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PROMOTION OF SMALL-SCALE INDUSTRIAL DEVELOPMENT
IN THE WEST SUMATRA PROVINCE, INDONESIA

A Report Prepared for the
United Nations Industrial Development Organization
Vienna, Austria

By Hendra Esmara, Sjafruddin Karimi
and Syahril Syarief



Institute for Regional Economic Research

DEPARTMENT OF ECONOMICS ANDALAS UNIVERSITY

Padang, June 1987

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PREFACE

THE small-scale industries, in a more traditional family operated activities, played an important role in the Third World countries. The industries became the employment absorbing activities, especially for the low-income, unskilled, groups of the community. The activities heavily influenced by the cultural, rather than, the economic characteristics; and its roots seemed to be differed from one country to another.

The study on Promotion of Small-scale Industrial Development in the West Sumatra Province, Indonesia reflected the efforts to develop the industries in a particular environment; which tried to accomodate the national policy in a regional context. The study covered several stages of small-scale industrial development and policy; from the macro-economic, national industrial policy to the case studies at the individual level.

We like to acknowledge our appreciation to all government officials and small entrepreneurs in West Sumatra, which in one way or another, assisted us in conducting the study. We also like to express our gratitude to Dr. Nils Ramm-Ericson, Senior Industrial Development Officer, Regional and Country Studies Branch, UNIDO, Vienna for his valuable "terms of reference" of the study. Without his study outline, we could not produced a comprehensive report like this one.

Padang, June 1, 1987

Hendra Esmara
Sjafruddin Karimi
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and Syahrrial Syarif

EXECUTIVE SUMMARY

The small-scale industrial development has become an important instrument in achieving greater distributive justice for the welfare of the low-income groups of the Third World. It has been reflected also in the Indonesian development strategy ; and become more important with the low economic growth since the beginning of the eighties. Although the small-scale industries, as well as the other small-scale enterprises could not increase the per capita income rapidly, however, it could absorbed the employment at a higher rate than any large-scale industries could do. And employment, actually, become the critical problem of the Third World.

The industrial development strategy is not merely a simple choice between the small or the large-scale industries ; but finding a compromise, without the "trade-off", between both industries. The dualistic industrial development strategy, as has been implemented by Indonesia and any other developing countries, could not be viewed as a partial approach to the overall development efforts of these countries. The differences merely reflected the socio-cultural and political characteristics of the countries.

Industrial Development in Indonesia

The large-scale, mostly the import substitution, industries developed in Indonesia during the seventies has become the assets as well as the liabilities for the future development of the country. The oil boom in the seventies has pushed the growth of the industrial sector at an excessive rate of 14.6 per cent per annum. In the meantime, the small-scale industries, practically, untouched ; since the government supports were heavily biased toward the large-scale industries. The import substitution industries had also cut the linkage between these industries and the other segments of the economic activities.

The import substitution industries, however, directed its market toward the domestic consumption. In the meantime, the export-oriented, resource-processing, industries have to live in an "enclave" economy; with the non-linkage characteristics as well. Both the import substitution and export-oriented industries squeezed the small-scale industries, in such a way, that the industries have to face the unsurmountable problems for its existency. Nevertheless, the small-scale industries still came as the bumper for the Indonesian economy in the last fifteen years..

The inefficiency, high-cost import substitution industries collapse when the oil revenue could not support the economy anymore. The growth of the industrial sector came to the lowest level of 1.2 per cent in 1982. With the prolonged

world economic recessions, Indonesia has to face the low economic growth; and some internal economic adjustments as well. The projected two million new labour force entering the market annually, and the low employment absorptive capacity, has put the small-scale industries as an important instrument alongside the large (medium) scale industries for the future development of Indonesia.

Out of the 5 per cent growth target of the Indonesian fourth five-year development plan (1984/85-1988/89), about one-third was expected to come from the industrial sector. However, about two-thirds of the planned industrial employment opportunities of 1.4 million, were expected to be emerged from the small-scale industries.

The small-scale industries, including the household and cottage industries, have its roots in the cultural environment of the community. The industries, actually, were not economically feasible. However, from the community point of view, it became culturally possible. The industries using a simple technology, low capital content, and mostly operated on the family management system.

Several steps have been taken by the government to assist the small-scale industries as an effort to reduce the employment problems of the country. Since the industries were so diversified, it has been classified into five groups, i.e., food processing, clothing and leather goods, chemical and construction goods, handicraft and other products, and metal

works. The classification has been used as the framework for setting the development of the priority commodities among the small-scale industries.

The sectoral classifications of the small-scale industries were strengthened by the "regional" identification ; which will be used as an instrument to narrow down the location of the industries. At least five regional approaches have been used for promoting the small-scale industries in Indonesia -- clusters, small industrial estate, industrial estate, industrial zone, and industrial growth centre.

The financing of the small-scale industrial development was made by the Bank Indonesia's special credit arrangements ; usually known as KIK and KMKP programmes. KIK was design for assisting the small-scale industries in their initial capital investment. On the contrary. KMKP was used for the industries' working capital ; and in one way or another, became a supplement to the KIK programme.

West Sumatra : Culture and Small-scale Industrial Development

Small-scale industrial development became an integrated mixed of cultural and economic characteristics of an activity. The changing transformation of the traditional agricultural, to the modern industrial development, has to pass through the transitional stage of small-scale industries. The traditional family management system still existed, while the movement to the modern approach seemed to be stagnant.

West Sumatra social and economic structure reflected the transformation process, in which the traditional family management system still dominated the economy of the province. The roots of the family management system originated from the ownership of the land ; which were owned by the clan instead of the individual.

The small-scale industries fitted easily with the Minangkabau culture, since the industries mostly operated on the basis of the family system. As the consequences of this approach, the internal costs were not calculated on the market economic prices but mostly based on the non-market cultural prices. The business activities become a closed system.

The expansion of the traditional small-scale into a modern large-scale industries faced the fundamental problem of separating the cultural from the economic considerations in managing the industries. The system could not survive and the industries (or enterprises) collapse when it grew into the large-scale industrial activities. The promotion of the small-scale industries in West Sumatra has to take into considerations the social and economic characteristics of the community.

Nevertheless, the modern management system could be easily accommodated in a different environmental condition. The Minangkabau enterprises could grow outside their home-land since they did not have to shoulder the social burden of the enterprises.

The small-scale industrial promotional activities, in one way or another, related to the linkage concept ; either through

the large-to-small or small-to-small activities. The small-scale industrial estate or the LIK scheme, used the formal large-to-small industrial linkage through the locational concept. On the contrary, the "foster-father" approach, linked the industries in a more informal way. In the meantime, the "clusters" concept was based upon the natural household and cottage industrial clusters, as the basic framework for promoting the industries.

The LIK's strength was in the government supported common service facilities provided at the estate. The subsidized facilities could be used in expanding the small-scale industrial activities. However, the expected linkage of the Strata-One to the Strata-Two and Three industries -- representing the medium and small-scale industries -- could not be realized, due to the weakness of the former industries. The Strata-One industries could not act as the lead industries by taking the Strata-Two and Three industries in to the rapidly growing export-oriented activities. The Strata-One's financial problems, and the wide differences of the export and domestic prices of sawn-timber and rattan splits -- as the production of the LIK -- have left the Strata-Two and Three to find their own domestic market.

The "foster-father" approach, which used also the linkage concept, seemed to be more successful than the LIK scheme. The Padang Cement Factory as the "foster-father", could take the participation of the small-scale metal working industries

as the suppliers of its spare-part requirements. Through the "quota" allocation system, supported by the price ceiling approach and the "additional" participation policy, the cement factory's "foster-father" scheme have expanded the small-scale metal working industries nearly double in the last three years. The total value of the spare-part components produced by the metal working industries increased from Rp 4.4 million to Rp 52.5 million over the period of 1984-1986.

The "clusters" scheme of Koto Gadang embroidery and silver handicraft industries, actually depended upon the 1911 Rohana Kudus' women training institute Kerajinan Amai Setia (KAS). KAS originated as the informal "clusters" of the household and cottage industries at Koto Gadang. KAS which has been turned into a foundation, KAS Foundation, after the death of Rohana Kudus in 1979, become stronger through the government assistance ; either in terms of financing or training activities. However, the informal nature of the foundation is still retained until to day.

Lessons of Experience

What could be learned from West Sumatra's experience in promoting the small-scale industrial development ? One element clearly emerged from the three case studies; that the mutual benefits through the linkage scheme should be felt by the participating, large and small-scale, industries.

The roots of the system ought to be based upon the cultural characteristics of the community. The formal concept, such as the LIK or cooperative scheme, could lose its ground if the system was "alien" to the community. The small-scale industries, as well as the other small-scale enterprises, are still operated as the family business activities. The successful stories of the "foster-father" scheme and the "clusters" approaches, in fact, were based upon this basic foundation.

However, the principal "actors" of the small-scale industries were still the individual, usually the head of the family, who own the industries. Only through his initiatives and creativities, the small-scale industries have the prerequisite condition to survive.

The government intervention, through the economic protection and incentives, should be given permanently to the small-scale industries. The "infant" industry arguments in protecting the large-scale industries, ought to be used also in promoting the small-scale industries. In the meantime, international cooperation in the fields of technical and financial assistances could strongly support the national programmes of promoting the small-scale industrial development. The international cooperation could become a useful instrument in raising the welfare of the low-income groups of developing countries.

THE BACKGROUND

In the traditional agricultural community with a strong matrilineal culture, the small-scale industrial development ^{1/} of West Sumatra has a long history. The industries, which in most cases located within or around the households, were initially started to fulfil the needs of the adat ceremony and the agricultural life-line of the population. Both needs, later on, reflected the structure of the small-scale industries in West Sumatra.

Due to these characteristics, the household and cottage industries were and are producing woven products and embroideries, especially for the women ceremonial dresses. The women, consequently, played an important role in the production and management of these industries.

In the meantime, efforts were being made to produce the small agricultural tools and equipments to fulfil the needs of West Sumatra's farmers. Due to these needs, several small-scale metal working enterprises and foundaries were established at the heart of West Sumatra's traditional agricultural activities, Sungai Puar. The small-scale metal working enterprises are producing hoes, plows, sickles, knives, etc.

^{1/} In making the study on the small-scale industries, it also includes the household and cottage industries.

The roots of West Sumatra small-scale industries were based on these two basic cultural and agricultural needs. The activities were expanded, later on, to the other resource based small-scale industries, such as, the forest products. The small-scale industries, to a certain extent, played a major role in the West Sumatra development efforts compared to the medium and large scale industries. The industrial resource based of West Sumatra were not suitable for the medium and large-scale industries, except cement, since the resources were scatter and the quantities were not profitable to be exploited at the large-scale operations.

The small-scale industries become one of the off-farm activities that could be relied on increasing the income of the rural population. Its role as the employment absorbing activities has put the small-scale industrial development a major national policy issues for expanding the employment opportunities for the whole country. The national small-scale industrial development policy were developed and West Sumatra was integrated into the national policy. The government role in the promotion of small-scale industries by creating the technical service units, expanding the credit facilities, and other supporting activities, seems to be indispensable.

OBJECTIVES OF THE STUDY

The main objective of the study is to explore the various possibilities of promoting the small-scale industrial development

in West Sumatra, Indonesia. However, since West Sumatra is under the cover of national small-scale industrial development policy, it is unavoidable to discuss the national policy in its relationship to the experience of West Sumatra.

In order to achieve the main objective of the study, three related intermediate objectives has to be fulfilled.

First, to analyse and evaluate the national small-scale industrial development policy, especially in its role as the employment absorbing activities.

Second, to review the experience and results of small-scale industrial development of West Sumatra in the light of her socio-economic background and the national small-scale industrial development policy.

Third, to formulate the action-oriented recommendations for further development of the small-scale industries in its relationship to regional development of West Sumatra, on the one hand; and national development efforts, on the other hand.

In reviewing the experience of West Sumatra, particular attention should be put into the following three approaches or concepts that has been used in the promotion of small-scale industries of the province.

The first approach was through the establishment of the small-scale industrial circle (Lingkungan Industri Kecil or known as LIK) in Padang. The LIK approach has the advantage of providing better facilities for the small-scale industries which are located in the industrial circle. Overall assessment and discription of the Padang LIK will be made in the study.

The second approach was being made in promoting the small-scale industries through the linkage net-work with the large-scale industrial establishments. On the basis of this linkage, the development of the small-scale industries could be linked with the large-scale industrial activities. The linkage approach will be assessed through the relationship of Padang Cement Factory on the one hand; and Sungai Puar small-scale metal working enterprises and foundaries, on the other hand.

The third approach that has been used in developing the traditional small-scale industries was through the establishment of the small-scale industrial clusters (sentra industri kecil). These clusters will be used as the basis for the government support promotion of the small-scale industries, such as providing the financial facilities, technical service units, consultancy, marketing, etc. The weaving small-scale industrial clusters in Bukittinggi and embroideries and silver handicrafts in Koto Gadang will be used as the case studies in reviewing the third approach.

NATIONAL INDUSTRIAL DEVELOPMENT POLICY

The industrial development played an important role in the Indonesian Fourth Five-Year Development Plan, 1984/85-1988/89.

Out of the over all planned economic growth of 5 per cent per annum; the main sources of growth, about one-third, will be expected to come from the industrial sector. In order to achieve this target, the industrial sector -- including petroleum and gas industries -- should grows about 9.5 per cent per annum over the planning period.

During the fourth plan, the industrial sector would take a lead in the non-oil export commodities by passing over the agricultural commodities. The exported industrial commodities were planned to increase from 37 per cent to 50 per cent of the total non-oil exported commodities. The increasing trend of the exported industrial commodities were expected to come from the plywood, electrical equipments, handicrafts, and fertilizer. However, the impact of the world economic recession after 1982 seems to change the plan drastically.

Growth and Equity

The basic industrial development policy was oriented toward achieving the high growth, on the one hand; and creating the employment opportunities, on the other hand. The trade-off between these two objectives are quite obvious. The growth-oriented industries are tending to use the capital-intensive high-technology approach, large-scale operations, and consequently fewer workers; while the employment-oriented industries seems to be low-growth, small operations, but has the high employment absorptive capacity.

However, to a certain extent, both objectives could be achieved through the implementation of a dualistic industrial development policy. Both types of industries were developed side-by-side with a different objective. In the meantime, efforts were being made to establish the link between these two different industries. Although the present linkage seems to be rather weak, however, steps have been taken to improve these linkages.

The growth-oriented capital-intensive basic upstream industries, such as the machineries and metal working industries, and basic chemical industries, are expected to grow around 17 per cent per annum; which is higher than the average growth of the industrial sector. Although the capital requirements of the basic upstream industries cover about two-thirds of the total investment requirements of the whole industries, however, the employment absorbing capacity of these industries were estimated to be only 5 per cent out of the 1.4 million industrial employment opportunities during the fourth plan (see Table 1). The capital-employment gap of the basic upstream industries, certainly, create a serious social problem in the labour-surplus economy of Indonesia.

It was not surprising that efforts were being made to increase the labour-intensive small-scale industrial development as a way to absorb the increasing labour force of the country. Although the expected growth of the small-scale industrial va-

Table 1 The Fourth Five-Year Industrial Development Plan of Indonesia :
The Macro-Framework^a

Industrial Groups	Annual Growth	Total Value Added	Increasing Value Added	ICOR	Investment Requirement	Planned Labour Absorption		Investment per Labour
						Total	%	
	(%)	(Rpbillion)	(Rpbillion)		(Rpbillion)	('000)		(US\$)
1. Machinery and Metal Basic Industries	17.0	854	464.5	3.4	1,579	35	2.5	108,714
2. Chemical Basic Industries	17.2	351	192.4	3.5	673	35	2.5	46,342
3. Various Industries	6.0	1,275	322.0	2.8	902	400	28.5	5,432
4. Small-Scale Industries	6.0	297	74.7	1.9	142	930	66.5	368
Total	10.0 ^b	2,777	1,053.6	3.1	3,296	1,400	100.0	

^aExcluding oil and gas industries; with the 1973 constant prices.

^bThe annual growth of the total industrial sector, including oil and gas industries, was planned at 9.5 per cent during the fourth plan.

Source : Rencana Pembangunan Lima Tahun Keempat Sektor Industri (Tahun 1984/1985-1988/1989), Volume I (Jakarta : Departemen Perindustrian, 1984), pp.20-22.

lue-added were only 6 per cent per annum, however, about two-thirds of the industrial employment opportunities could be absorbed by these small industries. Since the industrial development of Indonesia should achieve the high growth and the employment expansion and creation ; then the dualistic industrial development policy, growth and equity, has to be adopted for the Indonesian development efforts.

Problems of Industrial Development

The basic structure of industrial development in Indonesia was based on a three-prong foundation -- import substitutions, export-oriented, and small-scale industries. The main source of industrial growth originated from the import substitution industries instead of the resource-processing activities. The import substitution industries were producing the import replacement consumption goods in the downstream industries; by using the imported raw-materials and capital equipments. The consequences of these developments have cut the linkage of these industries with the other economic activities. In the meantime, the capital-intensive upstream industries were developed at the high-protective wall; with the results of the high-cost structure of these industries. Due to the high-cost upstream industries, the downstream forward linkage industries were not competitive enough to enter the international market.

Although the Indonesian industrial structure was heavily biased toward the import substitution industries, nevertheless -- due to the oil boom of the seventies -- the industrial sector grew at the high rate of 14,6 per cent per annum. The Indo-

nesian economy, over the same period, grew at 8 per cent per annum. However, the shaky industrial structure came to the surface after the Indonesian economy was struck by the world economic recession of 1982. The growth of the industrial sector dropped to 1.2 per cent in 1982.

The resource-processing industries were mostly oriented toward producing the export raw-material commodities. Most of the resource processing industries could be considered as the "enclave" economy; without any linkage with the other industries. The lack of the inter-industrial linkages have put the small-scale industries as the bumper for the Indonesian economy. Although the small-scale industries have the strength to face the world economic recession, however, it has also the weaknesses of slow growth as well.

Small-Scale Industrial Development

The easy entry-exit characteristics of the small-scale industries have put the industries at the disposal of the low-income groups of the population. Managed and operated, mostly, by the unskilled labour, the small-scale industries usually employed less than 20 person employees -- the household and cottage industries with less than 5 person employees -- with the capital less than half-million rupiah per establishment.

Statistically, there were certain differences between the small-scale and household and cottage industries. However, both types of industries have certain common characteristics : small individual or household unincorporated undertakings, mostly employed the unpaid family workers; transforming raw-materials into finished or semi-finished products or upgrading the value of the existing products; and selling or exchange with other products.

The small-scale industries were scattered throughout the country, particularly in the rural areas. Due to the importance of the small-scale industries in the Indonesian economy, several efforts were developed to expand these activities; with the following objectives :

(a) To absorb the employment expansion and support the community growth by opening the new entrepreneurial opportunities;

(b) To fill in, and increase, the linkage programme of the basic upstream industries and the small-scale industrial activities;

(c) To increase the community welfare through the existing and expanding, small-scale industrial cooperatives;

(d) To increase its share in the national development, by increasing its value added, through improving the entrepreneurial system, product quality and labour productivity;

(e) To conserve and develop the national culture.

Although it was difficult to estimate the number of small-scale industries, including the household and cottage industries throughout the country, however, a rough estimate (1982) came to about 3 million units with the total employed persons

of 5 million. Since the diversification was so large, efforts were made to classify the small-scale industries into five groups ; food processing, clothing and leather goods, chemical and construction goods, handicrafts and other products, and metal works. In developing the small-scale industries, several commodities were chosen as the priority commodities (see Table 2).

The selection of the priority commodities seems to be rather arbitrary. The small-scale priority commodity industries, as the other small-scale industries, faced the same problems of marketing, management and finance, the absence of linkages with the medium and large scale industries, and the low quality of its products.

The efforts to develop the small-scale industries were conducted through the establishments of the small-scale industrial clusters (sentra industri kecil) and small-scale industrial estate (lingkungan industri kecil known as LIK). Both activities were part of the integrated regional approach to the industrial development in Indonesia. The higher hierarchies of the industrial regionalization were consisted of the industrial estate (kawasan industri), industrial zone (zona industri) and industrial growth centre (wilayah pusat pertumbuhan industri).

The industrial development in Indonesia were consisted of five industrial growth centres. The industrial growth centre aim at integrating and linkaging the inter-industrial re-

Table 2 Priority Commodities by Small-Scale Industrial Groups

Groups	Coverages	Priority Commodity
1 Food Processing	Food and Beverages	Schrimp chips Emping Sago processing Fodder Light food
	Tobacco	-
2 Clothing and Leather Goods	Textile	*Woven products Batik
	Garments	Garments
	Hides & Leather Goods	*Tanned hide *Leather goods
3 Chemical and Construction Goods	Paper & Printing, Publications	-
	Chemical & Other Chemical Industries	*Essential oils *Gambir
	Rubber Goods	Rubber goods
	Plastic Goods	-
	Ceramic Goods	-
	Glass and Other Glass Industries	-
	Cement, Limestone & Cement-related Products	Limestone *Furniture
4 Handicrafts and Other Products	Wood & Wooden Goods, Grass, Rattan & Bamboo	*Plaiting rattan *Plaiting, bamboo, pandan and purun Wood carvings Shellfish
	Non-metal Quarrying	*Precious stones
	Other Industries	Silver handicrafts
5 Metal Works	Steel, Non-ferrous Metal	-
	Metal Goods	-
	Machinery & Electrical Machines, Equipments & Parts	Machinery components & parts *Agricultural tools and machinery Other metal tools Electronics components
	Transportation Equipments	Wooden ships, ferrosemen, fibreglass

* Available in West Sumatra

Source : Rencana Pembangunan Lima Tahun Keempat Sektor Industri (Tahun 1984/1985-1988/1989), Volume II, Chapter III.

lationship by using the natural and energy potential resources of the country. In practice, the industrial growth centres consisted of several potential regions for the growth and development of the industrial activities; through a dynamic linkage and supported by a good transportation network.

In assisting the development of the small-scale industries, about 148 technical service units (unit pelayanan teknis) were established to serve about 2000 small-scale industrial clusters. Over the period of the fourth plan, about 6000 clusters will be established through out the country.

The technical service units were equipped with the appropriate machineries in assisting the small-scale industries in the surrounded areas. The units would assisted the small-scale entrepreneurs by producing one part of the production stages; which could not be handled by the small-scale industries.

Financing the Small-scale Enterprises

The individual or family financial resources, initially, have financed the establishment of the small-scale enterprises throughout the country. Although the financial problems, to a certain extent, became the main constraint of the small-scale enterprises, nevertheless, the enterprises seemed to have a strong motive to exist. Economically, most of the small-scale enterprises were not feasible, but culturally, the small-scale enterprises have been the source of living for million of labour forces.

The informal structure of the small-scale enterprises, including the small-scale industrial enterprises, seemed to be the banks' main constraint in extending their financial assistance to these enterprises. The formal bank-credit procedures have discriminated the small-scale, against the medium and large-scale enterprises. Nevertheless; it has been realized also that the small-scale enterprises would play an important role in the economic development of Indonesia.

In order to assist the development of the small-scale enterprises, a special credit arrangement was introduced by Bank Indonesia in 1974. The small investment credit (Kredit Investasi Kecil or known as KIK) and the permanent working-capital credit (Kredit Modal Kerja Permanen or known as KMKP) become the main financial assistance in promoting the small-scale enterprises in Indonesia.

In principle, KIK was designed to assist the small-scale enterprises in expanding their activities through the investment credit provided by the bank. KIK could be used to finance all small-scale investment activities with special emphasis on increasing the production of goods and services. KIK could be supplemented by KMKP as the working capital of the small enterprises.

The KIK and KMKP programmes have been expanded later on into a comprehensive Small Enterprise Development Project (SEDP). Initially, SEDP was created through a US\$ 40 million loan from the World Bank in 1977. The project was developed,

later on, into SEDP II and SEDP III, by expanding the activities into a more broader scale. The European Economic Community (EEC), Netherlands, Australia, and Federal Republic of Germany joint the World Bank in supporting the SEDP in Indonesia.

The objectives of SEDP were as follows :

- (a) Financing the KIK and KMKP programmes.
- (b) Identifying the small-scale development projects to be financed by the SEDP programme.
- (c) Conducting training activities for the bank's staffs in improving the management of the KIK and KMKP credits.
- (d) Implementing the internal research activities and evaluating the impact of the KIK and KMKP programmes on the social and economic development of Indonesia.

The SEDP I was implemented by establishing three Regional Project Management Units (RPMU) at three Bank Indonesia branches in Semarang, Surabaya and Padang. The RPMU was expanded later on, into the other ten cities in Indonesia -- Banjarmasin, Ujung Pandang, Denpasar, Bandung, Medan, Yogyakarta, Jakarta, Palembang Manado, and Mataram.

A more systematic way in developing the small-scale enterprises, especially the small-scale industries, was conducted through several pilot projects in Indonesia, such as, leather goods, batik industries, small-scale metal works, lime stones, inland-fisheries, etc. However, it was not quite clear, what is the impact of the SEDP on the development of the small-scale enterprises in Indonesia.

Since the introduction of KIK and KMKP, several improvements have being made in expanding the facilities for the small-scale enterprises. The maximum credit facilities of KIK and KMKP

available for the small-scale enterprises has been increased from Rp 5 to Rp 15 million (see Table 3).

Table 3 Facilities of the Small Investment Credits and Permanent Working-Capital Credits in Indonesia

Dates of Implementation	Small Investment Credit			Working-Capital Credit		
	Max. Credit (Rp mill)	Interest Rate (%)	Loan Period (years)	Max. Credit (Rp mill)	Interest Rate (%)	Loan Period (years)
December 1974	5	12.0	5	5	15	3
February 1977	10	10.5 ^a	5	10	12 ^a	3
September 1980	15 ^b	10.5	10 ^c	15 ^b	12	3 ^e
June 1983	15 ^d	12.0	10 ^c	15 ^d	12	3 ^e

^a Since January 1, 1978

^b Maximum credit was still Rp 10 million with the possibility of extending on an additional credit of Rp 5 million.

^c With a four-year grace period

^d Maximum credit was raised to Rp 15 million by eliminating the previous system of granting the additional credit.

^e With the possibility of extending the payments of the credit.

Source : Bank Indonesia, Indonesian Financial Statistics (November 1986), pp.11-12.

In operating the small-scale enterprises, the needs for the working capital seemed to be greater than the initial investment credit. To a certain extent, the initial investment was financed by the individual or the family; which was supplement-

ed, later on, by the KIK programme. The KIK credit, in other words, was only a supplement and not the principal financial resources of the small-scale enterprises.

However, the working-capital could not be provided by the internal family sources. The working-capital seemed to be fluctuated according to the demand of goods and services produced by the small-scale enterprises. The raw material and the other variable costs, such as wages and salaries, need to be financed from the external sources. Although the banking system has been involved in financing the small-scale enterprises, however, the enterprises could not avoid getting the loan from other sources as well, such as, the money lenders. In the last few years, the rural cooperatives assisted also the small-scale enterprises.

During the last five years (1980-1985) the total KIK and KMKP credits increased nearly triple. The total KIK credit in 1985 was Rp 1,015 billion through the 266,138 approved applications. In the meantime, the KMKP credits was Rp 2,768 billion; with nearly two million approved applications.

Several problems occurred in financing the small-scale enterprises, such as the loan payments, marketing or management. However, the KIK and KMKP programmes have become an integrated part of developing the small-scale enterprises in Indonesia.

WEST SUMATRA : CULTURE AND DEVELOPMENT

The national small-scale industrial development policy tried to develop the small-scale industries through the government intervention, on the one hand; without hampering the local initiatives, on the other hand. The government intervention was directed toward modernizing the small-scale industries; which has, however, to face the traditional family management of the small-entrepreneurs.

The national policy, to a certain extent, has strengthened the small-scale industries in West Sumatra. The informal structure of the small-scale industries were the main factor for its existency; where the individual or the family income could not be separated from the small-scale industrial accounts. The family management approach has become the strength, but also, the weakness of the small-scale industries in West Sumatra.

The Culture of the Minangkabau Business

The Minangkabau family management system has influenced, not only the small-scale enterprises, but also the medium and large-scale activities in West Sumatra.^{2/} The Minangkabau entrepreneurs which were known for their energetic activities outside West Sumatra seems to have a loosing ground at their hometown.

^{2/} Minangkabau is the ethnic group of the indigenous population of West Sumatra.

The family management system originated from the ownership of land. The land, in the Minangkabau culture, were owned by the clan family. Since the basic ownership was managed by the clan family, then, it was not surprising that the business activities were also handled by the same manner.

The family management approach was suitable for the small-scale enterprises than the medium or large scale activities. The operation of the small-scale enterprises, usually, did not based on the economic accounting approach; but to a certain extent, on the cultural factor. Management was handled by the head of the family. The relationship with the employees was mostly based on the family lines -- usually in the form of unpaid family workers. The business activities, consequently, became a closed system. The cultural factor, instead of the economic consideration, has support the small-scale industries in West Sumatra.

The system, however, did not respond easily to the possible expansion of the enterprises. The transformation to a modern management system implied the transformation of the cultural to the economic consideration in managing the enterprises. It was not an easy task in the Minangkabau matrilineal system.

The family management approach could not be implemented in the medium and large-scale enterprises. The separation of the cultural and the economic factor in the modern medium or large-scale enterprises, clearly, deviate from the social-cultural background of the society. The system has no roots

and became "alien" in the Minangkabau business community. It was not surprising that once the small-scale enterprises emerged as the medium or large-scale operations, it felt apart dramatically in West Sumatra. However, the transformation of the Minangkabau enterprises could be made rather smoothly outside their homeland. The different cultural environment has given a greater opportunity for transforming the traditional into the modern management system.

Although the industrial sector, particularly the small-scale industries grew rapidly in the seventies, however, the agricultural activities still dominated the economic structure of West Sumatra. About 30 per cent of Gross Regional Domestic Product of West Sumatra came from the agricultural sector; while the manufacturing activities contributed only 19 per cent. In the meantime around 60 per cent of the employment were in the agricultural field.

Development Objectives and Strategy

On the strength of the domestic-oriented agricultural production, and the support of the manufacturing industries, West Sumatra economy did not quite hampered by the world economic recession. The weakness of the international trade activities, to a certain extent, has made West Sumatra not so vulnerable to the world economic fluctuations. However, she did not also have the power to expand her economy rapidly during the economic boom.

The main output of the agricultural sector is rice, which was used for domestic consumption. In the meantime, the largest manufacturing establishment in West Sumatra is cement factory. Although the efforts to export cement have been conducted in the last few years, however, a large part of the production was still used to fulfil the domestic requirements. The same situation occurred in the small-scale industries, and other economic activities. Exports were estimated to be around 9 per cent of the Gross Regional Domestic Product of West Sumatra. The major export products were rubber, coffee, tea, cassia vera, and rattan.

Since agriculture became the major sources of income and employment, this sector has been given a high priority in the five-year development plans of West Sumatra. With the improvement of the agricultural sector, the demand for the non-agricultural products were increased rapidly in the last fifteen years.

The development of West Sumatra was based on the seven principles, Sapta Karya Pembangunan, which reflected the socio-economic environment of the province.

- (1) Equal distribution of development and its results to achieve a social justice for all people ;
- (2) To achieve a high economic growth;
- (3) To maintain and increase the national stability in the province;
- (4) To increase the faith and devotion to the God Almighty in the framework of maintaining the good moral and character;
- (5) To develop the national intelligencia;
- (6) To develop a harmonious way of life on the principles of alur and patut;
- (7) To increase the participation of ninik mamak (clan chief), alim ulama (religious leader), cerdik pandai (the intelligencia), women, the youth and all level of society in the process of development.

On the basis of these principles, the objectives of the fourth five-year development plan of West Sumatra, 1983/84-1988/89, were as follows :

- (1) To equalize the distribution of the basic needs and social services, such as food, clothing, housing, education, health, and some environmental factors, to all level of society and development regions;
- (2) To create employment opportunities to all level of society;
- (3) To increase the provincial financial sources, such as, saving and social participation;
- (4) To achieve the economic growth of 6 per cent per annum with a more equal distribution of income;
- (5) To increase the production of the non-rice and export commodity;
- (6) To increase the ability of the small-scale and weaker business enterprises and strengthening the cooperative movements;
- (7) To increase the religious facilities in order to maintain the good moral and character and devotion to the God Almighty;;
- (8) To spread the information on law in order establish a way of life on the principles of alur and patut;
- (9) Creating a two-way communication system in order to enlarge the participation of ninik mamak (clan chief), alim ulama (religious leader), cerdik pandai (the intelligencia), women, the youth and all level of society in all development activities;
- (10) Creating the regional stability in the framework of national stability;
- (11) Developing the region without damaging the local natural environment.

The fourth plan gave more emphasis on the expansion of the private business activities. This tendency was not surprising since the government budget was declining due to the declining trend of the oil price.

The expansion of business activities, to a large extent, concerned with the development of the small-scale enterprises. Although not all small-scale enterprises were registered at the Regional Office of the Ministry of Trade, however, the number

of small-scale enterprises seemed to have been doubled in the last five years -- from 7,032 units to 13,970 units. In the meantime, the number of medium and large-scale enterprises were not developed as rapidly as the small-scale enterprises.

The small-scale enterprises were concentrated on trade and transportation; which concerned with the service activities. Trade and transportation, especially the urban transportation network, relatively easy to handle than the resource-processing activities of the small-scale industries. Nevertheless, the small-scale industries, as in the other small-scale enterprises, grew rapidly in the last ten years. This has been reflected also in the number of approved KIK and KMKP applications and credits in West Sumatra (see Table 4).

Education and Skill

The growing trend of the small-scale enterprises in West Sumatra, as well as in Indonesia, was mainly influenced by the low level of the labour force education. Almost 80 per cent of the labour force in West Sumatra in 1980 has attained only, as high as, the primary school ; which already improved compared to ten years ago where the number of the same educational level of the labour force had been 90.4 per cent. The low level educated labour force, especially among the female, has a great deal of difficulty in entering the formal sector. The tough competition with the higher educated labour force, coupled with the limited employment opportunity, has forced the unskilled labour force to enter the informal sector of the small-scale enterprises.

Table 4 Number of Approved Applications and Outstanding of KIK and KMKP for Small-Scale Industries in West Sumatra, 1975-1986

Year	Small Investment Credit				Working-Capital Credit			
	Number of Approved Applications	Outstanding Credits	Proportion of SSI-Investment Credits to Total KIK		Number of Approved Applications	Outstanding Credits	Proportion of SSI-Working Capitals to Total KMKP	
			($\%$)				($\%$)	
			(A)	(B)			(A)	(B)
	(Rpmillion)				(Rpmillion)			
1975	83	174	26	23	77	121	15	15
1976	104	174	13	12	98	153	18	13
1977	90	157	12	12	76	131	13	11
1978	143	254	13	16	97	190	4	11
1979	157	362	16	16	129	357	5	11
1980	197	656	12	12	239	864	6	11
1981	260	990	11	10	322	1,631	6	10
1982	251	916	7	8	337	1,546	7	8
1983	295	1,153	11	10	423	1,960	8	8
1984	303	1,202	10	10	447	2,178	7	7
1985	313	1,203	8	10	477	2,322	7	6
1986 ^a	298	1,230	7	11	523	2,542	7	6

^a Until the third quarter of 1986.

Explanations : (A) denotes the proportion of the number of Small-scale Industrial (SSI) Investment and Working-Capital approved applications to the total KIK and KMKP approved applications, and (B) the proportion of Small-scale Industrial (SSI) Investment and Working-Capital credits to the total KIK and KMKP credits.

Source : Data Statistik Perbankan Sumatera Barat (West Sumatra's Banking Statistics), Third Quarter 1981 and 1986.

However, it was difficult indeed to judge the skill of the small-scale enterprises' workers upon their formal educational level -- especially in the small-scale industries. The level of formal educational level -- primary, junior, and senior high schools -- did not really reflected the actual skill of the workers. The specific handicraft skill, for example, usually inherited from the family -- including the enterprises. Since the workers are members of the family, then labour costs could not be calculated on the basis of the formal wage system. The comparison of the labour costs structure among the small-scale enterprises seemed to be meaningless.

Since the skill and the enterprises were inherited from the family, it was not surprising that most of the small-scale industries were located in certain places and managed by certain family. Labour mobilization seemed to be restricted within the family.

Population, Income, and Market

The market of small-scale industrial products of West Sumatra, in the first stage, was aimed at fulfilling the requirements of the local population. The population of West Sumatra was 3.4 million, based on the 1980 census, with the annual growth of 2,2 per cent during the seventies. It was estimated, that the number of population will achieve 4.2 million in 1990. With the total geographic area of 42,298 square kilometers, the population density in 1980 came to 81 persons per square kilo-

meter. However, since only 14 per cent of the total geographic area could be inhabited, due to the mountainous and swampy areas, then the real population density was 576 person per square kilometer -- which was nearly the same as West Java population density.

In the meantime, the distribution of population was uneven; where most of the population lived in the developed central part of West Sumatra. However, some changes were already occurred during the seventies, where the annual population growth in the periphery was catching-up compared to the central parts : three and one per cent respectively. The higher population growth in the periphery was the consequences of the opening of a new transmigration area in the southern part (Sitiung) and the increasing voluntary immigration from Tapanuli to the northern part, of West Sumatra. In the next decade, it will be more likely that a more balanced population distribution will be found in West Sumatra.

About one-third of West Sumatra population was below ten years of age. The labour force participation rate was 47 per cent; where the female labour force consisted of one-third of the total labour force. West Sumatra labour force, mostly, has a rural characteristics with the agriculture as the main occupation.

The basic economic structure of West Sumatra depended, to a certain extent, on the informal sector. About 80 per cent of employed persons were working in the informal small-scale agri-

cultural activities and enterprises. Due to these conditions, a segmented labour market could not be avoided in West Sumatra economy. Since the informal sector was based not on a formal wage system, the level of wages in this sector was lower compared to the formal sector. The wages in the formal sector, particularly for the manual labour, was higher compared to Java and certain parts of Sumatra.

The total employed persons in the manufacturing industry was 5.6 per cent, while the trade activities absorbed about 12.1 per cent, of the total employment of West Sumatra -- which was estimated to be 1.1 million in 1980. Out of the total employment in the manufacturing industry in 1980, 61,681 persons, about two-thirds were working in the small-scale industries.

Since the basic economic structure of West Sumatra depended upon the communal agricultural land, while the non-agricultural activities heavily biased toward the small-scale enterprises, then the consequences on the income structure were quite clear. The West Sumatra per capita income was low but the income distribution pattern seemed to be more equal among the households. A rough estimate suggested that the 1985 per capita income of West Sumatra was about US\$ 380; which was 70 per cent of the national average per capita income. The Gini ratio in 1984 was 0.263.

The size of West Sumatra market was limited either in terms of population, or income. The market expansion of the small-scale industrial products should be directed toward the national or

international markets. However, penetrating the national or international markets seemed to face the problems of, either on the supply or the demand constraints. Nevertheless, the problems would depend on the characteristics of the specific product of the small-scale industries. A different product will certainly face a different problem.

If the small-scale have to compete with the medium or large scale industries, in the sense that they produced the same products, then the former will have some difficulties in penetrating the markets. The small-scale industries will certainly lose since they could not compete either in terms of quality or price. However, if the small-scale industries produced the uncompetitive products, in the sense that they produced a different product, then they will have a greater opportunity of penetrating the markets.

The supply side constraint mostly centered on the organizational problems of marketing their products. Since the national market, in one way or another, should be directed to the densely populated Java island, the West Sumatra small-scale industrial products have to compete with the Javanese products. The competition, in certain cases, could be considered as the non-price competition : taste, accessibility, etc. For the specific Minangkabau-oriented products, the market was aimed at the Minangkabau society living in Java -- which was estimated to be between one-half to one million persons.

The international market, however, was more difficult than the regional or national market. In addition to the internal cost structure, the limited supply response to the increasing foreign demand became the critical problem of the small-scale industries of West Sumatra. The required standard export quality among the small-scale industries was very difficult to achieve.

The basic existency of the small-scale industries in West Sumatra came from the domestic, rather than, the international market. This trend will be expected to continue in the next few years.

Provincial Government and Industrial Development

The provincial government, in fact, has to follow the national industrial development policy formulated by the central government. The national industrial development policy was based on the People Consultative Assembly's decision on Broad Outlines of the Development Guidelines (Garis-garis Besar Haluan Negara or known as GBHN). The GBHN, later on, was implemented through the five-year development plans.

In executing the national policy, the central government created the provincial office of the Ministry of Manufacturing Industry. The provincial office, however, has the responsibility of implementing the national policy, on the one hand; and coordinating the industrial development policy with the other government agencies, on the other hand.

The institutional problems, however, were not on the central-to-provincial government's policies. Although the main policy on industrial development was formulated by the Ministry of Manufacturing Industry, but the implementation has involved several government organizations such as Ministry of Finance, Central Bank, Ministry of Trade, Ministry of Cooperative, Ministry of Home Affairs, Investment Coordinating Board, etc. The problems mostly occurred in coordinating the inter-ministerial policies of industrial development in Indonesia.

The industrial development, in principle, usually conducted by the private sector. The private sector organizations, such as the Indonesian Chamber of Commerce (KADIN) played an important role in strengthening the private sector. In the meantime, 30 state banks and 24 private banks supported the financial requirements of the manufacturing industries in West Sumatra.

WEST SUMATRA SMALL-SCALE INDUSTRIAL DEVELOPMENT : THREE CASE STUDIES

Since small-scale, including the household and cottage, industries covered a wide variety of activities and characteristics; then several approaches have to be used in the promotion of these industries. The different approaches, to a certain extent, created a wide organizational network ; and complemented to each other.

The promotion of the small-scale, including the household and cottage, industries in West Sumatra has been developed into three approaches. The basic framework of the three approaches was the linkage concept among the industries ; either on the large-to-small or small-to-small basis.

The first approach, which based on the large (medium)-to-small scale industrial linkage circle, was implemented through the establishment of the Ulu Gadut small-scale industrial estate (Lingkungan Industri Kecil or LIK). The LIK, patterned from the large-scale industrial estate, was created by opening a special area provided with common service facilities, to be used by the small-scale industries.

The direct-linkage system, however, could be made also outside the LIK through the "foster-father" scheme. The scheme, more or less, has shifted the role of the LIK common service facilities to the large-scale industry involved in this second approach. The large-scale industry, as the "foster-father" took the responsibility in protecting and expanding the small-scale industrial activities.

Experiment has being made by implementing the scheme through the linkage of the Padang Cement Factory (P.T. Semen Padang) with the Sungai Puar small-scale metal working industries. The experiment seemed to be successful due to the increasing needs of the cement factory's spare-part requirements; which could be made and supply by the small-scale metal working industries.

The large-to-small linkage approach seemed not to be suitable for the Koto Gadang household and cottage industries. The industries, in one way or another, have already been clustered around the village. It was not surprising, that the third approach by using the cluster scheme, was used in the promotion of the Koto Gadang industries. The scheme, in principle, tried to strengthen the industries through the small-to-small cooperation network.

The three approaches became the basic framework in the promotion of small-scale, including the household and cottage, industries in West Sumatra.

(A) SMALL-SCALE INDUSTRIAL ESTATE :
THE ULU GADUT CASE

The small-scale industrial estate scheme was introduced in West Sumatra through the establishment of the Ulu Gadut LIK, about 10 kilometers from Padang, in 1984. Preparations have been made since 1981, on the basis of a comprehensive approach; by modernizing the production process and management, in promoting the small-scale industries in West Sumatra.

The Ulu Gadut LIK was designed for the export-oriented small-scale industries, on the one hand; and the local-marketed production, on the other hand. Both differentiations were linked with the medium-scale industries, which would act as the lead industries in the LIK. The medium-scale industries, or Strata-One industries, would supply the various input components needed by the small-scale industries. The production-input linkage was supported and strengthened by the production-export

linkage -- through the exports of the small-scale industrial products, or the Strata-Two's output, by the Strata-One companies.

The Strata-Two industries, consequently, depended heavily upon the Strata-One. Although there existed a linkage between the Strata-Three industries, which consisted of the local-marketed small-scale industries, to the Strata-One; however, the linkage was not as strong as the Strata-Two industries.

The basic structure of the Ulu Gadut LIK was based on the strength of the coordinated linkage -circle between the stronger industries, Strata-One, with the weak industries, Strata-Two; and to a certain extent, the Strata Three industries. These planned linkages were supported by the modern basic industrial facilities provided by the government; such as, roads, water supply, electricity, telephones, workshops, show-rooms training centres, machineries, and other equipments and tools (see Table 5), and occupied about 23.4 ha of land.

LIK Programmes and Development

Although LIK was designed also for the local-marketed production, however, the main objective seemed to be directed toward the promotion of export potentials of West Sumatra. Consequently, the production selection of the LIK has to be based on the raw-material export commodities. The LIK would increased its value added, in addition to the employment creation, by exporting the semi-finished or finished products instead of the raw-

Table 5 Selected Common Facilities at Ulu Gadut LIK

Facilities	Unit	Total
(A) <u>Buildings</u>	m2	<u>2,983</u>
Central office ^a		121
Training Centre		105
Rattan workshop		589
Wood workshop ^b		1,008
Design Centre ^b		1,140
(B) <u>Wood machineries</u>	units	
Dowers		2
Cutting machines		2
Plane tools		2
Splitting machines		2
Picture frame equipment		1
Plywood cutting machine		1
Saw sharpener		1
(C) <u>Rattan machineries</u>	units	
Splitting machines		3
Rattan peeling trimmer		4
Weaving machines		3
Hydrolic straighteners		2
Rattan surface machines		6
(D) <u>Leather machineries</u>	units	
Sewing machines		2
Pressing machine		1
Compressor		1
(E) <u>Complete tools and equipments for the Workshops</u>		

^a Central office was used for the Small-scale Industrial Development Centre (Pusat Pengembangan Industri Kecil or PPIK).

^b Design centre become the research and development division of the LIK.

materials, in the international market. The exported raw-materials to be selected have to fulfil several conditions.

First, the supply of raw-materials should be based, mostly, on the productions of West Sumatra. The resource-based approach was considered to be important, since it will secure the supply line of the LIK.

Second, the opportunity to penetrate the international market should be greater after these raw-materials have been processed, by increasing its quality, at the LIK.

Third, the handling of these raw-materials, at least in the first stage, should be based on the existing unorganized, but experienced, small-scale industries in Padang. The inability to export the higher quality products, was assumed, to be mainly due to the lack of facilities and management. The LIK, in fact, will give the opportunity to these experienced small-scale industries to increase their value added by using the government provided facilities.

On the basis of these considerations; timber, rattan and leather, have been chosen as the LIK production lines. These products have a strong production-based in West Sumatra, in addition to its potential as the export commodities. The Strata-One industries, have the responsibility of producing the semi-processing products of sawn-timber and rattan splits for export, on the one hand; and supplying the input and exporting the finished products of furnitures and shoes for the Strata-Two and Three industries, on the other hand. The Strata-One industries, in principle, should have a secure raw-ma-

terial supply of timber and rattan from their own forest concessions in West Sumatra. As the lead industries, the Strata-One industries became the core industries at the LIK.

The Ulu Gadut LIK, therefore, used a limited product differentiation approach; based on three production lines with two expected finished products. The limited product differentiation was considered necessary since it would concentrate the construction of the basic industrial facilities to certain specialized equipments and tools. These common basic facilities were the "heart" of the Ulu Gadut LIK.

In the long-run, the 10 Strata-One industries at the LIK should create a forward linkage effect of about 50 Strata-Two, and 200 Strata-Three industries. Although the plan seemed to be too optimistic, however, it clearly show the importance of the Strata-One industries in the development of the LIK (see Table 6).

The actual operation of the Strata-One and Two industries, was closely followed the short-term targets of the Ulu Gadut LIK. However, the existing industries which moved to the LIK still retained their sister companies, instead of closing it down, outside the LIK. The decision to keep the downtown sister companies was seemed to be used as the safeguard for the existency of the new industries established at the LIK.

The Ulu Gadut LIK was far from the downtown ; with the consequences of the difficulties in collecting the raw-materials and the marketing of the LIK-based products. Although

Table 6 Number of Industries at Ulu Gadut IIF by Time-Reference and Strata

Item	Strata-One				Strata-Two				Strata-Three				Total			
	wood	Ratta-	Leather	Total	wood	Ratta-	Leather	Total	wood	Ratta-	Leather	Total	wood	Ratta-	Leather	Total
Long-term Target	5	5	-	10	25	25	-	50	100	50	50	200	130	80	50	260
Short-term Target	5	5	-	10	15	5	-	20	10	10	10	30	30	20	10	60
Realization ^a																
1984	5	4	-	9	15	5	-	20	2	2	23	27	22	11	23	56
1987	5	3	-	8	7	5	-	12	-	-	11	11	12	8	11	33

^a At the end of March.

both companies worked on the same line of production, however, the new sister companies could be expected to use the new LIK government facilities -- including the promised new forest concessions, as their resource-based, in West Sumatra. The relationship between the sister companies could be regarded as the production and marketing relationship.

The expectation of penetrating the international market, through the assistance of the Strata-One industries, has made the Strata-Two industries fully occupied the allocated spaces at the LIK, when it was officially open in 1984. On the contrary, the Strata-Three industries, especially in the timber and rattan industries, considered the LIK as not profitable, since its location was too far from the downtown. After three years of its operation, the Strata-Three timber and rattan industries were closed down; while the leather industries became half of the total number of the original establishments.

The LIK operations, to a certain extent, faced the problems of the world economic recessions ; since the Strata-One industries began its first export of sawn-timber and rattan in 1984. The rattan splits, including other variations of rattan processing, became the main export commodity of the Ulu Gadut LIK. Although sawn-timber has been exported also from the LIK, however, its total value was far below the rattan splits. Most of the LIK sawn-timber production faced a hard competition from the non-LIK industries; with the results that most of these products were marketed locally instead of being exported. The export and production of the Ulu Gadut LIK were still played a minor role in the West Sumatra's economy.

The Strata-One industries, which were expected to become the lead industries in the LIK, have to secure their own position before acting as the "umbrella" for the Strata-Two and Three industries. The expansion of the Strata-One industries have been faced with their own financial and management problems; in addition to the unfavourable economic conditions. It was not surprising, that the Strata-One industries were preferred to export, instead of supplying the Strata-Two industries, with their rattan splits production.

At least two main factors have influenced this decision. First, a wide margin of export and local prices of rattan has forced the Strata-One industries to export their products; although the lower quality rattan found its way to the Strata-Two and Three industries. Second, the international market for rattan splits seemd to be more secure than the market of the expected Strata-Two's rattan furnitures. The demands for West Sumatra's rattan were, strongly, came from Italy, Netherland, Norway, Spain, West Germany, and Singapore. However, the demand for rattan furnitures was quite uncertain; since it has been influenced by several factors, such as, taste, prices, etc.

As the consequences of these trends, at its preliminary stage, the Ulu Gadut LIK has to operate on a dual system without any significant linkage among the industries. The first system, operated on the basis of the Strata-One industries, has the characteristics of export-oriented, semi-finished products; capital intensive; and modern management. On the con-

trary, the second system, the Strata-Two and Three industries, was based on the traditional small-scale industries; locally market-oriented finished products; and labour intensive. Both systems, in fact, were a reflection of the dual economic system within the developing economies. However, these systems were operated, literally, side-by-side at the Ulu Gadut LIK.

Although the Strata-One industries held a strong position in the LIK, nevertheless, these industries faced a hard competition from the other larger industries, operated outside the LIK. The strength of the non-LIK large-scale industries was in their own resource-based forest concessions; which became a secure raw-material pipeline to the industries.

The Strata-One industries, in principle, should have their own raw-material sources. However, none of these industries have their own forest concessions; although four Strata-One industries, indirectly, have their forest concessions through the sister companies. The traditionally operated, small-scale, timber and rattan industries, actually become their main sources of raw-materials. It was not surprising that the export of Strata-One industries was too low compared to the total West Sumatra's export of sawn-timber and rattan splits.

The Strata-One industries were expected to produce, per year, about 36,000 ton of sawn-timber and 2.1 million pieces of rattan splits; with the estimated total value of Rp 9.1 billion. However, with the raw-material and financial problems facing the Strata-One industries; the average total value of export and the locally-marketed-products, in the last three years, were estimated to be only Rp 0.6 billion per year or 7 per cent of its total capacity.

Since the basic inputs, and the export possibilities, could not be expected from the Strata-One industries; the only alternative left by the Strata-Two industries was to find the local market -- as in the Strata-Three industries. The existency of the Strata-Two and Three industries depended heavily upon their sister companies, which acted as their marketing outlet.

However, the size of the local market seemed to be limited and the competition of the LIK furnitures and shoes were quite large. These problems have some impacts upon the Strata-Two, and particularly the Strata-Three industries. The number of these industries reduced, dramatically, after three years of the LIK operations.

Quite different from the Strata-One industries, the Strata-Two and Three performance were rather difficult to be evaluated, quantitatively. It was not quite clear how many furnitures and shoes have been produced at the Ulu Gadut LIK. However, judging from the problems and the limited size of the local market, the optimum utilization of the Strata-Two and Three industries was still under its maximum capacity.

Financial Requirements

The Ulu Gadut LIK was built on the joint efforts of the government and private enterprises, with the assistance of the banking sector. The joint efforts approach were more preferable than the full government sponsored activities; since all participants have to take the responsibility in operating the in-

dustrial estate. On the basis of this approach, the government provided only the basic facilities ; while the participating industries have to finance their own building and other necessary equipments, including the land.

The basic strategy of developing the Ulu Gadut LIK has appropriately put the role of the government as the "agent" for the expansion of the privately financed small-scale industries. It was not surprising that, out of the total LIK capital investment of Rp 4.4 billion, including the land; only one-third was borne by the government. A large part of the investment was financed by the Strata-One industries, while the Strata-Two and Three played only a minor role.

The original long-term plan of the LIK seemed to be too ambitious. The plan put more emphasis on developing 200 units of Strata-Three industries with the total capital investment of Rp 1.5 billion. However, since Strata-Three seemed to be the weakest group among the LIK industries, it could be realized only about 5 per cent; while the Strata-One industries have already covered 83 per cent, of the total planned investment (see Table 7).

The Strata-One industry, consequently, dominated the Ulu Gadut LIK activities. These industries, relatively, seemed to have more access to the banking system ; although a large part of their capital investment was financed from their own funds. On the contrary, the access to the bank was rather difficult to the Strata-Two and Three industries.

Table 7 Number of Industries, Budget, Land Clearing and Building at Ulu Gadut LK 1984

Investor	Long-term Plan (unit)		Investment Budget (Rp million)		Land Clearing (m2)		Building (m2)	
	Target	Realized	Target	Realized	Target	Realized	Target	Realized
<u>Government Budget</u>	-	-	<u>3,500</u>	<u>1,500</u>	<u>35,000</u>	<u>10,000</u>	<u>2,000</u>	<u>1,207</u>
Common Service Facilities	-	-	3,500	1,500	35,000	10,000	2,000	1,207
<u>Private Funds^a</u>	<u>260</u>	<u>56</u>	<u>5,323</u>	<u>2,901</u>	<u>106,560</u>	<u>84,555</u>	<u>31,179</u>	<u>16,528</u>
Strata-One	10	9	3,247	2,708	81,360	79,245	22,203	13,063
Strata-Two	50	20	576	120	7,200	2,880	2,376	1,980
Strata-Three	200	27	1,500	73	18,000	2,430	6,600	1,485
Total	260	56	8,823	4,401	141,560	94,555	33,179	17,735

^a Including bank-credit.

The large capital investment of the Strata-One industries, without a significant linkage to the Strata-Two and Three, has shifted the role of the LIK from the equity-oriented development to the growth-oriented expansion. As has been expected, development tended to benefit the strong, instead of strengthening the small-scale, industries.

Although the Strata-One industries have less difficulties in financing the capital investment, however, the financial problems actually arised at the operating costs level. The operating costs, on the basis of three-to-four month production cycles, required about Rp 3 billion. In the meantime, the KMKP credit given to the Strata-One industries was approximately one-third of the total requirements. The inability of the Strata-One industries to cover its own operating costs was quite obvious. It involved a huge sum of funds. The one-cycle Strata-One's operating costs have already exceeded their initial capital investment. The bank's assistance become the necessary requirements for the expansion of the LIK industries.

However, the banks and the Strata-One industries faced an interlocked dilemma in financing these operating costs ; due to the different views on both sides. The banks viewed the problems from the long-term perspective while the industries mostly concerned with the short-term aspects.

The banking sector, on the one hand, required the availability of the forest concessions as the conditional terms for releasing the bank's credit to the Strata-One industries. The

forest concessions, by the banking standard, could become the long-term guaranteed raw-material sources for the industries. The Strata-One industries, on the other hand, considered the bank's credit was necessary for their optimal operation ; irrespective of the forest concessions. The needed short-run supply of raw-materials, while waiting for their forest concessions application, could be provided by the traditional timber operations in West Sumatra. The different views have influenced the operation of the Strata-One industries since its establishment at the LIK.

Due to the operating cost problems, the Strata-One industries had been forced to reduce its scale of operation, tremendously ; until it reached the low level of 7 per cent of the total planned sales in 1986. The short-run reduced sales were considered to be the consequences of the unavailability of the bank's credit rather than the lack of the raw-materials. The demand for the Strata-One industries' products, judging from the West Sumatra export of timber and rattan, seemed to be high.

The wide discrepancy of the planned to the actual sales, reflected the potential of the Strata-One industries at the LIK. The average potential nett return on Strata-One's expected sales, on the basis of the planned full capacity operation, was estimated to be 15.1 per cent in 1986. The potential nett return seemed to be high enough ; particularly with the present low inflationary rate (see Table 8).

The potential nett return on sales. however, have a sharp difference between the S' rata-One sawn timber and rattan indus-

Table 8 Financial Statements of the Strata-One Industries at the Ulu Gadut LIK 1986

Item	Unit	Timber	Rattan	Total
Total Sales ^a				
Volume ^b		36,000	2,133	-
Value	Rp million	5,106	4,032	9,138
Production Costs ^c		3,655	3,232	6,887
Gross Profit		1,451	800	2,251
Overhead Costs ^d		502	371	873
Nett Profit ^e		949	429	1,378
Actual Sales		341	310	651
Nett Return on Expected Sales	%	18.6	10.6	15.1
Ratio of Actual to Planned Sales	%	6.7	7.7	7.1

^aTotal planned sales of five timber and three rattan Strata-One industries.

^bVolume of sales of timber was calculated in ton, and rattan in '000 pieces.

^cWorking production costs consisted of the costs for raw-materials, processing, increasing quality, moulding, stocks.

^dIncluding interest payments.

^eBefore taxes.

tries. The sawn timber industries, due to its relatively lower production costs, have a high nett return compared to the rattan industries. Since the difference nearly double, it was quite reasonable that more Strata-One industries preferred to work in the timber business than rattan processing activities.

To overcome the wide planned-to-actual sales discrepancy, efforts have being made to obtain the forest concessions in West Sumatra for the Strata-One industries. Although the total forest were estimated to be 81 per cent of West Sumatra's areas ; the production forests were very limited. Most of West Sumatra forest could not be exploited due to its role as the conservation forests.

Out of the 1.6 million ha of production forests, about 55 per cent were already being exploited by 12 large-scale timber industries as their forest concession areas. By considering the traditional exploitation forests, and the low productivity areas, the potential new concessions were estimated to be about 200,000 ha. However, these potentials could not to be fully exploited. Reserved production forests will be needed, before the present forest concessions could be replanted and exploited in the next 20 or 30 years.

In obtaining the new forest concessions, the LIK Strata-One industries -- as a group -- seemed to have two alternatives to support their activities. First, the forest concessions will be given to every Strata-One industry, separately. Second, to have a common forest concessions for all the Strata-One industries, as a group.

The first alternative seemed to be unacceptable due to the limitation of the available production forests to be operated by these industries. The separated, individually, forest concessions would make the efforts not efficient and economical due to the smallness of the individual forest concessions. Recognizing this fact, the LIK Strata-One industries have formed a new parent company, as a strategy to obtain a common forest concession for their industries.

The new applied, stage one, forest concession of 5,000 ha is expected to support the Stage-One industries for the next 20 years. The new secure sources of raw-materials will increase the LIK production of sawn-timber to one-third of the total West Sumatra export of timber in 1986. The second stage, another 5,000 ha forest concession will be needed for the long-term operational plan of the Strata-One industries. With the expected new forest concession, the operating cost problems could be solved by the banks.

Actually, the banks preferred to deal with the individual Strata-One industry in the expansion of its activities. However, the industries seemed to regard themselves as a group. The informal association of the Strata-One industries has made these industries a strong and unified group in fighting for their interests. On the contrary, the Strata-Two and Three industries, have no such strength ; with the consequences that they have to run the operation, individually.

The financial problems, as faced by the Strata-One industries did not actually existed in the Strata-Two and Three in-

dustries. The dependency to the banks' credit for their operating costs seemed to be less than the Strata-One industries ; since it did not involved a huge sum of funds. However, the problems actually arised at the initial stage of financing the capital investments. The banks' intervention, through the KIK credit, has become the main factor for the establishment of the Strata-Two and Three industries at the LIK.

These industries, in most cases, produced the furnitures by the customers' special orders. The actual orders, in fact, were conducted at the downtown sister companies. Through this system, the Strata-Two and Three industries, has a partial solution to their marketing problems.

Competition with the other modern furniture industries, usually by the nation-wide knock-down production and marketing system, has put the LIK production in a difficult situation. The choice for the LIK furnitures seemed to be more influenced by the local special "taste" rather than the price of the furniture themselves. The market for the special "taste" furnitures was very limited.

Management of the Ulu Gadut LIK

The management of the Ulu Gadut LIK was handled by the Small-scale Industries Centre (Pusat Pengembangan Industri Kecil or PPIK) ; a special authority established by the Ministry of Manufacturing Industry at the LIK. PPIK played an important role in the preparation, construction, and operation of the LIK.

At the preparatory stage, PPIK has the responsibility in preparing the feasibility study including the industrial plant design and searching the candidates for the LIK. During the construction period, PPIK advised and guidance the LIK participants in designing the lay-out, constructing the building, and equipping the appropriate machineries and equipments for the industries. At the operational level, PPIK -- through its Production Service Unit (Unit Pelayanan Produksi or UPP) and Promotion and Information Centre (Pusat Promosi dan Informasi or PPI) -- provided various government facilities to support the development of the small-scale industries at the LIK. The government facilities covered a wide range of "software" and "hardware" services, including the basic industrial machineries and equipments.

Although the government facilities at the LIK were provided for all industrial strata, however, the beneficiaries of these facilities seemed quite different among the industries. Due to its size of production, the Strata-One industries seemed to have been benefited most out of the "hardware" LIK facilities ; since it could processed, mechanically, the huge volume of sawn-timber and rattan splits at the LIK basic industrial machineries and equipments.

The costs of using these facilities practically zero, since the UPP did not charge anything -- at least until April 1987 -- to the industries which used its machineries and equipments. In addition to these facilities, the UPP assisted also the industries in some technical services and guidances in operatio-

nalizing these machineries and equipments. However, since April 1987, the UPP has to charge these industries -- due to the declining government budget -- especially for covering the costs of electricity and other related operational costs.

The Strata-Two and Three industries could not use, yet, the LIK provided "hardware" facilities as efficient as the Strata-One; since their production seemed too small to have been processed, mechanically. Unlike the Strata-One industries, the Strata-Two and Three seemed to compete among themselves as a consequence of producing the same products in a limited market. Since they were working individually, then using the machineries and equipments as a unified group could not be conducted.

Nevertheless, the Strata-Two and Three industries tried to get as much as possible from the "software" services provided by the LIK. It was not surprising that Strata-Two and Three industries gave their priority in training and education programmes with the support of the UPP. These activities, initially, did not conducted at the LIK but organized by the Ministry of Trade and Ministry of Manufacturing Industry in Jakarta ; in training the Strata-Two industries' workers on the Management of Small-scale Enterprises, and Management and Production Technique of Rattan Furniture. Four workers had been trained on these programmes in 1985.

The training programmes were considered useful by the LIK workers; and it has been recommended by the Strata-Two and Three industries to expand these programmes in a more broader scale.

The main disadvantage of conducting the training activities outside West Sumatra was that it became too costly and could be attended only by a few participants. Due to these considerations, the UPP conducted the 1986 training programmes at the LIK by inviting the instructors from outside the province; instead of sending the participants to Jakarta.

Training on improving the rattan furniture design, by a rattan furniture expert from the Philippines, was held at the LIK and attended by 15 participants for a period of 15 days. In addition to the rattan furniture training, another training on hide processing and shoes-making was conducted at the LIK and attended by 20 participants in 10 days.

Since the Strata-One industries did not produce the final products, the skill of its workers was not necessarily as elaborate as the Strata-Two or Three industries. The semi-processing sawn-timber and rattan splits were easier to produce than the rattan furniture or shoes. That's the the main reason of the Strata-One's concentration on using the machineries and equipments instead of training programmes.

The UPP became the important unit in supporting the development of the small-scale industries at the LIK. It was aimed at improving the quality of the products; either semi-processing or final products, of the LIK. The production-oriented management of the PPIK was supplemented by the marketing-oriented activities through the PPI.

However, the activities of PPI were still limited on the promotion and information services of the LIK products. The ef-

forts to introduce these products were made at several exhibitions which had been held at Jakarta and Padang ; through the cooperation of the Ministry of Trade and Ministry of Manufacturing Industry.

The costs of operated the LIK supporting facilities were made through the central government budget. The government provided facilities and management at the LIK could be considered as excellent. However, the problems of the LIK small-scale industrial development seemed to be found, not on the LIK facilities and management but, on the operating costs of the Strata-One industries and the marketing of the Strata-Two and Three industrial products. In the meantime, the missing linkages of the Strata-One to the Strata-Two industries has made the LIK ideas lost its basic foundation.

Development of Mr "S" Small-scale Rattan Furniture Industry :
An Example of a Struggle to Survive

Mr "S" moved his small-scale rattan furniture industry, from his own house, to the LIK in 1983. He decided to use the LIK as his based activities with the expectation of developing his Strata-Two industry with the support of the government provided facilities at the LIK ; and the possibility of mutual linkage with the Strata-One industry.

Mr "S", actually, started his household rattan furniture industry about ten years ago; before he joint the LIK, after arriving from Java to settle at Padang. As a Javanese rattan furniture workman in a furniture shop in Jakarta, he already

learned the basic skill of making the rattan furniture. With this skill and experience, he began his small industry, assisted by his wife and two sons.

Mr "S" household rattan furniture industry had using simple equipments and tools ; and, initially, making the furnitures through the order of the customers. Since the price of his furniture could be considered low, due to the low quality of his raw materials, the demand for his furnitures increased rapidly. However, he and his family could only produced four to five sets of rattan furnitures per month, with the total sales of about Rp 200,000. His monthly income could cover only his family basic needs with barely enough saving to expand his small industry.

In the meantime, several other competitors began clouding his household rattan furniture industry, due to the overall increase of demand for the rattan furnitures. At least, 19 household rattan furniture industries, according to the Provincial Office of Ministry of Manufacturing Industry, entering the market during that time. Out of the 19 industries, 6 industries operated in a larger scale than Mr "S" and produced the high quality rattan furnitures to meet the local demand; and in some cases for export.

The new trend, in the development of the rattan furniture industries, has shifted the market from the producers' to the consumers'. The order to Mr "S" household industry declined, and he was forced to sell his products through the furniture shops, instead of directly to the consumers.

The rapidly increasing supply of rattan furnitures did not have the same response from the demand side. The selling price of rattan furnitures, relatively, declined. The consequences to the producers' price was quite obvious. The profit margin has shifted from the industries to the furniture shops.

Although Mr "S" tried to improve his rattan furniture quality, however, the efforts seemed to be too costly and not profitable ; due to his simple equipments and tools. His participation in the rattan furniture design training and other rattan furniture related courses could not be implemented due to these constraints.

His household industry, fortunately, was one of the small-scale rattan furniture industries which has been under the supervision of the Provincial Office of Ministry of Manufacturing Industry. When he was offered to joint the LIK in 1981, he grabbed the opportunity and moved his household rattan furniture industry to the LIK in 1983.

Although new problems arised by moving to the LIK, nevertheless, Mr "S" small-scale rattan furniture developed rapidly in the last few years. He expanded his industry by employing seven workmen, which one way or another, his related family. The tendency to employ his own family, to a certain extent, became the safeguard for his industry. The non-family workmen, in most cases, moved to set up his own industry when he already mastered the necessary skill.

The further expansion of his industry depended heavily upon the additional workers he could recruited to his industry. Since the skill employable workers seemed to be very limited, then unavoidably, the rattan furnitures produced by Mr "S" could not meet the increasing demand for his products.

The rattan furniture industry was more labour than a capital-intensive ones. Skill labour constraints seemed to be more dominated than the capital constraints. The capital expansion, to a certain extent, could not automatically increased the production of the rattan furniture.

Mr "S" was assisted by the bank through the KIK and KMKP credits, but no one could assisted him in acquiring the skill workers he needed to expand his industry. The family sources of labour supply for his rattan furniture industries were also limited. The problems he faced by using the non-family workers have put him in an awkward situation. Mr "S" dilemma seemed to be very unique in the labour surplus economy of Indonesia.

Although Mr "S" did not produced through the customers' order anymore, however, neither could he supplied the furniture shops at the downtown, as he has been done before. He displayed and sold his products only at his own workshop at the LIK. With his creative new design and patterns, which he obtained and created after attending the rattan furniture design training programmes, he could attracted the high income customers and, in some cases, the foreign tourists and seamen who visited his

workshop. His products improved rapidly and already achieved the high export quality standard.

However, with the present number of workers, Mr "S" industry could produced only three high quality rattan furniture sets per week; with the total sales of Rp 500,000. The difficulties in finding the good quality raw materials, in addition to the increasing local price, has reduced his profit margin, automatically, from 50 to 30 per cent.

Mr "S" has been forced to buy the good quality raw-materials from outside the LIK. The supply from the Strata-One industries could not be expected. These industries preferred to export its products rather than selling it domestically; due to the wide differences of the local and export price of rattan.

The situation became worse with the unhealthy competition among his colleagues. His creatives have being imitated by the other rattan furniture industries; with the consequences of the possibility of declining sales, if he did not created a new design. The short run "monopoly" of the new design, before it was imitated again, has put his industry in a difficult position. The unhealthy competition among the small-scale industries, in the long run, will make those industries unprofitable anymore.

Mr "S" faced many difficulties in developing his small-scale rattan industry. However, he could survived, due to his energetic and creatived activities on the one hand; and the LIK

supporting facilities, on the other hand. He did not become the "follower" but always as the "inventor" of the new rattan furniture design and patterns.

The development of the small scale industries depended heavily upon the one man decision. If this man was energetic and creative, as Mr "S", the industries could be developed ; although the problems and constraints of the industries seemed to be unsurmountable.

Mr "S" rattan furniture industry became one of the rare "success" story in developing the small-scale industries in West Sumatra. The LIK helped him in developing his creativities, although in some cases, he became disappointed with the missing linkage with the Strata-One industries. However, with or without the Strata-One industries, he tried to develop his industry the way he saw it.

He was convinced, that cooperation with the other small-scale industries will be useful for the future development of the industries. The cooperation, includes design specialization and cooperative marketing effort, will strengthen the rattan furniture industries. By achieving the high export quality standard, he is not surprising, that one day the LIK rattan furnitures will become one of the important export commodities of West Sumatra.

(B) DIRECT LARGE-SMALL SCALE INDUSTRIAL LINKAGES :
THE SUNGAI PUAR CASE

The "foster-father" scheme; which tried to promote the weak small-scale industries through a direct link with the strong large-scale industries have being made, formally, in West Sumatra since 1984. The scheme has been launched as a complement to the coordinated linkage-circle of the Ulu Gadut LIK. Quite different from the LIK approach, the "foster-father" scheme could be made by the large to-small-scale industrial linkage at different place of location. The large-scale industries would act not only as the buyer of the small-scale industrial products, but also as the protector of expanding these industries; either through training, supervising, consultancy, or other means. In other words, the large-scale industries would replace the role of the government provided common facilities at the LIK.

It was not an easy task since the scheme put a heavy burden on the large-scale industries. The additional task, to a certain extent, has made the large-scale industries as a vehicle to "trickle-down" its growth to the small-scale industries. Through this system, the small-scale industries would be developed under the protection of the large-scale industries.

The "foster-father" approach have being developed through the linkage of the Sungai Puar small-scale metal working industries with the Padang Cement Factory (P.T. Semen Padang). The system seemed to have been developed, indirectly, for a quite a long time -- through the third party -- without the knowledge of both industries.

Some spare-part components needed by the cement factory had been obtained through a trader without the knowledge that it had been made at Sungai Puar metal working industries. The quality of the components were equal to the imported spare-parts that had been used by the cement factory.

The "secret" had been blown up, in 1983, when the Sungai Puar workers made a field trip to the cement factory under the auspices of Bukittinggi Regional Office of the Ministry of Manufacturing Industry. Since that field trip, a direct link has been open, formally, between the two industries. The cement factory's first order came in 1984. The direct link has been expanded, as well to the other small-scale metal working industries in Padang, Bukittinggi, and Tegal (Central Java).

Development of the "Foster-Father" Scheme

The increasing needs of the spare-part components of the Padang Cement Factory could not be avoided due to the fast expansion of the factory in the last few years. The cement factory has been expanded into 4 units; with increasing total production from 1.5 million ton to 2.5 million ton over the period of 1984 - 1986. However, the major supply of the spare-part components were produced internally by the factory's own workshop. With a better and modern equipped workshop, the cement factory, practically, could produce any spare-part components they needed. Nevertheless, in some cases, the cost differences in producing the spare-parts was such, that it was better to produce it externally than through their own workshop. The external

supply of the spare-parts, practically, only played a minor role in the cement factory. Since the total spare-part requirements increased tremendously, then the external sourced spare-parts increased also in the last two years : from Rp 4.4 million in 1984 to Rp 52.4 in 1986 or nearly twelve times over the period.

The dramatic increase of the external supply of spare-parts has forced the cement factory to involve two other Sungai Puar metal working industries in their linkaged networks. With the new additional industries, the number of linkage Sungai Puar metal working industries have been doubled in the last two years. The total capacity has been increased from Rp 4 million to Rp 14 million, or nearly four times, during the same period (see Table 9). Nevertheless, the Sungai Puar metal working industries still could not meet the growth of spare-part requirements of the cement factory.

The Sungai Puar small-scale metal working industries, originally, produced the agricultural equipments and tools to meet the demand of the agricultural development of West Sumatra. Quality control seemed to be not so important in producing these equipments and tools. In most cases, the scraps-iron has been used as the raw-materials. On the contrary, the cement factory imposed on certain standard quality; with the consequences of using a higher quality raw-materials. Some adjustments have to be made, at the Sungai Puar industries, to meet this demand condition.

The adjustments, to a certain extent, have been difficult due to the existing conditions of the small-scale metal working

Table — Supply of External Sourced Spare-Part Components to the Padang Cement Factory
by Location, Establishments and Total Value, 1984-1986

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Location	Number of Establishments			Value (Rp'000)		
	1984	1985	1986	1984	1985	1986
Sungai Puar	2	3	4	3,984.0	6,047.5	14,255.5
Bukittinggi	2	1	1	460.0	5,450.0	11,125.0
Padang	-	3	2	-	14,885.0	27,147.5
Tegal	-	1	-	-	1,900.0	-
Total	4	8	7	4,444.0	28,282.5	52,528.0

Source : Padang Cement Factory.

industries. The efforts to meet the increasing demand, in addition to expanding activities, have to face with the internal adjustment problems of the Sungai Puar industries.

Although the Sungai Puar industries still produce the agricultural equipments and tools, however, these activities have been gradually shifted to the cement factory's spare-part components. In the meantime, the new trends have made the location of the Sungai Puar industries became unfavourable compared to Bukittinggi and Padang. It was not surprising that efforts have been made to establish the new metal working industries at those towns.

The changing situation of the small-scale metal working industries has changed the major supply of the cement factory's spare-parts from Sungai Puar to Padang in 1986. Padang supplied more than half of the cement factory's requirements; while Sungai Puar covered only about 17 per cent. The emergence of Padang as the major supply of cement factory's spare-part requirements, to a certain extent, became a threat to Sungai Puar position. The locational advantage of Padang, compared to Sungai Puar, became the main factor for the future development of the "foster-father" scheme in West Sumatra.

However, the strong position of the cement factory, practically, would not make it too dependent upon the spare-part components supply of the small-scale metal working industries. In most cases, the small-scale industries did not have the ability to meet the standard quality requirements, beside the discip-

linery problems in meeting the agreed time delivery. As the "foster-father", the cement factory has to guide and supervise the small-scale industries in the quality and disciplinary aspects of their relations to the factory.

On the other hand, the dependency of the metal working industries to the cement factory was quite decisive; the development of these industries depended heavily to the factory. Fortunately, the cement factory grew rapidly in the last few years. The growing cement factory has pulled the growth of the small-scale industries. The demand-pull effects of the cement factory have "trickle-down" its growth to the weak section of the economy. Growth with equality concept, to a certain extent, has been realized in the "foster-father" approach in promoting the small-scale metal working industries in West Sumatra.

The role of the cement factory has been expanded, later on, to cover the efforts in increasing the quality of the traditional agricultural equipments and tools production of the metal working industries. In close cooperation with the Food Crop Extension Service, the cement factory trained the Sungai Puar workers in using the new techniques of producing these equipments and tools. In addition to the training activities, the cement factory assisted also the metal working industries in getting the high quality raw-materials; improved their management skills; and guidance their production lines.

The "foster-father" approach, through the direct link between the cement factory and the small-scale metal working industries seemed to be more successful than the LIK scheme. One

of the main weakness of the LIK scheme was that the position of the Strata-One industries were not as strong as the cement factory.

Nevertheless, the cement factory as the "foster-father" could not go beyond its territorial activities. The marketing problems, which were usually faced by the small-scale metal working industries, have to be solved beyond the cement factory activities.

The demand factor, to a certain extent, became the major constraint of the small-scale industries ; not only for the metal working industries, but also for the other small-scale industries. The cement factory became a partial solution to this constraint by given a certain "quota" to the metal working industries. However, the non-quota and non-order equipments certainly need a broader market than could be handled by the small-scale metal working industries.

The state trading companies -- P.N. Pantja Niaga and P.N. Dharma Niaga -- assisted these industries in marketing their products in the sixties. Import was very limited during that period, and Sungai Puar agricultural equipments and tools, practically, dominated the market.

However, the situation changed drastically since the seventies. Sungai Puar faced a severe competition from the imported metal equipments and tools ; and marketing became the real problems during this period. The marketing channels, through the state trading companies, seemed not to be effective anymore.

Although Sungai Puar industries still produced the traditional agricultural equipments and tools, however, the volume of production has been reduced tremendously. The link with the cement factory became a new and secure channel of their new products.

Financial Requirements

The direct link of the cement factory and the small-scale metal working industries was based upon the cash-delivery system. The metal working industries have to finance their operating costs, through their own internal funds; to fulfil the allocated spare part components "quota" of the cement factory. Although the cement factory provided the short-term credit arrangement, especially for obtaining the spare-part raw-materials; however, this credit was never used by the metal working industries.

The cement factory "quota", in fact, was calculated on the financial and physical strength of the industries. As the result of the "quota" system, the industries did not require the external financial sources. Could it be possible to expand the capacity of the metal working industries by using the external funds? Which, in turn, could also increase their "quota" from the cement factory?

The capacity of the small-scale metal working industries were closely related to its capital investment rather than the

working capital or operating costs. The size of capital investment, such as machineries and equipments, became the main indicator in determining the industries' "quota" ceiling.

The working capital of the present scale of metal working industries could be financed either from the external funds or from their own internal budget. The choice of the metal working industries seemed to use the latter alternative, since the former sources would increase their costs, either in terms of interest payments or in the other bureaucratic expenses.

In the small-scale metal working industries, as well as in the other small-scale enterprises, the splits between the owner's income and the industries' budget were hardly made. In most cases, their cost calculations were based not on the "formal" but usually tended to be on the "informal" or "cultural" costs. The latter approach became more feasible since it calculated the internal funds and the family worker on the non-market rather than the market prices.

The cost problems became more "sensitive" due to the price-ceiling policy adopted by the cement factory in their order to the metal working industries. The price-ceiling approach was taken in order to avoid the price competition among the small-scale metal working industries. However, the price ceiling approach from the metal working industries' view point, also put a ceiling on the probable expansion of their industries. Nevertheless, the price ceiling gave an important role to the costs as the determinant factor in calculating the size of its profit. The metal working industries became the price-takers instead of the price-determinators in fulfilling the cement factory's spare part requi-

ments.

The price ceiling approach became more useful as an instrument to "equal development" rather than the "growth" considerations. Since the price ceiling determination eliminated the competition, which was an instrument of "growth", then all small-scale metal working industries could participate in the "foster-father" scheme lead by the cement factory.

Although the external financial sources could be used in expanding the capital investment of the metal working industries, however, the cement factory's policy seemed to prefer the alternative approach in developing its linkage programmes. The alternative policy has been implemented through the use of the "additional" participation policy as a supplement to the price ceiling approach.

The increasing external spare part requirements by the cement factory were met through the "additional" participation of the metal working industries instead of expanding the capital investment of the existing industries. The "additional" participation policy could strengthening the price ceiling approach in assuring the equity aspects of the linkage programmes.

The "additional" participation policy, however, prevent also the cement factory in increasing its "quota" to the metal working industries. It was not surprising that the industries did not require the external financial sources for fulfilling the cement factory's requirements.

The price ceiling approach and the "additional" participation policy became a powerful instrument in the "foster-father" scheme as has been developed by the cement factory.

The application of the cement factory 's "foster father" scheme has increased the Non-Sungai Puar sources from 10 to 73 per cent of the total external cement factory's spare part requirements. However, Sungai Puar small-scale metal working industries still play a special role in their relationship with the cement factory. Sungai Puar has a long history and it reflected also the struggle to maintain these industries in West Sumatra.

Development of the Metal Working Organization :
The History of Sungai Puar

A lot of efforts have been attempted to organize the metal working industry in Sungai Puar, but the result has not yet been materialized in terms of an established metal working organization. This reflected in the historical development of metal working industrial organization since the Japanese period. The Japanese colonial government encouraged the metal working activity in Sungai Puar by creating demand and supplying improved production technique. Sword, knives and other metal products, used as weapon, were ordered by the Japanese colonial government to metal workers in Sungai Puar. Metal workers were supplied with raw materials and designs of product to be produced. This support were channeled only through an organized metal workers, the Sungai Puar Black-Smith Association (Persatuan Tukang Besi Sungai Puar or PTS), which has been established in 1942. This organization aimed at coordinating the supply and demand side of metal working industry in Sungai Puar.

After independence, the government provided more supports for metal workers through PTS in expanding their production. This reflected the rising demand in agricultural equipments and household utensils. PTS needed more capital to work with the existing workers. Therefore, PTS had to restructure its organization with the result that a new organization, Sungai Puar Metal Working Company (Perusahaan Besi Sungai Puar or PBS) was established in 1946. PBS functioned was to coordinate production activities in producing metal works, purchasing raw materials, and marketing products.

The period of the independence war (1947-1949) provided a favourable business activity for PBS due to the increasing demand of war equipments such as ruse, hand-granade, gun and other light weapons. However, PBS completed its history following the end of the war. Other activities were becoming more attractive in places such as Padang, Medan, and Jakarta. This encouraged the activities of PBS in leaving Sungai Puar.

Despite the disappearance of PBS, metal working activities continued individually. But as a whole the level of production was reduced due to the difficulties in finding the raw materials and marketing of the products. This again encouraged the exodus of Sungai Puar's metal workers to the cities in seeking employment in the trading sector. Fortunately, in 1951, the government recommended that the existing metal workers united themselves through a cooperative organization. The Sungai Puar metal workers, immediately, established a cooperative organization called PURA. However, PURA was unsuccessful in organizing

the purchase of raw materials due to their financial problems. PURA was not able to achieve its objective in expanding the metal working activities.

Between 1951 and 1960, no effective organization was able to coordinate the activities of the metal workers. While metal working industries were continuing individually, however, this situation encourage the appearance of private initiative in improving their individual business organization. It was evident from the establishment of Firma Sarasah in 1954.³ Sarasah attempted to increase the utilization and improved the equipments in producing the varieties of metal products. In fact, Sarasah was motivated by the government promised support for the mechanization of the small-scale industries. Sarasah was not able to operate fully the machines in Sungai Puar since the government support was realized only in 1958. At the same time, with the outbreak of the civil war, all activities had to be transferred to Bukittinggi. Now, Sarasah is still operating in Bukittinggi.

The disappearance of Sarasah from Sungai Puar was succeeded by the establishment of new metal worker organization called GPB which considered of 50 metal workers. It was aimed at meeting the common interest of metal workers to overcome the difficulty of obtaining the raw materials and marketing their products. GPB was reported to have been able to establish several selling agents and undertake the production contracts from Padang and Medan. However, the existing of GPB was not evident from the present situation of metal working industry in Sungai Puar.

³ Firma is a family enterprise.

Beside those metal workers association of GPB, there were many other individual metal working firms. One of them was identified as MSM which was established in 1963. As the largest metal working firm, MSM controlled 10 metal working units which totally employed 40 workers. The existence of MSM was followed by the entrance of both CV. UNA and CV. Perindra.^{4/} CV. UNA controlled 48 metal working units and employed 160 workers. Between 1963 and 1965, these firms were running steadily, reflecting the role of the state trading companies such as PN. Dharma Niaga and P.N. Pantja Niaga. These companies were supplying the metal working industries with the raw materials and other working capital. The metal working industrial products were marketed by the state trading companies. This enabled the metal working industries to operate for six days a week during the period of 1963-1965. However, the favorable climate enjoyed by the metal working industries continued only until the end of 1965. The small-scale industrial activities suddenly reduced, dramatically. This reflected the shift of trade policy to the import priority until the early 1970s.

Between 1965 and 1969, no initiatives have been taken in organizing the metal working activities in Sungai Puar. Early in 1969, Indonesia started its first five-year development plan with the promotion of small scale industries as

^{4/} CV is a partnership

one of its programs. Since 1969 Sungai Puar was selected to be a place for the small industrial development called Black-smith Industrial Centre Project (Perusahaan Induk Pandai Besi or PPIB). The aim of PPIB was to standardize the quality and diversify the variety of metal working products in Sungai Puar. The new climate encouraged the individual private initiative to improve organization of their metal working activities. This was evident from the establishment of an individual metal working industry called URRRA in 1970.

The business activity of URRRA was running steadily between 1970 and 1980. In 1980, URRRA obtained the government support in obtaining the credits for investment and working capital (KIK and KMKP). In the meantime, the government programme of rural electricity development has entered Sungai Puar, which benefit the metal working industries. URRRA could reallocate its capital funds, and invest more in the operating equipments, such as lathe. However, the declining demand was forced URRRA to reduce its production, and at the same time faced the problem of their credit payment to the Bank.

Fortunately, the difficulty of URRRA was recognized by Bank Indonesia in Padang. Bank Indonesia decided to postpone URRRA credit payment. In 1984 URRRA repaid its loan, due to an order in supplying the Padang Cement Factory with their spare-parts components. Since then the business activity of URRRA continued to increase. At present URRRA is the largest small-scale enterprise among the metal working industries in Sungai Puar.

The existence of URRRA encouraged other metal workers to establish a new cooperative organization. In 1974, 40 metal wor-

kers, including URRRA, established a cooperative organization called KKPS . The activity of KKPS was identical to the previous metal working cooperation organization. It attempted to coordinate its members in finding the raw materials and marketing their products. The function of KKPS was more encouraged by the continuation of government project for the promotion of small industry in 1976.

KKPS was integrated into Mini Industrial Estate Project (MIE) under the program of the second five year development plan. In 1977 the government provided the loan for metal workers through KKPS. Until now KKPS is still running slowly due to the slow growth of demand for traditional metal products. Moreover, KKPS lacks the managerial skill in expanding the market for its members.

The government attention to the promotion of metal working industry in Sungai Puar was more obvious since the third five year development plan.

Sungai Puar : The Center of the Metal Working Industries

Although West Sumatra was dominated by the agricultural sector, however, Sungai Puar village seemed to be deviated from the provincial patterns of her economic structure. Sungai Puar is a nagari^{5/} under kecamatan Sungai Puar in Kabupaten Agam. It is located in the slope of the volcanous mount Merapi which lacks the suitable land area to maintain the living on the agricultural sector. The situation was worsened by her large number of

^{5/} Nagari is a Minangkabau traditional village which consists of several lorong. The lower administrative area called desa which is directly under kecamatan. Kecamatan is administrative-ly ranked below kabupaten, and kabupaten below province.

population. The population density in 1985 was 1,000 persons per square-kilometer; while the availability of the agricultural land was less than 0.10 hectares per person. Fortunately, this limitation did not create a handicap for the people of Sungai Puar to continue their economic life. It even has distinguished Sungai Puar, as the leading role for the labour-intensive industrial activities in West Sumatra. Industrial activity, approximately accounts for more than 60 per cent of total employment in Sungai Puar; which was higher than the 30 per cent employment of West Sumatera.

The limitation of agricultural land and the abundance of labor endowment provide the basis for industrial activity in Sungai Puar, on the one hand; and the neighboring village economic activity, on the other hand. The closest neighbouring villages, for instance Baruhampu, are mainly based their living on agricultural activity. These villages certainly need the agricultural tools for their production. The response of Sungai Puar to those needs was reflected in the rise of metal working industries.

Beside the metal working industries, Sungai Puar has also other industrial activities, such as, brass-working, clothing and wood-carving. However, Sungai Puar was wellknown only for her metal and brass products. The skill of making these products seemed to be endowed only by the people of Sungai Puar. The establishment of metal and brass working industries in other villages was mostly sponsored by the people of Sungai Puar.

The original root of the metal working skill in Sungai Puar could hardly be traced. The fact was that the skill has been inherited from the past generation for many decades. It may have been introduced into Sungai Puar by someone who employed his own family members. Then it spreads widely in the village to another family through the process of marriage; because marriage used to be limited among relatives within a lorong. The metal working skill, consequently, was also limited to the people of the same Jorong Limo Suku.

The identification of Sungai Puar as the metal working village was, in fact, following the custom of Minangkabau clan to be associated with a nagari, instead of a lorong. The metal working industries belong to nagari Sungai Puar. The cultural factor, could provided the basis for the nagari specialization in the industrial activities. One nagari was always associated with one product. For instance, Pandai Sikat was wellknown for her wood carving products; Ampat Angkat for her garments, and Koto Gadang for her silver works. The specialization indicated, that an inter-nagari trade had been very intensive in the past, particularly, through the nagari markets. Each nagari ought to have a market called pakan or pasar to be admitted as a nagari, in the Minangkabau economic system.

(C) THE HOUSEHOLD AND COTTAGE INDUSTRIAL CLUSTERS :
THE KOTO GADANG CASE

The "clusters" approach (sentra industri kecil), in promoting the household and cottage industries, was based on the idea of strengthening the skills and activities of the industry's smallest activities -- usually through the cooperative organization -- throughout the country. The scheme would link together the small-to-small household and cottage industries; instead of creating the large-to-small industrial linkages. Due to its smallness, the industries also became the weakest if standing on its own.

The scheme was used if the household and cottage industries, by some social and cultural factors, have been already clustered around a certain place or a certain village. The "natural" cluster, could be used later on, as the basis for the government intervention in creating a more formal clustering of the household and cottage industries. Through the formal clustering mechanism, the government provided some common facilities, such as, training, equipments, raw-materials, credit, and marketing.

The clustering, usually, would be made on the household and cottage industries which produced the same products, instead of different products. The same product criteria was important since it would simplify the efforts to strengthening these industries. Although the "clusters" scheme was design for the household and cottage industries, however, the basic idea could be implemented also to the small-scale industrial activities.

The household and cottage industries in general, employed less than five persons; using the traditional techniques of production. These industries, originally, were operated on the

part-time works of the house wives and became the additional sources of the household income. It has been expanded, later on, to include also the other members of the family households.

The "clusters" scheme was being implemented several years ago at Koto Gadang household and cottage industries. Koto Gadang has a solid basis for the successful efforts in promoting the household and cottage industries in West Sumatera. These industries, which produced the weaving, embroidery, and silver works products, have a long history in the West Sumatra economy.

The Development of the "Clusters" Scheme

The roots of the Koto Gadang "clusters" scheme could be found with the establishment of Rohana Kudus' women handicraft training institute, Kerajinan Amai Setia (KAS) in 1911. Although its activities, mainly concerned with training, however, the impact seemed to be spread beyond training, such as, credit and marketing.

KAS programmes, initially, was concentrated on weaving and embroidery training activities. Nearly all Koto Gadang women, practically, received their training from Rohana Kudus' KAS. However, at a later stage, its activities included also the silver handicraft works.

The weaving and silver works household and cottage industries became the "informal" members of KAS, which in one way or another were related by the family lines. The "informal" membership seemed to be stronger which based upon mutual belief and confidence, than any other formal organization.

The traditional, informal, relationship was maintained after the death of Rohana Kudus on December 1979. Instead of changing the KAS into a cooperative organization, Rohana Kudus' inheritors and Kota Gadang's informal leaders decided to form a foundation, KAS Foundation, to continue the works that has been started several decades ago.

The arts of embroidery works already became the "culture" of the Koto Gadang women. Initially, embroidery was the women's part-time works; since the women always stayed at home. However, due to the increasing demand of their products, embroidery has been turned into full-time, productive household and cottage industries. At least, 50 per cent of the 600 households at Koto Gadang in 1987, produced the embroidery works.

The Koto Gadang embroidery design, originally, seemed to be produced specifically for her own adat ceremonial uses. The embroidery design, later on, was created for a broader market; which was beyond Koto Gadang ceremonial dresses.

The Koto Gadang embroidery works had had been displayed and entered the Netherland's market during the colonial period. In the meantime, the Batusangkar's annual exhibition in the twenties, always displayed the embroidery works of Koto Gadang.

As the embroidery works, the silver handicrafts household and cottage industries have been inherited from one generation to another. If the women dominated the embroidery works, then men played an important role in the silver handicrafts activities. Kota Gadang's twin productions, embroidery and silver handi-

crafts, became the backbone of the small town's economic life.

Both products depended heavily upon the artistic skill of the workers. The embroidery and silver works were neither a labour intensive nor a capital intensive industries. However, since the skill was inherited from many generations, the embroidery and silver handicrafts works merely follow the traditional design and patterns.

The natural "clustering" of embroidery and silver handicrafts household and cottage industries has being used by the Ministry of Manufacturing Industry as a starting point in expanding and modernizing their products. The "clustering" approach has been strengthened by the KAS Foundation, as an informal organization of the embroidery and silver handicrafts household and cottage industries at Koto Gadang.

On the basis of this clustering, the Ministry of Manufacturing Industry assisted the KAS Foundation in expanding their training programmes, including modern embroidery and silver works designs; and other facilities, such as the technical assistance, managerial guidance and display room.

The training on modern embroidery and silver works designs have some impacts to the Koto Gadang works. The traditional designs gradually changed into more contemporary patterns. However, the changes also lost the specific Koto Gadang "culture" in the embroidery and silver works.

Nevertheless, the main advantage of the changes was broadening the market of the Koto Gadang products. The marketing outlet is Bukittinggi, a town near Koto Gadang, which was the former provincial capital town of West Sumatra. The function of Bukittinggi was not only as the outlet, but also as the sources of Koto Gadang raw-materials.

The increasing demand for Koto Gadang household and cottage industrial products could not be met, due to the supply constraints of the industries. The embroidery and silver works production and supply depended upon the special artistic skill of the workers. Although the number of workers increased rapidly, in the last few years; however the increasing production seemed to be less than the increasing demand. In order to fill the gap, KAS Foundation has forced to take the other villages' embroidery works.

Financial Requirements

KAS Foundation became the embroidery and silver works marketing centre, in addition to its function as the financial sources of the household and cottage industries, as well. The KAS foundation's profit belong to the industries; and distributed on the basis of the individual supply and sales -- after deducting the common funds contribution of the workers. The privilege was given only to the Koto Gadang industries, which became the informal members of the foundation.

The KAS Foundation financial sources mostly came from the household and cottage industries' contribution to the common funds. In addition to the internal sources, KAS Foundation at-

tempted to get the external sources; usually through grants and other related financial sources. The Foundation avoided to use the banks' credit since its loan to the household and cottage industries could be considered as interest free. The loan could be given either in terms of cash or raw-materials.

The capital investment and the working capital of the Koto Gadang household and cottage industries ; relatively, could be considered as low. The traditional equipments, such as knit-needles and stretchers, practically, could be obtained at a very low costs. On the contrary, the silver handicrafts' capital investment seemed to be higher than the embroidery works. At least, the silver shaping equipments need the capital investment of Rp 300,000.

Although KAS Foundation provided the short-term credit for the household and cottage industries, however, almost all industries used their own funds; either in financing the capital investment or the working capital.

KAS Foundation became the main instrument in implementing the "clusters" policy in developing the Koto Gadang household and cottage industries. The strength of the "clusters" approach depended upon the informal, family related, organization. Introducing the formal organization into the Koto Gadang system, will certainly make the "clusters" collapse.

Actually, the "clusters" system of Koto Gadang became the "passengers", instead of the "locomotive" of the household and cottage industrial development in West Sumatra.

SMALL-SCALE INDUSTRIAL PROMOTION :
ACTION ORIENTED RECOMMENDATIONS

The efforts to promote the small-scale industrial development in Indonesia could not be separated from the dualistic economic and social structures of the country. The huge employment absorptive capacity of the small-scale industries has made the industries an important tool for achieving greater distributive justice instead of the unequal growth target of development.

The Target

The annual growth target of the small-scale industries, during the fourth-plan, was set at 6 per cent; with the total employment absorptive capacity of 930,000 persons. Although the growth target was lower than the total manufacturing industries', however, the planned employment creation was estimated to be 66 per cent of the total industrial employment during the same period.

The Problems

The problems of the small-scale industrial development in Indonesia could be summarized as follows :

(a) The capital investment was small and labour, to a certain extent, became the main factor of production;

(b) The small operating costs were heavily biased toward the non-economic, rather than, the economic calculations;

(c) The production technology was simple, which closely related to the small capital used and the unskilled labour employed;

(d) The quality of the products was considerably low due to the lower capital intensity of the production process;

(e) The market reaching power was limited; and in most cases, only extended to the local or domestic market of the low income groups of the population;

(f) The marketing expansion was facing the demand as well as the supply constraints;

(g) The financial problems, to a certain extent, were due to the limited access to the banking system;

(h) The government support facilities, relatively, were smaller than the large or medium-scale industries;

(i) The social, instead of, the economic problems, usually dominated the small-scale industries.

The Action Programmes : Agenda for the Future

The prolonged world economic recession, and the low growth prospects, has forced the Indonesian economy to promote the small-scale enterprises, including the small-scale industries, as the high employment absorptive activities. The policy choices, at least, could reduce the projected high unemployment; although the per capita income seems merely enough to support the family.

The experiences in the last one and a half decades, threw some lights on the problems and prospects of the small-scale industrial development in Indonesia. The partial industrial development policy seemed to discriminate the small-scale against the large and medium-scale industries.

Since the small-scale industries will play an important role; an integrated action programmes has to be formulated and implemented for the future development of Indonesia. The integrated action programmes, cover the dual policy of economic protection, on the one hand; and the economic incentives, on the other hand,

(a) Protection Measures

The economic protection and incentives usually biased in favour of the large and medium-scale, instead of the small-scale industries. The classic example was the economic protection given to the import substitution industries in the seventies, either in the forms of high tariff wall or in the non-tariff barriers. Although the overall development policy put the small-scale industries as the strategic sector, however, the "real" support given to those industries was less effective than the large and medium-scale industries.

The trade policy which has become an important instrument for the large and medium-scale industrial development could be used also, with some adjustments, for the small-scale industries. The protection scheme for the small-scale industrial development policy, unlike the large and medium scale establishments, should be made in a more permanent way. Since the small-scale industries were belong to the weakest section of the economy, the permanent protection seems to be necessary.

The protection policy through the "infant" industry arguments usually directed toward the large and medium-scale industries. In principle, the "infant" industry protection should be given at the early stage of the industrial development. However, the protection, later on, has become a permanent instrument of industrial development in Indonesia.

The large and medium-scale industries, in many cases, could not survive without the protection. The consequences of the

prolonged economic protection came through the high-cost structures of the industries, inefficiency, and a burden to the community. The high industrial growth during the seventies was the outcome of the high-cost economy of the industrial protection.

If the large and medium-scale industries could not survive without the economic protection, it was quite logical neither the small-scale industries could do it either. The economic protection of the small-scale industries will benefit more people rather than a burden to the community. The culture of the small-scale industries with the support of the economic protection could strengthen the foundation of the industries.

At the macro-economic policy level, the economic protection could be made in many different ways. As in the "infant" industry arguments, the small-scale industries' protection will eliminate the unfair competition either from imported or large and medium-scale industrial products. The special protection measures for the small-scale industries, such as the handicraft industries, could be made without allowing the large or medium-scale industries, as far as possible, produced the same products as the small-scale industries. The tariff or non-tariff barriers could be used also in protecting the small-scale industries.

(b) The Incentive Measures

In addition to the protective policy, which was a "defensive" policy, efforts should be made to give more active incentives for the promotion of the small-scale industries in Indonesia. The

incentives, in one way or another, provide special services to the industries.

(i) Small-scale Industrial Estate

The usual service provided by the government was given in the form of special location for the small-scale industries, as in the LIK scheme. The LIK approach, with its common service facilities, was provided at the subsidized price. However, the main attraction to the LIK was the artificially low rate of land prices; which stimulating the high demand for land. In some cases, the obtained land were subleasing or sold at higher rates.

The added regulation should be made, that the small-scale industrial facilities should not be subleased or sold for the purposes other than the small-scale industrial development activities.

(ii) Special Credit Arrangements

The financing of small-scale industries, in most cases, become the main constraint for its development. The financial incentives, with easy access to the banking sources, could be made with the subsidized interest rates; such as the KIK and KMKP programmes. However, the low interest rates could deviate the uses of the credit funds; in addition to encouraging the use of capital intensive technology -- due to the reducing price of capital relative to labour.

The former trends could be eliminated through an improved monitoring and controlling system; while the latter, relatively,

could be avoided by the credit ceiling system. The capital absorptive capacity of the small-scale industries was limited, due to the several constraints and problems facing the industries.

(iii) Tax Concessions

The special credit arrangements could be strengthened by the tax concessions for the small-scale industries. The lower tax structures will help the industries to re-invest its profit or expanding its operations. However, some tax exemptions could be made, either temporarily, or permanently, for the selected "rare" small-scale industries, such as the cultural handicraft goods.

(iv) Direct Subsidies

The monetary and fiscal incentive systems could be supplemented by the government direct subsidies to the small-scale industries. The direct subsidies could be made either in the form of grants, as in the Koto Gadang case; or in the provisions of the common service facilities, as in the Ulu Gadut LIK.

The direct subsidies approach became the powerful tool in promoting the small-scale industries in Indonesia. Although the subsidies became the burden to the government budget, however, the income and employment creation, out of the expanding small-scale industries could exceed the costs of the subsidies themselves.

The grant elements of the direct subsidies scheme should not become the permanent sources of revenue of the small-scale

industries. The function of the grants was to assist the small-scale industries to overcome their temporary problems, in such a way, that the industries could be smoothly operated through the grants.

(c) Support Institutions and Services

The "ideal" small-scale industrial implementation policy, in the framework of the broad macro-economic policy, was to create the linkage system, in such a way, that the development of the small-scale industries could be linked with the large or medium-scale industries. The complimentary, instead of, the competitive characteristics; could create a favourable climate for the small-scale industrial development. The linkage system, as in the "foster-father" scheme of Padang Cement Factory, could be expanded to other fields as well.

However, in order to make the "foster-father" scheme become effective, the "father" or the large-scale industry should be a strong and expanding industry. The support institutions and services, as in the "foster-father" scheme, could be implemented by changing the role of the "father" from the large-scale industry to the government provided facilities, as in the LIK. Nevertheless, the informal nature of the cement factory "foster-father" scheme was preferable than the formal structure of the LIK.

In addition to the large-to-small industrial linkages, the small-to-small industrial cooperation become more effective, especially, in the natural clusters of the household

and cottage industries. The clustering approach, as in the Ko-to Gadang case, should be based upon the mutual confidence of the member of the clustering organization. The cooperative system of the clustering organization was preferable; although other alternative forms, such as the KAS Foundation, could be used as effective as well.

The appropriate organizational structure to be used in promoting the small-scale industrial development, to a certain extent, depended upon the socio-cultural environment of the community. The community, actually, shaped the characteristics of the small-scale industries; not the other way around.

(d) Education and Training

Although the macro-economic policy and the support institutions and services favour the small-scale industrial development, however, the principal "actors" are still the small-scale industrialists or entrepreneurs themselves. The efforts to develop the small-scale industries, in fact, depended upon the strength of the individual entrepreneur; as in the case of Mr "S".

The initiatives and creativities of the entrepreneur themselves became the prerequisite requirement for the successful efforts in promoting the small-scale industrial development. The favourable economic climate is necessary, but not sufficient for the small-scale industrial development.

In order to increase the capability of the small entrepreneurs, education and training should become an integrated part of the whole programmes of promoting the small-scale in-

dustrial development. Although the education and training, as in the other field as well, did not automatically guarantee the changing behaviour of the small-entrepreneurs; however, it could broaden the knowledges and skill of the entrepreneurs themselves. At least, the additional knowledges could become the potential capital for expanding the small-scale industries.

In addition to education and training, the exchange programmes of the small entrepreneurs, either at the national or international level, will have some impacts on the attitude of these entrepreneurs. The exchange programmes could become the mirror in comparing their experiences with their colleagues.

(e) International Cooperation Programmes

The international cooperation programmes should be concentrated on the technical assistance programmes as developed by the Buenos Aires Plan of Action for Promoting and Implementing Technical-Co-operation among Developing Countries or TCDC.

The objective of the Buenos Aires TCDC was as follows :

To strengthen existing technological capacities in the developing countries, including the traditional sector, to improve the effectiveness with which such capacities are used and to create new capacities and capabilities and in this context to promote the transfer of technology and skills appropriate to their resource endowments and the development potential of the developing countries so as to strengthen their individual and collective self-reliance.

The TCDC action programmes could be prepared at the national, sub-regional and regional, inter-regional and global approaches.

In the last few years, Indonesian government has launched an active TCDC programmes through the exchange of trainees or

experts. With the support of United Nations Development Programme (UNDP), Indonesia has sponsoring short-term courses or short-term visits in various fields, such as, agriculture, animal husbandry, forestry, manufacturing industry, international trade, constructions, information and communication, management, health, and other fields, as well. About 50 developing countries of Asia, Pacific Islands, Africa, and Latin America participated in the programmes.

Technical assistance in the small-scale industries became the main programme of the manufacturing sector. The training programmes covered such fields as embroidery, tanned hide, leather handicrafts, leather goods, shoes making, and ceramic.

Exchange of experts gradually become an important TCDC programmes in Indonesia. On the request of the governments of Papua New Guinea, West Samoa, Solomon Islands, and Tanzania, Indonesia sent her experts on wood carving, angklung, low-cost housing, etc. Or the other countries could sent also their experts to Indonesia, such as the Philippines' rattan furniture expert to the LIK.

In addition to the technical assistance programmes, the international cooperation should be expanded by providing financial assistance for promoting the small-scale industries in developing countries. The international financial assistance, such as KIK and KMKP programmes in Indonesia, could partially relieve the burden of the national government in financing the

small-scale industrial development. The financial problem, clearly, become the greatest problem of developing countries.

The international cooperation in promoting the small-scale industries should be increased in the future. It will strengthen the national programmes and directly assist the low-income groups of the country.***

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