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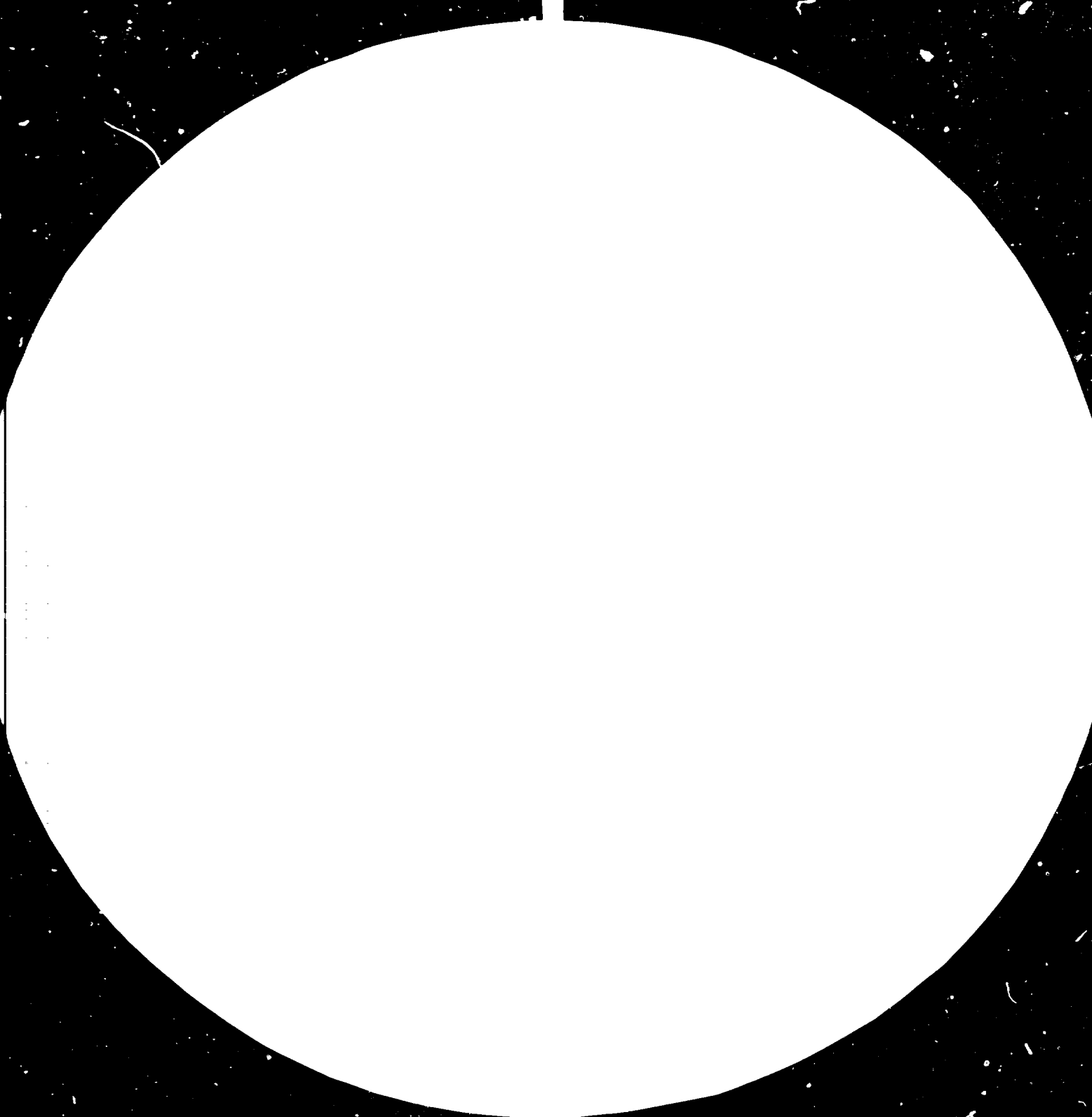
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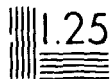
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Resolution Test Chart
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TECHNICAL SERVICES FOR SMALL AND MEDIUM INDUSTRIES IN THAILAND *

by

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Background

Thailand has always been an agricultural country. Even today there exist considerable room for further expansion of agricultural production. Therefore unemployment in rural areas, apart from seasonal unemployment, has not been a serious problem so far. However, as can be seen in many other developing countries, the influx of population from rural to urban areas and from local provinces to Bangkok has been increasing in recent years. Such movements of population are due to differences in income, services and living conditions in the cities, particularly in the central area of Thailand, including Bangkok and other districts. Therefore it is quite natural that unemployment problem in Thailand is more noticeable in urban than in rural areas. It has not reached the point of being a serious social problem. However, the real problem is the difference in income levels between and within sectors, and the tendency toward such differences is increasing. In order to decrease differences in income levels among districts it is essential to increase productivity of agricultural labour by modernization of agricultural production. But when we take account of the future increase in rural population, there is a possibility that the rate of unemployment will increase. In order to limit this tendency, expansion of agricultural income, reduction of unemployment including unemployment during the farmers leisure season, and development of district industries which can absorb capacity of population in local areas (agricultural villages, local cities) will be very important.

However, in planning rural industrial development, we should realise that the development of large-scale industries with high degrees of capital-intensiveness is not very effective for creation of employment opportunity and improvement of balance of payment. There is even a strong possibility that it may aggravate the situation. It will result in further concentration of the economy and population in Bangkok area and its neighbourhood, and accelerate the tendency toward uneven distribution of population, increase in low-income people and expansion of differences among the districts. We should also note that the cost which large-scale industrial production would cause relating to social, environmental and resource problems must be borne by the society as a whole, and such cost is not included in the cost calculation of enterprise. On the other hand, small- and medium-scale industries do not, in comparison with large-scale

industries, have such demerits. The Thai Government began to give more attention to the development of small and medium industries in the current Fifth Economic and Social Development Plan (1982-1987) as a measure to create employment opportunities, effective use of given natural resources and reduction of differences in income levels. The plan includes the following measures for promoting development of small and medium industries:

- (1) increase in the investment opportunities for these industries;
- (2) increase in credit to small and medium industries;
- (3) strengthening of guidance for management and technology as well as information services;
- (4) strengthening of marketing services.

Status and needs of services required by small and medium industries

Although industries have been started more than 70 years ago in Thailand, it was only during the last 20 years that the Government has initiated actions in promoting the development of industry.

As per the statistics of factories registered with the Ministry of Industry, there were about 60,000 factories in Thailand for the year 1978. There exist thousand more smaller firms which are not registered. Of the registered firms, approximately 90% fall into the category of capital investment, less than one million baht (small-scale industry by definition used by the small Industry Finance Office S 1 FO). The majority of these small and medium industries are family type businesses, managed by the owner himself. Their owners possess experience from the previous occupation either in some commercial activity or employment as skilled workers in some industrial jobs. A sizeable proportion of these entrepreneurs are not educated beyond high school level. Smaller firms usually enjoy narrow market as it satisfies mostly regular customers. Production is planned on the customer order basis in many cases. Shortage of capital for expansion of industry and working expenses are some of the common problems of these industries. However, special characteristics, and problems for small and medium industries differ depending on the scale of the establishment, the kind of industry and the type of enterprise. As a result, countermeasures to cope with these problems will also differ. Problem areas of small and medium industries in Thailand may be summarized into the following five main points:

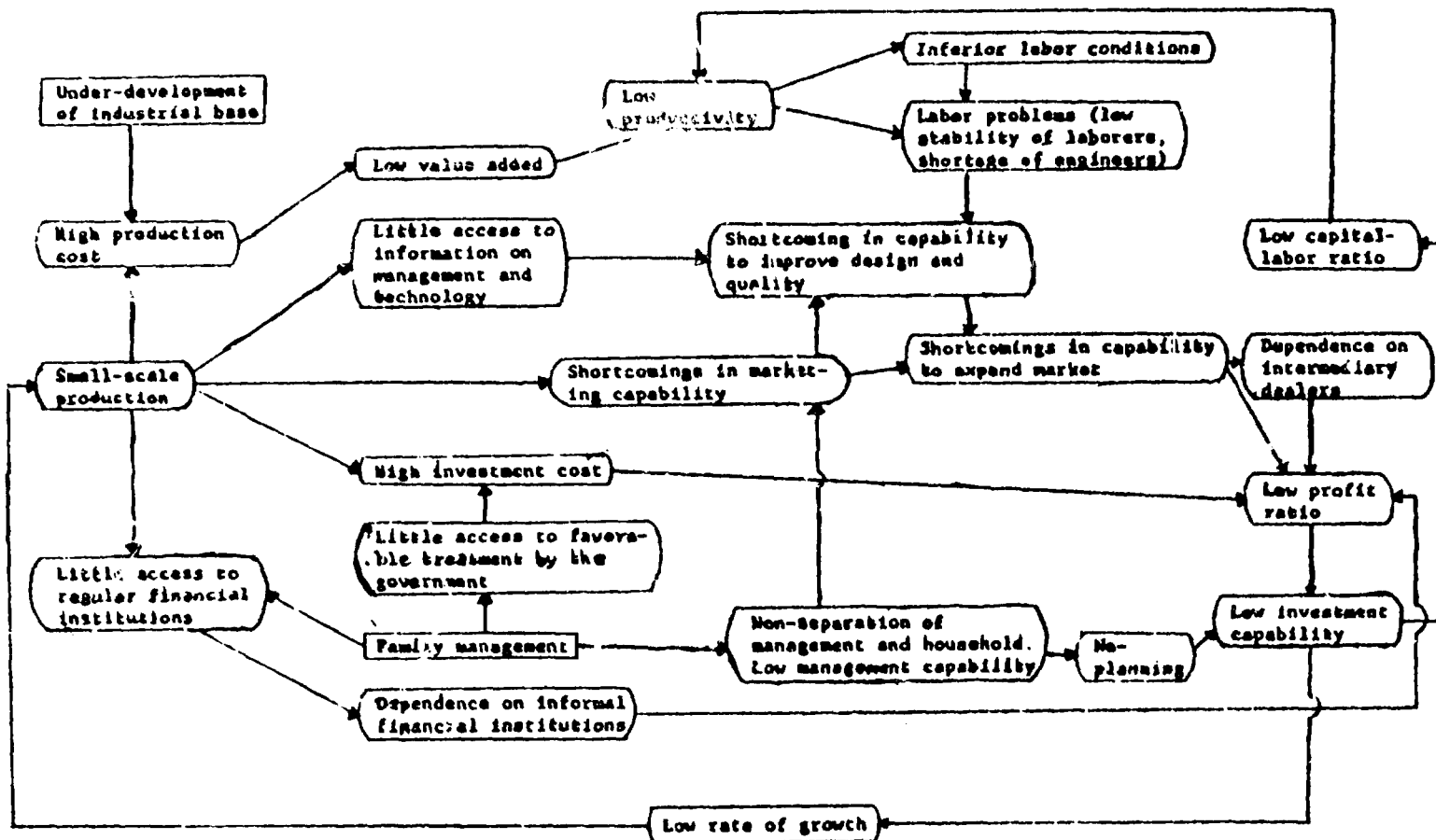
- (a) shortcomings in managerial capacity (conservatism of the management) and little access to the necessary information for modernising management (particularly shortcomings in marketing ability);
- (b) technological backwardness and little access to information on technology (especially on design, quality control, etc.);
- (c) shortage of capital and little access to regular financial institutions;
- (d) underdevelopment of basic industrial facilities;
- (e) low rate of stability of labour.

In addition to the points mentioned above, other problems are also raised as follows:

- (f) increase in prices of raw materials, shortage of raw materials and unstable supply;
- (g) low operation ratio due to lack of demand for products;
- (h) after workers are trained, they leave the small-scale firms which trained and employed them. They move to the medium- and large-scale industries;
- (i) intermediary dealers charge high margins.

Some of many problems of the small and medium industries in Thailand are interrelated and it is necessary to clarify the mutual correlation and find the basic reasons to these problems. The characteristics of small and medium industries above mentioned and correlation among these problems are shown in Fig. 1 as a flow-chart.

Figure 1 Special Characteristics of Small- and Medium-Scale Industries in Thailand and Correlation among Problems



As the chart makes clear, these problems are all derived from characteristics of small and medium industry in Thailand. When we consider these characteristics (small-scale labour intensive production, family management, etc.) and underdevelopment of basic industrial facilities as premises, these problems can be divided into the following five groups:

- (a) problems derived from scale demerit;
- (b) problems relating to management capability or technological capability;
- (c) problems relating to business sense;
- (d) problems derived from the special characteristics of production factor market;
- (e) problems derived from current industrial development and promotion measures of the government.

Lacking of technological services and information is considered as a common problem in small and medium industries in Thailand.

Status of capacities of services of industrial research and institution

Systematic development of small and medium industries in Thailand first received consideration in 1964. It is, therefore, no exaggeration to say that such systematic development and promotion did not exist until then. The turning point in policy was brought about by a survey of the actual status of small and medium firms in Thailand by ILO experts. The following proposals were made to the Thai Government:

- (a) establishment of an organization which would offer guidance and services on technology and management with respect to small and medium industries;
- (b) establishment of financial institutions for these firms;
- (c) establishment of an organization which would engage in offering marketing services for products;
- (d) establishment of industrial estates for small and medium industries.

As a first step for the implementation of the programme, the Small Industry Service Institute was established under assistance of UNDP in 1966 as one unit of the Department of Industrial Promotion of the Ministry of

Industry. In 1972 another Small Industry Service Institute was established in Chiangmai as the Northern Regional Centre.

At present, the main bodies concerned with technological services for small and medium industries in Thailand are listed as follows:

1. Ministry of Science and Technology

1.1 Department of Science (DS)

This is the main centre for analytical institutes for science in Thailand. The responsibility of this department is to analyse raw materials for government agencies and the private sector and to study and reserach scientific techniques for economically improving the use of natural resources and by-products from industry. In addition the Department of Science has responsibility in testing industrial standard product and giving scientific training, with emphasis on analytical chemistry.

1.2 National Reserach Council (NRC)

NRC has responsibility of advising the Cabinet on policies related to the promotion of scientific and technological research. In its advisory capacity, NRC has established a set of research priorities in various branches of science. However, NRC does not cover all aspects of scientific and technological development. NRC also controls research proposals submitted by foreign persons and institutions.

1.3 Thailand Institute of Scientific and Technological Research (TISTR)

TISTR is the main centre for government research, undertaking scientific research programmes involving government departments and other government organizations. It is responsible for promoting the application of its finding in order to benefit national development and contribute to the utilization of natural resources. TISTR provides scientific services and technical assistance to both internal and external agencies, and participates in a number of activities including technical information collection and dissemination, standards and performance testing, industrial trouble-shooting and research projects. Four types of research

are undertaken:

- (a) utilization and upgrading of local raw materials;
- (b) research into problems of existing industries;
- (c) adaptation of known technology to local conditions;
- (d) feasibility studies of potential new industries.

2. Ministry of Industry

As mentioned earlier, concrete proposals and implementation of government policies concerning small industries are carried out by the Department of Industrial Promotion of Ministry of Industry (DIP/MOI). However, it should be noted that DIP/MOI deals with large-scale industries also. Therefore, governmental organizations, which deal only with small- and medium-scale industries, number three organizations belonging to DIP/MOI, namely the Industrial Services Institute-Bangkok (ISI/BKK), the Industrial Service Institute Chiangmai (ISI/CM) and the Small Industries Finance Office (SIFO); of these, ISI/BKK and ISI/CM offer technological and managerial guidance and information service and SIFO engages in financial assistance by extending low interest credit loans. Main function of ISI (Bangkok and Chiangmai) is to render technical assistance to small and medium industries throughout the country. These services include consultancy on management problems; cost and productivity studies, advice on product marketing; provision of information; feasibility studies; new product development; industrial design development, testing and modification; factory layout and modernisation; advice on manufacturing processes and quality improvement demonstrations of modern factory and manufacturing techniques; advice on raw material utilization; theoretical and practical seminars. In addition to two existing SISI, DIP/MOI is considering establishment of others in Sonkhla in southern Thailand and Khonkaen in north-east region. It is expected that ISI-Khonkaen will be established in the near future.

The objectives of DIP/MOI, which constitute the centres are summarized as:

- (1) promotion of rural industrial development;
- (2) regardless of size or scale, assistance in the establishment of industries;
- (3) assistance in the establishment, maintenance and development of industries;

- (4) offering of technical, training and dispatch services to increase productivity, efficiency, and the expansion of product sales.

Other government organizations which are closely involved in technical services for small and medium industries are the Textile Division and the Thailand Management Development and Productivity Centre (TMDPC) in DIP/MOI, the Industrial Estate Authority of Thailand (IEAT) and the National Skilled Labour Development Institute (NSLDI) in the Department of Labour, although they are not dealing only with small and medium industries. As for district offices of MOI, there are three Regional Development Centres and 32 Provincial Industrial Offices throughout the country.

Prospects for the frame work of TSDS project

As already mentioned previously that systematic development of small and medium industries in Thailand received consideration only in last decade, technical service delivery system has not been effectively established. In terms of higher efficiency and diversification of technology transfer, the undertaking of above mentioned organizations is not adequate. The capacity for developing the technologies needed for industrial growth is limited by lack of the necessary institutional infrastructure and the required interlinkage between them. The absence of a sound industrial system and the proper scientific environment for pinpointing the needs and for harnessing the require expertise to solve technological problems. Thus, Thailand has been forced to rely on imported technology. She spent quite a lot of money to import foreign technology for strengthening of her economy. Thailand has become aware of the imperative needs to strengthen the technological capabilities and reduce the increasing heavy burden of the high costs of imported technology thereby reducing technological dependence and promoting self-reliance.

At present, technology delivery system in Thailand is primarily financed by the government funds, which also supplemented by fund from foreign organizations and institution. International cooperation among developing countries in technical information dissemination would be beneficial for the development of small industries. Thailand as a member of ASEAN will certainly support TSDS project. We certainly

believe that TSDS unit has started well. We would also like to express earnest hope that the expanding size of this project does not turn it into another monolithic bureaucracy and that expanding financial power does not corrupt its well established project. We in the developing world need more TSDS unit.



