Japan International Cooperation Agency (JICA) Ministry of Industry, Republic of Indonesia

Follow-Up Study on Human Resource Development for SMEs Focused on Manufacturing Industries in Republic of Indonesia

> Final Report (Summary)

September 2005

**UNICO** International Corporation

#### ABBREVIATIONS

ADB	Asian Development Bank
APEC-IBIZ	Institute of Small Business Counselors
BAPPENAS	The National Agency of Development and Planning (BADAN PERENCANAAN PEMBANGUNAN NASIONAL)
BDS	Business Development Service
BLK	Job Training House (Balai Latihan Kerja)
BNSP	National Agency for Professional Certification (Badan Nasional Sertifikasi Profesi)
BPPT	Business Technology Center
BPS	Badan Pusat Statistik: Statistic Bureau
CEVEST	Center for Vocational and Employment Service Training
DG	Directorate General
DINAS	Industry and Trade Office of Provincial Government
EO	Extension Officer
НАССР	Hazard Analysis Critical Control Point
HRD Committee	Human Resources Development Committee
IDKM	Directorate General of Small and Medium Industry and Trade
IKM	Directorate General of Small and Medium Industry
INKINDO	Association for Private Consultant
IPT	Indicator for Performing Technology
JABOTABEK	Jakarta Metropolitan Area: Jakarta, Bogor, Tangerang, Bekasi
KADIN	Indonesian Chamber of Commerce and Industry (Kamar Dagang dan Industri Indonesia)
LPT/LDP	The most Solid Management Agency (Lembaga Pembinaan Terpadu)
LPTC	Labor Productivity Training Center
LSP	The Agency of the Profession of Certificate (Lembaga Sertifikat Profesi)
MIDC	Metal Industries Development Center
MOIT	Ministry of Industry and Trade
OEM	Original Equipment Manufacturing
Off-JT	Off Job Training
TLO	On the Job Training
POLMAN	Manufacturing Orient Polytechnic
PROPENAS	Five-Year National Development Program
PUSDIKLAT	The Centre of Education and the Training
QCD	Quality, Cost and Delivery
RENSTRA	Strategic Plan (Rencana Strategi)
SMEs	Small and Medium Enterprises
TA	Technical Assistance
TOT	Trainer's Training
UNIDO	United Nations Industrial Development Organization
UPT	Common Service Facility
YDBA	Dharma Bhakti ASTRA Foundation (YAYASAN DHARMA BHAKTI ASTRA)
YPMG	Matsushita GOBEL Education Foundation (YAYASAN PENDIDIKAN MATSUSHITA GOBEL)

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Chapter 1 Outline of the Study

#### Chapter 1 Outline of the Study

#### 1.1 Outline of the Project

#### (1) Background of the Project

The Study (Human Resource Development for SMEs Focused on Manufacturing Industries in Republic of Indonesia) was conducted on the basis of the Minutes of Meeting signed on May 29, 2003 by the Directorate General of Small and Medium Industry and Trade (DGSMIT) of the Ministry of Industry and Trade (MOIT), Indonesia and JICA. And this study, the follow-up study (the F/U Study hereinafter) for the Study, was entrusted again to UNICO in order to complement and set forth the results of the recommendations made under the Study.

The background of the Study, the report "Policy Recommendation for SME Promotion in the Republic of Indonesia 2000, JICA" emphasized the importance of human resource development as one of the key policies that will effect on the national economic development. Based on this recognition, the Study "Study on Human Resource Development for SMEs Focused on Manufacturing Industries in Republic of Indonesia" was undertaken.

The objective of the Study was to support the Ministry of Industry and Trade in its efforts to formulate a HRD plan for SMEs together with action plans that focused on the manufacturing industry in Indonesia with a view to improving managerial and technical capabilities of SMEs, by 1) supply of necessary information, 2) policy advices, and 3) assistance through implementing the Model SMEs HRD training programs.

Based on the proposed recommendations in the Study, the Indonesian Government recognized the urgent need for the development of human resources of small and medium sized enterprises, within the framework of promoting them, by focusing primarily on training relating to management and technological capabilities, and requested the Japanese Government to conduct the F/U Study in order to formulate a comprehensive plan for human resource development, with the Ministry of Industry and Trade being at the core element of the initiative.

The Study was carried out in this context. The Study started in the middle of the September 2003 and continued nearly for one year.

In Indonesia, the Government promote human resources of small and medium scale industries in higher priority. The Study team recommended the Government to take necessary action for improving environment of SMEs. The Study team prepared action plans to developing both management capability and technology up-grading of SMEs.

Recommendations submitted to MOIT to reinforce human resource developing programs are shown below and Fig. 1-1 and 1-2 indicate "Target to support human resource development of small and medium scale manufacturers" and "action plans" respectively.

#### (Recommendations relating to the improvement of program content)

- 1) Launching of a training program for basic management and production control technologies suitable for manufacturing SMEs.
- Reinforcement of a support system for upgrading of plastics molding, metal press and die/mold technologies.

#### (Recommendations relating to the program implementation organization)

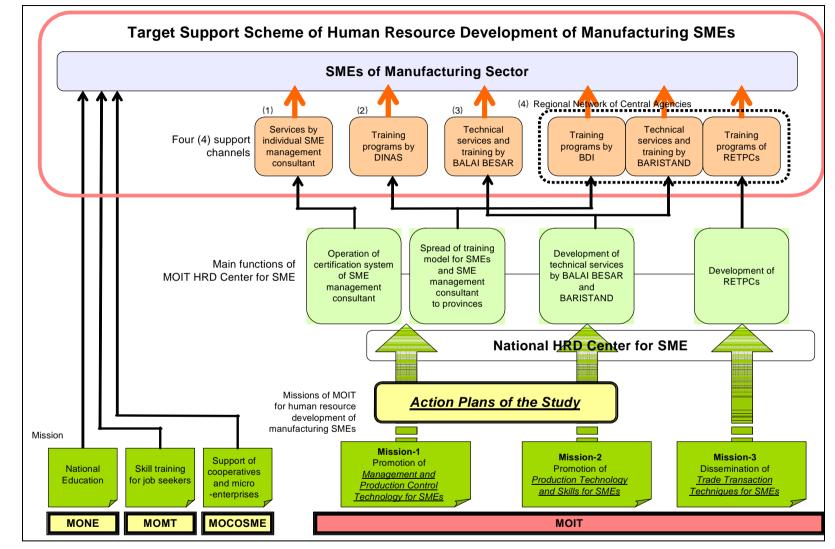
- Establishment of a department in charge of human resource development for SMEs within the IDKM
- 4) Establishment of a department specialized in training for manufacturing SMEs within the PUSDIKLAT-INDAG
- 5) Establishment of a human resource development committee led by the IDKM's new department and considering of representatives of the MIDC and the PUSDIKLAT-INDAG's department in charge of training for manufacturing SMEs.

#### (Rationale for Recommendations)

• Start of a training program for basic management and production control technologies which are applicable to manufacturing SMEs.

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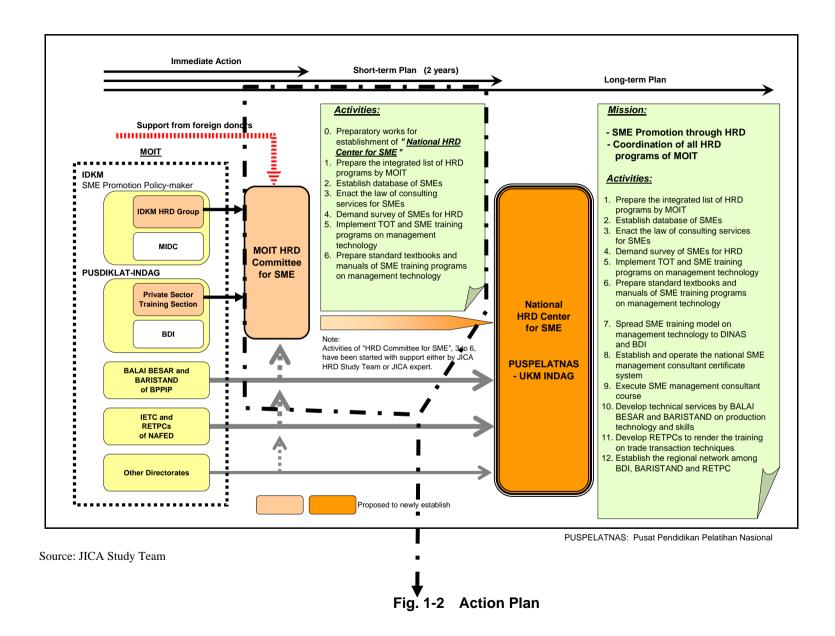
Just before the beginning of the F/U, "Ministry of Industry and Trade (MOIT)" was separated into both Ministry of Industry (MOI) and Ministry of Trade (MOT) because of the reorganization of ministries and department due to the changes of power. This report uses the old name and the new name properly.



Source: JICA Study Team

Fig. 1-1 Target Support Scheme of Human Resource Development of Manufacturing SMEs

(Action Plans of the Study)



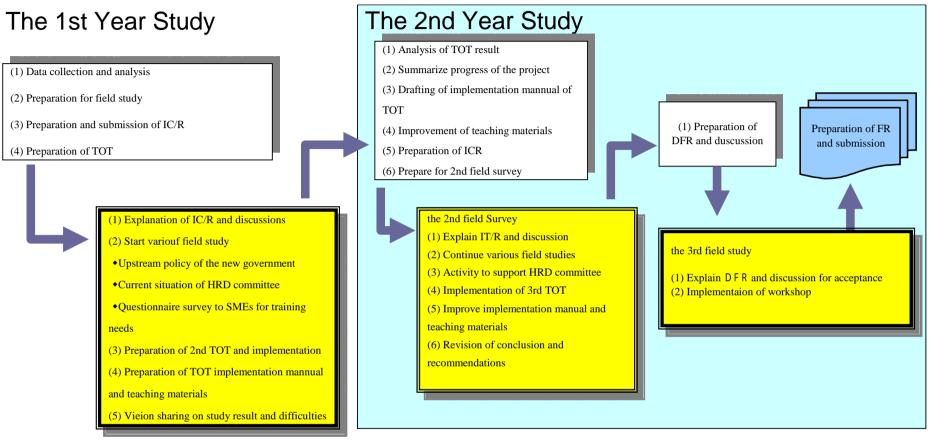
HRD Committee shown in both Fig. 1-1 and 1-2 is established to decide upon any practical measures for human resource development of SMEs.

#### 1.2 Outline of the Study

The F/U Study has been implemented on the basis of the result of the Study and to compensate it so as to put in the stating gear for achieving target goal.

The flow of the F/U Study is summarized next (See Fig. 1-3 Flow Chart of the F/U Study).

- (1) Explanation of the Interim Report
- (2) Continue various Studies(such as detailed analysis of demand survey for training needs, contents on SME promotion and HRD policy of the new government)
- (3) Strengthening of HRD committee's activity
- (4) Implement the second and the third TOT and preparation of standard teaching materials
- (5) Preparation of TOT implementation manual
- (6) Reexamination of recommendation and conclusion for the Project



Source: JICA Study Team

Fig. 1-3 Flowchart of the F/U Study

S1 - 7

#### 1.3 Objectives of the F/U Study

Two measure objectives as below are given to the F/U Study.

- (1) To assist HRD committee of their sustainable activities to promote human resources of small and medium scale manufacturing enterprises.
- (2) To implement TOT and transfer the operating know-how. And, submit teaching materials such as standard textbooks, case study samples and implementation manuals that are indispensable to open TOT and SME-training program continuously.

However, about "the supporting services to the HRD committee", concreteness is missing in how it supports. Therefore, support is how far possible or which item is arranged for every activity theme of the HRD committee.

- Preparatory works for establishment of "National HRD Center for SME"
- Prepare the integrated list of HRD programs by MOI
- Establish database of SMEs
- Enact the law of consulting services for SMEs
- Demand survey of SMEs for HRD
- Implement TOT and SME training program on management technology
- Prepare standards textbooks and manuals of SME training programs on management technology

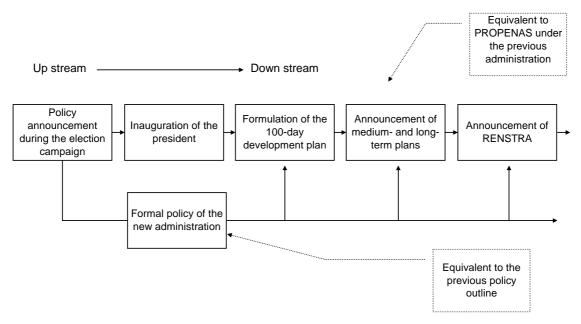
# Chapter 2 National Policy, SME Promotion and HRD in the New Government

#### Chapter 2 National Policy, SME Promotion and HRD in the New Government

#### 2.1 The national development plan and its positioning

President Susilo Banbang Yudhoyono, soon after being elected at the first general election held in the country in October 2004, announced the Medium-Term Development Plan 2004-2009 on the basis of policy objectives stated in the Presidential Message. In fact, the plan is positioned as the medium-term action plan for SME promotion and thus serves as the highest level plan in this regard.

The national development plan in Indonesia follows a development guideline announced during the presidential election campaign, called the Presidential Message, based on which national development projects, strategies and other plans are formulated. The following diagram illustrates a structural relationship among development projects, policies and strategies.





Small and medium enterprises promotion and human resource development measures included in the national policies stated above are summarized as below.

#### 2.1.1 100-days development plan formulated by the Ministry of Industry

#### (1) Action plans for human resource development and SME promotion

 The number of microenterprises and small enterprises has been growing steadily since 1998, at an average annual rate of 11.2% and totaling 3 million units. Yet, the sector's contribution to the national economy is still very small, accounting for 8.35% of GDP.

: In recognition that the sector's growth potential is limited due to difficulty in (1) market access and (2) access to financial source, the action plan calls for the following programs.

- No-collateral credit service
- Optimized utilization of funds from financial institutions and state enterprises
- Optimization of loan and guarantee organizations for small businesses
- Establishment of Trading House Indonesia to support export of products of small enterprises, in cooperation with the private sector and state trading companies
- Promotion of supporting industries and SMEs driving regional economy
- Strengthening of alliance with large enterprises and multinational corporations in the assembly, food, and other mass consumption product sectors
- 2) Reinvigorating of the SME sector's competitiveness
  - : Debt of SMEs from state banks
  - Study on SMEs facing debt problem, the amount of non-recovery debt, and lending banks
  - : Issues relating to market expansion and development
  - Study on SMEs that have the potential ability to market their products

#### 2.1.2 Medium-term and long-term national development plan

#### (1) Long-term national development plan (2005 – 2025)

Improvement of competitiveness: Development of the economic organization can be accomplished by reinforcing competitiveness of SMEs operating in various regions to allow them to form an integral part of the entire economic activity, thereby to reinforce the national economic base. Promotion should be carried out through the improvement of adaptability to market needs in the sound business environment, the upgrading of technical capability based on innovative efforts and technology licensing, and efforts to strengthen the business base and improve productivity. In particular, an integrated approach is taken for SME promotion, in the context of modernization of agri-business and industry, including the securing of food supply sources, the living environment and industrial competitiveness through the promotion of industrial clusters, the streamlining of technology transfer, and human resource development.

#### (2) Medium-term national development plan (2005 – 2009)

The medium-term economic goals are centered on the improvement of the economic environment, the increase in economic production, and the expansion of purchase power of population. The program assumes that the goals can be achieved by building an adequate infrastructure, revitalizing the local economy, focusing on the agriculture and manufacturing sectors, strengthening SMEs, and securing legal certainty for business.

Chapter 3 Direction to HRD of SMEs and Demand for Training Needs

# Chapter 3 Direction to HRD of SMEs and Demand for Training Needs

### 3.1 Questionnaire survey for HRD training needs of the SME subsector, conducted by the JICA study team

The questionnaire surveys were conducted twice to assess HRD demand by selected industry subsectors, which is critical to the development of an effective HRD program. The first survey primarily covered SMEs in supporting industries and was completed at the end of 2003. The second survey was conducted focusing on the SME manufacturing subsectors that are listed in the following section, whereas the first survey dealt with SMEs engaged in manufacture of parts and components for transportation equipment, electrical/electronics equipment, general machinery. Note that both surveys gave priority to local SMEs that did not win stable supply contracts from assembly manufacturers but had good development potential.

The results of the first questionnaire survey indicate that the SME sector has high expectation for introduction of a practical training program focusing on business management techniques by the government. More precisely, higher training needs were found among the following services.

- Training for business management techniques and production management
- An affordable fee
- An emphasis on high quality of education and applicability to actual practice

#### 3.2 Overview of industry subsectors selected for the stud

The primary purpose of the demand study is to understand the training needs of SMEs that belong to subsectors other than supporting industries<sup>1</sup>. Demand analysis will allow accurate assessment of training needs of the selected subsectors, while comparing any differences from the results of the Study.

In the similar survey conducted last year, the study Team found a significant gap between actual training demand and supply. Based on the survey results, the study Team designed a training curriculum for potential trainees and SMEs.

#### 3.2.1 Subsectors selected for the study and basic conditions

For the purpose of studying the training needs of SMEs, the following subsectors were selected.

- Food processing
- Wood and furniture
- Chemicals
- Handicraft products including fashion accessories
- Textile/Garment

The results of the questionnaire survey covering the target subsectors, as added in the F/U Study, are analyzed.

#### 3.2.2 Result or questionnaire survey to target sub-sectors

Analysis on the result of questionnaire survey conducted at the F/U is discussed below.

#### (1) Size of enterprise and subsectors (4.3)

Tables 3-1 and 3-2 indicate annual sales of the target subsectors. The handicraft and accessory industry reports very small sales. Productivity of its production process is considered to be lower than that of other subsectors. On the other hand, the median value for annual sales of the wood and furniture industry ranges between Rp 500 million – 1 billion. 16% fall in the range between Rp 2.1 - 5 billion.

The above data indicate that productivity of SME manufacturers in the wood and furniture subsector is higher than that of other subsectors.

Annual sales	Food (1)	Wood Furniture (2)	Chemical (3)	Handy craft Accessory	Garments (5)	Total
100 million >	3	1	0	7	1	2
101-500 million	25	17	12	26	44	70
501-1 billion	5	11	5	4	9	13
1.1-2 billion	2	7	2	2	5	9
2.1-5 billion	1	7	1	1	3	10
5.1 billion<	0	0	0	1	0	0
Total	36	43	20	41	62	202

Table 3-1 Correlation between Annual Sales and Sub-sector (by Number)

Source: Questionnaire survey by the study Team, 2005

Annual sales	Food (1)	Wood Furniture (2)	Chemical (3)	Handy craft Accessory(4)	Garments (5)	Total
100 million >	8.3%	2.3%	0.0%	17.1%	1.6%	1.0%
101-500 million	69.4%	39.5%	60.0%	63.4%	71.0%	34.7%
501-1 billion	13.9%	25.6%	25.0%	9.8%	14.5%	6.4%
1.1-2 billion	5.6%	16.3%	10.0%	4.9%	8.1%	4.5%
2.1-5 billion	2.8%	16.3%	5.0%	2.4%	4.8%	5.0%
5.1 billion<	0.0%	0.0%	0.0%	2.4%	0.0%	0.0%
Total	100%	100%	100%	100%	100%	100%

Table 3-2 Correlation between Annual Sales and Sub-sector (%)

Source: Questionnaire survey by the study Team, 2005

#### (2) Training needs

There are fairly strong training needs in all the subsectors. In particular, all respondents in the chemical and handicraft/accessory subsectors feel the need for employee training, and the latter shows the highest percentage of responding companies that consider training to be "strongly necessary."

Table3-3	Necessity to Training Employees (by number of answers)
Tubles 5	Treeessity to Training Employees (by number of answers)

Necessity to Train Employees	Food (1)	Wood Furniture (2)	Chemical (3)	Handy craft Accessory(4)	Garments (5)	Total
Strongly necessary	7	10	3	9	19	49
Necessary	12	13	4	3	9	41
Not necessary at present	4	2	0	0	9	14
Total	23	25	7	12	37	104

Source: Questionnaire survey by the Study Team, 2005

Necessity to Train Employees	Food (1)	Wood Furniture (2)	Chemical (3)	Handy craft Accessory	Garments (5)	Total
Strongly necessary	30%	40%	43%	75%	51%	47%
Necessary	52%	52%	57%	25%	24%	39%
Not necessary at present	17%	8%	0%	0%	24%	13%
Total	100%	100%	100%	100%	100%	100%

#### Table3-4 Necessity to Training Employees (by number of despondence)

Source: Questionnaire survey by the Study Team, 2005

Twenty-four (24) percent of Textile and garment subsector did not show any interest in training.

#### (3) Usefulness of SME advisor

51% each of both small- and medium-sized enterprises considered the SME advisor and his service to be very useful (Table 3-5). None in both groups cited "no."

	Small		Medium		
	No.of answer	Share	No.of answer	Share	
Very much	43	51%	45	51%	
Useful	25	30%	29	33%	
So so	4	5%	7	8%	
Not so much	12	14%	7	8%	
No	0	0%	0	0%	
Total	84	100%	88	100%	

Table 3-5 Usefulness of SME Advisor

There is strong demand for SME advisors. The important thing is to find ways to train advisors and consultants who can provide an adequate level of service demanded by SMEs. Respondents were asked to point out in what way the SME advisor was proven to be effective. 108 responded and top three answers are listed below.

Priority 1: Augmentation of knowledge	37%
Priority 2: Productivity improvement	17%
Priority 3: Improvement of production management techniques	8%
Priority 3: Upgrading of production technology	8%
Priority 3: Improvement of marketing capability	8%

At the same time, 25 companies cited non-effective elements, which include the following.

Priority 1: Poor ability of the advisor, falling far short of	
improving field operation	44%
Priority 2: An ineffective advice resulting in an adverse effective on	
production	20%
Priority 3: Lack of follow-up advice or activity	8%

Note that Priority 2 is also related to the advisor's poor ability. Clearly, it is an urgent task to train competent SME advisors.

## (4) Desirable level (position) of employee and topics/themes for the future training program

Analysis on desirable level of employee and topics and or themes for the future training program has been made (Table 3-5).

	Management	Production Control	Marketing/ Sales	HRD	Finance
Directors	253	79	152	82	44
Managers	213	131	173	93	35
Engineers	55	283	45	53	29
Indirect Employees	54	26	137	69	168
Technicians	0	177	3	7	0

### Table 3-5(1)Desirable Level of Employee and Topics/Themes for the FutureTraining Program (F/UStudy)

Production management for engineers is the most demanded theme among SMEs, followed by director-class management training.

Compared to the results of the (2004) Study, the overall trend is similar. While management training for directors and marketing/sales were predominant items in the (2004) Study (for supporting industries), production management training for engineers was most demanded in the F/U Study as it covered "other manufacturing subsectors."

Table 3-5(2) Desirable Level of Employee and Topics/Themes for the Future Training Program ((2004) Study)

	Management	Production Control	Marketing/ Sales	HRD	Finance
Directors	330	144	317	110	110
Managers	129	148	180	89	89
Engineers	41	233	55	54	54
Indirect Employees	4	24	32	61	61
Technicians	0	38	0	0	0

Main themes demanded by SMEs generally agree with those offered in TOT and SME training programs conducted under this project.

## 3.2.3 Conclusion and key points in development of TOT and SME training programs

In overall consideration of the results of the above questionnaire surveys, key points in development of the future TOT and SME training programs and curriculums are summarized below.

- The SME training program should be developed to take into account the needs and wants of microenterprises.
- As a small percentage of microenterprises participate in a trade association, it is likely that they do not have access to the training program and related information.
- SMEs are increasingly recognizing the importance of employee training.
- ▶ Small enterprises have strong demand for employee training.
- SMEs in manufacturing subsectors other than supporting industries have stronger needs.
- Small enterprises as well as medium-sized enterprises are ready to pay for the training program that is necessary for their development.
- It is imperative to carry out effective marketing to find and promote training programs that are widely demanded by potential users, while developing a good training curriculum that provides a desired level and content of training.
- Most companies do not participate in the training program because of the low cost, and they are willing to make investment so far as it is important for their future growth.
- There is strong demand for SME advisors. The important thing is to find ways to train advisors and consultants who can provide an adequate level of service demanded by

### Chapter 4 The Current Condition of the HRD Committee

#### Chapter 4 The Current Condition of the HRD Committee

#### 4.1 Streamlining Peripheral Conditions to Establish Shindanshi System

#### 4.1.1 Similar Establishment

As discussed at the previous chapter, working group under HRD committee is headed for setting-up of SME management consulting system in Indonesia.

In the Study, "study on HRD for SMEs focused on Manufacturing Industries (the Study)", the study team reported ongoing and similar certification system in the country.

Executing body			Target		
1	INKINDO (association of private consultant)		Consultant for Building Construction Consultant for Civil Engineering		
2	KADIN (Indonesian Chamber of Commerce), MOMT,MOIT, MONE		Unify Professional Certification including skill authorization		
3	BI (Bank Indonesia) and Ministry of Cooperative and SME	• ]	Financial advising consultant for hiring credit		
4	Ministry of Cooperative and SME	•	BDS		
5	Swiss Contact (Consulting agency of Switzerland)	•	BDS		
6	AIMC (the Association of management consultants)	;	Issue certification to consultant to assure their carrier and qualification Intermediate certified consultant and clients		
7	APEC-IBIZ (APEC-Sahid University Joint Project)	• ]	Marketing, Financing, Corporate Management		

Table 4-1 Summary of on-going certification system in the country

Source: JICA Study Team

APEC-IBIZ counselor is gradually increasing its presence as a professional consultant to promote SMEs because of high capability and apparent qualification of the license.

#### (1) APEC-IBIZ (SME Management Counselor)

Among on-going certification system, APEC-IBIZ (Institutes of Small Business Counselors) has the most similar qualification to SME Consultant (Shindanshi). Especially, it can be said that the Counselor is Shindanshi specializing in commercial aspects.

This certification system in Indonesia started in August 2001. It was started by the subsequent approval of the APEC ministers. Ultimately, the system targets to sustain the growth and competitiveness of small and medium enterprises in the region.

Since in 2001, about 100 certificates were issued within the country. APEC-IBIZ is expecting to nurture about 500 qualified counselors in 3 years to correspond with the business needs in Jakarta area.

Big difference between the SME management consultants (Shindanshi) and APEC-IBIZ counselor is a requirement for production management technology. SME management consultants are requested to be endowed with production management technology but APEC-IBIZ counselors. However, it will become top priority topic for setting up SME management consulting system to identify definite needs for SME management consultant, for qualifying consultants and for demarcation with the APEC-IBIZ counselor.

Moreover, extension officers, the current target trainees for TOT program, are not highly rated because most of them have not obtained official qualification in their ability to provide SME support, and because they are getting old as new recruitment has not be done for a long period of time due to the government's zero growth policy. And motivation of extension officer in general is not so high to boost their ability to be a qualified SME management consultant.

#### (2) Other SME promotion programs

There are extension consultation services for the SMEs promoted by IKM of MOI. One of the services is i) LPT (Lembaga Pembinaan Terpadadu: public extension service allocated in 15 states to promote minor businesses), and ii) program for direct instruction and consultation services at production site

i. LPT is a semi-governmental organization allocated in 15 local states to promote SMEs by utilizing institutional finance (called as revolving fund) subscribed by the central government. It was funded in 2000. Although EO is counseling SMEs loan payment, since responsibility does not follow on EO, the high desperate debt rate is regarded as questionable. Program for direct instruction and consultation services at production site is operated by hiring private consultant by MOI's fund to promote production capability and products quality. This program started in 2000 as a pilot project of MOI.

Only a little effect was acquired at the beginning since university dispatched students to production site though MOI expects direct instruction from university teachers. MOI has to change the methodology therefore. After all, the company promotion has become effective by dispatching a specialist with experience of real production, changing so that one specialist may take charge of annual 4 companies, and imposing presentation of a weekly report and a monthly report. Each section of IKM employs private specialists. Food processing section, for example, employed 12 specialists in 2004 and expands the number by 18 in 2005.

Result of discussions with IKM staff:

- Staff at UPT needs more practical training to meet technical requirement from private sectors
- Since there is little demand from SME, it becomes, even if it develops the license system of the consultant who specialized in SME, and there is concern whether there are applicants.
- It may be better at the beginning stage for the system to start form public service handled by officials

Chapter 5 TOT (Training for Trainers)

#### Chapter 5 TOT (Training for Trainers)

#### [Preface]

As for the training of trainers (henceforth, TOT), the 1st time was held in February, 2004 at the time of the Study as short-term model training of small-and-medium-sized-enterprises instructors. After that, TOT-II in February 2005 and TOT-III in June 2005 was carried out, adding improvement to a curriculum by corresponding to the actual condition of Indonesian SME promotion activities. The main objective to implement TOT is to provide 1) a basic knowledge, skills, and counseling methods relating to production control and, 2) a guideline of indispensable subjects required to day-to-day work for promoting SMEs. In addition, important topics derived from the result of demand survey on training needs to SMEs were also prioritized when developing curriculum of TOT.

Following the TOT-I held in February 2004, TOT-II was opened to compensate the topics that were not lectured-on at the TOT-I though the topic is indispensable for the instructors who are expecting to be a SME consultant in the future or officers who work for SMEs. There are basic topics that should be included in the TOT for SME instructors. Basically, topics for SME management consultant in Japan were served as a reference since SME management consultant system established in Japan has a long history and developed as time goes by now and to realize successive system to promote SMEs.

#### [Objective of the TOT-II]

IKM (Department of Small and Medium Industry) and the HRD committee is on the process to prepare a draft plan to setting-up Small and Medium Management Consultant Certification System, Shindanshi System, in Indonesia.

As discussed in the Preface of this chapter, TOT has planned to introduce subjects necessary to be obtained by consultants who are expecting to promote SMEs for development. There are thousands of extension officers who are engaging in promotion activities for SMEs. In addition, there are three thousands of extension officers who are engaging in SME promotion as well. But qualification for SME management consultant has not been established. Nevertheless, requirement for the qualified SME consultant is increasing year by year. Especially, more the scale of company becomes smaller, the more the demands for qualified-SME-consultant become bigger. As a result, it is significant for SMEs and IKM that officers could acquire important

essence to promote themselves as a qualified SME consultant through the TOT. And as a secondary output form the TOT, both study team and IKM can find promising officers/specialists who have an aptitude to be a qualified SME management consultant in the future.

#### [Curriculum Development]

The last demand survey for supporting SMEs indicate strong needs for marketing and sales promotion program, accordingly the study team include sales and marketing programs in the new curriculum. Now, major concept for the curriculum development of TOT derived from the following three sources.

- a. Indispensable knowledge and skills for SME development which were mainly cultivated in Japan
- b. High demand training topics found at the result of the last survey.
- c. Topics relating environmental consciousness

#### [Output through TOT]

After the completion of the TOT-I and II, the study team would prepare the following by-products other than the success of the TOT.

- a. Teaching materials and textbooks
- b. Implementation manual for TOT and SME training
- c. Intangible assets to implement TOT (technology transfer to manage training programs)

#### 5.1 Syllabus for Management and Production Control Technologies

Standard subject for management and production control technologies are presented in Table 5-1 of the main report. During curriculum development for TOT-II, the study team referred both standard syllabus and actual needs from industry obtained from questionnaire survey. In the TOT-1, marketing & Sales as well as personnel issues were not covered due to the shortage of time and focused into the basic production control programs. In addition, questionnaire from the attendants taught us that they need more time for question and answer and, they wanted to spend more time for reviewing and preparing for next day's training. The curriculum for TOT-II corresponds with those results and developed a revised curriculum.

#### 5.2 Objective to implement TOT

#### (1) Essential Subject to Acquire as SME Consultant

Qualification for officers/experts are not settled nor training programs with definite objectives for SME consultant has been provided, though they counsel small and medium scale industries. And, some of the officers/experts mainly target micro scale industries without any criteria to separate micro scale industries from SMEs. Some officers/experts give advice in the field of management technology without expertise.

Generally, there are several major subjects for SME management consultant to be acquired. These are the basic requirement for the SME management consultant. International certification such as APEC-SME-counselors requires similar qualification to be certified. Chapter 6 Conclusion and Recommendations

#### **Chapter 6** Conclusion and Recommendations

6.1 Background of HRD Committee's support and basic assumptions for recommendations

# 6.1.1 Training of SME development consultants (upgrading of the TOT implementation method and the relationship with the Shindanshi certification system)

#### (1) Background

Support activities of HRD Committee are expected to form a core element of activities conducted under this follow-up study. However, the board was not formally established as of January 2005, when the follow-up study was started. In fact, the board has to become operational and carry out activities on its own as of June, and therefore, the study team has been discussing and working with Directorate General of Small and Medium Scale Industry, which sends the largest number of staffs to the board and its secretariat, and the Working Group that continues its activities on a provisional basis.

#### (2) Rationale for SME promotion

In Indonesia, small enterprises often refer to a group of small businesses including microenterprises. In fact, IKM under the MOI formulates and implements promotion plans for small businesses that also embrace microenterprises. BPS's statistics mainly classify SMEs to two categories, i.e., medium-sized enterprises and small enterprises including microenterprises.

Generally speaking, however, promotion of microenterprises should be approached from social policy perspectives, such as eradication of poverty, social security, and job creation, which are often significantly different from economic policy objectives pursued in promotion of SMEs. More precisely, as microenterprises do not have a support organization to focus on efficient business activities, they cannot be effectively supported by SME diagnosis and guidance services, as contemplated in this study, "which primary purpose is to allow production and business activities to operate in an efficient and effective manner and in terms of division of labor." A guideline issued by Director General of IKM to reinforce SMEs for vitalization of the Indonesian economy is consistent with the targets set in the SME HR development planning study that has been carried out since September 2003. While it is rather a far-reaching goal to achieve strong GDP growth by encouraging development of the small enterprise sector including microenterprises, its accelerated promotion can have significant socioeconomic impacts – in consideration of its position as the large employer – and should therefore form an integral part of the guideline. In particular, addition of support activities to promote development of microenterprises to small enterprises can lead to increased benefits of SME promotion policies and programs.

[SME support by industry, as seen in the results of the questionnaire survey]

The study team conducted the series of HRD demand studies, primarily targeting SME manufacturers, in 2004 and 2005. Different questionnaire surveys were conducted for supporting industries and other manufacturing industries, as the two sectors differ significantly in terms of industrial structure.

Consulting service for SMEs varies greatly. It is highly demanded by supporting industries, among other subsectors, because they struggle to make continuous improvement in areas of quality, cost and delivery schedule (QCD) in order to win and maintain long-term commercial relationships with assembly manufacturers. While promotion of supporting industries involves a high degree of necessity, it also serves as a major pillar of Indonesia's national development plan by driving industrial exports in the country where industrialization is positioned as an impetus for economic growth.

Major players of supporting industries are SMEs, not microenterprises. On the other hand, other industries have a higher percentage of microenterprises and vary greatly from one subsector to another in terms of adequate technology and market strategy.

Nature and content of consulting service varies with size of enterprise due to different characteristics between large and small companies. More precisely, subsectors consisting of microenterprises and small enterprises and those composed of larger enterprises are inherently different. While the former tends to be promoted under social development policy, such as regional development, creation employment opportunities, social security, and eradication of poverty, the latter is viewed as an important sector to lead the national industrialization

process and its promotion forms an integral part of national efforts to reinforce the leading economic sector. Thus, these different industry groups should be promoted by different approaches and methods, each of which must be carefully considered to address varying needs.

## (3) Present state of consulting service in Indonesia

## 1) Historical background on SME consulting service

Consulting service in Indonesia seems to be originated in construction and civil engineering. Then the scope of service has been expanding, including SME loan advisors and BDS consultants who are recently very active. As for consulting service relating to business promotion, management consultants primarily serve large corporations in the areas of auditing, market forecast, HR management, and financial management.

On the other hand, there are few engineering and technology-related consultants, such as production technology, production management, and quality control, in the private sector. Thus, consulting service in these fields is rendered by universities, public support organizations such as MIDC (Metal Industry Development Center) and Balai Besar (technical guidance center under the MOI), instructors at polytechnic schools and educational foundations such as LPSM and YDBA. As for consulting service specialized in SME management, APEC-IBIZ's counseling system started three years ago but mainly offers consultation and guidance services relating to SME management, with focus on advice to prevent SME loans from turning into non-performing. Consultants working for the counseling system do not have technical expertise such as production management.

In the next section, the current state of consulting service for microenterprises is described and analyzed.

### 2) Historical background on promotion of microenterprises in Indonesia

In Indonesia, microenterprises account for approximately 90% of the manufacturing sector in terms of the number of establishments. Although they make a small contribution to value added, less than one tenth that by large corporations, they have significant socioeconomic impacts in terms of employment. The historical background on consulting service for microenterprises is as follows.

As discussed earlier, promotion of microenterprises in the country has been traditionally carried out from social policy perspectives. For instance, the central government established, in 2000, an organization called LPT in 15 states throughout the country. LPT started directed loans for small enterprises and microenterprises by using the government's special fund called the Revolving Fund. While extension officers were required to provide guidance and supervision to ensure loan repayment, many loans were turned into non-performing due to the lack of regulation to define responsibility of the loan supervisor. Many microenterprises were able to benefit from loans for a short period of time, but they lost everything due to bankruptcy.

Another well-known instrument established to promote microenterprises is BDS, which is mandated to provide service for microenterprises and small enterprises, organizations, and individuals. However, BDS does not take an approach to promote individual companies. Rather, its activity is characterized as regional development, which may trickle down to promotion of individual companies. Thus, BDS does not render management consulting service.

#### 3) Problems relating to the traditional method for minor-businesses promotion

Analysis of traditional programs to promote minor-businesses, which have been carried out by UPT, Balai Besar, and extension officers as part of SME promotion measures, raises a serious question about their effectiveness, e.g., most programs do not seem to produce measurable results, such as a significant rise in internal rate of return when program benefits are evaluated in a quantitative term.

The study team, therefore, proposes an alternative to the traditional social policy-oriented one. The new approach is to promote minor-businesses by applying consultation techniques to the smallest business unit, with an aim to produce measurable results in terms of business growth. Consulting service for microenterprises has ostensibly been provided as part of multi-faceted support programs. However, it has failed to produce results due to the lack of consulting ability of service providers, and/or, due to the failure to develop an effective method targeting microenterprises and their promotion

The lack of the consulting ability is seen among extension officers, who are said to be extensively engaged in minor-businesses promotion programs. Many point out that they simply lack the ability to prepare or help prepare a realistic repayment plan for microenterprises that borrow from the Revolving Fund, or consulting skills to control waste in production or business management. During the past decade, at least, no program was executed to define the role of the extension officer and to upgrade skills by requiring qualification for related services.

In consideration of the above situation, the upgrading of extension officers' skills seems to hold the key to improved effectiveness of minor-businesses promotion programs. It should be noted, however, that the final goal is to promote **minor-businesses**, not to benefit extension officers. The upgrading of their skills is an approach to obtain desirable results.

## 4) Current state of SME consultation service in rural regions

At present, the central government is responsible for improving and maintaining quality of extension service, including the training of extension officers. As the decentralization of administrative power and authority progresses as planned, however, it will be delegated to local government. Unfortunately, however, local government in the country lacks expertise relating to skills upgrading of extension officers nor experience or idea to nurture local consultants capable of providing guidance for individual companies. Moreover, some local government officials falsely believe that they are qualified to be engaged in SME promotion programs because of their university degree, or that BDS or cluster consultants can also provide adequate service for individual enterprises.

Needless to say, BDS and cluster promotion projects are designed for regional development, so that consultants responsible for these projects are inherently different from SME consultants. It is therefore important to realize that there are few consultants, if any, in rural regions, who can provide service required by SMEs. Also there is no program to train such consultants. Under these circumstances, a realistic and workable solution is to establish a new basic TOT program to teach and train extension officers the SME promotion method in a systematic way, thereby to upgrade their consultation skills. This way, they are expected to provide more effective guidance for minor-businesses, which will then be able to grow and become small enterprises. The new TOT program should aim to produce consultants who can identify and advise minor-businesses that are eager to grow, build a necessary organization, and/or are highly motivated to upgrade levels of technology. It is a focused approach, not serving minor-businesses uniformly.

Thus, the basic TOT program is an instrument to increase the number of SMEs that can contribute to national economic development. Promotion of minor-businesses as a general is out of the scope of its service.

Finally, the major duty of SME consultants is to help small enterprises with an unstable management base to evolve to those with sound management and medium-sized enterprises with strong vitality. Also, the advanced TOT program in rural regions is expected to contribute significantly to industrial promotion.

## (4) Consulting needs of SMEs and microenterprises

As pointed out earlier, SMEs and minor-businesses in Indonesia require consulting service. The survey results indicate that SMEs are willing to pay for the training program that can lead to effective improvement of productivity and other aspects of production, albeit they are not free from financial constraint. In contrast, minor-businesses, which were not covered by the questionnaire surveys, cannot afford to use consulting service because most of them appear to be in difficult financial conditions.

As for quality of outside consultants, the results of the questionnaire surveys indicate that many SMEs, which have previously retained an outside consultant, complain about "lack of ability to propose a realistic, workable solution" and "low level of expertise and experience." Thus, there is a strong need to improve quality of outside consultants and their service.

In Indonesia, there are local SMEs that strive to meet strict requirements in terms of QCD from assembly manufacturers. They maintain high levels of production technology and workers are willingness to learn new skills. Consultants with poor skills cannot propose an effective solution to these SMEs. In particular, there is a serious shortage of experts specialized in production management, because Indonesia does not have a training program to teach systematic consulting skills and techniques. As a result, only engineers who have long experience at a world-class factory or who work at an engineering or other research organization are qualified to provide high quality service demanded by SMEs. The word "experts" is used here to distinguish them from consultants. They differ greatly in terms of required ability and scope of service. SME consultants must have sufficient expertise and experience to make up for the lack of management resources (not limited to production

management) often faced by SMEs. On the other hand, experts are capable of providing professional service in a certain area of specialization.

#### (5) Scope of activity for consultants

As promotion of SMEs and human resource development are defined as important policy agenda in the highest-level national development plan, SME consultants are expected to play an increasingly important role in driving the national development process. Their responsibility should extend to smaller enterprises including microenterprises.

As discussed earlier, minor-businesses cannot afford to hire private consultants due to financial constraint. On the other hand, SMEs have relatively strong needs for qualified consultants, but many of them do not have a sufficient financial capability to hire them. Thus, the government should provide financial assistance for these companies to pay the consulting service fee, in whole or part. Needless to say, consulting service is expected to become an independent, viable business in the future, if the number of qualified consultants is to increase substantially. To nurture the consultant community, their customers, SMEs, need to develop financial capability to support the industry. In turn, provision of the environment to foster qualified consultants is essential in promoting healthy growth of SMEs.

Companies usually start as minor-businesses, which grows to a small enterprise, and then to a mid-sized enterprise. As they evolve and grow in size, some of them become competitive in the international marketplace by improving their ability to meet the OEM standards. As discussed in (4) above, there is a shortage of consultants who have profound knowledge and experience in specific fields. It is also impossible to train such consultants over a short period of time. A realistic solution is therefore to establish clear qualification standards for consultants and provide systematic training for candidates to acquire necessary skills to meet such standards.

## 6.2 Conclusion and Recommendations

As a result of scrutinizing the contents of the action plan for HRD committee proposed by the Study (in 2004), it is understood to modify a part of methodology so that much more efficiency may go up to the HRD for SMEs.

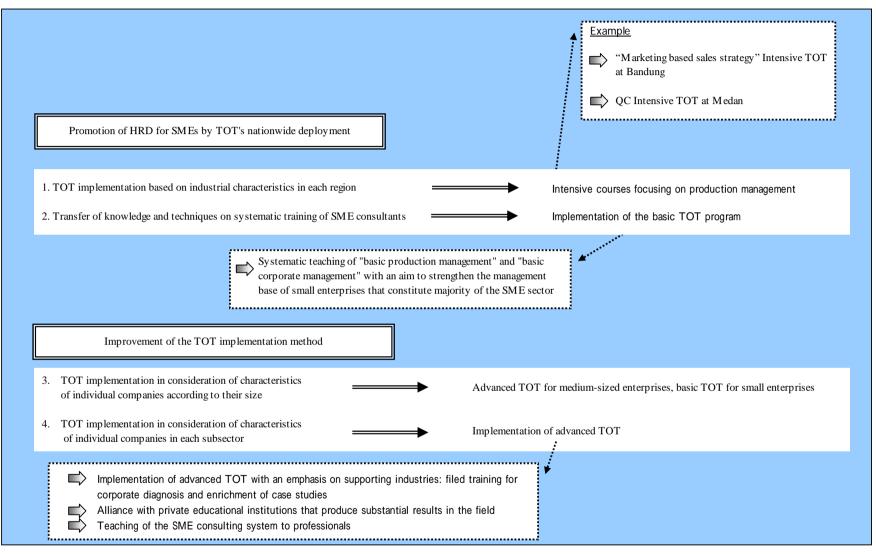
A recommendation divides roughly and consists of two following themes.

- 1. Recommendation targeting to realize more effective/rapid-acting output
- Recommendation to develop "SME network" to improve environment for HRD of SMEs

# 6.2.1 Revision of TOT Curriculum

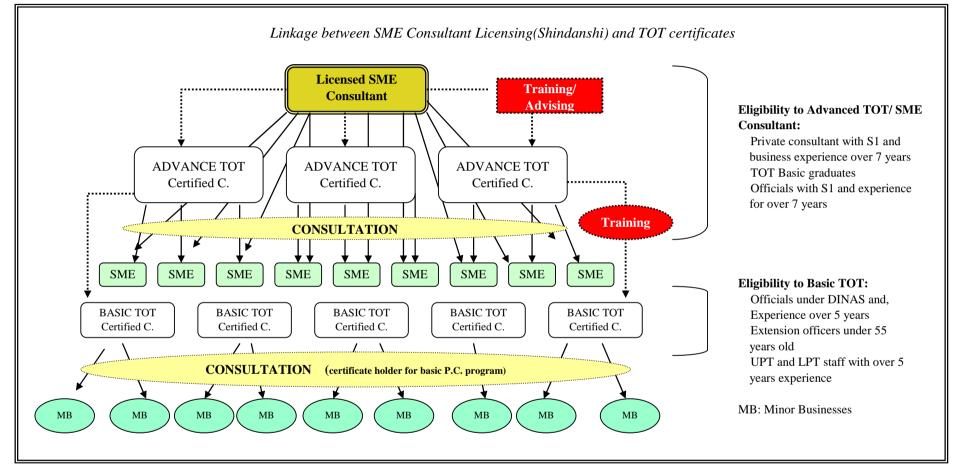
Fig. 6-1 summarizes recommendations relating to human resource development for SMEs by focusing on the improvement of the TOT implementation method, together with the training of SME consultants (led by "SME shindan-shi"). Primarily, licensed SME consultant who has finished Shindanshi nurturing program will assume a roll of supervisor of SME consultation and diagnosis (shindan). And the licensed SME consultant instructs SME advisors who have finished TOT basic and advance course. TOT graduates (SME advisors) engage in the counseling and training services of SME or Minor business according to the respective abilities. These are the concept of Fig. 6-2.

In addition, Fig. 6-3 shows an alternative proposal that is defined as an emergency measure program that places expectations on the ability of local government to execute the program and its immediate benefits. Fig. 6-3 introduces an effective structure to promote concentrated industry at rural area by SME advisors who have finished TOT program that has special production control courses focusing in the regional industry. In this concept, both SME advisor and SME consultant work together to promote regional SMEs. Meanwhile, the SME support system shown in Fig. 6-2 is highly desirable to help SMEs in the country to overcome their structural weaknesses, and an implementation body to operate and management the system should be organized from medium- and long-term perspectives.

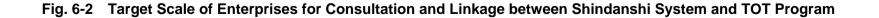


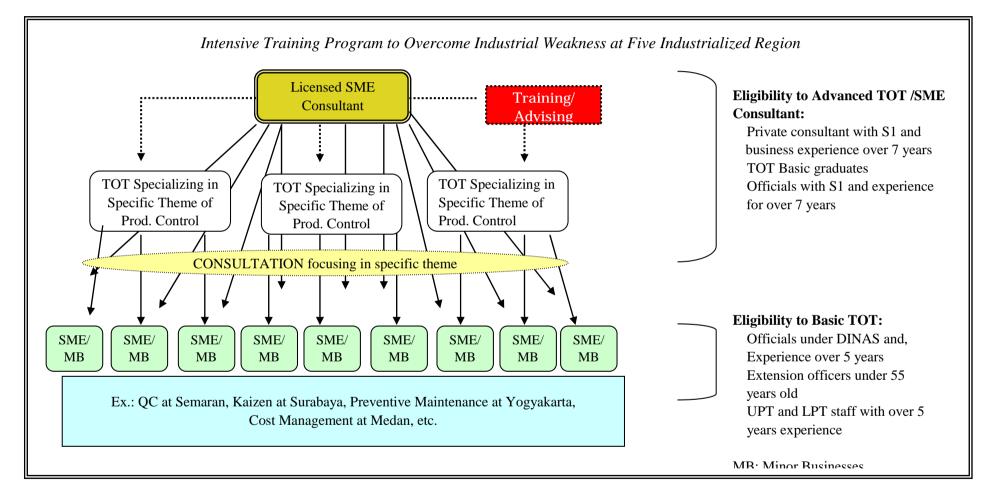
Source: JICA Study Team

Fig. 6-1 Structure of a new TOT Implementation Method



Source: JICA Study Team





Source: JICA Study Team

# Fig. 6-3 Intensive Training Program at Off-JABOTABEK Industrialized Region

# 6.2.2 Delineation of TOT courses and their purposes

#### (1) **Basic TOT course**

1) Purpose

The purpose of the basic TOT course is to learn basic knowledge on management consultation and key points in corporate diagnosis.

Production management techniques will also be covered. By combination of lecture and practical training (workshop/seminar), the course will emphasize basic and workable techniques, rather than advanced ones, which can be quickly and effectively adopted by microenterprises, such as the 3S rules, and inspection and acceptance methods and schedules.

2) Eligibility for participants

The basic TOT course can be participated by technical staffs with work experience of five or more years and academic ability of D3 or higher, including EOs of DINAS, technical staffs of UPT and Balai Besar. The course will not accept administrative staff under any circumstances. There is a tendency to use the TOT as a means of a government official's career improvement training program. This is the first principle to reject participants who do not engage in the direct consultation activity to SMEs.

- 3) Duties and privileges for persons who have completed the basic TOT course
  - A certificate of completion of the Basic Production Control Program
  - Graduates of the basic TOT course can visit and provide guidance for selected companies (determined according to the ability and the service area) under DINAS's microenterprise promotion plan.
  - They also can hold a short course for basic production management for local microenterprises.
- 4) Promotion of use of the consulting service system as public service

The proper training of qualified consultants is not an end in itself. Effective use of their ability and service is an important step for promotion of microenterprises. To promote a wide use of consulting service rendered by professional consultants, the following promotional activities will be carried out.

- Information/intermediary service to promote use of the consulting service system through the SME Network (described later; tentatively named)
- Direct promotion to trade associations and their member companies
- Publicity through media
- Use of DINAS's PR publications
- 5) Follow-up survey on TOT graduates

As the ultimate goal of the TOT program is to encourage development and growth of SMEs, it is important to check performance of TOT graduates on their SME promotion and guidance services after completion of the training program and to provide feedback for future improvement of the TOT program.

It is therefore recommended to conduct a follow-up survey around six months after the TOT course, which should contain the following questions:

- Organization/department
- Service area
- Corporate guidance record: \_\_\_\_\_ companies (period )
- Area of specialization (if any)
- Classification of SMEs for which corporate diagnosis and guidance has been provided (microenterprises/small enterprise - \_\_\_\_ companies; medium-sized enterprises - \_\_\_\_ companies)
- Improvements relating to field guidance after TOT implementation
- Current issues relating to diagnosis and guidance
- Desirable improvements relating to the future TOT program
- Any suggestion, request or opinion on the training program and it content

Follow-up of TOT graduates is also indispensable when preventing using this program as a means of a government official's carrier improvement. In this reason, it is better to request TOT graduates to submit activity report annually. As a rule, his or her boss shall be brought to justice because of the unsuccessful instruction performance.

#### (2) Advanced TOT course

#### 1) Purpose

The advanced TOT course is designed to teach the fundamentals of SME diagnosis and guidance, in a systematic way, to technical experts who have work experience and basic knowledge on corporate management and production. It aims to transfer SME diagnosis techniques to persons who are engaged in SME promotion and to make them realize the difference in perspective between highly specialized experts and SME consultants.

Participants are expected to acquire the levels of skills required by advanced-level consultants for microenterprises, capable of providing guidance and training for small enterprises. In particular, SMEs in supporting industries strive to meet the QCD requirements by customers to compete in the market, and their consultants need to propose a solution to enable them to meet the goal. As discussed earlier, it is very difficult, if not impossible, to train qualified consultants from the scratch through a short-term TOT course. Instead, it is more realistic to train specialists in a specific field, e.g., production technology, business management or financial management, by teaching a required set of SME consulting techniques. The basic concept of the TOT course is to bring experts, as defined earlier, closer to SME consultants by teaching them skills and techniques required for SME promotion.

## 2) Eligibility for the advanced TOT course

As for consulting skills required for SMEs in supporting industries – particularly in the field of production management – engineers and workers of many SMEs have higher knowledge and skills than specialists sent by government, who are therefore unable to provide proper consulting service in many cases.

- Government employees and other persons who have work experience of five years or longer and have educational background of S1 or equivalent
- Persons who have five years or longer experience in R&D activity and have educational background of S1 or equivalent
- Persons who have completed the basic TOT course with the grade above the overall average for all participants
- 3) Duties and privileges for persons who have completed the advanced TOT course

A certificate of completion of the Advanced Production Control Program

- Graduates of the advanced TOT course are qualified to provide guidance for consultants who have completed the basic TOT course and are engaged in promotion and guidance for microenterprises.
- Graduates, who have obtained an above-average score at the achievement test conducted at the end of the TOT course and who are recommended by the HRD Committee, become eligible to participate in the SME consultant training program
- Payment of a special allowance for corporate diagnosis and guidance to be paid on the basis of strict performance evaluation, at a higher rate than graduates of the basic TOT course
- 4) Follow-up survey on TOT graduates

As the ultimate goal of the TOT program is to encourage development and growth of SMEs, it is important to check performance of TOT graduates on their SME promotion and consulting services after completion of the training program and to provide feedback for future improvement of the TOT program. As a principle, it is recommended to reject participants who will not engage in the consultation activity to SMEs.

It is therefore recommended to conduct a follow-up survey around six months after the advanced TOT course, which should contain the following questions:

- Organization/department
- Service area
- Corporate guidance record: \_\_\_\_\_ companies (period )
- Area of specialization (if any)
- Classification of SMEs for which corporate diagnosis and guidance has been provided (microenterprises/small enterprise - \_\_\_\_ companies; medium-sized enterprises - \_\_\_\_ companies)
- Improvements relating to field guidance after TOT implementation
- Current issues relating to diagnosis and guidance
- Desirable improvements relating to the future TOT program
- Any suggestion, request or opinion on the training program and it content

#### (3) SME Shindanshi training course

#### 1) Purpose and outline of the course

SME Shindanshi will be mandated to develop and strengthen the management consulting service market that can support a sufficient pool of private consultants and provide management capabilities and resources that SMEs often lack. Furthermore, Shindanshi is positioned as the highest rank professional in the SME consultant community, above consultants who have received training at the basic and advanced TOT programs, and will be responsible for SME guidance and training activities throughout the country.

At the same time, Shindanshi is required to have ever high knowledge and skills to meet the needs derived from SME management that becomes increasingly complex and sophisticated.

As a result, the Shindanshi training system should aim to upgrade capabilities and skills required for Shindanshi in key areas relating to latest business management, including practical knowledge and skills.

For the development of the SME Shindanshi certification system and training program, the working group has been organized and prepares for implementation under guidance and advice of JICA resident experts.

## (4) Intensive courses focusing on specific fields of production management

Industrial areas are characterized by local concentration of sub sectors that enjoy location or other competitive advantages by situating in a specific area. Primary examples are leather and rubber products and textiles (batik), and silversmith in Yogyakarta, and textiles and machined parts in Bandung. These industries want information that is conducive to their business growth. For instance, market trends on consumer goods, such as textile and garment, are the major concerns for manufacturers. For suppliers of machined parts, information management strategy (including collection of technical information required for compliance with applicable OEM standards) and total quality control (TQC) are indispensable. Also, an industrial area consisting of food processors may want TOT training in the areas of quality control and hygiene management, which are also important for the interest of consumer protection. Thus, there are a number of topics/themes required or suitable for a specific sub-sector. In particular, for nationwide deployment of the TOT program, it must be designed and implemented in a way to meet the needs of local industries. Thus, the TOT program focusing on a specific topic/theme demanded by local industries is considered to be effective in invigorating them.

Participants in the Shindanshi training program are expected to learn a general outline of SME consulting service as well as a specific topic/theme in class and apply learned knowledge to practical training that is held at model factories in the form of workshop and case study.

## (5) TOT's nationwide deployment program II

1) Training of consultants specialized in fostering small enterprises and microenterprises (including startups)

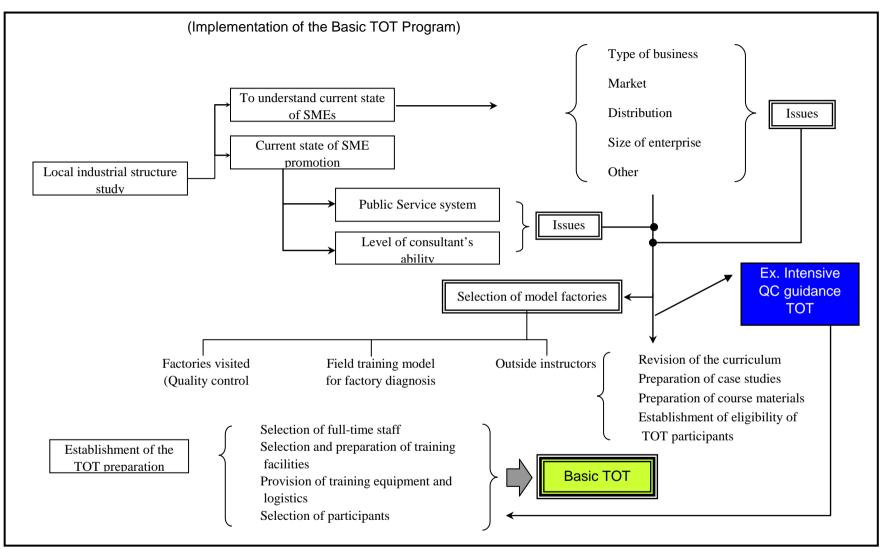
While local governments generally have a serious doubt about the ability of consultants to provide guidance and training for local SMEs and microenterprises, they have no way to train consultants capable of making up for management resources that SMEs often lack.

Many local government officials expect that BDS consultants or cluster development consultants render corporate diagnosis and guidance services, but they generally confuse "BDS/cluster development consultants as a regional development expert" with "SME consultants capable of addressing issues facing individual companies."

In Indonesia, there are around 2.3 million microenterprises in the manufacturing sector alone, and a number of them have been forced to discontinue production as they cannot receive much-needed assistance or support from local government. Many of them could be saved by teaching a simple accounting or financial management method and/or basic quality control techniques. Some local governments send university graduates with no work experience to microenterprises as a consultant and expect that they will become professional consultants through hands-on experience. This is nothing but nuisance for companies that need truly professional service, and it is impossible to make consultants without well-organized guidance and training. At the same time, given the progress of decentralization in country, stable supply of consultants who can underpin SME promotion efforts (including microenterprises) holds the key to vitalization of local economies and thus makes a high priority project. If both basic and advanced TOT courses are started up simultaneously, the advanced TOT course will take much longer time for preparation, especially selection of instructors. It is therefore recommended to implement basic TOP courses in model areas, which focus on promotion of microenterprises, in an attempt to create an immediate effect. The program therefore proposes implementation of a priority project to meet the urgent need for the basic TOT program in rural regions. More precisely, selected industrial areas are designated as model areas for the TOT program to train consultants specialized in providing guidance and training for microenterprises. In each model area, the basic TOT course will be implemented under partnership with the local government.

It should be noted that the basic TOT course requires a reasonable preparatory period for several reasons including: (1) field training on corporate diagnosis is conducted in cooperation of various factories; (2) a prior study needs to be conducted to identify and analyze a local industrial structure and characteristics; (3) an organization responsible for implementation of the TOT program needs to be established in collaboration of local government; and (4) availability of local consultants needs to be confirmed. Nevertheless, its preparatory work takes a shorter period of time than that for the advanced TOT course, and its effectiveness appears to be highly promising. As the ultimate goal of the TOT program is to enable and empower SMEs to accomplish their business objectives, actual performance of consultants who have completed the TOT course should be monitored in the form of follow-up survey, and the results should be delivered to the TOT program for continuous modification and updating of the course content, as discussed in (2) above (advanced TOT course).

See Fig.6-5 "Small Enterprise Consultant Training Program in Industrial/Model Areas (Implementation of the Basic TOT Program.")



Source: JICA Study Team

Fig. 6-5 Small Enterprise Consultant Training Program in Industrial/Model Areas

## 6.2.3 Building of the SME database and its enhancement to the SME network

## (1) Rationale (effective use of the database)

To achieve the purpose of the SME HR Development Center, the SME database should go beyond the government's information source for SME-related administration and should be used more effectively and widely. This is therefore to propose the development of the SME network that can also be accessed by SMEs.

The establishment of the SME Network (tentatively named) will lead to a significant increase in the number of enterprises, which will in turn allow government service to improve and benefit more and more companies. Thus, the network will serve as a starting point for the multiple effects.

Registration of SMEs in the SME Network can be promoted by making database registrants accessible to relevant government service, which would therefore work as incentive.

#### Key point 1:

- If the database is designed and managed for the administrative purpose of keeping track of SMEs, it will be difficult to increase the number of registrants.
- Efforts should be made to ensure efficient collection of SME data.
- The design concept of the database system varies greatly according to the perceived advantage of database buildup.
- Stored SME data should be used for government serving aiming at SME promotion.

#### Key point 2:

- The SME database will allow the government to understand the accurate state of SMEs and plan more effective promotion programs that address the issues facing them.
- The database will also allow the government to establish the statistical base for SME subsectors by obtaining population data.
- 1) The current state of the database system operated by the Ministry of Industry

The MOI has recently installed its own Web site (http://www.deprin.go.id/) in cooperation with JICA and its main content is summarized as follows.

Home	Organization	Business	Regulation	Technology	Publication	<b>Statistics</b>	Links	
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In "Regulation" holder, information on laws and regulations relating to exports and imports, standards, and company registration. "Business" holder contains databases on companies, exporters and importers. Note that data and information contained in each holder does not necessarily cover SMEs.

Also, the company database registers only 500 companies. There are several reasons for this, including the failure to collect information from local governments and the lack of linkage with private trade associations. As a result, the database covers less than 1% of SMEs in the manufacturing sector, totaling nearly 2.7 million. While all company data need not be published in the proposed network, it is preferable for government and its service to register as many enterprises as possible.

Weaknesses of the MOI's network are twofold: (1) shortage of operation and maintenance staff (only four people can accomplish any task less than satisfactory)<sup>1</sup>; and (2) lack of system power and capacity in terms of processing speed, hard disk storage capacity, network environment<sup>2</sup>.

# 2) Expansion of the database

As pointed out earlier, the present database covers less than 1% of companies that constitute the statistical population.

The small number of system operation and maintenance staff is busy with database and Web site management and has no time nor ability to promote enhancement of the company database. Company data are collected by the MOI's local offices and DINAS, but it does not progress smoothly and data are often provided in a written form. Meanwhile, a large number of trade associations are organized and maintain their membership lists or databases, including GAIKINDO, GIAMM (Indonesian Automotive Parts & Components Industries

<sup>&</sup>lt;sup>1</sup> Various departments of IKM have been developing and operating a variety of software including training guidelines and curriculum information, while there seems to be a significant duplication of activities without coordination, such as data input and SME promotion activities. This is not only inefficient but inconvenient due to the decentralized data management.

<sup>&</sup>lt;sup>2</sup> NAFED under the Ministry of Commerce has implemented a network system capable of providing hosting service as well as on-line learning service. If an effective linkage is made with NAFED's system, quality of service for SMEs is expected to improve significantly.

Association), EEAI (Indonesia Electronic and Electrical Appliance Industries Association), and APLINDO (Indonesian Foundry Industries Association). If an arrangement can be made to establish collaborative relationships with these trade associations, data collection and maintenance can be made in an efficient manner (in particular, updating and addition of company information). Furthermore, the establishment of Web links will help increase access to Web sites of related parties.

# (2) Strengthening of the SME HR development and SME promotion services through networking

Networking can facilitate the following services and functions.

- a. Effective communication of administrative information
- b. Introduction of new technologies
- c. Publication of and discussion on requests and opinions from SMEs
- d. Access to existing networks
- e. Promotion of IT use to SMEs
- f. Provision of intellectual properties
- g. Execution of education and training services

# 1) Effective communication of administrative information

Networking will facilitate publication of various programs targeting SMEs and applications via the network. Given a variety of programs offered by different departments, few IKM staff grasp an overall picture.

Once a linkage with local governments is established, promotion of directed loan programs offered by different local governments as well as information on application procedures could be effectively communicated to SMEs.

2) Introduction of new technologies

Networking will enable the MOI and outside research organizations to provide technology information, while gaining access to overseas information sources. For many Asian countries, it is desirable to attract SMEs from industrialized countries, which possess sophisticated machining and other technologies needed badly by local SMEs. In particular, Indonesia has a strong need to promote such SMEs, together with the training of skilled workers, which takes considerable time and money. Clearly, attracting SMEs having

advanced production equipment and techniques and promoting their collaboration with local companies is effective in promoting technology transfer and dissemination to SMEs throughout the country.

## 3) Publication of and discussion on requests and opinions from SMEs

At present, it is doubtful as to whether the government can directly hear opinions of SMEs. While large trade associations and cooperatives such as KADIN function as interest groups to make their requests reach the competent ministry, SMEs in subsectors that are not well organized do not have any means to make their voice heard by the government.

IKM of the MOI faces the similar situation. It has little connection with trade associations and des not appear to understand what industries and individual enterprises need and want accurately.

## 4) Access to existing networks

In consideration of size of Asian economies and their industrialized technologies that are increasingly sophisticated, it is very difficult, if not impossible, for an industrial sector in a single country to possess and maintain all technologies that it needs for production. Instead, industries in Asian countries need to establish a specialized technology base in each industrial area (concentration), which then form a regional technology base by building complementary networks of industrial technology sources that are scattered in Asia. As international exchange of technology information increases globally, it is feasible for SMEs and related industries in Indonesia to participate in such networks.

## 5) Promotion of IT use to SMEs

The division of each DINAS in charge of SME support will install a computer terminal, which will be made available to SMEs for network access, while hiring instructors for operational guidance. This aims to promote use of computer networks and services that are available through them. The study team estimates that Internet connectivity of SMEs in Indonesia is lagged behind that in other East/Southeast Asian countries where it has conducted SME-relates studies, such as the Philippines, Thailand, Malaysia, and China. It is partially due to a delay in construction of the communication infrastructure including service providers. At the same time, efforts should be made to encourage use of the Internet and related service, which has become a powerful tool for SMEs to survive and grow in the

increasingly globalizing business environment. And it is important to provide a variety of services that give incentive to SMEs for the Internet use, as well as a campaign to advertise advantages of networking and network use.

[Promotion of IT use by SMEs and development process]

SMEs are slow in introducing computers and IT resources in the IT propagation process. Indonesia is no exception to this. However, the low rate of IT use does not necessarily mean that there is no need for IT-based administrative service for SMEs. For this reason, it is important for the government to take initiative in providing and promoting network services as part of efforts to enable SMEs to meet requirements in the globalizing market.

Generally, propagation of IT among SMEs progresses through the following steps.

- 1. Lack of interest in IT
- 2. Building of IT infrastructure (for computerization of present business processes)
- 3. Start of IT use as the means to implement business strategy
- 4. New business development through innovative application of IT

At present, SMEs in Indonesia appear to be in the first step of the IT propagation process.

#### 6) Provision of intellectual properties

Today's manufacturing industries, especially supporting industries, are facing increasingly intensive competition in the international market. The key factor for SMEs to maintain competitiveness is to train and retain highly skilled workers. However, it is currently a critical area of weakness for SMEs in Indonesia, as they not only face a serious shortage of engineers and technicians but also do not have time and resources (especially instructors) to teach production techniques and skills to young workers.

A workable solution to ameliorate the situation is documentation of production techniques and skills possessed by skilled workers in order to prepare manuals containing standard work practices and procedures. Such manuals should then be made available to SMEs via the Internet-enabled network. Again, this project requires government assistance to ensure efficiency and effectiveness, because documentation of standard manuals would benefit SMEs as large by increasing the number of SMEs that gain and maintain competitiveness in the globalizing business environment. Government assistance is particularly important for SMEs operating in rural regions or cities, as the network can help SMEs to gain quick access to useful information that would otherwise be difficult to obtain.

As an example of standard manuals proposed above, Appendix REF-VI of the main report introduces an excerpt from an manual designed for intensive training of workers in the manufacture of plastics molds, which was created as part of the project entitled "the Development of the Infrastructure Supporting Workers Engaged in Mono-zukuri (Making of High Quality Products by Distinguished Workmanship)" initiated by the Japan Small and Medium Enterprise Corporation.

7) Execution of education and training services

BPPI (Trade Training Center) has already implemented a high speed, broad bandwidth communications network system that can provide on-line-training service offered by foreign sources. As it is not realistic to introduce a similar system for the purpose of establishing the SME network, the study team proposes an effective use of BBPI's system to allow SMEs to experience benefits of networking.

Thus, a realistic approach to the development of the SME network is to start with compilation and publication of training manuals and work standards prepared by various sections of IKM, which can be useful and beneficial to both local governments and SMEs.

# (3) Conceptual design of the proposed Web site for SME service and its content

The conceptual Web site design, which has contents introduced in 1) through 7), is illustrated below.

List of support services					
SME/microenterprise support programs					
Consultation desk					
Links to Web sites relating to latest technology information					
B-to-B information exchange window					
Web training (members only)					
Search engine for Web sites of individual companies					
Database on professionals in the field of SME support					
Other links					

# (4) Conceptual design of the SME network

The conceptual view of the SME network development and building process is presented at the end of this chapter

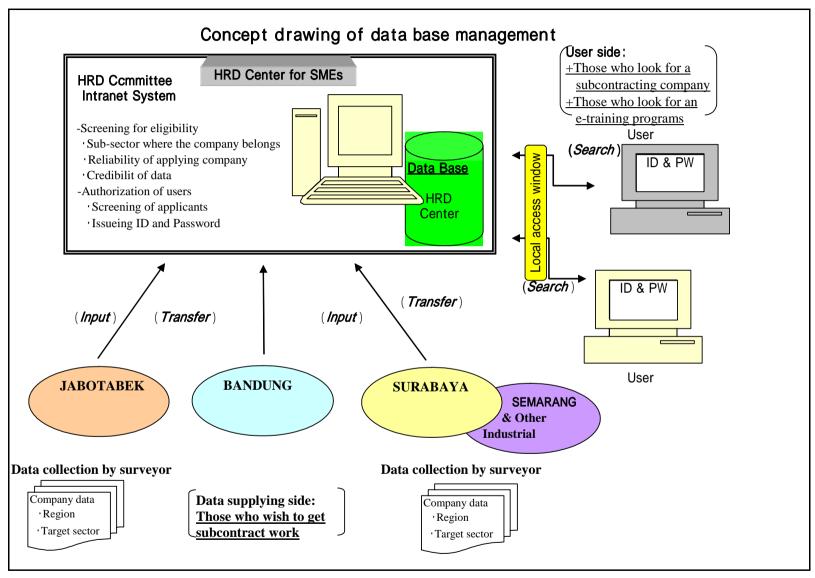
Relationship between the SME network and the SME database (Figure 6-6)
Role of the HRD Committee, installation of computer terminals at local government offices, the establishment of the SME database, and special services for member companies

Functions of the consultation desk service as part of the SME network (Figure 6-7)
Establishment of an information desk to answer questions and provide advice for SMEs, together with the Web training function

Building of the on-line training system connecting key facilities throughout the country

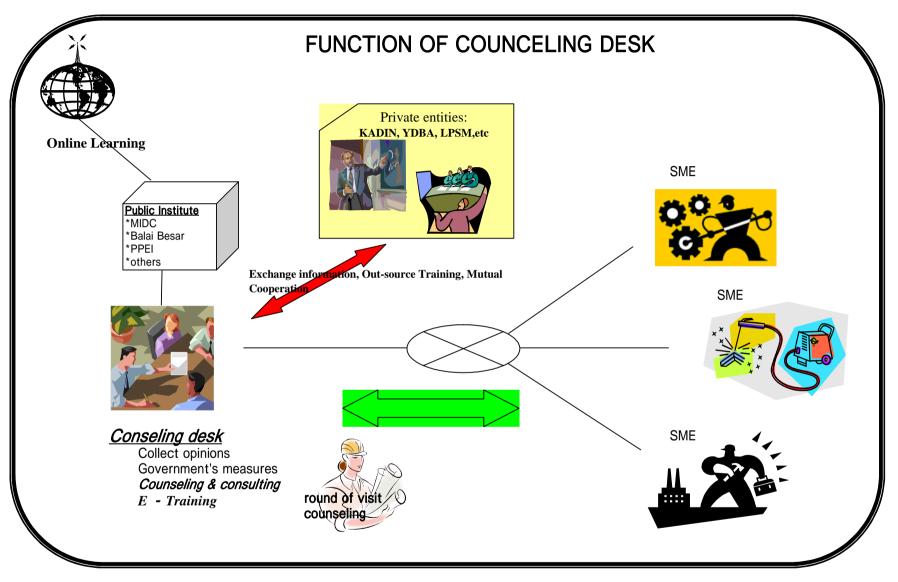
Establishment of the on-line training system in collaboration with overseas counterparts and foreign aid organizations

SME network development schedule (Fig. 6-8)
An overall schedule from development to inauguration of service

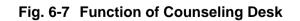


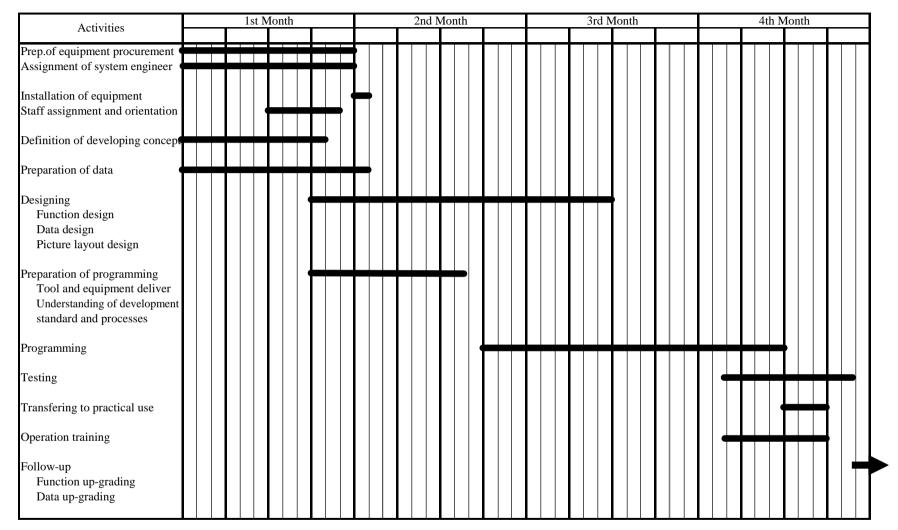
Source: JICA Study Team

Fig. 6-6 Concept Drawing of Data Base Management



Source: JICA Study Team





Source: JICA Study Team

Fig. 6-8 SME Network Development Schedule