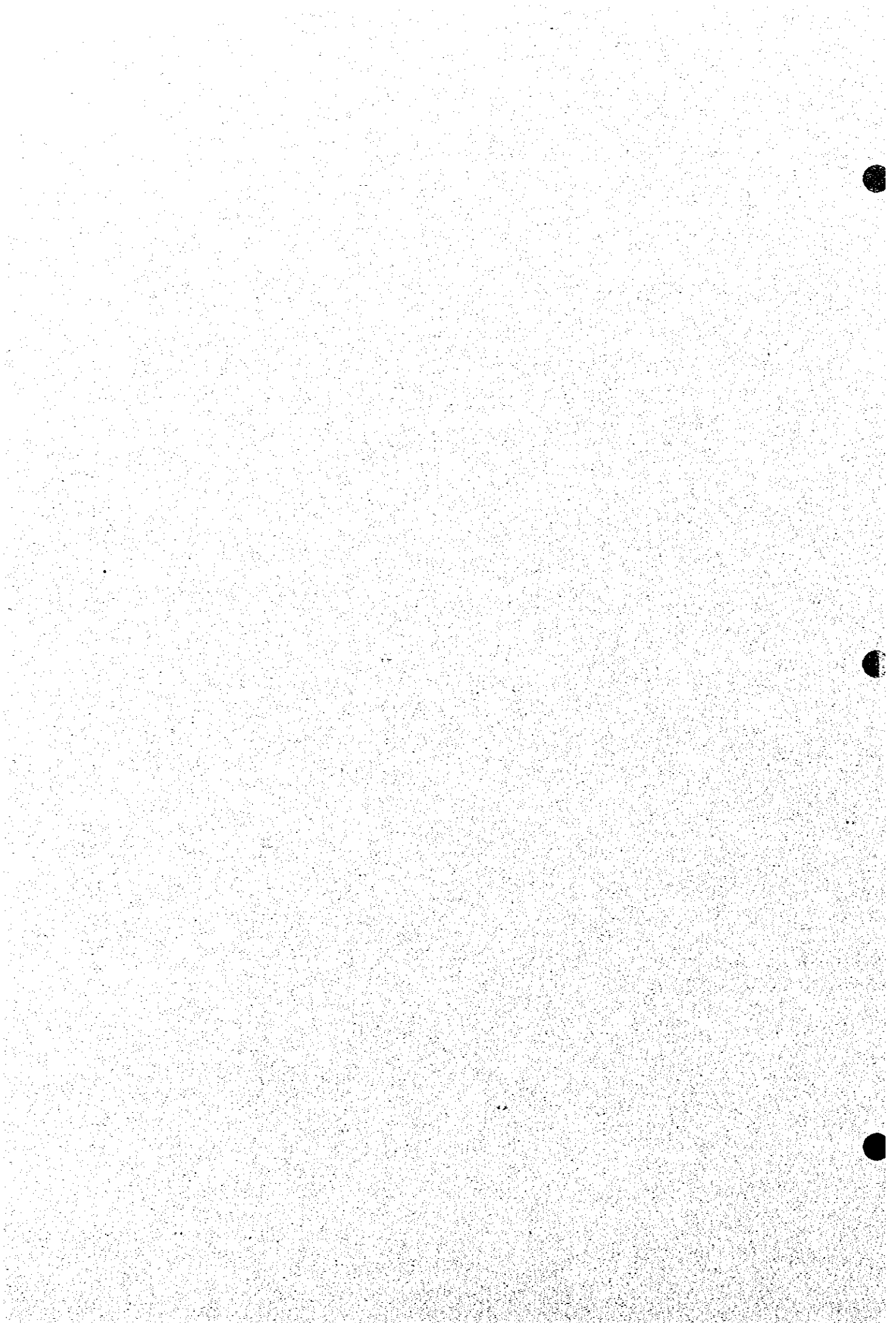


Chapter 4 Direction of SMEs Promotion



Chapter 4 Direction of SMEs Promotion

4.1 Theoretical Background of SMEs Promotion

4.1.1 The Role of SMEs In the Thal Economy

In today's world, the promotion of small and medium-sized enterprises (SMEs) has become a very important theme for many countries regardless of the stage of their progress in industrial development. The theoretical base for SMEs' development, however, varies from country to country based on the circumstances of each. In the case of Thailand, given that the last ten years encompassed both rapid economic development and then the economic crisis of 1997, we can think the role of SMEs is as follows:

(1) Key players in the market economy

SMEs are developing through their own efforts of technological innovation, new product development and improvement in managerial efficiency. As these companies are by far the most numerous players in the market, this great number of independent SMEs, through their business activities, vitalize the market and promote economic metabolism.

(2) Origination of new businesses

The SMEs are a major source of entrepreneurial spirit that seeks to control risks to start and succeed in business, or expand through new projects. They can create new markets by dint of their flexibility and vitality, and contribute to the modernization of the industrial structure.

(3) Job creation

SMEs employ in Thai manufacturing 50% of all employees. They are constantly providing opportunities for employment, and their wellbeing is indispensable for keeping the unemployment rate low.

(4) Contribution to improvement of the balance of payments

The SMEs utilize primarily domestic resources and provide products and services to both domestic and overseas markets, both directly and as subcontractors. As long as they are competitive, it is possible for Thailand to earn foreign currency through exports, and provide substitutes to imported goods. Consequently, the SMEs can contribute to reducing the trade deficit.

(5) Engine driving regional economic development

Regional economies in most cases depend on primary industry. Primary industry has low added value and contains much hidden unemployment. The SMEs add value to the products of primary industry, give jobs to the unemployed, and contribute to the regional economies' development.

4.1.2 The Necessity for SME Promotion Plans

There is little argument concerning the role of the SMEs and its importance from the viewpoint of economic development, as discussed above, and it is easy to secure the understanding of concerned people on this point. However, there are some matters which do not directly lead to the conclusion that "because of this reason, the government should allocate public resources to SMEs with high priority." In other words, there are signs that the importance of SMEs is well understood. However, there are some who assert no support measures are required in particular. It is satisfactory if the matter is entrusted to market forces. There also is such the line of thought that "Since medium-sized enterprises are profit centers for the nation, support should be provided to micro enterprises and small-sized enterprises of weak physical constitution, in the sense of welfare."

In view of the above, it is suitable here to confirm the necessity for policies for promotion of SMEs, taking the above into account. There are four points deserving attention.

- 1) First of all, the economic roles of SMEs in Thailand described in the preceding section have not yet been fully realized. It is judged, moreover,

that they cannot be realized if the matter is simply entrusted to market forces. Therefore, policies for promotion of SMEs are required.

- 2) A free market at times has the aspect of "the strong preying on the weak," and there is a possibility that SMEs, which tend to be deficient in economic resources, will lose out in the competition with foreign products. Weakening of the entire economy of the nation may result.
- 3) "Roles of SMEs" can be directly interpreted as a matter of national interest. Since a large national benefit can be expected through promotion of SMEs, there is justification for corresponding expenditures by the national government.
- 4) SMEs can be classified by their character and physical constitution into two groups: one of medium-sized enterprises and relatively large small-sized enterprises, the other of relatively small small-size enterprises and micro enterprises. It is considered that the former is a group that should become a traction engine for the economy, and the latter is a group that requires consideration from the viewpoint of social welfare. "Roles of SMEs" can be realized through activities by these two groups.

The objective of and necessity for promotion of SMEs are described in concrete terms below, specifically regarding manufacturing industry, which is the objective of this study.

- 1) Promote conversion from agrarian society to industrial society

The history of industrialization in Thailand is new. The main industry has been agriculture. As Table 4.1-1 shows, industrialization advanced rapidly during the 1980s, but the majority of the workforce is still in the agricultural sector.

To raise the gross income level of the country, and to improve living standards, part of the labor force needs to be shifted from the agricultural sector, which has low productivity, to the industry and service sectors. This is a continuing task of national policy. The SMEs have a higher rate of absorbing employment per unit of invested capital than do large scale companies. Also, when consideration is given to the domestic condition of chronic capital insufficiency, the promotion of industrialization by means of

promotion of SMEs is highly realistic. This is the first key point for understanding the necessity for SMEs promotion.

Table 4.1-1. Position of the Agricultural Sector in GDP

	1970	1980	1990
Nominal GDP (Billion bahts)	14.8	66.3	218.6
GDP per capita (bahts)	4,077	14,180	39,149
Share of agriculture in GDP	32.2%	23.2%	12.7%
Persons engaged in agriculture	78.1%	70.8%	57.5%

(2) Reforming the vulnerability of the industrial structure

Industrialization during the 1980s was promoted by the initiative of foreign investors, and especially companies that were assembling final products. Consequently, as output of automobiles and electric and electronics products increased, the number the domestic parts manufacturers also increased, which on the surface made Thailand appear to be approaching the condition of having a pyramid type (multi-layered) industrialization. The recent economic crisis, however, proved the extreme vulnerability of the industrial structure.

For example, the auto industry had, compared to other Asian countries, expanded to comprise a wide range of subsectors at a fast pace, but today when the industry tries to find a way to survive through exports, the weak international competitiveness of local suppliers looms as a big obstacle. That is, the technology and managerial ability of the SMEs, which compose the majority of the local suppliers, are at low levels by international standards. This is true not only for the automotive industry, but for almost all manufacturing sectors with few exceptions (for details, refer to Chapter 3, for the sectoral analysis).

To organize the national production system with provision made for specialization of the SMEs in those processes or subsectors where they are the most efficient producers will benefit the country's industrial agglomeration. In particular, it is evident that the machinery industry can be further developed and helped to grow through a stronger establishment of

the pyramid type production system. Such integration of industry can be realized on condition that there is a good functional relationship between the final product assemblers and their parts and materials suppliers. In this sense, there are sufficient assemblers in the automotive and the electrical and electronics industries in Thailand, but there is a problem in the lack of capability of the parts suppliers. This means that unless the technology of domestic SMEs improves and international competitiveness is strengthened, the industrialization of Thailand will not be advanced in the true sense. It is extremely important to promote the SMEs with the ultimate objective of fostering true industrial integration, yielding improved competitiveness.

(3) SMEs promotion on behalf of energizing regional economies

Thailand's regional or local industry can be roughly classified as local resources oriented industry and "other manufacturing" industry. The former mainly utilize local resources for food processing, crafts, china and pottery, woodworking and furniture, textiles and macadam. The latter classification is concerned with the processing of metal, assembly of machines, repair of vehicle, etc. Both of them are made up of SMEs. Large companies also exist in some areas of the provinces. They are in the electric, chemicals and cement industries, but usually are not integrated with the provincial industries and tend to form enclaves.

The biggest task in energizing the regional economies in today's Thailand is to raise the ability to absorb employment in the industry sector. How to do this is the issue. This change has something in common with the issue of promoting the transition from an agrarian society to an industrial society. Light industry and machine industry require different approaches, but in both cases what is indispensable is for the SMEs policing to be based on the characteristics of each region and bring about development based on the small discrete markets in their respective regions. Regardless of the sector, the emergence of countless numbers of small scale businesses brimming with enthusiasm will energize rural society, and as they develop, they will bring the benefits of competition and cooperation, and hence a sound foundation for industrial agglomeration will be formed.

This means, most importantly, that provincial industry promotion needs to deal with the question of how to increase the number of factories, of small and medium size and of either light industry or machine industry. That is development of the SMEs as the "vital majority" or "mother of business creation." In order to achieve industrial integration in the provincial areas, Thailand must adopt a policy which aims at expanding the number of SMEs. In this sense the nurturing of the SMEs has great significance.

(4) Offsetting the disadvantages of the SMEs in business activities

In Thailand's industrialization policy, a transition from protectionism to liberalization has been evident. This is also in accord with the international trend, and has not changed even after the economic crisis 1997. On the other hand, since most SMEs are inferior to the large size companies in managerial resources, they often suffer disadvantages in the current market economy. There is no doubt in that SMEs are disadvantaged in making contracts, doing business, procuring funds, securing human resources, developing markets, and other areas of activity.

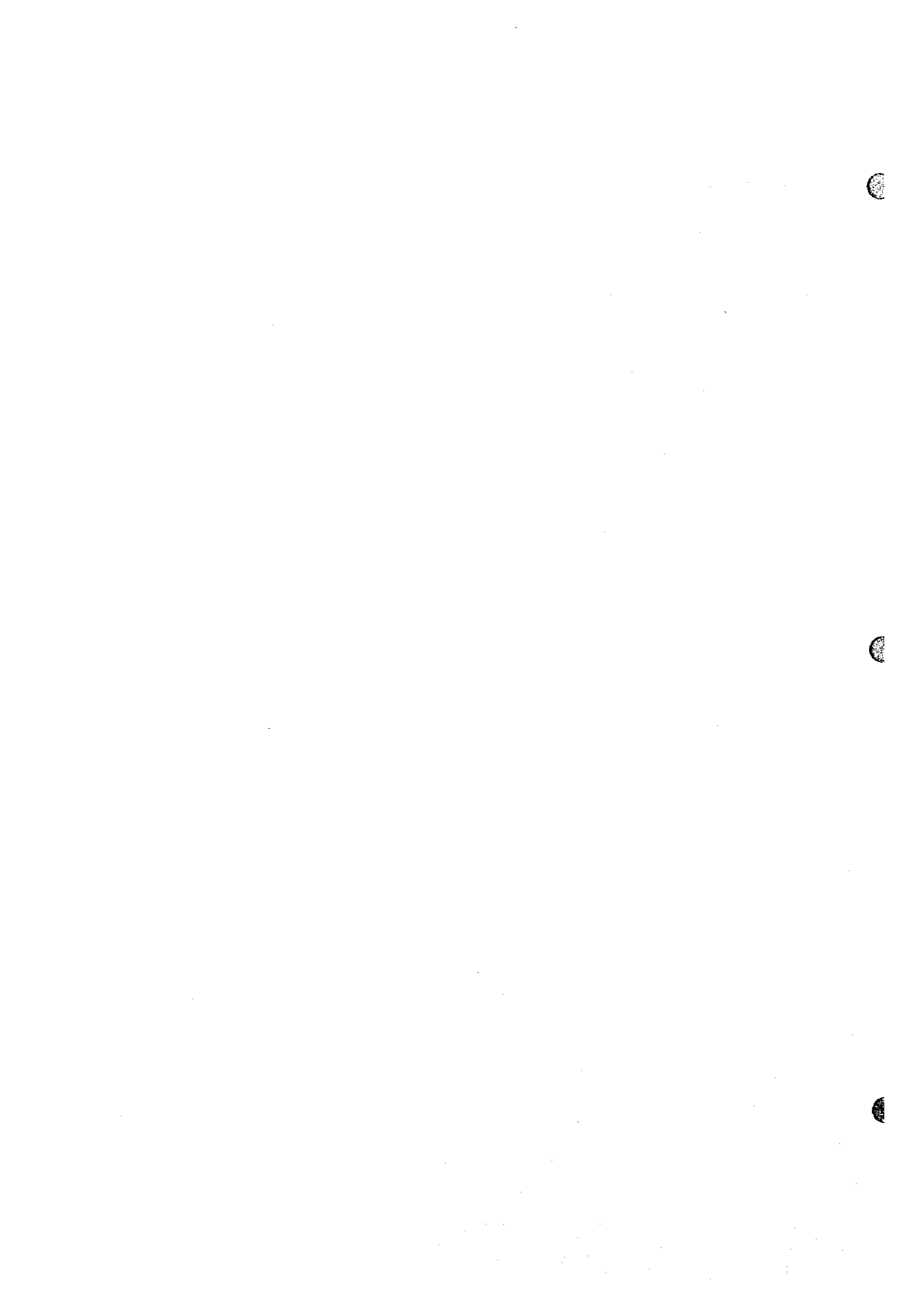
Furthermore, since the market functions with the highest priority given to the efficiency of use of capital, it does not necessarily function so as to serve the interests of long-term growth of the economy of a nation. In Columbia, for instance, the SMEs received a crushing blow from imported goods because of the policy of rapid liberalization of trade in the 1980s. It was a failure of the market from the viewpoint of the economy of the nation. SMEs, while being capable of making growth, are put in a disadvantageous position compared to large-sized enterprises in business activities because of poor managerial resources. Such a disadvantage should be corrected or compensated by government action.

To supplement the market function, which sometimes is insufficient in the real world, and provide fair conditions for competition, is the fundamental way to help both SME and industry as a whole. In this area, too, Thailand needs an SMEs promotion policy and plans.

4.1.3 A Role for the Government

To further activate the economic system through promotion of SMEs should be a basic policy of the Government of Thailand. In this sense, the government should take responsibility in the policies for promotion of SMEs in the following aspects.

- To secure opportunities for activities of SMEs in the market
- To eliminate obstacles to the activities of SMEs
- To compensate for disadvantages to SMEs, which arise due to market imperfections



4.2 Framework for Promotion of Small and Medium Size Enterprises

4.2.1 Core Problems Confronting SMEs

Chapter 3 analyzes the problems of different types of business in the parts industry and the general consumer goods industry on the basis of survey results obtained mainly through visits to SMEs. Before discussing the proposed framework for promotion of SMEs, we shall restate those problems and present our conclusions.

4.2.1.1 Problems SMEs (In manufacturing industry) are Confronting

Finished product manufacturers including firms in the automotive and electric/electronic industries are switching their emphasis to marketing for export, against the background of contraction and in some cases collapse of the domestic market. The parts industry of Thailand is not able to keep up with this trend and is losing market share to imported goods. In other words, the parts industry of Thailand is inferior in international competitiveness in quality, cost, delivery performance and development, and the majority of local enterprises in the parts industry are bound to vanish, unless swift and drastic steps are taken. Some of leading local parts companies already began to sell out (in the Siam Group, for instance). It appears that the Government of Thailand is just beginning to face this situation and realize it for what it is. Much effort lies ahead for policymakers and officials who must work with the industrial sector.

The general consumer goods industry has been polarized to two groups. One is the group of export-oriented enterprises with competitiveness, and the other is a group of domestic-market-oriented enterprises requiring modernization. If the latter as a group of suppliers fulfills as it were daily demand in a certain area, it may be able to survive for some time. In the flow of liberalization of trade, however, there is a possibility that inexpensive imported goods (including even sundries) from China and other nations in the neighborhood will make substantial inroads in the Thailand economy. As the result of field survey, the Team finds that many companies were already encountering stronger competition, from goods

exported by China and some other countries in the vicinity of Thailand, in the low-grade products market.

It is important to recognize that the SMEs of Thailand have been thrown into the market of international competition, regardless of whether they like it or not, in the flow of liberalization of trade. Today, when employment of protectionism cannot be expected, enhancement of each of the key components of competitiveness - cost, quality, delivery, and development - should be attempted without hesitation. This is our conclusion.

4.2.1.2 Analysis of Results of the Questionnaire Surveys

To identify the problems SMEs are confronting, the most practical and accurate means is to ask them directly. Referring to the results of three questionnaire (one done in 1994, one by the Team and one by the World Bank) relevant matters are summarized below.

(1) Results of the questionnaire survey conducted by the Team

The results of the two questionnaire surveys (see Chapter 1, Section 1.2 for details) shown Table 4.2-1 and table 4.2-2 indicate that subjects related to "the market" are ranked in first place as a field requiring support from the government and in second place as an urgent problem for business management as far as replies from SMEs concerned. Particularly regarding the latter, it is noteworthy that whereas this item was in eighth place in 1994, it rose to second place this time. Subjects related to "financing" are ranked in third place and fourth place respectively, and "human resource development" is ranked sixth and first respectively (the item of the sixth place as an urgent problem for business management is also related to financing). Subjects related to "technology" are ranked fifth as a field requiring support from the government. As urgent problems for business management, items in third and fifth place are related to technology.

Table 4.2-1. 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 and 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

Table 4.2-2. 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 Manpower development	271	①	221	44
② Marketing development	263	⑧	224	30
③ Machinery and 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

(2) Results of World Bank questionnaire survey

Table 4.2-3 indicates the top five reasons for decline in output (production) and exports caused by the economic crisis, as extracted from results of a questionnaire survey conducted by the World Bank (see Chapter 1, Section 1.3 for details). This table tells us that what small-size enterprises (of up to 150 employees in this case) consider as the largest problem for both output and exports is decline of demand. The next reason is rapid decline in the value of the baht, that is related to unstable political conditions. The next reasons are cost and financing, and these two factors constitute the third group of influences the economic crisis has exerted on small-size enterprises.

Table 4.2-3. Top Five Reasons of Decline for Small Industries

(Unit: % of the responding enterprises)

Decline of output	Decline of exports
(1) Domestic demand: 74%	(1) Poor demand: 64%
(2) Currency depreciation: 73%	(2) Unstable political condition: 62%
(3) Labor cost: 56%	(3) Price competitiveness: 56%
(4) Costly loans: 53%	(4) Exchange rate volatility: 55%
(5) Heavy debt burden: 41%	(5) High import costs: 49%

4.2.1.3 Determining the core problem

According to the above data, more than 70% of SMEs pointed out slump of domestic market is the most serious problem. The Team conducted a survey of visiting 97 enterprises of eleven sectors, in addition to making questionnaire surveys. Many of the managers the Team met emphasized "we wish our products would sell." When this is taken into account, the core problem SMEs are confronting after the economic crisis can be narrowed down to the following:

Core problem: "Sales of SMEs products are in a slump."

4.2.2 Development Concept and Development Strategies of SMEs

(1) Problem analysis

As stated in the previous chapter, the core problem SMEs are confronting after the economic crisis is that sales of their products dropped drastically. The definition of the core problem was based not only on the survey results (as above) but also on the use of Project Cycle Management (PCM) technique whereby a Problem Tree was created; it is shown as ANNEX I.

As is shown by the Problem Tree, the direct causes or origins of the core problem are the following two.

- 1) SME products lack for competitiveness.
 - 2) Access to markets doesn't go well.

The first cause is an internal problem SMEs are confronting. The seriousness of this factor is clarified in Chapter 3, Industry Promotion Plan by Sectors (Highlighting the Supporting Industry). The second cause partly includes a factor internal to the SMEs. However, we take it mainly as an external factor. Even if SMEs are attempting to switch their marketing target to exports, however, the means for switching are inferior. In other words, the direct causes for the core problem are both internal and external.

Then, why are products of SMEs inferior in the international competitiveness (the first direct cause). It is because each of quality, cost, delivery and development (QCDD) have not reached global standards. The reasons why their access to the market is not successful (the second direct cause) are "delay in correspondence to market requirements", "shrink of domestic and international demand" and "weakness of marketing capability of SMEs". The second reason, however, is an issue which cannot be solved by this master plan.

(2) The concept of SMEs development

The Problem Tree was used to make a mini-objective tree (see Figure 4.2-1) for the purpose of setting the objectives for development of SMEs. In this case, the mini-objective tree should be read as being a restatement of the top three rows of the Problem Tree, wherein what were causes and effects in the Problem Tree are now considered as the means (of attaining the objective) and the end (objective) in the abbreviated version. This provides what is termed the concept of SMEs development in the present study, and as presented below can be effectively used as a basis for proceeding with development planning and action on behalf of SMEs development in Thailand.

SMEs Development Concept:

To enhance competitiveness bringing it up to the level of global standard (QCDD).

According to the SMEs development concept, SMEs recover from the slump and further grow toward the global standard through strengthening of competitiveness.

The development concept defined above is such that economic recovery and recovery of SME sales alone are not recognized as amounting to a solution to the basic problems. In other words, the concept of development means that SMEs should grow to the world level through acquisition of true international competitiveness by strengthening the physical constitutions, using the economic crisis as a point of change.

(3) Development strategies

Grouping together of similar root problems from the Problem Tree (shown in Annex I), regardless of at which level they root problems are located, is called an approach. Five approaches to materialization of this principle of development are indicated below. Problems are classified according to five groups in the Problem Tree, and abbreviations in parentheses indicated below are used.

- 1) Finance
- 2) Technology and management (T & M)
- 3) Human resources (Human)
- 4) Marketing
- 5) Business environment

Below, each "approach" is called "strategy" as the concept according to group specific recommendations for expressing the development concept.

Strategy 1	Strengthening of SMEs financing
Strategy 2	Upgrading of technological and managerial capabilities of SMEs
Strategy 3	Development of human resources of SMEs
Strategy 4	Securing of markets for SMEs
Strategy 5	Improvement of business environment for SMEs

Table 4.2-4 indicates the framework of the master plan for development of SMEs. Five strategies for achievement of the concept of development were created as a result.

Table 4.2-4. Framework of Master Plan for SMEs Promotion

ROLE OF SMEs

SMEs play important roles in socio-economic development of the country as key players;

- (1) to ensure market economy with competition in the market,
- (2) to modernize industrial structure penetrating new markets,
- (3) to create job opportunities,
- (4) to contribute to improvement of the balance of payment of the country, and
- (5) to contribute to socio-economic development in regions.

DEVELOPMENT CONCEPT

To enhance competitiveness to bring it up to the level of the global standards

SMEs will recover from the slump and further grow towards the international standard through strengthening of competitiveness quality, cost, delivery and development.

STRATEGIES

Strategy-1. Strengthening of SME financing

To ensure SMEs financial facilities equipped with high liquidity.

Strategy-2. Upgrading of technological and managerial capabilities of SMEs

To upgrade technology and management toward international standard levels.

Strategy-3. Development of human resources of SMEs

To educate and train management, engineers and skilled labor.

Strategy-4. Securing of markets for SMEs

To provide SMEs with measures to access domestic and international markets.

Strategy-5. Improvement of business environment for SMEs

To support SMEs preparing institutional infrastructure.

4.2.3 Method of Project Selection

Development strategies are prepared to achieve SMEs (mainly in manufacturing sector) development concepts and aims. Concrete implementation plans are required to achieve the aims of the strategies, and they are called "projects" in this report. This subsection describes the aims of the strategies and the reasons specific projects are proposed for each strategy.

The process of selection of the projects is as follows.

Method 1: Those projects, implementation of which was already decided by the Government of Thailand, without opportunity for review by the Team, were added to the proposed projects, as requested. The projects in this category are:

- Establishment of a Factory Evaluation System (Project 2.1)
- Establishment of the Institute for SMEs Development (Project 3.1)
- Setting-up of the Thailand Automotive Institute (Project S.1)
- Setting-up of the Electrical and Electronics Institute (Project S.2)
- SIC-Tool and Mold Technology Development Project (Project S.3)

The Government of Thailand is preparing implementation plans for Project 3.1, and as for Project S.3 is decided an implementation plan so that with only reports on the current situation of project is given in this document. The other three projects are in the stage of transition to the implementation stage according to the Action Plans proposed by the Team.

Method 2: The Government of Japan dispatched Mr. Shiro Mizutani, who is an ex-official of the Ministry of International Trade and Industry, as a senior adviser to the Minister of Industry and Minister of Finance of Thailand, based on a request from the Government of Thailand. Team members provided assistance in the creation of the concepts for the projects examination of which was requested to Mr. Mizutani the Government of Thailand. These projects are also included as projects proposed by the Team. Three projects related to finance, indicated below, belong to this category.

- Restructuring of the Credit Guarantee System (Project 1.1)

Strengthening of the SMEs Banking System (Project 1.2)
Establishment of an Equity Participation System for SMEs (Project 1.3)

These projects are under examination by the Government of Thailand, and their implementation has not yet been decided. The second and third are based on the results of work by JICA experts (Mr. Ohki/SIFC and Mr. Enomoto/DIP) and not members of the present Team.

Method 3: Ten proposed projects other than the above were selected by following the procedure indicated below.

- (1) Projects related to promotion of SMEs adopted in the IRP and SMEs Promotion Act (draft) were reviewed.
- (2) Project ideas proposed by Team experts were collected.
- (3) All of the above projects were combined in a list of project ideas, amounting to 80 projects. They were classified by type of strategy, and those which overlapped with others and those which are of themes which were judged to be too large or too small were eliminated
- (4) Then, the projects were finally selected through discussion with Mr. Mizutani.

The Team also requested the Thai counterpart to submit project ideas. However, no project idea other than those in Type 1 above was submitted.

The eighteen recommended projects are listed in Table 4.2-5. Moreover, a narrative summary of the Project Design Matrix (PDM) resulting from the taking of the SME development master plan in its entirety as a single project, is presented as Table 4.2-6. The rationale for project selection is as related in section 4.2.4. For outlines of each project, refer to the Project Profiles appended to this chapter, and for additional details see Annex III.

Table 4.2-5. Selected Projects to Achieve Aims of Strategies

Strategy 1. Strengthening of SME Financing
1.1 Restructuring of the Credit Guarantee System
1.2 Strengthening of the SME Banking System
1.3 Establishment of an Equity Participation System for SMEs
Strategy 2. Upgrading of Technological and Managerial Capability of SMEs
2.1 Establishment of a Factory Evaluation System
2.2 Introduction of an On-site Technical Guidance System
2.3 Development of Total Quality Management System of Thailand
2.4 Provision of an Assistant Package for Incubation of SMEs
2.5 Enhancement of Technology Transfer from LEs to SMEs
Strategy 3. Development of Human Resources for SMEs
3.1 Establishment of the Institute for SME Development (ISMED)
3.2 Institutional Supports for Securing Manpower for SMEs
3.3 Establishment of a Certified Skill-standards in Cooperation with the Private Sector
Strategy 4. Securing of Markets for SMEs
4.1 Introduction of a Preferential Purchasing System of SME Products by the Public Sector
4.2 Strengthening of Export Promotion Activities
Strategy 5. Improvement of Business Environment for SMEs
5.1 Development of Information Networks for SMEs
5.2 Improvement of Standards and Conformance Infrastructure to Promote export
Supporting Industries
S.1 Setting-up of Thailand Automotive Institute (TAI)
S.2 Setting-up of Electrical and Electronics Institute (EEI)
S.3 SIC-Tool and Mold Technology Development Project

Note: See Annex III for detailed information on these projects.

Table 4.2-6. Narrative Summary of Overall PDM for SME Master Plan

Overall Goal – Role of SMEs in Table 4.2-4

1. Functioning of the market economy is ensured.
2. Industrial structure is modernized.
3. Job opportunities are created.
4. Balance of payments of the country is improved.
5. Regions and rural areas are socio-economically developed.

Project Purpose – Development Concept in Table 4.2-4

Competitiveness of SMEs is brought up to global standards in terms of quality, cost, delivery and development (QCDD).

Output – Strategies in Table 4.2-4

1. SME financing is strengthened.
2. Technological and managerial capability of SMEs is upgraded.
3. Human resources available for SMEs are developed.
4. Markets are secured for SMEs.
5. Business environment is improved for SMEs.

Activities – Projects in Table 4.2-5

- 1.1 Restructure the credit guarantee system.
- 1.2 Strengthen SME banking system.
- 1.3 Establish an equity participation system for SMEs.

- 2.1 Establish a factory evaluation system.
- 2.2 Introduce a circular technical guidance system.
- 2.3 Develop total quality management system for Thailand.
- 2.4 Provide an assistant package for incubation of SMEs.
- 2.5 Enhance technology transfer from LEs to SMEs.

- 3.1 Establish of the institute for SME development.
- 3.2 Support SMEs for securing manpower.
- 3.3 Establish a certified skill-standards in cooperation with the private sector.

- 4.1 Introduce a preferential purchasing system of SME products by the public sector.
- 4.2 Strengthen export promotion activities.

- 5.1 Develop information technologies and networks for SMEs.
- 5.2 Improve standards and conformance infrastructure to promote export.

4.2.4 Strategic Objectives and Reasons for Recommending Projects

Strategy 1: Strengthening of SME Financing

[Aim]

To facilitate the flow of funds to SMEs through strengthening and reorganization of financial institutions and through introduction of new schemes.

Dissatisfaction with regard to the availability of and conditions for credit has a high score comparable to that of the problem of market development, according to results of questionnaire surveys and hearings. Unsatisfied requirements of working capital are a serious problem. According to the results of the questionnaire survey made for the previous study (1994), the number of enterprises requiring equipment funds was 80.2% of the total, and the number of enterprises requiring working capital was 57%. The targets of the previous study were small and automotive vehicle parts makers and electrical and electronics companies. In these two industries demand for working capital is stronger this time (80.6% as compared to 58.3% for equipment funds), indicating that the economic crisis has made fund raising by SMEs more difficult than before.

The financial problem SMEs of Thailand are confronting is that neither short-term nor long-term funds are flowing to SMEs in large part due to reluctance on the part of financial institutions. The reason why financial institutions are reluctant to provide loans to SMEs is their non-performing loan position and the Bank of International Settlements rating issue. Financial institutions themselves were forced to adopt management policy emphasizing self-protection, due to the economic crisis. Of course the fact that the earnings and collateral values of SMEs have dropped and the risk of lending to SMEs thus has increased is another cause for the tight credit market. This lack of liquidity cannot be withstood by the SMEs for long. This situation can be said to be an inevitability of market principles, but it can also be considered to be a failure of the market if promotion of SMEs has to be made a priority item of economical development.

There are three basic methods for supporting SMEs in the area of financing.

- 1) Credit guarantees and insurance that compensates for the risk to financing institutions
- 2) Institutional SME banking
- 3) Equity participation

This report proposes a project for each method, as described below.

Project 1.1 Restructuring of the Credit Guarantee System

The purpose is to reorganize and improve the credit guarantee system so as to facilitate financing by commercial banks, the largest source of SME credit, or from government financial institutions.

Project 1.2 Strengthening of the SMEs Banking System

Private-sector financial institutions should play the core role in the supply of credit for SMEs. Government financial institutions for SMEs should play an important role to complement credit creations by private-sector financial institutions. Specific target loans, long-term loans, low-interest-rate loans and easing of collateral requirements, for instance, can be provided by these government financial institutions.

Project 1.3 Establishment of an Equity Participation System for SMEs

This project, proposed by the Thai Government, seeks to establish of a governmental venture capital fund and of a capital market for SMEs. Since this is the kind of project that requires long-term vision, and several difficult issues are involved, feasibility of this project should be carefully examined while considering the scale of the demand that this project could satisfy.

Strategy 2: Upgrading of Technological and Managerial Capability of SMEs

[Aim]

To establish methods and mechanisms for technology transfer to directly upgrade technological and managerial capabilities of SMEs in the field of production, and to support entrepreneurs in the SMEs sector.

This strategy seeks to work directly in the field of production to achieve the development concept, i.e., "to strengthen competitiveness bringing it up to the goal of the global standards." The importance of this strategy can be largely validated by Chapter 3, Industry Promotion Plan for Each Sector (mainly in supporting industries).

The textile industry, apparel industry and food processing industry have considerable export competitiveness, but are facing competition with products made in China. Even in the electrical and electronics industry, parts manufacturers of small to medium scale do not have sufficient competitiveness except for larger companies in this bracket that are 100%-foreign-capital and export-oriented. In the automotive parts industry, it is already evident that manufacturers cannot keep up with the changes in market requirements (for lower cost, higher quality, better delivery performance, better ability to develop products). The supporting industries (parts manufacturers) for durable consumer goods and capital goods play a vital role of supporting the foundation of the industrial structure -- but their competitiveness is inferior when measured by the global standard. Four aspects are used here gauge the competitiveness of SMEs: quality, cost, delivery time, and research and development power.

It is widely accepted that for SMEs as opposed to LEs the personal qualities of the corporate owners and managers are the keys to success of the company. Similarly, unlike LEs, growth achieved by means of organizational power cannot be expected of SMEs. To overcome the handicap of lack of such organizational power, re-education of SME owners and managers in needed, may be required. Vitality of SMEs is maintained and modernization and advancement of SMEs are achieved particularly by

the unending metabolic cycled birth, growth decline and disappearance of enterprises.

The Team recommends the following projects based on the viewpoints above and on the current situations.

Project 2.1 Establishment of a Factory Evaluation System

Implementation of this as a priority project is called for by the IRP, based on the grand design of its implementation plan proposed by the Team. The project has two objectives: to create a suitable number of qualified SME consultants who are to first trained and then certified by a qualifying examination for evaluation of technical and managerial aspects of SMEs, and to start to implement evaluation of SMEs in parallel with developing the skills of these consultants. Further, this project also intends to facilitate financing by using evaluation results and reports when introducing enterprises to financial institutions.

Project 2.2 Introduction of an On-site Technical Guidance System

This project is aimed at establishing a truly effective technology transfer technique. Considering that this method was successful in a number of nations, its adoption on a substantial scale is expected. The basic concept is to transfer core technology by dispatching to factories professional having experience and knowledge of theory acquired by at least 20 years of work. Model enterprises would be selected as the first targets, to obtain a demonstration effect.

Project 2.3 Development of a "Total Quality Management" System of Thailand

The objectives of elevating the grade of Thai manufacturers and improving competitiveness will require many changes in corporate management. Overcharge believed to be particularly important in the widespread adoption of a systematic approach to quality management. Such an approach, known as Total Quality Management, encompasses production floor Quality Control and considerably more. It is judged not feasible to attempt an as-is adoption of an American, European or Japanese TQM system. This

judgement is shared by Thai business managers as well as managers of foreign-owned enterprises in Thailand. It is anticipated that when Total Quality Management and production management which is arranged for Thai is established, it alone would significantly contribute to upgrading of competitiveness. This is a long-term undertaking that must start with a fundamental study.

Project 2.4 Provision of an Assistance Package for Incubation of SMEs

This project is proposed based on the viewpoint that activation, modernization and advancement of SMEs will be achieved in good part by birth of new enterprises. A number of entrepreneur support programs are available in Thailand. But this project is a package program to support entrepreneurs requiring initial equipment funds of a considerably large amount, and the program thus includes financial aspect.

Project 2.5 Enhancement of Technology Transfer from LEs to SMEs

It is important to consolidate that part of the business environment that facilitates procurement by LEs of locally-produced materials parts, and components as a strategy for promoting subcontracting enterprises. It should be possible to support technology transfer from LEs to SMEs by a method that is advantageous to both, with combinations LEs and SMEs having business relations to each other as the objectives. Identical projects have been implemented in several nations. A balanced method that provides advantages to both sides, such as a tax incentive, could be efficacious. Consideration is merited for measures that provide incentives to large enterprises to provide guidance to subcontractors (SMEs) over the long term. Such measures may be tax incentives based on the LEs' efforts as evidenced in the dispatch of expert advisers, or the long-term supply of equipment, to SMEs.

Strategy 3: Development of Human Resources for SMEs

[Aim]

To secure human resources for SMEs and to eliminate inequity to SMEs workers, through development of human resources, i.e., managers.

The most urgent problem facing corporate managers at the time of the earlier questionnaire survey was "manpower development." This is absolute after the economic crisis, signifying that the quality of workers is clearly the most important problem for SMEs.

What are important for present purpose are (1) methods for implementation of manager education, job training and practical skill testing and (2) the system to supply suitable human resources to SMEs. Regarding manager education, efforts have been made by the Bureau of Industrial Enterprise Development, Department of Industrial Promotion, for a long time, now the but Institute for SME Development was established to expand these efforts. Vocational training is implemented by various entities. But the common problems are that training does not necessarily match needs in the private sector, training equipment is either insufficient or obsolete; and trainers are in short supply. Similarly, problems are being encountered regarding improvement the skill standards certification scheme. The three projects below can be seen as follow-up to projects proposed during the previous study. Strengthening of public education was excluded from the scope of this study.

Project 3.1 Establishment of the Institute for SME Development

This project was proposed by the Government of Thailand, and the institute was established this year. The concept of this institute is based in part on that of The Institute of the Japan Small Business Corporation in Japan. At this early stage, there are some aspects of ISMED which have not yet been well organized, but it is expected that they will receive due attention at an appropriate time. The basic concept is that eight universities, including Thammasat University, will cooperate with ISMED to train business

managers, executive trainees and entrepreneurs, as well as performance of study and research on SMEs. There is a long-term plan to train SME consultants (evaluators) at ISMED in the future. This report introduces the concept of the Government of Thailand without further analysis or comment.

Project 3.2 Institutional Support for Ensuring of Manpower Supply for SMEs

Enterprises replied that finding workers to hire became easy after the economic crisis, according to results of the questionnaire survey. Job hopping, which had been a managerial headache before, has been reduced because of the recession. In a long-term view, however, measures to facilitate matching demand and supply of workers are needed. Both workers and employers would benefit. The purpose of this project therefore is to establish an information network mainly for SMEs to use to secure human resources. Continual monitoring of the labor market and reporting of the findings to relevant organizations constitutes a priority project of the IRP. It is also a basis for proposing this project.

Project 3.3 Improvement of Skill Standard Certification in Cooperation with the Private Sector

An identical proposal was made in the Supporting Industry Study Report in 1995. It included key aspects. One was to extend the target categories of skill certification from repair to essential technologies (casting, metal stamping, plastic resin processing, mold production) of manufacturing. Another was outsourcing of certification to the private sector. It appears, however, that the desired results were not necessarily obtained. Subsequently the scope of the standards was expanded to include inspectors, and testing equipment was improved, but results overall have not been particularly noteworthy. It is therefore proposed to improve the system by adopting outsourcing, whereby, certificates of course completion or technical qualification issued by a private company would under predetermined conditions be recognized by the government as the equivalent to receiving official certification. Therefore, the Team now proposes going one step further, to grant public skill certification to those who have finished training courses of private-sector enterprises for training their employees.

This proposal is based on the fact that certificates of the completion of training courses issued by the training institute of a certain global enterprise in Thailand are highly valued when workers seek to progress in their careers by seeking a new job. What determines success or failure of this project narrows down to what incentives the government can provide for LEs to perate their own training institutes. This is because, the beneficiaries, would include the government (that can enjoy an advantage in that the public burden of training in reduced) and the workers (who acquire public qualification). Even if designed differently from the present proposal, such a system whereby upgrading of technique and technology of workers gives them the promise of a better life in the future while it contributes ot the effort to improve the technological and quality levels of Thai products should be introduced.

Strategy 4: Securing of markets for SMEs

[Aim]

To support securing of product markets, which has become an urgent problem for the majority of SMEs after the economic crisis.

According to the questionnaire survey results, with regard to white collar workers, maximal importance must be attached to ensuring that SMEs have adequate access to markets. Access to markets, moreover, was of first-place importance with regard to what is desired of the government.

SMEs are currently facing management difficulties due to contraction of domestic markets. There are not many supporting measures which can be taken by the government regarding recovery of the markets, as the market mechanisms can hardly be controlled. In the domestic market, however, preferential access of government demand to SMEs can be considered; and regarding the export market, addition of incentives and improvement of channels to foreign markets can be considered. The former practice is adopted by many governments, in both industrialized and developing countries.

Project 4.1 Introduction of Preferential Purchase of SMEs Products by the Public Sector

SMEs are inferior in the market-developing ability in general and they are not blessed with opportunities for bidding for large-scale contracts compared to LEs. The public sector can more fairly open the market by granting more opportunities to SMEs when the government itself contracts for the purchase of goods and services. This conforms with the objective of promotion of SMEs. This is a common practice, but is subject to certain international rules. Moreover, once the regulatory legislation is in place and administrative preparations are completed, the desired effects would be quick to come.

Project 4.2 Strengthening of Export Promotion Activities

The sharp drop in domestic demand consequent to the economic crisis has plunged the SME sector, that is primarily dependent on domestic demand, into a state of great danger. Makers of assembled goods, however, have benefited from the weaker baht, that has increased earnings a result thereof. Under prevailing circumstances, Government support is justifiable for companies that have export potential but cannot realize that potential without aid. The reason for this is that SMEs are at the absolute limit in terms of their ability to develop a foreign market. Development of export markets, to these companies, is a daunting task. This project consists of two points that are recommended to the Government for implementation, namely,

- 1) Informing the foreign customers and overseas wholesalers of export products available from Thailand.**
- 2) Supply of information on overseas markets to Thai SMEs.**

Strategy 5: Improvement of Business Environment for SMEs

[Aim]

The purpose of this Strategy Cluster is to improve the business environment for SMEs.

If improvement of the business environment of SMEs is taken in its broadest meaning, then all projects in these clusters or groups could be classified as being in this category. But here are included projects that are difficult to classify, or cover a very broad field or are very generalized in nature.

This Strategy Cluster encompasses institutional measures including tax incentives, a variety of preferential measures, and measures to improve the infrastructure. Tax incentives and preferential finance are of major importance among them. Regarding tax incentives, the questionnaire survey indicated that there were problems related to delays in the refunding of VAT and irrational aspects of the import duties system. Regarding these measures, significant results are to be expected of the forthcoming SME Promotion Act and the three finance-related projects described in Strategy 1 above.

Below are two infrastructure projects that are recommended for implementation. Project 5-2 is not limited to SMEs in scope but is an urgent matter that covers to industry as a whole.

Project 5.1 Development of Information Networks for SMEs

One of the largest problems in business management for locally-based SMEs is how to acquire valuable information. It is the same in any nation in general. In Thailand, for the Greater Bangkok region is the nations largest market products and procurement of industrial raw materials. Enterprises which do not have a base in this area are greatly handicapped. It is identical in the case of investment, and such circumstances have contributed to centralization of both economic and financial activity, and information, in the region.

Recent advances of information technology provide a means for improvement of this problem. The Ministry of Industry identified the matter of promotion of local information technology as one of the IRP projects. Ministry officials are planning to create a database of information relevant to local industry and to disclose the information at a website. It is expected that preparation of data and hardware are executed for some time from the viewpoint of promotion of investment. When it is extended to market development, finding of partners, etc. in the future, it will become possible to reduce the costs (personnel expenses, travel expenses and other expenses), which are currently born by local SMEs for acquisition of information, and the time can be saved in addition.

Project 5.2 Improvement of Standards and Conformance Infrastructure to Promote Export

In general, most developed countries have their own safety standards for the electrical and electronics products and require all such products to meet those standards. This system aims at not only to protect the people's safety and property in daily life but also to improve the production technology of the local manufacturers. In the world market today, there are more and more imported electric and electronic products from China, Russia, Italy and Turkey being sold, at lower prices than those of products of Thailand. But some of those products are not well guaranteed as to safety, in connection, for instance, with flammability, mechanical strength, radiation of electromagnetic waves and so on. No safety standard for electric and electronic now exists in products in Thailand. Establishment and dissemination of safety standards in Thailand is required to promote export of these products from Thai to the developed countries. Once a Thai manufacture could meet the Thai safety standard, it would then become easier to export.

Special Projects for the Supporting Industries

The two institutes introduced below were separated from the Thai Industrial Standards Institute, of MOI. The Team proposed a basic plan, by working closely with the responsible persons of the institutes. Staffing of the institutes was commenced based on the proposal of the Team, as of May 1999.

Project S.1 Thailand Automotive Institute

Thailand Automotive Institute (TAI) was established in July 1998 as an independent and non-profit organization under the Industrial Development Foundation, MOI. The automotive related activities which Thai Industrial Standards Institute has been offering are as follows:

- 1) Provides testing for automobiles, automotive parts as well as raw materials
- 2) Provides automotive-related information, consultation and training to elevate the standard of Thai automotive industry to the international level.
- 3) Coordinates and cooperates among related agencies, including governmental and private and local and international agencies, to ensure systematic development of the Thai automotive industry.
- 4) Conducts research on automotive-related topics in order to make recommendation on policies, strategies, and development plans for the industry.

Project S.2 Setting up of Electrical and Electronics Institute

The Electrical and Electronics Institute (EEI) is an independent and non-profit organization under the Industrial Development Foundation, MOI and was established in July 1998. It has the objective of strengthening the competitiveness of Thai electrical and electronics industry in the international market. Activities and functions of EEI are mostly the same as those of TAI.

Project S.3 SIC - Tool and Mold Technology Development Project

In July 1999, JICA agreed with DIP to supply equipment and dispatch experts in connection with the SIC project for tool and mold development. BSID would be the implementing agency. The purpose is to promote the domestic production of better-quality tools and molds for the plastics industries. By thus combined a technical center for the plastics industry with the metalworking enter functions already existing at MIDI, the BSID will acquire a broadbased institution that will support the financial sector.

4.3 Other Important Measures

The following deserve attention because even though they are not within the scope of this study, they are significant in the context of SMEs promotion. It is hoped that adequate study would be done prior to the Action Plans for them are developed and carried out.

- (1) Policy for promotion of regional SMEs.
- (2) Promotion of technological development and technological guidance for SMEs.
- (3) Improvement of the effectiveness of engineering or technical education including college level work as well as vocational training.
- (4) Adoption of measures for improvement of distribution efficiency.
- (5) Provision of price data on materials of trash and discarded goods that will be useful in connection with protection of the environment.

4.3.1 Provincial SMEs Promotion

(1) Marketing of Provincial Industry Development Master Plan

Chapter 2.5 of this report points out six problems to be resolved on behalf of regional industry development, namely:

- 1) Lack of master plans for industrial development in individual provinces.
- 2) Inadequate financial system in the provinces.
- 3) Lack of activity by the provinces to attract investments
- 4) Absence of a body that promote for the industrial development and promotion in the provinces
- 5) Inadequate means of accessing markets (and gaining information) from (or in) the provinces
- 6) Insufficient of statistics concerning provincial industry

Existence of these issues was strongly confirmed in the process of analyzing the present situation in the provinces.

Provincial industry development, at the national level, has the following additional problems:

- 7) Overconcentration of industry in Bangkok and the surrounding area.
- 8) Need to create employment opportunities in rural regions.
- 9) Need to accelerate the improvement of administrative organization and system for development of the provinces.

These issues are discussed in the Eighth National Economic and Social Development Plan (1997-2001). As one result, the NESDB called for development planning for each province (by "the formulation of regional economic and social development guidelines and of development plans for provincial groupings, to be used as frameworks for development planning" [NESDB, 1996b, Part IV, Chapter 4]). The Ministry of Industry, in response to this, is working on a master plan for industrial development of the 14 sub-regions (provincial clusters) of the nation.

This master plan will call for the private sector (local residents, companies), local administrative institutions and research institute delegated to participate in regional industry development planning. The significance lies in making adjustments on behalf of the mutual interests of the concerned parties, and discussing what is the best for the district development. This brings use of the method of bottom-up progression into the conventional method for the development administration. Since need for consensus arises, making the organization for planning becomes important.

Of course the plan will not be produced by just asking the people in the region for their opinions. The overall promotion should be carried out while they receive the guidance from experts. In the investigation by UNIDO conducted in 1996-1997 in Thailand, "Promotion of Industrial Competitiveness in the Disadvantaged Region of Thailand" this idea of a working group is presented (see Table 4.3.1). This structure seems reasonable (although the actual numbers may change). It is recommended to choose as the chairman someone from the private sector, who is influential, and to keep the secretariat in the Ministry of Industry, or in the SME Promotion Office which will be newly created and adjust the relationship between the working group and related institutes.

This industry development master plan for each district should at least include the following items:

- The resources of the concerned region (manpower, materials, goods, funds, etc.)
- Strong points and weak points of the region, development restriction factors
- Industries to be promoted, industries with development potential
- Promotion plan of the industries and financial resources for it
- Improving infrastructure, and financial resources for it
- Desirable development promotion system and its organization
- Role and responsibility of each province and each institute
- Development index for monitoring, etc.

The industry development master plan for each district is not to be specialized in SME promotion, but the role of SMEs in district to vitalization, as described in Chapter 4.1.2, (3) is substantial, and the direction which this master plan is oriented is eventually connected with SMEs promotion.

Table 4.3-1. Suggested Structure for the Sub-Regional Working Group for Industry

Position (number)	Role	Possible Candidates	Expected Inputs	Expected Benefits
1	Chair-permanent or rotated (1)	A dynamic and respected leader of the business community or a member of the provincial CC or FTI	Time, arrange and plan the meeting together with the secretary, jointly select and brief consultants	Networking, exchange information with colleagues from other sectors, improved business environment, discuss cost effective resource allocation, access to technical expertise, influence policy development
2	Secretary-MOI (1 or 2)	MOI staff member, possibly from OIE	Time, finance pilot phase, prepare agenda, link with MOI (provide policy background, feedback from/to MOI) ideas from other sub-regional working groups, convene meetings, produce minutes	Strengthen capability of MOI/OIE to establish dialogue between the center and the periphery. Participatory planning mechanism, facilitate MOI's implementation of the Eighth NESDP
3	Provincial member from the private sector (1 per province)	See 1	Time, money to finance participation, provide information, ideas and opinions to help promote industrial development. Give feedback from own organisation/networks	See 1
4	Provincial member from the government sector (1 per province)	A staff member of P/O, DIP, the Provincial Office	Provide information on services, programmes, policies and feedback from own agency and networks	Involved in dynamic dialogue, networking, raise effectiveness of agency, obtain feedback on present and planned policies
5	NESDB representative (1 or 2)	NESDB staff member from regional and/or national level	Provide technical expertise, give guidance on the participatory approach to development planning, provide link to other NESDB projects	Feedback on the Eighth NESDP in action, participate in pilot approach for sector-specific participatory planning
6	Consultant	Independent consultancy/research agency - private firm, university, think-tank, international expert	Act as resource person, provide technical expertise and new perspectives on required issues	Remuneration, honorarium
7	Other important actors in the sub-region and elsewhere	Financial institutions, education institution, other relevant government agencies, NGOs, potential international trade/investment partners, international donor-funded projects	Participate in discussions as appropriate, provide technical expertise and feedback. Build linkages between the working group and their institutions	A forum to air views and receive candid feedback, networking

Source: "Promotion of Industrial Competitiveness in the Disadvantaged Regions of Thailand", UNIDO, 27 March, 1987

(2) Development Concept and Strategy Draft

The following points are assumed here as basic to the concept and method of regional industry development.

1) Development concept

- a) Participation of the local residents in making of the master plan.
- b) Consistency of the plans made in each province, establishment of mechanisms for coordination and pursuit of synergistic effects.
- c) Selection of the core city, satellite cities and rural areas as a sub-region.
- d) Making a support system for entrepreneurs in the sub-region.
- e) Making a new administrative system linkages between business and local governments.

2) Development method

- a) Combination of endogenous and exogenous development methods.
- b) Support to organize business owners groups, sector by sector, in each local district.
- c) Promoting an information network and information access.
- d) Improvement of institutional financing in the local areas.
- e) Creating regional industry promotion public corporations.
- f) Creating a regional SMEs promotion council.
- g) Utilizing the SME Development Fund.
- h) Utilizing the BOI designated district system.
- i) Improvement of the common facilities and increasing the number of factories for rent.
- j) Enriching the support system program for starting new businesses.

It should be noted that the support system program for starting new businesses (item 10) has broad implications such as supporting fund, facilities, leasing of machinery, market development, administrative tasks, development of human resources, and so on.

JICA is now discussing its possible cooperation for the master plan with the Ministry of Industry.

4.3.2 Promotion of Technological Development and Technological Guidance for SMEs by Public Entities

(1) The necessity for policy

SMEs are deficient in the functions of technological development and improvement, and for the most part, in Thailand, research functions are provided by institutions of higher education, national laboratories, and public corporations. There are, however, some instances wherein effective use is not being made of facilities and equipment possessed by universities and research institutes, and although there are liaison arrangements between some institutions and private industry, those liaisons are dysfunctional. King Mongkut Institute of Technology Thonburi (KMUTT), King Mongkut Institute of North Bangkok (KMUTNB), and Suranaree University of Technology had plans for joint programs with industrial partners but owing to the effects of the economic crisis they are either experiencing difficulty or have been canceled.

(2) The policy itself

1) Establishment of a Subcommittee for Promotion of Business-Academia Cooperation Within the SME Promotion Committee

If deemed advisable, additionally, Regional Working Groups can be formed by the Small and Medium Business Development Institute; universities would be the central point for each group.

The Subcommittee would undertake the following.

- (i) Compile a map showing facilities, equipment and functions that are available to the private sector and are at universities and public institutions.**
- (ii) A study would then be made using the map of measures to ensure maximum utilization of existing facilities.**
- (iii) A study would be made of methods whereby SMEs could make use of the more easily accessible university facilities.**

(iv) There would be an exchange of opinions with the general public and SMEs regarding concrete ways to realize business-academia cooperation.

(v) A study would be made of needs of SMEs that could be satisfied by universities and public laboratories.

(vi) A study would be made of institutional barriers to business-academia cooperation.

2) Assistance for improvement of facilities and equipment used by the small business sector

The Subcommittee would, moreover, determine, on the basis of its studies, what functions and facilities that the small business sector requires but that are not being satisfied. On this basis the SME Promotion Committee would provide assistance to correct the shortcoming. For example, it might support the improvement of facilities and equipment needed for a Small Business Development Institute (a regional branch) that has been oriented primarily toward technological guidance and human resources development, so that the Institute can contribute to effective use of regional resources.

3) Support for technological development oriented toward SMEs and undertaken primarily by universities and public laboratories

Support would be provided for R&D alliances formed by SMEs and universities or public laboratories. Encouragement would be provided for commissioning technological development on behalf of SMEs to universities and other institutions. For example, a means would be developed for supporting commercialization of the results of such development efforts. For SMEs that seek to commercialize such results, measures that could be taken include dispatch of advisers, technological guidance, assistance for production of prototypes or samples or for market research, low-cost finance for commercialization, or tax incentives for SMEs • purchase of equipment for development purposes.

4) Improvement of business-academia cooperation as part of the infrastructure for industry as a whole, not with a limitation to SME benefits

Support would be provided for schemes whereby universities and public

laboratories can contribute more to the technological development of corporations. Towards this end, a liaison office would be opened to provide coordination between business and academic persons and institutions, and facilitate general support for corporations.

4.3.3 Improvements of human resources development capacity of vocational education institutions and universities

(1) The necessity for policy

There is a shortage in absolute terms in Thailand of technicians. One reason for this is that as a system, both the vocational schools and the polytech high schools are deficient in both qualitative and quantitative terms. In particular, the curricula at these institutions do not match the requirements of private industry. At the level of the engineering colleges as well there are deficiencies. These colleges are far too few in number, and the men and women who graduate from them are lacking in knowledge of what actually happens in a firm or in a factory. They are, moreover, reluctant to go to work in the production area, and many of them do not seek jobs in manufacturing-related areas. It is anticipated that unless remedial measures are taken there will be a shrinkage even from present levels in the supply of engineering graduates to the SME sector.

In some fields such as the automotive industry there are signs that business-academia cooperation is bringing about some improvement. It is necessary to assign high priority to improvement of human resources development capacity of vocational education institutions and universities, and to do so as an integral part of SME promotion policy.

(2) The policy itself

The topic at hand is, fundamentally, the promotion of improvement of infrastructure for all industry, including small and medium scale enterprises. But it is believed to be of some importance that special attention be given in the improvement of infrastructure to accommodating the needs of SMEs and ensuring ease of use by SMEs of the available infrastructure.

By the following methods, the required improvements at colleges, polytech high schools and vocational schools may be made, enabling them to supply greater numbers of more qualified students to satisfying private industry needs for technicians and engineers.

- (i) Introduction of an intern system to provide students with actual work experience.
- (ii) Establishment of an industry-academia council at each educational institution.
- (iii) Cooperation for establishment of a system for re-education of employees of companies
- (iv) Coordination and assistance for university faculty members to be sent to companies for training programs there.
- (v) Assistance for formation of pools of company managers and technical personnel who would be available for dispatch to other companies as instructors.
- (vi) Improving ties between existing institutions and companies that could use them.
- (vii) As part of efforts at improving vocational schools and polytech high schools, raising levels at the schools by a model-school program. .
- (viii) Introduction of a certification system for engineering education, as a means of improving human resources development at universities.

4.3.4 Measures for Improving Efficiency In Distribution

(1) Necessity for policy

In order to accomplish the improvement of industrial structure that is so essential for future economic growth, it is indispensable to improve the efficiency of the distribution system, in keeping with the diversification and other changes in requirements of industry, need to shorten delivery times and meet more rigid delivery schedules. Inefficiencies in the existing distribution system are reducing or restraining production efficiency, lowering truck loading rates, increasing energy consumption and increasing distribution costs above the level of necessity. The result of this is downward pressure on competitiveness. In particular, for small and medium size business, that is

expected to become even better at filling small-lot orders, the foreces for higher distribution costs are an especially serious challenge.

Regional businesses have a disadvantage relative to those in and close to Bangkok, and this has been a factor behind the concentration of industry in the capital area.

(2) The policy itself

Promotion of SMEs cooperation on behalf of improved distribution efficiency, in addition to lowering distribution costs will make it easier to improve on-time delivery performance, inventory management, and production management.

Further, by reducing distribution costs for regional businesses, the disadvantages of being located away from Bangkok will be reduced.

1) Supportive measures for improving efficiency in distribution

(i) Introduction of a distribution-efficiency adviser system.

(ii) Assistance for survey design.

(iii) Support for improvement of joint-use distribution facilities (cargo forwarding, wholesale centers, warehouses, information programs).

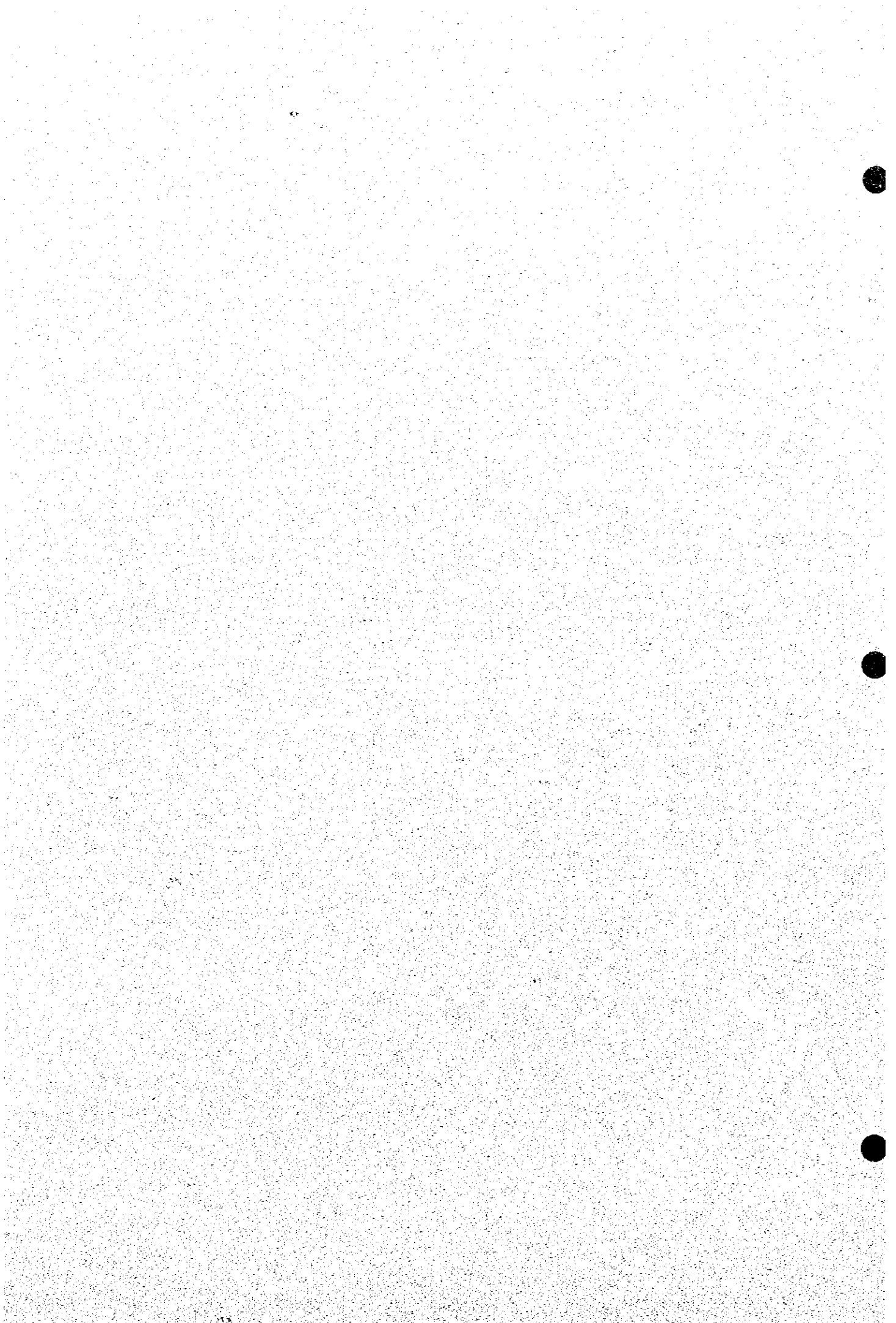
2) Financial arrangements on behalf of improved distribution efficiency

Although there is strong necessity in the general context of society requirements, for efforts at protection of the environment, and reduction of energy consumption, the managerial resources available to SMEs are restrained and this makes it difficult for them to give much attention to activities which are not directly related to earnings. For this reason it is necessary to provide special support to the SME sector.

4.3.5 Measures for Anti-Pollution

In general, taking measure for anti-pollution or saving energy is not so easy for SMEs, due to their character and fragile of management base, despite there are much social needs. Promotion measures should be considered to support SME's effort from this viewpoint.

Chapter 5 Action Program of SMEs Promotion
Master Plan

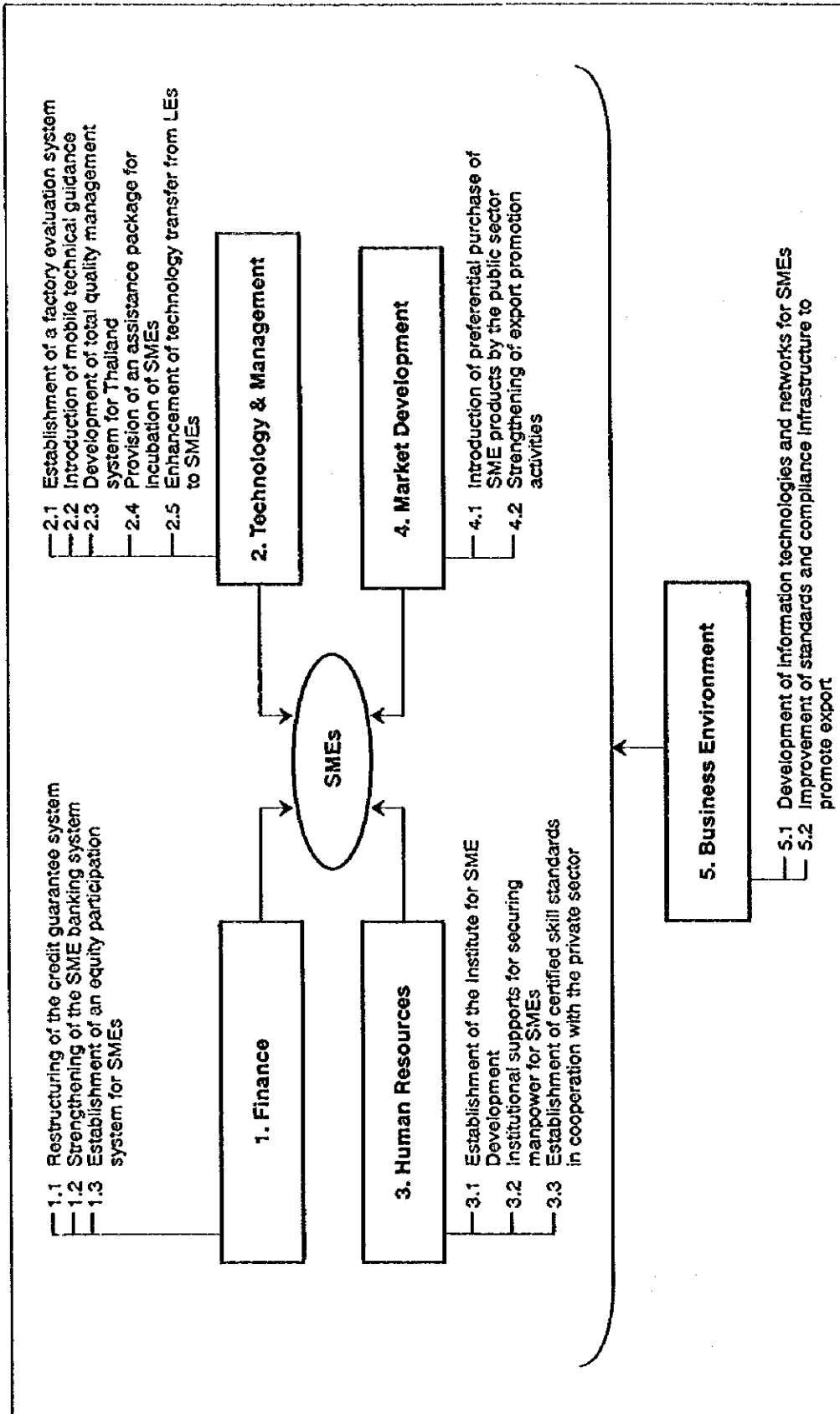


Chapter 5 Action Program of SMEs Promotion Master Plan

5.1 Composition of SMEs Master Plan

Figure 5.1-1 illustrates how each Strategy or Strategy Cluster is positioned within the framework of a master plan. As this shows, Strategy Clusters 1, 2, 3 and 4 are designed to directly support SMEs, and Strategy Cluster 5 aims to develop the business environment of SMEs so that it will indirectly contribute to SMEs promotion. Each project of a Strategy Cluster will entail concrete measures and hence we call them "action plans." The master plan has been formulated with due consideration given to IRP projects and other undertakings by the government. Consequently, it is believed that there would be a great impact on SMEs development in Thailand through the synergistic effect of the projects proposed herein by the Team and the ongoing IRP projects.

Figure 5.1-1. Schematic Diagram of Master Plan for SME Promotion



5.2 Comprehensive Scheme for Implementation

The existing arrangements for promotion of small and medium enterprises is described in Chapter 2. The specialized agencies, with industry- or function-specific roles, are as shown in Table 2.1-2. In the future, however, given the passage of the SME Promotion Act, the Team recommends a comprehensive scheme for effective implementation of the SME Development Master Plan.

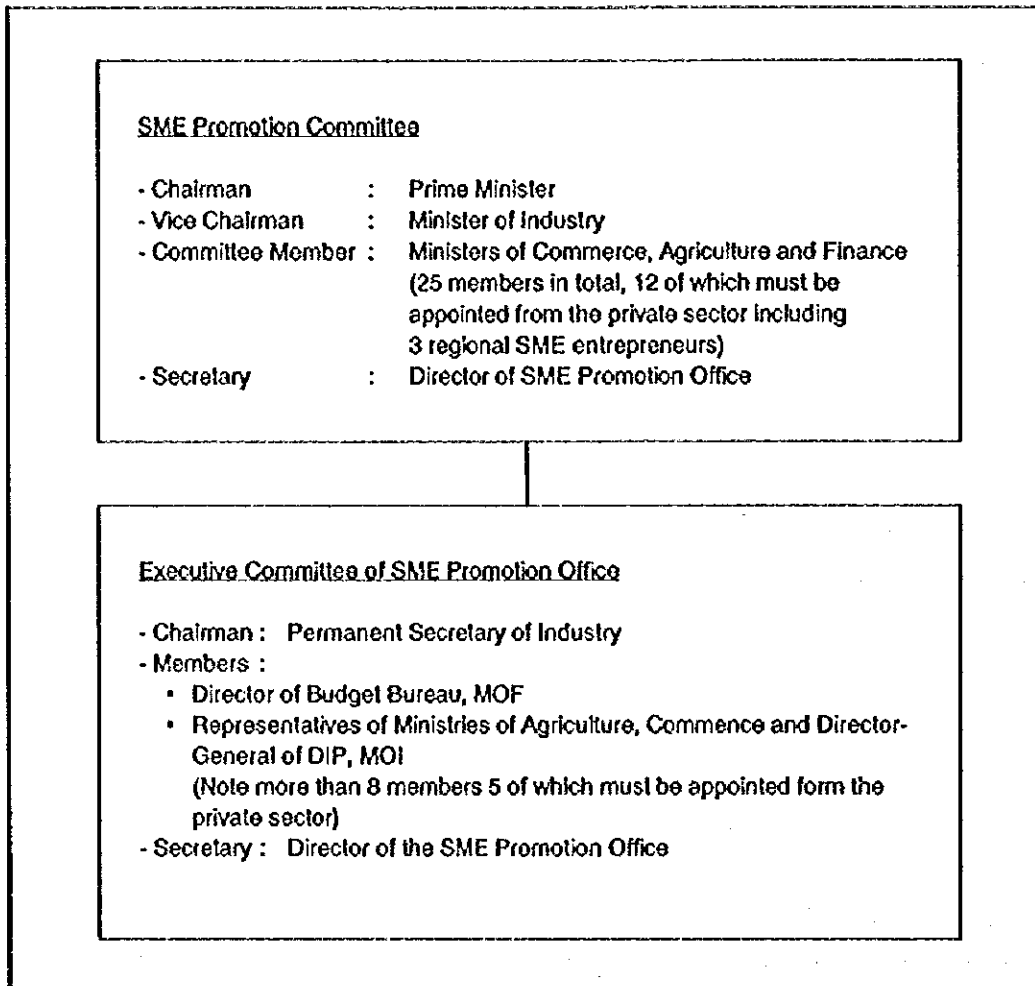
Four recommendations are made; they are:

- 1) A centralized implementation arrangement
- 2) A regional implementation arrangement
- 3) An arrangement for promotion of policy awareness
- 4) An agency to facilitate implementation of the proposed projects

(1) A centralized implementation arrangement

An arrangement within the central government for national, coordinated control of comprehensive development policy and programs for SMEs is needed. It is desirable that the policy-related divisions of the government, including the Ministry of Finance, all participate in this arrangement. At present there is no organization that can be given this function, but it would be desirable for the SME Promotion Office (SMEPO), to be established under the SME Promotion Act, to be at the center of the new scheme. The governing body of SMEPO, the SME Promotion Committee, according to the bill for the Act, is to have the organization shown in Figure 5.2-1.

Figure 5.2-1. Committees Proposed in SMED Promotion Act



According to informed sources, the draft plan for SMEPO did not envisage it as an implementing agency, but rather as being concerned with policy recommendations, adjustment of policies and certain activities including management of the SME Fund. It is necessary, in the judgment of the Team, that the functions of monitoring of performance, follow-up to policy implementation, guidance, dissemination of policies as well as performance evaluation and feedback to the rest of the government be added. This would avoid the need to establish a new and redundant entity for the said activities.

Even if the SMEs Promotion Office only proposes policies, and will not be the implementing institution, there should be established at least the following sections having the responsibilities shown.

The SMEPO Executive Committee is to have at least five members representing the private sector. They must include the representatives of FTI, TCC and Bankers Association that were established on own laws.

(2) A regional implementation arrangement

The required functions that would be assigned to a regional policy implementation agency are as follows. In this connection, it is important to note that in Thailand administration at the regional level is not done by local autonomous bodies but relies on budget allocations of the Ministry of the Interior and transfers from the central government, leaving little potential for localized tax or revenue collection as a source of funds for regional development.

- 1) Promotion of regional SMEs based on the region's own efforts at development.
- 2) Diffusing awareness at the regional level of all SME policies of the central government.
- 3) Ascertaining regional development needs and reporting same to the central government.
- 4) Percolating through to the regions of SME development measures, programs and projects.

The existing arrangement for SME promotion at the regional level is as described below (see also Chapter 2, 2.5).

Agencies of the central government (example, for MOI)

- The Industrial Promotion Center (IPC), implementation agency of the DIP, has eleven offices nationwide.
- Provincial Industrial Offices (PIO) under the MOI, of which there are 75, one in each province (excluding Bangkok), and which are concerned primarily with administrative matters related to factories; primarily oversight bodies.

Joint public-private bodies

- KORLOROR, the Joint Public/Private Consultative Committee

Private bodies

- Federation of Thai Industries (FTI)
- Chamber of Commerce (CC)

SME financial institutions

- Four branches of SIFC and 23 branches of IFCT

What is missing from this arrangement for promotion of SMEs at the regional level are agencies rooted in the regions themselves that plan and carry out activities for regional development. It is necessary to establish bodies that are dedicated to promoting development of regional SMEs (e.g., named "Regional Development Agency".) They should be established either at the eleven locations of IPC/DIP or to serve clusters of provinces (14), or in all 75 provinces (excluding Bangkok), but the most expedient choice from the viewpoint of promotion of industrialization would be to start with the eleven locations where there are DIP offices. Key aspects of these Regional Development Agency could be as follows.

Regional Development Agency

Objective

- Promotion of autonomous development of regional industry, and attraction of investment to the region.

Activities

- Formulation and promotion of a master plan for promotion of regional industry
- Supply of information on financing investments (a one-stop service center for prospective or committed investors).
- Coordination of activities and facilitation of mutual cooperation by regional companies.
- Coordination with regional organizations concerned.
- Holding seminars and workshops.

Organization

- Leadership being best provided from the private sector, a key role should be given to the FTI, CC or particularly important regional companies.

- Assistance should be obtained as appropriate from regional offices of ministries, and KORLOROR.
- A new permanent office is needed (personnel, 10-20).

Finance

- Working funds are to come from membership fees paid by regional companies, earnings of the new corporation, and money from the SME Promotion Fund.
- Investment in specific projects is to be by private-sector interests.

Financing

To better diffuse SME financing at the regional level, it would be appropriate to introduce the agency system. That is, the number of branches of the SIFC and IFCT are too small, but the BAAC (667 branches) and GSB (558 branches) could be appointed as agents. BAAC is now studying an expansion of its role of financing agriculture to also include industry.

(3) An arrangement for promotion of awareness of policies and measures

Only about one company in three is aware of MOI policies and measures for promotion of industry, according to study findings of the World Bank. Thus few Thai companies are aware of the benefits received from such policies and measures. It is a greater challenge to ensure that SMEs that are the objective of a new set of policies be made aware of the policies and benefits therefrom. It is necessary therefore to set up a system for building awareness of industrial promotion policy within the SME sector.

Three key problems must be solved with respect to the SMEs:

- 1) SMEs have limited access to information.
- 2) The number of laws and regulations applicable to small and medium business activities are great and extremely diverse, so as to be confusing to SMEs, thereby discouraging them from action that could benefit them.
- 3) SMEs lack easy access to help for relatively ordinary problems and often are at a loss as to how to deal with them.

In order to broadly diffuse information about policy and government services for SMEs, and build deeper awareness of them, it is essential for there to be a place close to the SMEs themselves where owners and managers of the companies can get information that they need. It is necessary to establish such places and, moreover, to provide them with a window or counter where visitors can obtain assistance regarding the diversity of ordinary problems SMEs confront and have difficulty in resolving.

The important functions for promotion of awareness of policies and measures.

1) Policy dissemination

- (i) The SME Promotion Office would collect and categorize information about SME activities and methods of approaching policies from each ministry. The information would be revised annually. On the basis of the information a SME Policy Handbook and a Manual for Use of SME Policy Measures would be compiled.

The Handbook would be sold in order to achieve wide distribution, and both the Handbook and the Manual would be available at the windows set up at Chamber of Commerce or other offices, for use by SMEs and reference in providing assistance to them.

The windows could be opened at Chamber of Commerce offices, FTI branch offices, PIOs, IPCs, and provincial or ministerial offices.

- (ii) Public information pamphlets and other publications would be offered to SMEs at village, town or other regional government offices.
- (iii) A website devoted to SMEs and featuring information about policies and how implementation of them can benefit the companies would be created and in connection with this an industrial database would be made.

2) Augmentation of Chamber of Commerce functions for SMEs

Access by SMEs to all Chamber of Commerce offices would be improved and SME-related services offered there would be augmented. Expenses related to these changes would be covered by the SME Promotion Fund.

(i) One-stop service

- Handling inquiries related to laws, regulations, policies and institutions related to SMEs.
- Assistance in preparation of documents for and making contact with appropriate government offices.
- Assistance in contacting the competent government office for specific advice and information, or resolution of problems and complaints.
- Handling of complaints, petitions and requests from SME owners or managers.

(ii) Guidance and advice windows

Managerial advisors, and in some locations technological advisors and evaluators, would be stationed at the offices.

- Advice, guidance or assistance would be offered to SMEs when company representatives visit, write or call the office, regarding managerial, technological, production, transactions, finance, taxation, labor management, information and other matters.
- Evaluation (analysis) of relatively simple technological and managerial problems would be provided and recommendations made on the basis of the analysis. A workable solution at the outset would be to station fledgling evaluators at these offices. After this arrangement becomes established and the nature of demand for this service is known in some detail, a Certified Factory Evaluator could be stationed at the office and the quality of service could be upgraded.
- Provision of instruction on accounting and recordkeeping.
- When a major problem is identified, the chamber of commerce office would assist in making use of the on-site Factory (or Corporate)

Evaluation System, or the office would facilitate contact with the appropriate institutions.

- The information obtained through performance of the above services would be compiled, analyzed and recorded so that it is of use in determining the actual requirements made of the administrative system. Reports would be sent to the SME Promotion Office, that would submit them to the appropriate ministry or other department of government.

(iii) Lectures, study meetings and the like

3) Developing human resources for guidance and advisory activities

Training would be provided for employees of public or private sector bodies who are engaged in SME promotion activities, at ISMED. The training would cover (1) the laws, regulations, policies and institutions relevant to SMEs, and (2) basic matters essentially for providing window counseling as described above.

(4) An agency to facilitate implementation of the proposed projects

The Ministry of Industry is to be deeply involved in the implementation of all the projects and programs proposed in this report. In particular, the Department of Industrial Promotion is presumed to play the leading role. Table 5.2-1 shows the likely implementing and managing bodies and supporting bodies for each of the projects. Concerning the implementing and managing bodies, the Team has named several entities which it considers should implement the projects or play the leading role in the implementation of a particular project. Some of the projects, such as Establishment of ISMED (3.1), and Strengthening of Export Promotion Activities (4.2), have already been started. For those projects, the Team has mentioned the implementing bodies that are actually implementing the projects.

Table 5.2-1. IMPLEMENTATION AGENCY BY PROJECTS

Proposed Project	Implementing Agencies	Supporting Agencies
Strategy 1. Strengthening of SMEs Financing 1.1 Restructuring of the credit guarantee system 1.2 Strengthening of the SME banking system 1.3 Establishment of an equity participation system for SMEs	(SICCG) (SIFC) (Newly established)	MOF, MOI, FTI MOF, MOI, MOF, MOI, SIFC, SET
Strategy 2. Upgrading of Technology and Managerial Capability of SMEs 2.1 Establishment of a factory evaluation system 2.2 Introduction of a circular technical guidance system 2.3 Development of Total Quality Management System for Thailand 2.4 Provision of an assistant package for incubation of SMEs 2.5 Enhancement of technology transfer from LEs to SMEs	BSID, TPA BSID Thailand Productivity Institute BSID BSID	MOI, ISMED each Institute of MOI MOI SIFC, ISMED BISD, OIE
Strategy 3. Development of Human Resources for SMEs 3.1 Establishment of the Institute for SME Development 3.2 Institutional supports for securing manpower for SMEs 3.3 Establishment of a certified skill-standards in cooperation with the private sector	DIP, Thammasart Univ. DOE (Department of Employment) MOLSW	MOI, affiliated universities MOLSW, MOI MOI, FTI
Strategy 4. Securing of Markets for SMEs 4.1 Introduction of preferential purchase of SME products by the public sector 4.2 Strengthening of export promotion activities	BIPA DEP (Department of Export Promotion)	MOI MOC, MOI, FTI, TCC
Strategy 5. Improvement of Business Environment for SMEs 5.1 Development of information technologies and networks for SMEs 5.2 Improvement of standards and conformance infrastructure to promote export	BIPPP TISI	MOI MOI, MOC, MOSTE
Supporting Industries S.1 Setting-up of Thailand Automotive Institute S.2 Setting-up of Electrical and Electronics Institute S.3 SIC-Tool and Mold Technology Development Project	TAI EEI BSID, MIDI	MOI, FTI MOI, FTI MOI

Note: See "List of Abbreviation" as required.



5.3 Implementallon Schedule

5.3.1 Project Evaluation at the Workshop

Concerning all the proposed projects, the Team held a workshop during the third field survey and had the opportunity to hear opinions of the Thai persons concerned. The workshop was attended by people of MOI departments and bureaus, NESDB, SIFC, etc. At the end of the workshop, the Team asked the attendees to evaluate the "necessity," "urgency," and "feasibility" of each of the proposed projects and "effects" of each project when implemented. The evaluation results are shown in Table 5.3.1. The evaluations by 14 Thais are shown, together with the evaluations by 11 members of the Team.

In the table, the figures indicate the numbers of people who evaluated any of the above four qualities (a total of 14 persons on the Thai side and a total of 11 persons on the Japanese side). Each item was evaluated using a 3-point scale (generally, 3=highest; see below). Needless to say, the persons who did the evaluations differ in the degree of understanding of the contents of each project and to some extent in the implied meaning of the points of 3 to 1. Therefore, the Team used the evaluation results more as a reference in determining priority of each of the projects on the basis of the general trends reflected in the evaluation results.

The following points may be derived as general trends from the evaluation results.

- (1) Both the Thai and Japanese agreed on the high "necessity" of most of the projects. This is evident from the fact that more persons give 3 points and less persons give 1 point than for any other items. In particular, Credit Guarantee System (1.1), Export Promotion (4.2), and Establishment of ISMED (3.1) received high sources.
- (2) With respect to "feasibility," there is a wide variance in opinions of the Thai and Japanese workshop participants. In this evaluation item, point 3 means that the feasibility is high. The projects that were given point 3 are Factory Evaluation System (2.1), Establishment of ISMED (3.1), and Export Promotion (4.2). By contrast, the projects that were considered less feasible by relatively many persons are Equity Participation System (1.3) and

Technology Transfer (2.5). Characteristically, the Thai side regards Project 2.5 less feasible.

- (3) With respect to "urgency," the Thai side and the Japanese side give nearly the same evaluations. This also applies to results of evaluation of the individual projects. The projects that were highly rated are Credit Guarantee System (1.1), SME Bank (1.2), and Export Promotion (4.2). These projects are regarded as particularly effective.
- (4) As to "effects" of project implementation, the Thai and the Japanese differ most in evaluation. The Japanese gave low scores, indicating that they expect the effects to be not very large. The projects that were highly rated are Credit Guarantee System (1.1), Establishment of ISMED (3.1) (especially by the Thais), and Export Promotion (4.2).
- (5) In overall terms, of the individual projects, Export Promotion (4.2), Credit Guarantee System (1.1), and Establishment of ISMED (3.1) are highly evaluated. In particular, the fact that Strengthening of Export Promotion Activities (4.2) received the highest evaluation coincides with the results of field surveys.

Generally speaking, apart from budgetary measures, projects which are strongly related to existing measures (or projects that are in the IRP) and which require less coordination with other parts of the government or organizations have a higher possibility of early realization. That is, since the necessity of the individual projects is recognized, the results of evaluation of the degree of urgency should be used as an indicator of the priority of projects. In this context, the following three projects are judged the most urgent ones as a result of the workshop.

- Restructuring of the credit guarantee system (1.1)
- Establishment of the Institute for SME Development (3.1)
- Strengthening of export promotion activities (4.2)

Of these, implementation of the ISMED project has already begun.

5.3.2 Projects which Require Enactment/Revision of Legislation

Implementing of the projects requires legal and other adjustments. The projects can be classified by these preconditions requirements as follows.

- (1) Projects which require enactment or revision of legislation for implementation
- (2) Entirely new projects which do not require enactment or revision of legislation
- (3) Projects which are extensions of existing measures and which utilize or reinforce them

Table 5.3-2 shows the conditions and characteristics of all projects. Of the 17 projects, those which require enactment of new laws or revision of existing laws and systems are as follows.

- Restructuring of the credit guarantee system (1.1)
- Strengthening of SME banking system (1.2)
- Establishment of an equity financing facility for SMEs (1.3)
- Provision of an assistant package for incubation of SMEs (2.4)
- Establishment of the Institute for SME Development (3.1)
- Establishment of a certified skill-standards system (3.3)
- Introduction of preferential purchase of SME products by the public sector (4.1)

Some projects will probably call for new ministerial decrees or other action. It is uncertain how long it will take to prepare for the implementation of those projects. At any rate, the government agencies concerned should be requested to prepare for the enactment or revision of laws, decrees etc. at the earliest possible date. The reason for this urgency is that the greatest danger in the stage of implementation of a project of this sort is that the optimum timing of implementation is missed due to a delay in legal procedures. Similar projects have been carried out overseas. It is recommended that necessary legislation be prepared referring to those projects and giving due consideration to the domestic conditions of Thailand.

5.3.3 Priority of Projects

In the present survey, the Team supposed formulated a long-term (five-year) plan and a short-term or emergency measures plan. The term "emergency measures plan" as used here refers to a project which can be started up quickly and produces immediate effects.

In this context, it is necessary to expedite the ISMED project that was started last June and implement at the earliest possible date the export promotion measures that the Ministry of Commerce has hammered out since the beginning of 1999. The Factory Evaluation System (2.1) project too may be included in projects of this sort since it has already been started as an IRP project. It may be said that though the above projects call for great urgency, they should be continued for a long time. With respect to capital liquidity measures, several measures are to be taken but no specific program to improve the financial guarantee system is provided. Though such measures take considerable time to start up and require long-term responses, they are positioned as a project that should be started as early as possible.

All the other projects are recognized to be necessary and should be given most favorable consideration. Namely, all the 17 proposed projects should be incorporated in the master plan. In view of operational realities when some of the projects are in the same Strategy Cluster or implemented by the same body, they may be started at different times.

From the above viewpoint, provisional priority of the projects for implementation has been proposed as in Table 5.3-3. Criteria for assigning priority in Table 5.3-3 are based on the evaluation results at the workshop, judgment of the operational capability of the implementing agencies which have more than two projects, and project conditions as given in Table 5.3-2. Two projects which are ranked in third place are entirely new projects but involve many institutions so that it will take more time for coordination, and have the lowest rank in the workshop evaluation. Among the remaining projects, there are no substantial differences between first and second, so that the projects which have already been started or are higher ranked BSID projects are given first priority for the present.

Table 5.3-4 shows the timetable for implementation of the 17 projects based on the above.

Table 5.3-1. (a) EVALUATION OF PROPOSED PROJECTS

Project No.	(1) Necessity						(2) Urgency						(3) Feasibility						(4) Impact						Total Point of Level 3					
	3		2		1		3		2		1		3		2		1		3		2		1							
	Thai	JICA	Thai	JICA	Thai	JICA	Thai	JICA	Thai	JICA	Thai	JICA	Thai	JICA	Thai	JICA	Thai	JICA	Thai	JICA	Thai	JICA	Thai	JICA			Thai	JICA	Total	Total
1.1	12	9	2	2	0	0	10	9	4	2	0	0	0	6	2	5	9	3	0	3	0	10	6	3	5	1	0	38	26	64
1.2	9	8	5	3	0	0	9	9	5	2	0	0	4	4	7	6	3	1	6	3	7	8	1	0	0	28	24	52		
*1.3	7	4	5	2	1	5	6	3	4	3	3	5	3	1	5	6	5	4	5	1	6	7	2	3	0	21	9	30		
2.1	8	6	6	2	0	3	7	4	7	5	0	2	7	5	4	4	3	2	8	4	5	4	1	3	0	30	19	49		
2.2	9	6	4	4	1	1	6	4	8	6	0	1	7	3	7	7	0	1	7	3	7	6	0	2	29	16	45			
*2.3	7	4	7	6	0	0	5	2	8	6	1	2	4	0	8	8	2	2	8	2	5	7	1	1	1	24	8	32		
2.4	8	3	5	6	1	2	5	0	7	7	2	4	6	0	6	8	2	3	5	0	7	7	2	4	0	24	3	27		
2.5	10	7	3	3	1	1	7	5	6	5	1	1	2	4	7	6	5	1	8	4	5	6	1	1	27	20	47			
3.1	11	7	3	4	0	0	9	6	5	4	0	1	7	6	5	5	2	0	11	3	3	7	0	1	38	22	60			
3.2	7	4	7	7	0	0	4	2	10	8	0	1	6	1	7	8	1	2	6	1	7	7	1	3	0	23	8	31		
3.3	11	5	3	6	0	0	3	3	11	7	0	1	3	4	9	6	2	1	7	1	7	10	0	0	0	24	13	37		
4.1	6	5	7	5	1	1	4	4	6	5	4	2	4	5	7	4	3	2	7	5	6	5	1	0	0	21	19	40		
4.2	10	10	4	1	0	0	11	8	2	3	1	0	9	3	4	7	1	1	9	7	3	4	2	0	0	39	28	67		
5.1	9	4	5	6	0	1	5	2	6	7	3	2	5	0	6	11	3	0	7	0	7	8	0	3	0	26	6	32		
5.2	9	4	5	7	0	0	5	4	6	6	3	1	5	3	6	6	3	2	7	3	7	7	0	1	0	26	14	40		
*S1	9	8	5	2	0	0	7	7	7	3	0	0	4	4	8	4	2	2	7	3	4	5	3	2	0	27	22	49		
S2	8	8	6	2	0	0	6	7	8	3	0	0	4	5	8	3	2	2	7	4	4	4	4	3	2	0	25	24	49	
Total	150	102	82	68	5	14	109	79	110	82	18	23	86	50	109	108	42	26	125	50	93	107	19	26	0	470	281	751		

Number of answers = 25 (Thai side 14, JICA side 11)
 *: 1 person not answer.

Sources: JICA Study Team

Table 5.3-1.(b) TOTAL SCORE OF PROPOSED PROJECTS EVALUATION

No.	Name of Project	(1) Necessity		(2) Urgency		(3) Feasibility		(4) Impact		Total	(Average)②
		Total	(Average)①	Total	(Average)①	Total	(Average)①	Total	(Average)①		
4.2	Export promotion	70	(2.80)	68	(2.72)	60	(2.40)	64	(2.56)	262	(10.48)
1.1	Credit guarantee	71	(2.84)	69	(2.76)	55	(2.20)	65	(2.60)	260	(10.40)
3.1	ISMED	68	(2.72)	64	(2.56)	61	(2.44)	63	(2.52)	256	(10.24)
1.2	SME banking	67	(2.68)	68	(2.72)	54	(2.16)	58	(2.32)	247	(9.88)
*S1	TAI	65	(2.71)	62	(2.58)	52	(2.17)	53	(2.21)	232	(9.67)
2.2	Circular guidance	63	(2.52)	59	(2.36)	59	(2.36)	58	(2.32)	239	(9.56)
2.1	Factory evaluation	61	(2.44)	59	(2.36)	57	(2.28)	58	(2.32)	235	(9.40)
2.5	Technology (LEs to SMEs)	65	(2.60)	60	(2.40)	50	(2.00)	60	(2.40)	235	(9.40)
3.3	Skill-standards	66	(2.64)	55	(2.20)	54	(2.16)	58	(2.32)	233	(9.32)
S2	EEI	64	(2.56)	61	(2.44)	53	(2.12)	54	(2.16)	232	(9.28)
5.2	Standardization	63	(2.52)	55	(2.20)	53	(2.12)	59	(2.36)	230	(9.20)
4.1	Preferential purchase	59	(2.36)	52	(2.08)	54	(2.16)	59	(2.36)	224	(8.96)
*2.3	TQM system	59	(2.46)	52	(2.17)	48	(2.00)	56	(2.33)	215	(8.96)
3.2	Securing manpower	61	(2.44)	55	(2.20)	54	(2.16)	53	(2.12)	223	(8.92)
5.1	Info. Technology	62	(2.48)	52	(2.08)	52	(2.08)	54	(2.16)	220	(8.80)
2.4	SME incubation	58	(2.32)	49	(1.96)	51	(2.04)	49	(1.96)	207	(8.28)
*1.3	Equity participation	53	(2.21)	49	(2.04)	43	(1.79)	49	(2.04)	194	(8.08)
Total (Average) ①		1,075	(2.55)	989	(2.34)	910	(2.16)	970	(2.30)	3,944	(9.34)

(Note) Number of answers = 25 (Thai side:14, JICA side:11)

*One person did not answer.

Average ① Full mark = 3 points

Average ② Full mark = 12 points

(Source) JICA Study Team

**Table 5.3-2. REQUIREMENTS FOR IMPLEMENTATION OR
NATURE OF PROJECTS**

Proposed Project	Legalize	Existing	New
Strategy 1. Strengthening of SMEs Financing			
1.1 Restructuring of the credit guarantee system	○	○	
1.2 Strengthening of the SME banking system	○	○	
1.3 Establishment of an equity participation system for SMEs	○		○
Strategy 2. Upgrading of technology and managerial capability of SMEs			
2.1 Establishment of a factory evaluation system		○	
2.2 Introduction of a circular technical guidance system			○
2.3 Development of total quantity management system for Thailand	○		○
2.4 Provision of an assistant package for incubation of SMEs			○
2.5 Enhancement of technology transfer from LEs to SMEs			○
Strategy 3. Development of human resources for SMEs			
3.1 Establishment of Institute for SME Development (ISMED)	○	○	
3.2 Institutional supports for securing manpower for SMEs		○	
3.3 Establishment of a certified skill-standards in cooperation with the private sector	○		○
Strategy 4. Securing of markets for SMEs			
4.1 Introduction of preferential purchase of SME products by the public sector	○		○
4.2 Strengthening of export promotion activities		○	
Strategy 5. Improvement of business environment for SMEs			
5.1 Development of information technologies and networks for SMEs			○
5.2 Improvement of standards and conformance infrastructure to promote export			○
Supporting Industries			
S.1 Setting-up of Thailand Automotive Institute (TAI)	○	○	
S.2 Setting-up of Electrical and Electronics Institute (EEI)	○	○	

Note: "Legalize" means (1) Projects which require enactment/revision of legislation for implementation.

"Existing" means (3) Project which are extensions of existing measures and which utilize or reinforce them.

"New" means (2) entirely new project.

Table 5.3-3. PRIORITY FOR EXECUTION OF THE PROPOSED M/P

Proposed Project	1st	2nd	3rd
Strategy 1. Strengthening of SMEs Financing			
1.1 Restructuring of the credit guarantee system	■		
1.2 Strengthening of the SME banking system		■	
1.3 Establishment of an equity participation system for SMEs			■
Strategy 2. Upgrading of technology and managerial capability of SMEs			
2.1 Establishment of a factory evaluation system	■		
2.2 Introduction of a circular technical guidance system		■	
2.3 Development of total quantity management system for Thailand		■	
2.4 Provision of an assistant package for incubation of SMEs			■
2.5 Enhancement of technology transfer from LEs to SMEs		■	
Strategy 3. Development of human resources for SMEs			
3.1 Establishment of Institute for SME Development (ISMED)	■		
3.2 Institutional supports for securing manpower for SMEs		■	
3.3 Establishment of a certified skill-standards in cooperation with the private sector		■	
Strategy 4. Securing of markets for SMEs			
4.1 Introduction of preferential purchase of SME products by the public sector		■	
4.2 Strengthening of export promotion activities	■		
Strategy 5. Improvement of business environment for SMEs			
5.1 Development of information technologies and networks for SMEs		■	
5.2 Improvement of standards and conformance infrastructure to promote export		■	
Supporting industries			
S.1 Setting-up of Thailand Automotive Institute (TAI)	■		
S.2 Setting-up of Electrical and Electronics Institute (EEI)	■		

Table 5.3-4. TIME TABLE FOR IMPLEMENTATION OF 17 PROJECTS

Proposed Project	1st Year/1999	2nd Year/2000	3rd Year/2001	4th Year/2002	5th Year/2003
Strategy 1. Strengthening of SMEs Financing					
1.1 Restructuring of the credit guarantee system	Examination in MOF	Setting up New CGC & Institutional Build-up	Capital increase	Set up contingency fund	2nd Capital increase
1.2 Strengthening of the SME banking system	Preparation of MP	Revise the SIFC Act	Capital increase	Full operation	
1.3 Establishment of an equity participation system for SMEs	Policy making	Submission new legislation	Reorganization	Start operation	Expand the target industry
Strategy 2. Upgrading of technology and managerial capability of SMEs					
2.1 Establishment of a factory evaluation system		Institutional Build-up (trial period)	Preparation	1st Phase (limited target No.7)	2nd Phase
2.2 Introduction of a circular technical guidance	Project Preparation	Trial period & Training new staff	Reorganization	Full operation	
2.3 Development of a Thai system for TQM and production improvement	Policy making	Pre-F/S Preparation	Trial	Full operation	
2.4 Provision of an assistant package for incubation of SMEs	Policy making	Pre-F/S Preparation	Institutional Build-up	Operation	
2.5 Enhancement of technology transfer from LEs to SMEs	Program planning		Subcontracting system evaluation	Tax deduction & financial support	
Strategy 3. Development of human resources for SMEs					
3.1 Establishment of Institute for SME Development (ISMED)	Institutional Build-up		Full-operation		
3.2 Institutional supports for securing manpower for SMEs	Cooperate with DOE, DSD		Full-operation, network development		
3.3 Establishment of a certified skill-standards in cooperation with the private sector	Database development	Cooperate with prime sector	Legislation work	Increase type of job	Full operation
Strategy 4. Securing of markets for SMEs					
4.1 Introduction of preferential purchase of SME products by the public sector	Research and preparation	Legislation	1st year purchasing	2nd year purchasing	
4.2 Strengthening of export promotion activities	Operation	Review	Additional plans	Review	Operation
Strategy 5. Improvement of business environment for SMEs					
5.1 Development of information technologies and networks for SMEs	DIP's software development	Promote & training	Development network		
5.2 Improvement of standards and conformance infrastructure to promote export	Budgeting for the project		Institutional support		
Supporting industries					
S.1 Setting-up of Thailand Automotive Institute (TAI)	Preparation for testing & certificate	Preparation for other services	Full operation		
S.2 Setting-up of Electrical and Electronics Institute (EEI)	Preparation for testing facilities	Service start	Full operation		
S.3 SIC-Tool and Mold Technology Development Project	Building Construction	Equipment supply	Training	Full operation	

Note: 1st Year means Aug.-Dec. 1999, but other years suppose calendar year.