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PROMOTION OF INDUSTRIAL COMPETITIVENESS IN THE DISADVANTAGED REGIONS OF THAILAND

(NC/THA/94/01D)

THAILAND

Prepared for the Government of Thailand under UNDP-financed TSS-1 facility

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This research exercise was carried out by a project team comprising of Peter Brimble, Benedict Walker, Akrawat Wettayavatin and Marion Hinte (UNIDO office Bangkok). It was coordinated by Juergen Reinhardt, Asia and the Pacific Bureau (now Investment Services), at UNIDO Headquarters.

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PROMOTION OF INDUSTRIAL COMPETITIVENESS IN THE DISADVANTAGED REGIONS OF THAILAND

(NC/THA/04/01D)

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ABBREVIATIONS

ADB Asian Development Bank

BAAC Bank of Agriculture and Agricultural Co-operatives

BMR Bangkok Metropolitan Region

BOI Board of Investment BOT Bank of Thailand

BUILD BOI Unit for Industrial Linkage Development
CBIRD Community Based Integrated Rural Development

CPIO Central Provincial Industrial Office
DEP Department of Export Promotion
DIP Department of Industrial Promotion

FDI Foreign Direct Investment
FTI Federation of Thai Industries
GDP Gross Domestic Product

GDPm Gross Domestic Product from Manufacturing

GPP Gross Provincial Product

GPPm Gross Provincial Product from Manufacturing

GRP Gross Regional Product

GRPm Gross Regional Product from Manufacturing

HRD Human Resource Development

IEAT Industrial Estate Authority of Thailand IFCT Industrial Finance Corporation of Thailand

ILO International Labour Organization

IPC Industrial Promotion Centre IPZ Investment Promotion Zone

JICA Japan International Cooperation Agency
JPPCC Joint Public-Private Consultative Committee

MOI Ministry of Industry

MOSTE Ministry of Science, Technology and Environment

NEIPC Northeastern Industrial Promotion Centre

NESDB National Economic and Social Development Board NESDP National Economic and Social Development Plan

NGO Non-Governmental Organization
NIC Newly Industrialized Country

NSTDA National Science and Technology Development Agency

OIE Office of Industrial Economics
PCC Provincial Chamber of Commerce

PDA Population and Community Development Association

PDC Provincial Development Committee
PDR Peoples' Democratic Republic
PIO Provincial Industrial Office

PJPPCC Provincial Joint Public-Private Consultative Committee

SICGF The Small Industry Credit Guarantee Fund

SIFC Small Industry Finance Corporation

SIFO Small Industry Finance Organization (now SIFC)

SIZ Suranaree Industrial Zone

Small and Medium-sized Enterprise(s) **SMEs SWOT** Strengths, Weaknesses, Opportunities, Threats TAO Tambon Administration Organization Thai Business Initiative in Integrated Rural Development **TBIRD** Thai Chamber of Commerce TCC TDRI Thailand Development Research Institute Thailand Institute of Scientific and Technological Research **TISTR TNC Trans-National Corporation TSIC** Thailand Standard Industrial Classification **United Nations** UN United Nations Collaborative Action Plan UNCAP UNIDO United Nations Industrial Development Organization United States Agency for International Development

NOTE

USAID

1 rai = 1,600 square metres The Bangkok Metropolitan Region (BMR) is synonymous with Zone 1

EXECUTIVE SUMMARY

Background Thailand's economic development has been characterized by impressive growth rates averaging eight percent per annum over the last thirty years. The 'Economic Boom' of the late 1980s and early 1990s in particular - a period of accelerated economic growth related to increased foreign investment, activities of transnational corporations and a rapid expansion of manufactured exports - has made Thailand an outstanding example of dynamic economic expansion.

Nevertheless, concerns are rising among policy makers as well as leading figures in the private sector about: (1) the long-term viability and competitiveness of Thailand's industries, especially in light of almost negligible export growth in 1996 following 20 percent growth rates in previous years; and (2) the adverse effects associated with the high growth path, especially the persistent disparities of economic and social well-being between regions as well as different social groups.

Due to a concentration of economic activity and employment opportunities in the Bangkok Metropolitan Region (BMR), income differentials have been widening between Bangkok and the regions in general, and urban and rural areas in particular. Disparities keep increasing in all regions, most evidently in the Northeast region where the average per capita income in 1994 was almost nine times lower than the BMR.

Consecutive governments have been aware of these widening disparities. A geographically more balanced industrial development, with a focus on rural industrialization and small and medium-sized enterprises (SMEs), has been identified as an important means of income generation and hence poverty alleviation through increased industrial employment opportunities.

While various measures have been developed by concerned Government and private sector bodies to foster the dispersal of industrial activity to regions outside the BMR, the results to date have been mixed. The accelerated build-up of competitive, that is economically viable, industrial enterprises remains one of the key challenges to reduce the developmental backlog and increase the income level in Thailand's disadvantaged areas, such as the Northeast.

Overview of the report This report, which was prepared by UNIDO for the Office of Industrial Economics (OIE), Ministry of Industry, addresses this pressing issue by:

- considering Thailand's unbalanced development process and related policy issues (Chapter 2);
- reviewing the recent industrial development trends by region and analyzing disparities and imbalances (Chapter 3);
- describing and evaluating the strategies and programmes to promote the decentralization of industries, and identifying lessons learned from experiences to date (Chapter 4);
- considering the competitive situation of a number of provinces in Thailand's disadvantaged areas based on field research (Chapter 5);
- proposing a concrete policy approach for the promotion of competitive industries at the regional level which involves the establishment of cooperation mechanisms/networks among the relevant public and private sector actors at the local, regional and central levels, and recommending a plan of action for the setting up of such a proposed interactive mechanism at the sub-regional level including the identification of areas for synergies with other related schemes/projects and for possible further external assistance (Chapter 6).

This study is based on desk research as well as targeted field-level interviews, which were conducted over a period of two months (December 1996 to January 1997). In view of the very limited time and staff resources available, field research was focused on three Northeastern border provinces, namely Mukdahan, Ubon Ratchathani and Nakhon Phanom, as selected by the counterpart. In addition, the project team consulted with the major agencies located in Bangkok, and visited Khon Kaen, the regional center of the upper-Northeast, and Nakhon Ratchasima, a major regional growth pole.

During the field visits, the team collected first-hand information and data by interviewing representatives of the relevant public and private sector institutions, research and human resource development centres as well as individual entrepreneurs. The local opportunities and constraints for the establishment of competitive industrial enterprises in the selected provinces (as perceived by the interviewees) are summarized below:

Key constraints identified:

	Constraint	Sub-constraint	Explanation
1	Market demand	a. Financial market insufficiently developed b. Narrow industrial base and few supporting industries	 a. Lack of access to finance constrains enterprise development and demand for intermediate products b. Lack of demand for intermediate products
		Per capita income low Physical distance from major markets	c. Lack of disposable income constrains demand for finished products
2	Social infrastructure	 a. Poor quality/quantity of social facilities such as schools, hospitals, entertainment venues, shops b. Difficulty of attracting suitable budget and qualified staff 	 a. Lack of competitive facilities constrains local human resource development b. Low status of provincial social infrastructure for clientele and staff
3	Information and advice	a. Entrepreneurs lack access to easy to use, reliable, timely and localized information/ advice b. High costs of communication	a. Lack of integrated, unbiased industrial support network b. Lack of localized, one-stop service
4	Centralization of government	High transaction costs	Decisions need to be authorized by central administration
5	Unclear government planning	Entrepreneurs uncertain of government's plans for industrial development at national, regional and local levels	Lack of communication between public and private sector, as well as between central government and the regional and between different government agencies

An area-specific, participatory approach for improved industrial policy development The most crucial element of an area-specific industrial development strategy is the creation of a conducive and enabling environment for a self-sustaining local or regional industrial economy. This is not only the most comprehensive and cost-effective way of addressing local constraints and developing local potential, but it also improves the basis for effective provision of targeted assistance to certain industrial sectors or geographical areas, which might be desired to expedite the achievement of certain development objectives.

In addition, private enterprises do not operate in a vacuum. Many of the basic conditions for industrial development are created through common efforts. Government and the business community share responsibilities for creating this conducive and enabling regional business environment.

The diverse, complex, and intransigent nature of structural bottlenecks identified highlights the importance of an integrated approach to promoting industrial competitiveness of the disadvantaged regions of Thailand, which must find ways of transcending traditional preconceptions of actors' roles.

The Eighth National Economic and Social Development Plan of Thailand calls for the formulation of regional economic and social development guidelines and of development plans for provincial groupings, to be used as frameworks for development planning, and it places great emphasis on supporting the role of the private sector in the development of each area. It is therefore proposed to create an innovative mechanism both to enhance dialogue on industrial issues between the public and private sectors as well as to generate momentum for concrete action programmes designed to encourage industrial growth in the less-developed regions.

The proposed mechanism is the Sub-Regional Industry Working Group (SRIWG). The SRIWG aims to establish a consultative vehicle to bring together all major stakeholders in the industrial arena to build consensus and inject industrial development concerns into the regional development dialogue. It will provide a forum to facilitate the frank and meaningful exchange of views between key actors in industrial development at the sub-regional level and will bring together the perspectives from different sectors and groups of society. The wide-ranging interest groups represented can learn from each others' experiences and guide coherent policy interventions.

The SRIWG will fill the critical gap between the national and the provincial level in terms of industrial development planning and project implementation, and will augment, rather than supersede, existing forums as it will concentrate specifically on issues affecting industrial development.

There are compelling reasons for organizing the Working Group at the sub-regional level, many of which underlie the rationale behind the identification of the 14 'provincial groupings' or sub-regions in the Eighth Plan by the NESDB. However, recent discussions among the provincial chambers of commerce and other groups indicate some concern about the composition of the sub-regions. The present study could not explicitly consider this issue, but urges all groups to rapidly reconcile the differences so that sub-regional cooperation on industrial issues can proceed quickly.

Critical areas of concern The SRIWG will have a long menu of issues to tackle. It is suggested that the basic concerns be addressed under four main groups, namely:

Basic Structural Issues that will impact both on its own development and on the industrial development of the sub-region:

- the resources of the sub-region and the resulting implications;
- the basic structure of the macro environment and any other key policy biases or infrastructure weaknesses:
- the division of responsibilities and specializations between the provinces in the sub-region;
- liaison with existing groups; and
- the operating parameters and procedures of the SRIWG.

The provision of Business Facilitation and Services, including information on business opportunities and markets; assistance in preparing 'bankable' projects; assistance in dealing with public sector agencies and understanding the range of government programs; and assistance in obtaining finance for sound projects.

The Development of Human Resources, which are presently and will remain a critical bottleneck in regional development at all levels: from unskilled to highly skilled.

Science and Technology Development, emphasized as a very important issue in the Eighth Plan, by considering the creation of a network of science and technology support services in the subregion and the application and commercialization of R&D results achieved at the national level. Enhancing the role of educational institutions in working together with the local people in areas of relevance to the natural resources and the needs of the sub-region should be a key element of this process.

Networking characteristics The SRIWG will play a critical function in bringing the various parties together that are involved in regional industrial development. It will facilitate networking between the public and private sectors, and it should ensure forward linkage to the policy-makers at the central level, as well as backward linkage to the district and tambon levels within each of the provinces and to other interested groups. Finally it will promote networking between the various government agencies involved. A key element of the networking function of the SRIWG will be the ability of the Working Group to widely disseminate information on its activities and generate active feedback.

Membership The working group should not be too large as to render it unwieldy and troublesome to convene. Sub-regions contain between four and six provinces; an ideal size would be about sixteen to twenty people. Two to three representatives should come from each province, covering both the public and private sector. It is not the intention to specify members by position or office, although likely candidates would come from the PIO, DIP, the Office of the Provincial Governor, Provincial branch of the BAAC, Provincial Commerce Office, Provincial Chamber of Commerce, Provincial Chapter of the FTI.

At the regional level, any educational institutions and the Regional IPC (especially if DIP is not otherwise represented) should be represented. Other important actors should be involved at the discretion of the working group (such as NGOs and regional/international agencies active in the sub-region).

From the national level, there should be a representative of the MOI, possibly from the OIE, who would act as secretary. The NESDB should be represented and other key agencies would be invited as required.

The working group should be chaired by an impartial third party, perhaps someone from a regional university. The Chair should be a dynamic and inspirational character, capable of catalyzing discussions and clear thinking. In addition, the involvement of a professional moderator, who would not have any vested interest in the subject matter, would be very useful, as he or she could facilitate constructive dialogue and ensure an unbiased outcome of the meeting by providing neutral moderation to the proceedings.

Pilot project In order to move the process along rapidly, it is proposed that a SRIWG be formed on a pilot basis in one of the sub-regions identified in the Eighth Plan and agreed upon by all key players. The pilot project will permit an immediate and timely evaluation of the potential benefits of the SRIWG mechanism as well as a concrete action plan to enhance industrial development in the sub-region in question. It will also generate considerable information and procedural experiences that can be subsequently applied in similar initiatives in other sub-regions.

The MOI should take responsibility for coordinating the pilot project and taking the lead role in identifying funding sources.

Ideally the costs of the SRIWGs would be shared by the private and public sector. The government could provide backstopping support and pay per diems to members from its agencies. The private sector could sponsor the activities of the working group in general by providing funds through the FTI, to cover other expenses. For the pilot project, it will probably be necessary for the MOI to assign a budget to cover most of the expenses.

Linkages and possible support from the UN Collaborative Action Plan (UNCAP) facility for capacity building at the *tambon* and the district level can be considered and elaborated through the membership of the Permanent Secretary of the MOI in the Executive Committee of UNCAP.

Intended use of the results of the study

It is envisaged that the above conclusions and recommendations will serve as an input for the current planning activities of the OIE by outlining a participatory approach for improved policy dialogue between private and public sector, between the central and sub-regional level as well as amongst the stake-holders at the provincial level.

It is also worth emphasizing that the Eighth Plan, while placing much emphasis on decentralization of economic activities and policy decision-making, does not provide clear indications of exactly how this is to be achieved by the concerned government agencies. This research report aims to provide a very practical approach that could rapidly (within two years or so) result in specific policy initiatives and measures to enhance the industrial competitiveness of Thailand's disadvantaged regions and lead to an increase in regional industrial activity.

CHAPTER 1 INTRODUCTION

1.1 Background

Economic development in Thailand has been characterized by impressive growth rates, with real Gross Domestic Product (GDP) increasing by eight percent per annum on average over the last thirty years. The industrial sector has recorded above-average growth rates for most of the time, culminating in double-digit increases of manufacturing value-added in the late 1980s and early 1990s. In qualitative terms, industrial growth has been accompanied by a diversification of the sector away from agro-based light industries towards intermediate and capital goods industries. In line with the economy's growing world market orientation, the share of total exports in GDP saw an increase from 24 percent to almost 44 percent over the period 1987 to 1996; manufactured products now account for more than 75 percent of all exports. While domestic sources have clearly contributed the major share to industrial investment, increasing foreign direct investment (FDI) inflows have played a significant role in the industrial expansion of the last decade.

Nevertheless, concerns are rising among policy makers as well as leading figures in the private sector about: (1) the long-term viability and competitiveness of Thailand's industries, especially in light of almost negligible export growth in 1996 following 20 percent growth rates in previous years; and (2) the adverse effects associated with the high growth path, especially the persistent disparities of economic and social well-being between regions as well as different social groups.

While concerns related to a significant deterioration of the environment both in terms of overexploitation of natural resources and various types of pollution and waste generation in urbanindustrial agglomerations have featured prominently in recent policy discussions, overriding attention is being devoted at present to the unbalanced distribution of welfare gains within Thai society at large.

Most socio-economic indicators point to a significant improvement in the quality of life as a whole. However, due to a concentration of economic activity and employment opportunities in the Bangkok Metropolitan Region (BMR), income differentials have been widening between Bangkok and the regions in general, and urban and rural areas in particular. Disparities keep increasing in all regions, most evidently in the Northeast region where the average per capita income in 1994 was almost nine times lower than the BMR.

Consecutive governments have been aware of these widening disparities. A geographically more balanced industrial development, with a focus on rural industrialization and small and medium-sized enterprises (SMEs), has been identified as an important means of income generation and hence poverty alleviation through increased industrial employment opportunities.

While this has been reflected in Thailand's policy documents and various measures have been developed by concerned Government and private sector bodies to foster the dispersal of industrial activity to regions outside the BMR, the results to date have been mixed.

Positive trends, such as a gradually increasing geographical outreach of industry, cannot be overlooked, the accelerated build-up of competitive, that is economically viable, industrial enterprises which do not rely on subsidization, remains one of the key challenges to reduce the developmental backlog and increase the income level in Thailand's disadvantaged areas, such as the Northeast.

1.2 Objective and Structure of the Report

In late 1994, UNIDO began the preparation of a study on 'Industrial Competitiveness and Sustainable Growth in Thailand' under the UNDP TSS-1 facility. The preliminary reports emanating from this initial phase were submitted to the Thai government counterpart in mid-1995. However, time and staff constraints at UNIDO headquarters during the recent restructuring caused significant delays in the completion of the project. At the same time, public interest in Thailand's international competitiveness had grown rapidly, a development accompanied by various national-level research and planning activities addressing the subject.

The counterpart for this study, the Office of Industrial Economics (OIE) of the Ministry of Industry (MOI), performs the function of a 'think tank' or research body for the formulation of industry-related policy measures. In this capacity, the OIE is currently preparing an action plan for the Ministry for the implementation of Thailand's Eighth National Economic and Social Development Plan (NESDP). In this effort, which will be further operationalized by MOI's Annual Policy Plan 1997/98, emphasis is placed on appropriate ways and means for the effective development of competitive industries in Thailand's more remote areas.

As a continuation of the project along the original terms of reference might not have been cost-effective in view of the variety and amount of background information which had already become available on the subject, agreement was reached between UNIDO, UNDP and the OIE/MOI in October 1996 that the remaining resources be utilized to partly reorient the focus of the study towards the promotion of industrial competitiveness in Thailand's disadvantaged regions.

In order to address this issue, the present research exercise:

- considers Thailand's unbalanced development process and the related policy issues (Chapter 2);
- reviews the recent industrial development trends by region and analyzes disparities and imbalances (Chapter 3);
- describes and evaluates the strategies and programmes to promote the decentralization of industries and identifies lessons learned from experiences to date (Chapter 4);
- considers the competitive situation of a number of provinces in Thailand's disadvantaged areas based on field research (Chapter 5);
- proposes a concrete policy approach for the promotion of competitive industries at the regional level, which involves the establishment of cooperation mechanisms/networks among the relevant public and private sector actors at the local, regional and central levels (Chapter 6); and
- recommends a plan of action for the setting up of such a proposed interactive mechanism at the sub-regional level and identifies areas for synergies with other related schemes/projects and for possible further external assistance (Chapter 6).

1.3 Method and Approach

In preparing the subject study, the team took account of the relevant data collected, as well as on-site observations made under the initial project setup.

For the completion of this reoriented second phase, further desk research, as well as targeted field-level interviews, were conducted over a period of two months (December 1996 to January 1997). In view of the very limited time and staff resources available, field research was focused on three Northeastern border provinces, namely Mukdahan, Ubon Ratchathani and Nakhon Phanom, as requested by the counterpart. In addition, the project team consulted with the major agencies located in Bangkok, and visited Khon Kaen, the regional center of the upper-Northeast, and Nakhon Ratchasima, a major regional growth pole, to collect further information on relevant experiences (see Annex 1).

During the field visits, the team interviewed representatives of the relevant public and private sector institutions, research and human resource development centers as well as individual entrepreneurs. First-hand information and data were collected concerning the (perceived) local opportunities and constraints for the establishment of competitive industrial enterprises in the selected provinces. Experiences with, and results of, previous programmes for industrial promotion both developed locally and at the central level were assessed.

The team obtained suggestions concerning future strategies for the creation of an environment conducive to the establishment of viable industries (including policy, legal and regulatory framework, necessary support mechanisms, macro economy, human resource development, infrastructure, environmental concerns etc.) from the major stake-holders involved.

Finally, possible approaches to improve networking and interactive mechanisms for the design and efficient implementation of comprehensive policies and programmes were outlined and disseminated to the interviewees, as well as presented to the fourth meeting of an informal SME development group hosted by UNIDO (see Annex 2). Through this feed-back mechanism, interested and motivated private and public sector actors/partners at all levels were identified. The subsequent finalization of proposed action-oriented steps towards the establishment of a consultative working group benefitted greatly from the many useful suggestions and comments received.

1.4 Intended Use of the Results

It is envisaged that the conclusions and recommendations will serve as an input for the current planning activities of the OIE by outlining a participatory approach for improved policy dialogue between private and public sector, between the central and sub-regional level as well as amongst the stake-holders at the provincial level.

It is also worth emphasizing that the Eighth Plan, while placing much emphasis on decentralization of economic activities and policy decision-making, does not provide clear indications of exactly how this is to be achieved by the concerned government agencies. This research report aims to provide a very practical approach that could rapidly (within two years or so) result in specific policy initiatives and measures to enhance the industrial competitiveness of Thailand's disadvantaged regions and lead to an increase in regional industrial activity.

CHAPTER 2

2.1 Thailand's Disadvantaged Areas: A Consequence of Unbalanced Development

With annual growth rates averaging eight percent, Thailand's economic development over the last thirty years has been impressive by any standards. Indisputably, with real per capita income having grown steadily over this period, significant overall social and welfare gains have accompanied this economic success. This is also reflected in Thailand scoring high on the Human Development Index (UNDP, 1996:135).

The 'Economic Boom' of the late 1980s and early 1990s in particular - a period of accelerated economic growth related to increased foreign investment, activities of transnational corporations and a rapid expansion of manufactured exports - has made Thailand an outstanding example of dynamic economic expansion. Subsequently, Thailand's growth pattern has been the subject of much discussion among policy makers, development agencies, academics and observers as to its nature, origin, impact and sustainability (Dixon, 1996: 28).

Among the various adverse effects associated with this high growth path, the uneven distribution of welfare gains between different segments of society, between regions, and between urban and rural areas is presently causing overriding concern, especially since income disparities seem to have increased during, and possibly as a consequence of, the economic boom period. As Parnwell and Arghiros (1996: 2) summarize: "Thailand is as striking an example of uneven development as it is of economic achievement".

As the subject study is concerned with the less advantaged areas of Thailand, some of the major effects of and explanations for uneven development will be highlighted below.

In terms of economic activity, the primacy of Bangkok and its immediate vicinity is quite obvious: According to figures released by the National Economic and Social Development Board (NESDB), the share of Bangkok Metropolitan Region (BMR) in Thailand's GDP amounted to over 50 percent in 1994, with the regions contributing approximately 20 percent (Central), 12 percent (Northeast), 10 percent (North) and 9 percent (South).

Table 1 shows the Gross Regional Product (GRP) as a percentage of GDP. A breakdown of each region into constituent provinces is provided in Annex 3.

Table 1: GRP as a Percentage of GDP, 1990 to 1994

1990		1991	1992	1993	1994	
BMR/ZONE 1	52.07	51.13	51.50	52,50	51.54	
CENTRAL	17.44	18.49	18.01	18.60	19.09	
NORTH	10.07	10.03	10.01	9.62	9.54	
NORTHEAST	11.84	11.79	11.67	10.99	11,27	
SOUTH	8.58	8.56	8.85	8.29	8.55	

Source: NESDB

The skewed distribution of GDP between regions is exacerbated when looking at GRP per capita (see table 2).

Table 2: Population by Region (Million People) and GDP per capita, 1990 to 1994 (in Baht, at current prices)

YEAR	R 1990		1991		1992		1993		1994	
REGION	Ppn.	GDP p/c.	Ppn.	GDP p/c.	Ppn.	GDP p/c.	Ppn.	GDP p/c.	Ppn.	GDP p/c.
THAILAND	55.84	39,148	56.57	44,317	57.29	49,348	58.01	54,540	58.71	61,333
BMR/ZONE 1	9.05	125,776	9.28	138,122	9.51	153,115	9.74	170,558	9.97	186,148
CENTRAL	9.49	40,153	9.59	51,455	9.69	53,122	9.78	60,162	9.88	69,584
NORTH	10.78	20,426	10.85	23,167	10.92	25,926	10.99	27,694	11.06	31,055
NORTHEAST	19.21	13,479	19.43	15,211	19.65	16,794	19.87	17,498	20.06	20,237
SOUTH	7.31	25,658	7.42	25,658	7.52	32,334	7.63	34,291	7.74	39,804

Source: NESDB

Ppn. = Population GDP p/c = GDP per capita While having the largest population, the Northeastern region of Thailand consistently records the lowest per capita GRP. The overall picture of an uneven regional distribution of wealth is underscored by the distribution of income: Per capita income in the BMR was three times higher than the national average in 1994 and approximately nine times higher than in the Northeast, Thailand's poorest region. Per capita incomes in the Central Region are close to the national average, whereas in the Southern and Northern Regions the income per capita reaches approximately 20 percent and 17 percent, respectively, of the BMR figure.

From the above analysis, the Northeast of Thailand emerges as the poorest and most disadvantaged region. Possible distortions of GRP and in per capita income calculations may result from the fact that many temporary migrant workers from the Northeast (and other regions), which in the Thai system remain registered in their home provinces, contribute to the GRP in the BMR, although a considerable part of their income flows back to their home localities. Regions such as the BMR, which is a net gainer of migrants may have an overstated GRP per capita, while in regions such as the Northeast, which are net losers of migrants, the data set probably understates per capita income.

Nevertheless, it seems evident that the Northeast, the most populous region of Thailand, lags considerably behind the rest of the country in terms of benefiting from economic growth and social development.

In looking for causes of these regional disparities, uneven development will be looked at as the manifestation in space (that is between places, sectors and people) of the problem of unequal access to natural, social, political and economic resources (O'Connor, 1989, cited in Parnwell and Arghiros, 1996: 2). From this definition it follows that uneven development is only partly determined by inherent factors, such as geographical and environmental conditions, but also involves historical, political, socio-cultural and economic explanations. Uneven development is, therefore, largely a socially determined process, which generates both advantages and disadvantages in its course.

In Thailand, geographical factors such as location and climate have determined regional development to a large extent. Ecological conditions for agricultural production as well as the proximity to Bangkok, the major domestic market and the country's center for international trade, have favored the Central Plain over the rest of the country. In contrast, the poverty of the Northeastern Region is often attributed to its poor natural environment (infertile soils, seasonal drought and flooding). Both the Northern and the Southern Region of Thailand have better conditions for agriculture than the Northeast, with the South having the additional advantage of being a favored tourist location and possessing rich mineral deposits.

Thailand's administrative and political system, the Thai social culture as well as its interaction with the international environment have further aggravated, rather than ameliorated, these inherent regional disparities.

Thailand's National Economic and Social Development Plans (NESDP), for example, were until recently drafted by technocrats located in the capital with little involvement of stake-holders at the provincial or local levels. The adoption of largely growth-oriented development strategies during the first three NESDPs, and the subsequent failure of top-down decentralization policies first introduced in the late 1970s to counteract the increasing regional inequalities, can be attributed mainly to the lack of concern with, and knowledge of, local conditions within the central planning authority. Lack of coordination among the implementation policies and programmes of the various government and private sector bodies, as well as lack of control of the planning agency over this process have further undermined the successful reversal of uneven development patterns.

Both the Thai administrative system - characterized by a highly centralized decision-making process and the allocation of political power, which rests with the elite at central and regional levels also tend to also work against the movement of resources to less developed areas. Thai social culture which historically emphasizes 'patron-client reciprocity', is an additional factor which tends to reinforce existing inequalities by influencing the allocation of resources in line with the interests of the patrons in both urban and rural areas.

The internationalization of the Thai economy has further aggravated existing regional imbalances. This process can, according to some, be traced back to the signature of unequal treaties between Britain and Siam in 1855 which resulted in fundamental changes in both the production structure and the value of land. While resources were drawn from the outlying areas and imports destroyed some local industries, no mechanism was in place for the redistribution of the benefits of free trade (Meyer, 1988: 10, cited in Parnwell and Arghiros, 1996: 10).

More recently, Thailand's new position within the global division of labor compounded these earlier influences. FDI inflows, which have been attracted by the availability of low-cost labor and raw materials and the economic deregulation and liberalization policies, have largely concentrated in the BMR. There have been few linkages so far between the newly established industrial plants of Trans-National Corporations (TNCs) and local industries more distant from the capital.

While these underlying causes of unbalanced spatial development have obviously impeded the development of all of Thailand's regions outside the BMR and the Central Plains, the Northeastern Region seems to have been most affected.

Historically, the Northeast has been considered 'remote' and the first all-weather road across the region from Nakhon Ratchasima to Nong Khai was only completed in the early 1960s, although train connections North-South and East-West had been established earlier. Both physical and social infrastructure have been much improved since, although the backward preconceptions of the region continues to hamper the relocation of well-qualified civil servants and private sector employees from other parts of Thailand to this area.

International and regional political developments such as the Indochina war and the emergence of Communist regimes in China, Vietnam and Laos made the Northeast strategically more important for the Thai government during the 1950s and 1960s and many infrastructure projects as well as initiatives to strengthen the economic base of the region date back to that time.

Being a landlocked region distant from the ports and the major domestic consumer markets in and around Bangkok, the benefits for the Northeastern economy from more prosperous and more open economies in neighboring countries, Vietnam and China would, however, have been even greater.

In the Seventh and particularly in the Eighth NESDP, the Thai government has articulated strongly their commitment to the alleviation of the existing regional disparities in terms of prosperity and well-being through various measures, including the decentralization of existing industries and the promotion of new enterprises away from the BMR.

The role of industry for economic and social advancement will be briefly outlined below, followed by a more extensive discussion of the crucial factors influencing an enabling environment for the promotion of economically viable industries in disadvantaged areas.

2.2 The Role of Industrial Development in Addressing Regional Imbalances

While social imbalances were a major feature of the early stages of industrialization, the role of a dynamic industrial sector as a generator of resources, employment and income opportunities and thus its importance for both economic growth and social development is commonly recognized today.

However, industrial potential is rarely distributed uniformly over a country. Natural resources, market access and specialized skills often differ greatly between locations.

Area-specific industrial development strategies are necessary to fully utilize local potential and address local constraints in a cost-effective and comprehensive manner. Disadvantaged areas of a country will benefit greatly from a successful regional development strategy as the proliferation of enterprises in marginalized areas helps to create jobs and raise local incomes. Further positive effects of such an approach to industrial development include increased and diversified local demand and reduced rural-urban migration.

In addition, the mobilization of local potential can greatly contribute to overall development as increased economic activity in a region will also stimulate demand for inputs and consumer goods produced elsewhere, thus providing a boost to the national economy.

However, while the benefits of more 'balanced' industrial development have thus been clearly identified, this does not imply equality between regions as the objective of area-specific approaches. Regional industrial development strategies will rather be determined by the interaction of two policy objectives: the need for industrial enterprises to establish in the optimum location to maximize economic growth and the need to spread the economic and social benefits of industrialization for reasons of equity and to provide the people in peripheral areas with a reasonable choice of where to live.

2.3 Creating an Enabling Environment for Sustainable Industrial Development

The experience of many national and international development agencies points to a crucial role of small and medium-sized enterprises (SMEs) for achieving various national development goals, including poverty alleviation, employment generation, and the economic and social advancement of rural and disadvantaged areas. SMEs fill the gaps between large companies and thus enable networks for supply, commerce and trade. They are seedbeds for entrepreneurship, tend to be labour-intensive and can improve forward and backward linkages between diverse economic sectors. Therefore, the promotion of SMEs is a vital part of sustainable industrial development.

The effectiveness and sustainability of support programmes for SMEs, however, hinges on whether a favourable policy and regulatory environment exists which enables SMEs to fully utilize the assistance received to ensure the success of their business operation (Tolentino, 1995:1).

On the other hand, the deconcentration of industrial activity away from existing centres is the objective of decentralization strategies geared towards reducing pollution and congestion in major cities and other industrial centres, besides spreading industrial development more evenly throughout the country. However, an industry's optimal location is essentially determined by economic factors and enterprises will, therefore, locate where profits can be maximized. Therefore, direct assistance programmes, such as subsidies and tax exemptions, directed at encouraging the relocation of existing enterprises and attracting larger companies to invest in outlying areas, cannot succeed if the overall business environment in these areas is not attractive to the targeted firms (Biggs et.al. 1990: 77).

Successful local, regional or national economies typically feature an optimum industrial structure consisting of a mix of small, medium-sized and large industrial enterprises.

In conclusion, the most crucial element of an area-specific industrial development strategy is the creation of a conducive and enabling environment for a self-sustaining local or regional industrial economy. This is not only the most comprehensive and cost-effective way of addressing local constraints and developing local potential, it also builds the basis for effective provision of targeted assistance to certain industrial sectors or geographical areas, which might be desired to expedite the achievement of certain development objectives.

In addition, private enterprises do not operate in a vacuum. Many of the basic conditions for industrial development are created through common efforts. Government and the business community share responsibilities for creating this conducive and enabling regional business environment.

Administrative structures should, therefore, be adapted so as to be suitable for this approach and new institutional arrangements that ensure effective and sustained policy implementation may have to be established.

Developing capacities for the formulation and execution of regional development policies and programmes is, however, not sufficient in itself: Central government must fully recognize the importance of regional matters, it should allow decentralization of decision making to the relevant levels while, at the same time, balancing national and regional interests.

Similarly, the private sector may have to learn the potential advantages of institutionalized forms of cooperation at the regional level - not only among themselves in business associations, but also between the public and private sector. Such cooperation can provide the business community with an opportunity to take part in regional economic and industrial decision making, while at the same time improving their access to information sources and increasing networking opportunities.

Finally, upgrading the support infrastructure in the more peripheral areas is another vital element in stimulating the creation of new local enterprises as well as the relocation of existing ones. Access to finance, industrial services as well as technical and business-related assistance normally needs improvement and should preferably be provided as a one-stop service for SMEs. Economies of scale should determine where these services are located in a given area.

A more comprehensive overview of factors which determine the sustainable operation of industrial enterprises is attached for the interested reader in Annex 4, together with a list of policies and instruments which have the potential to affect an enabling regional or local business environment, thus creating policy biases.

However, under this project a comprehensive analysis of policy biases affecting the target areas is neither feasible nor intended. Instead, the report focuses on identifying the most crucial constraints for the industrial competitiveness of Thailand's disadvantaged areas in general, and for the selected border provinces in particular, as a basis for elaborating a practical, area-based approach to addressing these problems in a participatory and comprehensive manner. It is envisaged that through this approach, a regional industrial policy can best be developed which addresses and counteracts existing negative policy biases, thus fully utilizing existing, and exploring future, industrial and economic potential.

CHAPTER 3 INDUSTRIAL DEVELOPMENT IN THAILAND: A REGIONAL PERSPECTIVE

3.1 Recent Trends and Structural Changes

The Thai economy has emerged as one of the fastest growing economies in the world over the past decade with consistently high GDP growth. Real GDP grew at 13.4 and 12.2 percent in 1988 and 1989, respectively, although slowing to single digits in the early 1990s. This boom in the economy was closely associated with the increase in exports of labor-intensive manufactured products propelled by foreign direct investment, which has been the engine driving this expansion of industrial production (UNIDO, 1992: 1). However, it has been argued that the initial increase in exports succeeded despite, rather than because of, a conducive policy environment, which, at that time, was geared towards import-substitution, rather than export promotion (Dixon, 1996: 40).

The boom in manufacturing has been maintained by increasing FDI in the country, especially from Japan and other South-east Asian Newly Industrialized Countries (NICs), notably Taiwan. Table 3 tracks the progress of real GDP and growth and the share of manufacturing.

Table 3: Evolution of GDP and Manufacturing GDP (GDPm), 1990 to 1996 (at constant 1988 prices)

	1990	1991	1992	1993	1994	1995p	1996e
Total GDP (1,000 million Baht)	1,946	2,110	2,281	2,470	2,686	2,922	3,117
Growth of Total GDP (%)	11.2	8.4	8.1	8.3	8.7	8.8	6.7
Share of GDPm in Total GDP	27.8	28.6	29.4	30.2	30.4	n.a.	n.a.
Growth of GDPm (%)	15.7	11.6	11.3	11.2	9.2	12.4	8.0

Source: NESDB and Bank of Thailand

p = provisional e = estimated n.a. = not available The share of GDPm in total GDP increased every year making the manufacturing sector the biggest contributor to economic growth. While the growth rates of GDPm tended to decline over the period, the sector still expanded at a higher rate than the economy as a whole in every year. However, the current slowdown of the economy is actually a positive development, as it reduces the danger of the economy overheating.

Structural change in the Thai economy continues to shift to more technology intensive manufacturing. In 1993, for example, high-technology exports (computers, electrical appliances, and so on) overtook labor-intensive exports (textiles, clothing, jewelry etc.) for the first time (Bell, 1996: 53). This leads to the question of the quality of human resources available - a structural bottleneck in Thailand where, in 1996, 76 percent of the labor force had only primary-school education or less.

Looking at the country as a whole in terms of contributions to the GDP, manufacturing played the leading role, followed by wholesale and retail trade, services and then agriculture. Despite agriculture's continuously declining share, it is still a key sector, with agro-food products accounting for about 25 percent of manufacturing exports (Simon, 1996: 89) and the agricultural sector employing about 60 percent of the total labor force.

3.2 Unequal Patterns of Spatial Industrial Growth

From a spatial perspective, the sectoral shares in GDP are more or less mirrored in the BMR and in the Central Region. However, in the rest of the country, agriculture plays a much larger role, both in terms of the sector itself and in terms of backward and forward linkages between agriculture and the industrial sector. Annex 5 provides a visual impression of the spatial distribution of industrial activity in Thailand (Map: Number of Factories by *Amphoe* (district) in 1994).

Table 4: GRP by Regional Group and Sector at Current Market Prices (1994) (in 1,000 million Baht)

Region	BMR/ZONE 1		CENTI	RAL	NORTHEAST	
Sector	Value	%	Value	%	Value	%
Agriculture	30.86	2.21	87.92	7.68	77.99	19.19
Mining & Quarrying	0.36	0.03	29.82	2.60	3.07	0.76
Manufacturing	542.39	38.78	368.37	32.18	41.30	10.17
Construction	87.36	6.25	85.17	7.44	40.50	9.98
Electricity & Water Supply	34.51	2.47	30.53	2.67	6.41	1.58
Transportation & Communication	140.53	10.05	74.33	6.49	18.71	4.61
Wholesale & Retail Trade	237.38	16.97	165.10	14.42	86.65	21.34
Banking, Insurance & Real Estate	155.27	11.10	77.47	6.77	19.81	4.88
Ownership of Dwellings	24.66	1.76	20.53	1.79	17.48	4.31
Public Administration & Defence	20.20	1.45	40.47	3.53	29.74	7.33
Services	125.12	8,95	165.15	14.42	64.97	16.00
GRP	1,398.63	100.00	1,144.86	100.00	405.94	100.00

Region	NORTH		SOUTH		WHOLE COUNTRY	
Sector	Value	%	Value	%	Value	%
Agriculture	62.04	18.06	110.94	36.01	369.05	10.25
Mining & Quarrying	12.77	3.71	2.59	0.84	48.60	1.35
Manufacturing	47.12	13.72	15.77	5.12	1,014.95	28.18
Construction	32.54	9.47	22.44	7.28	268.00	7.44
Electricity & Water Supply	6.45	1.88	6.02	1.95	83.92	2.33
Transportation & Communication	17.40	5.06	17.03	5.53	268.00	7.44
Wholesale & Retail Trade	57.01	16.59	45.89	14.89	592.02	16.44
Banking, Insurance & Real Estate	17.90	5.21	15.55	5.05	286.00	7.94
Ownership of Dwellings	15.87	4.62	10.25	3.33	88.80	2.47
Public Administration & Defence	21.30	6.20	15.73	5.11	127.44	3.54
Services	53.10	15.46	45.86	14.88	454,20	12.61
GRP	343.50	100.00	308.08	100.00	3,600.98	100.00

Source: NESDB

Table 4 clearly shows the regional differences in terms of how the GRP is generated. In both the BMR and the Central Region, manufacturing is the major contributor to GRP with 38.78 and 32.18 percent, respectively. In the North and Northeast, however, agriculture, services and trading were the dominant sectors, with the share of manufacturing in GRP accounting for only 13.72 and 10.17 percent, respectively. In the South, agriculture figures highest in the GRP (36 percent), while manufacturing only contributes about five percent to the GRP.

An analysis of the share of manufacturing in GRP (GRPm) provides further evidence for the concentration of manufacturing activity in and around Bangkok and for the varying degrees in which the industrial sector contributes to regional economic prosperity. Bearing in mind the differences in GRP outlined in Chapter 2, and realizing the high degree of dependence on agriculture of Thailand's less prosperous regions, one might conclude that strengthening of the sector in combination with the promotion of agro-based industries would be crucial elements in any policies and programs aimed at raising the income-levels in these areas.

In 1994, 65.7 percent of GDPm was created in the BMR, which, together with the Central Region, accounts for nearly 90 percent of GDPm (manufacturing share in GDP). The importance of regions' contributions to GDPm has changed markedly since 1990. A decrease in importance of the BMR has been accompanied by a corresponding increase in manufacturing activities located in the Central region, showing a trend of deconcentration of industrial activity to provinces around Zone 1. Smaller increases were recorded in the North and the Northeast, although percentage increases over the period were highest in the North. In the South, little change in GDPm share occurred with GRPm only accounting for 1.6 percent in 1994.

The share of GRPm accounted for by the BMR is consistently the highest but decreased in every year, particularly 1993, due to the introduction of higher Board of Investment (BOI) privileges for promoted projects in Zone 3. The provinces in the Central Region, especially Rayong in the Eastern Seaboard, designated Zone 3, benefited most from this relocation of industries. Despite both the North and Central Regions enjoying a sharp rise of about 50 percent in their relative shares of GRPm in GDPm, these two regions together with the South accounted for only 10.3 percent of total GDPm in 1994.

Table 5: Percentage Share of GRPm in GDPm, 1990 to 1994

REGION	1990	1991	1992	1993	1994	CHANGE 1990 to 1994
BMR/Zone 1	76.1	73.0	71.2	68.5	65.7	-10.4
Central	15.7	18.6	19.7	21.8	23.5	+7.8
North	3.0	3.1	4.0	4.3	4.6	+1.6
Northeast	3.5	3.6	3.5	3.8	4.1	+0.6
South	1.8	1.7	1.6	1.6	1.6	-0.2

Source: NESDB

A sectoral breakdown of manufacturing activity in the Northeast, the focal region of this study, shows that the majority of manufacturing activity is in food processing, beverages and tobacco. Even if the distorting effect of rice milling is taken out, other activities in this industrial subsector account for most investment by far. However, in terms of share of factories and employees, the fabricated metal products sector and the textiles, apparel and leather products sector are both close followers. Basic metal industries and paper products, printing and publishing played only a marginal role on all counts.

Table 6: Manufacturing Sector Breakdown Showing Relative Size by Number of Factories in the Northeast, Investment and Size of Labour Force, 1995

TSIC Code	Description	% of Factories	% of Investment	% of Employees
31	Food Manufacturing, Beverage & Tobacco	83.68	53.94	40.82
	(Rice Mills	75.71	11.89	21.02)
	(Other	7.97	42.05	19.80)
32	Textile, Apparel, Leather products	0.83	8.53	19.77
33	Wood products & furniture	1.84	3.60	7.32
34	Paper products, Printing, Publishing	0.26	2.62	0.67
35	Chemicals, Petroleum & Plastic products	0.84	4.78	3.87
36	Non-metallic mineral products	3.77	9.79	9.29
37	Basic metal industries	0.07	0.69	0.30
38	Fabricated metal products, machinery	8.34	13.77	14.80
39	Other manufacturing industries	0.37	2.27	3.14

Source: OIE

Several maps providing a visual impression of the distribution and size (by employees) of industrial enterprises in the Northeastern Region are attached in Annex 6.

The three provinces chosen as the focus for the field visit were selected by the OIE according to the following criteria:

- (1) They are located in the proposed 'Special Investment Promotion Zone' or Zone 4, currently being discussed by BOI. Zone 4 provinces are characterized by their comparatively low per capita income, and other factors (see Annex 7 for details).
- (2) They are similar in terms of being border provinces distant from Bangkok.

The following tables summarize the status of Nakhon Phanom, Mukdahan and Ubon Ratchathani, the pilot provinces selected for the study. They are similar in that they have a low per capita GDP, roughly one-third of the national average.

The contribution of manufacturing activities to GRP is small in all three provinces with less than ten percent (about the regional average). In addition, GDPm as a proportion of GDP has remained constant over the period, although GDP has steadily increased. This indicates that manufacturing is not yet the driving factor of GDP growth in these provinces.

The most buoyant sector in these provinces appears to be construction which, for example, increased its contribution to GRP from 1993 to 1994 by 33, 48 and 124 percent in Ubon Ratchathani, Nakhon Phanom and Mukdahan, respectively. The number of BOI approved projects is below average for Zone 3 which was about fifteen in 1994 (767 approvals/50 provinces = 15.34).

Table 7: Summary Status of the Selected Provinces (Nakhon Phanom, Mukdahan, Ubon Ratchathani), 1990 to 1994

Nakhon Phanom	1990	1991	1992	1993	1994
GPP (thousand Baht)	7,305	8,695	9,335	10,308	11,550
Population (thousand)	629	637	644	651	657
GPP per capita (Baht)	11,614	13,650	14,495	15,834	17,580
Annual change %	10.13	17.53	6.19	9.24	11.03
GPPm (million Baht) (as a % of GPP)	181 2.48	200 2.30	180 1.93	248 2.41	323 2.80)
Annual change %	-5.6	10.3	-9.8	37.4	30.5
No. of BOI approved projects	2	1	0	0	3

Mukdahan	1990	1991	1992	1993	1994
GPP (thousand Baht)	3,399	4,006	4,496	4,687	5,585
Population (thousand)	267	270	273	276	279
GPP per capita (Baht)	12,730	14,837	16,469	16,982	20,018
Annual change %	12.34	16.55	11.00	3.11	17.88
GPPm (million Baht)	232	305	324	333	393
(as a % of GPP	6.83	7.61	7.21	7.10	7.04
Annual change %	7.8	31.6	6.2	2.8	17.9
No. of BOI approved projects	1	0	1	2	2

Ubon Ratchathani	1990	1991	1992	1993	1994
GPP (thousand Baht)	23,525	25,966	29,314	31,772	30,674
Population (thousand)	1,886	1,909	1,929	1,950	1,680
GPP per capita (Baht)	12,473	13,602	15,196	16,293	18,876
Annual change %	8.60	9.05	11.72	7.22	15.85
GPPm (million Baht)	1,934	2,340	2,359	2,710	2,603
(as a % of GPP	8.22	9.01	8.05	8.53	8.49
Annual change %	7.5	21.0	0.8	14.9	- 3.9
No. of BOI approved projects	3	15	1	11	7

Sources: NESDB, BOI, CPIO

CHAPTER 4 STRATEGIES AND POLICIES TO PROMOTE INDUSTRIAL DISPERSAL: A SUMMARY REVIEW AND ASSESSMENT

4.1 Planning And Policy Development

Thai government policy is guided by the NESDB which, since 1961, has devised five-yearly National Economic and Social Development Plans. In addition to this overall policy framework, there are numerous other planning activities at various internal government levels and for different time horizons. The MOI, for example, has a Master Plan for Industrial Development to the year 2012, an Implementation Plan for the period of the Eighth Plan, as well as Annual Policy Plans.

4.1.1 National Economic and Social Development Plans

Industrial dispersal policies were first explicitly mentioned in the Third Plan (1972 to 1976). Initiatives were implemented in the areas of investment promotion through the BOI, financial assistance from the Industrial Finance Corporation of Thailand (IFCT) and the Small Industry Finance Organization (a predecessor of the present Small Industry Finance Corporation (SIFC), and infrastructure development by IEAT, established in 1972.

The Fourth Plan (1977 to 1981) advocated the development of Regional Urban Growth Centres in an attempt to decentralise urbanisation as well as economic and industrial development.

During the Fifth Plan (1982 to 1986), the establishment of industrial estates in the regions became a priority and the Eastern Seaboard Development Programme was initiated.

The Sixth Plan (1987 to 1991) included the creation of the BOI's investment promotion zones which granted differential privileges to promoted projects according to their location.

The Seventh Plan (1992 to 1996) was the first to adopt an indicative, rather than prescriptive approach, outlining a strategic framework for national development, leaving each government agency to develop their own implementation plans. In an attempt to refine and improve the Regional Urban Growth Centres approach, the Seventh Plan advocated nine regional growth poles as opposed to the twenty-four targeted in the previous plan. The provinces, Chiang Mai, Phitsanulok, Nakhon Sawan, Nakhon Ratchasima, Khon Kaen, Saraburi, Ratchaburi, Surat Thani and Songkhla, were selected because of their apparent industrial development potential, which was supposed to provide a catalyst for investment and development in the surrounding areas. The Seventh Plan continued to emphasize the development of large industrial complexes - the existing Eastern Seaboard, as well as new proposals for area development on the southern and western seaboards.

The Eighth Plan (1997 to 2001) represents a departure from earlier plans by shifting the focus from economic growth to people-centred development. Economic growth is still a priority, but it is acknowledged that this is not synonymous with sustainable development and that past successes need to be consolidated in order to enhance the sustainability of development.

It emphasizes the need to form collaborative partnerships between the government and other sectors of society to guide policy planning, and to manage, monitor and evaluate development activities. The Eighth Plan is also the first to highlight the need to carry out monitoring activities during implementation, as well as periodic evaluation, stressing the need for suitable performance indicators. To coordinate this, the NESDB intends to form a Monitoring and Evaluation Division.

In terms of enhancing the development potential of the regions and rural Thailand, the Eighth Plan recommends three key strategies:

- (1) Promoting popular participation in local development and encouraging communities to develop their own capabilities to that end;
- (2) Increasing the number of employment opportunities; and
- (3) Restructuring the regional and rural systems of development administration (NESDB, 1996b: Part IV, chapter 1, section 3).

The Eighth Plan envisages specifically developing cottage, rural and community industries through promoting sub-contracting linkages between large-scale industry and rural industries and increasing the role of the private sector in providing capital, technology, information services and investment opportunities (NESDB, 1996b: Part IV, chapter 3, section 1.2).

In terms of industrial decentralization, the Eighth Plan recommends policies similar to those of the Seventh Plan:

- (1) Increasing the capabilities of local entrepreneurs through training;
- (2) Developing regional industrial centres as in the previous plan;
- (3) Establishing industrial estates or zones in the regional centres and the development of industrial links with provinces in the same region and with neighbouring provinces;
- (4) Forming industrial estates specifically for SMEs in each group of provinces; and
- (5) Creating special economic zones along the borders to hasten the expansion

of trade and investment within Thailand and with neighbouring countries (NESDB, 1996b: Part IV, chapter 3, section 1.3).

The Eighth Plan suggests that the relocation of industry from the BMR to provincial and rural areas be facilitated by government support for infrastructure development and specific incentives to relocating enterprises, such as BOI privileges, corporate tax preferences and soft loans (loc. cit.).

The Eighth Plan embraces the latest development philosophy and provides many new and perceptive guidelines. It explicitly incorporates the concepts of sustainable development: empowerment, holism, participation and facilitation.

However, as this and previous Plans only serve to guide the planning processes of respective ministries and departments, many of its main suggestions may not be put into practice. The NESDB has no executive powers and "has little influence over the line ministries which implement the plans" (Parnwell and Arghiros, 1996: 6). The new emphasis on monitoring and evaluation will help to address this problem, but only indirectly and in the longer term.

Furthermore, some of the recommendations are anathema to a government system founded on the centralist approach (op. cit.: 8), such as the decentralization of power and people participation at all levels in the implementation, planning and evaluation of government activities. It is therefore naïve to expect enthusiastic acceptance of this approach by all, and for ministries to readily divest themselves of power.

4.1.2 Strategies and Implementation Plan of the MOI for the Period of the Eighth Plan

The Implementation Plan for the MOI envisages it promoting sustainable development and improved industrial competitiveness through the following six strategies:

- (1) Technological-capability building strategy. Improving the ability of entrepreneurs to use modern technology in areas of business production, marketing, management and so on. Specifically to facilitate industrial decentralization, the development of appropriate technology and its transfer to SMEs.
- (2) Incentive and service-provision strategy. Using tax measures to support private sector investment in infrastructure projects that benefit local communities, assist pollution control, and the relocation of industry.
- (3) Regulatory strategy. Formulate new laws that promote and develop small and medium-scale industries and sub-contracting, promote self-regulation by the private sector and reduce/simplify bureaucracy.

- (4) Organisation strategy. Decentralization of power, staff development and revision of the Ministry to create a flatter organizational structure with fewer heads of section.
- (5) Information strategy. Establish an industrial data base on all aspects of industry including environmental regulations, and make the information generally available, rather than only to those who make a special request for it.
- (6) Partnership strategy. To develop industry, cooordinate with other government agencies, the private sector and overseas bodies for planning, attaining industrial standards, technological research and development and so on.

The implementation plan provides a framework but does not go into detail about which department will do what, how, when and how much it will cost. The specific policies will be decided at a workshop in February 1997. As with any plan or report, success can only be measured against its implementation and not the plan or report findings themselves.

4.1.3 Master Plan for Industrial Development

Thailand's Master Plan for Industrial Development, drawn up in 1996 by the Thailand Development Research Institute (TDRI) in consultation with key actors, assesses the current industrial development path, projects a long-term vision to 2012 and formulates a master plan to guide progress. One of its stated objectives is to "distribute the benefits of industrialization to all regions in a manner consistent with the potential of each region". It sees the future role of the MOI as accelerating the distribution of benefits of industrialization to the regions outside Bangkok and vicinity, and creating industrial opportunities for the rural population.

The strategies outlined in the Master Plan are similar to those in the Eighth Plan and promote the relocation of industry to industrial estates and zones, business training, access to credit, and information networks.

It is essential to have a long term plan, as the planning process itself makes it necessary to consider current status and trends and where they are leading. It may not be necessary to be too specific, but some sort of timetable, indicators and benchmarks should be established to check progress and facilitate feedback into current planning activities. In addition, the various layers of planning make coordination between them difficult and do not promote transparency, either of the planning process or of its output.

4.1.4 Annual Policy Plans

The MOI has Annual Policy Plans which inform the implementing agencies at provincial level through the Provincial Industrial Office (see 4.3.3), who link with the other front line agencies in the Provincial Development Committee. This committee has a planning function, preparing provincial investment plans, as well as coordinating and funding provincial development. Provinces are divided into districts, which are split into subdistricts or tambons, which comprise a number of villages.

Although the rhetoric of development has changed, it still seems as if the government is doing the development, rather than facilitating the development process. This must be taken into account by the NESDB who should help ministries to put the Eighth Plan into practice and ensure that change is eased by a process of staff development. It is imperative to realize that planning is only an organizational tool, a means to an end, and should not be allowed to become an end in itself.

4.2 Legal Framework

4.2.1 Administrative Decentralization

The Tambon Council and Tambon Administration Organization Act became effective on March 2, 1995. This act paved the way for the decentralization of administrative power to the tambon level. At that time, all tambons organized a Tambon Council, except those 617 with an average income exceeding 150,000 Baht per year over the preceding three years which formed a Tambon Administration Organization (TAO). To date, 92 percent of the country's 6,964 sub-districts have a TAO, while the remaining 567 are due to be upgraded by 1998 (Bangkok Post, 24-12-96). Tambons now have their own budgets and are empowered to undertake development activities with money allocated by central and provincial government, and that earned from rents on property and public utilities in its area. This is true whether or not they have a TAO or have yet to be upgraded.

The people on the *Tambon* Council are elected by the local people and comprise the *tambon* head, the head of each village, a representative from each village, plus *tambon* doctors. The TAO is larger, with an administrative and a council section, and two elected village representatives instead of one. Last year the TAOs were each given 1.3 million Baht for administration and development from the Ministry of Interior, budget allocations for this year will depend on the policy of the new government.

This transfer of administrative and budgetary power means that local people have a greater say in the development of their own community. However, most of the development activities financed by the TAO have been aimed at improving infrastructure such as piped water, roads and irrigation. Little has been done to create sustainable investments in employment creation or training or other innovative schemes like establishing revolving funds. The role of the TAO may evolve to provide such services as the administrative capacity of the body improves. However, there are other constraints such as the vested

interests of *tambon* officials, and the difficulty of providing, or being seen to provide, benefits for the whole community. Infrastructure projects are an easy and highly visible way of spending money, the impact of providing skills development, for example, is longer term, less tangible and more specific.

The prevailing feeling amongst TAOs seems to be that they should strive to provide an environment that enables local people to improve their personal circumstances through their own endeavours, rather than the TAO doing that directly. There are few signs that the creation of TAOs will promote much industrial development at local level, although participation in industry may increase through village-based sub-contracting.

The commitment of the Chavalit government to bureaucratic reform seems assured. The Bangkok Post (19-01-97) reported that the fourteen ministries would have 90 percent of their decision-making authority transferred to local government bodies such as the *Tambon* Administrative Organizations, an idea initiated by the Prime Minister himself. To date, however, the general situation in Thailand remains one of deconcentration of officials and delegation of duties, but very little devolution of actual power to the local level (Parnwell and Arghiros, 1996: 9).

4.2.2 Minimum Wage Rate Policy

A previous study (see Biggs et. al., 1990: 67-70 for more details) concluded that the minimum wage rate policy represented a constraint to industrial development in the North and Northeastern regions of Thailand as the minimum rate was actually above the market wage rate and meant that they were unable to exploit their comparative advantage in relatively low-wage labour. It is unclear whether this is still the case despite increases in the minimum wage (see Annex 8). Employers that the team spoke to in Nakhon Ratchasima, for example, have to pay more than the minimum wage rate for that area, although it does provide a floor for the basic daily wage, before perquisites (overtime and free bus service).

4.2.3 Taxation Policy

Property taxation takes two forms; the Building and Land Tax is levied annually on owners of land and buildings at 12.5 percent of the assessed rental value of the holding and the Local Development Tax which is levied annually on land owners and is based on appraised land values. Land subject to the first tax is exempt from the second. There are some exemptions from taxation, but none that relate to industrial use of the property.

Biggs et. al. (1990: 72-73) observed that land is often undervalued and, hence, deprives local authorities of a valuable source of revenue. A weakness of the system is its apparent inability to force polluters and congesters to internalize the negative externalities caused by their location. This, therefore, represents a policy bias in favour of location in Bangkok. Furthermore, taxation is too low to prevent the holding of undeveloped land by speculators

who effectively prevent the cost-effective development of industrial infrastructure (see section 5.1.4).

4.3 Key Players in Industrial Dispersal

4.3.1 Joint Public-Private Consultative Committee

The Joint Public-Private Consultative Committee (JPPCC) was set up in 1981 to encourage cooperation between the public and private sectors. It was designed to review problems faced by public and private sectors as well as coordinating attempts to solve them. Provincial-level committees (PJPPCCs), established in 1983, are chaired by the provincial governors and comprise members from various ministries responsible for development and from private organizations such as the provincial chapters of the Federation of Thai Industries (FTI) and Provincial Chambers of Commerce (PCC) and the Thai Banker's Association.

According to recent newspaper article, the JPPCC has lost influence and visibility in recent years (Bangkok Post, 23-12-96). Reportedly, the business community thinks that the consultative committee should regain its status as the key communication channel between the private and public sector and help to reduce vested-interest lobbying of members of the government.

The efficacy of the PJPPCCs depends to a large extent on the dynamism of the provincial governors and their interest in making this forum work. A 1993 ILO mission found that the representation of the private sector on the PJPPCCs was effectively limited to the PCC, as the FTI only had thirteen provincial chapters and the Thai Banker's Association has no provincial branch network. Consequently, they concluded that the ability of the private sector to actively participate in provincial industrial development is constrained. This observation remains valid, but less so, as there are now 38 provincial chapters and where there is none, a local business representative is appointed to attend the PJPPCC instead.

4.3.2 Provincial Development Committee

The Provincial Development Committee (PDC) is responsible for coordinating provincial development and allocation of the provincial development budget which amounts to about one hundred million Baht. In 1993, in an effort to strengthen the private sector involvement in provincial-level planning, the membership of the committee was widened to include a representative from both the PCC and provincial chapter of the FTI (ILO, 1994: 20).

At a recent annual meeting of the Thai Chamber of Commerce (TCC), it was suggested to the government that each provincial administration should include a deputy governor with an economics background, rather than political science or law. This would enable the provincial authorities and the business community to work together on economic issues.

4.3.3 Ministry of Industry

The MOI is responsible for industrial development in Thailand as a whole. Those agencies and offices with a leading role in promoting industrial dispersal are:

Office of Industrial Economics

The OIE was set up in 1992 as a strategic planning body for the MOI. It is responsible for coordinating MOI's policies under the NESDPs, monitoring and evaluating MOI projects, carrying out specific industry case studies, and it serves as an industrial information centre.

Provincial Industrial Office

Each province has a Provincial Industrial Office (PIO), which comes under the authority of the Central Provincial Industrial Office (CPIO), as part of the MOI's Office of the Permanent Secretary. The PIO is responsible for overseeing the industrial development of the province. Specific duties include, granting annual production licences to enterprises, approving factory designs and carrying out regular inspections and environmental audits (UNIDO, 1996a: 14).

In order to implement industry-related plans of provincial-level authorities, the PIO can request funds from the MOI. PIO personnel comprise three sections: (1) administration staff in charge of support functions, (2) an economist and business administrator responsible for industrial planning and industrial promotion activities and, (3) an engineer and technical officer in charge of industrial works activities.

The promotional role of the PIO has been increased in recent years with less emphasis on the technical aspects of existing production facilities. In particular, a policy change in October 1996 emphasised the role of the PIO in promoting the formation of new businesses and village-based subcontracting.

The PIO is a key provincial-level agency providing basic information on the status of provincial industries. The PIOs are hampered in their role of industrial promotion by the volume of routine regulation, generally low staffing levels and the conflicts resulting from responsibility for both policing and promotional activities.

It is also unclear as to how the recent mandate for PIOs to promote the establishment of new businesses should be implemented, or even whether it is really a suitable role for a government agency to play. As yet, no PIOs have assumed this new role. Promotion of village-based subcontracting is a much clearer policy, defined by a UNIDO study (UNIDO, 1996a). However, this again involves a redefinition of the PIO's terms of reference and its implementation proves to be a learning process.

Department of Industrial Promotion

The Department of Industrial Promotion (DIP) is responsible for providing technical services, such as training, advice, information and finance, to industrial enterprises in the regions. DIP has an Industrial Village Project that seeks to develop the production, marketing and technical capacities of new and existing cottage industries in a village. DIP provides seed money to start a revolving fund and will move on when the original village is self-supporting. DIP may receive assistance from the local PIO to locate a suitable village for this project.

DIP is in the process of re-organization, following the recommendations of a recent report (JICA, 1995). DIP now explicitly focuses on the development of small and medium-sized industrial enterprises which, in Thailand, include those with less than 200 employees and/or less than 100 million Baht in fixed assets. In Thailand 98 percent of industrial entities fall into this category and account for half of the labour force in industry.

DIP promotes the dispersal of SMEs to rural areas as well as strengthening economic activities in rural communities in general. DIP plans to increase its representation at the local level by stationing a staff member in every province, operating out of, and in conjunction with, the Provincial Industrial Office.

The decentralization of the DIP staff structure to provincial level is a promising move in principle as it should help to strengthen links between the DIP and PIO, as well as bringing DIP closer to potential clients. In practice, however, there are concerns about the ability of DIP to find enough staff willing to move out to the provinces and the manner in which DIP and PIO staff will interact.

In addition, DIP is setting up more Industrial Promotion Centres to reinforce its existing five regional offices, bringing the total to eleven (Chiang Mai, Phitsanulok, Pichit, Udon Thani, Khon Kaen, Nakhon Ratchasima, Buriram, Suphan Buri, Chonburi, Surat Thani, and Songkhla). These offices will also require staff, funding and facilities. It is as yet uncertain whether this decentralization will be successful as it needs to be accompanied by a bigger budget and a clarification of the roles of DIP and the PIOs.

Industrial Estate Authority of Thailand

The Industrial Estate Authority of Thailand (IEAT) was set up in 1972 to establish and manage industrial estates in Thailand. Its role has evolved over the years from the sole provider of industrial estates to primarily developing facilities in partnership with the private sector.

The majority of industrial estates are located in and around Bangkok, and it was 1983 before the IEAT tried to develop an estate in the regions. The limited success of this Northern Industrial Estate scheme taught the government that supply-driven projects cannot succeed without a clear demand for the services provided (Biggs, et. al., 1990: 98).

IEAT's current thinking is embodied in a strategy document for the period 1996 to 2000. This outlines ten missions which cover traditional aims such as providing 29 industrial estates of various types in 25 provinces and industrial zone development in the Eastern and Southern Seaboards. Other missions cover areas such as improving corporate image, a 'one-station service', information technology and staff development. Innovative partnerships are in the pipeline which show that the IEAT can be an important player in finding new ways to promote industrial development in the regions.

Two such projects due to begin in 1997 are: (1) a 20 rai industrial estate development in Khon Kaen that is designed to act as an incubator for nascent SMEs, organized in collaboration with DIP; and (2) a 20 rai industrial estate in Phayao to develop local gemcutting industries in collaboration with private industry providing technical know-how and training, DIP, and the 'Women Today' project of Chiang Mai University, funded by USAID.

4.3.4 Other Government Ministries

Besides the MOI, there are other ministries and organizations that provide services and/or facilities which influence industrial development. These supporting roles fall into three sections, namely (1) human resource development - education and training at various levels such as secondary school, university and vocational training institute, (2) science and technology development - research and industrial standards testing and (3) marketing support - information provision and trade fairs.

Selected relevant institutions are summarised below for the sake of clarity and completeness (for more details, refer to Brimble and Sripaipan, 1994):

Human Resource Development

Ministry of Labour and Social Welfare - oversees the Institutes of Skill Development, eleven regional and fourteen provincial centres providing a wide range of skill development services including pre-employment and in-service skill upgrading.

Ministry of University Affairs - concerned with state universities and all private tertiary educational institutes.

Ministry of Education - has jurisdiction over all state and private colleges with programmes below degree level plus the Rajamangala Institute of Technology, which has courses from Certificate of Vocational Education to Bachelor's degree.

Science and Technology Development

The Ministry of Science, Technology and Environment (MOSTE) - its departments and associated agencies such as the Thailand Institute of Scientific and Technological Research (TISTR) and the National Science and Technology Development Agency (NSTDA) coordinate and undertake production technology research.

Thai Industrial Standards Institute - a department in the MOI which provides information and training on international standardisation.

Marketing Support

Ministry of Commerce - responsible for trade and commerce, the Department of Export Promotion (DEP) is directly involved in providing information on potential markets, identifying buyers and giving training.

4.3.5 The Office of the Board of Investment

The BOI is the main government agency for promoting foreign and domestic investment in Thailand. Investment in all economic sectors is promoted, not industry in particular. It was only in January, 1993 that the BOI approved new measures to encourage regional investment and industrial decentralization:

- (1) Increase the number of activities eligible for promotion in regional areas, replacing the emphasis on export orientated projects with a regional one
- (2) Increased incentives for projects in Zones 2 and 3, with the highest incentives for Zone 3
- (3) Promotion of factory relocation from Zone 1 to Zones 2 or 3, or from Zone 2 to Zone 3

In 1994, The BOI decentralized some authority from Bangkok to four Regional Investment Economic Centres based in Chiang Mai, Nakhon Ratchasima, Haad Yai, and Laem Chabang (Chonburi).

In 1995, the BOI removed the requirement that foreign-owned companies situated in Zone 3 should export not less than 80 percent of their production. These companies are now free to produce for the domestic as well as export markets, according to variations in the market (BOI, 1996a: 1-2).

The number of BOI approved projects is an important leading indicator as it shows the direction of intended investment. 1993 appears to have been a watershed year for Zone 3 which enjoyed a large increase in the number of approved projects, up from 44 to 63 percent of the total. This share has been maintained in succeeding years (see table 8).

Table 8: Number of BOI Approved Projects by Zone, 1990 to 1995

YEAR	1990		1991		1992		1993		1994		1995	
ZONE	Ņо.	%	No.	%	No.	%	No.	%	No.	%	No.	%
1	392	43	195	32	133	35	173	21	205	18	167	15
2	234	25	142	24	80	21	133	16	185	16	229	20
3	298	32	265	44	165	44	523	63	767	66	752	65
TOTAL	924	100	602	100	378	100	829	100	1,157	100	1,148	100

Source: BOI

This is probably partly due to changes in BOI policy, incorporating a regional bias in favour of investment promotion in Zone 3. BOI differentiation between zones has been successful in promoting development in some areas of Zone 3, notably those adjacent to Zone 2 (Nakhon Ratchasima, Rayong and other provinces in the Eastern Seaboard). Given the importance of proximity to Bangkok in a company's location decision, this is to be expected. However, it is difficult to identify the relative importance of the BOI's incentives themselves vis-a-vis the rising costs of doing business in Bangkok and the surrounding provinces.

The BOI is in the process of planning for a 'Special Investment Promotion Zone' or Zone 4 comprising a group of provinces in the Northeast of the country (see Annex 7). It is hoped that this new zone will provide enough additional incentives to divert investment to the area. However, it is too early to tell whether this will make a difference to the location decision of investors, and whether any additional investment in industry in those areas is sustainable.

The BOI also provides a range of services to actual or potential investors in provincial areas though its regional offices. These include investment advice, match-making assistance, subcontracting assistance (through the activities of the BOI Unit for Industrial Linkage Development or BUILD), and other related activities.

4.3.6 Bank of Thailand

The BOT disburses loans through commercial banks in four categories:

- (1) Labour-intensive and agro-industry
- (2) Small and medium-scale enterprises
- (3) BOI Zone 3 approved projects
- (4) Livestock-raising and agricultural trade

Funds dispersed by the BOT at preferential rates have to be topped up by the commercial banks at a one to one ratio (except category three, for which a ratio of 40 (BOT) to 60 (commercial bank) is required). Thus, the banks can provide loans below commercial rates, without losing the opportunity to make a profit.

BOT regulations specify that 60 percent of savings deposited in a commercial bank in a certain district must be lent to projects located in the same district. This policy attempts to ring-fence local funds.

BOT policies aiming at financially assisting regional industries do not seem to be very effective, though. Of the 2,566.5 million Baht lent by the Northeastern Regional Branch of the BOT, categories one, two and three only accounted for 11.5 percent. Apparently, the BOT terms imposed on commercial banks are not very attractive for the banks. Therefore, commercial banks tend to avoid this facility and/or favour disbursement of finance in large easily-administered chunks.

4.3.7 Industrial Finance Corporation of Thailand

The IFCT is a quasi-governmental agency that makes loans to industry and has a policy of promoting industrial development in provincial areas. In 1995, for example, 61 percent of the 42,328 million Baht loaned was disbursed outside Bangkok.

An ILO mission questioned the need for such an agency whose services do not appear to differ significantly from those offered by commercial banks. Furthermore, it only has six regional offices, so is poorly represented at the regional level (ILO, 1994: 36).

4.3.8 Small Industry Credit Guarantee Fund

The SICGF provides collateral in the form of a loan to SMEs that lack the financial wherewithal to borrow money independently. It was established in 1985 and is managed by the IFCT.

Thongpakde et.al. (1994: 133-134) conclude that the impact of the SICGF is rather limited due to the burden of information required to apply for funds, low staff levels and the lack of cooperation from commercial banks.

4.3.9 Small Industry Finance Corporation

DIP provides finance through the SIFC (500,000 to 25 million Baht) and the Office of the Revolving Loan Fund for Cottage and Handicraft Industries (50,000 to 500,000 Baht). Of the 1,186 loans provided by the Revolving Loan Fund between 1985 and 1992, averaging 26,000 Baht each, 89 percent were to fund loans outside Bangkok (ILO, 1994: 16). The Small Industry Finance Corporation (SIFC) only has one regional office in Khon Kaen, although there are plans to establish other offices in Chiang Mai (1997) and Songkhla (1998).

The lack of decision-making ability at local level, and the complexity of the application procedure are among the reasons for a low rate of loan disbursement. The Khon Kaen office has provided only 116 loans, worth a total of 293 million Baht, in the last ten years (although a further 58 loans worth 103 million Baht were disbursed through the now concluded CIDA-funded Small Scale Industrial Development Project, 1988 to 1996). Much of the industry supported is construction-based, with some loans for investment in garment and metalworking enterprises.

Recently, the Finance Minister suggested that the restrictions on SIFC efficacy by borrowing money at the minimum lending rate of interest (about 13 percent) should be addressed (Bangkok Post 17/1/97). According to the article, he will support a plan for the SIFC to borrow money from the Japanese Overseas Economic Cooperation Fund and the BOT, allowing it to lend money at 11 percent. This would enable SIFC to further lower their current interest rates, thus partly offsetting the disincentives associated with their complex application procedures.

4.3.10 Bank of Agriculture and Agricultural Cooperatives

The Bank of Agriculture and Agricultural Cooperatives (BAAC) is a government owned and managed bank charged with lending to farmers for agricultural development. It is a large organization with offices in most districts and a large number of loan officers who service clients in the rural areas. At the end of March 1996, the Bank had provided loans to some 84 percent of Thailand's 5.64 million agricultural households.

Historically, the Bank could only provide loans for agricultural purposes, although this stipulation has been relaxed in recent years and it now has a broader remit which includes loans to farmers for 'agriculture-related' purposes.

In terms of industrial dispersal this is a good development because it allows farmers to borrow money for agro-industrial investment such as food processing and agricultural machinery assembly. The BAAC has advantages over other sources of finance because it is a well-known and accessible source, with whom many will already have dealings (see 5.1.2).

4.3.11 Private Sector Organizations

Federation of Thai Industries

The FTI does not have a specific policy of promoting industrial dispersal and has a very top-heavy administration based in Bangkok. The FTI represents industrial enterprises, lobbies the government, promotes networking, and advises on research and training opportunities. FTIs ordinary members comprise registered industrial enterprises, which pay a membership fee. In addition, there are 38 provincial chapters plus 26 Industry Clubs with associate membership.

Thai Chamber of Commerce

The Thai Chamber of Commerce (TCC) is represented in every province and has a membership composed of local businessmen and traders.

Both the FTI and TCC provide information and advice to their members and lobby the government. Some services, such as environmental audits are provided upon request by FTI Bangkok to its provincial members.

4.3.12 Non-Governmental Organizations

The Population and Community Development Association

The Population and Community Development Association (PDA) has two major projects involved in enterprise development: Community Based Integrated Rural Development (CBIRD) and Thai Business Initiative in Integrated Rural Development (TBIRD).

CBIRD was launched in 1992 and receives financial assistance from CIDA. It is similar to the Industrial Village Programme of DIP and the Village-based Subcontracting programme of the PIO. At present this scheme involves 12 companies, is involved in 48 provinces, and aims to help 500,000 migrant workers in Bangkok return to work in their home provinces (The Nation, 22/1/97).

TBIRD was created in 1985 to facilitate and promote private sector involvement in rural development in order to raise rural living standards, reduce/reverse rural-urban migration and develop income-generating activities (PDA, 1994: 2). There are 41 companies in the scheme that benefit from tax breaks and improving their corporate image. The PDA also highlights less obvious benefits to donors, such as better worker-management relations and lower staff turnover due to improved morale.

These projects provide a good role model for collaboration in other spheres, based on mutual cooperation, mutual benefits and the realization that there is more to running a company than looking at short-term profit margins. TBIRD, in most cases, relies on charity and is therefore inherently unsustainable, although the capacity-building and strengthening of local community ties is a welcome, if intangible, benefit.

CBIRD appears to be more sustainable in that the companies sub-contract out part of their production line to the villagers. The CBIRD programme in Nang Rong District, Buriram includes six small-unit factories making shoes for Bata. A report in The Nation (22-01-97) quotes a director of Bata International Limited who visited the site recently as saying: "We find the PDA's production model to be 25 percent more efficient than our earlier plant, and this model of application will soon be applied to other Bata operations throughout the world".

CARE International

The Small Economic Activities Development project of CARE International is involved in small enterprise development in the Northeast region. It has formed several production groups in rural areas and provides assistance in business opportunity identification, training in production skills, financial management, design, marketing and credit.

Other NGOs involved in income-generation and community development include the Appropriate Technology Association and the Foundation for Rural Reconstruction Movement. The number of NGOs involved in enterprise development is bound to increase, especially if the government implements plans to increase the role of NGOs in implementing development projects in concert with local people.

Section 4.3 should not be taken as a definitive or comprehensive list of all the actors involved in promoting industrial dispersal, it rather concentrates on the major actors in this field. The checklist overleaf (Table 9) provides a summary of the key functions of each organization.

Table 9: **Summary of Major Agencies Promoting Industrial Dispersal**

Organisation Character/Service	PIO	DIP	IEAT	OIE	BOI	вот	IFCT/ SICGF	SIFC	BAAC	FTI	TCC	PDA	CARE
Government Organisation	у	у	у	y	у	у	у	у	у.	n	n	n	n
Regional Representation	n	у	#	y	у	у	у	у	y	n	n	у	n
Provincial Representation	у	+	#	n	n	n	n	n	у	*	y	n	n
District/Village-Level Presence	n	у	n	n	n	n	n	n	у	n	n	у	у
Enterprise Development	у	y	n	n	n	n	n	n	n	n	n	у	у
Marketing Assistance	n	у	n	n	у	n	n	n	n	n	у	у	у
Financial Assistance	n	у	n	n	n	у	у	у	у	n	n	у	у
Information Provision	у	y	у	у	у	у	n	n	n	у	у	у	n
Facilitating Subcontracting	у	у	n	n	у	n	n	n	n	n	n	y	у
Technical Assistance	у	у	n	n	n	n	n	n	n	n	n	y	у
Industrial Studies	n	у	n	y	n	n	n	n	n	у	n	n	n
Management Training	n	у	n	n	n	n	n	n	n	n	n	y	у
Membership & Representation	n	n	n	n	n	n	n	n	n	у	у	n	n
Infrastructure Development	n	n	у	n	n	n	n	n	n	n	n	n	n
(Re)Location Privileges	n	n	у	n	у	n	n	n	n	n	n	n	n

Yes у

No

IEAT represented in Industrial Estates

Planned under ongoing reorganisation FTI currently has 38 provincial chapters

4.4 Persistent and Newly Emerging Constraints and Opportunities

4.4.1 Policy and Planning

Constraints:

- (1) The planning process is multi-layered and lacks transparency with little evaluation mechanisms either for monitoring ongoing projects or lesson-learning from past experiences.
- (2) The process of devolving power to the grassroots level is just beginning and it is uncertain whether rhetoric will become reality.

Opportunities:

- (1) The Eighth Plan calls for development that is people-centred, holistic and sustainable. Strategies that involve participation and that promote decentralization of power to make decisions, prioritise projects and allocate budgets are emphasized.
- (2) Policies that promote specific area development, whether intranational (Zone 4 and Border Zones) or international growth 'triangles' (Indonesia-Malaysia-Thailand Growth Triangle, Greater Mekhong Sub-region (Cambodia, Southern China, Lao PDR, Myanmar, Thailand, Vietnam).
- (3) Push factors such as increases in the direct and indirect costs of doing business in Bangkok in terms of wage rates, traffic congestion, pollution and health risks.

4.4.2 Legal Framework

Constraints:

- (1) Lack of local government autonomy implies unduly high transaction costs for those industries located outside Bangkok.
- (2) The property tax regime does not sufficiently penalise those who locate in Bangkok or people who engage in land speculation.

Opportunities:

(1) Availability of new funding mechanisms such as the *Tambon* Administration Organization budget which is administered at the *tambon* level and is guided by local priorities.

4.4.3 Key Actors in Industrial Dispersal

Constraints:

- (1) A lack of coordination and cooperation between the key actors results in a confusing overlap between different service providers as well as a inefficient use of resources.
- (2) Entrepreneurs lack access to easy to use, reliable, timely and localized information/advice.
- (3) The low level of human resource development in the country as a whole is a major constraint that can only be alleviated through long-term strategies and programmes. The lack of skilled labour and managerial capacity constrains the absorptive capacity of Thai industries and reduces their ability to react to market changes.

Opportunities:

(1) High awareness among public and private sector agencies concerning the importance of industrial promotion for the development of disadvantaged areas, which further increased during the process of the Eighth Plan formulation.

CHAPTER 5 FIELD RESEARCH

This chapter summarizes the information gathered from interviews conducted in Bangkok and the Northeast region of Thailand: Nakhon Phanom, Mukdahan and Ubon Ratchathani (the selected provinces), Khon Kaen and Nakhon Ratchasima (see Annex 1).

The team's findings are presented in the form of an analysis of the current business environment for industrial enterprises, which details the Strengths, Weaknesses, Opportunities and Threats (SWOT) governing industrial development in the three provinces in particular and disadvantaged areas in general, as perceived by the interviewees.

5.1 SWOT Analysis of the Industrial Business Environment

5.1.1 Strengths

Agricultural Base. The Northeastern Region has a strong agricultural base, with agriculture contributing 19.2 percent to GRP in 1994. The main 'industrial crops' are rice, sugar cane, tobacco, leather, tomatoes, fast-growing trees and cassava. The agricultural sector creates backward linkages (demand for inputs such as machinery) and forward linkages (demand for processing and transport) with manufacturing industry.

Human Resource Development. The abundance of unskilled labour in the region was quoted as a strength by some interviewees. However, other people thought that there was a shortage caused by the seasonal outward migration of agricultural workers to find work in other regions. Much of the work force in this area is reported to emigrate to jobs abroad, especially in Taiwan and the Gulf States. Presumably, if there were suitable jobs for these workers in the region, some of them would stay in the local area.

Land. The existence of large areas of relatively cheap land was often given as a strength of this region. This assumption may be flawed due to lack of access to infrastructure and water and by land speculation.

5.1.2 Weaknesses

Market Demand. Lack of sufficient demand to warrant investment in manufacturing industry was seen as a weakness of the area. Improving transport within and between the regions not only gave them easier access to Bangkok, but also reduced the cost of 'importing' manufactured products. This negated any comparative advantage that isolation afforded industry in the regions that relied upon local demand.

Local demand has yet to reach the 'critical mass' that would make it worthwhile for industry to locate there. This may change with improved links to markets in Indochina and, via Vietnamese seaports, the Far East. The characteristics of existing industry are those based on raw materials of local origin that lose much weight in processing (cassava, sugar cane), have a low value to weight ratio and are used locally (concrete products, sand), process highly perishable and/or bulky produce (tomatoes) or are based on local artisan skills (weaving and silverware).

Finance. The people we spoke to in the three provinces did not consider finance to be a problem, but this is probably due to the sample of people met, rather than the necessary absence of a problem. The SIFC regional office in Khon Kaen has disbursed 174 loans, totalling 293 million Baht in ten years. The low loan rate is attributable to the complexity of application procedures, there is only one office in the region, loan approvals are made in Bangkok, maximum credit term is ten years and equity must match debt 1:1.

In contrast to this record, the BAAC in Mukdahan estimates that loans for non-agricultural (but agriculture related) investment activities will reach 50 million Baht in the 1996/97 financial year. Examples of eligible investment activities include truck and agricultural machinery assembly, village fuel stations, manufacturing brushes, bricks and blocks and small-scale processing of produce such as weaving cloth and canning bamboo shoots.

BAAC's advantage over SIFC is that they have offices in most districts, are widely known and used, have many staff who visit every village in their area, can approve loans at the local level (up to one million Baht), have a lower interest rates (up to 60,000 Baht - nine percent, between 60,000 and one million Baht - 12.5 percent) and applicants can submit a proposal for consideration verbally.

Distance from Bangkok. The provinces visited are at a disadvantage due to their distance from Bangkok, the primate status of which ensures that it exerts a magnetism unrivalled by other cities. Efforts to decentralize Thai industry dating back to the Third NESDP have, generally speaking, only succeeded in deconcentration - shifting industry to the provinces near Bangkok - which probably would have happened to a large extent anyway.

Social Infrastructure. Many interviewees considered the lack of social or 'soft' infrastructure (schools, hospitals, entertainment venues) to be a factor hindering the development of industries. The absence of high-standard facilities is seen as an obstacle for the relocation of qualified public and private sector staff, and especially for attracting foreign investors to the area, who might also require facilities such as an international school for the benefit of expatriate staff.

The primacy of Bangkok means that all the most prestigious schools, shops, hospitals and so on are located there. People wanting to have regular access to these have no choice but to live in the capital.

Physical Infrastructure. Lack of physical or 'hard' infrastructure (good road network, tap water supply, telephone lines) was cited as a problem by interviewees. Even in the privately-owned Suranaree Industrial Zone (SIZ), where infrastructure is already in place, inadequate transport facilities, telephone links and problems of poor water quality were cited.

Besides the SIZ in Nakhon Ratchasima, there are no other operational industrial estates in the North-east. In 1992, the Sahapatana Group, Thailand's largest consumer goods concern, bought and partially developed an industrial estate near Ubon Ratchathani. The 2,000 *rai* site is currently planted with rubber trees, and has been put on hold awaiting further improvement of links with Indochina and an anticipated rise in demand for suitable land for industrial development.

Some interviewees look to the government to provide an industrial estate which would serve as a focus for initial investment and underscore its commitment to promoting development in the area. However, this type of supply-driven initiative is likely to be unsuccessful, unless the demand conditions are suitable and supporting infrastructure is also in place. This opinion was endorsed by interviewees in the SIZ, who said that it was largely empty for its first five years and, only now is beginning to fill up.

In Udon Thani, an industrial estate is under construction, whilst in Khon Kaen an innovative alliance between DIP and IEAT should see the start of work on developing a 20 *rai* site in 1997 (see section 4.3.3).

As to airlinks, both Ubon Ratchathani and Nakhon Phanom have airports with regular flights to Bangkok which makes weekly commuting a logistical possibility. Mukdahan plans to build an airport, although it is still at the feasibility study stage. Convenient air links between the outer provinces and Bangkok can partly offset the locational disadvantage of being distant from Bangkok as day trips from/to regional offices become possible.

Human Resource Development. Lack of skilled work force is a problem in the sense that interviewees in the selected provinces considered the numbers of skilled workers available to be insufficient. That there are relatively fewer skilled workers graduating in or originating from these provinces will affect industrial development as these people are arguably more likely to want to remain in the area. Their desire becomes academic, however, if there is a lack of suitable employment opportunities. A senior official at Ubon Ratchathani University, for example, said that there was only demand for two engineers in the province - one at the brewery and one at the tannery.

It is the number of skilled workers who are willing and able to work in the regions that is important. This not only relates to the number of job vacancies in appropriate fields, but also to a whole range of other considerations associated with the work environment (salary, promotion prospects, job status) and the social environment.

There is much speculation about how Thailand is going to make the transition to a country that has a sufficiently skilled labour force to become a NIC. Projections show that even in the year 2000, some 80 percent of the work force will have only received primary education of six years or less. Educational reform is high on the new government's agenda, but the results of any improvements at the current time, such as raising compulsory schooling from six to nine years, will only become apparent in the long term.

Costs of Doing Business. Transaction costs are higher because this inevitably involves communication with Bangkok. Telephone/fax expenses are much greater for long-distance calls, charged pro rata, than for local calls which are currently charged at a flat rate, although the Telephone Organization of Thailand is attempting to introduce a time element to them as well.

Connection to the World Wide Web for communication (electronic mail or E-mail) and/or for the exchange of information (advertising products, market research) via the Internet may be an option for some enterprises. However, this will necessitate capital investment in computing equipment and some understanding of English. Running costs can also be expensive, depending on the distance from a server. This situation does not appear to be having a huge negative effect on the business community as use of the Internet is still limited and more servers are being installed in regional towns, such as Nakhon Ratchasima.

Difficulties of finding accurate, readily available and timely information and advice was cited as a problem. The PIO was a source of information utilized by newcomers wanting to find out about existing local industry and licensing procedures. For information about marketing and pricing where timing and accuracy are important, interviewees said that they usually contacted Bangkok-based organizations like the TCC and FTI.

5.1.3 Opportunities

Infrastructure and Business Links with Neighbouring Countries. Improved transport links with Indochina involve all three of the provinces we visited during the first field trip. The second Thai - Lao PDR bridge is planned for Mukdahan - Savannakhet (Bangkok Post 14-12-96). It is possible to travel from Nakhon Phanom by ferry to Thaket, Lao PDR, then 300 kilometres on Route 8 to Hun La, Vietnam. Ubon Ratchathani borders both Lao PDR and Cambodia, and Route 13 to Pak Se, Lao PDR is currently being improved with assistance from Japan.

A foreign trade office was opened in Sa Kaeo province on 24 December 1996 to facilitate border trade with Cambodia in seven border provinces, including Ubon Ratchathani (Bangkok Post 25-12-96). Mukdahan is to be linked to the Eastern Seaboard and to Myanmar at Mae Sot. Infrastructure links that effectively increase the hinterland of these provinces, especially those to seaports in Vietnam, give them access to larger markets.

Despite obvious optimism in the area, however, there is no guarantee that these projects will necessarily promote industrial development in these provinces (see threats below).

Tourism Development. The BOT in Khon Kaen and other interviewees stressed the importance of tourism for improving the economic potential of the Northeast. The multiplier effects of income from tourism would be felt in supporting sectors such as transport, construction, banking, handicrafts and high-value agricultural crops. The area could provide a platform for tourism to other countries in the region which was seen as being mutually beneficial, helping to forge closer cooperation, which could subsequently lead to better trade and industrial links.

Innovative Collaboration Between Actors. There are benefits to be gained by exploiting the synergy between various stake-holders involved in industrial development. Actors with a leading role include owners and employees, government advisory and regulatory services, private sector groups such as industry associations and NGOs such as PDA. Other agencies have a supporting role, providing services such as education and training, investment finance, research, packaging, transport and distribution networks. Behind the scenes are actors that influence the enabling environment such as physical infrastructure and economic policies.

The Skill Development Institute in Ubon Ratchathani, for example, has formed a relationship with the private sector. Two different enterprises that produce gem stones and garments provide machinery and some training expertise to the Institute which supplies training facilities, accommodation and support staff.

Village-based Subcontracting. Subcontracting part of the production line is one way of reducing labour costs, whilst at the same time providing an important alternative source of income for village dwellers. This is a good example of how the private sector can link with workers to the benefit of both, with the PIO acting as an honest broker to establish the ground rules for the relationship. This is being implemented in Mukdahan where the PIO is negotiating between three pilot villages and a factory in the town which exports its 'doggie treats' made from animal hide to Europe.

Village-based subcontracting can be an effective way to solve the problems of rising labour costs and falling real incomes for people engaged in part-time farming. However, it is acknowledged that it is difficult to establish in practice, requiring a trustworthy 'middleman' or intermediary who must assure the enterprise of quality control, quantity and timeliness of delivery while assuring the subcontractors of fair remuneration for work done.

In Ubon Ratchathani, a large enterprise, which makes cloth and leather bags and employs over 4,000 workers, would seem an ideal candidate for subcontracting. According to the PIO, however, they are not keen to try due to concerns related to quality control and possible competition.

Building on Local Potential. It was reported to the team that there are, in fact, many local investors, who would be interested in industrial investment in the area, if sound opportunities/project proposals existed. What is needed, they said, was evidence of government commitment to supporting development in the area through concrete measures. Not everyone is simply waiting for government assistance. For example, the Governor of Nakhon Phanom, in collaboration with the PCC, has drawn up a memorandum of understanding with the Ha Tinh city authorities in Vietnam agreeing procedures to ease transhipment and border crossing between Thailand and Vietnam, via Lao PDR.

The PIO in Ubon Ratchathani cited the International Airport as a source of potential for the area, especially if an air cargo facility could be arranged which would allow the transport of suitably high value to weight ratio manufactured products such as electronics and jewellery.

BOI Zone 4. The BOI plan to extend further privileges to a 'Special Investment Promotion Zone' or Zone 4 that would include Nakhon Phanom, Mukdahan and Ubon Ratchathani; this may provide the additional incentives required to bring investment to the area (see Annex 7). Opinions on this issue differed amongst those interviewed. Some thought that Zone 4 could not offer much more to enterprises, as Zone 3 already granted the maximum privileges. Others thought that it would improve the potential for local industrial development.

In 1995, these provinces had a total of ten applications to the BOI approved, compared to a total of 752 for the whole of Zone 3. BOI incentives apply to a range of activities, not just manufacturing: for example, in Nakhon Phanom they have been awarded for hotel construction, manufacture of concrete products and tomato-processing.

5.1.4 Threats

Land Speculation. There are difficulties in procuring parcels of land for industrial estate development due to speculation or political difficulties such as the removal of illegal settlers. This causes development costs to increase and may result in the postponement or cancellation of a project. Land speculation is blamed for the lack of an IEAT industrial estate in Khon Kaen. Several areas have been studied, but increases in land prices forced IEAT to move its operation to neighbouring Udon Thani instead (Venzky-Stalling 1993: 41).

Industries Leapfrog to Laos and Beyond. Improved links with Indochina may result in the (re)location of industry there, instead of in Thailand, especially those that would benefit from cheaper sources of labour and more relaxed environmental and employment legislation. Furthermore, a bridge in Mukdahan, for example, does not necessitate the expansion of industry in that area. This will be especially true once transport links are improved between Mukdahan and Khon Kaen, Nakhon Ratchasima and the Estern Seaboard.

5.2 Key Constraints: A Synthesis

Table 10 presents the teams findings as a matrix showing key constraints, the underlying bottlenecks and their explanation. This draws together the major issues discussed above and provides a basis for the recommendations in Chapter 6. In addition, this analysis serves as the starting point for the development of workable solutions.

Table 10: The Remaining Key Constraints

	Constraint	Sub-constraint	Explanation			
1	Market demand	 a. Financial market insufficiently developed b. Narrow industrial base and few supporting industries c. Per capita income low d. Physical distance from major markets 	 a. Lack of access to finance constrains enterprise development and demand for intermediate products b. Lack of demand for intermediate products c. Lack of disposable income constrains demand for finished products 			
2	Social infrastructure	 a. Poor quality/quantity of social facilities such as schools, hospitals, entertainment venues, shops b. Difficulty of attracting suitable budget and qualified staff 	 a. Lack of competitive facilities constrains local human resource development b. Low status of provincial social infrastructure for clientele and staff 			
3	Information and advice Centralization	a. Entrepreneurs lack access to easy to use, reliable, timely and localized information/ advice b. High costs of communication	 a. Lack of integrated, unbiased industrial support network b. Lack of localized, one-stop service 			
4	of government	High transaction costs	Decisions need to be authorized by central administration			
5	Unclear government planning	Entrepreneurs uncertain of government's plans for industrial development at national, regional and local levels	Lack of communication between public and private sector, as well as between central government and the regional and between different government agencies			

The diverse, complex, and intransigent nature of structural bottlenecks identified by the field research highlights the importance of an integrated approach to promoting industrial competitiveness of the disadvantaged regions of Thailand, which must find ways of transcending traditional preconceptions of actors' roles. Such an approach recognizes that development is a common goal which should be striven for in a spirit of cooperation and not antagonism.

CHAPTER 6 SUB-REGIONAL INDUSTRY WORKING GROUP (SRIWG)

6.1 Creating a Mechanism for Enhanced Dialogue and Concerted Action

The importance of regional industrial development for improving income generation opportunities in the less-developed regions has been well-recognized and extensively embodied in the Eighth Plan. Accordingly, it is generally agreed that there is the need for a more proactive approach to encouraging the development of industrial activities in the less-developed regions.

The Eighth Plan also calls for: "the formulation of regional economic and social development guidelines and of development plans for provincial groupings, to be used as frameworks for development planning." (NESDB, 1996b, Part IV, Chapter 4). It also places great emphasis on supporting the role of the private sector in the development of each area.

It is therefore proposed to create an innovative mechanism both to enhance dialogue on industrial issues between the public and private sectors as well as to generate momentum for concrete action programs designed to encourage industrial growth in the less-developed regions.

The proposed mechanism is the Sub-Regional Industry Working Group (SRIWG).

The SRIWG aims to establish a consultative vehicle to bring together all major stakeholders in the industrial arena to build consensus and inject industrial development concerns into the regional development dialogue. It will provide a forum to facilitate the frank and meaningful exchange of views between key actors in industrial development at the sub-regional level and will bring together the perspectives from different sectors and groups of society. The wide-ranging interest groups represented can learn from each others' experiences and guide coherent policy interventions.

The SRIWG will fill the critical gap between the national and the provincial level in terms of industrial development planning and project implementation, and will augment, rather than supersede, existing forums like the PJPPCCs and Provincial Development Committees, as it will concentrate specifically on issues affecting industrial development.

There exist compelling reasons for organizing the Working Group at the sub-regional level, many of which underlie the rationale behind the identification of the 14 'provincial groupings' or sub-regions in the Eighth Plan:

• the importance of economies of scale and pooling of resources when developing the industrial and technological infrastructure required to support industrial activities;

- the complementarities between the various provinces included in each sub-region, with at least one being relatively well-positioned to take a lead role in the industrial development process;
- the opportunity to integrate the deliberations of the SRIWG directly into the sub-regional development planning process outlined in the Eighth Plan;
- the potential to improve inter-provincial communication and coordination, to avoid duplication and promote provincial specialization, and to reduce the need to compete against each other for central government funds and programs.

The 14 sub-regions identified in the Eighth Plan appear to be reasonable; in terms of geography and complementarity (see Annex 9). However, recent discussions among the provincial chambers of commerce and other groups indicate some concern about the composition of the sub-regions. The present study could not explicitly consider this issue, but urges all groups to rapidly reconcile the differences so that sub-regional cooperation on industrial issues can proceed quickly.

6.2 Key Issues to be Addressed

The SRIWG will have a long menu of issues to tackle. It is suggested that the basic concerns be addressed under four main groups, derived from the analysis in previous chapters of this report. This classification is intended only as a starting point from which the Working Groups themselves will derive concrete action plans and add additional issues.

6.2.1 Basic Structural Issues

The SRIWG will need to consider a range of basic structural issues that will impact both on its own development and on the industrial development of the sub-region:

- the resources of the sub-region and the resulting implications;
- the basic structure of the macro environment and any other key policy biases or infrastructure weaknesses:
- the division of responsibilities and specializations between the provinces in the sub-region;
- liaison with existing groups; and
- the operating parameters and procedures of the SRIWG.

6.2.2 Business Facilitation and Services

The needs of entrepreneurs in the sub-region will be a key focus of the SRIWG. Research indicates a number of areas where public sector support can provide valuable resources to business people in the regional areas.

These include: information on business opportunities and markets; assistance in preparing 'bankable' projects; assistance in dealing with public sector agencies and understanding the range of government programs; and assistance in obtaining finance for sound projects.

The SRIWG should examine these issues with a view to identifying ways of improving the efficiency of programs designed to meet the needs of and support local entrepreneurs. In particular, since many of these services can be provided by private sector business service providers, the Working Group should explore the possibility of enhancing the growth of such service providers in the sub-regional areas (see also the findings of a recent ILO report, which recommends action along similar lines, ILO 1994).

6.2.3 Human Resource Development

Human resources are presently and will remain a critical bottleneck in regional development. And the constraints will be at all levels: from unskilled to highly skilled.

While the SRIWG may underline the importance of improved educational access at all levels, it should focus on improving the framework for technical and managerial training at the vocational level and above.

The SRIWG should explore possibilities of creating closer cooperation between the education institutions (both public and private sector) and the industrial sector in the sub-region. It should consider close cooperation between the provinces in planning additional investments in specialized institutions, from international schools to specific university programs.

6.2.4 Science and Technology Development

The Eighth Plan is very clear on the importance of science and technology: "Science and technology should be applied to increase people's skills and knowledge, and to create a strong and balanced industrial sector." (NESDB, 1996b, Part V, Introduction).

The SRIWG should consider the creation of a network of science and technology support services in the sub-region, carefully considering the gaps that need to be filled within the sub-region itself, and the areas where external resources can be tapped. This should include the application and commercialization of R&D results achieved at the national level. Enhancing the role of educational institutions in working together with the local people in areas of relevance to the natural resources and the needs of the sub-region should be a key element of this process.

6.3 Critical Networking Characteristics

The SRIWG will play a critical function in bringing the various parties together that are involved in regional industrial development. The effectiveness with which the SRIWG plays this 'networking' role will be a strong determinant of the eventual success of the entire concept. It is also wholly consistent with the Eighth Plan which calls for the establishment of industrial networks between 'industrial centers' and neighboring provinces.

- (1) Networking between the public and private sectors. The Eighth Plan gives considerable emphasis to the strengthening of the private sector and also to the role of enhanced collaboration between the public and private sectors in this regard. The SRIWG can provide a unique public/private sector interface mechanism at the sub-regional level. Through taking an action-oriented approach and aiming for some immediate successes, it is hoped that the SRIWG will quickly gain the confidence of the private sector; something which is extremely important to ensure their long-term interest and participation.
- (2) Forward linkage to the policy-makers at the central level. The SRIWG must develop channels of communication with key ministries and agencies at the central government to ensure that the concerns of the sub-region are well-reflected in policy decisions in Bangkok.
- (3) Backward linkage to the district and tambon levels within each of the provinces and to other interested groups. The SRIWG must ensure that the concerns and perspectives of the local people are reflected in the outputs of the Working Group and that the grass-roots levels are kept well informed of the activities of the Working Group. This includes NGOs and other groups with an interest in supporting the development of entrepreneurs in the regions.

Fourth, networking between the various government agencies involved. The SRIWG can play an important role in linking together the programs and initiatives of the myriad government agencies involved in industrial development in the less-developed regions. This is important both to ensure that the activities of the SRIWG fit well with other programs and to improve the coordination between the various government agencies as they all begin to work to implement the directive of the government and the guidelines of the Eighth Plan to decentralize their operations and focus on promoting regional development.

A key element of the networking function of the SRIWG will be the ability of the Working Group to widely disseminate information on its activities and generate active feedback.

6.4 Possible Synergies with other Development Initiatives and Areas for Possible External Assistance

The United Nations Collaborative Action Plan (UNCAP) is a joint initiative of the Royal Thai Government and the UN system to support innovative and holistic pilot projects and programmes, particularly at the *tambon* and district level to facilitate the implementation of the eighth NESDP. Such pilot projects in provinces selected by NESDB should aim to increase awareness concerning options for building sustainable livelihoods through diversification of income opportunities. They should, furthermore, include training and demonstration activities related to the articulation of relevant local constraints.

Such projects could include capacity building at the *tambon* and district levels to improve participation in and contributions to regional fora and the SRIWG, thus helping to generate effective interaction with the community level. UNCAP will provide the framework within which such pilot programmes can be launched in close partnership with the PIO and DIP of the Ministry of Industry, local chapters of the FTI, and the provincial chambers of commerce.

Other possible areas of external assistance include capacity building in formulating area-based and national policies, strategies and plans for SME development based on competitiveness and sustainable growth through international exposure. This could include active participation in the global network for the promotion of competitive and innovative small and medium-sized industrial enterprises, being launched by UNIDO.

Through the secretary of the SRWIG, good working contacts should be established with the members of the informal SME development group (see Chapter 1) and, in particular, with their counterparts in the public and private sector. This would facilitate optimal exchange of information and sharing of experiences for the benefit of the SRWIG; it would ensure complementarity between ongoing and planned activities and maximization of synergies. Possible direct contributions from these externally assisted projects might also include the participation of resident experts or advisers as additional resource persons in the SRWIG, as appropriate.

Furthermore, the SRWIG should liaise, and exchange experiences with, similar or related area-based development initiatives, such as a policy and planning workshop for several Southern Provinces recently commissioned by the NESDB and executed by a private consulting company or the area-specific briefing/networking meetings which are occasionally organized by the BOI.

6.5 Operationalising the Concept: A Pilot Project

6.5.1 Basic Description

In order to move the process along rapidly, it is proposed that a SRIWG be formed on a pilot basis in one of the sub-regions identified in the Eighth Plan and agreed upon by all key players.

The pilot project will permit an immediate and timely evaluation of the potential benefits of the SRIWG mechanism as well as a concrete action plan to enhance industrial development in the sub-region in question. It will also generate considerable information and procedural experiences that can be subsequently applied in similar initiatives in other sub-regions.

6.5.2 Working Group Composition

Membership of the working group should not be too large as to render it unwieldy and troublesome to convene. Sub-regions contain between four and six provinces; an ideal size would be about sixteen to twenty people.

Two to three representatives should come from each province, covering both the public and private sector. It is not the intention to specify members by position or office, although likely candidates would come from the PIO, DIP, the Office of the Provincial Governor, Provincial branch of the BAAC, Provincial Commerce Office, Provincial Chamber of Commerce, Provincial Chapter of the FTI.

At the regional level, any educational institutions and the Regional IPC (especially if DIP is not otherwise represented) should be represented. Other important actors should be involved at the discretion of the working group (such as NGOs and regional/international agencies active in the subregion).

From the national level, there should be a representative of the MOI, possibly from the OIE, who would act as secretary. The NESDB should also be represented. Other key agencies should also be invited as required.

The working group should be chaired by an impartial third party, perhaps someone from a regional university. The Chair should be a dynamic and inspirational character, capable of catalyzing discussions and clear thinking. In addition, the involvement of a professional moderator, who would not have any vested interest in the subject matter, would be very useful, as he or she could facilitate constructive dialogue and ensure an unbiased outcome of the meeting by providing neutral moderation to the proceedings.

Table 11: Suggested Structure of the Sub-Regional Industry Working Group

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

6.5.3 Meetings of the Pilot SRIWG and Related Activities

It is proposed to hold three meetings of the SRIWG during the 12-month period of the pilot project. Each meeting will play a different, but critical, role in advancing the process of industrial cooperation at the sub-regional level. As a whole, they will lay the foundation for continued actions in the concerned sub-region and pave the way for future activities of the SRIWG.

Meeting 1

A one and a half day meeting of the core members of the SRIWG to consider the basic structural issues concerning the sub-region, as well as general administrative questions regarding the functioning of the SRIWG itself.

Decisions should be made on: (1) the basic division of activities between the provinces in the subregion on the basis of existing resources and future potential; (2) agreement on the specific issues that will form the basis for the second meeting of the SRIWG; (3) agreement on the organizational procedures and resources to govern the functioning of the SRIWG.

Prior to the meeting, external resource persons will be retained to compile relevant information from primary and secondary sources, to prepare a detailed briefing document to support the deliberations of the meeting, and to assist in structuring the meeting to ensure maximum effectiveness.

Meeting 2

A two day meeting, involving brief opening and closing plenary sessions around smaller working group sessions with the clear mandate to identify concrete action plans for the key areas identified (or confirmed) by the first meeting of the SRIWG. Recommended areas, detailed above, include: business facilitation and services; human resource development; and science and technology development. Participants will include the core members of the working group supplemented by technical and other experts in the relevant fields.

Prior to the meeting, detailed technical background papers and recommendations will be prepared to guide the discussions in the smaller working group sessions.

Following the meeting, the draft recommendations and work plans on the various topics will be finetuned and widely disseminated to stake-holders at all levels in the provinces concerned. They will have the opportunity to feed comments and suggestions back into the drafts.

Meeting 3

A one day seminar, preceded by a half-day meeting of the core members of the SRIWG and selected technical experts. The basic idea is to invite participation from a broader range of interested parties and provide them the opportunity to learn more about the proposals of the SRIWG and to input into them. Also, to begin to develop operational networks and advocates of the basic process in all related agencies and institutions.

Prior to the meeting, copies of the draft recommendations and action plans will be sent to all participants to maximize the value of interaction at the meeting.

Following the meeting, concrete sub-regional action plans and an evaluation of the experiences of the pilot project will be prepared for wide dissemination and as a basis for replicating the concept in other sub-regions.

6.5.4 Indicative Time Line

Time	Activity
Month 1	 selection of sub-region finalization of composition of the SRIWG identification of consulting resources completion of detailed work plan/agendas/schedules
Months 2 and 3	 preparation of background materials and concept papers for the first meeting notification of participants briefing documents sent out
Month 4 (beginning)	first meeting of the Pilot SRIWG
Months 4 to 7	 synthesis of the results of the first meeting preparation of detailed technical papers on the three initial areas of focus to support the second meeting
Month 8	 second meeting of the Pilot SRIWG synthesis of the results of the second meeting into a series of draft action programs wide dissemination within the sub-region of the results of the Pilot SRIWG process to date
Months 9 to 11	 solicitation of comments/inputs from stake-holders at the provincial, district, and tambon levels, as well as other interested parties incorporation of the comments into the draft action programs and additional fine-tuning
Month 12	 third and final meeting of the Pilot SRIWG preparation of final report on the pilot project and final action plans dissemination of the final reports

6.5.5 Logistics and Funding

The MOI should take responsibility for coordinating the pilot project and taking the lead role in identifying funding sources.

The three meetings could be held at a permanent location within the sub-region such as a regional university or provincial government offices. Alternatively, meetings could be rotated between provinces in the sub-region in different types of location (private company, training institute, commercial bank, industrial village, PIO). This will depend to some extent on available facilities and on the scope of the meeting.

Ideally the costs of the SRIWGs would be shared by the private and public sector. The government could provide backstopping support and pay per diems to members from the government. The private sector could sponsor the activities of the working group in general by providing funds through the FTI, to cover other expenses. For the pilot project, it will probably be necessary for the MOI to assign a budget to cover most of the expenses.

Linkages and possible support from the UN Collaborative Action Plan (UNCAP) facility can be considered and elaborated through the membership of the Permanent Secretary of the MOI in the Executive Committee of UNCAP.

Costs incurred for the pilot phase may include:

- travel, hotel, and per diem for all invited participants;
- expenses of guest speakers;
- consultancy work and resource persons;
- incidental expenses refreshments, paperwork, convening meeting, etc.;
- field trips to visit industrial promotion successes in other sub-regions;
- dissemination of the results and additional incidental meetings or discussion groups.

BIBLIOGRAPHY

- ADB. 1990. "The Role of Small and Medium-Scale Manufacturing Industries in Industrial Development. The Experience of Selected Asian Countries." Asian Development Bank, Manila.
- Bell, P.F. 1996 Development or maldevelopment? The contradictions of Thailand's economic growth. In: Parnwell, M.J.G. 1996 "Uneven Development in Thailand" Avebury Publishing Limited, Aldershot, England.
- Biggs, T., Brimble, P., Snodgrass, D. and M. Murray 1990 Rural Industry and Employment Study: A Synthesis Report Thailand Development Research Institute Foundation, Bangkok.
- BOI. 1996a An Investor's Guide Thailand's Regional Areas Office of the Board of Investment, Bangkok.
- BOI. 1996b Seminar on Investment Promotion Area Policy Office of the Board of Investment, Bangkok.
- BOI. 1996c A Guide to the Board of Investment Office of the Board of Investment, Bangkok.
- BOI. 1996d BOI Investment Report Vol. 5:3.
- BOT. 1996 Document Prepared for Meeting with MOI/UNIDO Study Team, 13-12-96. Bank of Thailand, Northeastern Regional Branch, Khon Kaen.
- Brimble, P. and C. Sripaipan 1994 Science and Technology Issues in Thailand's Industrial Sector.

 The Key to the Future. A report prepared by The Brooker Group Ltd., for the Asian Development Bank.
- Dixon, C. 1996 Thailand's rapid economic growth: causes, sustainability and lessons. In: Parnwell, M.J.G. 1996 "Uneven Development in Thailand" Avebury Publishing Limited, Aldershot, England.
- ILO. 1994 Development of Provincial Small and Medium-sized Enterprises, with the Involvement of the Private Sector and Non-Governmental Organizations A report of the UNDP/ILO TSS1 Mission (July to August 1993), ILO/EASMAT, International Labour Organisation Regional Office for Asia and the Pacific, Bangkok.
- Islam, R. (Ed.) "Rural Industrialization and Employment in Asia" Asian Employment Programme (ARTEP), International Labour Organisation, New Delhi.
- JICA. 1995 The Study on Industrial Sector Developing Supporting Industries in the Kingdom of Thailand UNICO International Corporation, Tokyo.
- Kraas, F. and C. Fritz undated "Thailand Industrial Decentralisation. Concept Study" Chapter 2: Demarcation of Economic Regions and Regional Assessment Department of Geography, University of Bonn, Germany.

- Meyanathan, S.D. (Ed.) 1994 "Industrial Structures and the Development of Small and Medium Enterprise Linkages. Examples from East Asia" Economic Development Institute of the World Bank, Washington DC.
- Meyer, W. 1988 "Beyond the Mask: Towards a Transdisciplinary Approach of Selected Social Problems Related to the Evolution and Context of International Tourism in Thailand" Breitenbach, Saarbrucken.
- MOC. 1996 Marketing Data for Nakhon Phanom Province, 1995 Provincial Commerce Office, Nakhon Phanom, Thailand.
- MOI. 1975 "Coding System for Industrial Production Sale Data" Ministry of Industry, Bangkok.
- Murray, M.P. 1988 "Subsidizing Industrial Location. A Conceptual Framework with Application to Korea" Occasional Paper No. 3/New Series. The World Bank, Washington DC.
- NESDB. 1996a Regional and Provincial Production, 1994 National Economic and Social Development Board, Bangkok.
- NESDB. 1996b The Eighth National Economic and Social Development Plan (1997-2001) English Language Version. National Economic and Social Development Board, Office of the Prime Minister, Bangkok, Thailand.
- O'Connor, J. 1989 Uneven and Combined Development and Ecological Crisis: A Theoretical Introduction "Race and Class" 30 pp. 1-11.
- Office of the Provincial Governor, Mukdahan 1995 Provincial Investment Plan, 1994.
- Office of the Provincial Governor, Nakhon Phanom 1995 Provincial Investment Plan, 1994.
- Office of the Provincial Governor, Ubon Ratchathani 1995 Provincial Investment Plan, 1994.
- Parnwell, M.J.G. (Ed.) 1996 "Uneven Development in Thailand" Avebury Publishing Limited, Aldershot, England.
- Parnwell, M.J.G. and D.A. Arghiros 1996 Introduction: Uneven development in Thailand. In Parnwell, M.J.G. (Ed.) 1996 "Uneven Development in Thailand" Avebury Publishing Limited, Aldershot, England.
- PDA. 1994 TBIRD News Vol. 4:12.
- Schrumpf, H. And B. Muller undated "Thailand Industrial Decentralisation. Concept Study" Chapter 1: International Comparison of Decentralization Strategies and Ideal Theoretical Approaches Institute of Economic Research, Northrhine-Westfalia (RWI), Germany.
- Simon, J.-C. 1996 The Thai manufacturing sector: New patterns of expansion In: Parnwell, M.J.G. (Ed.) 1996 "Uneven Development in Thailand" Avebury Publishing Limited, Aldershot, England.

- TDRI. 1997 Draft Report on the Study for Formulating Strategies and Implementation Plan of the Ministry of Industry in the Period of the Eighth Plan. Thailand Development Research Institute, Bangkok.
- Thomson, S. 1996 Gender Issues in Small and Medium Enterprise Development in Northeast Thailand United Nations Industrial Development Organization, Bangkok.
- Thongpakde, N., Puppahavesa, W. and Pussarangsri, B. 1994 *Thailand*. In: Meyanathan, S.D. (Ed.) "Industrial Structures and the Development of Small and Medium Enterprise Linkages. Examples from East Asia" Economic Development Institute of the World Bank, Washington DC.
- Tolentino, A.L. 1995 Guidelines for the Analysis of Policies and Programmes for Small and Medium Enterprise Development International Labour Office, Geneva.
- UN-ESCAP. 1988 "Decentralised Industrialization as an Approach to Social Development" United Nations Economic and Social Commission for Asia and the Pacific, United Nations, New York.
- UN-ESCAP. 1996 "Rural Poverty Alleviation and Sustainable Development in Asia and the Pacific" United Nations Economic and Social Commission for Asia and the Pacific, United Nations, New York.
- UNDP. 1996 "Human Development Report" United Nations Development Programme, United Nations, New York.
- UNIDO. 1992 "Thailand. Coping with the strains of success" United Nations Industrial Development Organization, Vienna.
- UNIDO. 1996 "Interactive Policy Formulation" United Nations Industrial Development Organization, Vienna.
- UNIDO. 1996a Village Based Subcontracting, Technical Report prepared for the Ministry of Industry of Thailand, based on the work of R. Ash. United Nations Industrial Development Organization, Vienna.
- UNIDO. No year "Poverty Alleviation and Rural Small-Scale Industries" Study prepared for the ACC Task Force on Rural Development.
- Venzky-Stalling, M. 1993 *Industrial Estates and Regional Industrialization in Thailand* Department of Geography, School of Oriental & African Studies, London.

ANNEX:1

TIMETABLE FOR INTERVIEWS IN BANGKOK AND DURING THE FIELD VISIT (PERIOD 15 NOVEMBER 1996 TO 31 JANUARY 1997)

29 November DIP, Bangkok

Sumonmarn Kalaysiri, Director, Policy and Planning Unit

11 December MOI, Bangkok

Kitcha Meenakan, Industrial Technical Officer, OIE

FIELD TRIP 13 - 21 December 1996

Friday 13: KHON KAEN

09.00 - 10.30 NESDB

Praditha Dumrongcharoen Montri Boonphanit

11.00 - 13.00 BOT, North Eastern Region Branch

Metha Suvanasarn, Director

Praneet Chotikirativech, Chief, Economic Research Section

Theerapong Intarachai, Economist Pranee Intaranongpai, Economist

15.00 - 16.30 SIFC

Supaporn Benjamart

16.30 - 18.00 NEIPC

Wim Ronggrout, Director Triam Charoenchai

Saturday 14: KHON KAEN

09.00 - 10.30 FTI

Vorachot Bhatanadamrongchit, Chairman

PCC

Samart Angvarawong, Committee member

Monday 16: NAKHON PHANOM

09.00 - 10.30 PIO

Somchai Sa-ngiamsak, PIO

11.00 - 12.00 PCO

Sriratana Khittikhun, PCO

13.30 - 14.30 Forest Thai Co. Ltd.,

Watchara Jiaviriyaboonya

15.00 - 16.00 Thai Parkphum Concrete Co. Ltd.

Uthis Laohaphan, Production Manager

Tuesday 17: NAKHON PHANOM

09.00 - 10.30 BAAC

Suthat Wongsawanitch, Manager, Nakhon Phanom Branch

13.00 - 15.00 PCC

Prateep Thammachai, Chairman

Santi Kwobutre

Suratana Beowan

Praphan Laokittichai

Somehart Thammaphokin

Sa-nguan Sakulku

Chiti Kwobutre

Banthit Saengvichit

Wednesday 18: MUKDAHAN

09.00 - 10.00 PIO

Charnchai Anusorn, Engineer

Thongsai Wannasa, Industrial Technical Officer

10.30 - 12.00 BAAC

Bamrung Upatchana, Provincial Manager

13.00 - 14.30 PCC

Panyar Likitkositgul

Kraitoon Suwanpatana

Thursday 19: UBON RATCHATHANI

14.00 - 16.00 Ubon Ratchathani University

Wanwalai Athipaspong, Vice-President, Planning and Development

16.30 - 17.30 Warinchamrab District

Songphol Champaphan, District Sheriff

Friday 20: UBON RATCHATHANI

09.00 - 12.00 PCC

Prasarn Sritanyarat, Chairman & President of Municipal Council,

Tepphanom Omodtam, Vice Secretary-General

Sombat Suwanleela, Vice President

Apichai Ratanasin, Bangkok Bank Ltd., Committee member

FTI

Songsak Jirasuk, Chairman

Pracha Prawutyutin, Vice Chairman

13.00 - 14.30 Skill Development Centre

Juthamas Boon-art

15.00 - 16.15 PIO

Uthis Phannikul, PIO

Prayoon Tingthong, Assistant PIO

Saturday 21: UBON RATCHATHANI

09.30 - 11.00 Bungwai Tambon Council

Samorn Pongkhamguay, Chairman

Jaim Jampee

Tiam Kwanyean

Pramool Sri-ngam

Sud Jalsri

Busdee Athila

Somboon Sopeephan

Sathian Raksarord

Sa-ngud Phansri

Toen Thatong

Udom Saengkla

Swas Phansri

Suay Chanpuang

Buagun Phansarnkaew

26 December IEAT, Bangkok

Tasanee Sucharitwongsanont, Director, Planning and Policy Division

15 January Informal Donor Meeting, UNIDO, Bangkok

17 January NESDB, Bangkok, Rural Development Division

Khun Kitisak Sinthuvanich Khun Chamnan Rungsang

Khun Kitti

24 January	Nakhon Ratchasima
------------	-------------------

- 09.15 10.15 Sri-Thai Superware, Suranaree Industrial Estate
 Tawee Kongyungyuen, Director, Factory Manager
- 10.20 11.10 Suranaree Industrial Zone Co., Ltd. Panyarit Lawansiri, Vice President
- 11.15 12.00 Korat Automotive Co., Ltd. Suranaree Industrial Estate Surin Sirikumthornkij, Deputy Sales Manager
- 12.15 13.45 North-Eastern Region Investment & Economic Centre Warubon Sukasame, Director

Provincial Industrial Office, Khun?

- 14.00 15.15 GSS/ARRAY Technology
 Suthipong Saenkaew, Vice President & General Manager
- 15.30 16.30 Suranaree University of Technology
 Dr. Kasem Prabriputaloong, Dean, Institute of Resources Technology
 Manu Omakupt, Acting Director, Technopolis
 Vitawas Yomchinda, Assistant Professor

ANNEX 2:

- 2.1 Summary Briefing Sheet for Interviews
- 2.2 List of Participants of SME development meeting on 15 January 1997
- 2.3 Background Material for Presentation at the SME development meeting

ANNEX 2.1:

Promotion of Competitive Industries in Disadvantaged Regions of Thailand

A study undertaken by:

the United Nations Industrial Development Organization (UNIDO) in cooperation with the Office of Industrial Economics/ Brooker Group

Background:

With real GDP growth rates averaging 8% over the last thirty years, the industrial sector, expanding at even higher rates most of the time, has been a major contributer to Thailands impressive growth record. Moreover, the share of total exports in GDP has increased from 24 to almost 40 per cent in the 1987-1994 period and manufactured products now account for more than 75 per cent of all exports.

Nevertheless, concerns are rising among policymakers as well as leading figures in the private sector about (1) the long-term viability and competitiveness of Thailands industries and (2) the persistant disparities in terms of economic and social benefits between regions as well as different social groups.

Due to the concentration of industry in the Bangkok Metropolitan Region (BMR), employment and income opportunities disparities have been widening between Bangkok and the regions in general and urban and rural areas in particular. This is most evident in Northeastern region where the average per capita income was almost 12 times less than in the BMR.

A geographically more balanced industrial development, with a focus on rural industrialization and small and medium-sized industries, has been identified as an important means of income generation/poverty alleviation in Thailands disadvantaged areas. While this has been reflected in both Thailands VIIth and the VIIIth National Economic and Social Development Plans, as well as in Thailands first Industrial Master Plans (until 2012), and various measures have been developed by concerned Government and private sector bodies (Minstry of Industry, BOI, IEAT etc.), the results achieved so far have been mixed.

The accelerated build-up of economically viable (competitive) industrial enterprises which don't rely on subsidization, remains one of the key challenges to increase the income level in Thailands disadantaged areas such as the Northeast.

Objective:

In order to address this issue, the OIE has requested UNIDO to undertake this study which will:

- review the recent industrial development trends by regions and analyze disparities and imbalances;
- assess the results of strategies and programmes to promote the decentralization of industries and identify unresolved as well as newly emerging opportunities and and bottlenecks; and
- discuss action needs and identify policy options and strategies for the promotion of competitive industries at the regional level; and
- outline possible horiontal as well as vertical consultation and cooperation mechanisms/networks among the relevant public and private sector actors at the local, regional and central levels, which would facilitate interaction and dialogue in policy design, implementation, monitoring and evaluation.

Resarch Activities:

In view of the limited time and resources available, the project will focus its in-depth research at the provincial/local level on a pilot area consisting of three Northeastern border provinces, namely Mukdaharn, Ubon Ratchathani and Nakhon Sawan. In addition, the project team will visit Khon Kaen which is the regional centre of the Northeast.

- → During its field visit, the team will interview representatives of the relevant public and private sector institutions, research and HRD development centers as well as individual entrepreneurs.
- First-hand information and data will be collected concerning the (perceived) *local* opportunities and constraints for the establishment of competitive industrial enterprises in the selected provinces. Experiences with and results of previous programmes for industrial promotion both developed locally and at the central level will be assessed.
- The team will try to obtain suggestions concerning future strategies for the creation of an environment conducive to the establishment of viable industries (including policy, legal and regulatory framework, necessary support mechanisms, macro economy/HRD/infrastructure/environmental concerns etc.).
- Finally, the team will present and seek comments on possible approaches to improve networking and interactive mechanisms for the design and efficient implementation of comprehensive policies and programmes. The team will identify interested and motivated private and public sector actors/partners at all levels and try to jointly develop concrete action-oriented steps towards the establishment of such networks/consultative mechanisms or groups.

ANNEX 2.2: List of participants of SME development meeting on 15 January 1997

Informal donor group meeting on small- and medium enterprise development Wednesday, 15 January 1997, UNDP Conference Room 10.00 a.m.

NAME
1. Mr. Charoon Unsuwan, DIP, MOI
2. Ms. Sumalee Hongsakul, DIP, MOI
3. Ms. Naruemol Suthawaree, DIP, MOI
4. Mr. Bunchua Wongkasem, DIP, MOI
5. Mr. Kreewit Charoenphol, DIP, MOI
6. Mr. Christian Lempelius, DIP, MOI
7. Ms. Kanikar Sittisak, CARE
8. Dr. Somkiat Tangkitvanich, TDRI
9. Dr. Duenden Nikomborrirak, TDRI
10. Mr. Marc Proksch, ITD/ESCAP
11. Mr. T. Ueda, ILO
12. Mr. F. H. Shah, UNICEF
13. Mr. Michael Heyn, UNDP
14. Ms. Nipa Krupaisarn, UNDP
15. Ms. Juri Oka, UNDP
16. Ms. Shoko Ishikawa, UNIFEM
17. Mr. Akrawat Wettayavatin, OIE/UNIDO
18. Ms. Marion Hinte, OIE/UNIDO
19. Mr. Peter Brimble, OIE/UNIDO
20. Mr. Ben Walker, OIE/UNIDO
21. Mr. Ari Huhtala, UNIDO
22. Mr. Marc De Mey, UNIDO
23.
24.
25.
26.
27.



Promotion of Competitive Industries in Disadvantaged Regions of Thailand

Presentation to the

Informal Donor Group and Counterpart Meeting

UNIDO, Bangkok January 15, 1997

Background Briefing

UNIDO-MOI 1



Regional Industrialization Presentation Outline

- Purpose of Meeting/Intended Use of Study
- Basic Terms of Reference/Study Methodology
- Preliminary Analysis of Key Constraints
- The Major Opportunities
- Decentralization in the Eighth Plan
- The Proposal: A Mechanism for Enhanced Dialogue and Concerted Action

Background Briefing



Purpose of Meeting/ Intended Use of Study

- Purpose of Meeting
 - ✓ informal presentation of findings and recommendations
 - ✓ gather feedback
- Intended Use of Study
 - ✓ provide input to the OIE/MOI with formulating a strategy and action plan for implementing the Eighth National Plan
 - ✓ feed into the MOI's own Annual Policy Plan for 1997/98

Background Briefing

UNIDO-MOI 3



Terms of Reference

- analyze and assess salient trends of industrial development in the regions, focusing on disparities and imbalances
- review and assess results of past and present strategies to promote industrial dispersal, emphasizing unresolved and newly emerging constraints and opportunities
- outline promising policy options for improving the enabling environment for economically viable enterprises in disadvantaged areas

Background Briefing



Method of Study Status of Research

- desk study reviewing relevant literature
- field trip to the North-Eastern region to interview regional and local-level stakeholders in Khon Kaen, Nakhon Phanom, Mukdaharn and Ubon Ratchathani.
- interviews with key actors in Bangkok
- where are we now?
 - ✓ writing first draft
 - ✓ gathering feedback

Background Briefing

UNIDO-MOI 5



The Key Constraints

Market Demand

Social Infrastructure Absence of Industrial Base

Unclear Government Planning Information and Advice

Centralization of Government

Background Briefing

THE KEY CONSTRAINTS

	CONSTRAINT	SUB-CONSTRAINT	EXPLANATION	
1	Market demand	a. Financial market insufficiently developed	a. Lack of access to finance constrains enterprise development	
		b. Narrow industrial base and few supporting	and demand for intermediate products	
		industries	b. Lack of demand for intermediate products	
		c. Per capita income low	c. Lack of disposable income constrains demand for finished	
		d. physical distance from major markets	products	
2	Social	a. Poor quality/quantity of social facilities such	a. Lack of competitive facilities constrains local human resource	
	infrastructure	as schools, hospitals, entertainment venues,	development	
		shops	b. Low status of provincial social infrastructure for clientele and	
		b. Difficulty of attracting suitable budget and	staff	
		qualified staff		
3	Information and	a. Entrepreneurs lack access to easy to use,	a. Lack of integrated, unbiasedl industrial support network	
	advice	reliable, timely and localised	b. Lack of localised, one-stop service	
		information/advice		
		b. High costs of communication		
4	Centralization of	a. High transaction costs	a. Decisions need to be authorised by central administration	
	government			
5	Unclear	a. Entrepreneurs uncertain of government's	a. Lack of communication between public and private sector, as	
	government	plans for industrial development at national,	well as between central government and the regional and	
	planning	regional and local levels	between different government agencies	



Key Opportunities in the Northeastern Provinces

- infrastructure and business links with neighboring countries
- implementation of the Eighth Plan itself
- innovative collaboration between all the actors in regional industrial development
- strong natural resource base
- pull factor BOI Zone 4
- tourism development
- availability of new funding mechanisms for local development DIP, TAO

Background Briefing

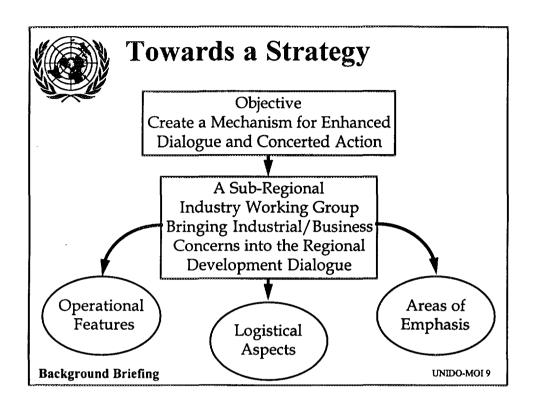
UNIDO-MOI 7



The Eighth Plan A Partial Roadmap

- highlights the need for the government to find ways to promote participation of all stakeholders in development
- evolve government administrative processes or mechanisms that foster people participation
- little practical guidance as to how to achieve this
- requires a continuous learning process for all involved

Background Briefing





Sub-Regional Industry Working Group - Operational Features

- bring together all major stakeholders at the subregional level to build consensus
- augment, rather than supersede, existing forums
- integrate into the Eighth Plan sub-regional planning process/mechanisms
- disseminate findings widely in the sub-region
- feed policy recommendations to MOI and the National Industrial Development Committee

Background Briefing



Sub-Regional Industry Working Group - Areas of Emphasis

- support to the sub-regional business community
 - ✓ improving cooperation
 - ✓ strengthening business and technical capabilities
 - ✓ effectively pooling sub-regional resources
 - ✓ creating stronger linkages with outside sources of expertise
- focus on addressing the key constraints and limits to sub-regional industrial development
- content and priorities to be recommended as part of the joint UNIDO/MOI research exercise

Background Briefing

UNIDO-MOI 11



Sub-Regional Industry Working Group - Logistical Aspects

- meetings to be convened by the MOI, held regularly & arranged in advance,
- meetings could be held at a permanent location or rotated between provinces
- costs to be shared by the private and public sector
 - ✓ MOI could provide administrative and limited financial support
 - ✓ Private sector could sponsor the working group jointly or individually
- An independent moderator/facilitator could ensure participatory discussion processes

Background Briefing

SUGGESTED STRUCTURE FOR THE SUB-REGIONAL WORKING GROUP FOR INDUSTRY

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

ANNEX 3:

THAILAND: BREAK-DOWN OF PROVINCES INTO REGIONS

Zone 1: Bangkok, Samut Prakan, Nakhon Pathom, Nonthaburi, Samut Sakhon and

Pathum Thani (same as BOI Zone 1).

Total: 6 provinces

Central Region: Ratchaburi, Samut Songkhram, Kanchanaburi, Phetchaburi, Prachuap Kiri

Khan, Suphan Buri, Prachin Buri, Nakhon Nayok, Chachoengsao, Sa Kaeo, Chantaburi, Trat, Sing Buri, Ang Thong, Lopburi, Chai Nat, Sara Buri, Chon

Buri, Rayong and Ayutthaya.

Total: 20 provinces

Northern Region: Chiang Mai, Lamphun, Lampang, Mae Hong Son, Nakhon Sawan, Uthai

Thani, Kamphaeng Phet, Tak, Chiang Rai, Phrae, Nan, Uttaradit, Phayao,

Phitsanulok, Sukhothai, Phichit and Petchabun.

Total: 17 provinces

Northeast Region: Nakhon Ratchasima, Surin, Buri Ram, Chaiyaphum, Ubon Ratchathani,

Amnart Charoen, Sisaket, Yasothon, Roi-et, Udon Thani, Nong Bua Lamphu, Nong Khai, Nakhon Phanom, Sakon Nakhon, Mukdahan, Khon Kaen, Maha

Sarakham, Kalasin and Loei.

Total: 19 provinces

Southern Region: Phuket, Phang-nga, Trang, Krabi, Satun, Songkhla, Phatthalung, Yala,

Pattani, Narathiwat, Surat Thani, Nakhon Si Thammarat, Chumphon and

Ranong.

Total: 20 provinces

ANNEX 4:

Policies and Instruments Influencing the Industrial Business Environment

1. Overall development policies

Industrial development policy
Agricultural development policy
Human Resource development policy
Income distribution policy
Differential pricing of inputs and outputs between sectors
Private sector participation policy
Market economy

2. Trade policies

Exchange rate policy
Foreign exchange control
Import control
Export taxes and subsidies
Price control
Product standards and certifications

3. Monetary and credit policies

Inflation and money supply policy
Interest rate policy
Redicount rates policy
Requirements on collateral and security
Bangking and financial intermediation laws
Exchange rates and controls
Mandatory allocation of credit resources
Policies on specialized credit schemes

4. Fiscal policies

Differential taxation
Investment and tax incentives
Business taxes systems
Taxes applied on starting and operating a business
Capital based taxes
Income based taxes

Taxes on major inputs, e.g. labour, power and utilities, raw materials, equipment and machinery, etc.

Public expenditures on infrastructure

Public expenditures on business assistance and support

5. Labour policies

Wage policies Labour legislation Skills training system

6. Regulatory and control policies

Registration requirements and procedures

Permits and licensing laws

Laws and regulations applying to setting up a business (business form, location, etc.)

Product standards and certifications

Health and environmental standards

Centralization/decentralization of administration and control, delineation of natinonal and regional regulations

Rationalization and coordination of regulatory systems and their administrations

7. Education and training policies

Training incentives
Policies on apprenticeship schemes
Public Investment on training
Inclusion of business management and entrepreneurship training in the overall education system

8. Technology policies

Public Investment in research and product development Public investment in technical advisory services Research and development incentives Policies on local content and value-added Technology transfer policies

(Adapted from Tolentino 1995: 11, 12)

In analyzing effects of regulations and policy instruments on the industrial business environment, impact areas to be considered include:

List of impact areas determining a conducive business environment

1. Factos influencing product markets

Volume of demand
Access to domestic market
Access to export market
Ease of entry into sucontracting and ancillary relationships
Cost competitiveness with locally produced products
Cost competitiveness with imported products
Competitiveness in quality
Access to market information

2. Factors influencing necessary inputs

Access to capital and funds
Access to machinery and equipment
Access to skilled labour
Access to inputs of raw materials and semi-manufacured inputs
Access to land, workshop space, utilities
Access to entrepreneurship and business management training
Access to advisory services
Access to information

3. Factors influencing business start-up and operation

Ease of complying with the regulatory system Ease of strategic planning, forcasting Sense of societal recognition and rewards

(Adapted from Tolentino, 1995: 13)

ANNEX 5:

Map: Thailand - Numbers of Factories by amphoe (district), 1994

Number of Factories per Amphoe 1994 (without rice mills) **Inner City Area** Central Area One Point: 10 Factories **Amphoe** km **Province** 200 400 Data: Central Provincial Industrial Office, 1996 Thailand Environment Institute, 1996 Project file: AMPFACT2, Attribute file: COMPCOUN, Data: Noricemil, FP: 10, Date: 30.01,1997 Map: V.Wessels, OIE, Min. of Industry, 1996

ANNEX 6:

Maps: Northeastern Region: Number of Factories per amphoe (district), 1994

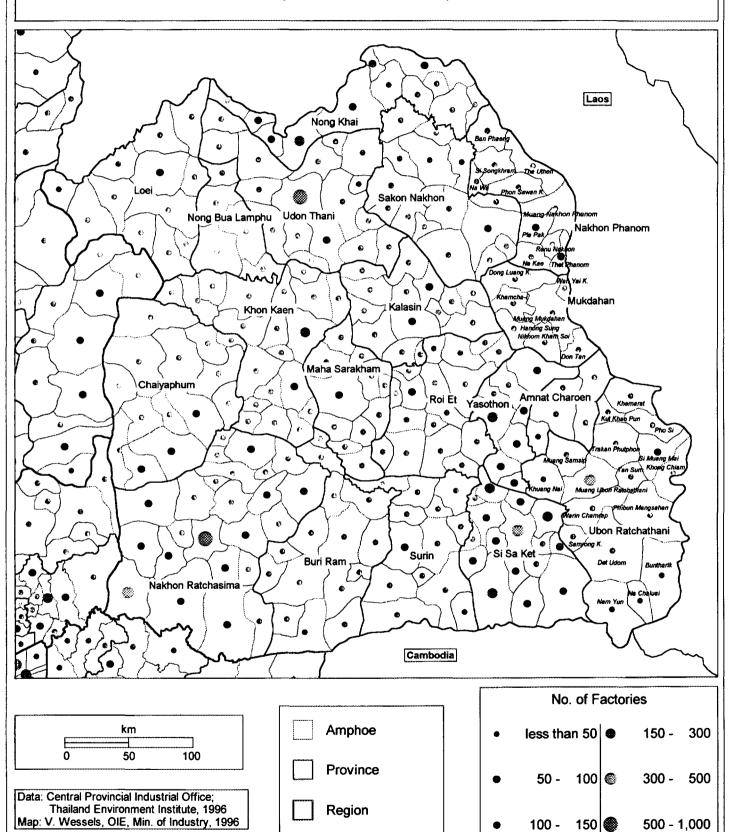
Northeastern Region: Number of Factories with less than 100 employess per *amphoe* (district), 1994

Northeastern Region: Number of Factories with 100 to 500 employees per *amphoe* (district), 1994

Northeastern Region: Number of Factories with 500 to 1,000 employees per *amphoe* (district), 1994

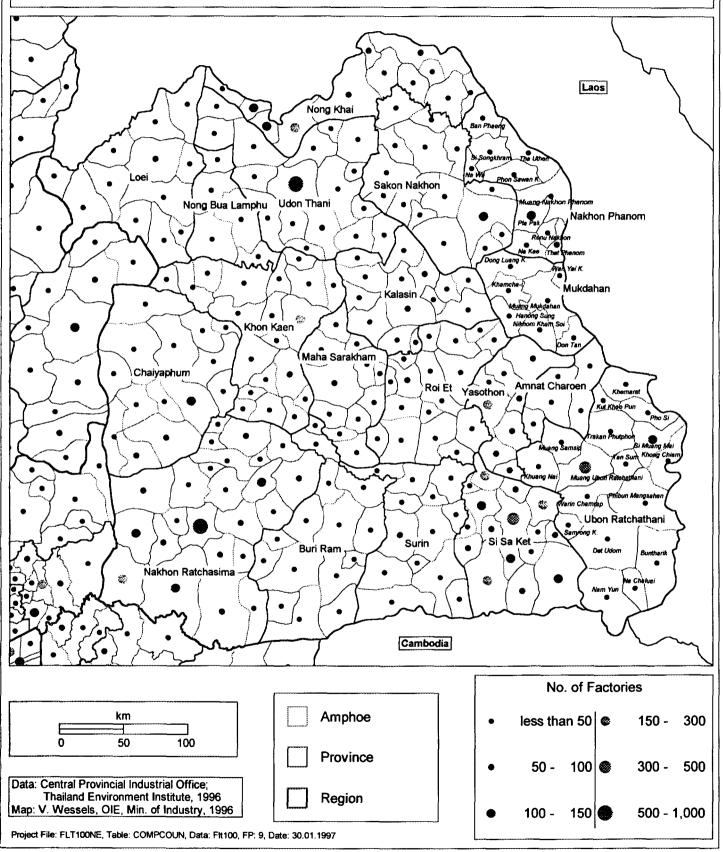
Northeastern Region: Number of Factories with more than 1,000 employees per *amphoe* (district), 1994

North-East Region: Number of Factories per Amphoe 1994 (without rice mills)

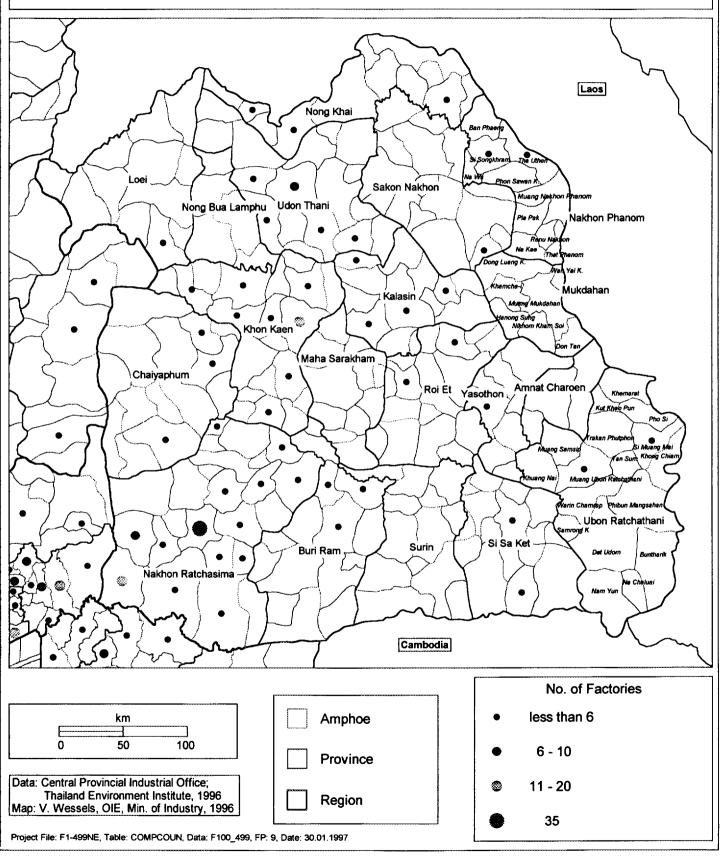


Project File: AMPFANE, Table: COMPCOUN, Data: Noricemill, FP: 9, Date: 30.01.1997

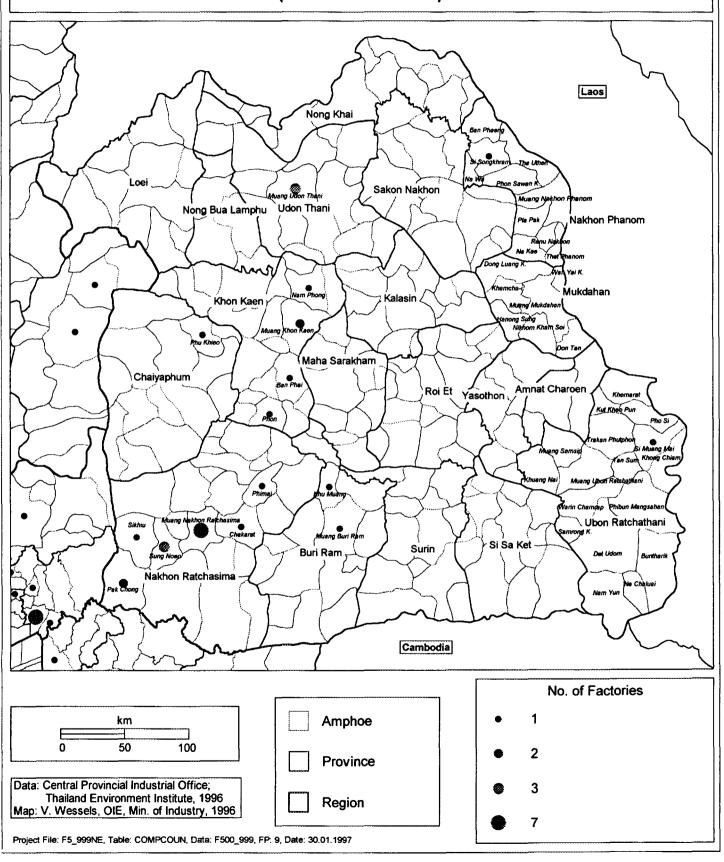
North-East Region: Number of Factories with less than 100 employees per Amphoe 1994 (without rice mills)



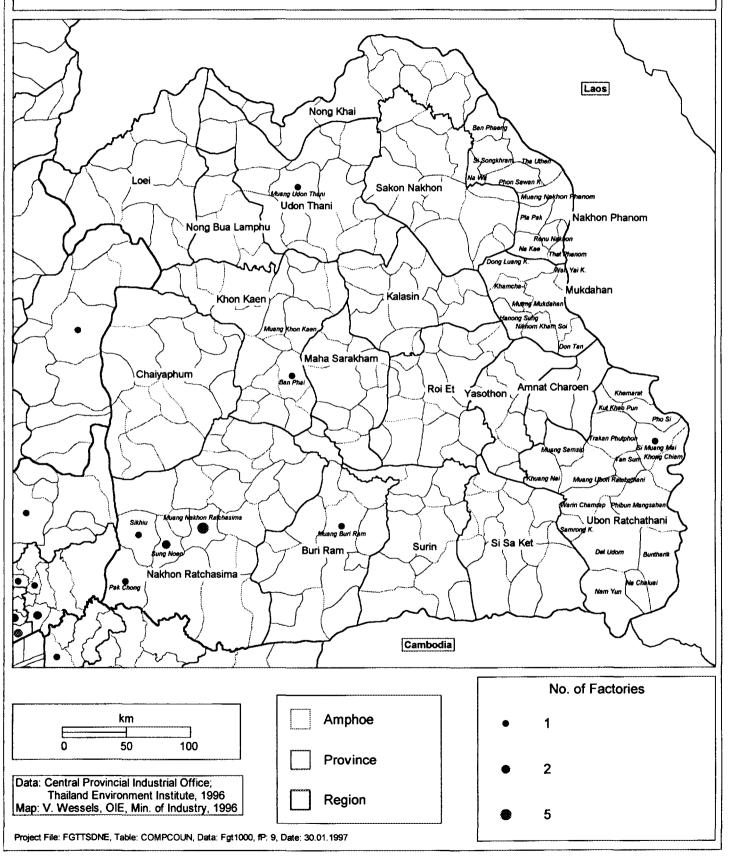
North-East Region: Number of Factories with 100 to 500 employees per Amphoe 1994 (without ricemills)



North-East Region: Number of Factories with 500 to 1000 employees per Amphoe 1994 (without ricemills)



North-East Region: Number of Factories with more than 1000 employees per Amphoe 1994 (without ricemills)



ANNEX 7:

CRITERIA FOR SELECTING THE PROVINCES FOR THE BOI 'SPECIAL INVESTMENT PROMOTION ZONE' OR ZONE 4

- 1. Provinces where people have consistently earned the lowest per capita income for the ten year period 1985 to 1994
- 2. Provinces with few BOI approved projects
- 3.. The environment for investment is unfavourable. This is implied by looking at the following factors:

Gross Provincial Product	Tap water	
Per capita income	Highway	
Electricity	Area	
Distance from Bangkok	Industrial Estate	
Commercial Banks	University	
Labour force	International school	
Hospitals	International airport	
Number of factories	Seaport	
Telephones	Local airport	
Skilled labour	Zone 3 incentives	

Source: BOI

The 12 provinces selected are:

Sisaket Sakhon Nakhon
Surin Ubon Ratchathani
Yasothon Amnart Charoen

Nakhon Phanom Roi-et
Buriram Mukdahan
Kalasin Maha Sarakham

Note: Nong Bua Lamphu looks likely to become part of any future Zone 4

ANNEX 8:

MINIMUM DAILY WAGE RATES, EFFECTIVE FROM 01-10-96

The country is split into three areas for the purposes of implementing wage rate policy:

- 1. Bangkok Metropolitan Region and Phuket 157 Baht
- 2. Chonburi, Chiang Mai, Nakhon Ratchasima, Phang-nga, Ranong, Saraburi 137 Baht
- 3. Other provinces 128 Baht

ANNEX 9:

SUB-REGIONS AS DEFINED BY THE NESDB

- 1. NORTH (4 Sub-regions, 17 Provinces)
 - 1.1 Chiang Mai, Lamphun, Lampang and Mae Hong Son
 - 1.2 Nakhon Sawan, Uthai Thani, Kamphaeng Phet and Tak.
 - 1.3 Chiang Rai, Phrae, Nan, Uttaradit and Phayao
 - 1.4 Phitsanulok, Sukhothai, Phichit and Petchabun
- 2. NORTHEAST (4 Sub-regions, 19 Provinces)
 - 2.1 Nakhon Ratchasima, Surin, Buri Ram and Chaiyaphum
 - 2.2 Ubon Ratchathani, Amnart Charoen, Sisaket, Yasothon and Roi-et
 - 2.3 Udon Thani, Nong Bua Lamphu, Nong Khai, Nakhon Phanom, Sakon Nakhon and Mukdahan
 - 2.4 Khon Kaen, Maha Sarakham, Kalasin and Loei
- 3. SOUTH (3 Sub-regions, 14 Provinces)
 - 3.1 Phuket, Phang-nga, Trang, Krabi and Satun
 - 3.2 Songkhla, Phatthalung, Yala, Pattani and Narathiwat
 - 3.3 Surat Thani, Nakhon Si Thammarat, Chumphon and Ranong
- 4. CENTRAL (3 Sub-regions, 16 Provinces)
 - 4.1 Ratchaburi, Samut Songkhram, Kanchanaburi, Phetchaburi, Prachuap Kiri Khan and Suphan Buri
 - 4.2 Prachin Buri, Nakhon Nayok, Chachoengsao, Sa Kaeo, Chantaburi and Trat
 - 4.3 Sing Buri, Ang Thong, Lopburi and Chai Nat

NOTE: The following are not included in any group:

All Zone 1 provinces: Bangkok, Samut Prakan, Nakhon Pathom, Nonthaburi, Samut

Sakhon and Pathum Thani

Some Zone 2 provinces: Sara Buri, Chon Buri and Ayutthaya

One Zone 3 province: Rayong