporting industries for the automotive and electric & electronics industries. The proposals made in the previous study concerned mainly the promotion of small and medium-sized parts industries. The proposals included 17 projects/programs in six fields. The proposed projects/programs by field and the conditions of progress are as follows. Progress of each program, as of April 1999, is shown in Table 1.

Field	No. of proposals	No. of proposals Materialized
(1) Improvement of policy/legislation	4	3
(2) Support to market development	2	1
(3) Improvement of technology level	4	4
(4) Financial support	2	1
(5) Management modernization	2	2
(6) Investment promotion	3	2
Total	17	13

6. Survey Schedule

The schedule for field surveys and the reports made so far are as follows.

Schedule for field surveys

- 1st field survey (explanation and discussion on IC/R) March 1-26, 1999
- 2nd field survey (full-scale survey) April 18 - May 27, 1999
- 3rd field survey (explanation and discussion on IT/R
and supplementary survey) June 23 - July 11, 1999
- 4th field survey (explanation to the draft final report) August 3-10, 1999

Schedule for submission of reports

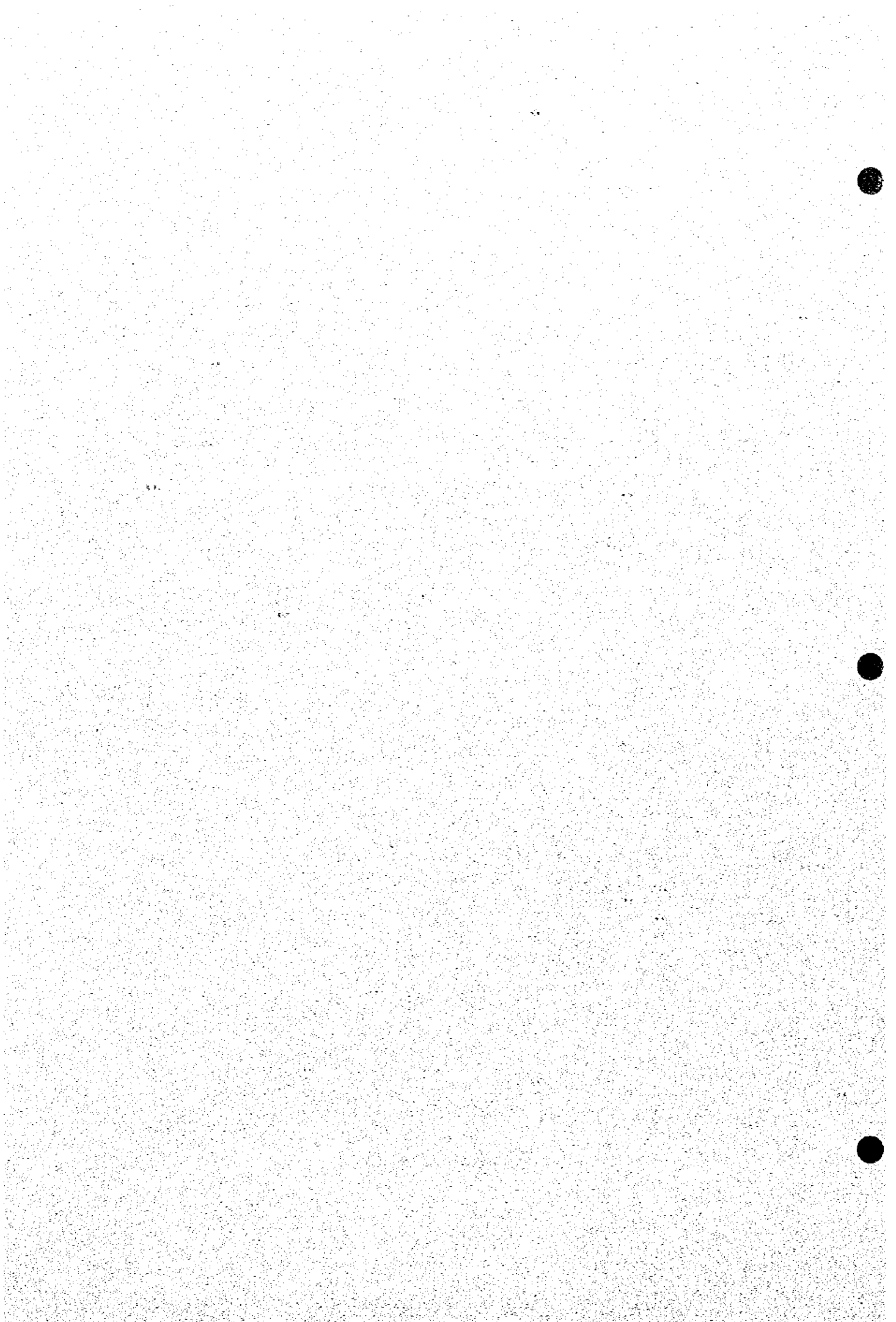
- Inception Report (IC/R) March 1, 1999
- Progress Report (P/R) March 25, 1999
- Progress Report II (P/R) May 24, 1999
- Interim Report (IT/R) June 28, 1999
- Draft Final Report (DF/R) August 4, 1999

Table 1. Progress of Proposed Program in Previous Survey

Proposal Programs	Objectives	Proposed Supporting Measures	Present Situation
1. Policy & Legislation 1.1 Basic law of SMEs development 1.2 Law of subcontracting promotion 1.3 Restructuring of DIP for SMEs & Sis promotion 1.4 Preparation of industrial statistics	Unification of SME's policies. Subcontracting promotion and protection of subcontractors. Centralization and reinforcement of SME's policies implementation. Basic data preparation for industrial development.	Establishment of basic law. Establishment of basic law. Establishment of basic law and department for SMEs. Build up database system.	DIP prepared the SMEs Promotion Act and submitted to the Parliament. No legislation so far but it is partially included in the SMEs Promotion Act. DIP has entirely restructured its organization according to JICA proposal. In consequence, former MIDI was reorganized as the Bureau of Supporting Industry Development (BSID). OIE has established an industrial statistics system under cooperation with JICA.
2. Market Development 2.1 Expansion of BUILD activities 2.2 Subcontracting assistance program	Subcontracting intermediation. Subcontracting business promotion	Information supply, trade fair, visiting parent enterprises regularly, etc. Mediation of financial services.	BOI has been strengthening BUILD scheme. BSID supports the automotive and E&E industries but it is still in the planning stage.
3. Technology Upgrading 3.1 Technology extension service program 3.2 Expansion of Occupational Skill Standards system 3.3 Public technical center activation program 3.4 Joint industry-university training schools	Improvement of softwares in production & quality control skills Upgrading of occupational skill and development of human resources. Improvement of public services for industrial testing, R&D, etc. Fostering of skilled workers working in factories.	Traveling clinic service. Expansion to parts industries; favorable salary system and consignment testing system. Consigned management of institutions to NGO. Providing of investment privileges.	Trial stage by BSID. National Skill Standards of Thailand has been increasing number of occupational category, but a pace is slow. Automotive institute and E&E institute were established. IEAT prepare for construction of new training school in two I.E.S under cooperation with OECF.
4. Financial Support 4.1 Improvement of SMEs' financing schemes 4.2 Assistance for SMEs' in machinery leasing	Expansion of financial service network for regional SMEs. Financial support for SMEs by a leasing system.	Promoting of agent loan network. Interest subsidizing system, payment guarantee for leasing.	MOF and MOI work together for improving SMEs financial system. The government leaves it to the private sector.
5. Upgrading of Management 5.1 Entrepreneur re-education program 5.2 Continuation of Technopreneur Development project	Improvement of management skill in manufacturing. Entrepreneurship education for new comers.	Teaching management by cost analysis method. Continuation of KMITNB program (TDP).	ISMED was established for improvement of management skill of local entrepreneurs. KMITNB modified the program and has been implementing with IMET and Chulalongkorn University as one of IRP project.
6. Investment Promotion 6.1 Ground investors attraction program 6.2 Entrepreneur incubation program. 6.3 Assistance for new comers' penetration.	Investment attraction of foreign SMEs. Extension of the foundation of parts industry by Thai capital. Extension of foundation of Thai parts industry.	Assistance & incentives for grouped SMEs investors. Supporting for establishing new company with leasing system. Promoting technical collaboration with foreign companies.	BOI has been tried to promote foreign SMEs, but it is inactive due to economic slump. BIED provides a entrepreneurship training program under cooperation with GTZ. No concrete program so far.



Chapter 1 The Effects of the Economic Crisis upon
SMEs



Chapter 1 The Effects of the Economic Crisis upon SMEs

1.1 Present Situation of SMEs

1.1.1 Position of the Manufacturing Industry in the Thai Economy

(1) Share of Manufacturing Industry in the Gross Domestic Product

Table 1.1-1 shows the nominal GDP from 1993 to 1997. Manufacturing is the largest industrial sector and its share increased year by year to 28.8% in 1997. During this five-year period, while the annual growth of manufacturing was 11.8%, and the annual growth of the GDP as a whole was lower, at 11.2%. This suggests that manufacturing had worked as a driving force of GDP growth. During this period, agriculture and services increased in terms of their shares, while wholesale and retail trade lost share.

Table 1.1-1. GDP by Sector at Current Prices

(Unit: Billions of bahts, %)

Gross Domestic Product	1993		1994		1995		1996		1997	
	Value	%	Value	%	Value	%	Value	%	Value	%
1. Agriculture	329.9	10.4	390.2	10.7	464.2	11.1	507.3	11.0	540.6	11.2
2. Mining & quarrying	44.3	1.4	48.7	1.3	50.5	1.2	62.3	1.4	57.9	1.2
3. Manufacturing	892.4	28.1	1,017.1	28.0	1,180.0	28.2	1,305.8	28.4	1,390.2	28.8
4. Construction	220.8	7.0	267.2	7.4	304.2	7.3	341.0	7.4	352.4	7.3
5. Electricity & water supply	75.7	2.4	84.5	2.3	99.2	2.4	106.6	2.3	120.7	2.5
6. Transportation & communication	237.8	7.5	269.3	7.4	304.8	7.3	337.3	7.3	362.0	7.5
7. Wholesale & retail trade	530.9	16.7	598.7	16.5	680.4	16.2	712.5	15.5	743.4	15.4
8. Banking, insurance and real estate	232.2	7.3	282.2	7.8	316.2	7.5	348.3	7.6	323.4	6.7
9. Ownership of dwellings	81.2	2.6	88.8	2.4	99.3	2.4	109.3	2.4	115.9	2.4
10. Public administration & defense	117.7	3.7	127.5	3.5	154.7	3.7	167.9	3.7	178.6	3.7
11. Service	407.5	12.9	456.6	12.6	535.4	12.8	600.1	13.1	637.2	13.2

Source: National Accounts Division, NESDB

Table 1.1-2 shows the nominal GDP of manufacturing by industry, for 1993 to 1997. Garments had the largest share (12%), followed by food, machinery, electric machinery, and transport equipment with a share of around 8% each. From 1997, when the economic crisis occurred, garments, textiles, and food increased in their shares, while transport equipment had a sharp decrease in its share; the transport equipment industry was more seriously damaged by the economic crisis because of a sharp decline in the domestic sales.

Table 1.1-2. Manufacturing Sector GDP, by Industry

	(Unit: %)		
	1995	1996	1997p
Total Manufacturing	100.0%	100.0%	100.0%
Food	7.8	8.0	8.3
Beverages	6.4	6.4	6.5
Tobacco	2.1	2.1	2.2
Textiles	7.7	6.7	7.1
Garments	11.4	11.7	12.2
Leather & footwear	3.7	3.1	3.3
Wood	0.7	0.7	0.8
Furniture	2.8	2.6	2.7
Paper	1.5	1.8	1.7
Printing	1.2	1.5	1.4
Chemicals	2.3	2.2	2.0
Petrochemicals	6.5	7.6	7.5
Rubber & plastics	3.1	2.6	2.4
Nonmetallic mineral	5.3	5.4	5.4
Basic metal	1.8	1.8	1.8
Fabricated metal	2.6	2.7	2.9
Machinery	7.3	8.4	8.2
Electrical machinery	8.1	7.8	7.7
Transport equipment	8.6	8.7	7.9
Others	8.9	8.2	8.0

Note: p = provisional
 Source: National Accounts Division, NESDB

(2) Share of Manufacturing in Total Exports

Table 1.1-3 shows the value of exports from Thailand since 1993. The share of manufacturing grew from 80.4% in 1993 to 82.4% in 1997. During this five-year period, while the annual growth of exports in the manufacturing sector was 19.2%, the annual growth of total exports was 18.4%. This indicates that the manufacturing sector drove export growth. In contrast to the increase in the share of manufacturing, those of the agriculture sector and the fisheries sector fell.

Table 1.1-3. Exports by Industry

(Unit: Billions of bahts, %)

	1993		1994		1995		1996		1997	
Total Export Value	935.9	100.0%	1,137.6	100.0%	1,406.3	100.0%	1,412.1	100.0%	1,806.7	100.0%
Agriculture	110.7	11.8%	129.6	11.4%	160.3	11.4%	167.1	11.8%	184.0	10.2%
Fisheries	55.7	6.0%	67.9	6.0%	71.2	5.1%	63.5	4.5%	72.2	4.0%
Forestry	0.4	0.0%	0.6	0.1%	0.8	0.1%	1.0	0.1%	1.3	0.1%
Mining	5.7	0.6%	6.8	0.6%	7.7	0.5%	10.4	0.7%	16.6	0.9%
Manufacturing	752.6	80.4%	922.8	81.1%	1,151.4	81.9%	1,151.4	81.5%	1,489.1	82.4%
Other Goods	9.0	1.0%	7.9	0.7%	12.6	0.9%	16.1	1.1%	37.5	2.1%
Re-exports	1.8	0.2%	2.1	0.2%	2.4	0.2%	2.6	0.2%	6.1	0.3%

Source: Customs Department

Table 1.1-4 gives the shares of major export products from Thailand in 1995 to 1997. Electronic equipment and components including computers and parts, integrated circuits, AV equipment and parts, and air conditioners and their parts hold an important position. The aggregate share of these products reached 25% of total exports of manufactures in 1997. Vehicles and their parts increased their share two-fold in three years. By contrast, traditional exports such as garments, woven fabrics, footwear and their parts, and precious stones and jewelry have tended to gradually lose their shares. The aggregate share of traditional exports declined from 20.0% in 1995 to 14.4% in 1997. The depreciation of the baht in 1997 sharply increased the export value of these traditional products as well as electronic products and vehicles and parts.

Table 1.1.4. Major Export Items and Their Shares

(Unit: %)

	1995	1996	1997
Total Manufacturing	100.0	100.0	100.0
Computers & parts	11.4	14.6	14.8
Garments	8.9	6.9	6.5
Integrated circuits	5.1	5.1	5.1
Precious stones & jewelry	4.4	4.5	3.6
Canned fish	2.9	3	3.3
TV, radios & parts	2.7	3	2.9
Footwear & parts	4.7	2.9	2.4
Vehicles & parts	1.1	1.4	2.2
Woven fabrics	2	1.9	1.9
Air-conditioners & parts	1.8	2.1	1.8
Plastic products	4.6	1.9	1.8
Rubber products	1.8	1.6	1.7
Sub-total	51.4	48.9	48
Others	48.6	51.1	52.0

Source: Ministry of Commerce

(3) Number of Newly-Registered or Suspended-Operation Factories

The Department of Industrial Works (DIW) of the Ministry of Industry calculated the numbers of factories which were newly registered or suspended operation in each of the years 1995 to 1998 (for 1998, January to June). According to Table 1.1-5, newly registered factories rapidly decreased while suspended factories rapidly increased after the economic crisis. In fact, some factories do not inform to DIW even though they stopped operation, therefore real number of suspended operation factories are supposed more than below.

Table 1.1-5. Number of Factories Newly Registered or Stopped Operation

	Newly Registered	Stopped Operation
1995	6,617	1,948
1996	5,329	1,832
1997	4,748	2,207
1998 (Jan.-June)	1,454	1,448

Source: Department of Industrial Works, MOI

1.1.2 Position of SMEs in the Thai Economy

(1) Number of Enterprises

The Ministry of Industry, with the cooperation of the Federation of Thai Industries, the Thai Chamber of Commerce and industrial unions carried out a nationwide survey on the manufacturing industry after the economic crisis as part of preparation for formulating the Industrial Restructuring Plan.

This survey calculated the numbers of enterprises and employment (number of employees) in each of the manufacturing sub-sectors as of 1996. Since the survey data are considered highly reliable, they were used by the IMF as part of the basic data used for deciding on financial assistance for Thailand.

The survey classified the manufacturing industry into 15 sub-sectors as shown in Table 1.1-6. Manufacturing enterprises in each sub-sector are disaggregated into large-size enterprises (200 or more employees), medium-size ones (50 to 199 employees), and small-size ones (49 or less employees).

According to the table, the aggregate number of small to medium-size enterprises was 97.6% of total.

By sub-sector, 100% of rice mill enterprises are small to medium-size as are 98% of wooden products and furniture enterprises. The sub-sectors of textiles and garments, footwear and leather, and petrochemicals, have relatively lower shares (around 90%) of small- to medium-size enterprises.

Table 1.1-6. Shares of SMEs in Manufacturing Industry

	No. of SMEs	Total No. of Manufacturing Enterprises	Share of SMEs
Food (excl. rice mills)	12,395	12,812	96.7 %
Rice mills	43,291	43,296	100.0 %
Textiles & garments	4,668	5,214	89.5 %
Footwear & leather	1,133	1,281	88.4 %
Wooden products & furniture	8,998	9,159	98.2 %
Chemicals & pharmaceuticals	1,531	1,585	96.6 %
Pararubber & rubber products	1,500	1,593	94.2 %
Plastic products	3,689	3,824	96.5 %
Ceramics & glassware	2,236	2,314	96.6 %
Gems & jewelry	570	613	93.0 %
Appliances & electronics	2,184	2,408	90.7 %
Vehicles & parts	2,867	2,979	96.2 %
Iron & steel	1,203	1,257	95.7 %
Petrochemicals	191	214	89.3 %
Others	13,827	14,154	97.7 %
Total	100,283	102,703	97.6%

Note: SMEs have less than 200 employees.

Source: IRP materials

(2) Employment

Table 1.1-7 shows employment using the same classification method. The table shows that the small- to medium-size enterprises accounted for 49.0%, or almost half of total employment in the manufacturing sector.

By sub-sector, rice mills have the highest ratio, 81%, followed by wooden products and furniture with 72%. On the other hand, small- to medium-size enterprises have the relatively low shares, of less than 30%, in the two sub-sectors of appliances and electronics, and footwear and leather.

Table 1.1-7. Share of SMEs Employees

(Unit: 1,000; %)

	SME Employees	Total Employees	Share of SMEs
Food (excl. rice mills)	183.8	461.2	39.9 %
Rice mills	79.1	97.8	80.9 %
Textiles & garments	229.9	542.1	42.4 %
Footwear & leather	38.9	136.0	28.6 %
Wooden products & furniture	165.5	230.2	71.9 %
Chemicals & pharmaceuticals	43.2	64.3	67.2 %
Pararubber & rubber products	44.4	94.5	47.0 %
Plastic products	85.9	146.3	58.7 %
Ceramics & glassware	41.1	82.4	49.9 %
Gems & jewelry	22.7	40.6	55.9 %
Appliances & electronics	62.1	242.9	25.6 %
Vehicles & parts	50.5	118.4	42.7 %
Iron & steel	37.2	54.9	67.8 %
Petrochemical	5.9	16.5	35.8 %
Others	243.7	396.5	61.5 %
Total	1,333.9	2,724.6	49.0%

Note: SMEs have less than 200 employees.

Source: IRP materials

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1.2 Results of the Questionnaire Survey

1.2.1 Investigation Purpose and Method

(1) Purpose

The questionnaire survey aims to ascertain the impact of the economic crisis on SMEs and the issues SMEs are facing today, and to grasp the needs of SMEs, for the purpose of designing a master plan to promote SMEs.

(2) Industrial categories for investigation and the number of replies

Eleven business categories, as agreed with DIP, were studied; they are listed below. From the thirteen priority categories of the IRP, basic metal and petrochemicals are omitted. The number of replies from each business category is as follows.

	<u>Total</u>	<u>SMEs</u>
Wooden products and furniture	20	18
Gems and jewelry	15	15
Footwear and leather	16	13
Textile and garments	19	16
Ceramic and glassware	23	20
Plastic products	22	20
Pharmaceuticals and chemical	22	21
Food and animal feed	19	19
Pararubber and rubber products	19	19
Vehicles	49	35
Electrical appliances	20	5
	<hr/> 244	<hr/> 201

(3) Investigation method

Interviews were conducted by a Thai research company supervised by the Team (questionnaire sheet shows in ANNEX II).

(4) Size of responding companies

The DIP defines small and medium manufacturers as those whose fixed assets are valued at less than 200 million bahts. The former definition was under 100 million bahts in fixed assets and with less than 200 employees. Among those who responded to the questionnaire, 25 (10.2%) companies did not provide their fixed assets, while two companies did not answer as to the number of employees and eight companies did not answer as to the amount of registered capital. Among those who responded, the companies with less than 200 employees accounted for 73.1%.

In the following analysis, SMEs are defined as (1) firms with fixed assets of less than 200 million bahts or (2) firms with less than 200 employees, and other firms than the above SMEs are classified as large enterprises (LEs) or "others." The category of "others" includes seven firms which did not answer regarding the fixed assets or number of employees. As a result, the 244 respondents are classified into 201 SMEs, 36 LEs, and 7 "others." The following analysis focuses on the 201 SMEs.

1.2.2 Analysis of the Investigation Results

1.2.2.1 Impact of the Economic Crisis

(1) Sales

Arrangement of the aggregated data according to the magnitude of sales does not reveal much indication that the economic crisis has brought about a drastic decline in sales. Even when the sales amount at the lower end is further subdivided to fewer than 5 million bahts, 5-10 million and 10-20 million bahts, there is hardly any change in the numbers of enterprises.

Table 1.2-1. Sales Amount
- Answering methods, one choice; No. of question: Q:B (1) -

Sales (Million bahts)	1996		1997		1998	
	(Number of companies)	(%)	(Number of companies)	(%)	(Number of companies)	(%)
up to 20	70	34.8	71	35.3	73	36.3
20 – 100	67	33.3	64	31.8	66	32.8
100 – 500	45	22.4	51	25.4	48	23.9
500 or more	12	6.0	11	5.5	10	5.0
n.a.	7	3.5	4	2.0	4	2.0
	201	100.0	201	100.0	201	100.0

(2) Ratio of Domestic Sales / Exports

Since the outbreak of the economic crisis, the export ratio has increased. It cannot be determined from the survey results if the increase is due to an actual increase of the exports or a decrease in domestic sales.

Table 1.2-2. Ratio of Domestic Sales/Export
- Answering methods, description; No. of question, Q:B (2) -

	Domestic	Export	Answers
1996	64.1%	35.9%	197
1997	62.4%	37.6%	201
1998	61.0%	39.0%	201

(3) Profit change

Three-quarters of the enterprises (75.6%) report that profits decreased following the economic crisis. In comparison to the results shown in (1), the sales declines for most companies apparently were contained within the sales bracket of each company.

Table 1.2-3. Profit

- Answering methods, one choice; No. of question: Q:B (4) -

	Companies	%
Decreased	152	75.6
Increased	15	7.5
No change	30	14.9
N.A.	4	2.0
	201	100.0

(4) Number of Employees

The average number of employees at the 243 respondents decreased 5% from 1996 to 1997, and 16% from 1997 to 1998. The following shows the number of the SMEs whose employees decreased, increased, or remained unchanged in the period of 1996 to 1998.

Table 1.2-4. Employment after the Economic Crisis (overall)

- Answering methods, description; No. of question: Q:B (5) -

	1996	1997	1998
Average employees for 243 companies	401	432	362
Year change	--	+8%	-16%

Table 1.2-5. Employment after the Economic Crisis by firm)

- Answering methods, one choice; No. of question: Q:D (1) 2) -

Employees decreased	84	(41.8%)
Employees increased	26	(12.9%)
No change	90	(44.8%)
No answer	1	(0.5%)
	201	(100.0%)

Concerning the degree of difficulty in finding and hiring employees, 107 companies (53.2%) said it became easier to hire employees after the economic crisis, 65 companies (32.3%) said there was no change, and 29 companies (14.4%) said it became harder.

(5) Utilization of Capacity

Table 1.2-6. Capacity Utilization
- Answering methods, description; No. of question: Q:B (6) -

	1996	1997	1998
Average capacity utilization for 235 companies	82%	72%	67%
Year-to-year change	-	-12%	-7%

The average capacity utilization for the 235 respondents compared to the previous year was minus 12% in 1997 and minus 7% in 1998. From 1996 to 1998, it declined from 82% to 67%.

1.2.2.2 Financial Institutions

(1) Awareness and Usage of Financial Institutions

Table 1.2-7. Awareness and Usage of Financial Institutions
- Answering methods, one choice; No. of question: Q:C (2) -

	SIFC	IFCT	EXIM	Krung Thai
Know about it	137 (68.2%)	168 (83.6%)	176 (87.6%)	196 (97.5%)
Don't know about it	64 (31.8%)	33 (16.4%)	25 (12.4%)	5 (2.5%)
	201	201	201	201
Now have loan or have had loan	7	11	17	20

SIFC is the least well known, and few companies received loans from it. Krung Thai Bank is known by 98% of the respondents, and 20 companies (about 10%) took loans. The number of branches and the magnitude of lending by these form institution are reflected in responses.

(2) Small Industry Credit Guarantee Corporation

Business managers' recognition and use of the Small Industry Credit Guarantee Corporation (SICGC) are as follows.

Table 1.2-8. Awareness and Usage of SICGC
 - Answering methods, free choices; No. of question: Q:B (5) -

Know about SICGC	84	(41.8%)
Don't know about SICGC	117	(58.2%)
	201	(100.0%)

Among the 84 companies who knew about SICGC, five companies thought of using it, and only four companies actually received a guarantee from it.

(3) Demand for Funds

119 companies (59.2%) are in need of funds right now.

Table 1.2-9. Demand for Funds
 - Answering methods, one choice; No. of question: Q:C (3) -

Currently in need of funds	119	(59.2%)
Currently not in need of funds	82	(40.8%)
	201	(100.0%)

(4) Amount of Funds Needed

Table 1.2-10. Amount of Funds Needed
 - Answering methods, description; No. of question: Q:B (3) -

Million bahts	No. of cos.	%
Up to 5	31	26.1
5 -- 15	31	26.1
15 -- 30	26	21.9
30 -- 45	0	0.0
45 -- 60	13	10.9
60 -- 90	2	1.7
90 or more	6	5.0
n.a.	10	8.4
	119	100.0

Among the 119 companies who need additional funds, 88 companies (74%) need under 30 million bahts. This figure may be of reference in roughly estimating credit demand.

(5) Usage of Funds

The following shows higher-ranked uses of the loans which are needed by the 119 SMEs. The most-frequently cited need for funds was for working capital; this was the response by 89.9% of the companies. The second was for the machinery and equipment (58.0%), which seems to negate the assumption that the economic crisis caused a decline in the willingness to invest in machinery and equipment.

Table 1.2-11. Usage of Funds
- Answering methods, free choices; No. of question: Q:C (3) -

Usage of loans	Companies	%	No. of LEs	%
Working capital	107	89.9	12	70.6
Machinery & equipment	69	58.0	9	52.9
Inspection and measuring equipment	25	21.0	4	23.5
Expenditure for R&D	22	18.5	4	23.5
Factory building	22	18.5	2	11.8
Relocation of factory	15	12.6	0	0.0
Total No. of Respondents	119		17	

(Note) Multiple answers

(6) Impact of the Economic Crisis on Getting Loans

After the economic crisis, almost 60% of the companies feel it is more difficult to get financing. The ratio is almost the same for both working capital and investment capital.

Table 1.2-12. Impact of the Economic crisis on Getting Loans
- Answering methods, one choice; No. of question: Q:D (2) -

	Working capital	Investment capital
More difficult to get loans	113 cos. (56.2%)	117 cos. (58.2%)
No change	80 cos. (39.8%)	77 cos. (38.3%)
Others	8 cos. (4.0%)	7 cos. (3.5%)
	201 cos.	201 cos.

(7) Problems in Getting Loans

The Team asked the companies to name just one problem or obstacle to getting a loan from a bank. The top five are listed below.

Table 1.2-13. Problems in Getting Loans
- Answering methods, two choices; No. of question: Q:C (4) -

	Nos.	%
Banks became reluctant to finance	91	45.3
Complicated procedure & documentation	60	30.0
Insufficient or collateral	43	21.4
Time-consuming assessment of application	40	19.9
Banks do not finance the full amount	32	15.9

The first problem is the reluctance of the banks to lend money. The second is the problem of red tape. Third is insufficient collateral. Fourth is the prolonged time from application for the loan to its final approval, and the fifth is that the banks do not finance the full amount of the money needed, so that the corporations have to find another supplier to fill the gap.

On the other hand, 29 SMEs (14.4% of the total) answered "no problem," because they "raise necessary funds at the headquarters abroad," or "borrow from informal financial institutions."

1.2.2.3 Urgent Issues for Corporate Management

The Team asked a question concerning the urgent issues each company is facing today. Respondents were given 10 choices and asked to select and prioritize the top three issues: Most urgent, second, and third. The Team gave three points to the first priority issue, two points to the second priority and one point to the third priority. Total scores are given in the table below. The same question was asked for the 1995 study (the questionnaire was conducted in 1994) on supporting industry, the results of which are also listed below for reference.

Table 1.2-14. Urgent Tasks for Management
 - Answering methods, three choices, ranking; No. of question: Q:E -

	Score in 1999	Order in 1994	SMEs' Score in 1999	LEs' Score in 1999
① Human resources development	271	①	221	44
② Marketing development	263	⑧	224	30
③ Machinery & equipment	213	②	196	12
④ Financing	185	⑤	165	14
⑤ QC technology	167	④	123	38
⑥ Purchasing or raw materials and parts	109	n.a.	89	19
⑦ Export promotion	105	⑥	70	33
⑧ Production technology	80	③	63	15
⑨ Management skills	12	⑦	9	0
⑩ Production cost reduction	9	n.a.	8	1

The investigation in 1994 was conducted for the automobile, electric and electronics industries, which are included in the target industries this time, and in both cases, the number one concern is the development of the capability of their workers (Manpower development). The second concern, however, is market development, which was No. 8 in the previous investigation. This seems to reflect the sales slump after the crisis. The third is the modernization of machinery and equipment, which was second place in 1994. The rest does not seem to have changed so much except that the improvement in production technology, which was in third place previously, has fallen to No. 8. This may reflect that in 1994 the parts industry gave more importance to production technology. According to experts' opinion, production equipment has been undergoing modernization steadily since the previous investigation.

In the SMEs, the total points of "market development" are somewhat higher than those of "manpower development". In the LEs, however, "export promotion (promotion of direct export of parts & components)" is placed third and given higher points than "market development", although "manpower development" is in the first rank. This indicates that the LEs are more export-oriented than SMEs. The LEs also give the second place to "QC technology" which is indispensable to export promotion. By contrast, the LEs give lower points to "production technology" and "financing".

With regard to countermeasures and strategies to cope with the economic crisis, the Team asked the respondents to check all applicable answers among six choices. As shown in the following table, about 80% of the respondents checked "reduction of production cost," and around 50% of the respondents checked "expansion of exports," "expansion and diversification of sales outlets," and "development and diversification of products." In other words, "reduction of production cost" and "expansion of sales outlets" are regarded more important strategies after the economic crises. SMEs think less of "expansion of exports" than LEs; 80% of the latter mentioning "expansion of exports."

Table 1.2-15. Strategies to Cope with the Economic Crisis
 - Answering methods, free choices; No. of question: Q:F -

Strategy	No. of SMEs	%	No. of LEs	%
Reduction of production cost	161	80.1	32	88.9
Expansion of exports	113	56.2	29	80.6
Expansion and diversification of domestic sales channels	109	54.2	14	38.9
Development and diversification of products	91	45.3	17	47.2
Reduction of number of employees	39	19.4	9	25.0
Expansion of financing sources	31	15.4	7	19.4

1.2.2.4 Sectors Which Need Government Support

The companies were asked to choose two areas out of six in which government support is needed. The following is the result.

Table 1.2-16. Areas Requesting Support from the Government
 - Answering methods, two choices; No. of question: Q:G (1) -

Order	Particular	Replies from SMEs		Replies from LEs	
			%		%
1	Marketing and sales promotion	87	43.3	14	38.9
2	Tax incentives and subsidies	74	36.8	25	69.4
3	Easy access to financing	74	36.8	10	27.8
4	Reliable & continuous SME policy	58	28.9	12	33.3
5	Technology up-grading	42	20.9	4	11.1
6	Human resource development	35	17.4	3	8.3

Because of the sales slump after the crisis, they desire that the government should give stronger support for market development (87 companies out of 201, or 43.3%). Other significant requests are for the government support through tax incentives, financial support, reliable and continuous SME policies, technology upgrading and human resource development.

In addition, about 30 % of the respondents hope for continuous planning and implementation of policies in each aspect.

Some 70 % the LEs require assistance in "taxation and subsidies". The SMEs tend to require more assistance in financing, technology, and human resources than the LEs.

The following shows major requirements pointed out in each aspect.

(1) Marketing/Sales promotion

- Information services concerning material sources, sales trends (incl. export market), etc.
- Information gathering and monitoring on a regular basis
- Simplification of export/import procedures
- Foreign investment promotion to SMEs
- Planning/implementation of promotions (exhibitions, publicity, etc.)
- Preferential purchase of Thai products by government organizations (incl. hospitals)

(2) Taxation/Subsidies

- Reduction of export taxes
- Reduction/abolition of import taxes on raw materials for export use
- Reduction/abolition of import taxes on machinery and equipment
- Speedy refunding
- Reduction of corporation tax

(3) Financing

- Lowering of interest rates
- Extension of payment terms
- Speedy financing procedures
- Strengthening of financing institutions for SMEs
- Expansion of packing credits by the EX-IM Bank of Thailand

(4) Technical Improvement

- Standardization of products
- Assistance in ISO 9000 licensing
- Assistance in technical development

(5) Human Resources Development

- Strengthening of & Technical education/training
- Technical guidance on labor management
- Improvement of professional abilities and morale in government officers

1.2.2.5 Expectation of the "Enterprise Diagnosis System"

The Team asked 69 manufacturers in the supporting industries what they expect of the enterprise diagnosis system that has been planned by the government as part of the IRP. As shown in the following table, a high percentage of respondents answered that the enterprise diagnosis system could contribute to the betterment of production control, financial management, marketing/sales management, and information management. More than 30% of the SMEs expect the improvement of financial management from the Factory Evaluation system, (an IRP project, that is also recommended in his report) while only 10% of the LEs think their financial management would be

improved by the system. Furthermore, one-third of the SMEs in the automotive industry expect that their capability of production technology and marketing and sales management would be improved by the system.

Table 1.2-17. Expectation of the Enterprise Diagnosis System
- Answering methods, two choices; No. of question: Q:H -

Expertise	No. of SMEs	%	No. of Les	%
1. Production technology	11	33.3	9	25.0
2. Financial management	10	30.3	4	11.1
3. Marketing and Sales management	9	27.3	112	33.3
4. Information management	8	24.2	10	27.8
5. Merchandising	6	18.2	5	13.9
6. No interest	4	12.1	8	22.2

1.2.2.6 Expectations toward the Automotive Institute and the Electrical & Electronics Institute

The Team asked 69 SMEs in the supporting industries what kinds of functions they expect from the Thailand Automotive Institute (TAI) or the Electrical and Electronics Institute (EEI). The respondents were requested to check three functions they thought most important among 11 choices.

Table 1.2-18. Expectation of the TAI and the EEI
- Answering methods, three choices; No. of question: Q:1 -

Function	No. of SMEs	%	No. of LEs	%
Coordination between the government and the private sector	22	66.7	21	58.3
Info services and publication on technology, marketing, financial indicators	12	36.4	16	44.4
Coordination for linkage of the private sector	8	24.2	7	19.4
Compilation of a database of foreign and local professionals	7	21.2	9	25.0
Technological & managerial guidance including clinic services	7	21.2	5	13.9
Training courses for workers (technicians/skilled labor)	6	18.2	7	19.4
Guidance for acquisition of ISO9000s, QS9000, etc.	6	18.2	5	13.9
Training and education courses for entrepreneurs and managers	6	18.2	3	8.3

As shown above, two-thirds of the respondents mentioned "coordination between the government and the private sector," and one-third of the respondents mentioned "information services and publication on technology, marketing, financial indicators." Compared to the LEs, the SMEs lay their hopes less on "information services and publication on technology, marketing, financial indicators" and "listing of foreign and local professionals and their intermediary services."

Moreover, regarding both the TAI and the BEI, many respondents expect "coordination between the government and the private sector" and "information services and publication on technology, marketing, financial indicators." Other important functions which the SMEs in the automotive industry expect from the TAI are "coordination for linkage of the private sector," "technological & managerial guidance including clinic services," and "testing of materials and products for R&D and so on." More than 20% of the SMEs in the automotive industry regard each of these functions as important. On the other hand, other important functions which the SMEs in the electrical and electronics industry expect from the BEI are "listing of foreign/local professionals and their intermediary services" as a database and "training courses for workers (technicians/skilled labor)."

1.2.3 Overall Evaluation of the Questionnaire Survey

(1) Impact on Corporate Management of the Economic Crisis

The economic crisis caused profits at 76% of the companies to decline. The export ratio increased from 36% to 39%. This increase, according to extensive anecdotal information, is probably more a result of the stagnated domestic market rather than a genuine increase of exports. Some companies, however, increased profits through substantial export growth. They are in the industries of textiles and garments, ceramics and glass products, wooden products, and processed food.

Utilization of capacity declined from 82% in 1996 to 67% in 1998, which is about, an 18% decline. About 42% of the companies reduced the number of employees.

(2) Countermeasures to the Economic Crisis (Strategies)

With regard to countermeasures and strategies to cope with the economic crisis, the respondents attach more importance to "reduction of production cost" and "expansion of exports." In "expansion of exports," they think much of expansion of their markets (including export) as well as development and diversification of their products.

(3) Demand for Funds

Among the 201 respondents, 119 companies (59%) said that they have a current requirement for funds. Obtaining working capital was cited as a requirement by most (90%) of the companies, and 58% of the companies want to obtain funds for investment in production equipment. This proves that desire to increase production is not totally dead.

Nearly 60% of all companies reported that getting a loan from a financial institution became more difficult after the economic crisis. They cite as the greatest obstacle the reluctance of the financial institutions to provide loans. The questionnaire proved that the demand for capital exists but financial intermediaries are relatively inactive, that is, there is a liquidity problem. The questionnaire shows that financing is the fourth most urgent issue the respondents have to cope with, and holds third place for requested government support.

(4) Financial Institutions

Among financial institutions, Small Industrial Finance Corporation is the least known in comparison to Industrial Finance Corporation of Thailand, the Exim Bank, and Krung Thai Bank. About one-third of the companies did not know of its existence, and its financing for the companies was also the lowest among the above-mentioned institutions. Among the above-mentioned institutions, the Krung Thai Bank is the best known, and also holds the leader in for SMEs. The SICGC is even less known than the SIFC. Over half (58%) of all companies said they did not know so much as its name and only four companies had received a credit guarantee from it.

A clear indication was thus provided that future policy for the SMEs sector must include attention to improvement of the scheme for financial support of the sector. Such attention could usefully include action on behalf of expansion of the SIFC branch network, introduction of the agent loan system and an increase in the amount of funds made available to the SIFC for its loan operations. Measures that improve the function of the Krung Thai Bank as a supplier of credit to SMEs would be desirable. Building of awareness of the SICGC is needed, but the questionnaire results suggest that more than that -- that is, fundamental reforms -- is needed.

(5) Urgent Issues and Requests for the Government Support

The need for development of product markets is the second most urgent issue the companies regard as vital, and ranked at the top among the requests for government support. The investigation result of visiting companies by the Team found through its interviews that many top executives share the view that the primary cause of the difficulty in managing the company is attributed to the decline in product sales. This result was also obtained by a World Bank Survey, described below.

Next in the order of importance the manpower development is ranked high. It is sixth among the requests for government support, but at the top among urgent issues. It was the subject of greatest concern on the occasion of the 1994 questionnaire, too. The executives may have ideas on how to train their employees, but need assistance.

There is a discrepancy in opinions about the identity of urgent issues between the Team and the companies visited. The company spokespersons ranked the issue of improving the managerial ability of the company executives at No. 9, while the Team regards this problem as the number one urgent issue. When a buyer negotiates with an SME, or when an effort "is to be" made to improve its competitiveness, the biggest obstacle is the quality of the SME's executives. This demonstrates need to strengthen the supporting policy for management education.

More SMEs expect that the Factory Evaluation System as outlined by the Team will contribute to the improvement of production technology, financial

management, marketing and sales management, and information management. They also expect that the Thailand Automotive Institute and the Electrical and Electronics Institute will function as organizations for coordination and information services.

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1.3 Results of the Questionnaire Survey by the World Bank

1.3.1 Survey Outline

The World Bank executed two surveys in Thailand regarding the effects of economic crisis. The following is basic information on the second survey, conducted from November 1998 to February 1999. It was a follow up survey of the one the World Bank conducted from October 1997 to March 1998.

Five manufacturing sectors were selected: garments, textile, electric/electronic, food processing, and auto parts. The number of surveyed companies was 642 (1,227 companies were surveyed in 1997/1998). 90% of the 1,227 companies were in existence at the time of the 1998/99 survey. Among the 1,107 companies, 642 companies were re-interviewed (58% response rate was achieved). About one third of the firms are relatively new, having been established since 1990. Company size was measured based on the number of employees. About one third of firms are large, with over 150 employees. 55% of firms export at least some of their output. 29% of firms have a partnership or joint venture with a foreign firm.

The sample of firms was chosen randomly to minimize possible bias and allow for statistically significant analysis. It should be noted that there is a bias in favor of more successful firms. Firms that had to close due to current economic difficulties are less likely to participate in the survey.

1.3.2 Analysis of Survey Results on Financial Issues

1.3.2.1 Impact of the Economic Crisis

Table 1.3-1 shows the impact of the crisis by area of impact and sector of the firms. Output decreased at 79% of small companies. The decrease was 60% in case of large firms since large firms can quickly change the destination of output from domestic market to export market. Therefore, in terms of output level, the impact of the crisis is more severe for small firms.

Among the five sectors, the most severely damaged sector is auto parts where 90% of the companies suffered a drop in production. In case of electronic sector, 77% of companies reported that output decreased.

Table 1.3.1. Impact of the Crisis by Firm Characteristics

(Unit: %)

	By Change in Exports			Level of Output		Capacity Utilization	Change in Employment	
	Decrease	Same	Increase	Decrease	Same/ Increase		Decrease	Same/ Increase
Garments	29	23	45	60	38	-5	39	60
Textiles	25	19	57	71	27	-5	54	43
Electronics	35	19	38	77	22	-22	58	42
Food	42	18	33	53	45	-5	41	58
Auto parts	46	7	29	90	8	-25	68	30
Total/Average	35	17	40	70	28	-12	52	47
Small size*	39	18	38	79	20	-13	56	42
Large size	30	18	45	60	38	-11	45	53

*SMEs

These responses are reflected in the capacity utilization rate. The capacity utilization rate in five sectors shows the following results: auto parts, -25%; electronics, -22%; garments, textiles and foods, -5%.

In terms of change in employment level, 68% of the auto parts companies said that employment decreased. In descending order they are followed by garments, 60%; food, 58%; textiles, 43%; and electronics, 42%. Loss of jobs in electronics has been moderate. However, general trend is that almost all the sectors, or more than 50% of all companies, reported that employment decreased due to the crisis.

1.3.2.2 Primary Factor for Output Decline

Among the different factors which affect the output decline, the companies were asked about the following factors.

(1) Demand Related Factors

74% of the SMEs responded that domestic demand declined, against 31% reported that reported foreign demand declines. This response can be explained by the fact that small companies are generally not directly

involved in foreign trade. Their concern is the forecast for the Thai economy to recover.

Of course, big companies purchase from small companies to export. Therefore, improvement of capability of small companies to deal with big companies must be important. From this viewpoint, 67% of big companies responded that domestic demand decline is quite important as a cause of output decline against 38% citing foreign demand decline. This ratio gap (31% of small against 38% of big companies citing foreign demand) is important since big companies are changing the destination of output from the domestic to the export market.

Table 1.3-2. Change in Level of Output after the Crisis

(Unit: %)

	Level of Output		Domestic Demand	Foreign Demand
	Decrease	Same / Increase		
Garments	60	38	61	48
Textiles	71	27	72	28
Electronics	77	22	73	37
Food	53	45	44	29
Auto parts	90	8	86	25
Total/Average	70	28	67	33
Small Size	79	20	74	31
Large Size	60	38	67	38

(2) Finance Related Factors

Small companies responded regarding financial constraints as follows: suppliers credit was a problem for 27%; working capital, 34%; credit for expansion, 23%; costly loans, 53%.

From these figures, it can be pointed out that credit for expansion is not their strong concern in the short term due to limited possibility of quick economic recovery. A working capital shortage, rather, is their concern at this moment. When the survey was done (from November 1998 to February 1999), the interest rates were high, so the concern over costly loans was high. The situation is improving but it should be noted that the level of interest rates is a quite important factor to small companies since they are more dependent on bank loans than large companies

which have more options (putting aside use of informal finance by SMEs). To introduce them into the formal financial sector, we should pay attention to the cost of financing.

Information from banks shows that it can be understood that small companies got finance from only one bank, as the collateral they offer cannot be also offered to another bank, as the collateral value of land and building is normally 70% of the market price. Thus small companies generally lack collateral. Further, because production levels are low, current corporate activity generates little cash flow. Not only are problems encountered in seeking new credit, but servicing outstanding debt is a great burden at present.

Table 1.3-3. Major Financial Problems after the Crisis

(Unit: %)

	Suppliers Credit	Working Capital	Credit for Expansion	Costly Loans	Heavy Debt Burden	Depreciation	Labor Costs	Raw Materials	Not Delivery Goods
Garments	29	37	29	52	39	69	61	23	21
Textiles	28	39	28	58	48	77	55	19	16
Electronics	15	26	15	39	30	62	40	10	12
Food	21	38	9	50	29	71	38	38	18
Auto parts	19	34	19	55	42	76	40	17	14
Total/Average	22	35	20	51	38	71	47	21	16
Small Size	27	34	23	53	41	73	56	22	21
Large Size	16	34	17	47	35	72	38	15	6

1.3.2.3 Primary Factor for Export Decline by Firm Characteristics

The responses from small companies regarding a decline in exports (in Table 1.3-4) were as follows: 39% stated that yes, exports had declined, but 38% said they had increased.

Table 1.3-4. Reasons for Export Increase by Firm Characteristics

(Unit: %)

	Change in Exports			Price Competitiveness	Low Input Price	Strong Market Efforts	Exchange Rate Volatility
	Decrease	Same	Increase				
Garments	29	23	45	67	48	55	78
Textiles	25	19	57	60	47	67	80
Electronics	35	19	38	81	62	58	73
Food	42	18	33	33	47	60	53
Auto Parts	46	7	29	63	38	56	81
Total/Average	35	17	40	61	48	59	73
Small Size	39	18	38	56	42	51	79
Large Size	30	18	45	42	51	63	71

The garments sector reported exports increased at 45% of the companies (against 29% reporting a decrease), while in textiles exports increased at 57% of the companies 25%: decrease). These traditional sectors benefited from devaluation. The electronics sector response shows an increase at 38% of the companies while at 19% there was no change and 35% reported a decrease. This can be understood that if a company in the electronics sector could change their production quality so as to be export oriented, devaluation could help increase exports.

In the auto parts sector, 40% reported an increase and 17% reported no change while 35% had a decline. This can be understood to show that the companies in the auto parts sector are switching their production to export orientation.

(1) Competitive Advantage Factor

Price competitiveness: 56% of small companies reported that price competitiveness was a strong factor causing the export decline. Regarding price competitiveness, it is important to examine each sector. More than in the other sectors, it is in textiles where price competitiveness was the strongest factor behind export decline (69% of the companies). By way of contrast, this was cited in only 45% of the electric/electronic sector and 38% of the auto parts sector companies. These numbers imply that quality and other factors could have an effect in technology-related industries. A low-labor-cost raw-material-

dependent industry will more readily feel that price competitiveness is an important factor influencing exports. Also, such an industry (including textiles) could be affected quickly and strongly.

1.3.2.4 Corporate Strategy In Employment Reduction

Strategy used regarding employment is as shown in Table 1.3-5. In Thailand, there are two main ways to reduce personnel cost. One way is call for workers to take voluntary leave (done by 63% of small companies), and the second is attrition (71% of small companies). Use of layoffs is limited to 13% of small firms.

Table 1.3-5. Firm Strategy for Employment Reduction

	Not Fill Vacancies	Layoff	Voluntary Leave	Pay Severance Comp.
Garments	66	10	65	36
Textile	65	14	69	39
Electronics	82	23	57	59
Food	62	8	65	38
Auto parts	71	16	65	53
Total/Average	71	16	65	45
Small Size	71	13	63	38
Large Size	72	21	72	63

1.3.2.5 Capital Structure by Firm Characteristics

Table 1.3-6 shows capital structure analyzed according to firm characteristics. The debt to equity ratio in small firms was 3.02 at the end of 1996, 3.21 at the end of 1997, and 2.96 at the end of first half of 1998.

This means that either by an equity increase or debt reduction (repayment), companies decreased leverage to lower than before the crisis. In total financing, percentage of debt is stable at 52 to 53%. Therefore, the equity percentage in the total financing is also stable at the 47 to 48% level.

Table 1.3-6. Capital Structure by Firm Characteristics

(Unit: %)

	Debt/Equity Ratio			Total Debt/Total Financing			Total Equity/Total Financing		
	1996	1997	1998/ 1st Half	1996	1997	1998/ 1st Half	1996	1997	1998/ 1st Half
Garments	3.99	3.83	2.98	57	58	56	43	42	44
Textiles	3.2	3.85	3.16	54	55	54	46	45	46
Electronics	2.21	3.13	2.57	54	54	56	46	46	44
Food	2.8	2.94	2.59	57	57	55	43	43	45
Auto parts	2.91	3.72	3.04	54	54	54	46	46	46
Total/Average	3.02	3.49	2.87	55	55	55	45	44	45
Small Size	3.02	3.21	2.96	52	52	53	48	48	47
Large Size	3.54	4.45	2.91	60	62	58	40	38	42

1.3.2.6 Source of Liquidity Problem

Table 1.3-7 summarizes the situation regarding the liquidity problem.

Table 1.3-7. Source of Liquidity Problem

(Unit: %)

	Liquidity Problem		Lower Revenue	High Input Cost	Insuff. Working Capital	Debt Burden	Insufficient Supplier Credit	Others
	Yes	No						
Garments	56	44	70	78	42	50	42	8
Textiles	60	38	75	76	35	64	35	7
Electronics	45	53	85	79	29	63	29	4
Food	45	55	76	76	34	69	34	10
Auto parts	54	45	90	78	35	63	35	4
Total/Average	52	47	79	77	35	62	35	7
Small Size	60	40	81	81	53	40	40	7
Large Size	46	52	68	70	55	30	30	7

The following are results of the survey.

(1) Operational Reason

81% of small companies pointed out that lower revenue is the reason for their liquidity problem. High input cost was also recognized as having the same importance as lower revenue as a reason for their liquidity problem.

(2) Financial Reason

(For New Financing)

Following 2 important factors of daily operation (lower revenue & high input cost), insufficient working capital is following are third important factor of liquidity problem. 53% of small companies stated that insufficient working capital is the reason for their liquidity problem. Of the four sectors, garments shows 42% followed by 35% for auto parts, textiles, 34% of food and 29% of electronics.

For new financing, 40% of small companies are experiencing problems in the form of insufficient suppliers' credit. In contrast to this, only by 30% of large companies report this problem. To take the credit risk of the commercial counterparts is reflecting in this point. Small companies are affected by creditworthiness of counterpart companies (suppliers credit) and also by banks' reluctance to lend working capital.

(For Contracted Financing in the past)

For financing contracted in the past, 40% of small companies felt that debt burden is the reason for their liquidity problem. The highest percentage for this among the sectors is for food processing followed by 64% of textiles, 63% of electronics, 63% of auto parts companies. The Bank of Thailand and Thai commercial banks are making efforts to tackle on debt burden solution (rescheduling, partial write-off of outstanding debt, etc.), such efforts should be reached to the practical solution.

1.3.2.7 Availability of Funds and Utilization Rate by Source

(1) Credit Availability

The World Bank inquired as to whether it had become more difficult to acquire funds at the various sources SMEs use. The percentages of SMEs responding affirmatively for each type of institution was as follows:

Domestic Bank	68%
Foreign Bank	70%
Domestic Financial Companies	83%
Local Money Lenders	78%
Family	57%
Suppliers	67%
Partners	70%
Bond Market	90%
Equity Market	100%

(2) Procurement of Funds

Among the above sources, the following are the percentages of SMEs that are utilizing each source.

Domestic Bank	73%
Foreign Bank	10%
Domestic Financial Companies	17%
Local Money Lenders	28%
Family	45%
Suppliers	41%
Partners	15%
Bond Market	3%
Equity Market	3%

(3) Audited Statements

52% of companies submitted audited statements with their loan applications. Such statements were required by foreign banks in 60% of all cases but only 44% domestic banks required them. For family and money lenders, majority of companies did not provide audited statements (67% and 56% respectively).

(4) Collateral

67% of companies provided collateral to get financing. When companies obtained financing from domestic banks, 68% of them provided collateral. For financing from foreign banks, 52% of companies provided collateral. Money lenders also require collateral from 72% of those using this source.

(5) Guaranty

40% of all companies obtained guaranties to get financing. In case of domestic bank financing, only 35% obtained guaranties and at the 35%. However domestic banks accepted collateral was posted for 67% of the finance. Therefore, this 35% ratio does not show lower usage of bank credit guaranty.

(6) Security

84% of companies said that some additional or other condition was imposed when they sought and received to get financing.

1.3.2.8 Investment In New Products, R&D and Human Resources

Analysis of the trend of investment in new products, R&D and human resources is as follows. In 1996, 78% of SMEs did not invest in R&D. Investment in R&D in such sectors as food processing, and electric/ electronic and auto part sectors was made by 53%, 36% and 31% of all companies, respectively. R&D in traditional sectors, such as garments and textiles, is at a low level (Table 1.3-8).

Table 1.3-8. Investments in Product and Process Innovation and Human Capital

(Unit: %)

	R&S Spending in 1996		New Product Introduction		Formal Training		Expansion Plans in 1999
	Yes	No	Yes	No	Yes	No	
Garments	16	81	28	71	43	58	16
Textiles	20	76	30	69	49	49	14
Electronics	36	59	60	35	67	28	18
Food	53	41	55	41	66	28	25
Auto parts	31	68	52	46	61	38	9
Total/Average	31	65	45	52	57	40	16
Small Size	19	78	33	65	39	58	14
Large Size	38	58	54	43	80	18	18

Regarding investment in new products, 65% of SMEs did not spend in order to develop new products. Sectors wherein a high percentage of firms developed new products were electric and electronics, food processing, and auto parts. The difference of SMEs response and sector

analysis is wide due to the performance difference of large size companies and SMEs. This could be a theme to be considered for SMEs.

Only 39% of SMEs responded that they have a formal training program. It could be pointed out that SMEs need some type of government support for development of human resources.



Chapter 2 Current Situation of SMEs Policy in Thailand,
and Problems Confronting the SMEs



Chapter 2 Current SMEs Policy in Thailand, and Its Problems

2.1 The Current Situation of the SMEs Policy

There is no single government institution in Thailand that oversees the entire range of SMEs policy. Up to now the policy decisions were made sector by sector, e.g., the Ministry of Industry for manufacturers and the Ministry of Commerce for the commercial sectors. The development of the Small and Medium Industries (SMI) has been dealt with by the Department of Industrial Promotion of MOI; this department proposes and implements various policies and measures.

In this section we first define the SMEs, and examine the policy system and its organization. Then we describe the main SMEs policies excluding the financial policy and human resource policy.¹ Also, in a separate section, we take up the SMEs Promotion Act, which is being discussed in the national assembly, as well as the Industry Restructuring Plan (IRP) together with its current situation and problems.

2.1.1 SMEs Policy and Organizational Structure

(1) The Definition of SMEs

There is no official or legal definition of SMEs in Thailand yet. Different institutions use their own definitions as appropriate to the given situation. The SMEs Promotion Act bill, which is being discussed in the national assembly, will provide a definition of SMEs. The Act is expected to distinguish between four sectors, namely industry, service, trade (wholesale, retail) and others. The numerical criteria used for definitions in the Act are still tentative, but it is expected that fixed assets will be used, as follows.

¹ The financial support plan and human resource support plan for SMEs are described in Chapters 2.2 and 2.3 respectively.

Maximum Value of Fixed Assets, in Millions of Bahts

<u>Sector</u>	<u>Small Size Enterprise</u>	<u>Medium Size Enterprise</u>
Manufacturing	50	200
Trading	50	200
Wholesaling	50	100
Retailing	30	60

Current definitions used by leading institutions are as follows (as of April, 1999). Definitions are often made based on fixed assets or total capital. Several define "small" as holding fixed assets under 50 million bahts. Only a few adopt the number of employees as the criterion. They tend to separate medium and small size enterprises.

Table 2.1.1 Definitions of SMEs

(Unit: Million bahts; persons)

	Small-scale		Medium-scale	
	Assets	Employees	Assets	Employees
DIP	(F) less than Bt.50		(F) Bt.50 - Bt.200	
TCC	(F) less than Bt.50		(F) Bt.50 - Bt.200	
FTI	(F) less than Bt.20	up to 50	(F) Bt.20 - Bt.100	50 - 200
IFCT	(T) Bt.25 - Bt.100		(T) Bt.100-Bt.1000	
SIFC	(F) less than Bt.50			
SICGC	(F) less than Bt.50			

Remarks: (T): Total assets (F): Fixed assets
 DIP: Department of Industrial Promotion, Ministry of Industry
 TCC: Thai Chamber of Commerce
 FTI: Federation of Thai Industries
 IFCT: Industrial Finance Corporation of Thailand
 SIFC: Small Industry Finance Corporation
 SICGC: Small Industry Credit Guarantee Corporation

Financial institutions define SMEs not by the number of employees but by the amount of assets. This is because IFCT and SIFC provide project financing, in which the project cost is evaluated in relation to the company scale (i.e., amount of the company's fixed assets). If the government bases its policy for the SMEs solely on the amount of the assets, however, it may fail to grasp the whole picture of the SMEs which comprise many different kinds of companies. It will be more realistic to use both the amount of assets and number of

employees as criteria. Therefore, it is believed that discussion of how to define the SMEs should be continued the mutually agreeable common denominations. The definition by DIP (in the SMEs Promotion Act) is still being discussed. We can adopt this definition for the time being, but for the future's sake, the definition should include the number of employees.²

(2) DIP's Basic Policy for SMEs

According to DIP's "Outline of Policy and Measure for SMEs Promotion" (April 1998), the policies and means of implementation are as follows.

- 1) Promotion of SMEs' managerial skill and managerial efficiency**
 - a) Enrich the management skill training for the SMEs executives
 - b) Expansion of credit services and functions of the Small Industry Finance Corporation
 - c) Improvement of SMEs' technology in order to create the qualified subcontract and linkage system
 - d) Promote domestic and overseas business transactions
 - e) Support consultation for SMEs who have been damaged by the economic crisis

- 2) Encourage SMEs' dispersion to provinces, and help to strengthen the business foundation in the provinces**
 - a) Support the expansion of the industries to provinces by promoting the RIDP project
 - b) Promote the infrastructure and arrangement to support industry dispersion to the local cities.
 - c) Promote SMEs incubation project in the local cities
 - d) Promote the subcontractor relationship through factory transfer

- 3) Strengthening the DIP's function and capability**
 - a) Accelerate the presentation of the SMEs Development Plan
 - b) Improve the working and coordinating system between each unit both in central and regional

² The Thai government is going to use a definition base on either fixed assets or the number of employees, according to recent deliberations of a national council (as of July, 1999).

- c) Preparation of the information network for SMEs development
- d) Develop the office staff that can serve aggressive industrial development works
- e) Promote cooperation with foreign institutions to implement projects.

Currently various measures are being planned and implemented based on these policies.

(3) SMEs policy system

The goal of the SMEs policy as implemented today, as stated by DIP, is "strengthening the management foundation," "industry's dispersion to local areas," and "supporting the industrial restructuring," of which the latter in particular has been given great attention since the economic crisis. To list some concrete instances of implementation, we can cite recent financial support plans represented by the 35 billion bahts fund package, and many support plans for technological improvement and human resource development that are introduced in IRP projects. Other departments and institutions than the DIP but are also implementing similar activities (refer to Table 2.1-2).

Support for SMEs information-oriented infrastructure, organizational reform, and product market development, however, have hardly been dealt with yet. But what became clear through interviews at the companies visited is that what SMEs are seeking the most are their own technological improvement and support for market development. The generally recognized problem of insufficient availability of capital cannot be solved without recovery of sales, which makes the support for market development an urgent item for the policy agenda. To achieve this, support for development of information-oriented infrastructure, and organizational reform, cannot be avoided.

Also, even among SMEs, the small size companies have very conspicuous management instability, against which the present policy and measures will be insufficient. Especially in the regions, measures for small size companies are being carried out especially by DIP but DIP has an insufficient number of officials and insufficient budget to cope with many different types of business and of problems in the SME sector. In this field, special policy needs to be

developed, in addition to the general SMEs policy, for which the utilization of cooperation from overseas will be expedient.

Table 2.1-2. Role and Function of Government Agencies Related to SMEs Development

	Investment	Rural Development	SME's Development	Market Development	Human Resource	Tech. & Environ. Development	Industrial Estate Development
Policy Making	NESDB, BOI	NESDB, DIP, OIE	NESDB, DIP, OIE	MOC, BOI, MOI	NESDB, MLSW, MOE, DIP	NESDB, MOE, DIP	NESDB, IEAT
Market Development Promotion	BOI	DIP	DIP	DEP, DFT, DIT	MLSW, MOE, DIP	MOI	IEAT
Financial Support	IFCT, SIFC, SIGGC	IFCT, SIFC, DIP	SIFC, IFCT, BOT	Ex-Im, BOT	DIP	BOT, IFCT	
Organization Development		DIP	DIP		DIP	MOI	
Information Supply & Development	BOI, DIP	MOI, BOI	MOI, DIP, BOI, FTPI	DEP, DFT, DIT	MOE, DIP	DIP, DEQP, TISI, NSTDA	IEAT
Seminars & Training	BOI, DIP	DIP (PIO)	DIP, BOI	DEP	DIP, MLSW, FTPI	DIP, NSTDA, DOVE, DIW, TISTR, NIMT	IEAT

Remarks

- BOI : Board of Investment
 BOT : Bank of Thailand
 DFT : Department of Foreign Trade
 DIP : Department of Industrial Promotion
 DIT : Department of Internal Trade
 Ex-Im : Export-Import Bank of Thailand
 IEAT : Industrial Estate Authority of Thailand
 IFCT : Industrial Finance Corporation of Thailand
 MLSW : Ministry of Labor and Social Welfare
 MOC : Ministry of Commerce
- MOE : Ministry of Education
 NESDB : National Economic and Social Development Board
 NSTDA : National Science and Technology Development Agency
 OIE : Office of Industrial Economic
 SIGGC : Small Industry Credit Guarantee Corporation
 SIFC : Small Industry Finance Corporation
 TISTR : Thailand Institute of Science and Technological Research
 TPA : Technology Promotion Association (Thailand-Japan)
 FTPI : Thailand Productivity Institute
 NIMT : National Institute of Metrology Thailand

Source: JICA Study Team

(4) Organizational structure

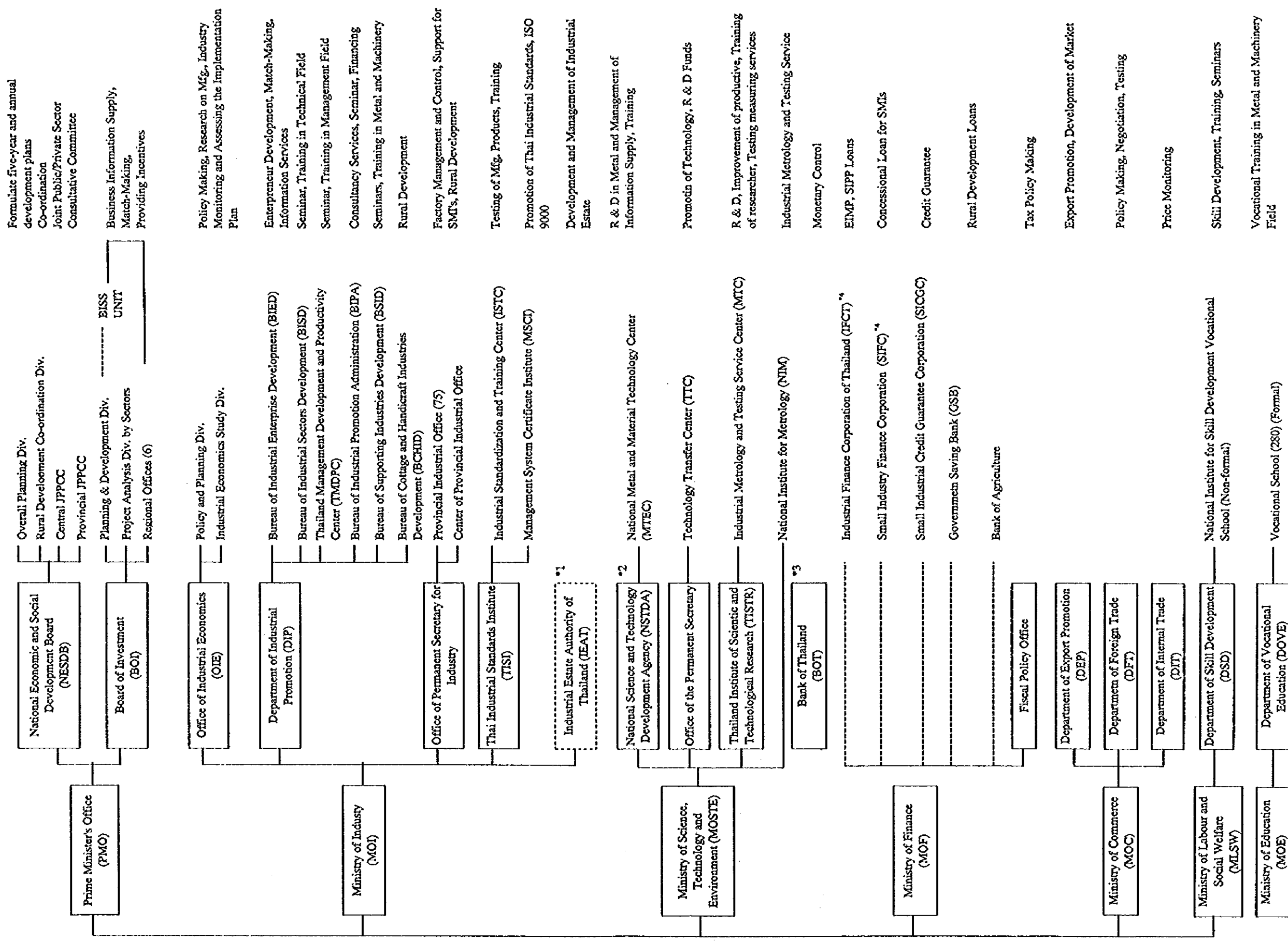
Figure 2.1-1 shows the Thai government institutions dealing with industrial development, made for the Supporting Industry Survey conducted by JICA in 1994 and 1995. The overall framework is still intact. The only changes are that the Small Industry Finance Corporation, which started operation in the latter half of 1994, has been added, and due to the organizational change of DIP, there have been some jurisdictional adjustments. It is not reflected in the figure, but DIP has sent officials to provincial departments nationwide to promote local industries.

One new organization to promote the SMEs has been formed this year and another will be formed by early next year. The first is the SMEs Development Institute, which has been started in April 1999. The second is the SMEs Promotion Office, which is to be provided for the SMEs Promotion Act. Both organizations deal with not only the small and medium size industries but also with all SMEs including the commercial and service industries. The central purpose of the organizations, however, is to support industrial development. The SMEs Promotion Office is to make policy for growth of SMEs, and is to coordinate work by related institutions, while the SMEDI is to support human resource development and management skill development. These two organizations are to become the core of government activities for promotion of the SMEs apart from financial matters. If these two organizations fulfill their intended functions well, they are expected to yield great results in growing and developing the SMEs.

Regarding financial support for the sector, not only SIFC and IFCT, but also commercial banks are moving in the direction of accommodating the needs of the SMEs. MOI and MOF are working together to strengthen the present SMEs financing system, and compared to the past this system is making progress. But problems exist in the provincial cities where system implementation has been delayed (due to the absence of financial institutions in many locations, the time consuming procedure needed to get approval from the head office, and the insufficient credit supplement system).

Organization

Principle Functions for Industrial Development



Note: The Chart shows governmental institutions related to small and medium industries development.

*1. Semi-public government agency
*2. Autonomes organization operating under MOSTE

*3. Independent Public Agency

*4. Private sector organization under a special law

Source: JICA Study Team

Figure 2.1-1. GOVERNMENT ORGANIZATION CHART RELATED TO INDUSTRIAL DEVELOPMENT

2.1.2 SMEs Organizations

There is virtually no private organization just for the SMEs. There is no organization in which small size companies can unite in lobbying activities, or secure business opportunities through joint efforts in actual business activities, and improve their status in general.

There are two national non-governmental organization of importance as general business organizations. They have very different ratios of SMEs in their membership but both are influential. They are the Federation of Thai Industries (FTI), and the Thai Chamber of Commerce (TCC). The Thai Bankers' Association is an influential organization but being composed solely of financial institutions, such as banks and insurance companies, it is not within the scope of this study. Moreover, there is a recently formed organization of SME entrepreneurs that deserves notice.

(1) Federation of Thai Industries

FTI used to be the Association of Thai Industries, which was established in 1967, and became the present organization in December 1987. As of April 1999, the organization has a membership of about 5,000 companies, and is composed of the secretariat with a staff of 130, 27 Industrial Clubs each organized for a different sector, and 45 Provincial Chapters, which makes it the largest non-governmental industrial federation in Thailand. The purpose of the organization is to lobby for industrial promotion in Thailand. In fact, when the government institutions seek private companies' opinions, they turn to FTI. To serve member companies, the FTI holds seminars to develop human resources and to improve skills and technology.

Activity varies from sector to sector, but the Industrial Clubs within FTI are relatively active. Some clubs are quite active as the representative organization for those sectors. For example, the Automotive Club is recognized as the best source of statistics on the automotive industry. It has presented many propositions and requests to the government to help strengthen the auto industry.

Though FTI's membership includes SMEs, in a realistic business sense, the ratio of SMEs in FTI membership is low. However, taking the recent domestic economic situation into consideration, the FTI has created the Small and Medium Enterprises Development Committee, and conducts pre-screening and mediation services SMEs for promotion programs concerning technology transfer. Also, it assists SMEs members to get loans from financial institutions.

(2) Thai Chamber of Commerce

After being established in 1933, Chamber of Commerce activities were officially ratified in 1966 by the Chamber of Commerce Act B.E.2509. Current membership nationwide is 24,000 companies, which include commercial, service, construction and manufacturing firms. Consequently, some manufacturers join both TCC and FTI. Most TCC members are classified as SMEs according to the TCC's definition. TCC is the national organization for the Chambers of Commerce in each province, and conducts lobbying to the government, or sometimes on behalf of the nation it deals with overseas organizations.

Within TCC, there are 13 Sectoral Committees. The concept of the sector is broader than in the FTI, and they are classified as Industry, Transportation and Communication, Sightseeing and Hotel, etc. There is also the Committee for Small and Medium Enterprise to gather opinions on behalf of SMEs. One unique activity of TCC is that it founded the College of Commerce in 1940 as an internal organization for the improvement of managerial skill and knowledge in the SMEs. In 1984, the college was expanded to a University. Within the university, the Small and Medium Enterprises Study Center was installed mainly to study and research Thai SMEs.

(3) Association of Thai Small and Medium Entrepreneurs

Graduates of the "Entrepreneurship Development Program", a training course sponsored by DIP have organized the Association of Thai Small and Medium Entrepreneurs (ASTSME), an organization based on the spirit of mutual support. It is currently trying to expand its function.

ATSME started in 1997 as an official organization under the auspices of DIP. It has a membership of about 2,000 companies. The secretariat is presently located inside the DIP. The fields of activities include primarily these: human resource development, trade and investment promotion, foreign affairs, member relations, and information service.

Since the ASTME was established not too long ago, activities thus far have been limited to holding seminars and company visits to enlighten each other, and hosting periodic meetings to exchange opinions among members. One of the purposes for the organization is to strengthen the ties among SMEs, and to correct their disadvantage in competition. The organization to grow, is expected but it remains to be seen what kind of relationship it will form with the government or other institutions.

2.1.3 Outline and Related Issues of the SMEs Promotion Act

(1) The expected contents of the law

The SMEs Promotion Act is the first law in Thailand specifically concerning the SMEs, which include all small and medium-size enterprises regardless of sector. At the time of preparation of this report, the Act was being discussed in the national assembly, and after being passed by the Upper House, it will take till the first part of the year 2000 to be enforced. By April 1999, the first reading in the Lower House was completed. The Act is composed of the following sections:

- 1 SMEs Promotion Committee
- 2 SMEs Promotion Office
- 3 SMEs Promotion Fund
- 4 SMEs Promotion Action Plans
- 5 Government Support
- 6 Cancellation of Support or Promotion
- 7 Punishment

(2) Characteristics of the SMEs Promotion Act, and problems it will address

This will be the fundamental law to promote SMEs, whereby the SMEs Promotion Committee, with the Prime Minister as the Chairman, will become

the supreme decision-making body. Several Ministerial Decrees will be prepared with the assumption that they will be approved by the Executive Committee as defined by this law. Those decrees will then be attached to this Act at the time of actual enforcement. Even though this is for the SMEs promotion in all sectors, because it has been initiated by the Ministry of Industry, it is primarily concerned with industrial promotion. The Articles of the Act, as given in the draft indicate that it is to have following characteristics and deal with the following problems.

1) Concept of the SMEs Promotion Office

<Characteristics>

This SMEs Promotion Office will not belong to any particular Ministry. It will become an independent semi-governmental institution, and the Permanent Secretary of the Ministry of industry will become the chairman of the Executive Committee.

The main tasks for the SMEs Promotion Office are as follows:

- Clarify the definition of SMEs under this Act
- To specify the type and size of SMEs eligible for promotion plans and measures
- Make the SME Action Plans, and coordinate with related institutions
- Study and prepare reports on the situation of SMEs
- Re-examine the SMEs related laws and regulations
- Managing of the SMEs Fund
- Function as the Secretariat for the SMEs Promotion Committee, and Executive Committee

Within the main task of making and implementing the promotion plan, the Office is entrusted to do financing through financial institutions, and to manage the promotion funds to be invested the companies.

<Comments>

Detailed information about the organizational structure and the scale of the Office is not yet available. The Office will be unique as a governmental organization. It will only make proposals of policies, and will not be the

implementing institution of those policies. For promotion policy for the industrial sector, the Office will need to cooperate with OIE or the Planning Section of DIP. The Office further needs to confer with BOI and the Ministry of Commerce, and for this reason the Executive Committee includes representatives from MOF and MOC. It will be necessary to have personnel from these organizations on the Promotion Office staff. One of the problems concerning SMEs promotion in Thailand is the vagueness or weakness of the common understanding in government about SMEs promotion. As a result, officials have not achieved good cooperation on behalf of promotion plans, and have taken much time to make adjustments. Therefore, the role of the SMEs Promotion Office is going to be very important.

2) SMEs Promotion Fund

<Characteristics>

The utilization of the Fund will be discussed in the SMEs Promotion Office. It is written clearly that the purpose of the Fund is to support SMEs or a group of SMEs.

<Comments>

The concept of a "group of SMEs" will be spelled out more in detail in the near future. We assume that it supposes a united body of entrepreneurs, such as a sectoral union. For those companies handling small scale parts or a special product for their district, attaining a reasonable size of business and improving productivity by making a group is a subject to be considered in the future. To do this, legal preparation should be carried out to provide support for financial aid to be given to the group of SMEs. As a usage of the Fund, the need for small size companies measure is increasing. Though it is necessary to complement the commercial financing such as DIP's Revolving Fund, the facility loan project and the small size companies mutual aid project seem to be worth examining as a possible usage for the Fund.

3) SMEs Promotion Action Plans

<Characteristics>

The content of the Action Plans is to be discussed from now on. Though an outline of them is described in the draft of the Act, no concrete information is

available yet. However, once the plans are enforced, it is required to make a progress report on each plan once a year. An earlier draft of the Act included incentive plans for SMEs such as soft loans, technological assistance and managerial assistance.

<Comments>

Some Action Plans for development of industry have already been recommended in the IRP, but SME promotion plans for other sectors will be also needed. For the industrial sector, there may be some plans which IRP does not adopt this year. Therefore, in making the Action Plans, the new office will need to discuss once more the definition of the SMEs and the target promotion sectors. Then, upon clarifying the purpose of each Plan, it will have to balance the implementation of the plan in short, medium and long term.

Execution of ex post evaluation for each Action Plan is also very important. The following evaluation measures are recommended:

- (1) To compare two SME groups, one supported by an Action Plan and the other not so supported, in terms of sales, number of employees, the amount of taxes and so on.
- (2) To measure the degree of SMEs satisfaction with Action Plan results.

2.1.4 Progress and Issues of Industrial Restructuring Plan

(1) Outline of IRP

The Industrial Restructuring Plan (IRP) was started in September 1997 to restructure and encourage the Thai economy after the economic crisis. In January 1998 the National Industrial Development Board agreed on the necessity to establish a sub-committee, the Industrial Restructuring Plan Sub-committee chaired by Mr. Somphop Amattayakun, the former deputy minister of industry. The Sub-committee formulated the IRP Strategies in March 1998, and the IRP Action Plan in June, and they were approved by the Cabinet. The IRP will be implemented for five years from 1998 to 2002.

The IRP Strategies consist of eight Programs and 34 Strategies in total. The eight Programs and number of Strategies under each Program are as follows.

Program	Title	No. of Strategies
1	Program for Improving Industrial Productivity and Renovating the Production Processes to Enhance Competitiveness in Production Cost and Product Delivery	8
2	Program for Upgrading Technological Capabilities and Modernization of Target Industries	3
3	Program for Upgrading Labor Skills in Target Industries	4
4	Program for Incubation & Strengthening of Small & Medium Supporting Industries	3
5	Program for Promotion of Product Design & Development and Enhancing Global Marketing Channels	7
6	Program for Dispersion of Labor-Intensive, Non-Polluting Production to Rural Locations for the Creation of Jobs and Rural Income	3
7	Program for Inducing Foreign Direct Investment in Strategic Industries with Technologies for the Future	2
8	Program for Management and Containment of Industrial Pollution and Promotion of Clean Technology	4

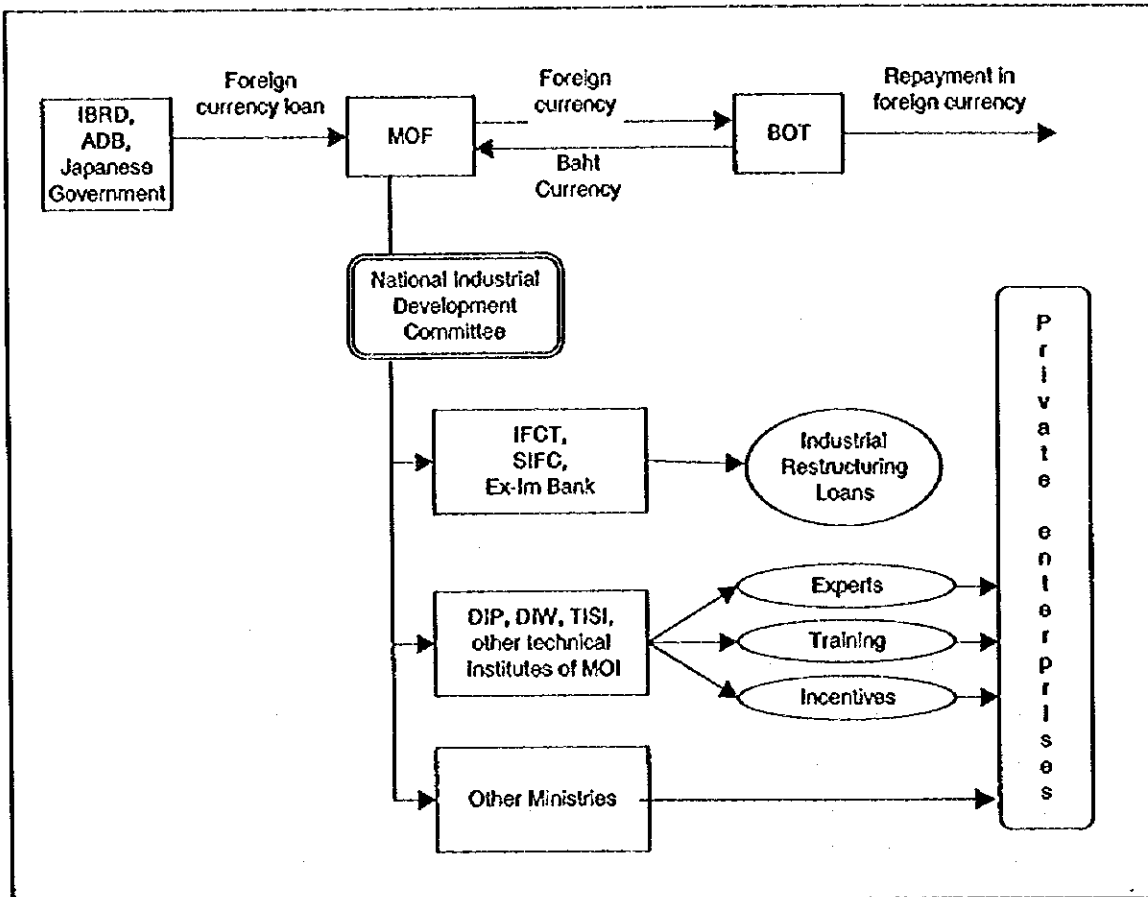
The Sub-committee discussed concrete action plans after the Strategies were formulated, and then 24 projects (Action Plans) were selected from more than 400 project ideas. The 24 projects were allocated budget funds for implementation during the year 1999. As shown in Table 2.1-4, out of eight programs only four (Nos. 1, 3, 4 and 6) were implemented in 1999. Note that the last project in the table is a management project for all IRP projects.

(2) Progress of the IRP

Since April of 1999, implementation has begun for all of 24 projects but most of them are still under preparation, and some continuous projects which have been implemented before are going to expand its service scale. DIP has responsibility for 11 projects out of the 24. Each assigned implementation bureau in the DIP has started to work, and a full-scale implementation was expected from around June of 1999. The same can be said for the situation for other projects at other departments and institutions.

At the present, the IRP Sub-committee is discussing additional projects for the year of 2000, and about 140 candidate projects have been selected so far. Funding for implementation of additional projects is still questionable, but it is expected that funds will be obtained from foreign financial institutions or countries. The financial flow for the first IRP projects is as in Figure 2.1-2.

Figure 2.1-2. Financial Flow for IRP



Source: Industrial Restructuring Plan Report, Sep. 1997

(3) Issues to be Considered

1) Cooperation with the Private Sector

Some projects were originally planned to be implemented by private institutions such as the Federation of Thai Industries. The government, however, cannot give funds to private institutions for implementing government plans and projects. Therefore government institutions were subsequently assigned as the responsible agencies for all selected projects.

These projects must have the cooperation of the private sector for effective implementation, so the government implementation agencies have to maintain close contact with and provide financial support to the private sector, while the private sector has to take the initiative in implementation of projects.

2) Sustainability of Projects

In general, IRP projects are to be implemented over a period of five years, but some will be accomplished within one year, two or three years. Project budgets are made on an annual basis, and the performance of each multi-year project will be evaluated by the Executive Committee. There are questions regarding the criteria and methods for evaluation, but it is of greater importance to consider how effective a project will be when it has achieved its final goal, and to consider what is needed to ensure continued smooth implementation. Implementing agencies shall have to pay attention to modification and unification of projects for further continuation.

3) Coordination with Non-IRP Projects

The newly established SMEs Development Institute (ISMED) was started at almost the same time as the early IRP projects. Regarding progress in implementation of the Factory Evaluation System project, the Bureau of Supporting Industry Development (BSID) is ahead of SMEs Development Institute. In this way some IRP projects overlap other projects but are complementary to each other. Therefore coordination by the government agencies concerned has become more important.

Table 2.1.3 IRP Projects for 1999

Plan No. 1 : Improvement of productivity and production process for cost and delivery competitiveness		Competent Authority Budget for 1999 for 2000		Project Objectives
No.	Project Title	Competent Authority	Budget for 1999 for 2000	Project Objectives
1	Project to establish a factory evaluation system	Bureau of Supporting Industries Development, BSID (DIP)	72.10	In order to have systematization, principles and personnel those having capability in assessing the condition and potential of enterprises, potential indicator-index which will lead to business improvement and determine for policies and privileges for industries, especially for SMEs.
2	Project for HRD on knowledge and technology in industrial, production and resource development	Thailand Productivity Institute (TPI)	95.22	Educating the people in the areas of industrial management, management of modernized production process and resources, so that main target group will be top and middle class management peoples.
3	Project to improve the efficiency of electric/electronic industry	Bureau of Supporting Industries Development, BSID (DIP)	6.58	To improve the efficiency of production process and utilization of factory of electrical and electronic industries through providing database, loan, subsidy for hiring an experts and organizing seminar.
4	Project on the utilization of HACCP for problem solving and production developing in food industry	National Food Institute	1.93	Development of HACCP (Hazard Analysis Critical Control Point) system and experts for food industry.
5	Project to develop information system in textile industry for quick response	Thailand Textile Institute	7.70	Textile industry will be able to link with its supporting industries effectively and gain the comparative advantage to serve the purchase orders of the foreign customers. Establishing data base in Thai and English.
6	Project to adjust production process from mass production, and to adjust small lot producers to higher effectiveness system	Bureau of Industrial Sector Development, BSID (DIP)	11.69	To support the improvement for production system in footwear and leather products in order to serve for market demand rapidly and to reduce cost of production, and to improve quality of products.
7	Project for HRD in metrology and calibration, to establish calibration laboratory for product quality control and cost reduction	Bureau of Industrial Sector Development, BSID (DIP)	11.28	To develop the capability for calibration of technicians, engineers and factories.

Plan No. 3 : Improve labor's capability to skillful labor in target industry

No.	Project Title	Competent Authority	Budget for 1998 for 2000	Project Objectives
8	Project to survey the need of labor and labor insufficiency for the purpose of effective labor movement	Department of Employment	22,569 13,731	To implement survey on demand and supply of labor through the country, so that the latest information will be provided through provincial offices of Ministry of Labor. System development is also one of object.
9	Project to develop labor's skill to keep pace with medium/high technology adjustment	Department of Skill Development	(from Thai Government)	DSD provides skill training at each vocational schools under the Department of Skill Development. The training aims for about 10,000 workers to meet required skill
10	Project for further training for technician and engineer in production technology sector	Thai-German Institute	10.30	To upgrade the knowledge of technician and engineer in the field of manufacturing technology of Automation, Tool & Die and CNC/CAD/CAM.
11	Project for HRD in industry fund	Bureau of Industrial Promotion Administration BIPA (DIP)	5.00	To support HRD in industrial sector by mean of financial support for SMEs in order to employ experts training and research.
12	Project to provide training to personnel to meet the need of auto/auto parts industry	King Mongkut's Institute of Technology, North Bangkok	3.05	To prepare course of education in the level of vocational school, bachelor degree in the field of automotive engineering and training for engineers and middle executives.

Plan No. 4 : Incubate and strengthen medium and small supporting industries

No.	Project Title	Competent Authority	Budget for 1998 for 2000	Project Objectives
13	Project to urge efficiency improvement in small and medium industry	Bureau of Industrial Enterprise Development BIED (DIP)	63.43 +31.57	To assist target SMEs to solve their current problems and also upgrade and improve production efficiency, quality and service.
14	Project to promote the entrepreneurship development of small and medium industry	Bureau of Industrial Enterprise Development, BIED (DIP)	7.47	To develop the capability of SMEs entrepreneurs and to create new SMEs from capable unemployed people.
15	Project to disseminate information on small and medium trade and investment through IT	Bureau of Industrial Promotion Policy and Planning, BIPPP (DIP)	18.34	To accelerate investment in new project and trade of SMEs and new employment by mean of dispersing information and aids to create or update the industrial database
16	Project to formulate master plan for small and medium industry development	Bureau of Industrial Promotion Policy and Planning, BIPPP (DIP)	24.98	To define national target and framework in promoting SMEs in the medium and long as well as to determine role and responsibilities of related agencies for SMEs development.
17	Project to develop mold industry	Bureau of Supporting Industries Development, BSID (DIP)	5.13	To strengthen mold industry and increase ability for mold production to export by means of training, consultancy service and credit providing for new machinery.
18	Project for supplier development program	Bureau of Supporting Industries Development, BSID (DIP)	162.00	To develop parts and components manufacturers' capabilities to maintain employment status and to accelerate technology transfer from buyers to local suppliers.
19	Project to develop industrial linkage	Office of the Board of Investment, (BOI)	30.30	Establishments linkage development program by BUILD Unit of BOI

Plan No.6 : Dispersion of labor-intensive and less pollution production units to regional and rural areas for job and income distribution

No.	Project Title	Competent Authority	Budget for 1995 for 2000	Project Objectives
20	Project on dispersion of industry to rural area	Bureau of Industrial Promotion Administration BIPA (DIP)	29.10	To promote for employment of industrial sector in rural area by provide the measure of incentives and motivation for private business to expand the production base or set up new production unit in the rural area.
21	Loan project for the movement of labor-intensive industry out to regions	Industrial Finance Corporation of Thailand (IFCT)	6,845 million (loan amount) for 5 years	To provide credit extension to support the establishments or movement of factories or production units with having high labor intention to the regional area.

Project to urge the operations by using other sources of fund (out of the total sum of USD 122.9 million)

No.	Project Title	Competent Authority	Budget for 1995 from OECF VI Loan	In the Present Situation
22	Loan project to adjust technology and machinery in target industry	Industrial Finance Corporation of Thailand (IFCT)		To provide credit extension to improve production efficiency, production process, technology and machinery of 13 industrial sectors.
23	Project for training for skill development	Department of Skill Development	42.40	To upgrade knowledge and skill for labor force in the enterprise which can adapt for the change of production technology.
24	Project for trading firm to promote small and medium export industry	Department of Export Promotion	from Thai Export Bank	To support the credit for export for SMEs by passing through international trading firms. This program also support trading firms.

*25	Management project for industrial restructuring	Office of National Industrial Development	37.773	3.327	To coordinate all projects for industrial restructuring
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