INTERNAL MIGRATION IN NORTHEAST THAILAND

A thesis presented in fulfilment of the

requirements for the degree of

Doctor of Philosophy in Development Studies at

Massey University

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1998

ABSTRACT

The purpose of this study is to examine the determinants of internal migration in Thailand in general and the Northeast region in particular. At macro level, the determinants of migration are examined through regression analysis using the 1990 census data. It is found that the most significant variable determining all various migration streams, which are of interest of this study, is migrant stock. This indicates that relatives and friends in the destination areas have a strong influence on migrants' decisions to migrate.

The focus of this study is migration from Northeast Thailand to Bangkok. The magnitude of these movements have long been recognised by planners and policy makers and attempts to stem and divert these flows. Such attempts have been made looking at migration in a negative way. However, it is evident that little is known of the actual consequences of rural-urban migration. Planners and policy makers, in designing the more effective policies to modify migration flows, need to have an understanding of the impact of rural-urban migration both on areas of origin and destination.

In examining the determinants of migration this study conducted an analysis of the migration process and the impacts of migration on individuals, households and origin communities. It was necessary to conduct research on both origin and destination areas to explore and establish linkages between the broader structural forces and the forces which operate at the individual level influencing decisions to move or stay. Two groups of villages in Roi Et, varying in degree of mobility, were selected for the rural surveys. The urban surveys were conducted in Bangkok.

The main findings of these surveys revealed that differences between villages in the incidence of migration are seen to be linked primarily to access to cash cropping and income earning opportunities in the villages. The networks of contacts that build up over time between individuals, households and communities in the rural areas and migrants in Bangkok are the most important factor in the decision to migrate. Evidence from the surveys indicate that migration yields substantial benefits to individual migrants and their households and, at the same time, have a positive impact on the origin

communities. The villagers in the study villages perceive migration to be a way by which they can earn more income and improve their standard of living. Migrants in Bangkok maintain strong ties with their households and villages. In this context, circulation, or temporary migration, from the rural Northeast to Bangkok is quite likely to increase.

Rural-urban migration needs to be looked at not in terms of the cause of urban problems, but rather as a result of urban growth. The impact of rural-urban migration needs to be further explored and must be taken into account in designing population and development policies. These policies should not only aim at alleviating urban problems but also to recognise and meet the needs of the rural populations.

ACKNOWLEDGEMENTS

I would like to express my sincere gratitude to my two supervisors, Professor John Overton, Director, Institute of Development Studies, Massey University and Dr Barbara Nowak, who not only consistently provided invaluable advice, encouragement and support but also patiently read and made editorial comments throughout the final year of my writing.

Sincere appreciations are also extended to the people of the six study villages in Roi Et and all those whom I interviewed in Bangkok, who offered me their time and provided personal information. I acknowledge also with gratitude the help and co-operation given by a number of staff of both Hua Lumpong and Moh Chit Employment Office, during interviews in Bangkok. My special thanks give to all my friends, both in New Zealand and Thailand, for the contributions they have made in the production of this thesis. I am especially indebted to Pat Love, Head, English Language Centre, Massey University, who helped in the final editing of this thesis.

Grateful acknowledgement is made to the New Zealand Ministry of Foreign Affairs and Trade for providing generous funding of my entire study. The Massey University Research Fund and Institute of Development Studies are to be thanked for providing partial funding of my field research in Thailand. Further gratitude is conveyed to the Department of Public Welfare of Thailand for granting me leave of absence to study in New Zealand.

Above all, this thesis would not have been completed without moral support of my family, especially my mother and brother, who consistently encouraged me to pursue higher studies and provided endless support and encouragement. My husband Somchai, daughter Penporn and son Panithan, who not only tolerated being without me but whose love, affection and inspiration sustained me through the years of this study. To them all, this work is dedicated.

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GLOSSARY

amphur	district, administrative subdivision of province
baht	unit of Thai currencies
changwad	province
isan	northeast region of Thailand
khlong	canal
khon isan	people of the northeast
monthon	group of provinces
phak isan	northeast region of Thailand
phasa isan	language of the northeast
rai	unit of land
tambon	group of villages, administrative subdivision under district

ABBREVIATIONS

AIT	Asian Institute of Technology
ALRO	Agricultural Land Reform Office
ASEAN	Association of South-East Asian Nations
BAAC	Bank of Agriculture and Agricultural Co-operatives
BMA	Bangkok Metropolitan Administration
BMDC	Bangkok Metropolitan Development Committee
BMR	Bangkok Metropolitan Region
BMTA	Bangkok Mass Transit Authority
BOD	Biochemical Oxygen Demand
BOI	Board of Investment
BOT	Bank of Thailand
EOI	Export Oriented Industrialisation
ESB	Eastern Sea Board
FDI	Foreign Direct Investment
GDP	Gross Domestic Product
GNP	Gross National Product
IPSR	Institute for Population and Social Research
IBRD	International Bank for Reconstruction and Development
ISI	Import Substituted Industrialisation
JICA	Japan International Cooperation Agency
NEB	National Environmental Board
NEDB	National Economic Development Board
NESDB	National Economic Social Development Board
NHA	National Housing Authority
NIC	Newly Industrialising Country
NMS	National Migration Survey
NSO	National Statistical Office
OECD	Organisation for Economic Cooperative and Development
REGP	Rural Employment Generation Program
SMSA	Standard Metropolitan Statistical Area

TDRI	Thailand Development Research Institute
USEPA	United States Environmental Protection Agency
WHO	World Health Organization

CHAPTER 1

INTRODUCTION

Rural-urban migration has played a crucial role in the growth of urban areas in Thailand, especially Bangkok, the capital city. An examination of Thailand population census data has demonstrated that rural-urban migration has become more prominent as the development process accelerated. The proportion of rural-urban migration to total migration in Thailand has substantially risen during the last three decades, rising from 10.5 percent in 1965-1970 to 18.4 percent in 1985-1990. Furthermore, the contribution of migration to urban growth was most pronounced in Bangkok. In 1990, one-third of its population was born elsewhere (NSO, 1993). As a consequence, migration and population distribution are becoming topics of intense policy concern for policy makers in Thailand. Several attempts have been made to slow or direct this movement away from Bangkok. It is a major purpose of this thesis to provide an analysis of the movement into Bangkok.

Thailand, like many other developing countries, experienced rapid population growth after the Second World War (United Nations, 1991:13). Even with the achievement of a successful family planning program which reduced the rate of population growth from 3.2 percent per year during the 1950s to about 1.5 percent per year in 1990, her population is still huge. The growth rate of Thailand's population still needs to be further reduced. Thailand's population almost doubled from 27.6 million in 1960 to 54.5 million in 1990 (ESCAP, 1993:98).

Urban population growth in Thailand has been relatively high. During the 1960s the average annual rate was 3.3 percent and rose further to 5.6 percent between 1970 and 1980. But in the following decade it dropped to 2.5 percent. As a result the level of urbanisation increased from 12.5 in 1960 to 18.7 in 1990 (ESCAP, 1993:102-103). In 1990 Bangkok contained 58 percent of the nation's urban residents and accounted for 11 percent of the overall population (NSO, 1993). The proportion had increased from 45.1 percent in 1947 to 53.2, 55.9 and 61.6 percent in 1960, 1970 and 1980 respectively

(ESCAP, 1982:19). In 1980, its population was 46 times Thailand's second largest city, Chiang Mai, making its urban primacy one of the most striking in the world (ESCAP, 1988:23). In terms of population size, it was ranked the twenty-fourth largest city in the world in 1990 and is projected to grow to be ranked the twentieth with an estimated population of 11.3 million by 2005 (United Nations, 1993).

Although the overall level of urbanisation in Thailand remains quite low, the pre-eminence of Bangkok as an urban centre is striking (ESCAP, 1993). Compared with the other Asian capital cities – Jakarta, Metro Manila, and Seoul– Bangkok primacy is quite extreme. While those cities had four-city primacy indices (the population of the largest city as compared to the combined size of the next three largest cities) of less than 1.5 in 1980, Bangkok had 16.35 in 1981 and remains about 16 in 1990. (Ashakul and Ashakul, 1988:10; ESCAP, 1993:103).

Rural-urban migration plays a major role in the urban growth of Bangkok. Most of the increase in the growth rate of Bangkok during 1960-1975 is attributable to migration with Bangkok as the largest receiving area in the country (ESCAP, 1982:14). It was estimated that at least 40 percent of the population growth which occurred during the period 1980 to 1990 was the result of direct gains through migration (Pejaranonda et al, 1995:198). It has also been argued that government policies which favoured urban dwellers, particularly those living in Bangkok, increased the attraction of Bangkok as a migrant destination. Phongpaichit argued that the increase in female rural-urban migration to Bangkok is associated with government policies to promote export-led growth and the development of the service sector (cited in Pejaranonda et al., 1995:201). Bangkok, where modern manufacturing, trading, banking and service establishments are heavily concentrated, gained a growing share of benefits from development at the expense of the rural sector (ESCAP, 1993:97). Many studies on migration in Thailand have revealed that Bangkok continues to be the most popular destination for rural-urban migrants (for example, see ESCAP, 1982; Onchan, 1985; NSO, 1989).

For many decades the Northeast region has been the dominant supplier of migrants to Bangkok. During 1975-1980 the 116,500 individuals reported by the census as moving

from the Northeast to Bangkok accounted for 31.8 percent of total in-migrants to Bangkok. The number grew to 303,700 migrants in 1985 -1990 (47.5 percent) (NSO, 1993). The other migration surveys conducted by NSO also indicates that most of the in-migrants in Bangkok came from the Northeast and accounted for 44.4 and 51.4 percent in 1988 and 1992 respectively (NSO, 1988:27; NSO, 1992:39).

The studies on rural-urban migration in Thailand and elsewhere consistently indicate that social and economic disparities encourage migration from areas of low to areas of high production (Tirasawat, 1985:494). It has also been claimed that wide urban-rural income differentials turned out to be an important determinant of rural-urban migration and responsible for the existing pattern and trend of migration and urbanisation in Thailand (ESCAP, 1993:104).

Regional income differences are quite extensive, especially between the Northeast, the poorest region, and Bangkok. In 1979 real income per capita in Bangkok was about 2.6 times the national average and about 7 times the real income in the Northeast. The Northeast real income per capita is only 44 percent of the national average income (Adulavidhaya and Onchan, 1985:430). When rural-urban income differential is considered, the per capita income of the village population in the Northeast is only 32 percent of the urban population in Bangkok (Goldstein and Goldstein, 1986:44).

It was found that after the implementation of the first three development plans, economic growth was confined mainly to the central region and Bangkok had emerged as the country's economic base and primary city (United Nations, 1991:20-21). The concentration of industrial and other economic activities in Bangkok increased its attractiveness to migrants from the rural areas. Therefore for the first time the Fourth Development Plan (1977-1981) included a regional urban development policy to promote economic decentralisation and to check excessive population flow to Bangkok by concentrating more resources and development in potential urban centres in less developed regions. During this period nine growth centres were nominated for

development, four in the Northeast, two in the North, two in the South, and one in the East (Sternstein, 1979:44).

But in evaluating the population activities of the Fourth Plan, an ad hoc sub-committee on population concluded that the goal of policy to reduce migration to the Bangkok Metropolis had not been achieved. In addition, no success in encouraging migration to other provinces was evident. Regional and rural-urban inequalities have continued and may continue to stimulate migration to already overburdened areas (Goldstein and Goldstein, 1986:43). Demaine (1987) argues that the regional growth centres have largely become service centres rather than the industrial centres they were designed to become (cited in Pejaranonda et al., 1995:236).

During the Fifth Plan (1982-1986) rural migration has become one of the major issues for development planning. The Government focused more attention on continued implementation of the secondary cities project (Pakkasem, 1988: 90).The development of five regional urban growth centres and the planning of a "new economic zone" on the eastern seaboard as an industrial centre for the nation as a means of reducing the growth of Bangkok were planned (ESCAP, 1993:112). This Plan also places strong emphasis on the rural population. A rural poverty eradication program was implemented to provide basic needs to the rural poor and assist them to become more productive (Onchan, 1985:471).

The Sixth Plan (1987-1991) continued to control the size and growth of Bangkok. The urban management policy was recommended for more orderly and efficient growth of the Bangkok Metropolitan Region (BMR). This new policy integrated economic and physical measures to influence the future spatial growth pattern and land use in the BMR toward more orderly growth (Pakkasem, 1988:90; ESCAP, 1993:112).

The Seventh Plan (1992-1996) focuses on the development of Bangkok's infrastructure facilities to be integrated with the Eastern Seaboard development system and the development of an industrial zone in the upper central region (NESDB, n.d.).

Despite the government's policies and approaches to rural development planning, social and economic disparities are still pronounced. The major beneficiaries of economic development are still those who live in Bangkok and the central region while most of the poor are concentrated in the Northeast. The analysis of economic structure, social services, population and employment have clearly indicated that Bangkok will continue to grow and play a strategic role as the major social-economic-administrative centre (Pakkasem, 1988:95).

It has been pointed out that, on the one hand, migration is one of the few processes operating in Thailand to correct social and economic inequalities and has proved to be one of the best alternatives for rural people to improve their well-being. On the other hand, it is often blamed for the urban congestion, slums, environmental pollution and increasing demand for public utilities and services (ESCAP, 1993:108).

Hence, this population movement is an important consideration in national development planning. The government views the spatial distribution of population as a major development issue and considers it as extremely unacceptable and requiring radical intervention. In a review of population distribution policies in Asia and the Pacific, Fuchs (1983:29) concluded that most national policies have been formulated with inadequate relevant information about spatial movement. Most of the studies on migration are at a macro level which, on the one hand, provide adequate representation of all parts of the country and allow comparative analysis of regions but, on the other hand, are unable to understand the migration process at the household and individual level. In planning for the development of both destination and origin of migration,

adequate information about causes and consequences of migration is essential. As Ghosh noted:

> Granting that the relationship between development and migration is a complex one, and changes over time, it is important to enhance our knowledge concerning the nature of this interactive process, its time sequence and the different variables involved so that appropriate development policies and measures can be determined and eventually adopted. If not the new paradigm could leave policy makers in limbo (Ghosh, 1992:425).

This study intends to examine the determinants and consequences of internal migration in the Northeast region particularly migration towards Bangkok, as well as the factors influencing decisions to move and choices of destination. The study will be carried out both at macro and micro level. It is hoped that the study will provide useful information for the designing of migration related policies and programmes.

This study comprises ten chapters in which this chapter gives a general background of how the thesis topic is of interest and why it was chosen for the study. The objectives and the method of study are stated. Chapter 2, Research Methodology describes the methods used in the study both at macro and micro level . Data collection, limitations of data, and methods of analysis are explained. Chapter 3, Theoretical and Empirical Model on Migration, reviews the literature on migration theory and the theoretical approaches related to the development process. Empirical models which have been widely used to examine determinants of migration in most migration studies are discussed. In general this chapter reviews theoretical frameworks on migration.

Chapter 4, Modernisation, Urbanisation and Development in Thailand, reviews the historical background of the nature and causes of urbanisation in Thailand and examines the relationships of urbanisation with the socio-economic structure and development and underdevelopment of the country. Chapter 5, Uneven Development in Thailand, examines impacts of over-urbanisation in Bangkok. It also focuses on some of the

factors underlying the underdevelopment of the Northeast, the region which has been most affected from the adverse effects of the development process in Thailand.

Chapter 6, National and Regional Development Policies in Thailand, explores how and to what extent the development policies have affected urbanisation, migration and rural development. Chapter 7, Trends and Patterns of Population Distribution and Migration, describes the existing patterns of population and migration. The changes of the recent decades are also examined. The chapter also describes characteristics of migrants from the 1990 census data and compares these with other studies both in Thailand and elsewhere.

Chapter 8, Regression Analysis, describes the regression model used in this study to analyse the relationships between out-migration rate and characteristics of origin and destination at the provincial level. The choices and sources of data for dependent and independent variables are explained. The migration models are estimated. The contribution of the explanatory variables in explaining the variance in migration rate are statistically assessed. The results from the models are presented. The interpretation of the results in comparison with previous studies is discussed. These statistical analyses are complemented by the descriptive analysis of the questionnaire surveys in six villages in Roi Et, and the surveys of migrants in Bangkok.

Chapter 9, Determinants and Consequences of Migration, form a vital part of this study. The chapter presents the results of both the rural and urban surveys. Data from the questionnaires are presented and discussed along with the data from informal interviews. It provides an understanding of the process of migration in the study villages as well as its impact on migrants' households and communities.

In Chapter 10, Conclusion, the major findings from each chapter are summarised. Conclusions on determinants of rural-urban migration in Thailand and in particular migration from the Northeast to Bangkok are drawn. Finally, implications of these findings for policy and research are discussed.

CHAPTER 2

RESEARCH METHODOLOGY

Introduction

Various aspects of migration can be studied at both macro and micro levels. As Gardner (1981:67) described, factors affecting migration at the macro level are the characteristics of places that provide opportunities and satisfactions that may make an area more or less attractive to an individual than another place. Micro level factors focus on the individual and family and seek to explain migration behaviour while the macro level provides broad understanding of migration patterns (De Jong and Gardner, 1981:5). Fuchs (1983) argued that while the macro level generally infer determinants from place attributes, the micro level studies provide a deeper and broader understanding of migration determinants and cover the full scope of migration behaviour. He also noted that:

> Most national policies have, of necessity, been framed without adequate information about the types, volumes, and spatial patterns of mobility; characteristics of various types of movers and nonmovers; the reasons for moves and choice of destination; the satisfactions and dissatisfactions resulting from moves; future mobility intentions and location preferences; links between migrants and source areas; and the consequence of movements upon individuals, households, and the source and destination areas (Fuchs, 1983: 29).

Additionally, Willekens (1982:74) has suggested that to understand the process of population redistribution and to design an appropriate policy, not only the who, why and where questions of spatial movement but also the question of how the movement takes place need to be answered.

A considerable amount research on internal migration in Thailand based on census, registration and survey data already exists. Yet it appears that none of these studies has attempted to combine the macro and micro levels. Most either focus on the information from the census data or from studies confined to small geographical areas. Both sources have major limitations in giving a detailed and comprehensive picture needed for national level planning. Analyses of census data at the aggregate level have produced

generalisations on the characteristics of area most likely to send or receive migrants whereas survey research at the individual level has yielded findings on individual motivation and characteristics related to migration behaviour. Without the combination of the analyses of both levels, we cannot draw conclusions about the ways that individual and aggregate factors jointly influence migration.

The main objective of this research is to study migration in the Northeast in order to identify the determinants of movement and the factors influencing the decisions to move. This study is fundamentally different in both goal and method from most earlier work in Thailand. The focus of attention will be placed on migration from the Northeast to Bangkok. Analyses employed in this study combine the macro and micro levels. Although it is not possible for this study to provide answers to all issues pertaining to migration and to generalise their findings, it is expected to provide better understanding of the process of these movements which will shed some light on policies related to population redistribution.

Macro Level

At the macro level the study aims to examine the relationships between migration streams and the characteristics of the places of origin and destination. In this study, 'province' is used as a unit of analysis as it is the basic administrative and statistical unit in the country. In 1990, Thailand was divided into four geographical regions (Central, Northern, Northeastern and Southern) and within these, 73 provinces, including Bangkok (NSO, 1993). Because of its primacy and unique characteristics, in-migration to Bangkok will be studied separately.

Sources of Data

Migration data in Thailand can be obtained from three main sources: a variety of sample surveys; population registration; and the census. Most of the surveys which provided some information on migration were not originally designed to focus on migration. The most recent surveys focusing on migration conducted at national scale are the National

Migration Survey carried out by the National Statistical Office (NSO) and the National Migration Survey (NMS) carried out by the Institute for Population and Social Research (IPSR) Mahidol University.

The National Statistical Office carried out a survey in 1992 to collect information on volume and streams of recent migration, demographic and socio-economic characteristics of migrants, reasons for migration, household registration, and positive and negative ideas about current residence. 'Migrant' under this study is defined as a person who moved in the period September 1990 to September 1992, two years before the survey (NSO, 1993). This survey involved a sample of only 32,000 households which did not allow the provincial level estimates of migration to be made. A more recent survey of this type was carried out in 1994, but the report is still in production and has not yet been made available to the public. Although the 1992 National Migration Survey conducted by the NSO cannot be used to study internal migration in Thailand at the provincial level, it provides an overview of information on the motivation for migration and the household socio-economic traits of migrants. The study also examines the differentials in migration patterns between regions. Therefore the results from this survey will be used to supplement my findings where necessary.

The National Migration Survey (NMS) conducted by IPSR Mahidol University involved a sample of 7,537 households which were randomly selected from 17 sample provinces. The multi-stage sampling procedure was designed to yield a nationally and regionally representative sample. While the census defined migrants as persons living in their current place of residence less than five years, the NMS defined migrants as persons who have moved across a *tambon* (district) boundary for at least one month in the two years before the interview (Chamratrithirong et al., 1995). This information allowed the study to divide migration into three different types: single, seasonal, and repeat move. As Guest and others argued:

> Although high levels of temporary migration have been argued to exist in Thailand, the NMS was the first attempt to measure this and other forms of movement at the national level. This has enabled estimates to be made of the contribution of different types of movement to overall mobility and also shows how patterns of migration selectivity vary among migration types (Guest et al., 1994:544).

Therefore data from NMS will be used to supplement data from the census and other sources in this study where necessary and appropriate.

Population registration also provides data on migration. According to the Registration Act, all residents of Thailand are required to register their residence with their respective registration unit in the district or municipal office. Changes of residence must be registered within 15 days (Prachuabmoh and Tirasawat, 1974:15). However, the evidence from recent surveys revealed that most migrants remain registered in their region of origin (NSO, 1992). Information on migration recorded in the registration procedures are seldom tabulated and are not made available to the public (Prachuabmoh and Tirasawat, 1974). Questioning how many people promptly register their moves, most researchers consider that registration data are not suitable for analysing migration (Pejaranonda et al., 1995:176). However, it is widely used to provide information on urbanisation. In this study, the urbanisation level of each province is also obtained from the registration data.

Population censuses have been the main source of migration data in Thailand since the first population census was carried out in 1960. Census data provides information only on a small part of total population mobility. In Thailand, the length of the time period during which change of residence is measured in the census is five years preceding the census date. As a result, multiple moves or short-term moves are not captured. As they provide adequate representation to all parts of the country, they allow comparative analysis of regional or urban-rural differentials. Censuses were and still are the principal source for the study of migration. However, they are not able to provide an understanding of the migration process. The questions on place of birth and place of residence five years prior to census date are asked. This provides information on lifetime and five-year migration. Furthermore, these data are published using the provinces as the main geographical unit, which makes the examination of migration streams at the provincial level possible. Moreover, a major advantage of using the census in studying migration in Thailand is that trends over time can be analysed. In consideration of these advantages over the other sources, the latest 1990 population census is used as the main source of data in the macro level analysis. The results of this

study will be compared with those obtained from the analysis of 1960, 1970 and 1980 censuses. The other sources are also used to supplement data on the remaining variables.

Data Collection

Data were collected for all provinces in Thailand. With the exception of Bangkok, which is treated as a separate entity, the number of provinces employed in this study is 72. Each province is treated as both origin and destination. Data on out-migration flows from each province to the other 71 provinces were collected. This procedure resulted in 5112 (72×71) observations on migration flows. Each migration flow included all persons who moved from one province to another within five years preceding 1 April 1990, as generated from the census date. The life-time migration data were also collected in the same manner including all persons whose province of birth differed from province of residence at the time of the census. The demographic and socio-economic characteristics of each province were collected from the census and various sources.

Limitations of Data

It is well recognised that the census data tend to underestimate the true level of migration (Pejaranonda et al., 1995:178). The 1990 census definition of a migrant is a person who moved across a municipal or village boundary within five years preceding the census date (1 April 1990). On the basis of this definition, recent migrants were identified as those persons who have been living in their place of residence for less than five years (NSO, 1993). The census, with its focus on the last move, failed to identify those who moved more than once during the most recent five-year period and those who had returned to their place of origin before the census date. Therefore the other types of migration (for example multiple movers, return migrants, short-term and seasonal migrants) were generally omitted by the census. Since migrants were enumerated at their current place of residence, only those who were at the place of destination will be classified as migrants. Migrants, who for whatever reasons (e.g. home visit, holiday), were at their place of origin during the census may still have regarded themselves as

usual residents even though they spend a considerable time away from these places. Hence, they were not classified as migrants.

Like the five-year migration, lifetime migration was also underestimated by the census. In the 1990 census, lifetime migrants were defined as all those persons whose province of residence at the time of the census differed from their province of birth. By this definition, those who moved out of their province some time after birth, but had returned by the census time were not identified as lifetime migrants (NSO, 1993).

However, these limitations of census data do not mean that it is totally inadequate for the analysis of migration. It should be noted that the 1990 census was carried out throughout the country within a short period of time (April-May 1990) and the same definitions and enumeration procedure were applied for the whole country. This created a uniform pattern of underestimation. Moreover, the purpose of this study is to analyse interprovincial migration rather than migration of each individual province. It can be assumed that the effect of underestimation equally affects each migration flow and does not affect the analysis. Furthermore, as none of the other existing sources can provide more complete data, it seems clear that it is reasonable to use census data for my study.

Method of Analysis

Most of the studies on migration at macro-level have placed emphasis on the factors that influence migration for example income, education employment and urbanisation level.. It is well documented that a variety of factors at the origin and destination areas influence migration. The purpose of this analysis is to examine how the demographic and socio-economic factors of the places operate on migration and the magnitude in which each factor exerts its influence. A multiple regression technique is therefore applied to analyse the relationships of these factors with migration. Multiple regression analysis provides a means to analyse the situation in which a given dependent variable is simultaneously affected by several independent variables. In addition, this technique is prevalent among almost all studies focused on determinants of migration at the macro

level. In each migration model the volume of out-migration was regressed on all variables of the origin and destination province.

Micro Level

Though the results from the macro analysis reveal some policy implications they are unable to provide an understanding of migration process at the household and individual levels. To understand more about individual level factors influencing rural-urban migration more detailed analysis of the experience of individual movers is needed. The data required for such an analysis can only be collected by surveys.

Small-scale surveys provide more detailed information about migration which cannot be obtained from census data. However most such studies have been limited to particular localities and their value for generalisation for policy purposes is therefore restricted. As Goldstein and Goldstein pointed out:

> An in-depth study, by focusing strongly on a particular location or on a limited number of locations, may provide a much greater opportunity to assess the interplay of individual and environmental factors affecting both the decision to move and the adaptation process. Such a narrow focus, however, sacrifices the degree to which findings can be generalized to all parts of the country (Goldstein and Goldstein, 1981:16).

However, Todaro has argued that the survey approach, supplemented where necessary by census information, offers the most promising avenue for future policy-oriented, econometric migration research (Todaro, 1976:60).

The intent of the survey research is to seek an understanding of what causes some phenomena (e.g. voting behaviour) by looking at variation in the variable across cases, and looking for other characteristics which are systematically linked with it (de Vaus, 1990:5). Marsh defined the survey as "an inquiry which involves the collection of systematic data across a sample of cases, and the statistical analysis of the results" (Marsh, 1982:9). In addition as Babbie has asserted: "Survey research is probably the best method available to the social scientist interested in collecting original data for describing a population too large to observe directly "(Babbie, 1986:203-204).

In this study it was decided to employ the survey method for data collection as it suited the research approach of understanding the process of migration. The micro level analyses are based on two surveys conducted in rural Northeast Thailand and Bangkok.

Rural Surveys

Since the out-migration stream from the Northeast towards Bangkok is the largest in Thailand, it is the area of the greatest concern here. The surveys were carried out during December 1995- February 1996. Roi Et was identified as an area experiencing significant out-migration, especially migration toward Bangkok, and was selected as the study site. Roi Et has had continuously high rates of out migration since 1960, as shown in Table 1. Within Roi Et two districts were chosen, one (Muang Swang) with the highest rate of out migration to Bangkok and another (Sri Somdet) with the lowest rate. The reason behind this purposive selection was to explore the characteristics of the areas which contribute to differences in the rate of out-migration. The rate of out-migration from each district of Roi Et is shown in Table 2.2. This rate is calculated based on the data obtained at village level called NRDC2[1]. Three villages were drawn randomly from each district. Approximately 50 percent of the households in each village were randomly selected based on a table of random numbers. Altogether a sample of 204 households was drawn from six villages.

[1] NRDC2C is the village-level socio-economic baseline data known in Thai as Kor Chor Chor Song Khor. This data are collected every two years.

Table 2.1: Rate of Out-migration from the Northeast to Bangkok

Province	1960		1970		1980		1990	
	Rate	Rank	Rate	Rank	Rate	Rank	Rate	Rank
Kalasin	0.217	10	0.409	10	0.597	11	1.465	10
Khon Kaen	0.272	7	0.570	7	1.293	4	1.784	6
Chaiyapum	0.225	8	0.469	9	0.566	12	1.296	11
Nakorn Panom	0.143	13	0.247	13	0.445	15	1.094	16
Nakorn Ratchasima	0.699	1	1.074	2	0.934	5	1.501	9
Buriram	0.220	9	0.490	8	0.752	9	1.645	8
Mahasarakam	0.283	6	0.643	6	0.823	7	1.718	7
Mukdahan*							1.142	15
Yasothorn**					1.431	2	2.175	2
Roi Et	0.473	3	1.563	1	1.570	1	2.616	1
Loei	0.121	15	0.182	15	0.309	16	0.573	17
Sisaket	0.413	4	0.759	5	0.777	8	1.806	5
Sakon Nakorn	0.132	14	0.250	12	0.450	14	1.248	13
Surin	0.319	5	0.763	4	0.861	6	2.056	3
Nongkai	0.205	11	0.232	14	0.494	13	1.191	14
Udorn Thani	0.178	12	0.293	11	0.649	10	1.260	12
Ubol Ratchathani	0.577	2	1.015	3	1.402	3	2.040	4

Note: Rate of out migration is percentage of migrants to total population.

* separate from Nakorn Panom

** separate from Ubol Ratchathani

Table 2.2: Rate of Out-migration from Roi Et to Bangkok

District	Total population	Out-migration	Rate
Muang Suwang	11,168	3,404	30.48
Panomprai	80,741	18,133	22.46
Pathumrat	37,081	8,324	22.45
Tawach Buri	71,548	16,016	22.38
Phonsai	17,443	3,897	22.34
Janghan	41,475	9,080	21.89
Atsamart	57,372	11,955	20.84
Suwannaphum	92,055	17,024	18.49
Muang	99,726	17,888	17.94
Selaphum	96,979	15,837	16.33
Phonthong	79,245	12,728	16.06
Cheing Kwan	23,473	3,722	15.86
Kaset Visai	70,308	10,884	15.48
Jaturapakpiman	63,796	9,615	15.07
Mueiwadee	18,109	2,503	13.82
Pho Chai	44,295	5,970	13.48
Nong Phok	46,212	5,394	11.67
Sri Somdet	29,093	2,905	9.99

Gaining Access

It is important for the researcher as an outsider to gain access to research sites by seeking the approval of "gatekeepers". In Thailand it is a common practice when someone wants to do research in a village to get approval from the local authority and the village headman. I made contact with the head of these two districts and received an introduction letter which sought the approval of the village headman for my study in the villages. I introduced myself to the village headman and further explained my research and the interview procedures. Once the village headman had approved, he made an

announcement to all villagers and asked them to cooperate. By gaining permission from both the local authority and the village headman I was able to make a smooth entry into the area.

Originally I planned to hire some native speakers to be my assistants during the field work.[2] But during the pre-test questionnaire interview (interviewers were my colleagues who were native born and had been working in this region for many years), I found that in some cases they responded differently to the respondent's answers. Some placed their own interpretation on questions and answers and revealed their opinions. This resulted in an inconsistency of asking questions and recording answers and thus undermined the quality of the interview. Consequently, I decided to conduct the interview myself in order to keep both consistency in the questions asked and the respondents' answer.

Having worked in the Northeast region for some ten years, I had no difficulties in speaking and understanding the local language. From 1977-1980 I was working as a supervisor of the Sericulture Promotion Project in a land settlement scheme in Udorn Thani (a province in the Northeast). My task involved the day to day supervising of silk worm rearing in which I worked closely with the participants of the project. Most recently (1981-1988) I was a trainer at the Northeast Training Centre for Settlements Development. As a trainer, I organised the training course both at the centre and in the village. I was also involved in the mobile team and regularly visited the trained villagers. My past experience working with these villagers provided me an understanding of the Northeast context. I am also familiar with their way of life. This helped me to approach them in an appropriate manner. I did not have to put much effort to communicate with my respondents nor did I need the local interpreter. In general the respondents were co-operative. Only a few of them supplied information only for a part of the schedule.

[2] In Thailand the national langauge, spoken by most of the population, is Thai. However, each region has its local language. In the Northeast, the local language is '*isan*' which similar to Lao.

Data Collection

Data were collected by means of a questionnaire. This questionnaire had been developed and tested in Kalasin (a province adjacent to Roi Et). The pre-test resulted in some modifications, but the main idea was still unchanged. The survey questionnaire gathered information on the demographic and socio-economic characteristics of each member of the household (see appendix 1). Interview material collected during these surveys are referred to in this thesis using the following format: field interview, location of interview, date of interview .

In this survey a household was defined as a group of persons who usually live together, eat from a common kitchen, and cooperate in economic and social activities. Clearly there are measurement problems associated with this definition. This usually happens especially in the rural areas where extended families are common and the continuous process of movement is prominent. There are no fixed criteria to define household membership regarding their absence so it is difficult to define household membership adequately. How should someone who has been living in town for many years, but makes a contribution to a large portion of household income be classified? Should those who had married and had a separate house but still make regular contributions to the household be classified as household members? To make a consistent judgement about household membership, those who contributed to the household economically regardless of their absence (except those who had married and had been separated) were counted as a member at the time of the survey.

Interviews were conducted with the head of households. If the heads of households were absent, their spouses were interviewed. In only a few cases were other household members interviewed. The head of household was asked to provide certain information about each member. This included age, sex, labour force activity and status, education completed and current place of residence. Also part of the household questionnaire collected data on household economic characteristics such as main occupation, income, and land holdings. Questions on receiving of remittances from household members and the impact of migration on migrants, household and community were recorded. It should

be noted, however, that the information on other members provided by the head of households is probably less accurate than information about themselves. Furthermore, the information on income and remittances relied considerably on the memory of the respondents, since they did not maintain written records.

Information on residential status was used to classify a household as 'migrant' or 'non-migrant'. In this study the household was classified as migrant household if, at the time of the interview, there was at least one member who had left to migrate to Bangkok for more than one month. The one-month duration is used to exclude possible social visits or commuting to Bangkok. In addition, the movements of more than one month can significantly impact on households and communities in both origin and destination areas. In some cases, such as hawkers who go to Bangkok many times, people spend less than one month each time but because their absence from the household was more than one month during a year, these cases have been put in the category of migrants. This is the case in Ban Nong Mhu in which the majority of migrants are hawkers.

The household members who have at any time moved to Bangkok were interviewed through the individual questionnaire. The more detailed questions on prior migration and places of residence were asked in this questionnaire. Information was gathered on occupations, location and duration of migrations, reasons for move and return, age and marital status at first move and the impact on individual, household and community.

During the surveys, attempts were made to interview the respondents separately to avoid interference from the presence of other individuals. However, in most cases, circumstances did not facilitate the interview in the absence of others.

Apart from the formal interview through the structured questionnaire, I also conducted the informal interview with the key informants. This was to obtain information relating to social, economic and cultural background of the villages. This method helped provide the insights into the attitudes and perceptions of people and communities towards migration. Information obtained from informal interview were used to complement quantitative data from questionnaires.

Though many efforts were put to get the correct and reliable data on age, household characteristics, income records, remittance records, migration records etc., it may not be claimed that data are free from errors.

Urban Surveys

The urban survey was conducted in Bangkok. Originally it was planned to interview those migrants identified by the households in the village surveys. But during the interview I had some difficulties in getting accurate information about migrants in Bangkok. One possible explanation is that migrants' household members do not know exactly where migrants stay or work or even if they know, they were unable to indicate the accurate address. Most of them have visited migrants in Bangkok but they neither knew where the places were nor did they know the address. In some cases household members could only indicate the nearest place which is well known in Bangkok. It was not uncommon among these migrant households to contact migrants in Bangkok through some villagers in their village or nearby villages who usually go back and forth between the village and Bangkok. These villagers operated a mini bus running between the village and Bangkok. Most migrants and other villagers usually went to Bangkok by these mini buses. They knew almost all migrants' places in Bangkok. They have become a postal delivery service for migrants and their household members. However, even with such information, there was no guarantee that I could find those migrants. It was not easy for me to search for those migrants in a crowded city like Bangkok even though I was born there.

Some respondents were reluctant to cooperate. I had explained to them both the procedure of the interview and the content of the questionnaire. I had a feeling that revealing such information to a stranger made them feel very uncomfortable. In these cases the ethical issue of participation came into play. As Babbie (1973:349) has suggested: "Participation in surveys must be voluntary" I did not insist on eliciting such information to avoid an unpleasant atmosphere that may have affected the rest of those interviews.

The rural surveys yielded only 27 identified migrants with some information about their location. With the help of friends in Bangkok I was able to locate some migrants. In some cases I used a telephone directory to find the address and contact number. As de Vaus (1990:116-117) has asserted: "There is no correct method, only methods that are more or less appropriate to particular situations." Once I got the contact numbers I made contact with migrants, introduced myself and explained about my research and made an arrangement to meet and interview. Two telephone interviews were conducted.

The interviews were conducted at either the place of residence or place of work depending on migrants' circumstance. Some migrants were initially contacted at their place of work and were interviewed later at their place of residence. Some migrants preferred to be interviewed at their work place. In these cases interviews were conducted during lunch break or after work at night (they worked overtime).

After introducing myself, I made a brief introduction about my research including the purpose and procedure and explained how their names and addresses were obtained. To support this, I showed them the photographs I took in their village during the surveys and questionnaire of their household. This is to confirm that I had interviewed their household and obtained information from them. I spent the first five minutes talking about their village or referring to the village headman and their neighbours. My impression was that in general this approach helped establishing a very good rapport. Some of these migrants gave me information about their relatives and friends who moved from the same village.

There were many cases that I was unable to interview. Some had changed their place of employment and I could not get further information about their new place. For a few migrants who worked in a gold factory I could not get the permission of their employer to conduct the interview. There were a few migrants whom I could not find their workplace or residence. After two months I had only been able to interview 12 migrants from the list. At this stage I was behind the schedule and needed to look for other alternatives. As de Vaus has asserted:

> Survey research is no simple step by step procedure but a process which requires creativity, imagination, skill, compromises, improvisation and so forth: it is an acquired art ... The prime goal of research should be to gain accurate understanding and as a researcher use methods and techniques which enhance understanding. Use the method : do not let it use you (de Vaus, 1990; xii, 10).

Bearing in mind the limited resources (time and budget) I could think of only two alternatives that would suit my situation. The first alternative was to interview migrants who came from the Northeast at the central railway station and the central bus terminal. The second alternative was to conduct the interview in the Employment Office near the central railway station and the central bus terminal where migrants, both newcomers and those who stayed in Bangkok for sometime, usually come to apply for a job.

First I tried to interview some migrants at the central railway station (Hua Lampong) but they refused to participate. It was possible that they felt anxious about a stranger approaching them in such a place. Additionally the environment and atmosphere in that place may have created some suspicion of me which led to a refusal to participate. The same approach has been used by some researchers in other studies of migration in Thailand. In 1957, Meinkoth (1962), in her study on "Migration in Thailand with particular reference to the Northeast" conducted interviews with 533 migrants at Hua Lampong. Theodor Fuller and others (1983) in the study on "Migration and Development in Modern Thailand" in the late 1970s made an initial contact with migrants at Hua Lampong, but all interviews were conducted at the migrants' work places at a later stage. Details of the interviewing procedure were not reported in either of these studies.

After having failed to get those migrants to agree to take part in an interview, I turned to another alternative. That was to conduct the interview in the Employment Office. I gained permission to interview migrants in the two offices which are near the central railway station and the central bus terminal. Large numbers of migrants come to these offices every day. To apply for jobs they must register with the officer, present their identification card and specify the job they want. This also applies to the employers who come to look for the workers. The officer acts as a mediator between the employers and the workers. They are matched according to their needs. The officer will record their

information after an agreement is made. With the co-operation of the officers, registered migrants from the Northeast were transferred to me to be interviewed while they were waiting for the employers. Being introduced by the officer, I was able to get good co-operation in almost all cases. The place of interview was also comfortable. The most important factor was the fact that the respondents' anxiety about the stranger (interviewer) appeared to be minimal. A total of 53 migrants were interviewed in these offices. Altogether 72 migrants in Bangkok were interviewed in this study. This sample size was somewhat arbitrary. This was mainly attributed to the time factor since I was running far behind schedule. As de Vaus has argued, " Of course desired accuracy is not the only factor in working out the sample size: cost and time are also key factors. The final sample size will be a compromise between cost, accuracy and ensuring sufficient numbers for meaningful subgroup analysis"(de Vaus, 1990:73). However, this sample was supplemented by 100 returned migrants being interviewed in six villages during the rural surveys. It is clear that this sample is not representative of all migrants from the Northeast, but it does provide some insightful information to understand the process of migration from the Northeast to Bangkok.

In doing research some researchers will find that they are doing something different from what they should do. There are many factors involved in actual research that make it differ from the ideal research. According to de Vaus:

> The course that a piece of research actually takes will be peculiar to that piece of research: it is affected by the research topic, the technique of data collection, the experience and personality of the researcher, the 'politics of the research', the types of people or situation being studied, funding and so on (de Vaus, 1991:9).

All the problems during the research however should not be overlooked. Perhaps all the difficulties I have had during the surveys in some way may contribute toward the development of a methodology for the study on migration

Data Analysis

During processing the data were organised by category, edited and coded. The emphasis here was on relatively simple frequency tabulations. This is the most straightforward way to gain insight from the responded data derived from surveys. Simple tabulations of findings in the surveys will be used in combination with the information from the informal interviews to understand the process of migration.

Conclusion

The objective of this study was to analyse the determinants of migration to Bangkok both at the macro and micro level. Analyses at macro level was done by using the data from the population census through the mean of regression. At the micro level, survey method was employed to collect the data regarding the migration process of individual migrant. Research involved the rural surveys of six villages in Roi Et and urban surveys of migrants in Bangkok. A combination of formal interviews through structured questionnaires and informal interviews through semi-structured questions have been used during the surveys both in the villages and in Bangkok. The results of the macro analysis were used to complement the quantitative and qualitative data from the surveys which will be discussed in Chapter 8 and Chapter 9.

CHAPTER 3

THEORETICAL AND EMPIRICAL MODEL ON MIGRATION

Introduction

The purpose of this chapter is to provide a general theoretical background on the determinants of migration and its interrelations with rural and urban development. First we will consider a wide range of theories on migration. The second part of the chapter is concerned with approaches to the migration process in relation to the development process. Finally, the more well known models on which empirical studies have been based are reviewed.

Definition of "Migration"

Migration, unlike the other two components of population change, fertility and mortality, is subjectively defined. Fertility and mortality involves births and deaths which can be observed clearly and have an effect on everyone once only. In contrast, migration involves movement that is a process in the time and space dimensions (Skeldon, 1990). Lee, in his 1966 paper "A theory of Migration", broadly defined migration as 'a permanent or semi-permanent change of residence'. Goldscheider simply defined migration as all residential change from one domicile to another. By contrast Mangalam focused on motivational dimension, giving a definition of migration as "a relatively permanent moving away of a collectivity called migrants, from one geographical location to another preceded by decision-making on the part of the migrants on the basis of a hierarchically ordered set of values or valued ends and resulting in changes in the interactional system of the migrants" (cited in De Jong and Fawcett, 1981:15).

Neither of these statements provide the full meaning of territorial mobility. Many movements involve the interchange of people between points of origin and destination. Such movement often concludes in the place in which it begins with no change of permanent residence (Chapman, 1978). These reciprocal flows, called 'circulation' are defined by Zelinsky as "a great variety of movements, usually short-time, repetitive, or

cyclic in nature, but all having in common the lack of any declared intention of a permanent or long-lasting change in residence" (Zelinsky, 1971:225-226).

Not only do scholars face the problem of varied definitions of migration, but researchers also face the problems of actually measuring population movement. In practice, the matter of definitions involves three elements; 1) area of origin; 2) area of destination; and 3) the time over which migration is measured (Goldstein and Goldstein, 1981:51).

Researchers flexibly choose criteria in defining migration to fit the specific questions addressed in their researches. For example Chamratrithirong (1979) classified migrants in his study of migration to Bangkok as those who have moved to the area within two years preceding the survey. In her study of migration in Ilocos Norte, the Philippines, Findley (1987) used a one-month duration to define migration. Bedford (1971), in his study of migration in the Pacific Islands, required one month's absence in defining migration.

Migration Theory

Migration analysis is, in general, the attempt to explain only a limited range of questions concerning any particular migration phenomenon which can be summarised in the following series of questions:

1. Why does migration occur?
2. Who migrates?
3. What are the patterns of origins and destinations and the flows between them?
4. What are the effects of migration on the areas, communities or societies that migration came from?
5. What are the effects of migration on the areas, communities or societies of destination? (White and Woods, 1980:1).

A number of scholars have attempted to explain migration behaviour. However, the general laws of migration which can answer all questions concerning migration phenomenon as a universal rule, like the laws of supply and demand, are not available

(Chan, 1981:305). Since migration is a complex process and very much depends on time, space and culture, any choice of theoretical approach is probably better decided according to the situations under study than as a universal rule.

Ravenstein's Laws of Migration

The discussion of migration process can be traced to the late 1800s when Farr made a remark that migration appeared to go on without any definite law. Ravenstein, in response to Farr's remark, made a number of statements about the nature of migration process which he called the 'Laws of Migration'. These statements were initially based upon the British Census of 1881 and later the data from more than 20 countries (Lee, 1966:47). Ravenstein's statements provided a broad generalisation on migration streams, those who migrate, where they come from and where they go to. His generalisations can be briefly summarised as follows:

1. The majority of migrants go only a short distance
2. Migration proceeds step by step
3. Migrants going long distances generally go by preference to one of the great centres of commerce or industry
4. Each current of migration produces a compensating counter current
5. The natives of towns are less migratory than those of rural areas
6. Females are more migratory than males within the kingdom of their birth, but males more frequently venture beyond
7. Most migrants are adults; families rarely migrate out of their county of birth
8. Large towns grow more by migration than by natural increase
9. Migration increases in volume as industries and commerce develop and transport improves
10. The major direction of migration is from the agricultural areas to the centres of industry and commerce
11. The major causes of migration are economic (Grigg, 1977:42-43).

Although Ravenstein asserted that the major causes of migration were economic, he admitted that there were some factors which drive people out of the area of origin. As he stated:

> Bad or oppressive laws, heavy taxation, an unattractive climate, uncongenial social surroundings, and even compulsion (slave trade, transportation), all have produced and are still producing currents of migration, but none of these currents can compare in volume with that which arises from the desire inherent in most men to 'better' themselves in material respects (cited in Lee, 1966:48).

This statement laid the foundation for the push-pull factors hypothesis which was been developed by Lee in the 1960s. The importance of the economic motive in the decision to migrate and the deterrent effect of distance raised by Ravenstein have since been tested and supported by empirical evidence in many parts of the world.

Lee's Theory of Migration

In the mid 1960s Everett Lee, inspired by Ravenstein's laws of migration developed "a general schema into which a variety of spatial movements can be placed" (Lee, 1966:49). He noted that "No matter how short or how long, how easy or how difficult, every act of migration involves an origin, a destination, and an intervening set of obstacles". He then outlined the factors which enter into the decision to migrate and the process of migration:

1. Factors associated with the area of origin
2. Factors associated with the area of destination
3. Intervening obstacles
4. Personal factors.

Lee provided a schematic diagram to illustrate the first three factors (Figure 3.1). In both area of origin and destination the + signs represent the factors which act to hold people within the area, – signs stand for the factors which tend to repel people from the area and the 0 signs indicate the factors to which people are indifferent. Different people defined the set of attractive and repulsive factors at both origin and destination area and

are affected by the same set of obstacles in different ways. He further argued that the act of migration is not decided upon only the simple calculus of positive and negative factors at origin and destination. He asserted that between every two points there exists a set of intervening obstacles.

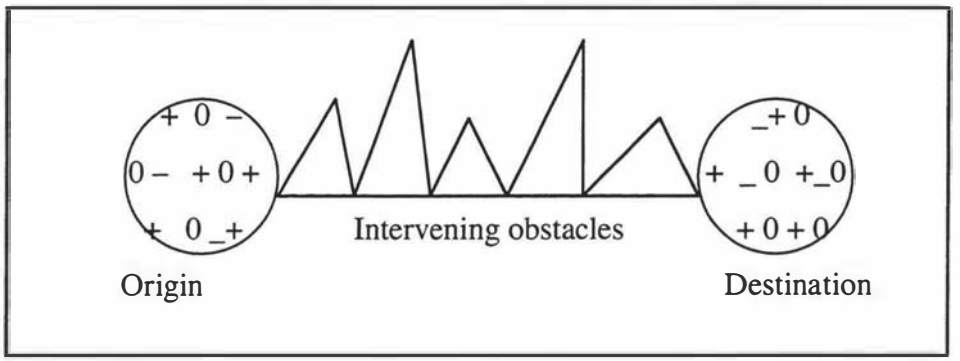


Figure 3.1: Origin and Destination Factors and Intervening Obstacles in Migration

Source: Lee, 1966:50

These factors are governed by personal factors which finally "affect individual thresholds and facilitate or retard migration" (p.51). Based on his basic conceptualisation of migration as involving those factors indicated in the above discussion, he formulated a series of hypotheses about the volume of migration, the development of stream and counterstream and the characteristic of migrants:

Volume of Migration

1. The volume of migration within a given territory varies with the degree of diversity of areas included in that territory
2. The volume of migration varies with the diversity of people
3. The volume of migration is related to the difficulty of surmounting the intervening obstacles
4. The volume of migration varies with fluctuations in the economy

5. Unless severe checks are imposed, both volume and rate of migration tend to increase with time
6. The volume and rate of migration vary with the state of progress in a country or area

Stream and Counterstream

1. Migration tends to take place largely within well defined streams
2. For every major migration stream, a counterstream develops
3. The efficiency of the stream (ratio of stream to counterstream or the net redistribution of population effected by the opposite flows) is high if the major factors in the development of a migration stream were minus factors at origin
4. The efficiency of stream and counterstream tends to be low if origin and destination are similar
5. The efficiency of migration streams will be high if the intervening obstacles are great
6. The efficiency of a migration stream varies with economic conditions, being high in prosperous times and low in times of depression

Characteristics of Migrants

1. Migration is selective
2. Migrants responding primarily to plus factors at destination tend to be positively selected
3. Migrants responding primarily to minus factors at origin tend to be negatively selected; or, where the minus factors are overwhelming to entire population groups, they may not be selected at all
4. Taking all migrants together, selection tends to be bimodal
5. The degree of positive selection increases with the difficulty of the intervening obstacles

6. The heightened propensity to migrate at certain stages of the life cycle is important in the selection of migrants
7. The characteristics of migrants tend to be intermediate between the characteristics of the population at origin and the population at destination (Lee, 1966).

However, Lee cautioned that:

> The decision to migrate, therefore, is never completely rational, and for some persons the rational component is much less than the irrational. We must expect, therefore, to find many exceptions to our generalizations since transient emotions, mental disorder, and accidental occurrences account for a considerable proportion of the total migrations (1966:51).

Because of its high level of generalisation, Lee's theory of migration was criticised by the well-known economist Michael Todaro as being of little help for policy analysis in developing countries. As Todaro (1976b:30) pointed out, "by not specifying the interrelationships between dependent and independent variables within the context of a vigorous theoretical framework, Lee's theory of migration and, indeed, most other "non-economic" social science migration models offer little practical policy guidance for decision makers in developing nations". Nevertheless, Lee provided a set of hypotheses which seek to explain why people move. The push-pull factors and migrant selectivity hypotheses suggested by him are echoed in a number of studies (Oberai and Singh 1983:26).

Human Capital Investment

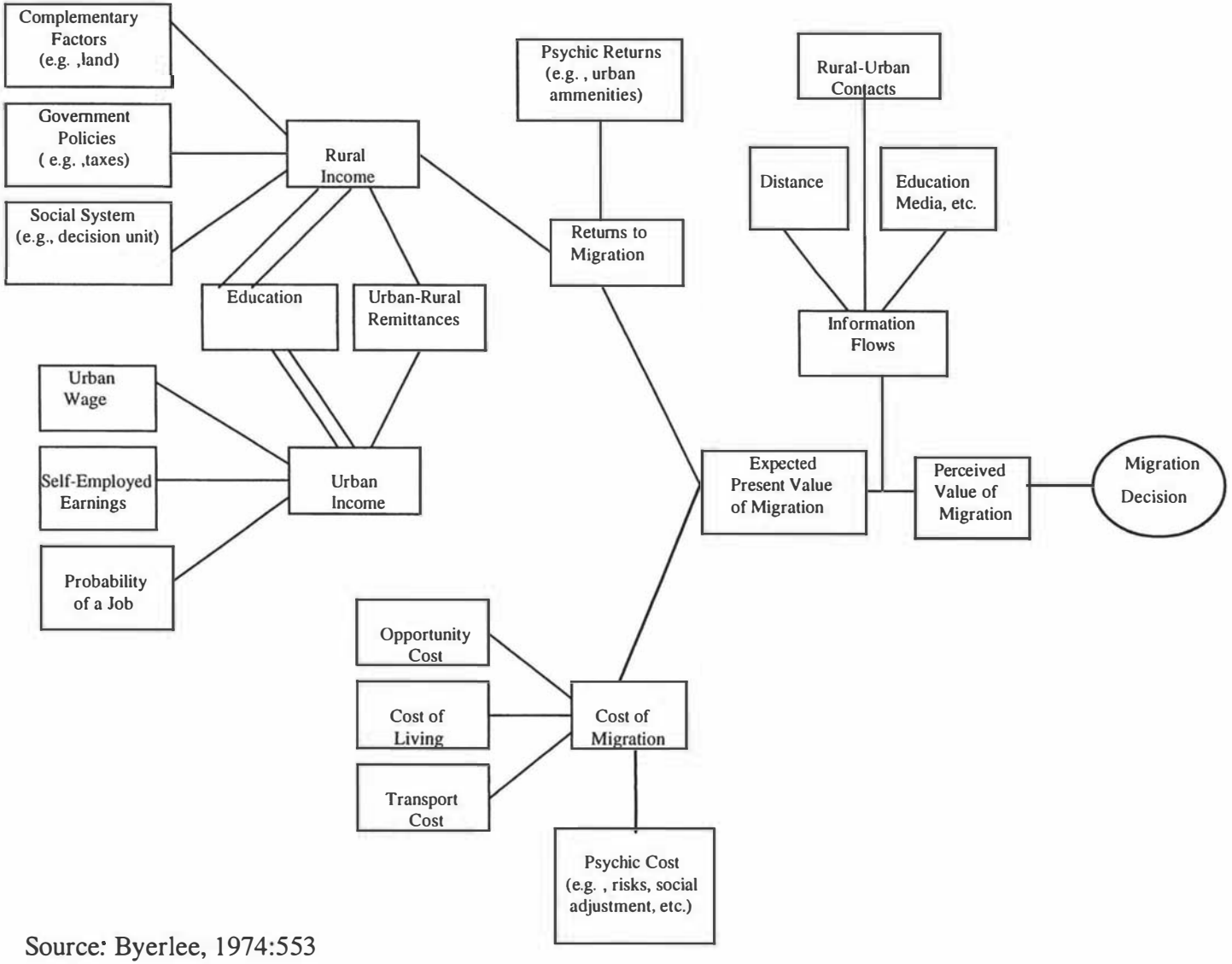
Although the dominance of economic motives in migration was explicitly mentioned in Ravenstein's laws of migration, migration was put in a framework of costs and returns of investment in human capital by both Schultz and Sjaastad. This framework provides the theoretical structure that views "migration as an investment increasing the productivity of human resources, an investment which has costs and which also renders return" (Sjaastad, 1962:83). Schultz (1961) pointed out that the costs of migration to search for better employment opportunities are a form of human capital investment

because they produced human capability and enhanced its productivity. The yield on these investments is the increase in earnings.

The costs and returns can be categorised into money and non-money groups. The money costs include the expense of food, lodging and transportation for migrants and their belongings. The non-money costs include the opportunity costs and psychic cost of leaving familiar surroundings, family and friends. However, Sjaastad (1962:85) argued that psychic costs involve no resources for the economy and should not be included as part of the investment in migration. The money returns gained consist of a positive or negative increment to the earning stream as from migration resulting from a change in nominal earnings, a change in costs of employment, a change in prices, or a combination of these three. The non-money returns arising from locational preferences are not taken into consideration in Sjaastad's model because they represent consumption which has no cost to production.

Conceptually, the human capital approach has been expanded for a developing country study by Derek Byerlee. Byerlee (1974) provided a theoretical framework for the analysis of migration decisions in Africa based on the human capital approach. Byerlee's model includes various "psychic" costs and returns. Psychic costs include risk according to the uncertain nature of urban incomes and the impact of weather and export prices on agricultural income, the costs of breaking old and setting up new social ties and the costs of overcrowding, pollution, etc. associated with urban areas. He also noted the psychic returns of urban social amenities and the easier and more prestigious of urban jobs. He asserted that economic incentives may be a necessary condition for migration but psychic costs and benefits may be important explanatory variables, particularly in rationalising the decision of rural people not to migrate. He also pointed out the importance of relatives and friends in providing the information which migrants used to determine the difference between perceived and actual migration (see Figure 3.2)

Figure 2. A Framework for the Analysis of the Migration Decision



Source: Byerlee, 1974:553

The human capital investment concept has been applied to the analysis of both macro-migration and micro-migration models. For example, Bowles (1970) outlined a simple model based on Sjastad's cost-benefit formulation and provided an empirical test of the model using data on net migration out of the Southern United States. His analysis revealed that in the decision to migrate, individuals considered the benefits and costs of moving in the context of a general investment problem. His empirical results indicated that the present value of expected income gain from moving out of the South is positively related to the probability of moving and provides a better explanation of migration than the more conventional income measure based on regional differences in current incomes. He found that blacks are considerably less responsive than whites to the income gain from moving.

Sahota (1968) analysed migration in Brazil using the basic migration equation formulated in the costs and returns framework of Schultz and Sjasstad and found that internal migration is highly responsive to earning differentials. Further, Sahota found that economic costs and returns appear to dominate the behaviour of migrants which led him to conclude that "On the whole, there is a strong conformity of the migration function to the neo-classical costs-and returns approach, which has served to modify several of the impressions regarding the theories of migration" (p.243).

Speare (1971) applied the human capital decision-making concepts in his analysis of rural-urban migration in Taiwan. His study attempted to estimate the major components in the migrant's decision making process. In this study Spare used the data obtained from household interviews both from the non-migrants in the rural area and migrants in the urban area. He employed a multiple regression analysis to his two hypotheses; H1: When all cost-benefit variables have been controlled, background variables such as age and education are not related to the probability that a person will move, and H2: Monetary costs and benefits are more important than nonmonetary costs and benefits in determining whether or not a person (or family) will move. His findings confirmed both hypotheses. However, while the cost-benefit variables contributed to 44.7 percent of the total explained variance in the model, Spare noted the difficulty in measuring the expected return and cost of moving. He wrote:

> It should not be interpreted to mean that the costs and benefits of migration are actually calculated. In fact, our limited data suggest that people have only vague concepts of costs and benefits. Only a small percentage of all migrants knew exactly how much they would earn in the city before they moved and most could only distinguish whether they expected an increase, no change, or a decrease in income to result from the move. Many could give only approximate estimates of the cost of moving (p.129).

The Lewis-Fei-Ranis Model of Development

The first and most well known model of development was developed by Sir W. Arthur Lewis (1954). Although not intended to explain the migration process, it implicitly considered the process of rural-urban transfer in explaining economic growth. The model was later extended by Gustav Ranis and John Fei (1961) and became known as the Lewis-Fei-Ranis (L-F-R) model. This model became the received 'general' theory of the development process in 'labour surplus' Third World nations during most of the late 1950s and 1960s (Todaro, 1976b:30).

This model is based on the concepts of a dual economy, comprising a 'subsistence' and 'capitalist' sectors. In the subsistence sector the marginal productivity of labour is negligible, zero or even negative and labour is paid at the wage equal to the minimum required for subsistence consumption. The capitalist sector uses reproducible capital and draws more people from the subsistence sector into capitalist employment. The capitalist sector will continue to expand until there is no surplus labour left. This model assumes that the capitalist sector will grow if any part of profits are reinvested in productive capacity and the unlimited supplies of labour are available at a constant real wage (Lewis, 1954).

The model's applicability is questioned in the case that surplus capitalist profits are invested in more sophisticated labour-saving industries resulting in less demand of labour. The notion of the continued existence of constant real wage is at variance with reality. In almost all developing countries wages tend to rise substantially over time even in the presence of rising levels of open unemployment (Todaro, 1976b:33-34).

Todaro Model

Probably the best know modification of the human capital theory is the Todaro migration model. Michael Todaro is the pioneer in applying the human capital approach in Third World settings (Brown and Sanders, 1981:158). Based on the assumption that migration is a rational decision of the individual migrant in which expected gains and the probability of getting an urban job are taken into consideration, the Todaro model postulates four major features as follows:

1. Migration is stimulated primarily by rational economic considerations of relative benefits and costs, mostly financial but also psychic;
2. The decision to migrate depends on expected rather than actual urban-rural real wage differentials where the expected differential is determined by the interaction of two variables, the actual urban-rural wage differential and the probability of successfully obtaining employment in the urban modern sector;
3. The probability of obtaining an urban job is inversely related to the urban unemployment rate; and
4. Migration rates in excess of urban job opportunity growth rates are not only possible but rational and likely in the face of continued positive urban-rural expected income differentials. High rates of urban unemployment are therefore inevitable outcomes of the serious imbalances of economic opportunities between urban and rural areas of most underdeveloped countries (Todaro, 1976b:47).

Todaro's model takes into account the high urban unemployment rate which is pronounced in the developing countries. This model assumes that migration takes place when migrants consider the discounted value of their expected net income streams for a given time horizon in the urban sector exceeds the discounted value of expected net rural incomes (Todaro, 1976b:41). The main attribute of Todaro's model is that it renders an explanation for the continued rate of rural-urban migration in the context of high levels of urban unemployment. He further argued that this phenomena 'is not only privately rational from an individual income maximising point of view, but it will

continue to exist so long as the expected urban-rural real income differential remains positive' (Todaro, 1976b:46).

In this context, migration is viewed as a two-stage phenomenon. In the first stage, the rural migrant enters the 'urban traditional' sector for a certain period of time. In the second stage the migrant eventually attains a more permanent modern sector job. From this viewpoint, it may still be economically rational for the individual to migrate even if in the first stage the expected urban income is less than rural real income (Todaro, 1969:139-140).

Salvatore (1981) utilised Italian data to test and extend the Todaro model. He claimed that this data by that time was the only excellent time series data on labour migration to permit an adequate empirical test of the Todaro model. The empirical results showed that the extended model in which the relative difference in rural-urban real income streams and rates of unemployment were taken as separate independent variables perform much better than the Todaro model which use the difference in the expected real income as a single composite index. The results also indicated that labour migration is primarily the response to short-run forces (i.e. the unemployment differential) as opposed to long-run forces.

Nonetheless, the Todaro model has several shortcomings. It ignores attitudes toward risk by assuming that migrants are indifferent. Moreover, data used for the probability of employment and the employment wage are of the average of urban residents which may not be indicative of the rural migrants (Da Vanzo, 1981:108-109). Another problem of the application of the Todaro Model in Third World settings is that available data are not generally rich enough to estimate future earnings (Brown and Sanders 1981:159).

Despite many shortcomings, the model has been tested in many Third World countries. For example in Tanzania and Venezuela, the Todaro hypothesis of the importance of the expected wage in migration was confirmed. Moreover, these two studies also found the greater importance of urban wage rates compared to urban job probabilities in inducing migration (Todaro, 1976b:75).

The most significant modification of the original Todaro model is the one that was developed by Todaro and John Harris, known as the Harris-Todaro model. This model assumed that an economy comprised two sectors, the permanent urban and the rural which were analysed from the production and incomes point of view. Although the Harris-Todaro model explained the pattern of farm migration in U.S. and Japan, Ogawa and Suits (1985) found that it failed to do so in the ASEAN context. The Philippines, Thailand and Malaysia were selected for empirical testing of the Harris-Todaro model in the ASEAN context. Only the Philippines data shows a good fit to the model whereas poor statistical results have been obtained for Thailand and Malaysia.

Ogawa and Suits discussed the sources of such inapplicability of the model to the ASEAN countries. Firstly, the data employed might have contained some serious measurement errors and biases. Secondly, ASEAN countries have experienced urban dualism with the existence of a limited 'formal sector' along with the huge 'informal sector'. Thirdly, the assumption of the Harris-Todaro model that rural-urban migrants are unemployed until they secure jobs in the urban modern sector, is questionable in the ASEAN context, since the urban informal sector of the ASEAN cities is the centre of employment growth and provides easy access for new migrants. Fourthly, in the ASEAN countries circular migration is highly influenced by cultural and non-economic factors which the model fails to account for. Fifthly, the ASEAN economy is open, counter to the assumption of a closed-economy in the Harris-Todaro model. Sixthly, the rapid expansion of the urban informal sectors resulting from rapid urban population growth of the ASEAN cities cannot be accommodated by the model.

Gravity Model

The effect of distance upon migration has been emphasised in Ravenstein's laws of migration in the 1880s. However, he made no explicit discussion of the influence of distance (Grigg, 1977:46). The gravity model basically hypothesises that migration is directly related to the size of the relevant origin and destination populations and inversely related to distance. Probably one of the first and best well known of all migration models is George K. Zipf's P_1P_2/D hypothesis which was expressed in 1940 (Zipf, 1946) The model can be written as:

$$M_{ij} = kP_iP_j/D_{ij}$$

where

M_{ij} = movement between place *i* and *j*
P_i = population of place *i*
P_j = population of place *j*
D_{ij} = distance between place *i* and *j*
k = constant

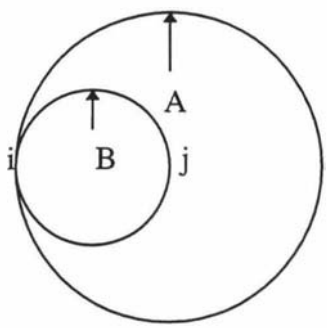
This formulation is similar to Newton's Law of Gravity (Lowry, 1966:8). While this gravity formulation is supposedly a fundamental one of universal applicability, it is a normative approach which assumes such things as perfect information availability, equal movement cost in all directions and the same processes of opportunity appraisal by all potential migrants (White and Woods, 1980:41). Shaw (1975) also made a similar critique on the inadequacy of these assumptions. Since the model only involved the interaction of population and distance in estimating the amount of flows between places, it says nothing about the cause and directional flows of migration (Clark, 1986:5; Lowry, 1966:90). However, the gravity model appears to be a conceptual or operational component of more extensive migration research (Brown and Sanders, 1981:157).

Stouffer's Intervening Opportunities Model

It was in 1940 that Stouffer first introduced the concept of 'intervening opportunities', as he argued that 'there is no necessary relationship between mobility and distance ... the

number of persons going a given distance is directly proportional to the number of opportunities at the distant location and inversely proportional to the number of intervening opportunities (1940:846). Stouffer's model is different from Zipf's model in that it expressed migration in terms of directional flows between two places instead of gross migration flows. However, Stouffer admitted that the concepts used are imperfect reflections of some other more effective concepts yet to be discovered. He later introduced a concept of competing migrants in explaining movements of population over space. He suggested that the attractiveness of one city over another city will depend, at least, to some extent on how many potential migrants from any other cities are closer to the city of destination than are the potential migrants in that city (1960:7).

In the revised concept, intervening opportunities fall within a circle centred at the midpoint of the distance between *i* and j. Since opportunities could not be measured directly, Stouffer defined the number of in-migrant settling within the circle as a surrogate for the number of intervening opportunities. The number of out-migrants from all cities within a circle centred at *j* with a radius of distance between *i* and *j* were defined as competing migrants for destination *j*.



His new model, involving a revised concept of intervening opportunities and a new concept of competing migrants, can be written as:

$$Y = KX_m/X_bX_c$$

where Y = migrants from *i* to *j*

X_m = the product of the total number of in-migrants to *j* and total number of out-migrants from *i*

X_b = total number of in-migrants to *j* within a circle centred at the mid joint of the distance between *i* and *j*

X_c = total number of out-migrants from all cities within a circle centred at *j* with a radius of distance between *i* and *j*

Stouffer applied this new model to the internal migration data for 1935-1940 from the 1940 US Census of Population and found that the model was superior to the distance model in explaining geographical mobility. Walter J. Wadycki replicated Stouffer's intervening opportunities-competing migrants model for 1955-1960 interstate migration in the United States. He also confirmed that 'social distance' measured by intervening opportunities and competing migrants is superior to physical distance in explaining geographical mobility. However, he found that Stouffer's original 1940 model yields slightly better empirical results than his 1960 reformulation model (Wadycki, 1975).

Theoretical Issues on Migration and Development

Several theoretical approaches have been suggested for studying the linkages between rural-urban migration and development (Hugo, 1992:102). There are two broad and competing analytical frameworks; the neo-classical economic and the historical-structural which are summarised in Table 3.1. The former approach relies on a micro-economic model of migration adopted by North American scholars. This approach sees geographical mobility of labour as a rational response of the individual to imbalances in the spatial distribution of land, labour, capital and natural resources (Wood, 1982). Labour moves from places where productivity is low to areas where productivity is high until productivities are equal and there is no incentive for further migration. Migration is seen as a mechanism to restore equilibrium between locations because it provides for the needs of labour in regions that are growing while decreasing population pressure in areas that are not developing (Clark, 1986:83). This implies that no state intervention is needed.

Table 3.1: Broad Theoretical Perspectives on the Relationship between Internal Migration and Regional Development

	Neo-classical Economic equilibrium perspective	Historical-structuralist perspective
1. Causes of internal migration	A response to spatial imbalances in the distribution of land, labour, capital and natural resources	Structural forces such as the emergence and uneven expansion of the capitalist mode of production, the nature of the development policies of government, unequal development within and between countries, the political economy of the country
2. Consequences of migration for regional development	A positive 'development-fostering' impact since the amelioration of spatial inequalities will result from redistribution of human capital from places of low to high productivity	A negative, inequality-exacerbating impact. The disproportionate concentration of talented people, resources, power and capital in particular areas (especially large cities) widens the gap between regions, contributes to major inefficiencies and social and economic problems at both origin and destination, and impedes national development
3. Policy implications	Allow market forces to operate. Interventions only to speed up or smooth flow of labour between regions by removing barriers to such movement	Intervention is favoured by most governments as part of attempt to reduce inequalities. Most fly in the face of existing population flows and are unlikely to succeed, unless underlying political economic forces are tackled

Source: Hugo, 1987:209

Although the concept of this approach is basically simple and roughly in conformity with the historical experience of economic growth in the West, its assumptions are too rigid and inapplicable to most contemporary Third World country situations (Todaro, 1976b:18). For example, the two basic premises of the neo-classical approach were seriously questioned by Amin (1974) in explaining the migrations in West Africa. The hypothesis that the 'factors' of production are given a priori and distributed unequally failed to explain the reasons: 1) why capital is available for certain types of agricultural development, localised in certain regions and not others; and 2) why labour has to move into areas where capital has decided to install itself and not the other way around (p.86). The individualist approach, that is decision to move is the individual rational calculus, does not offer any indication of the 'costs' and 'benefits' to the society of origin which they quit. Amin argued that it is not only individual motivations but a push-effect related to the transformation of the socio-economic organisation of the rural area which caused migration. As he pointed out:

> Would anyone dare to 'explain' the migrations from Europe towards North America in the nineteenth century as having been caused by the motivations of the migrants with reference to differences between potential incomes, without pointing out that the migrants were peasants who had been driven from their lands by the development of agrarian capitalism, starting in England in the seventeenth and eighteenth centuries with the enclosure acts, and then embracing central and eastern Europe in the nineteenth century (p.92-93).

The opposing view to the neo-classical approach has been formulated primarily by social scientists in Latin America and Africa in response to the inapplicability of the micro-economic model to developing countries. While the neo-classical approach primarily focuses on the rational calculus of the individuals, the historic-structural approach emphasises the origin of the costs and benefits within which migration is taking place. This perspective draws its principle insight from Marx's historical materialism (Wood, 1982).

In contrast to the micro-economic model of migration, the historic-structural approach recognises the need for in-depth analysis of economic, social and political institutions that lead to changes in the organisation of production. Thus, this approach has stressed a wide range of phenomena in studying internal and international migration including: the

emergence and expansion of the capitalist mode of production, the style of development that is pursued, the country's role in the international division of labour, the unequal development within and between countries, the articulations of capitalist and non-capitalist formations and the cost-lowering anticyclical function of migrant labour forces (Wood, 1982).

The micro-economic model is based on two broad propositions that individual migration is determined by economic self-interest of the migrant and this coincides with the general interest. In the long run, individual, national and international interests coincide, implying that the state should not intervene the process (Appleyard, 1992:33-34). The historic-structuralist perspective, however, has quite different policy implications. Basically this approach sees migration as not only resulting in unequal development, but is itself an element of it. As Amin (1974) concluded in his seminal work on migration in West Africa: "In our opinion, those which emerge concerning migratory phenomena are, above all, that there is no possible solution to the isolated problem of migration as such unless they are seen in relation to the whole strategy of development" (p.119). From this perspective the consequences of migration for development are generally negative and suggests that the new allocation of resources must provide for the development of areas previously condemned to stagnation.

The historical-structural approach has become widely accepted by policy-makers and has much affected migration policy since the 1970s. Awareness of the relationship of population trends and socio-economic development, and in particular the need to stabilise migration, has been greatly enhanced by the Population Conference in Bucharest in 1974. The Bucharest Conference was the first meeting of all governments ever to be held on the subject of population. The interrelationship between population and development was spelled out in the following:

> Population and development are interrelated: population variables influence development variables and are also influenced by them; thus the formulation of a World Population Plan of Action reflects the international community's awareness of the importance of population trends for socio-economic development, and the socio-economic nature of the recommendations contained in this Plan of Action reflects its awareness of the crucial role that

> development plays in affecting population trends (Population Reference Bureau, 1976:8-9).

The World Population Plan of Action places emphasis on the negative effect of rural-to-urban migration and contains a series of recommendations to stabilise migration within countries. The most recent United Nations Monitoring Report (United Nations, 1992:158) confirms the global concern with population distribution as a policy issue. In 1990, it was found that of the 169 Member States and observer states, only 32 considered their patterns of population distribution to be satisfactory. Seventy three percent of governments in Latin America, 71 in Africa and 32 in Asia expressed their desire for major change. Most governments in all regions want to slow primate city or metropolitan growth. However, an Expert Group Meeting on Population and Migration, held in Bolivia in 1993, noted that as a result of 'global' market strategies to promote growth, urban primacy still characterised many countries, particularly in developing countries. It was pointed out that in contrast to previous assessments, migration was increasingly recognised as a logical strategy of individuals seeking to enhance their opportunities or assure their survival. The group emphasised the importance of migration and urbanisation as essential elements of a productive economy. This underscored the need to facilitate trends that result in improved life chance for a wide spectrum of the population rather than to transfer population distribution and population mobility patterns radically (Zlotnik, 1994).

Zelinsky's Mobility Transition

The most serious attempt to describe population mobility over time with the development phenomena comes from Wilbur Zelinsky, who applied the principle of the spatial diffusion of innovations to the laws of migration. The basic hypothesis of his Mobility Transition model was that: "There are definite, patterned regularities in the growth of personal mobility through space-time during recent history, and these regularities comprise an essential component of the modernization process' (Zelinsky, 1971:221-222). Based on this hypothesis, he identified a series of five sequential phases of mobility transition as being synchronous and interdependent with the demographic transition (Table 3.2). However, he argued that 'demographic transition' should be

termed 'vital transition' since its concept is only concerned with births and deaths without taking into account other population events and characteristics.

Pryor (1979:4-5) has summarised Zelinsky's five phases of transition in mobility behaviour, and their hypothesised links with demographic transition and modernisation, as follows:

1. Minor circulation between dispersed, traditional agrarian settlements, in the presence of a low rate of natural population increase
2. Major rural-urban migration and increasing rural-rural migration, accompanied by rising fertility in the early transitional phase of economic development and modernization. Zelinsky also included major emigration (or international out-migration) in this phase
3. Urban circulation replacing rural-urban and rural-rural migration, and fertility declining as modernization extends through the settlement system
4. Major intra- and inter-urban mobility and increasing circulation, in the presence of a low rate of natural increase in an advanced industrial society
5. In the 'post industrial' or 'super-advanced' society where industry is declining in its contribution to GNP, fertility is likely to be severely controlled and communications developments may modify or replace migration and circulation.

Table 3.2: Two Sequential Spatiotemporal Processes Among Modernizing Populations

The Vital Transition	The Mobility Transition
PHASE A *The Premodern Traditional Society* (1) A moderately high to quite high fertility pattern that tends to fluctuate only slightly (2) Mortality at nearly the same level as fertility on the average, but fluctuating much more from year to year (3) Little, if any, long-range natural increase or decrease	PHASE I *The Premodern Traditional Society* (1) Little genuine residential migration and only such limited circulation as is sanctioned by customary practice in land utilization, social visits, commerce, welfare, or religious observances
PHASE B *The Early Transitional Society* (1) Slight, but significant, rise in fertility, which then remains fairly constant at a high level (2) Rapid decline in mortality (3) A relatively rapid rate of natural increase, and thus a major growth in size of population	PHASE II *The Early Transitional Society* (1) Massive movement from countryside to cities, old and new (2) Significant movement of rural folk to colonization frontiers, if land suitable for pioneering is available within country (3) Major outflows of emigrants to available and attractive foreign destinations (4) Under certain circumstances, a small, but significant, immigration of skilled workers, technicians, and professionals from more advanced parts of the world (5) Significant growth in various kinds of circulation
PHASE C *The Late Transitional Society* (1) A major decline in fertility, initially rather slight and slow, later quite rapid, until another slowdown occurs as fertility approaches mortality level (2) A continuing, but slackening, decline in mortality (3) A significant, but decelerating, natural increase, at rates well below those observed during Phase B	PHASE III *The Late Transitional Society* (1) Slackening, but still major, movement from countryside to city (2) Lessening flow of migrants to colonization frontiers (3) Emigration on the decline or may have ceased altogether (4) Further increases in circulation, with growth in structural complexity

Table 3.2: Continued

The Vital Transition	The Mobility Transition
PHASE D *The Advanced Society* (1) The decline in fertility has terminated, and a socially controlled fertility oscillates rather unpredictably at low to moderate levels (2) Mortality is stabilized at levels near or slightly below fertility with little year-to-year variability (3) There is either a slight to moderate rate of natural increase or none at all	PHASE IV *The Advanced Society* (1) Residential mobility has levelled off and oscillates at a high level (2) Movement from countryside to city continues but is further reduced in absolute and relative terms (3) Vigorous movement of migrants from city to city and within individual urban agglomerations (4) If a settlement frontier has persisted, it is now stagnant or actually retreating (5) Significant net immigration of unskilled and semiskilled workers from relatively underdeveloped lands (6) There may be a significant international migration or circulation of skilled and professional persons, but direction and volume of flow depend on specific conditions (7) Vigorous accelerating circulation, particularly the economic and pleasure-oriented, but other varieties as well
PHASE E *A Future Superadvanced Society* (1) No plausible predictions of fertility behavior are available, but it is likely that births will be more carefully controlled by individuals – and perhaps by new sociopolitical means (2) A stable mortality pattern slightly below present levels seems likely, unless organic diseases are controlled and lifespan is greatly extended	PHASE V *A Future Superadvanced Society* (1) There may be a decline in level of residential migration and a deceleration in some forms of circulation as better communication and delivery systems are instituted (2) Nearly all residential migration may be of the interurban and intraurban variety (3) Some further immigration of relatively unskilled labor from less developed areas is possible (4) Further acceleration in some current forms of circulation and perhaps the inception of new forms (5) Strict political control of internal as well as international movements may be imposed

Source: Zelinsky, 1971:230-231

Although Zelinsky's mobility transition model represented a major benchmark in the attempts to understand population mobility in the context of demographic changes, its applicability to Third World settings has been challenged in many studies. For example, Hugo (1984) found that changes in mobility patterns in Indonesia did not conform to the sequence of the mobility transition phase. The major historical force which influenced these changes was colonisation rather than modernisation. He asserted that the changes in the mode of production provides a more useful framework in the search of understanding population mobility in the Indonesian context. In the Pacific, Bedford (1971:286-287) argued that only the first two phase of Zelinsky's mobility transition are relevant. However, only the demographic changes associated with Zelinsky's second phase have taken place while the changes in mobility patterns suggested for this phase have not occurred. He further commented:

> Rather than seeking to find a single transitional sequence in movement behaviour associated with modernization, a more realistic approach would be to recognize the limited societal, spatial, and temporal domains of theories which must take cognizance of shifting patterns of human behaviour over space and time (p.287).

The Empirical Model of Internal Migration

Most of the models used in migration studies are developed from the gravity model (Greenwood, 1975). Based on the gravity variables (distance, population at origin and destination) economic and non-economic variables are added to test their relationships with migration. Researchers have applied various models to analyse migration. In general these models are used at a macro level and are usually based on census data. The economic and non-economic characteristics of sending and receiving areas are of major interest. The definition and measurement of migration and other variables vary from one study to another. The selected variables also differ depending on the conceptual framework of each researcher and the context under study as well as availability of data.

Probably the first attempt at converting theoretical models into an empirically estimated econometric equation was made by Ira S. Lowry (1966) in his study of the determinants of 90 inter-SMSA migration flows in the United States from 1955-1960. The major

interest in this model was in the importance of employment opportunity in terms of job availability and wage rates in explaining migration of the labour force. Accordingly, unemployment and wage rates were added as independent variables into the classical gravity model of migration. The expanded gravity model formulated by Lowry which was log transformed for regression analysis is of the following form:

$$\log M_{i \to j} = a_0 + a_1 \log U_i + a_2 \log U_j + a_3 \log W_i + a_4 \log W_j + a_5 \log L_i + a_6 \log L_j + a_7 \log D_{ij} + u$$

where

$M_{i \to j}$ = number of migrants from *i* to *j*

U_i, U_j = unemployment as a percentage of the civilian non-agricultural labour force at *i* and *j*

W_i, W_j = hourly manufacturing wage , in dollars at *i* and *j*

L_i, L_j = number of persons in the non-agricultural labour force at *i* and *j*

D_{ij} = airline distance from *i* to *j*

u = error term

Lowry found that in the classical gravity model the distance variable contributed virtually nothing to the explanation of gross migration between *i* and *j* and its coefficient was not significantly different from zero. But when unemployment and wage rate were added in the modified model, in which the dependent variable was directional flow of migration from *i* to *j*, distance emerged as a significant variable.

Modified gravity models have been widely adopted in empirical studies of place-to-place migration. The models are modified to include in the estimated relationships the additional variables that are expected to importantly influence the decision to migrate (Greenwood, 1975). Independent variables in the functional form of the modified gravity models usually include wage and income level; unemployment rates; the degree of urbanisation; the distance between origin and destination; the size of the population and also friends and relatives of the same origin in the destination area. These models usually become linear under log transformations (Todaro, 1976b:57). The basic form of these models may be written as:

$$M_{ij} = f(Y_i, Y_j, U_i, U_j, Z_i, Z_j, P_i, P_i, C_{ij}, D_{ij})$$

where

M_{ij} = migration rate from *i* to *j* (the proportion of population *i* that migrates to *j* over a specified period of time)

Y_i, Y_j = wage and income levels in *i* and *j*

U_i, U_j = unemployment rate in *i* and *j*

Z_i, Z_j = degree of urbanisation in *i* and *j*

P_i, P_j = population size of *i* and *j*

C_{ij} = number of relatives and friend originated in *i* in the destination *j*

D_{ij} = distance between place *i* and *j*

This basic model has been commonly used with some modification in almost all recent empirical work on migration both in developed and less developed countries. A number of studies which deal with the determinants of migration in developed countries have utilised the United States data. For example, Lowry (1966) incorporated economic variables as well as gravity variables in his model to explain the migration flows in the United States. He used unemployment rates to measure economic opportunities and non-agricultural labour forces to measure the sizes of origins and destinations. Greenwood (1969a) applied the model similar in the form shown above to the 1955-1960 interstate migration flows in the United States. He included distance, income, education, unemployment, urbanisation, temperature, and migrant stocks as explanatory variables. Fields (1979) applied the model based on the human investment approach to study the determinants of out-migration flows from the 20 largest SMSAs (Standard Metropolitan Statistical Area) in the United States during 1955-1960. Wadycki (1974b) replicated the Levy-Wadycki alternative opportunities model in the context of the United States.

Many studies which were concerned with less developed countries also employed models similar to those used for developed countries. Beals, Levy and Moses (1967) formulated a model to explain gross interregional migration in Ghana. Sahota (1968) formulated the model in the costs and returns framework to analyse the interstate migration in Brazil but included push-pull factors as well. The most important explanatory variables in this model were wage rate, education, urbanisation, density of

population, geographical distance, the level and rate of growth and the dispersion of income. Levy and Wadycki (1973) used a model identical to those developed by Greenwood for the analysis of migration in Venezuela. This model was later reformulated to include more explicitly the opportunity costs of moving and was estimated utilising the 1961 Venezuela migration data. The opportunity costs of moving included the foregone opportunities available at alternative destinations. These alternative opportunities were defined as the 'best' opportunities available in the states which are at least as close to the origin state as is the destination state. Therefore the largest population, the highest wage, and the lowest unemployment rates of states which lie within a circle with distance between origin and destination as the radius centred at origin state were included in the model (Levy and Wadycki, 1974b). The dependent variable in this study differed from that used by Greenwood in the United States and India in that it is limited to migration within one year preceding the 1961 census year. The unemployment variables (both at origin and destination) were added to the model. Greenwood (1971) used the similar model to that of the United States and Egypt to examine rural-urban and urban-urban migration in India. Different to both the United States and Egypt studies, the dependent variable in this case was defined as the number of males born in rural areas of state *i* enumerated in urban areas of state *j* divided by the product of rural male population of *i* and urban male population of *j* and only distance, income and urbanisation were included in the model.

Although the basic model was modified to suit the availability of data and the context under study, most of the explanatory variables in these studies also are common. These variables provide a good summary picture of the range of information sought in most migration studies. The inclusion of these variables in the migration model are based on the assumptions or hypothesis of various migration theories reviewed in the first section of this chapter. Researchers have proposed the rationale behind the effect of explanatory variables on migration. The most common variables in the macro model are distance, population, income, unemployment, urbanisation, education, and migrant stock.

Distance

The effect of distance upon migration has been emphasised in Ravenstein's Law of Migration since 1880s. However, he made no explicit discussion of the influence of distance (Grigg, 1977:46). Distance was first put into the gravity model of migration by Zipf and was seen as having a negative effect on migration (Zipf, 1946). This effect has been attributed to the fact that distance serves as a proxy for both the transportation and psychic costs of movement, as well as for the availability of information (Greenwood, 1975:398). Distance has been hypothesised to be a surrogate for psychic cost and information. The psychic cost is a result of leaving family and friends which increases with distance while the amount of information decreases with distance. Using data from the 1963 Census of the United States to test these two hypotheses, Schwartz concluded that the adverse effect of distance on migration was actually a diminishing-information effect rather than a psychic cost effect (Schwartz, 1973). Moreover, distance may also serve as a proxy for the differences in language, dialects, dress, food, social customs, and cultural moves (Sahota, 1968:226).

Population

Like distance, population was first included in the gravity model of migration. In this model the population size of both origin and destination locations were assumed to have a positive relationship with migration (Zipf, 1946). The population variables have been included in the modified gravity model as the proxy of flows of information and the labour market. The greater the population at origin, the greater the number of persons who are likely to migrate (Levy and Wadycki, 1973). Migration may be likely to increase from the more populous region because of increased information flow, and the assured presence of friends of similar background in the destination region (Beals, Levy and Moses, 1967:481). Population of the destination region may be a surrogate for the diversity and size of the labour market (Beals, Levy and Moses, 1967:481; Levy and Wadycki, 1973).

Income

The attraction of more jobs and higher wages in towns has been argued to be the main causes of internal migration by Ravenstein (Grigg, 1977:53). The importance of income differentials between origin and destination locations on migration has explicitly been emphasised in the Todaro (1969) and Harris-Todaro models (1976c). These models are based on the assumption that an individual's decision to migrate is a function of the urban-rural real income differential and the probability of obtaining an urban job. The income differential is usually reflected in the wage differential.

Unemployment

The effect of rural unemployment on migration was recognised in the model of development proposed by Sir W. Arthur Lewis (1954). The basic assumption underlying this model is that there exists unemployment and underemployment in the rural sector which facilitates the transfer of labour from rural sector to urban sector. This implies that rural unemployment stimulates the process of rural- urban migration.

Todaro's model represented the most notable attempt to provide a rigorous framework with which to analyse the mechanisms of labour migration and urban unemployment in less developed countries. This model recognised the fact that the existence of a large pool of unemployed and underemployed in the urban sector must certainly affect a prospective migrant's 'probability' of finding a job in the modern sector (Todaro, 1969:138).

According to these two frameworks rural-urban migration is expected to be positively related to the unemployment rates in the rural areas but negatively related to the unemployment rates in urban areas.

Urbanisation

The attraction to the rural workers of towns has been noted by Ravenstein, appearing in one of his statements on the Laws of Migration: "The major direction of migration is

from the rural areas to the towns" (Grigg, 1977:52). The cause of rural to urban migration may be partly attributed to a money economy and superior media information about jobs in the big urban centres. Moreover, the urban centres offer superior educational opportunities, more amenities, wider contacts, and other benefits which may attract dynamic individuals from rural areas. Consequently, we would expect a pull effect of urban centres on the rural workers (Sahota, 1968:225-226).

Education

In the framework of human investment capital hypothesis, direct expenditure on education is considered as an investment in human capital which enhances productivity and, in turn, accounts for the rise in the real earnings per worker (Schultz, 1961:1). As Schultz pointed out, the differentials in earning seem to reflect mainly in health and education (p.4). The educated may be more aware of, and may be more responsive to, the advantage of differential opportunities between their place of residence and alternative locations. The higher educational levels at the destination area act as an indication of a more dynamic, culturally stimulating, etc., thus increasing the attractiveness of the area (Shaw, 1975:75). The educated are more mobile than the less educated because they have greater access to information and a greater incentive to make additional investments in a search for better opportunities (Levy and Wadycki, 1974a:387).

Migrant Stock

Greenwood (1969a:189) provides a good theoretical discussion of the rationale for the inclusion of the migrant stock as an explanatory variable in his migration model to analyse the determinants of labour mobility in the United States. Migrant stock refers to the number of persons born in state *i* and living in state *j* preceding the period in which migration is examined. Migrant stock relates to information flows from destination to origin area and the social transition in the destination area. The larger the number of relatives and friends in the destination area, the more information is likely to be channelled back to the origin area. Moreover, the presence of relatives and friends at the destination location serves to reduce psychic cost and help make the social transition

easier for the recent migrants. Therefore the migrant stock is expected to be positively related to migration.

Conclusion

This chapter has pulled together some of the general theories, theoretical approaches, and operational models which attempt to explain migration behaviour in general and in less developed countries in particular. It is evident that a general theoretical framework within which to consider all essential aspects of migration has not yet been developed. However, the existing theories provide insight into understanding aspects concerning the whos, whys and wheres of the migration process. But the most significant aspect of migration, the consequences on both sending and receiving areas, is the least explored. A more thorough understanding of the short and long-term social and economic impacts of migration on source and destination areas needs to be further researched. Future theoretical and empirical research on migration should begin to focus explicitly on this aspect.

Methodological approaches to analyse the aggregate patterns of movement, in terms of an economic behavioural model, have been modified from the basic gravity model. The gravity model has been extended to included additional variables that are expected to influence the decision to migrate. These variables cover the characteristics of the areas involved in the migration process. Differing from other models, Greenwood's model, derived from the study of migration in the United States, highlighted the importance of the flow of information on opportunities. He hypothesised that the number of migrants from one area to another was dependent on the previous contacts migrants had at the destination they chose. The migrant stock, which refers to the number of persons born in the state of origin and living in the destination state preceding the period in which migration is examined, was built into his model (Greenwood, 1969a). The present study adopted this model to analyse internal migration in Thailand using the 1990 census data and the results are discussed in Chapter 8.

The primary objective of this study is to identify factors which are most important in influencing the decision of migrants from the study villages to move to Bangkok. For this particular purpose, Lee's approach of push-pull factors has been adopted. Lee's theory makes a distinction between place-related macrofactors at the origin and at the destination that influence the decision to migrate. Identification of such factors helps in understanding which forces attract or repel migrants. The migration from the study villages to Bangkok are explained in view of the push-pull factors which are discussed in Chapter 9.

The linkages between rural-urban migration and development in Thailand can be explained in view of the historical-structural approach. Examination of the development process in Thailand in Chapter 4 reveals that this process led to increased social and economic disparities among the country's population and that stimulated the rural-urban migration process. Furthermore, the historical-structural perspective sees migration as having caused negative consequences and as something which needs to be stabilised. Policies which implicitly encourage migration and policies to stabilise migration are discussed in Chapter 6.

CHAPTER 4

MODERNISATION,URBANISATION AND DEVELOPMENT IN THAILAND

Introduction

It has been recognised that migration, urbanisation and development are some of the facets of an on-going complex process of cultural, social, economic and political changes. This process has transformed Thailand within a century from an overwhelmingly agricultural economy to an urban-based industrial economy. An outcome of this process was the persistence of regional/sectoral inequalities and subsequently, the problem of over-urbanisation of Bangkok. Hence, the understanding of this process will link us to the issue of rural-urban migration, the main focus of this research.

The first section of the chapter traces the history of modernisation in Thailand. It reveals that this process initially took place in Bangkok and is reinforced by intellectuals in order to retain the country's independence. The chapter then examines the urbanisation process, resulting from the modernisation policy of the mid-nineteenth century, which led to the emergence of Bangkok as a primate city of Thailand. The dominance of Bangkok in urban hierarchy and the level of urbanisation in Thailand are also discussed. The final section examines development strategies that transform the Thai economy from subsistence, overwhelmingly agricultural economy to an urban-industrial economy. The socio-economic consequences of this transformation are also examined.

The Modern Thai Nation

David E. Apter described modernisation in non-industrial societies as the transposition of certain roles – professional, technical, administrative – and the transposition of institutes supporting these roles – hospitals, schools, universities, bureaucracies (Apter, 1965:42). Following this concept of 'modernisation', it seem clear that Thailand has

experienced a process of modernisation since the nineteenth century. Historically, this process has been closely associated with the western penetration of trade and power. Many researchers, both Thai and non-Thai, appear to focus on the 1850s as a turning point for profound change in Thai society (Jacobs, 1971; Muscat, 1994). London (1980:49) in his study of the relationship between the primate city, Bangkok and its hinterland, divided modern Thai history into three periods. 1850-1892 was marked by relationships with the West and was characterised by 'absolute', yet relatively ineffective monarchical power; 1892-1932 was the period of bureaucratic reforms aimed at the consolidation of central monarchical control over the nation; 1932-1971 saw the ascendancy of the military-civilian bureaucracy over the monarchy. Jacobs's (1971) distinction of the modernisation process in Thailand is consistent with that suggested by London. Jacobs distinguished the modernisation process into three stages. The first stage refers to the Siamese society from the point when the challenge of modern development came to Thailand about 1850 until the great administrative reform of 1892. The second stage ran from 1892 to the revolution of 1932 whilst the third stage ran from 1932 onward. He defined 'modernisation' as the maximisation of the potential of the society within the limits set by the goals, and the fundamental structure (or forms) of the society. He further argued that in Asia modernisation is a continuous process of reacting to the external stimulus from the West which he termed 'the challenge of Westernization' (Jacobs, 1971:9,22-23).

The remarkable transformation of Thailand into the modern era can be traced back to the middle of the nineteenth century during the reign of King Mongkut. When he became King in 1851, Siam was forced to confront the imperialist encroachment in Southeast Asia. He had the reputation of having a powerful intellect. He mastered Latin and English, studied Western history, geography, mathematics, modern sciences and astronomy. With the knowledge of Western development and its effect on surrounding countries, he realised that the entire Orient was confronting a vastly superior administrative and technological order. This convinced him that his country's progress and independence depended on an accommodation with the West. His policy to open the country and extend contact with the West played a major role in enabling Thailand to avoid Western colonisation (Muscat, 1966; Ingram, 1971; Keyes, 1987).

In 1855, King Mongkut concluded the Treaty of Commerce and Friendship with Britain, known as the Bowring Treaty (named after the British envoy Sir John Bowring). This treaty made important concessions to Western trading interests. The Bowring Treaty was followed by similar treaties with other Western countries between 1856 and 1899 (Ingram, 1955:34). These treaties opened Thailand up to foreign trade and integrated it into the world trade economy which led to the profound changes in the internal affairs of the country. The process of integration into an international order dominated by Western powers led to Siam's transformation into a modern nation-state. Keyes (1987:44) pointed out that:

> In these treaties, Siam was forced to surrender a considerable degree of sovereignty. Despite its loss of sovereignty, Siam was able to retain its independence while all other countries of Southeast and South Asia were incorporated into Western-dominated colonial empires. Although Thailand retained political independence from the Western powers, but it became an 'informal British colony ' (Dixon, 1991:81).

During the period when British and French colonialism invaded Southeast Asia, King Mongkut had to devise a strategy to preserve his country's independence. In a letter to Phraya Suriyawonges Vayavadhana Siamese ambassador to Paris in 1867, the King analysed the international pressure on Siam:

> Since we are now being constantly abused by the French because we will not allow ourselves to be placed under their domination like the Cambodians, it is for us to decide what to do; whether to swim up-river to make friends with the crocodile or to swim out to sea and hang on the whale ... It is sufficient for us to keep ourselves within our house and home; it may necessary for us to forgo some of our power and influence (quoted in Moffat, 1961:124).

During the reign of King Mongkut (1851-1868) and his son King Chulalongkorn (1868-1910), 'modernising' was seen by Thai leaders as a means of maintaining independence (London, 1980:68). King Mongkut encouraged the education of a number of the royal family and his nobility so that they might be better equipped to deal with Westerners (Keyes, 1987). A number of Western technicians were employed during his reign (Silcock, 1967). Modernisation projects included the construction of new canals and roads. When he died in 1868 a number of tangible changes had taken place in the modernisation of the country.

King Chulalongkorn was only fifteen years old when his father died and Chaophraya Suriyawong was chosen to serve as regent for him until 1873. It was only in 1873, after his second coronation as King in his own right, he carried out his father's policy of modernising the country and developing relations with foreign powers. He attempted a series of reforms including the reform of the judiciary, financial and political processes and also the abolishment of slavery. These reforms led to resistance from the old order. In late 1874, Prince Wichaichan, the second-ranking member of the royal family planned to seize the throne but was unsuccessful and finally took refuge in the British consulate (Girling, 1981:48, Wyatt, 1984:193; Keyes, 1987:51). The internal crisis was compounded by international political pressure from the French and the British. As Kulick and Wilson (1992:151) described the situation facing Thailand during the arrival of European colonism:

> At the peak of European colonism in the nineteenth century, therefore Thailand was on the defensive on all fronts. British-control Malaya nibbled away at Thai territory in the south, while British commercial interests based in Burma developed a presence in the northern Thai province of Chiang Mai, and the French pressed constantly via Cambodia and Laos.

The King stated that there were three ways to protect the kingdom against internal and external dangers: "Firstly, we can maintain peaceful relations [with foreign powers]; secondly, we can possess sufficient power to defend the peace within our country; and thirdly, we can make our administration as good as theirs" (quoted by Tej Bunnag cited in Girling, 1981:48). Girling concluded that "the Thai elite associated with Chulalongkorn adopted certain practices of colonialism primarily in order to *escape* colonialism" (Girling, 1981:47-48).

Administrative Reforms

British interests in the north of Siam urged the initiation of the new policies toward Chiang Mai and the North to integrate the region into the kingdom. The Siamese royal commissioner was sent to Chiang Mai in 1874. This led to the gradual limitation of the prerogative of the Chiang Mai ruling house and brought their administration under the control of central administration. The commissionerships were later extended to the

South, Northeast and the Lao vassal states of Luang Prabang and Champassak (Wyatt, 1984:194). The major responsibility of some of the commissioners as Bunnag concluded "was plainly the military defence of the kingdom" (cited in London, 1980:69)

It was not until 1892, when King Chulalongkorn appointed Prince Damrong Rajanubhab as the minister of the North to replace Rattanabodin who was ill, that important changes occurred in the administration of the country. The Ministry of the North was changed to become the Ministry of the Interior, the most crucial organ in the new bureaucracy. Prince Damrong, satisfied with his existing position as Director of the Education Department protested at his unexpected appointment to the major ministry in charge of administrative reform. The king stated most explicitly that "the danger 'from foreign countries who were trying to invade Siam' " made it imperative that the nation's most reliable men fill its most responsible posts:

> If we were not careful and did not arrange the country's affairs very well ... it might be very harmful to the country. We might even lose our independence. If this happened how could the Ministry of Education go on working? The administration in the country was much more important at this time and the Ministry of the Interior had to be responsible for this much more than any other ministries because all the provinces were in the control of the Ministry of the Interior (Riggs, 1966:119 quoted in London, 1980:71-72)

Between 1892 and 1899, The Ministry of Interior under Prince Damrong's leadership had laid the foundation for the establishment of the new system of provincial administration (*thesaphiban*) which was completed by 1915 (London, 1980). Under the new system, the country was divided into fourteen circles or *monthons* in which each was divided into provinces (*changwads*), districts (*amphurs*), communes (*tambons*) and villages (Thompson, 1967:47) Circles were subsequently abolished, but the remainder of the system still functions (Blanchard, 1958:152). All these administrations became the sole responsibility of the Ministry of the Interior (London, 1980:73). The provincial reforms involved a total restructuring of the bureaucracy in Siam and established the authority of a centralised bureaucracy throughout the country (Keyes, 1987). The new system brought the provinces under the centralised administrative control by replacing local provincial elites with centrally appointed officials.

Modern Education

Traditionally, education in Thailand was based at the temple (*wat*). It is a Buddhist tradition that young men should at some time serve in the temples either as a novice or as a temple boy. During this period they learn to read and write Thai. Modern education in Thailand was initiated by King Mongkut whose view advocated Westernisation as a way for Thailand to avoid colonisation. English tutors were appointed for the royal children and some officials and royal princes were sent abroad to further their studies (Moore, 1974:244).

In 1871 King Chulalongkorn founded the first institution to offer modern education. He established a school in the palace for the children of nobility. The school provided basic education as well as English language for the future civil servants of the country. As a result, Prince Devawongse, the first Siamese Foreign Minister was a fluent speaker of European language (Thompson, 1967:39; Darling and Darling, 1971:41). The King also encouraged the establishment of private schools by Thai and foreign missionaries.

Schooling came to be the responsibility of the central government under the Department of Education in 1887. Prince Damrong, as the Director of the Department of Education, developed the national primary education system with the aid of foreign advisers (Blanchard, 1958:445). The King's great interest in extending education to the common people was reflected in his decree that every temple in the kingdom should offer instruction to all children living nearby (Darling and Darling, 1971:41-42).
The standardised syllabi and text books developed by the Ministry of Public Instruction in Bangkok (later called the Ministry of Education) were used in the new schools. These schools were also to offer the modern Western style subjects. Subsequently, village youths who attended such schools in their local monasteries were gradually integrated into a unified Siam society (Wyatt, 1984:217).

Even though the need for educated Thai (capable of ruling Thailand sufficiently well to prevent the West from taking over) had a profound impact on general education policy, the modern education program was only slowly implemented. This may be attributable

to the inadequate finances for education. As Wyatt analysed the budget priorities at the turn of the century:

> ... it was the active arms of government that enjoyed budgetary preference – the military, the two administrative ministries (Interior and Capital or Local Government), and the Ministry of Finance. Of the remaining ministries, those concerned with economic development fared considerably better than the social services, though only railway construction competed successfully with the other ministries for funds. Education and public health ... fared the worst ... they stood at the bottom of the annual budget list (Wyatt, 1969:320).

During the period of reforms in King Chulalongkorn's reign the maintenance of sovereignty received the most priority. In 1892 he emphasised "the nation's survival was at stake and that the task of setting the provincial administration in order was more important at the moment than education" (London, 1980:79). The amounts allocated for education were incredibly small. Between 1892 and 1899 it was only 2.25 percent of the national budget and this only slightly increased to 2.5 percent during the period of 1899 and 1901 (London, 1980:80; Thompson, 1967:771). During the same period defence expenditure consistently exceeded those for education. They averaged 25 percent of the national expenditure (Ingram, 1971:192). Even though the successive government viewed education as the prerequisite to economic and political development which was the main concern of the country, the budget allocation for education was still relatively small. This pattern appears to have continued through the following decade. In 1924-1925, while military expenditure was 23 percent of the total budget, education expenditure was only slightly more than 3 percent (Wyatt, 1984:233). Only since the 1970s, has public spending on education risen to 16-20 percent of total government expenditure (Warr, 1993:343).

Although the development of state schools was hindered by inadequate finances, the number gradually grew and by 1921 there were 4,000 schools in the country (Moore, 1974:245). In 1921, a decree making primary education compulsory for all children was issued. Everyone between the ages of 7 and 14 years was required to attend at least four

years of elementary education in the free government school (Darling and Darling, 1971:42). During the late 1920s, and especially during the 1930s, state schools were established throughout Thailand (Keyes, 1987).

However, the education policy at the turn of the century clearly favoured the elite in Bangkok and other provincial urban places, while neglecting the average people in the provinces in general, and rural population of any given province. When Education Directors were appointed priority was given to the most central and accessible monthons. By 1900, Udon in the Northeast, Phayap (Chiang Mai) in the North and the Malay provinces of the South were still without an Education Director. During 1910-1911, the Department of Education spent 60.2 percent of the total expenditures in Bangkok and only 19.2 percent in the provinces (London, 1980:81). After the promulgation of a decree of the reorganisation of provincial education in late 1898, the demands for schools outside Bangkok increased sharply. Nonetheless, the formally-stated goals of the education programme of 1902 reflected the following official view in favour of Bangkok rather than the provinces:

> The present problem . . . was to provide sufficient schools, qualified teachers, and textbooks to meet an established demand for modern education, particularly in **the area around the capital**. . . to provide the capital with adequate numbers of post-primary schools to produce the generally and specifically qualified young men **required by a government** and society in the process of modernization (London, 1980:80 emphasis in original).

This trend towards favouring Bangkok has continued until the present day. The benefits of education have not been equally distributed. Regional disparities in education can be seen at all levels. Except for schools run by provincial authorities, a disproportionate number of schools are situated in towns and cities, particularly Bangkok. Statistics from the Ministry of Education show that in 1986 of 2,923 private secondary schools 1,046 were located in Bangkok and 427 of the 894 municipal schools were in Bangkok, with enrolment almost identical to the total enrolment for the rest of the country (Khoman, 1993:337). At present, for example, only 8 of the 20 state universities, are located outside Bangkok (Office of the Prime Minister and Ministry of Foreign Affairs, 1994). The standard of education in the provinces is well below that in Bangkok and only a

relatively few of the more specialised schools are located outside the capital (Sternstein, 1976:117). An analysis of candidates sitting for the university entrance examination in 1983 indicated that of the total number of successful candidates 46 percent were Bangkok residents (Khoman, 1993:333).

Agriculture

After the Bowring Treaty the government expressed the goal of expanding the cultivation and export of rice. Increasing rice exports meant that the state would receive more revenue. King Mongkut expressed his desire to expand the cultivation of rice in order to prevent the price from rising high enough to harm the nonfarm group. He said that "Although export of rice from the country has been encouraged, with the benefit of high price going to the peasants and merchants, ... people ... who are not occupied in rice cultivation suffer greatly from the high and rising price"(quoted in Ingram, 1971:76). The expansion of rice cultivation was induced by the government by allowing the rice farmers to pay no tax for the first year of its cultivation when rice land was cleared from the jungle. This tax incentive was made even greater in 1874/1875 by King Chulalongkorn. The Government charged no tax on new lands for the first three years of cultivation (Ingram, 1971:76-77). Although the government encouraged rice production in order to increase state revenue and keep the price down for the benefit of consumers who did not grow their own rice, the Thai government had done little for the development of agriculture. Ingram noted that:

> It did little or nothing to improve the methods of cultivation and seed selection; it did nothing to improve the marketing structure or to standardize the quality of the grades of rice; it did not study soils and crops; nor did it effectively perform the function of *informing* the farmers about prices and marketing alternatives. Much more could have been accomplished in all these things, and without very large expenditures, too (1971:86-87).

Despite the fact that rice remained the country's major export for over a century after 1855, the government did very little to encourage improvement in rice production or to promote agricultural diversification. It was not until 1957, when the new Friendship

Highway connecting the Northeast with the Central Plain and Bangkok was opened, that a boom in maize and kenaf production for export took place (Muscat, 1994:120).

Irrigation

It was not until the reign of King Chulalongkorn, when rice became the major export, that the importance of water ways both for communication and irrigation was actively recognised. The development of rice exports from the Central Plain made the government aware of the deficiencies of water ways and irrigation of the region (Thompson, 1967:514).

On the whole, irrigation and transportation facilities were extremely inadequate in Thailand in 1890. Robert Gordon compared the situation in Thailand and Burma and found that the export of rice had increased only one-third to one-half as much as Burma during the period between 1860-90. He concluded that this was due to unequal provision of public works irrigation and reclamation of land. While in Burma large sums were spent on such projects, in Thailand "trade has developed by the unassisted resources of the country" (cited in Ingram, 1971:80).

The first large scale irrigation project in Thailand was undertaken by a private company called the Siam Canals Land and Irrigation Company. The company obtained a concession in 1892 to dig canals in a vast tract of flat and swampy land northeast of Bangkok. This project known as the Rangsit system originally was intended to cover the whole Central Plain, but in a few years the system proved to be unscientific (Thompson, 1967:516). J. H. Van der Heide, a Dutch irrigation expert, was hired in 1902 to draw up an irrigation plan for the country. Though his full scheme proposed to the government also include projects in the North and elsewhere, the main focus was on projects in the Central Plain (the construction of a barrage across the Chao Phraya river at Chainat). The overall scheme was rejected and was postponed indefinitely by the government in 1909. When Van der Heide's first scheme came before the government in 1903, the government revenue was just enough to cover ordinary expenditures and the cost of railway construction. A new Financial Adviser, W. J. Williamson, urged the reduction

of expenditure to avoid 'financial embarrassment'. His opposition against expenditure on irrigation was clearly reflected in his writing:

> It is, in my opinion, impossible to think of embarking ... upon the gigantic Irrigation project lately submitted by the Ministry of Agriculture: I do not think that project can be thought of for very many years to come. It will be as much as we can do to go on cleaning out some of the old Canals every year and that can very well be done with the supervision of a single European Engineer. Before we can think of a great Irrigation scheme we must provide funds for the strategic Railways which are essential if the outlying Provinces are to be properly governed. Those Railways must be constructed out of borrowed capital and *I am altogether averse to borrowing money for Irrigation* at present in addition to money for Railway Construction. Such a course would be rash in the extreme (quoted in Ingram, 1971:197 italics in original).

London claimed that the neglect of agricultural development was a particularly short-sighted development policy in a country like Thailand which depended heavily on rice . As he wrote:

> The fact is that government policy prior to the turn of the century reveals a remarkable and pragmatic consistency. There seems to have been a willingness to make **direct** capital expenditures only on those "development" projects which served political ends. If a situation happened to arise in which the nation's independence could be served, and "progress" made or a profit turned at the same time(e.g., railroad construction), so much the better. Conversely, programs such as irrigation, even though they are clearly in the best interests of national economic development, are neglected because they do not produce immediate political benefits (London, 1980:79 emphasis in original).

This is also argued by Thompson as she wrote that "The government did not seem to realize that in Siam agriculture should be the main concern of the State" (Thompson, 1967:376).

After experiencing hard times from the consecutive three years of drought between 1910-1912, the government brought Sir Thomas Ward, a British irrigation expert, to draw up a plan. One of his five projects known as the South Prasak Canal Project was completed in 1922. After 1930, additional irrigation works were constructed, mostly in the Central Plain. In 1948, the government at last undertook the great Chainat Project with a loan from the International Bank for Reconstruction and Development.

According to estimates made for the Economic Commission for Asia and the Far East, there was 40,000,000 rai of potential irrigable area of which 2,750,000 rai was irrigated in 1938 and 4,050,000 rai in 1950 (Ingram, 1971:84-85).[1] As can be seen from Table 4.1 that government irrigation projects were focused more in the Central Plain than in the rest of the country. In 1987, the irrigated area in Central Plain alone accounted for more than half of the total irrigated area in the country. While the Northeast has more than 40 percent of total agricultural land, only 7 percent was under irrigation.

Table 4.1: Irrigated and Agricultural Land (million rai) in 1987

Region	Agricultural land	Irrigated land	% Irrigated/Agricultural
North	29.17	5.52	18.9
Northeast	55.36	3.88	7.0
Central	28.99	13.12	45.3
South	15.08	2.45	16.2
Whole country	128.60	24.97	19.4

Source: Panturat, 1991

Transportation

The construction of the railway system in Thailand was a political rather than an economic decision. The Bangkok-Ayutthaya-Korat railway was constructed against the backdrop of French advance into Lao and the Ayutthaya-Chiang Mai railway as a response to British movements in Burma. However, they had important economic effects. They brought the economies of the North and the Northeast frontier into closer relationship with the core area of the Central Plains (Dwyer, 1990:41). King Chulalongkorn himself placed the two intertwined factors of politics and economics in perspective during a speech at the opening of a section of the railway in 1907:

[1] 1 rai = 0.16 hectare

> The construction of railways has not only the greatest influence upon the development of a country but is also the most striking evidence of that development ... the railway renders possible that close and beneficial supervision which is necessary to elective administration. By furnishing repaid and easy means of transportation, it adds materially to the value of the land and its products ... The railways wherever it goes carries with it enlightenment and encourages the growth of that national feeling which is so important an element in the welfare of a country (quoted in Sternstein, 1976 :130-131).

The first state railway line was to be from Bangkok to Khorat in the Northeast region and was completed in 1900. The construction of this railway was seen as a big step in the country's commercial progress (Thompson, 1967:498-499). It served to encourage the expansion of rice cultivation and also facilitated the import of foreign goods in the region. Before 1905, when the railway network began to tap the hinterland, almost all increase in rice production for export came from the Central Plain. The completion of the railway to Khorat in 1900 and the extension in the 1920's facilitated the export of rice from the Northeast. The export of rice from this region increased rapidly. From 200,000 piculs in 1905, it rose to 1,700,000 piculs in 1925 and reached about 4,6000,000 piculs in 1935 which accounted for nearly 20 percent of the total export (Ingram, 1971:47).[2] By 1940, the railway lines reached Chiang Mai in the North, the Malayan border in the South, and Ubon and Udorn in the Northeast. By this time 3,130 kilometres had been built (Ingram, 1971:85-86). Thompson pointed out the physical and psychological benefits of Siam's railway system:

> It has united with a 2,000 mile network the four major and heretofore isolated regions of a country about the size of France. It has brought Bangkok nearer to Europe and within forty-eight hours of the three major ports of neighboring countries ... Moreover, the Siamese have greatly increased their self-confidence and their prestige in the eyes of the world by proving themselves capable of running efficiently so highly technical a service (Thompson, 1967:505-506).

Penetration of the Cash Economy

The expansion of international trade since the nineteenth century led to an increasing number of Siamese peasants in the commercial economy (Keyes, 1987:45).

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[2] 1 picul = 60 kg

Opportunities to earn cash income through the production of crops for export encouraged them to increase their production (Tonguthai, 1987:187). Ingram concluded that the great increase in the area planted in rice was responsive to the external demand for rice and the attraction of foreign goods (Ingram, 1971;42). Until the middle of the nineteenth century, most of the internal trade of Siam was probably carried on through barter entirely within the villages. The growth of export after the nineteenth century accelerated the change from a primarily barter economy to a money economy and created an increase in demand for imports. The process of this change was facilitated through the middleman functions which were performed by the Chinese. They carried goods into the regions accessible by water transportation and to a lesser extent, even into the remote interior villages, exchanging them there for money or for the produce of the people (Ingram, 1971:19, 37). A first-hand observer in Thailand in 1855 described the characteristics of the Chinese middleman:

> The greater activity of the Chinese and their roving and adventurous spirit have made them the principal channels of trading operations in all parts of the country. There are no districts too remote to be explored by them, no object of traffic too small to escape their notice. They are awake to everything which is to leave lucre in their hands; they are masters of the art of exploring and exploiting ... There is no class of settlers who ... are so likely to be useful ... The very quality, the passion for acquiring wealth, which leads them to dare all danger and difficulty, is a most valuable recommendation (Blanchad, 1958:338).

By 1850 Chinese had gained almost complete control of the internal trade of Siam (Ingram, 1971).

Siam's integration into the global economy steadily transformed life in even the most remote villages. The bureaucratic polity, like the market, intruded to a marked degree into the lives of the people in Thailand. Villagers spent more time in increasing their production for exchange and spent less time in production for their own use. Instead they began to buy clothes and other western goods in the market (Keyes, 1987:46).

Emergence of Bangkok Primacy

According to Lo and Salih, the process of urbanisation in its broadest sense is one of structural transformation from agrarian society to an industrial-based urban society. This transformation encompasses economic as well as spatial structures (Lo and Salih, 1987:38). Mitchell refers to urbanisation as being the process of becoming urban, moving to cities, changing from agriculture to other pursuits common to cities, and corresponding changing behaviour patterns (cited in Breese, 1966:3).

Many writers on urbanisation in Third World cities have argued that the view in Western sociological theory that the city is an inducer of change may not be applicable to the Third World city. McGee has asserted that although the form of the urbanisation process in the Third World may appear to be the same as for the West, the different mix of the components of the urbanisation process in the Third World suggests that a framework which regards the city as the prime catalyst of change must be discarded: "Rather, the city must be seen as a symptom of process operating at a societal level." (McGee, 1971:31)

Arguing that urbanisation is a dynamic process that is irrevocably intertwined with other aspects of economic, social, and political development, Smith and Nemeth noted that:

> The penetration of the world economy into peripheral areas leads to a development dynamic which gives rise to a few relatively large cities which act as trade centres in the web of colonial or neo-colonial exploitation. The result is a process of urbanization which leads to urban primacy, regional inequalities, centralization of political and economic power within cities and intra-urban ecological segregation and inequality (1990:10-11)

Ayal (1992:358) in his article titled 'Thailand development: The role of Bangkok' concluded: "The history of urbanisation in Thailand is almost exclusively the history of the growth of Bangkok which, in turn, is inseparable from the economic growth of the country." Urbanisation which has emerged in Bangkok is mainly a consequence of the modernisation policy implemented since the middle of the nineteenth century. A recently published book in Thai, 'Thailand - Is it Bangkok?', is an excellent example of

the concern in Thailand about the role played by its capital city (Faculty of Economics Thammasart University, 1983). Ayal agreed that because Bangkok is clearly the nerve centre of the country and could answer in the affirmative (Ayal, 1992:360-361). Another response to the same question posed in the title of the book was: " While it is certainly an exaggeration to say that "Bangkok is Thailand", it is clearly the case, that without Bangkok, Thailand would not exist" (ESCAP, 1982:21).

Although the prime reason for establishing Bangkok as the capital city was apparently motivated by military considerations, it had important economic consequences. Its position at the head of the Gulf of Siam facilitated commerce and international communication (Warr, 1993:9). Situated at the mouth of the main artery, the Chao Phraya River, Bangkok plays the major role in the process of interaction with its hinterland where the transportation system was base mainly on the inland water ways (Donner, 1978:763). This was reflected clearly in missionaries' view of Bangkok written in "Siam: Letter from Mr Caswell" in 1841:

> It may well be doubted whether there is another country in the world, of equal magnitude with this, every part of which can be easily and effectively reached by a missionary stationed at one point. The great importance of systematic preaching and distribution of tracts among the boats visiting Bangkok has also been forced upon our attention ... Multitudes from beyond the limits of Bangkok are there reached. Still there can be no doubt but the distant provinces may more efficiently be reached by a systematic visitation of the boats coming from those provinces (quoted in Sternstein, 1984:49).

Bangkok has long been the major trading centre of the kingdom. After the Bowring Treaty the most radical transformations took place in Bangkok. New canals and roads were built to improve the city's infrastructure. The new firms and expanding government agencies created a demand for a considerable labour force. These new jobs were filled almost entirely by Chinese migrants. Only a few Thai peasants were motivated to move from the countryside to Bangkok. Chinese immigration increased rapidly after the Bowring Treaty. By the 1870s, the population of Bangkok had become overwhelmingly Chinese (Keyes, 1987).

According to Sternstein (1984:43) Bangkok held a population of some fifty thousand when it was named the capital city of Siam in 1782. It was reported to have reached 400,000 in 1854 and 600,000 in 1900. The rate of population growth in Bangkok began to outpace that of the country as a whole in the mid-nineteenth century and it seems that this was attributed to the in-migration to the city. This accelerated increase in population of Bangkok was the result of the desire of the Bangkok leadership to commercialise and westernise the Kingdom in order to guard Thailand against the taking over by European power (Sternstein, 1984). After the turn of this century, the population of Bangkok appeared to grow more quickly than the rest of the country. This was primarily due to in-migration and an inrush of Chinese immigrants and large-scale Thai migration from the rice fields, beginning during World War II (Caldwell, 1967:45).

Since the 1930s, the rate of population growth of Bangkok has increased at about twice the rate of the population growth of the country. During the 1930s, 1940s and 1950s, natural increase was the major cause of the striking acceleration in the rate of population growth in Bangkok. This was the result of the introduction by the Bangkok elites of modern medicine and the consequent reduction in mortality rates (Sternstein, 1984:64-65).

The dominance of one or a few cities over the rest of the urban system in a country is a common pattern of urbanisation in Third World (Gugler, 1988:9). In Southeast Asia the tendency for the urban hierarchy is to be dominated by one great metropolis, the so-called 'primate city' (McGee, 1971:97-98). Thailand is perhaps the best and most extreme example of this phenomenon. It represents the largest population size gap between Bangkok and the next largest city (Ginsberg, 1965:332). When Mark Jefferson coined the term 'Primate City' in 1939 he wrote:

> ... it stands out alone in a different order of magnitude and significance from those of all other cities in its country ... The finest wares are always to be found there, the rarest articles, the greatest talents, the most skilled workers in every science and art. Thither flows an unending stream of the young and ambitious in search of fame and fortune, and there fame and fortune are found. [It] is the kingdom's market for all that is superlative in intellectual and material productions. Its supereminence as a market runs parallel to its supereminence in size. It is the primate city (quoted in Silcock, 1967:45).

He raised the most extreme example, Austria, with a population ratio between the first, second, and third towns of 100: 8: 6. But in 1960, the primacy in Thailand was more pronounced with the relationship in size between the populations of Bangkok, Chiang Mai, and Khorat was 100: 4: 2, and the situation can be resembled with Jefferson's description of primate city (Caldwell, 1967:45-46).

The primacy of Bangkok has long been recognised. In the absence of statistics, we can only rely on the estimation of the eyewitnesses who were staying in the city during that time. As one missionary in Bangkok has estimated the population of the city in 1841 and implicitly reflected its primacy:

> The population of this city is large, probably several hundred of thousands of souls. People from all parts of the country constantly visit this city, which is at once the seat of government, of religion, of foreign commerce, in short of nearly all public life in the kingdom. Bangkok is more to Siam than Paris to France (quoted in Sternstein, 1984:49).

This statement was supported by Thompson in her observation made in 1967, as she wrote "With the exception of London, there is no other capital in the world with a larger population in proportion to that of the whole country than Bangkok, and with the exception of Paris, no other capital has the same psychological hold over the people."

The overall level of urbanisation in Thailand is considered relatively low by world standards. In 1980, it was 17 percent while the average level of urbanisation for the world was approximately 40 percent (Cho and Bauer, 1987:15). But it should be noted that the comparative analysis of level of urbanisation may be somewhat difficult due to the lack of a uniform definition of an urban area across the country. In Thailand, there is no official urban or rural definition. Generally, the level of urbanisation is based on the proportion of population residing in 'municipal areas'. At the time of the establishment of the Municipalities Act (1953) there were 116 municipalities, this increased to 120 and 133 in 1980 and 1990 respectively. This small change in the number of municipalities indicated that the criteria for designating municipal areas have not been strictly monitored. Many places which have developed urban characteristics are designated as sanitary districts. Including urban sanitary districts that contained 5,000 or more population in the urban definition, results in considerable increase in the level of

urbanisation. When consideration is restricted to municipal areas as urban, the level of urbanisation is 17 and 18.7 percent in 1980 and 1990 respectively. The census data shown in Table 4.2 indicates that if the urban sanitary districts are included in the urban definition, the level of urbanisation increases from 17 to 23.6 percent in 1980 and 18.7 to 27.1 percent in 1990. This also results in a decline in the proportion of Bangkok's population to the total urban population from 61.5 to 44.3 in 1980 and 57.6 to 39.7 percent in 1990. Although this percentage is reduced considerably, the dominance of Bangkok remains regardless of the definition employed.

Table 4.2: Percentage Distribution of Population by Status of Area of Residence: 1980,1990

Area	1980		1990	
	Number	percent	Number	percent
Total Population	44,824,540	100	54,548,530	100
Municipal Area	7,632,916	17.0	10,215,098	18.7
Urban Sanitary District	2,962,364	6.6	4,583,805	8.4
Rural Sanitary District	1,228,796	2.7	1,250,510	2.3
Other	33,000,460	73.6	38,499,117	70.6

Source: Pejaranonda et al., 1995 (table 4)

While urbanisation has proceeded slowly, there is some indication that the process is gaining speed. The average annual rate of urban growth is considerably high, between 1960-1970 it was 3.4 percent whereas the rural population grew by only 2.6 percent. Between 1970-1980 the rural annual growth rate slightly declined to 2.1 percent while the urban growth rate rose to 5.3 percent. The tempo of urbanisation (defined as the difference between the urban and rural growth rate) between these two periods increased more than five times from 0.6 to 3.2 percent (ESCAP, 1982:24). But it should be noted that the urban population in Bangkok grew much faster than the rest of the country. This again reveals the strong influence of Bangkok on urbanisation in the country.

An interesting feature of urban population growth during the past few decades is the increasing concentration of urban residents in large urban centres. As shown in Table 4.3 the proportion of urban population living in Bangkok increased from 54.8 percent in 1970 to 61.5 percent in 1980 and slightly declined to 57.5 percent in 1990. The proportion of urban population living in the ten largest cities also increased from 65.1 percent in 1970 to 71.2 percent in 1980 and slightly dropped to 69.6 percent in 1990.

Table 4.3: Summary Measures of Urbanisation

	1960	1970	1980	1990
Percentage urban	12.5	13.2	17.0	18.7
Percentage of urban population in Bangkok	52.0	54.8	61.5	57.5
Percentage of urban population in ten largest cities	62.5	65.1	71.2	69.6

Sources: 1960-1980 from ESCAP, 1988a (table 16)
1990 from Pejaranonda et al., 1995 (table 3,4)

However, as shown in Table 4.3 during 1980-1990, the primacy of Bangkok is declining, the dominance of Bangkok in the urban hierarchy remains, as is shown in Table 4.4 in 1990 its population was 26 times of Nonthaburi the second largest urban centre.

The data in Table 4.4 provides some information on the recent growth of the ten largest municipal areas. It suggests that while the Bangkok growth rate is declining there is dynamic urban growth in other regions of Thailand. For example, Khon Kaen in the Northeast appears to have experienced rapid urban growth with the rate of 11.3 percent during 1970-1980. At the same period, Phitsanulok in the North and Songkhla in the South also experienced a rapid growth of 9 and 5.1 percent respectively. Between 1980-1990, the annual growth rate of Bangkok was 2.3 percent, falling from 6.5 percent of the previous decade. Although the growth rate of Bangkok was lower than that of the other

provincial centres, its base population was very much larger. With the annual growth rate of 2.3 percent, Bangkok's population increased up to almost 1.2 million during 1980-1990 which is more than 5 times that of the urban population in Nonthaburi, the second largest urban centre.

Table 4.4: Population and Growth Rates of the Ten Largest Municipal Areas

1980			1990		
City	Population	Growth rate	City	Population	Growth rate
Bangkok	4,697,071	6.5	Bangkok	5,882,411	2.3
Chiang Mai	101,594	2.0	Nonthaburi	223,024	21.3
Nakhon Sawan	93,935	7.2	Nakhon Ratchasima	208,133	10.3
Hat Yai	93,519	6.9	Chiang Mai	166,883	5.1
Khon Kaen	85,863	11.3	Hat Yai	142,592	4.3
Phitsanulok	79,942	9.0	Khon Kaen	126,059	3.9
Nakhon Ratchasima	78,246	1.7	Nakhon Sawan	103,648	1.0
Udon Thani	71,142	2.4	Ubon Ratchathani	95,002	6.5
Songkhla	67,945	5.1	Songkhla	85,806	2.4
Nakhon Sri Thamarat	63,162	4.5	Nakhon Sri Thamarat	74,611	1.7

Source: Pejaranonda et al., 1995 (table 3)

However, it should be noted that in some case the rapid urban growth was the result of readjustment of urban boundaries. For example, Nonthaburi grew at an annual rate of 21.3 percent as a result of an increase of the urban area from 3 square kilometres in 1980 to 38.9 square kilometres in 1990. During the same period, Nakhon Ratchasima, Ubon Ratchathani, and Khon Kaen in the Northeast also experienced high urban growth rate (Pejaranonda et al., 1995).

Development Strategies and the Thai Economy

From the mid nineteenth century to the 1950s, Thailand's trade was mainly to support primary commodities for the world market. After 1850, rice and tin became the dominant exports. Teak became important in the latter part of the nineteenth century, while rubber has become a major export only in the mid-twentieth century. These four commodities had exports for several decades which consistently accounted for 80-90 percent of total exports (Ingram, 1971:93).

In his study of the Thai economy between 1850 and 1950, Ingram (1971) claimed that Thailand's economic development remained virtually static, only the quantitative change in the traditional line of production occurred but not in terms of technological and economic change. He used the term 'economic development' to mean an increase in the use of capital and land relative to labour, and/or improvement in the technique of production and pointed out that most changes in the economy as a whole were in volume rather than in kind.

Defining "economic development" as the process of a decreasing proportion of the agricultural sector in the total labour population, an increasing share of the manufacturing sector in the total value added (GDP), and increasing per capita income, Suehiro Akira came a similar conclusion as made by Ingram that Thailand had not achieved any notable "economic development" before the 1960s (Akira, 1989:1-2).

The expansion of international trade after the Bowring Treaty led to major developments in commerce and agriculture rather than industry. However, the development of these sectors did have some impact on the development of complementary industries including rice mills, the sugar and canning industry. Prior to 1932 the state took a largely laissez- faire position towards business and industry development. The economic system during this period was dominated by the aristocrats of the absolute monarchy and Western and Chinese merchants (Hewison, 1989:120).

Before 1932, there had been increasing concern about the lack of domestic industrial development and the dominance of alien Chinese and Westerners in the economy of the country. During 1947-57, the government under Phibun power, had implemented a form of state-led capitalist development in which the interests of Chinese and foreign capital were secondary to those of Thai nationals. During this time the Chinese population was heavily discriminated against (Dixon, 1991:172). Anti-Chinese policies were promulgated in an effort to force Chinese to become "Thai". The government had emphasised industrialisation as a means to "civilise" Thai society (Hewison, 1989:56). As Muscat has said, " the real driving force behind the government's industrial program was the desire to prevent the Chinese community in Thailand from dominating industry" (Muscat, 1966:193). It was only in 1958, when General Sarit took full power, that new investment promotion and infrastructural development policies were implemented along with the active encouragement of foreign aid and investment. In early 1959 he stated:

> The national economy is beset with difficulties, it is, therefore, time that something was done to save the beloved country from this plight and to lead it on the path of welfare and prosperity ... [T]he Revolutionary Party ... cannot brook anything lying athwart the path of progress. All obstacles ... have, therefore, to be swept away (quoted in Hewison, 1989:39).

The economic development policy during this period was influenced by the World Bank advisory mission report. The suggestions in this report included an increase in manufacturing activity through private initiative, investment in the public infrastructure required for economic development, encouraging import substitution industrialisation (ISI) and implementing rational development planning (Hewison, 1989; Warr, 1993). Thus the policy of promoting state industrial enterprises was replaced by support for private initiatives.

According to the recommendations of the World Bank report, the government introduced for the first time economic planning into Thailand. The National Economic Development Board (NEDB) (now as NESDB National Economic and Social Development Board) was established in 1959 as an organisation exclusively responsible for making and carrying out the plan. In 1961, the First National Economic Development Plan (1961-1966) was introduced. The government also adopted

investment incentive policies in order to attract domestic and foreign private capital. The Board of Investment (BOI) was established in 1959 and the Industrial Investment Promotion Act B.E. 2503 (1960) was enacted to empower the BOI to conduct overall industrial promotion (Akira, 1989).

The logic of the import substitution industry remained predominant throughout the 1960s with the strong support by the BOI, NEDB, the Ministry of Industry, the Bank of Thailand and local manufacturers. During the First Plan (1961-1966) and Second Plan (1967-1971), the majority of capital invested with government promotion privileges in the 1960s went into ISI areas (Hewison, 1987:56).

In the Third Plan (1972-1976) the policies of supporting import substitution industries had begun to change towards promoting export-oriented industrialisation (EOI). The policies to promote exports continued to be emphasised in the Fourth Plan (1977-1981), Fifth Plan (1982-1986), Sixth Plan (1987-1991) and Seventh Plan (1992-1996) (Suphachalasai, 1995:71).

The industrial sector began to experience real growth after the First Plan. The manufacturing sector in particular has seen remarkable growth since 1961, with the expansion of just one percent of total exports to 28 percent in 1980 and up to 78 percent in 1990 (Falkus, 1995:20). From the mid-nineteenth century to the 1960s Thailand trading was mainly dependant on the export of primary commodities for the world market. Prior to World War II Britain and its colonial empire had been Thailand's major trading partner. In the 1950s, the Americans became Thailand's major trading partner, soon after to be replaced by the Japanese. In the early stage of development agriculture played an important role in the country's economic growth with a high contribution to GDP and as an earner of foreign exchange. Table 4.5 reveals that for a long time the share of agricultural exports to total exports was higher than the share of agricultural GDP to total GDP. This confirms the relative importance of agriculture in export earnings.

Table 4.5: The Role of Agriculture in GDP and Exports

	% share GDP [a]		% share Exports [b]	
	Agriculture	Manufacturing	Agriculture	Manufacturing
1960	39.8	12.5	90	1
1970	28.3	16.0	69	15
1980	23.2	19.6	47	32
1990	12.4	26.1	34	63

Source: [a] Krongkaew, 1995 (table 2.1)

[b] Muscat, 1993 (table A4)

In 1960, the agricultural share in the total GDP was 39.8 percent but contributed to as high as 90 percent of total exports. As the country began to industrialise, the proportion of agricultural export declined. It fell from 69 in 1970 to 47 in 1980 and finally 34 percent in 1990.

During the 1960s and 1970s agricultural products were the largest component of exports but starting from 1985 the share of manufactured exports began to overtake that of agriculture exports. This export turning point further qualified Thailand as an emerging NIC (Krongkaew, 1996:299-300).

The importance of the agricultural sector has gradually declined over the last three decades. The share of agriculture in the total GDP in 1960 was estimated at about 39.8 percent. This share was continuously reduced to 28.3 percent in 1970, 23.2 percent in 1980 and finally to about 12.4 percent in 1990. Over the same period, the share of manufacturing increased from 12.5 in 1960 to 26.1 percent in 1990.

It should be noted that the economic transformation from agriculture to manufacturing occurred only in terms of value-added, but not much in terms of employment. The proportion of population employed in the agricultural sector was still very high at 66.5 percent in 1990. This represents only a small decline in percentage share from 82.4

percent in 1960. While the manufacturing and service sectors shared the employment of 8.7 percent and 22.3 percent in 1990. Despite the share of the agricultural sector in GDP continued to decline the share of agricultural workers in total employment remains high and has been growing at a much slower pace than the share in value added. In 1990 the share of agriculture employment accounted for 66.5 percent, while the sector at the same time produced only 12.4 percent of GDP. Whereas the manufacturing sector with only 8.7 percent share of employment produced up to 26.1 percent of GDP (Krongkaew, 1995:35).

This imbalance in agricultural production and employment indicates that the value added per head is much lower in agriculture than in manufacturing and the disparity seems to be widening. In 1975/76 the mean per capita income of non-agricultural households was 2.1 times that of agricultural households. In 1980/1981 the ratio rose to 2.3 times and to 2.7 in 1985/1986 (Table 4.6). Thus, between this period the trend of a worsening income disparity between agricultural and non-agricultural households is clear. Moreover, in 1985/86 an average per capita income in Bangkok was 2.5 times the national average, having risen from 1.9 and 2.2 in 1975/76 and 1980/81. In contrasting in the Northeast, the lowest average per capita income region, it was only 71 percent of the national average in 1975/76 and gradually declined to 65 percent in 1980/81 and finally dropping to 58 percent in 1985/86.

As Krongkaew (1995) pointed out that the total household income has grown as the country has developed. The average of total household income of Thai households increased from 8,232 baht in 1962-3 to 51,575 baht in 1988 which is more than 6 times increase over 25 years. In 1988, the total household income in Bangkok was 99,186 baht which was almost double the country average and 2.8 times that of the Northeast (Krongkaew, 1995:50-51).

Import-substitution industries relied heavily on imported materials and capital equipment. As a result, the plants tend to locate in Bangkok, the place of the source of supply (Suphachalasai, 1955:66). Import substitution industrialisation (ISI) and export oriented industrialisation (EOI) whether domestically or foreign financed, has been

argued to be the cause of rapid growth in already developed locations in Southeast Asia including Bangkok (Dixon, 1991:207). Three-quarters of manufacturing value-added and two-thirds of banking and trade value added were attributed to the Bangkok Metropolitan Region (BMR). About 54 percent of all registered manufacturing establishments (excluding rice mills) were located in the BMR (Muscat, 1994:252). In 1991 about half of Thailand's GDP was generated in BMR (Bangkok and five surrounding provinces) and its per capita GDP is 5.6 times the rest of the country (Sussangkarn and Chalamwong, 1996:102).

Table 4.6: Per capita Income by Region and Sector

	1975/76	1980/81	1985/86
By region		(national average = 100)	
North	86.5	92.8	89.1
Northeast	71.3	65.6	58.5
Central	122.2	112.1	111.4
South	95.6	98.2	93.9
Bangkok	194.8	223.4	253.5
By sector		(baht)	
Agriculture	2,963	6,032	5,763
Non-agriculture	6,157	13,848	15,744
Non-agri/Agri	2.1	2.3	2.7

Source: Phongpaichit, 1992 (table 2)

The concentration of income and economic activities in Bangkok resulted in widening disparities between Bangkok and the rest of the country. As shown in Table 4.7, the Northeast has the highest poverty incidence while Bangkok has the lowest. The wide and persistent rural-Bangkok income disparities have resulted in extensive in-migration to Bangkok, particularly from the poor Northeast to Bangkok in search of additional

employment and income (Krongkaew, 1995). In 1990 one-third of Bangkok's population were born outside Bangkok (NSO, 1993:67).

Table 4.7: Poverty Incidence

	1975-6	1981	1986	1988
North	33.2	21.5	25.5	19.9
Northeast	44.9	35.9	48.2	34.6
Centre	13.0	13.6	15.6	12.9
South	30.7	20.4	27.2	19.4
Bangkok and vicinity	7.8	3.9	3.5	3.5
Whole kingdom	30.0	23.0	29.5	21.2

Source: Tinakorn, 1995 (table 10.6)

As Girling asserted, government policies have contributed to the imbalance between rich and poor, rural and urban society and elites and the masses. First, by levying a heavy tax burden (the rice premium) on those least able to pay. Second, by failing to tax the rich effectively. As a result, Bangkok, with the greater concentration of political and economic power is draining the resources of the rest of the country (Girling, 1981:85). Eighty percent of the nation's telephones are in Bangkok. Bangkok consumes more than 80 percent of the nation's electricity, generates more than 80 percent of business tax, holds more than 70 percent of all commercial bank deposits and absorbs slightly more than 60 percent of the total annual investment in construction (Girling, 1981:88). London (1980) also argued that Bangkok has been parasitic throughout Thai history, extracting wealth and surplus value and inhibiting the growth of the less developed hinterland. Only about 14 percent of rural children continue beyond compulsory primary education compared to 80 percent in Bangkok. The difference is even more extreme in tertiary education, with 75 percent of university applicants living in Bangkok (Parnwell and Arghiros, 1996:14). As Sternstein points out:

> The unique educational opportunities available in the city are complemented by employment opportunities available nowhere else in the country. Bangkok is the administrative seat not only of government but of industry. It is the financial capital and the distribution centre. It is the one city in Thailand of a size sufficient to support a wide variety of services and to offer a full range of the world's goods (Sternstein, 1976:117).

There are indicators showing that development policy has actually contributed to rural impoverishment. Data on income distribution in Table 4.8 clearly indicates the worsening trend on income inequality in Thailand. The poorest 60 percent of the population had an income share of 23 percent while the richest 20 percent share 56 percent in 1990/91. The income share of the richest 20 percent increased from 49.26 to 56.48 percent over the period between 1975/76 and 1990/91 whereas the income share of the poorest 20 percent decreased from 6.05 to 4.05 percent during the same period.

Table 4.8: Income Share of Population by Quintiles

	1975/76	1980/81	1985/86	1988/89	1990/91
Richest 20%	49.26	51.47	55.63	55.01	56.48
Next richest 20%	20.96	20.64	19.86	20.30	20.11
Middle 20%	14.00	13.38	12.09	12.20	11.92
Next poorest 20%	9.73	9.10	7.87	7.98	7.44
Poorest 20%	6.05	5.41	4.55	4.51	4.05
Richest 40%	70.22	72.11	75.49	75.31	76.59
Poorest 60%	29.78	27.89	24.51	24.69	23.41

Source: Sussangkarn and Chalamwong, 1996 (table 13)

Conclusion

Reviewing the development of Thailand in its total context, the conclusion is reached that the modern development of Thailand has been strongly influenced by the country's intellectual , economic, and security relationships with the Western world. In the early

stage of the development in the mid 1850s, two major themes of the Thai leaderships' aspirations have been 'modernisation' and the retention of independence. Following the Bowring Treaty of 1855, the Thai economy became increasingly integrated into the world economy as a leading rice exporter. This trade policy together with the modernisation policy led to the development of Bangkok as a centre of trade, commerce, transportation and communication as well as administration.

It became clear that the urbanisation which has emerged in Bangkok is mainly a consequence of the modernisation process during the early stage of Thailand's development. The rapid urban growth of Bangkok was accelerated by the development policy pursuing ISI in the 1960s and EOI in the 1970s. The continued rapid urban growth in Bangkok led it to become a primate city of Thailand. The extreme primacy of Bangkok has long been recognised and was always cited as an example in the literature.

From the discussions in this chapter, we can conclude that Thailand's economic, political, and social transformation is a history of Bangkok transformation. This transformation has created spatial imbalances in growth and development in Thailand. The effects of general policies adopted by the government have not been uniform. Bangkok, with its advantageous geographical location, attracted most economic and industrial activities. This, reinforced by its traditional role as a centre of transportation, communication, administration, culture and politics, led to the early emergence of Bangkok as a primate city of Thailand. The high concentration of economic opportunities in Bangkok and its surrounding provinces, as a result of development policies, resulted in widening income inequalities between Bangkok and the rest of the country. The concentration of economic activities in Bangkok created a demand for cheap labour which was filled by migrants from the more impoverished regions, notably the Northeast. The major adverse effects of uneven development, which were felt in both Bangkok and the Northeast, will be discussed in the following chapter.

CHAPTER 5

UNEVEN DEVELOPMENT IN THAILAND

Introduction

Over the last decade, Thailand has been one of the fastest-growing economies in the world. Thailand's growth has been closely associated with the growth of Bangkok. The benefits of growth have not affected everyone and everywhere to an equal extent. While the benefits of economic progress, dynamism and wealth are evident in Bangkok, many in other parts of the country have been left behind. The Northeast, as a major source of cheap labour to fuel the industrial growth in Bangkok, is still suffering from poverty. Even in Bangkok itself only some enjoy the benefits of growth while a large number of people are still struggling. Development has both positive and negative impacts. The negative impacts appear to be the 'price' to pay in terms of the costs of health on the urban population due to the environmental deterioration and the costs of cleaning up the environment.

The aim of this chapter is to discuss the outcomes of Thailand's economic development which affected the two regions, Bangkok and Northeast, in different ways. The discussion highlights the environmental damage that occurs in Bangkok where most of the economic activities are concentrated. The second part of the chapter traces the development of the Northeast, the economically backward region, where manifestations and degree of inequality are greater than any other regions. The process and factors underlying the underdevelopment of the region are also discussed.

Thailand or Bangkok – NIC

Since 1986, Thailand has experienced an economic boom having one of the highest rates of economic growth in the world. During the boom years of 1986-1990, real GDP rose by an average of over 11 percent a year (Robinson et al., 1991:10; Parnwell and

Arghiros, 1996:1). These high growth rates were more striking since they took place at a time when some economies elsewhere were slowing down.

During this high growth period, Thailand was hailed as the fifth 'Asian Tiger' by domestic and foreign economists, business circles and financial journals (Muscat, 1994:172). Well known publications, including *Newsweek*, the *Economist* and the *Far Eastern Economic Review,* has suggested that Thailand is a candidate to join the category of NICs (Rigg, 1991:203). Thai planners also shared the same view as those groups and put it as a national goal. As Abhabhirama pointed out "Development in Thailand has been gradually moving from an agriculture-based economy to an industrializing one. Thailand's national goal is to achieve the status of a newly-industrialized country by the end of its Sixth Five Year Plan in 1991." (Abhabhirama, cited in Muscat, 1994:286).

Krongkaew (1995) proposed evidence to support the view that Thailand could claim to be a fifth member of the so-called 'tigers' of Asia. This included the successful structural adjustments in the economy after the debilitating oil price increase in the early 1980s, the surge in Thai manufacture exports starting in 1986, the influx of foreign direct investment and the boom in the tourist industry following the 'Visit Thailand Year' in 1987. Furthermore, since 1985, value added of manufactures in exports has exceeded that of agricultural products. This turning point further qualified Thailand as an emerging NIC (Suphachalasai, 1995:68). Sakurai (1995:357) argued:

> In the light of the basic common feature of NICs noted by OECD, the Thai economy has more or less satisfied the preconditions of an NIC since 1979. However, in order to become the 'fifth tiger' other elements are required, especially social factors and indicators.

The OECD in 1979, defined the four following features of NICs as:

- Export-led growth and development policy is being implemented in these countries.
- The share of industrial production in GDP increases.
- The share of manufactured products in total exports increases.
- The gap in per capital income with the industrial world is narrowing (Sakurai, 1995:356-357).

An export-led development policy was launched in the Third Development Plan (1972-1976) and is being aggressively pursued. The share of the industrial sector as a proportion of total GDP was 25 percent in 1970 and reached up to 39 percent in 1990 (Krongkaew, 1995:35). The total share of manufactured exports sharply increased from only 15.1 percent in 1970 to 77.8 percent in 1992 (Falkus, 1995:20). These figures clearly showed that the country has moved towards export-led growth since the 1970s. GNP per capita exceeded US$ 1,000 in 1988 but was US$ 2,085 just five years later (Chirathivat, 1995:329). As an exporter, during 1982-91, Thailand doubled its share of world export trade shifting from a 44th ranking among the world nations in 1982 to 28th in 1991. On the other hand as an importer, it moved from 46th to 22nd place in the same year (Falkus, 1995:14).

Since the 1980s, Thailand has experienced a large in-flow of Foreign Direct Investment (FDI) towards export-oriented industries. FDI increased steadily from US$ 178 million in 1985 to US$ 2,501 million in 1990. These flows of FDI were substantially invested in the manufacturing sector. This sector received more than 30 percent in the early 1980s and up to 50 percent of the total FDI after 1987 (Suphachalasai, 1995:70-80).

Thailand's positive performance is expected to continue to impress foreign analysts. As the *World Bank's Atlas 1996* indicated, Thailand was the world's top growth economy from 1984-1994, and *Economic Freedom in the World: 1975 to 1995* ranked Thailand eighth in economic freedom from 1993 to 1995. The recent Asian Executives Poll by the *Far Eastern Economic Review* found Japanese executives rank Thailand as ASEAN's number one investment site (Zack, 1996:46).

If we are to accept that all of those characteristics identified by OECD are prerequisites for attaining the status of a NIC, there is no doubt that Thailand is approaching NIC status. However, the important force pushing Thailand to reach NIC status is the economic growth of Bangkok and its surrounding provinces. Industry is heavily concentrated in the Bangkok Metropolitan Region (BMR). More than half of the country's factories and 12 of 23 industrial estates are located in BMR (Rimmer, 1995:196). In 1987, industrial production in BMR accounted for 64 percent of the total

GDP produced by this sector (Poungsomlee and Ross, 1992:13). It could be suggested that Bangkok may have the attributes of a NIC while the rest of the country is far from meeting these preconditions. Whereas per capita monthly income in Bangkok averaged 5,520 baht in 1994, the figure for the poor Northeast was only 1,418 baht, a quarter of that in the capital city. Moreover, between 1988-92, average per capita household income in Bangkok increased faster than any other region. By 1994, the richest 20 percent of Thais, most of them residents of Bangkok, received 57 percent of national income while the bottom 20 percent, mostly rural poor, earned just 4 percent (http://www.bangkokpost.net/y_end_eco_rev/yr96inco.html). It is apparent that Bangkok residents have received the largest share of the fruits of Thailand's economic development.

Bangkok and its surrounding provinces attracted the bulk of FDI compared to other regions. The data from BOI shows that between 1979-1990, 67.8 percent of total BOI approved projects for foreign investors was located in BMR (Krongkaew, 1996:303). This concentration of FDI in the BMR is exacerbating the already highly uneven spatial pattern of development.

Economic Boom: Impacts on the City

Thailand's economic growth during the past decades is often cited as a success story. As Komin (1995:251) pointed out, the positive side of industrialisation in Thailand includes remarkable increases in productivity, improvements in the standard of living of the average individual, the possibility of affluent and abundant lifestyles, widespread educational and employment opportunities, improved health care, modern transportation and communication systems, countless goods and services, more upward mobility, and equilibrium of birth and death rates. The benefits of growth are apparent particularly in Bangkok. However, specific problems arise with the growth of industrialisation. The rapid industrial expansion and concentration in Bangkok have led to numerous problems including congestion, traffic jams, noise nuisance, uncollected waste, water pollution, and lack of recreational areas and green space (TDRI, 1991:i). In addition to environmental damage, crime, social delinquency and cultural decay aggravated the

living conditions in the city. The poor quality of life in the city is deteriorating to such an extent that to more and more Thais at all socio-educational levels, Bangkok is not considered a decent place to live. Those who have the opportunity to leave Bangkok are in fact doing so (Ketudat, 1992: xxxv).

A more pessimistic view of the future outlook for Bangkok is presented by Stephens. He presented three scenarios for the environmental future of Bangkok:

- Bangkok will become increasingly inhospitable and its excesses will leak into the surrounding countryside. Foreign companies will leave and investment will dry up. Tourism will turn down.
- The Thais, with their ingenuity and capacity for hard work, will step back from the edge – but they do not have much time left.
- Bangkok and Thais will muddle through. They will recognize their errors and do enough to stop falling over the edge, but not enough to restore Thailand as a desirable country in which to live (Stephens, 1991; cited in Ross and Thadaniti, 1995:287).

Traffic Congestion

As Bangkok rapidly expands, road development and transportation services are insufficient to serve the growing population. Bangkok's road systems are unable to cope with the great increasing demand. Between 1972 and 1990 the number of cars increased from 243,000 to one million, whereas the length of primary roads increased by only 82 kilometres (Rimmer, 1995:197-198). Bangkok has one of the lowest proportions of road surface to total city area in the world. In the early 1980s it was 9 percent compared to 22 percent in London and 24 percent in New York (Rigg, 1991:151). The number of cars on the road is predicted to increase at the rate of 35,000 cars per year (Ross and Thadaniti, 1995:279). This is resulting in chronic traffic congestion over a wide area and for long periods during the day. The figure from a country report in 1989 indicated that the average speed on main roads was about 13-15 kilometres per hour and in some roads 20 kilometres per hour. Another study by the Japan International Cooperation Agency (JICA) measured the average travel speed at 7.7 kilometres per hour inside the middle ring-road zone, and as low as 3-5 kilometres per hour in the most congested area. This study predicted that the average travel speed would be 5 kilometres per hour by the year 2006 if no remedial action was taken (Poungsomlee and Ross, 1992:19).

In Bangkok, the only mass transportation system is a public bus service operated by the Bangkok Mass Transit Authority (BMTA), reputed to be the fourth largest bus company in the world. In 1990, BMTA owned 4,865 buses and controlled the activities of 3,200 private operators. Less than 10 percent of BMTA's buses are air conditioned, most of the remainder are over ten years old and inadequately maintained. The exhaust fumes from these old buses seriously contribute to air pollution (Poungsomlee and Ross, 1992:19). BMTA is under pressure from heavy debts since the bus fare is controlled by the government and has been kept artificially low for political and social reasons. The figures from BMTA show that in 1986 it lost 1,037 million baht and the accumulated losses by the end of that year were 8,132 million baht (Rimmer, 1995:200). Consequently this public transport system provides poor service and does not help relieve the traffic congestion. In turn, the problems of travel times and stresses from traffic congestion encourage the growing middle-income to strive to purchase cars, thus adding to the congestion and pollution they try to escape. Inevitably the poorest, who cannot afford to buy cars, suffer most intensively from the traffic congestion. As Bhichai Rattakul, a former deputy prime minister said: "Everyone is dying slowly in Bangkok ... because of the gas and smoke that they breathe in" (cited in Kulick and Wilson, 1992:121).

Travel times and travel stresses are impairing people's productivity. It is estimated that the opportunity cost of time wasted by commuters on the road is 23 million baht per day and the cost of fuel wasted is up to 5 million baht per day. This means that the economic losses due to the traffic congestion in Bangkok is more than 10,000 million baht a year (Poungsomlee and Ross, 1992:19). Another study by JICA in 1990 claimed that the costs of traffic jams in Bangkok may amount to 60 percent of its gross regional product (Parnwell and Arghiros, 1996:18).

Road traffic congestion in Bangkok has become a serious concern as a constraint on further economic growth and it received direct attention in the Seventh Development Plan (1992-97). Large scale infrastructure projects have been scheduled to be completed during the 1990s. These projects aim to solve the infrastructure bottleneck and include (i) the US$ 1 billion second phase expressway (ii) the elevated highway linking Don

Muang International Airport with the city centre (iii) the US$ 2 billion, 36 kilometres 'skytrain' network connecting the city centre with the northern and eastern suburbs (iv) the US$ 3 billion, 60 kilometres network combining the main railway lines with highways and shopping space in a multi-deck design. In addition, another US$ 10 billion has been allocated for a plan drawn by the National Economic and Social Development Board (NESDB) to counteract Bangkok's traffic problems (ESCAP, 1993:112).

Expressway and the Rapid Transit Authority reported in November 1996 that it has already put in service three expressway systems covering a total of 75.6 kilometres. The plan is being made to expand its network to Bangkok's outer suburbs by adding 240 kilometres of expressway by 1999. The elevated mass transit systems and electric train project are expected to begin service in 1998 with the combined length of 63 kilometres (http://www.bangkokpost.net/y_end_eco_rev/yr96tran.html)

Air Pollution

The problem of air pollution in the city, resulting from the high density of traffic and factories, is becoming increasingly serious. Air pollution is particularly hazardous to those living close to major roads and those exposed for long periods, such as traffic police and street hawkers. The dust in congested streets has been up to three times higher than the standard acceptable level for several years (ESCAP, 1993:106). More recently, carried out by Mahidol University revealed that the level of dust found in some streets is five times higher than the Thai standard and fourteen times higher than that set by the World Health Organisation. Moreover, this study also found a high level of germ contamination in the air and 38 types of dangerous bacteria and fungi in dust floating in public buses, taxis and private cars. Traffic and construction projects were blamed as major sources of dust, which when combined with the germs increases the likelihood of causing illness (*The Nation*, 1996 March 22).

The study by the National Environmental Board (NEB) shows an increasing trend of higher levels of lead in the air. During the period 1983-86, the lead content of gasoline

emissions ranged from 0.1-1.0 micrograms per cubic metre. During 1987-89, the lead content went up to 0.6-5.45 micrograms per cubic metre, an increase of more than five times (Krongkaew, 1996:321). The more recent figures obtained by the Ministry of Public Health show that at three monitoring stations the worst cases of lead concentration in the air range between 0.29 and 0.40 milligrams per cubic metre, which is well above Thailand's standard of 0.10 milligrams per cubic metre and far exceeds the US standard of 0.05 milligrams per cubic metre (Khoman, 1995:272). A study by the Ministry of Public Health showed that most important occupational ailment is lead poisoning. More than 14 percent of the cases of occupational exposure to lead have average blood lead concentrations exceeding 60 milligrams per 100 ml which is much higher than the International Labour Organisation standard of 25-30 milligrams per 100 ml (Khoman, 1995:299).

Records taken during 1987-89 by the NEB showed the level of carbon monoxide increased from 1.0-9.5 milligrams per cubic metre to 1.1-52.7 milligrams per cubic metre. The same monitoring records also showed that other air pollutants such as ambient sulphur dioxide and suspended particulate matter from industrial emission show an increasing trend (Krongkaew, 1996:321). The report from the Pollution Control Department in 1993 showed that the average level of carbon monoxide in the air range from 0-24.86 milligrams per cubic metre per hour which is well under the Thai standard of 50 milligrams per cubic metre per hour. But the annual average level of suspended particulate matter ranged from 0.12-0.18 milligrams per cubic metre exceeded 0.10 milligrams per cubic metre the standard set by the NEB (Pollution Control Department, 1993).

Water Pollution

In the early days the city had many *khlongs* (canals) and was known as the 'Venice of the East'. Most of the *khlongs* were dug for agricultural purposes, for communication and water supply. These *khlongs* also provided natural drainage into the Chao Phraya River. The rapid urbanisation and modernisation of Bangkok has led to a shift from the use of waterways to the use of roadways. Many *khlongs* were filled to make way for roads. But the river and *khlongs* are still important to the people in Bangkok.

The rapid growth of population and factories in Bangkok and the lack of planning to cope with the problems has resulted in a deterioration of the canals. The river and *khlongs* have been polluted by the discharge of untreated or inadequately treated waste water. Domestic households and restaurants account for about 75 percent of the pollutants discharged into the Chao Phraya River (measured by biochemical oxygen demand (BOD) while factories account for the remaining 25 percent (Poungsomlee and Ross, 1992:21-22). The BOD load is found to be very high in inner-city *khlongs*, that is 20-50 milligrams per litre (Krongkaew, 1996:321). It was claimed that the values of the biological oxygen demand (BOD) of the *khlongs* of Bangkok were 'equivalent to sewage, rather than to those normal water' (Arbhabhirama et al., 1987 cited in Rigg, 1991:154).

Another study by the Environmental Health Division of the Ministry of Public Health found that the quality of water in lower Chao Phaya River during 1977-1987 was below the recommended water standards (the standard recommended for household consumption and industrial utilisation purposes is 2.0 milligrams per litre). The maximum BOD found was 9.0 milligrams per litre and the minimum dissolved oxygen was zero. JICA reported in 1981 that if a sewerage and water treatment system is not installed and operated, the Chao Phraya river could become anaerobic in low flow conditions by the year 2000 (Poungsomlee and Ross, 1992:22). The BOD level in the lower Chao Phraya river was set to be reduced to less than 4 milligrams per litre in the Seventh Development Plan (1992-1996) (NESDB, n.d.:177). More recently the Thailand Development Research Institute made a similar prediction that by the end of the 1990s there will be no oxygen at all left in the Chao Phraya river, and aquatic life will cease. To bring it back to life will cost US$ 1.75 billion. In addition, the concentration of heavy metals is in a disastrous state. It was found that the mercury contamination in the sea water at the mouth of Chao Phraya river is between 7 and 40 times the accepted level, and accumulated heavy metal in fish and shellfish is 10 to 20 times above safety standards (Kulick and Wilson, 1992:121).

There is no proper sewage treatment system for Bangkok, and only 2 percent of the population is served by the existing household water treatment. The sewerage system is

the least developed service and unlikely to change for some time as it demands a huge investment and operation costs. It has been estimated that the construction of a city - wide sewerage system would cost a massive 36,672 million baht (approximately US$ 1,780 million at 1980 prices) which is equivalent to 33 percent of total government expenditure in 1980 (Rigg, 1991:149). As Krongkaew (1996:322) pointed out, the proposals to deal with the sewage problem have always run into difficulties and have never been implemented.

Noise Pollution

In Bangkok noise pollution is considered a serious problem. Noise levels measured between 1983-1987 at various locations in Bangkok were found to be above 70 decibels which is the USEPA (US Environmental Protection Agency) standard for long-term hearing protection (Selvaratnam, 1991:76). Motor-driven boats which are widely used over the *khlongs* in Bangkok as an alternative to escape road traffic, contribute to the noise problems. The survey in 1983 found that 80 percent of the surveyed boats produced the noise of more than 90 decibels, and 80 percent of the operators had hearing loss (Poungsomlee and Ross, 1992:21).

Flooding

Bangkok is situated in the central flat plain north of the Gulf of Thailand. It is about 56 kilometres north from the mouth of the Chao Phraya river which runs through the centre of the city (Sternstein, 1971:113). The area is shaped by water, depends on water and is threatened by water. Because of its geographical location, Bangkok is facing hydrological problems which are connected with the down-flow regime of the Chao Phraya and the floods resulting from it, with the tidal floods originating from the Gulf of Thailand and with the inundation resulting from the periodic high rainfall (Donner, 1978:768). Consequently, Bangkok is constantly suffering from flooding. Floods in August and September are mostly due to rainfall, and those in October and November are due to river overflow owing to a combination of seasonal water rise in the Gulf of Thailand and high run-off from the North. Flooding is becoming increasingly serious. It

is estimated that Bangkok's annual losses from flooding exceed US$ 50 million. (Selvaratnam, 1991:75).

The extent of losses and damages depend on the severity and duration of flooding. In 1983 Bangkok suffered from severe flooding for 3-4 months and sustained a loss of 6,598 million baht (approximately US$ 286 million). The severity of flooding depends on the amount of water and the ability of the drainage system. Currently the Chao Phraya river can accommodate a volume of water in the region of 2,000 cubic metres per second. If the water flow down from the North is over this catching capacity of the Chao Phraya river, the water will overflow on both sides of the river and flood. Land subsidence increases the influence exerted by the high tide. Bangkok is only 0-1.5 metres above sea level but is sinking at a rate of 5-10 centimetres a year as a result of the extensive extraction of underground water (http://sunsite.au.ac.th/thailand/rama9/dev_work/flood.html). It is estimated that 85 percent of the water used by 25,000 factories in Bangkok, Nonthaburi and Samutprakan is from artesian wells (Ross and Thadaniti, 1995:273).

Poor land use controls have contributed to the destruction of the natural water flow system. Illegally constructed houses have encroached on the *khlongs* and blocked their flow. The natural drainage provided by *khlongs* has been replaced by the use of pipes. The road culverts are inadequate to drain the water and suffer from blockages. As a result, the drainage system is impaired. If a large volume of the down-flow from the North and heavy rainfall occur simultaneously with the high tide, the volume of water will be more than the capacity of the drainage system can handle and flooding will occur. In an attempt to solve the problems he has urged the various agencies concerned to co-operate. Between 1980-1983 these agencies attempted to draw up a work plan using the broad principles discussed with the King as an outline. It has been said that without the initiative of the King the losses from severe flooding in 1983 might have been even greater. The problem of flooding is constantly receiving attention from the King. He continues searching for new techniques and methods to solve the problems of flooding and makes suggestions to all the agencies concerned (http://sunsite.au.ac.th/thailand/rama9/dev_work/flood.html).

Hazardous Waste

Virtually all industrial activity generates some materials that have no further economic use and are considered waste. Certain wastes are defined as hazardous. According to World Health Organization (WHO) hazardous waste is a waste that 'has physical, chemical or biological characteristics which require special handling and disposal procedures to avoid risk to health and/or other adverse environmental effects'. Undisciplined disposal of hazardous wastes can cause fires, explosions, air, water and land pollution, contamination of food and drinking water. This poses the greatest environmental risk to humans, fish, plants and animals (El-Hinnawi and H. Hashmi, 1987:113-116).

Thailand's total industrial hazardous waste was estimated to be about two million tons in the early 1990s and is projected to grow to 5.8 million tons by the year 2001 (Sussangkarn, 1991:52). About 70 percent of all hazardous waste is generated within Bangkok and its vicinity. The basic metals industry generates two-thirds of the hazardous waste. This waste is dumped freely and often haphazardly into rivers and landfill stored in drums on site with little or no treatment (Sussangkarn, 1991:52). To treat the current level of BOD generated by industries at the 70 percent level would cost about 1 percent of the GDP generated by these industries (Khoman, 1995:295).

The government reacted to the growing threat of the hazardous waste problems by enforcing the concept of the 'polluter-pays- principle' in the Seventh Development Plan (1992-96) (NESDB, n.d.:183). This is to ensure that polluters are required to pay for the treatment and disposal of pollution. However, the enforcement remains questionable.

Solid Waste

The refuse from household consumption in Bangkok has been increasing at a rate of 10 percent a year. In 1990, solid waste generated in Bangkok was about 5,200 tons per day. About 4,500 tons were collected and only 20 percent of this collected garbage was properly disposed of, the rest was left to decompose naturally (ESCAP, 1993:106). A considerable amount of garbage is left on the roads, pavements and other public places.

An increasing amount of uncollected garbage is being left in the city and is likely to be washed into *khlongs* and streams, creating health hazards.

Garbage collection is under the responsibility of Bangkok Metropolitan Administration (BMA). BMA spends almost 100 million baht (approximately US$ 4 million) a year for garbage collection. Less than five percent of these costs are covered by direct user charges. The high value of land restricts the availability of dumping sites and makes long-term planning difficult. Improvement of the decomposing plants is also limited by the small budget of BMA. Only a little improvement in garbage collection has been made. The percentage of garbage collected slightly increased from 86 percent in 1990 to 88 percent in 1993 (Pollution Control Department, 1993).

Slums and Squatter Settlements

The growth of the population in the city is not matched by increases in available housing. The combination of the growing land prices and increasing construction costs has resulted in a shortage of low-income housing in Bangkok (Donner, 1978:858). In the past slums have been regarded the living place of those who migrated from the rural areas. But recently they have become the home of the low-income urban dweller including native born of the city. The National Housing Authority (NHA), like the Asian Institute of Technology (AIT), defines slum settlements and squatter settlements in terms of the agreement with the owner of the land. Slum dwellers have some sort of agreement with the landowner, verbal or written, whereas the squatters have no such agreement. One of the AIT studies in 1979 estimated that the total number of slum dwellers and squatters in Bangkok could be 865,000. More recently the NHA estimated that about 1.2 million persons were living in more than 1,000 slums and squatter settlements within Bangkok in 1990. This figure excluded those who were in rented cheap housing scattered over the city (NESDB, 1991).

Slums and squatter settlements in Bangkok are generally characterised by a lack of secure tenure of land, overcrowding, houses built from sub-standard materials, bad

physical condition, and poor access to public services (Thorbek, 1987). As Douglass described the living condition in the slums of Bangkok:

> In slums ... life is only liveable because of the capacity of the human mind to become accustomed to the unthinkable. With no sanitation services, garbage is dumped next to the flimsy houses, breeding flies, rats, mosquitoes, and disease ... All the slums are overcrowded, with whole families sleeping in a tiny room. Cooking, eating, chatting and the cacophony of existence spill by necessity from small rooms to the out-of-doors. (quoted in Rigg, 1991:143)

The main problem faced by slum dwellers and squatters is the insecurity over the land tenure of their land and houses. They are under increasing pressure to move out. This is attributed to the increasing cost of land and better planning. A report by the NHA indicated that during 1984-88, 41,962 persons in 64 slums were evicted in Bangkok and Nonthaburi. Out of these, 40 slums were on private land and 22 slums were on government land. The report also found that most of the slum dwellers had an annual rental agreement or only a short-term agreement with the landowner. Most of the squatters had already experienced 4-6 times evictions while those who rented houses in slums had been evicted 2-4 times. Recently, the BMA found that only 230 slums or 23 percent of the total slums in Bangkok have not faced eviction (NESDB, 1992).

As Bangkok expands and as the pressure on land becomes greater the problem of the shortage of affordable land that can be used to provide slum and squatter dwellers with secure ownership will remain for the foreseeable future. Moreover, the cost of low income housing constructed by the NHA is relatively high owing to the increase in land prices and construction costs. In 1990 the minimum price was set at 300,000 baht per unit (US$ 12,000) with 25 percent deposit and 13 percent interest rate per annum over a 20 year repayment period. This is more expensive than the urban poor can afford. They would rather stay where they are since slums are the cheapest place to live and tend to be located near the place of employment (NESDB, 1992).

To conclude, nowhere have the effects of recent economic growth been more keenly felt than in Bangkok. The environmental consequences of over-urbanisation resulting from rapid economic growth have become increasingly evident as has been seen above.

Bangkok is facing increasing pressures upon its inadequate infrastructure to cope with these environmental problems. Although the benefits generated from the economic growth in Bangkok are apparent, the costs of the rapid and massive urbanisation of Bangkok in terms of environmental deterioration are very high.

It is clear from the discussion in Chapter 4 and in this Chapter that the growth and urbanisation of Bangkok are both the cause and effect of the development processes Thailand has gone through during the last three decades. These two components of the development processes should not be considered separately. In contrast to Bangkok, where problems are the result of rapid economic growth, the Northeast region has long been suffering from poverty and socio-economic inequalities as a result of lack of economic growth. Some of the factors which impede the development of the Northeast region are outlined below.

Northeast: A Disadvantaged Region

The Northeast region has usually been regarded as a major problem area of Thailand, with a backward economy, low per capita income, limited transportation facilities and other factors such as poor soils, irregular distribution of water and high incidence of droughts and floods. All of these are obstacles to rapid development. Isolated from the rest of Thailand by the Petchabun range and by the smaller ranges of Dong Phrayayen and Sankampaeng (Donner, 1978). Topographically the Northeast contrasts sharply with the Central region. Whereas the Central is a fertile alluvial flood plain, the Northeast is a plateau with infertile soil and unreliable rainfall.

The relative poverty of the Northeast compared to Central Thailand can also be reflected in the saying describing the natural endowment of the two regions: "Nai nam me pla, nai na me khao: There is fish in the water, there is rice in the paddy fields". This reflects the natural abundance in Thailand in general, but particular, in the Central plain. "Nai fah bo me nam, nai din sam me tae sai: There is no water in the sky, even more there is nothing but sand on the land". By contrast this reflects the unfavourable conditions of agriculture in the Northeast.

The marginal environment has been cited as the principal reason for poor agricultural productivity. The average rice yield between 1985/86 and 1990/91 in the Northeast region was much less than that of the Central region. While the Central region averaged 2.3 tonnes per hectare it was only 1.5 tonnes per hectare in the Northeast (Parnwell and Arghiros, 1996:5). This marginality of the Northeast environment make it the least favoured region in the country for agricultural development.

The diversification of natural endowment within the country has been a major factor determining an unequal spatial distribution of rural economic growth in the past. The Northeast region was the only one of the four regions in Thailand that did not produce a major part of any of the four big exports as of 1950, while the Central region was the primary source of rice export, the North produced teak and the South produced rubber and tin (Ingram, 1971:98). This endowment disadvantage of the Northeast made it virtually inevitable that income growth would lag behind other regions.

Despite its disadvantaged position, the region forms the largest region in Thailand covering an area of approximately 168,900 square kilometres or comprising nearly one-third of the total land area for the Kingdom. It contains about 35 percent of Thailand's 1990 population, the highest percentage of any region of the country's population: the Northeast has 19 million people out of the total population of 54.5 million in 1990. The population of Northeast is predominantly rural. With only about 6 percent of its population living in municipal areas, it contains the smallest percentage of Thailand's urban population (11 percent) (NSO, 1993). It is estimated that the Northeast has the highest amount of agricultural land in the country accounting for 46 percent of the total agricultural land area but only contributes one quarter of the agricultural product (Walton, 1996:115).

Isan Identity and Regionalism

The expansion of the French imperialism in Vietnam and intentions to advance further into Laos in 1888, led to increasing Siamese control of the Khorat Plateau as a means of protecting the territorial integrity of the nation. In 1893, the Siamese ceded to the French

all former tributary areas east of the Mekong River and later, in 1904, some territory on the right bank of the river. The France-Siamese treaties of 1893 and 1904 established the demarcation of the boundary between Lao and Siam (Keyes, 1967; Parnwell and Rigg, 1996).

The Siamese responded to the threat posed by the Europeans by rapidly implementing the provincial reforms of 1892. The new administrative unit of *monthons* were administered by centrally appointed officials. This reform brought the Northeast under direct control of the Siamese state. This resulted in a shift of the locus of all important political powers from the provinces to Bangkok. It was then that the Northeasterners for the first time experienced the subordination of local political interests to central state objectives (Keyes, 1967:17).

The word '*isan*' was used to describe one of these *monthons*. '*Isan*' is a Pali-Sanskrit word for north-east (Parnwell and Rigg, 1996:226). Moreover, '*isan*' is also used to identify a northeasterner. The northeasterners have begun to call themselves as *khon isan* (isan people), as using *phasa isan* (isan language) and as living in *phak isan* (the isan region). This increasing use of the word '*isan*' by northeasterners signifies their growing sense of regional and ethnic identity (Keyes, 1967:3).

In terms of language and culture, northeasterners have a high degree of similarity to the Laos who live on the left bank of the Mekong river. The language widely spoken in the region is almost identical to the Lao language. The *isan* dialect differs quite substantially from the Central Thai language in terms of tones, pronunciation and vocabulary. The differences in cultural aspects such as diet, music, dance, drama and material further distinguish the *khon isan* from those of the Central Thai (Parnwell and Rigg, 1996:218).

The demand for cheap labour after the imposition of quotas on Chinese immigration drew large numbers of *isan* people to Bangkok. This movement was in part compelled by the need to meet the taxation demands, but especially by the unfavourable physical environment in the region (Parnwell and Rigg, 1996:228). Even though the *isan* migrants gained advantages from being in Bangkok, they found themselves to be

considered inferior by urban Thai. The northeasterner pedicab drivers discovered that the Bangkok residents not only looked down on them as rustic bumpkins who could not even speak 'proper Thai', but also took advantage of them. When northeasterners came to Bangkok facing the new environment and the sense of being considered inferior, they tended to draw into themselves. They found an emotional security by getting together with their *isan* fellows who shared a common sub-culture, dialect, taste of food and music etc. (Textor, 1961:17,22). Klausner (1960:28) paraphrased a much used saying: "you can take the villagers out of the Northeast, but you can't take the Northeast out of the villagers".

Keyes has suggested that the development of 'we-they' attitudes among the northeasterners was attributed to the increasing temporary migration of northeast villagers to Bangkok beginning in the post-war period.

> From his experience in Bangkok the returned migrant carried home with him feelings of class and ethnic discrimination directed towards him as a Northeasterner by Central Thai inhabitants of Bangkok and enhanced awareness of the common culture and problems which all Northeasterners share (Keyes, 1967:39).

As a result of inter-regional migration, the northeasterners became more fully aware of the relative dynamism and wealth of the Central region which enhanced their sense of relative deprivation and neglect by the central government.

Northeast Development

The growing regional loyalties of a majority of the representatives from the Northeast region brought about attention among the leadership of the Thai government. During Sarit's premiership, there was an increasing fear that economic underdevelopment in the Northeast and a growing regional identity might make it fertile ground for insurgency and a movement for separation. The government recognised the need to bring about relatively rapid economic development in the Northeast. In 1961, it published the first five year plan for the development of the Northeast region with the following objectives:

1. To improve water control and supply
2. To improve means of transport and communication
3. To assist villages in increasing production and marketing
4. To provide power for regional industrial development and (later) rural electrification
5. To encourage private industrial and commercial development in the region
6. To promote community development, educational facilities, and public health programs at the local level (Keyes, 1967:56).

Under the First (1961-1966) and Second (1967-1971) National Development Plans the Northeast received 28 percent of the total budget. During this period Thailand received a significant volume of military and other aid from the United States. The primary use of this aid was in accelerated rural development schemes in the Northeast. Rural development was seen as of major importance in eradicating communism in the region (Dixon, 1991:174-175). As Sarit, the Prime Minister at that time put it, 'if the people's stomachs are full they won't turn to Communism' (Parnwell and Rigg, 1996:236).

The 1958 'Friendship Highway', connecting Saraburi with Khorat, is a notable example of the American support for a Northeast development project. While security and administrative communications were the key factors behind the construction of the road, the Friendship Highway did induce an explosion in traffic. In the mid-1950s only some 100 vehicles a day used the old Saraburi-Khorat road, yet a decade later 2,500 vehicles a day used the new Friendship Highway. The Friendship Highway provided the Northeast, for the first time, with all-weather connection with Bangkok which in turn stimulated commercial activities and diversification of agriculture as well as inter-regional migration (Falkus, 1991:66).

American aid was also used to construct the two most important dams in this region. The Nampong dam in Khon Kaen was a multi-purpose dam which was expected to provide both water control and electrical power for the central provinces of the region. Similarly the Lam Pao dam in Kalasin was designed to provide effective irrigation for most of the Chi river basin (Keyes, 1967:57).

The communist movement in Thailand began to develop in the early 1960s and became a problem of considerable importance in 1965 and for over fifteen years thereafter (Muscat, 1994:43). In the mid 1960s, the government designed a number of programmes to enhance the welfare of people in certain provinces and districts, mainly along the Lao border, which were declared as 'security sensitive' areas. A principal motive for these programmes was the threat of rural insurgency which basically lay on the following characteristics of the Northeast region: (i) its ethnic distinction from central Thailand and similarity with Laos; (ii) the appeal of Lao separatism; (iii) the existence of non-Thai ethnic communities, such as Vietnamese and Cambodians; (iv) the isolation of substantial parts of the population from government authority; (v) the relative economic deprivation of the region; (vi) the susceptibility of the Lao border to infiltration by hostile elements, Thai or otherwise; (vii) the availability of weapons from Laos; (viii) the occurrence of certain number of acts of violence which are interpreted as having political motives; and (ix) a history of political dissidence (Wilson, 1966:349).

Despite the concentration of insurgency in the Northeast, the allocation of development expenditure to the Northeast was much less than to the Central region. In 1975 the Northeast had a per capita GDP of about 3,000 baht and 52.5 percent of its population lived in identified insurgency areas whilst in the Central region the per capita GDP was about 9,400 baht and only 9.4 percent of people lived in insurgency areas. In the third plan, the Northeast received a per capita allocation of both 'development' and 'social development' budgets far less than that of the Central region. The per capita 'development' budget for the Northeast was only two-thirds of the allocation to the Central and the per capita allocation under 'social development' budget was only 30 percent of the Central (Muscat, 1994:139-140). The expenditure per head in the Northeast was considerably less than in any other regions. In Bangkok it was over three times higher than in the rest of the Central region, and almost six times higher than in the Northeast (IBRD, 1978; cited in Fuller et al, 1983:36)

In 1975 the Kukrit government initiated the Rural Employment Generation Program (REGP) aimed at providing jobs to rural people during the dry season and reducing out-migration from the rural areas. Under the REGP, the central government provided a

grant annually to every *tambon* council in the country. The *tambon* council was free to determine activities and plans for operation for local projects of its own choosing (Muscat, 1994:138). Many studies have concluded that the program did not really succeed in significantly discouraging out-migration (Panpiemras and Phongpaichit, 1988). As Sinsawasdi (1988:46) concluded, the programme was able to impede the temporary migration only among the short-term migrants who were in the middle class, whilst the very poor still engaged in short-term migration whether or not the program was undertaken. However, Krongkaew pointed out that the REGP resulted in the building of much small rural infrastructure, it strengthened the administrative capacity of the councils and gave "the 'bottom-up' approach to rural development ... an effective boost" (Krongkaew, 1987 cited in Muscat, 1994:139).

As a result of all these attempts at regional development, much progress has been made over the last three decades. The considerable investment in the physical and social infrastructure has certainly reduced the region's marginality and isolation from the centre of economic activity. Thus it seems clear that the process of development and change over the decades has served to reduce the strength of feeling among *khon isan* about their disadvantage relative to other groups in society. According to Parnwell and Rigg (1996:239-243), in their study of the ethnic dimension of uneven development in Thailand, there are many factors that contribute towards a declining sense of deprivation, discrimination and difference among *khon isan* and a weakening of their sense of self-identity as a disadvantaged ethnic group. Among these factors are the political system, education, media and inter-regional migration.

The most important factor which has much influenced a reduction in *isan* self-identity has been the large-scale and sustained out-migration from the Northeast in the search for jobs in Bangkok. Even though in the early stage of this migration process it was seen as a major factor in creating and strengthening the sense of regional and ethnic identity, this argument does not hold now. During the 1980s, the economic boom accelerated the demand for urban labour. Between 1980-1990, 1.1 million northeasterners aged between 15 and 30 moved out from the Northeast mostly to Bangkok (Phongpaichit and Baker, 1996). This extremely large number of migrants from the Northeast helped redress a

situation when discrimination and job marginalisation were prevalent. The large number of migrants reduced the degree of the 'we-they' attitudes. As Muscat (1994:285) argued:

> While migration and the ending of rural isolation are seen by critics as having destroyed the rustic peace of village life, they have also broken down the snobbism and prejudice that Central Plain Thai formerly held toward Northeasterners and the old sense of inferiority among the Northeasterns who used to accept Bangkok's judgement that Isan culture was backward.

Falling Behind the Boom

Although over time the government has taken the development of the Northeast much more seriously in its development policies, the achievement in terms of reducing gaps between the Northeast and the rest of the country has been rather disappointing. By 1994, Thailand was among the top five of the countries with the worst pattern of distribution (Phongpaichit and Baker, 1996:209).

Over the past three decades, the per capita GDP in Thailand increased from US$ 100 in 1960 to US$ 1,200 in 1990 (Muscat, 1994:293). The total GDP in 1989 was 33 times of that in 1960. This in general marked a dramatic change in economic performance of the country. However, it had become clear that the gains of the growth had become concentrated mostly in the core region and did not trickle down to the rest of the country. Bangkok and its vicinity enjoyed the fruit of the growth much more than other regions. In 1960, the Bangkok Metropolitan Region (BMR) shared 22.6 percent of the total GDP. By 1989 it reached 48.1 percent. Over the same period, other regions experienced a decline in their share of the total GDP. In the Northeast the share decreased from 17.4 to 12.9 percent (Tinakorn, 1995:229).

Table 5.1 provides a crude indication of the extent of uneven economic development in Thailand. The Northeast lagged considerably behind the Central region and most dramatically, the Bangkok Metropolitan Region (BMR). In 1992, the Northeast per capita GRP was 33.2 percent of the national average, 41.2 percent of the Central region, and only 10.1 percent of the BMR. The data also show that the differential between the Northeast and the Central and the BMR has risen continuously. Thus, it seems clear

Table 5.1: Per capita Gross Regional Product in Thailand 1986-1992 at Current Price

Region	1986	1988	1990	1992
		(baht)		
Whole country	20,790	28,721	39,069	49,053
BMR	61,358	89,220	127,460	161,895
% of national	295.1	310.6	326.4	330.0
% of BMR	100	100	100	100
Central	17,235	23,126	31,584	39,490
% of national	82.9	80.5	80.0	80.5
% of BMR	28.1	25.9	24.8	24.4
North	12,208	16,932	20,431	24,680
% of national	58.7	58.9	52.3	50.3
% of BMR	19.9	19.0	16.0	15.2
South	16,339	20,311	25,377	30,885
% of national	78.6	70.7	64.9	63.0
% of BMR	26.6	22.8	19.9	15.2
Eastern	30,989	41,680	56,953	70,775
% of national	149.0	145.1	145.8	144.3
% of BMR	50.5	46.7	44.7	43.7
Western	19,835	24,195	29,628	35,270
% of national	95.4	84.2	76.0	71.9
% of BMR	32.3	27.1	23.2	21.8
Northeast	7,879	10,165	13,187	16,277
% of national	37.9	35.4	33.7	33.2
% of BMR	12.8	11.4	10.3	10.1

Sources: NESDB, 1989; NESDB, 1995

Note: Percentage is author's calculation

that, although the overall economic growth of the country during the boom of the late 1980s was remarkable the pattern of distribution has remained inequitable.

The unevenness of development in Thailand can be considered in other ways. For example, a result of heavy concentration of industry in Bangkok and surrounding provinces, Bangkok accounted for the largest share of industrial activity. In 1986, the Central region, which includes Bangkok, accounted for 90 percent of the total valued added in manufacturing sector. While Bangkok alone produced 54.6 percent, the Northeast produced only 4.7 percent of manufacturing valued added (Tambunlertchai, 1993:123).

Conclusion

While the benefits of Bangkok's economic progress and wealth in terms of employment opportunities, increased incomes, and higher living standards are evident, they have to be balanced with the costs in terms of congestion, pollution, environmental damages and the intangible social and cultural problems. These costs are largely a social burden. A high concentration of pollution in Bangkok is becoming increasingly serious and exceeding the acceptable standard, therefore posing considerable dangers for the health of its inhabitants.

On the other hand, the majority of the rural population in the Northeast are still poor and lagging behind those in the capital city. Three of the principal factors (manufacturing, tourism, and international investment) which have underpinned the country's overall economic success, were found in a very limited extent in this region. At the same time the labour migration from the Northeast to Bangkok provided a plentiful supply of relatively cheap labour which significantly contributed to the economic growth of the country. Data from the 1990 Population Census shows that migration from the Northeast accounted for almost half of the total in-migration to Bangkok (NSO, 1993). Furthermore, the six largest migration streams to Bangkok during 1985-1990 originated from Ubon Ratchathani, Nakhon Ratchasima (Khorat), Roi Et, Khon Kaen, Si Sa Ket, and Burirum – all these provinces are in the Northeast (Pejaranonda et al., 1995:184). It

is argued that, should the current economic boom continue, Northeasterners will have to move to where the work is (Parnwell and Arghiros, 1996:1; Parnwell and Rigg, 1996:215). This is the key challenge facing regional development planning in the Northeast in the near future.

As Thailand comes to the point of no return, it is the question of how to make sure that the economic growth brings a better life for many more people both in the city and the rest of the country, with which the nation is confronted. The social and environmental qualities should go alongside with economic performance to ensure the well-being of the people of the present and next generations.

CHAPTER 6

NATIONAL AND REGIONAL DEVELOPMENT POLICIES IN THAILAND

Introduction

Most of the public development policies adopted by the government of Thailand have had some impact on the geographical distribution of population. The issue of the imbalanced urbanisation process, particularly the heavy concentration in Bangkok has become increasingly important to the government. Sometimes policies which were not intended to influence migration did so and many policies, although not explicitly stated, tended to reinforce economic factors in favour of Bangkok which in turn aggravated the already imbalanced urban system and stimulated the migration process towards the city.

The objective of this chapter is to trace the development policies that have directly or indirectly contributed to the rural migration process. The chapter begins with a brief summary of development plans, the reviewing of agricultural and industrial policy and finally a discussion of area specific development.

Development Plans

Planning for economic development was formalised in 1959 with the establishment of the central planning body, the National Economic Development Board (NEDB)[1]. Since then, seven national development plans have been implemented. The country is now undergoing its Eighth Five-year plan (1997-2001).

The national development plan provides general guidelines to be implemented by the various government line agencies. These agencies are independent within the Thai bureaucracy and the NESDB has little influence over their actions. It was evident that the implementation of the plan was characterised by widespread duplication of

[1] National Economic Development Board was renamed the National Economic and Social Development Board (NESDB) in 1972.

institutions, overlap of responsibilities and lack of co-ordination. As one study by the World Bank asserted, the frequency and extent to which development plans appear to be disregarded in the allocation of financial and administrative resources and in the introduction of new policies, programmes and projects indicate a lack of full commitment to the concept of development planning (Parnwell and Arghiros, 1996:6). Furthermore, a plan made five years or more in advance may not be matched with fast changing economic circumstances. The plans are more useful as indicators of the policy directions at the time the plans are drawn. Accordingly, the plans have always been modified and have not been implemented in the form described in the plans' documents (Warr, 1996:614). In reviewing the plans, both the formulated policies along with the actual outcome of the implementation will be discussed.

First and Second Plan (1960-1971)

During the 1960s and 1970s, the philosophy underlying public sector policy was the belief that increased output and welfare would be mostly secured through the efforts of individual citizens, promoted and assisted by government, rather than through government directly entering in production. The planning context in the first two plans were considered mainly from an economic view point and with the principal objective of promoting economic growth. Encouragement of economic growth in the private sector was the prime concern of the policy makers (Schmidt, 1996:69). This period was predominantly concerned with promoting rapid growth in GNP through capital intensive industrialisation. The role of government was to provide means and opportunities for increased production and enable the private sector to expand on its own initiatives. Priority in the allocation of expenditure was clearly given to investment in the country's infrastructure, especially water, transportation and electric power (Muscat, 1994: 95).

These plans had disappointing results in terms of the distribution of benefits. Thailand's skewed curve of income distribution illustrated this failure: 60 percent of the people received 25 percent of the national income whereas 10 percent enjoyed 38 percent (Parnwell and Arghiros, 1996:6). However, the growth in GDP was remarkable reaching an annual rate of 7 percent during the period of 1962-1971 (ESCAP, 1993:110).

The policy to improve infrastructure and to promote industrial development during this period had a significant impact on migration. The development of a better system of transportation and communication reduced the physical and social distance between rural and urban areas and thus facilitated rural to urban movement. The import substitution strategy, in combination with better road transportation induced rural-urban migration, in particular migration towards Bangkok, where economic activities were concentrated. The total number of in-migrants to Bangkok jumped from 128,811 during 1955-1960 to 312,850 during 1965-1970 (Piriyarangsan and Poonpanich, 1994:214).

Third Plan (1972-1976)

The Third Plan saw a growing awareness amongst NESDB planners of the increasing problems of regional disparity and poverty in the rural areas. To reflect the idea of equal attention to social as well as economic objectives, the name of both the plan and the planning body were changed. The Third Plan was the first one to be called an 'economic and social' development plan and the National Economic and Development Board became National Economic and Social Development Board (NESDB) (Muscat, 1994:134).

The Third Plan continued with the broad objectives of the previous plans, aiming for high growth rates, but due consideration was given to the widening income disparities. The plan set specific priorities for reducing the increasing disparities between urban and rural areas, and between sectors. Several rural-oriented programmes, such as agricultural credit provision and agricultural research and extension, were promoted. Rapid population growth, particularly in the rural areas, was recognised. An anti-natal population policy was incorporated into the plan and the family planning programme was given full support (Muscat, 1994:134).

In this plan five provinces surrounding Bangkok were explicitly identified as regional growth centres. These included Nonthaburi, Samut Prakan, Pathum Thani, Samut Sakhon and Nakhon Pathom. Bangkok and these five provinces formed the largest metropolitan centre in Thailand and became known as the Bangkok Metropolitan

Region (BMR) covering an area of 7,639 km^2 (Isarankura, 1990:59). These new regional growth centres emerged at the same time as the export-oriented industrialisation policy was being emphasised. The government's increases in capital investment of the infrastructure continued to support the export promotion policy (Warr, 1993:31).

It was apparent that this plan did little to redress the regional imbalance. Most of the development expenditure remained firmly concentrated within Bangkok and the Central region (Walton, 1996:113). As a result of regional development and industrial policies, an imbalanced growth pattern, in which the growth was concentrated in Bangkok and its vicinity, was strongly in evidence. In 1978, 54.7 percent of the total registered factories in the country were clustered in the BMR. The urban sector growth in this region drew more and more labour from the other regions. Consequently, migration from rural areas to Bangkok was rapid and clearly visible. The net inflow of migrants to the BMR between 1975 and 1980 was 286,275 accounting for about 90 percent of the country's net interregional migration (Komin, 1991:117,123).

Fourth Plan (1977-1981)

Regional disparities between Bangkok and the rest of the country had led the government to focus on decentralisation. The Fourth Plan thus attempted to switch from a growth-oriented to a more socially awareness approach promoting economic readjustment. The plan's objectives in terms of development issues were: (i) development and conservation of economic resources and environment (ii) diversification and increased efficiency of production in rural areas (iii) development of industry (vi) promotion of tourism (v) development of principal cities and the improvement of Bangkok (vi) dispersion of basic services (vii) dispersion of social services and (viii) social development (Warr, 1993:31).

This plan emphasised for the first time the importance of channelling economic and urban growth away from Bangkok. Population redistribution and urban policy were explicitly specified. The main policy in this plan emphasised the decentralisation of economic and social services to the rural areas. The expansion of basic sectors such as

public utilities, transportation, communication and electricity were encouraged. However, the government realised that rural development alone could not solely curb the problem of migration to Bangkok. The plan proposed a strategy aiming at a more balanced urban system by promoting regional growth centres or secondary cities. Regional urban centres were planned to serve as economic bases to attract migrants to destinations in each region. Six provinces were selected for promotion as regional urban growth centres based on their existing economic bases and their attractiveness to the potential investors. These selected provinces were Chiang Mai in the North; Khon Kaen, Nakhon Ratchasima, Ubon Ratchathani and Udon Thani in the Northeast; and Songkhla-Hadyai in the South (ESCAP, 1993:110).

Two additional policy measures were launched during the Fourth Plan period to decelerate and control the spatial growth pattern of Bangkok. Firstly, a polycentric development model was adopted to guide the pattern of urbanisation in Bangkok. This policy was based on taking advantage of agglomeration economies of the primate city. Linked by the transportation system, this led to expectations that several subcentres or satellites would develop and maintain their self-sufficient socio-economic activities. This urban form was viewed as an alternative to uncontrolled sprawl. Secondly, the major infrastructure facilities would be contained and geared to serve only Bangkok, rather than the whole nation (Pakkasem, 1988:89-90).

The development of satellites around Bangkok to encourage a polycentric growth pattern was expected to help alleviate the pressures on Bangkok in the short and medium term. Three development corridors radiating from Bangkok were proposed to be developed towards the Greater Bangkok Region. The Northern corridor extended towards Nakhon Sawan; a south-eastern corridor, known as Eastern Seaboard, went along Chon Buri to Sattahip; and a south-western corridor ran down to Phetchaburi (Pakkasem, 1988:72-74).

In evaluating the population activities of the Fourth Plan, the government concluded that it had not been successful in reducing migration to Bangkok or encouraging migration to other regional centres. Between 1965-1970 and 1975-1980, while the absolute number

of migrants in other region declined the number of migrants in Bangkok and the Central region increased (Goldstein and Goldstein, 1986: 43-46).

Fifth Plan (1982-1986)

The Fifth Plan had two distinct objectives: firstly economic equity and social and rural development; and secondly, growth and structural adjustment (Muscat, 1994:181). The need for decentralisation continued to be emphasised in this plan with more attention given to the continued implementation of secondary city projects. The plan aimed at promoting infrastructure-led development of selected areas outside Bangkok as a way to establish alternatives to migration to Bangkok (Krongkaew, 1996:312). While continuing with the gradual decentralised urban policy towards other regional city projects, the plan also focused more attention on continued implementation of the new economic zone 'Eastern Seaboard' in order to encourage the development of new industrial sites for basic industry (Rimmer, 1995:186).

The plan also continued polycentric metropolitan development. Restriction of Bangkok's growth was planned through land-use control mechanisms. Land uses, proposed major infrastructure such as highways and expressways, flood protection systems and several self-contained centres were outlined (Keokungwal, 1992:44).

This plan addressed concerns over distribution and social stability in rural areas in a more systematic and effective programme. The government began to focus much more attention upon the problem of rural poverty. High priority was given to areas with large concentrations of population living below the poverty line. The plan identified 246 districts and sub-districts that would be targeted for special assistance such as the expansion of social services (Muscat, 1994:181).

Export-oriented growth received a bigger push in this plan. Industrial policy was to promote export-oriented industries and the dispersion of manufacturing industries to provincial areas. Such dispersion aimed to achieve a balance of growth between urban and rural areas (Warr, 1993:32).

Sixth Plan (1987-1991)

There was a major shift in urban policy in the Sixth Plan. Unlike the previous plan, in which there was an attempt to control Bangkok's growth, this plan shifted the main emphasis towards the improvement of urban management to ensure orderly growth. This policy shift was based on a joint NESDB-IBRD-USAID research project undertaken between 1984-1986 which found that urban development strategies attempting to control the growth of BMR had been notably unsuccessful (Pakkasem, 1988:86-87).

The new urban management policy recognised the fact that BMR is by far the largest economic and employment base in the country. This new policy required a better integration of physical planning and infrastructure measures in order to influence land use and bring about more orderly growth of Bangkok and its surrounding provinces. This policy has also suggested more realistic urban financial management strategies for the BMR which focused on more appropriate cost-recovery and cost-sharing among the central government and local authorities, state enterprises and the private sector. This was to reduce central government subsidies and increase the role of those concerned in the provision of infrastructure and services by means of 'beneficiary charges and self financing'. Four key elements of this approach were; cost sharing, cost-recovering, revenue enhancement and privatisation (Pakkasem, 1988:91-92).

The effective implementation of this new policy called for the improvement of institutional arrangements. This led the government to establish the Bangkok Metropolitan Development Committee (BMDC). This committee was appointed to be responsible for integrated spatial development planning and programming initiated by various agencies at the national and local levels (Pakkasem, 1988:90-94).

At the same time, the concept of regional city centres was re-emphasised. Six more 'second generation' urban centres were added to the original list of five provincial centres to form the core city urban centres. These six main urban centres included Phitsanulok, Nakhon Sawan, Udon Thani, Ratchaburi, Surat Thani and Phuket. In

addition, 13 cities were identified as 'third generation' urban growth centres namely: Lampang, Chiang Rai, Ubon Ratchathani, Roi Et, Surin, Sakon Nakhon, Rayong, Chacheongsao, Saraburi, Kanchanaburi, Petchaburi, Pattani and Si Thamarat (Ashakul and Ashakul, 1988:42) (Figure 6.1).

The plan also designated the southern region as an area for potential development. A plan for development of industrial estates in the proximity of the Songkhla deep sea port and the Phuket deep sea port were prepared in this plan (Krongkaew, 1996:312, Ashakul and Ashakul, 1988:42). More attention was also given to the continuation of the development of the Eastern Seaboard sub-region. Krongkaew pointed out that a great deal of effort was put into achieving the goals of the regional development policy in this period. These goals were mainly to strengthen the industrial bases of the regional city centres (Krongkaew, 1996:312)

The regional development policy outcome of this plan was not fully successful. While improvements in the provision of public utilities in many of the core cities took place, many other objectives were not met. For example, the interest in small-scale and rural industries became overshadowed by the promise of large-scale investment projects such as those contained in the Eastern Seaboard. Rural industrialisation lost effective public support. Moreover, the economic boom during the late 1980s heightened the process of rural-urban migration mainly to Bangkok and its vicinity (Krongkaew, 1996:313). The data from the 1990 population census indicated that Bangkok exerted a strong pull on migrants from all parts of Thailand. During 1985-1990, 638,800 migrants moved to Bangkok. This number of migrants almost doubled from the previous decade. The largest interregional stream was the migration from the Northeast to Bangkok with 303,700 migrants (NSO, 1993:61). It is clear that, in general, migration from the Northeast to Bangkok was the most outstanding of all.

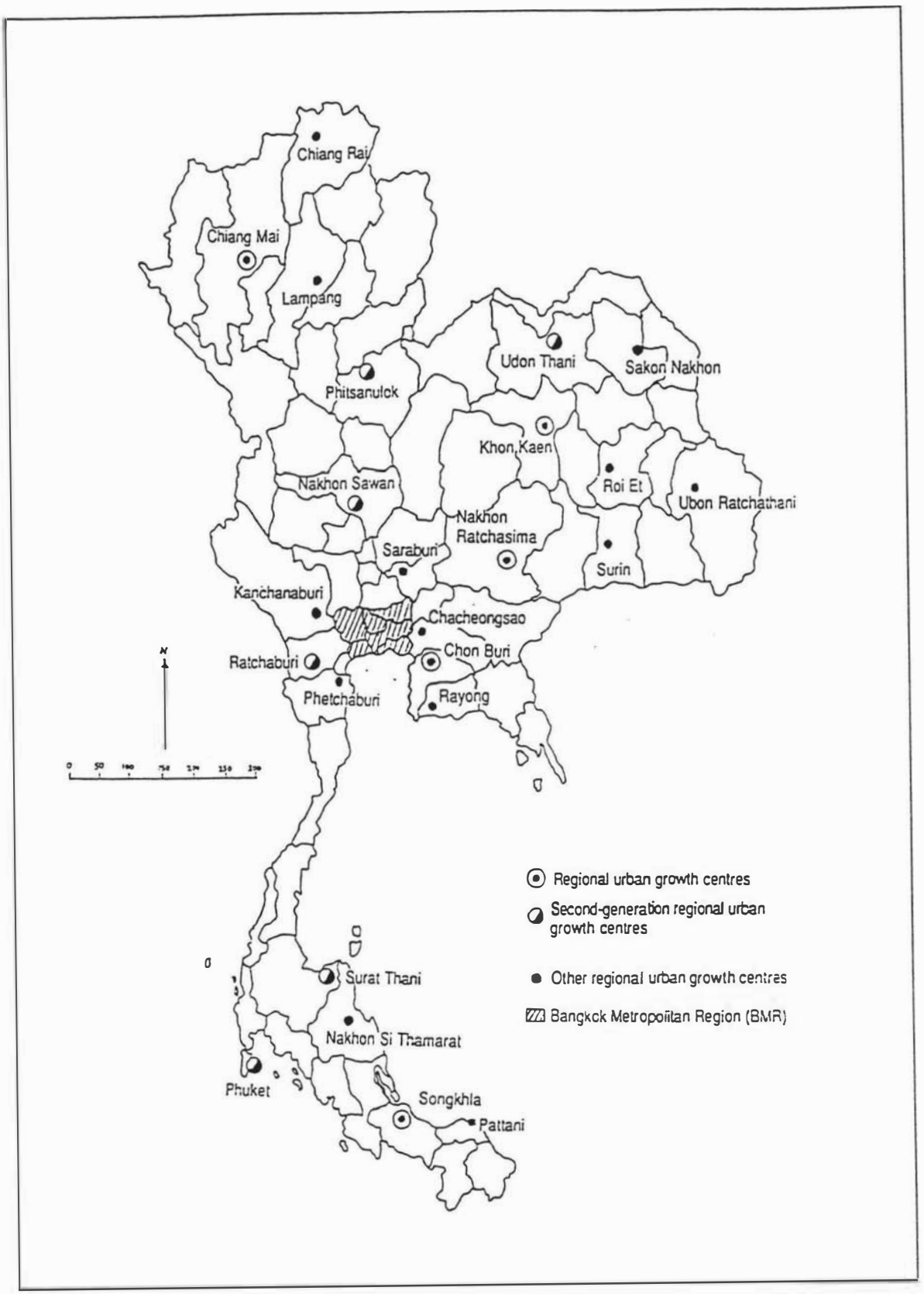

Figure 6.1: Regional Urban Growth Centres

Source: Keokungwal, 1992:45

The government also further attempted to foster the wider distribution of income and prosperity. During the Sixth Plan, a significant share of the budget was devoted directly to rural development and rural employment projects, this being 6.6 times higher than that of the Fifth Plan. However, this goal was not fully achieved. The distribution of income continued to worsen. The income share of the richest quintile grew from 49.26 percent in 1975/76 to 54.98 percent by 1988/89, whereas the income share of the poorest quintile declined from 6.05 percent to 4.5 percent during the same period (Hutaserani and Tapwong, 1990:8a). There was also a growing disparity in the regional contribution to national income. Bangkok's contribution to total GDP increased from 42 percent in 1981 to 48 percent in 1989, while other regions experienced a relative decline, such as in the Northeast declining from 14.7 to 12.9 percent, the North 13.5 to 11.4 percent and the South 13.5 to 11.4 percent (NESDB, n.d:3).

Seventh Plan (1992-1996)

Thai planners have become increasingly concerned with regional disparities, as it is noted in the Seventh Plan that "income disparities among households of different socio-economic status and between rural and urban areas have increased to an alarming level" (NESDB, n.d:3). This plan set its three main objectives: (i) promote sustainable growth and stability (ii) improve equity (iii) upgrade quality of life and environmental and natural resource management. The document argued that to achieve more sustainable development, equal priority must be given to these three main objectives (NESDB, n.d:4-5). This plan differed from previous plans in that its main objective was to improve income distribution, whereas the objective in the other plans was mainly based on economic growth (Schmidt, 1996:79).

The urban and regional development policy in this plan adopted a somewhat mixed approach. This plan adopted a new regional network strategy to supplement the growth pole or growth centre policy. The new regional network concept was advocated by Douglass, who contributed to the study on the National Urban Development Policy Framework Project with TDRI (Thailand Development Research Institute). Unlike the growth pole policy, which focused on urban-based manufacturing as the leading sector

for regional development, the regional network policy recognised the multisectoral nature of local-level development in rural regions, rural or regional resource endowments and already existing activities. According to this concept, the clustering of many settlements would be developed towards their own specialisation and localised hinterland relationships (Krongkaew, 1996:328-328). This strategy recognised the necessity and usefulness of the extended BMR concept and a new urban hierarchy.

Emphasis was put on promoting the development of the Bangkok Metropolitan Region because the government realised its importance as the major economic centre for the present and foreseeable future. It saw the BMR as being able to facilitate the structural transformation of the country and enable closer integration with the international economic system. The development of the Bangkok Metropolitan Region and new economic zones emphasised the development of infrastructure facilities to direct growth and land use of the BMR in an appropriate and orderly direction thus ensuring a better connections and integration with the Eastern Seaboard. This aim is to develop the entire area into an integrated urban conglomeration with the same network facilities and services (NESDB, n.d:90)

To link the other urban centres with the extended BMR, the plan identified urban centres to be developed in each region. For instance, in the case of the Northeast, while Khon Kaen would be developed as the centre of trade, service, transportation and education of the region, Udon Thani would be developed into the centre of trade and services to serve the neighbouring countries of Indochina and to be linked with Sakon Nakhon and border trade points in Nong Khai and Mukdahan. Nakon Ratchasima (Khorat) would be developed as an industrial centre to be linked with the Eastern Seaboard and other urban centres in the lower Northeast, including Ubon Ratchathani, Roi Et and Surin (NESDB, n.d:122-123).

The outcome of this plan has not yet been evaluated. However, the most recent study on income distribution by Kakwann and Krongkaew (1996) reveals that there was an improvement in income distribution in 1994. The income share of the richest quintile dropped from 59.04 percent in 1992 to 57.52 percent in 1994, whereas the poorest

quintile increased their share slightly from 3.94 percent in 1992 to 3.99 percent in 1994. Moreover, it was found that the relative income shares of all groups except the richest also increased. This was confirmed by the reduction of the Gini coefficient index which declined from 0.536 to 0.525 during the same period. This study further investigated the trend of poverty incidence using the new poverty line which took into account three main factors: sex and age; family size; price of food and non-food items. The results indicated that there was a drastic drop in poverty incidence for the whole country from 23.1 percent in 1992 to only 14.3 percent in 1994. But what was most interesting was the marked decline in poverty incidence in rural areas, falling from 29.8 percent in 1992 to 18.7 percent in 1994. The decline in poverty was most pronounced in the rural Northeast where the percentage fell from 40.7 percent in 1992 to 25.1 percent in 1994. The authors of this study claimed that this was mainly attributed to the general effect of trickle-down income growth in combination with the slowdown in food prices in the rural areas (http:/www.bangkokpost.net/y_end_eco_rev/yr96inc.html).

Although it may appear that the implementation of urban and regional development in the previous and present plan achieved, to some extent, the objectives of reducing inequalities, the impact on reducing rural-urban migration has yet to be known. It is too early to permit any meaningful evaluation of the new approach proposed in the Seventh Plan. The success of this new approach depends very much on the administrative and institutional structures as well as financial support. Whether it will become more effective in diverting the migration flow from the BMR than any of those in previous plans remains to be seen.

Agricultural Policy

Agriculture had been the main driving force of Thailand's economic growth since World War II. In 1960, agriculture contributed 40 percent of the total GDP, 90 percent of the total exports and 82 percent of employment (Krongkaew, 1995:35) Moreover the taxation on agricultural products contributed substantially to government revenue. Despite the decline in the share of agriculture in GDP from 40 percent in 1960 to 12 percent in 1990, it still provides the most important source of income for the majority of the

people. About two-thirds of the total population are engaged in agriculture. Government intervention in the agricultural sector therefore has inevitably had a considerable impact on the majority of the population.

Rice Policy

The most controversial agricultural policy in Thailand, and the one with the longest history, has been rice policy. Historically, rice was the main single crop that dominated the agricultural economy of Thailand. Rice is the main staple of consumption for Thai people and the majority of Thai farmers grow rice. Rice farming employed 67 percent of the total labour force in 1970 and this remained as high as 57 percent in 1980 (Muscat, 1994:76). Rice accounted for about 82 percent of the planted area in 1960, though by 1990 it had declined to 58 percent (Krongkaew, 1995:39). Rice made up 26 percent of the value of Thai agricultural exports in 1990 and 15 percent of total exports (Krongkaew, 1995:49; Simon, 1996:90). Rice retained its first ranking as the foreign exchange earner from the exports until it was overtaken by textiles in 1985. It should be noted that rice was, and still is, the major agricultural commodity for export, although its current export significance has been challenged by many other crops such as rubber, cassava and sugar.

Thailand has been one of the world's largest rice exporters and its share in the international rice market was betwen 20 to 25 percent between 1955-66 (Siamwalla, 1975:241). In 1972, its share rose to more than one-third (Tolley et al., 1982:78). However, domestic consumption accounted for a larger proportion of its production which was 92 percent in 1970 (Donner, 1978:88). Since rice plays the dominant role in domestic consumption and export, the government intervened in the rice trade, both domestically and internationally. The main objective of government intervention was to control export volume to ensure that sufficient domestic supplies were available at affordable prices.

The dominant objectives of the rice policies of the 1950s were to increase government revenues and export earnings. In the 1960s and 1970s, consumer welfare, price stability

and industrial growth became the primary objectives which shifted to farmers' income and agricultural growth in 1980 (Panayotou, 1989:71).

In Thailand, government intervention in the rice trade started in the post-war period. Following World War II, Thailand was forced to pay war reparations in the form of 1.5 million tons of rice. This obligation caused the government to enter into the rice trade. To meet the obligation of war reparations, the government banned exports of rice and assigned the sole right to export rice to the new Rice Office. The rice supply obligation was lifted at the end of 1949. Since then the government handled only sales to foreign governments, and the remainder was handled by private firms, to which the Ministry of Commerce issued licences for export sales (Tonguthai, 1987:187).

In 1947 a multiple exchange rate system was established and retained until 1955. Under this system rice exporters were supposed to exchange their earnings from foreign sales at a lower than market exchange rate. In 1946 the exchange rate was set at 40 baht per pound sterling while the exchange rate obtained in the free market was 60 baht per pound sterling. This system resulted in a substantial tax on rice exports equivalent to about one-third of export proceeds (Siamwalla, 1975: 236).

There have been many rice policy instruments that the government used in an attempt to achieve its objectives. Over the years four major instruments have been implemented namely, rice premium, export duty, rice reserve requirements and export quotas (Trairatvorakul, 1984:15).

(i) *Rice Premium and Export Duty*

In 1955, the multiple exchange rate system was replaced by the rice premium. This system required the rice exporters to pay a specific tax for each ton of rice exported. The rate was fixed for different grades of rice. A premium of 400 baht per ton for all grades except brown rice (200 baht per ton) was imposed by the Ministry of Commerce on licensed exporters (Panayotou, 1989:72). In addition to the rice premium, the government also imposed a regular export duty on rice. The export duty was collected

by the Ministry of Finance at the rate of 5 percent of the f.o.b. (free on board) export price. This rate was cut to 2.5 percent in 1984 (Siamwalla and Setboonsarng, 1991:239).

The rice premium was more important than the export duty since it was larger in scale and subjected to large and rapid adjustments. A study of the Thai rice trade by Usher (1967:221) showed that, while the export duty was only 4.2 percent of the f.o.b. export price (100% rice), the rice premium was equivalent to 38 percent of the f.o.b. export price. The rice premium was used as an important instrument to control the price level, to keep it low and stable. The rates of the rice premium were subjected to change according to the market conditions. The rice premium was raised when the export price rose to prevent increases in domestic prices. The premium was also raised if the export volume threatened to produce a shortfall of supplies for domestic consumption. On the other hand, if the international price fell, the government reduced the premium to maintain the competitiveness of Thai rice in the export markets and to stabilise the domestic wholesale price which would otherwise be affected by the surplus above the consumption demand (Muscat, 1966:107-8).

(ii) *Rice Reserve Requirement*

Another form of taxation on rice was the rice reserve ratio. A rice reserve ratio was imposed on exports to procure rice for a direct consumer subsidy. In 1966, exporters were required to supply a fixed proportion of rice for every ton exported to the Public Warehouse Organisation (PWO) at prices set by the government below market rates. The amount required would be fixed according to local needs. This served to ensure that the government had a supply of rice that could be sold in urban rice shops at a price below retail market price. The reserve requirement was usually abolished or suspended when the retail price of rice in the domestic market fell. When the rice price rose due to production failure, the reserve ratio was raised. In the year of a rice crisis, in 1973 for example, the rice reserve ratio was raised up to 200 percent. The amount of rice reserved was equal to 39 percent of annual exports in 1973 and up to 59 percent in 1974 (Tolley et. al., 1982:82-4).

The rice reserve ratio implied significant additional tax on rice exports. Since the price paid by the government was less than the market price, the exporters incurred a loss on the rice delivered to the reserve. In 1980, the loss incurred by the exporters was estimated to be 1,590 million baht. The government also bore the costs of purchase, distribution, and supervision to this subsidy to urban consumers which was amount to 245 million baht in the same year (Tonguthai, 1987:189).

(iii) *Export Quotas*

The export quotas involved direct control over the volume of rice exports, especially during periods of shortage in the domestic market. During years when there was a rice shortage, as in 1972-3, when a world shortage arose, the price in the international market was high. The rice premium alone did not ensure an adequate domestic supply at the desired price. The government had to impose a quota on rice exports.

The combined effects of these instruments resulted in low domestic wholesale prices and farm prices. Usher (1967) used the information provided by a particular mill in 1965 and found that the farm price received by the rice farmers was 79 percent of the Bangkok retail price and only 46 percent of the f.o.b. export price.

Bale and Lutz (1981) in a study of the effects of price distortion in agriculture, using the data from both developed and developing countries, indicated that the most sizeable effects were the welfare transfers between consumers and producers. While the producers in developed countries received large transfers due to price protection, the producers in developing countries incurred large welfare losses from price intervention. On the other hand, consumers in developing countries gained whereas the consumers in developed countries incurred large welfare losses. The study estimated that in the case of Thailand, price distortions resulted in a welfare gain for rice consumers of about US$ 750 million and a welfare loss for rice producers of about US$ 850 million in 1976.

The results of this study implied that government interventions particularly with respect to rice, led to large implicit transfers from the rural sector to the urban sector. The

agricultural sector bore a heavy burden of support to keep the price of rice low for non-agricultural consumers.

A study of the effects on real income of an increase in rice price found that if the rice price rose 10 percent, the largest gains would have accrued to rural households in the highest income groups. The study showed that the net gains acquired by the top three decile accounted for 37 percent of the total net gains to the rural sector. Although the gains by the bottom four decile would have been less than those in the top decile, it accounted for 27 percent of the total net gains in the rural sector (Trairatvorakul, 1984:81).

The Bale and Lutz study also found that agricultural price distortion had the effect of reducing farm employment and stimulating migration in developing countries. Using the high supply elasticity and marginal labour coefficients, in the case of Thailand, the total reduction in agricultural employment for rice was 225,233 workers (Bale and Lutz, 1981, table 2). The reduction in employment in rice production accounted for a large proportion of this.

The rice policies while maintaining low urban wages by suppressing rice prices, have had a significant effect on the countryside. The agricultural surplus of the rural sector was transferred to the urban sector in terms of a lower cost of living. The heavy taxation on rice exports has impeded technological change, resulting in limited growth of rural productivity in the rice sector (Pakkasem, 1988, 26). This taxation combined with inflation pressures and the increase in consumer-oriented economy of the 1970s, have resulted in the massive migration from the Northeast to Bangkok (Porpora and Lim, 19870).

Agricultural Credit

The principal institutions involved in agricultural credit are the Bank of Thailand (BOT) and the Bank for Agriculture and Agricultural Co-operatives (BAAC). The role of BOT is to regulate the allocation of resources to agricultural credit. In 1974, agricultural credit was 1.3 billion baht or only 2 percent of the total commercial bank credit. At the

same time, the agricultural credit provided by BAAC was only 2.7 billion baht, falling far short of the total requirement (Muscat, 1994:144).

To command an increase in institutional credit to farmers, the BOT in 1975 instituted a requirement that commercial banks commit at least 5 percent of their total lending to the agricultural sector, either directly or through the BAAC. By 1979, the percentage of this compulsory credit was raised to 13 percent, of which 2 percent could be allocated to agribusiness (Walton, 1996:114-115). In 1987, the commercial banks were required to allocate 20 percent of their lending to the rural sector, whether agriculture-related or not. As a result of these interventions, loans to the agricultural sector by commercial banks rose from 3,904 million baht in 1975 to 30,432 million baht in 1980 (Adulavidhaya and Onchan, 1985:445). The percentage of farmers reached by institutional credit increased sharply from less than 10 percent in 1975 to more than 25 percent in 1977 (Puapanichya and Panayotou, 1985:46). In 1990, it was estimated that almost 60 percent of all farmers had access to institutional credit. About 80 percent of these borrowers were served by BAAC (Muscat, 1994:168). In 1991, the credit granted to farmers and agribusiness was 109,880 million baht by BAAC and 875,569 million baht by commercial banks or 18.2 percent of their deposit. However, as stated in the Seventh Plan, "this was not sufficient to cope with actual needs, and did not sufficiently reach agricultural workers at large" (NESDB, n.d:105).

Along with compulsory credit for the agricultural sector, there was an attempt to stem the reverse flow of funds to Bangkok. The BOT instituted a requirement that the provincial banks extend lending up to 60 percent of their deposits within their own catchment areas. One-third of this lending should be extended to farmers (Walton, 1996:115).

Land Reform

To address the problem of increasing tenancy and landlessness among Thai farmers, the government established the Agricultural Land Reform Office (ALRO) in 1975. The main aims of the office were to: (i) enable farmers to have their own land for cultivation (ii) increase agricultural production (iii) reduce the income gap between the rural and

urban population. Land reform was undertaken on an accelerated basis during the Fourth Plan period. However, due to lack of information and funds ALRO achieved only a fraction of the set target. By 1980, only 13 percent of the target area and 19 of the target families had been settled (Puapanichya and Panayotou, 1985:50). In 1993, the government claimed that the land reform operation provided 724,800 hectares of public land for 230,834 households which was more than what was achieved in the first 18 years of operation since 1975. But this claim has been challenged by the well-known agricultural economist Prof. Thongroj Onchan, Dean of the Faculty of Economics at Kasetsart University. He argued that the land reform operated by the government is just the process of offering land rights to people who occupy degraded forest land which is not the real meaning of land reform. He further asserted that in the absence of land redistribution for agricultural production, which means transferring ownership of privately-owned land from large holders to small holders, the poverty and landlessness problems in the rural areas could not be solved (*Thai Development Newsletter* no.25, 1994:7).

Industrial Policy

During the 1960s and 1970s the primary objective of the government was to stimulate economic growth via an increase in private investment. The government provided the necessary environment to facilitate private undertakings. The government invested heavily in the basic infrastructure, including electricity generation, highways, inland waterways, and air-transport facilities, as well as improving the telephone and postal services. The promoted industries were import-substitution. This was a response to the economic situation at that time. Increasing trade deficits, resulting from the rising importation of consumer products and only slow increases in agricultural exports, caused the government to adopt the import-substitution strategy. It was viewed by the government as an effective way of reducing Thailand's dependence on imported consumer goods and saving of foreign exchange.

The Promotion of Industrial Investment Act of 1954 was reactivated with major improvements in incentive provisions. The Board of Investment (BOI) was established

to administer this Act. The Investment Promotion Act of 1960 provided the framework for direct government intervention implemented through the BOI. Under this Act, the industries entitled to receive promotion privileges were grouped into three categories: Group A, which normally received the highest level of promotion, included mainly capital-intensive industries; Group B industries were assembling industries; and Group C industries were mainly labour-intensive and service industries. All these industries were exempt from business and sales tax for up to five years. They were also exempted from import duties on raw materials for 100 percent in group A, 50 percent in group B and 33 percent in group C (Suphachalasai, 1995:77). The incentive measures provided by the revised Investment Promotion Act encouraged the expansion of import-substitution industries (Dhiratayakinant, 1995:101). During the rapid growth of manufacturing between 1960-1970, the employment created by this expansion was disappointing. While manufacturing value-added rose 2.8 times, manufacturing employment rose only 50 percent in absolute numbers. This suggested that the incentive system was encouraging capital-intensive enterprises (Muscat, 1994:107-108). It was clear also that the capital intensive enterprises were import-dependent. As a result, these industries tend to locate plants near the source of supply in Bangkok.

Although ISI succeeded in maintaining industrial growth during its initial phase, it became clear to Thai policy makers by the late 1960s that its efficiency would be constrained by the small domestic market (Chaiyasoot, 1995:161). At the same time, ISI relied heavily on imported materials and capital equipment whereas exports were small, causing a deterioration in the trade balance. Balance of payments deficits in 1969 and 1970 resulted in a shift in policies from import substitution towards export promotion (Robinson et.al, 1991:7).

The Investment Promotion Act was amended in 1972 and 1977 to give greater incentives to export industries. The incentives offered included tax and tariff exemptions, a guarantee of government protection from nationalism and from direct competition by state enterprises, and the rights of profit and capital repatriation (Warr, 1996:80). The description of incentives granted under the Investment and Promotion Act 1977 is presented in Table 6.1. In addition, there were other measures not

administered through the BOI to help promote exports such as export credit facilities and production tax rebates. The Bank of Thailand provided manufacturing and export credit assistance. Export credit assistance has been used on a greater scale than credit assistance for investment in manufacturing. The share of exports receiving credit assistance increased sharply from US$ 1.7 billion in 1980 to US$ 3.5 billion in 1991, accounting for 12 percent of the total exports. This percentage was as high as 33 and 37 percent in 1980 and 1986 respectively. It should be noted that in 1980 and 1986 the share of manufactured exports receiving credit assistance was double that of their agricultural counterparts (Suphachalasai, 1995:78-79). The Ministry of Commerce provided information on products and foreign markets through its Export Service Centre established in 1975 (Tinakorn, 1995:227). At the same time import tariffs were raised significantly to protect local industries. The high import tariffs contributed 30 percent to the total tax revenue in 1971 (Phongpaichit and Baker, 1997:145).

Thailand's rapid export growth of labour intensive manufactured products began in the mid-1980s. This has been, to a larger extent, the result of an increase in local competitiveness, and to a lesser extent a growth in demand for Thai exports in overseas markets. Increasing labour costs in the Asian NICs and appreciation of their currencies reduced their competitiveness, to the benefit of Thai exporters. As a result, foreign direct investment increased steadily from US$ 45 million in 1970 to US$ 2.5 billion in 1985. The manufacturing sector has been the main recipient in which electrical appliances, textiles, chemical and petroleum products and transport-equipment industries received a substantial share. Although the share of foreign direct investment in gross domestic investment has only been around 5-10 percent, it has been concentrated in the most dynamic export-oriented sector. It has played an important role in manufacturing and pioneered a number of industries. For instance, the effects of private direct foreign investment in the textile industry have been found to be positive because they were not only import substituting but also export oriented. By the late 1980s, the textile and garment industries were found to be the most rapidly increasing subsectors of urban employment. It is quite clear that the growth of these industries had

Table 6.1: Description of incentives granted by the BOI under the Investment Promotion Act 1977

General tax incentives	Additional incentives for promoted zones	Additional incentives exported-oriented firms
Exemption or 50% reductions of import duties and business taxes on imported machinery	Maximum reduction of 90% business taxes on the products sales for 5 years	Exemption of import duties and business taxes on imported raw material and components
Reduction of import duties and business taxes of up to 90 % on imported raw materials and components	Reduction of 50 % of corporate income tax for 5 years after the termination of a normal income tax holiday or from the date of income earning	Exemption of import duties and business taxes on re-export items
Exemption of corporate income taxes from 3 to 8 years with permission to carry forward losses and deduct them as expenses for up to 5 years	Allowance to double the cost of transportation, electricity and water supply for deduction from taxable corporate income	Exemption from export duties and business taxes
Exemption of up to 5 years on withholding tax on goodwill, royalties or fees remitted abroad	Allowance to deduct from the taxable corporate income up to 25% of the investment in the costs of installing infrastructural facilities for 10 years from the date of income earning	Allowance to deduct from the taxable corporate income the amount quivarent to 5% of an increase in income derived from export over the previous years, excluding costs of insurance and transportation
Exclusion from taxable income dividends derived from promoted enterprises during the income tax holiday		

Source: Board of Investment, 1979: 46-47

contributed additional savings, foreign exchange earnings and employment to the Thai economy (Suphachalasai, 1995:78-82). They employed around 600,000-800,000 workers. Textiles and garments accounted for 26.9 percent of total manufactured exports in 1981 (Phongpaichit and Baker, 1997:153-160). While FDIs encouraged rapid economic growth in the industrial sector, they also contributed to the continuing concentration of urban growth in the BMR. During 1979-1990, 67.8 percent of the foreign investment projects approved by BOI were located in Bangkok and its five surrounding provinces (Krongkaew, 1996:303).

Attempts to disperse industries out of Bangkok began in the early 1970s. Measures to promote rural industry started in 1973 when the BOI identified ten Investment Promotion Zones located beyond a 50 kilometre radius of Bangkok. Additional tax incentives were granted to investments in these promoted zones. It was pointed out in a BOI report that the major constraint retarding the promotion of industry in promoted zones was the lack of infrastructure facilities. Accordingly, in 1978, the BOI replaced the ten promoted zones with the four newly promoted zones located in the designated regional growth centres to be benefited from the infrastructure facilities (Panpiemras, 1988:47-60).

Despite the additional incentives detailed in Table 6.1, the attractiveness of Bangkok continued to strongly influence the location of industry towards the centre. In many cases industries took advantage of the additional incentives by merely locating just beyond the 50 kilometre radius from Bangkok, and this led to the clustering of industrial plants along the North and the Northeast highways (Walton, 1996:114). It was found that about 85 percent of industries promoted during 1960-1977 were located in Bangkok and the Central region. Pakkasem (1988:61) asserted that the size and structure of incentives were insufficient to compensate the extra costs associated in locating the factories outside Bangkok.

During the 1980s, the export-oriented industries were developed along with import substitution industries. The export sector received the greatest attention while the domestic manufacturing industries were continuously promoted. More attention was

given to rural industries and the establishment of industries in regions away from the BMR was encouraged (Dhiratayakinant, 1995:108).

The high degree of industrial concentration in Bangkok can be attributed to the powerful economies of urban agglomeration in both the input-supply side and on the output side. On the supply side it provides greater access to production services, credit services and skills. On the output side, the multiplicity of transport, marketing and communication services can be used to reach consumers and markets elsewhere. These resulted in the reduction of the costs of all firms which must be enough to offset the diseconomies due to high wage, rent and congestion costs in Bangkok. Moreover, Bangkok is also the biggest consumer market for manufactured products because of its population size, economic activities and purchasing power (Poapongsakorn, 1995:121-124).

Despite the industrial spatial policy already adopted, the measures are still biased against small firms. Firms investing less than 5 million baht are not entitled to promotion (Poapongsakorn, 1995:136). There was also a contradiction in policies. For example, in 1972 (the same year that regional incentives were introduced) the BOI also introduced measures to promote export manufacturing industries which clearly favoured Bangkok as a location base (Walton, 1996:115). Again in 1987, while the BOI ceased to grant investment privileges to projects locating in Bangkok and Samut Prakan, it provided an exception for large export-oriented firms with more than 200 employees (Poapongsakorn, 1995:126).

In 1993, the government issued the investment promotion policy which classified the country into three investment zones. Under this new policy the investments in Zone 3 (which includes the Northeast region) receive the most generous incentives. The major changes included privileges for domestic production in Zone 3 which were formerly restricted, and tax exemptions for firms relocating from congested areas to outer zones. This was to encourage the decentralisation process. In addition to this new policy, the BOT introduced a financial scheme to assist small and medium scale industries locating in Zone 3. Low interest credit would be provided to promoted firms with investment not exceeding 200 million baht. As a result, there was an abrupt increase in the number of

investment applications in Zone 3 from 176 projects in 1992 to 801 projects in 1993 (Walton, 1996:119-120).

The promotion of industries outside Bangkok was unsuccessful until recently when the diseconomies of congestion in Bangkok began to have an effect. The data on the distribution of new projects receiving investment privileges from the BOI suggest that there has been a trend towards a widening distribution of industries from Bangkok since 1988 (Poapongsakorn, 1995:119-120). A study by Nuttapong and Bunluesak found that industrial decentralisation is affected more by market forces than policy measures. The congestion costs of doing business in Bangkok is perhaps the most important factor. Other factors affecting the industrial location are market size and agglomeration economies. The study also suggested that this decentralisation process was generated by rapid economic growth since 1987 (cited in Poapongsakorn, 1995:127). Increased land prices in Bangkok and the inner ring areas was also found to be a major factor pushing industries into the outer ring (Ichikawa, 1991:74). It seems clear that these factors combined with the effects of the decentralisation policies are at work since there is a growing number of new large projects which have chosen to locate their plants in the outer ring and regions other than Bangkok (Poapongsakorn, 1995:119).

Specific Area Development

The Eastern Seaboard is a large-scale industrial development program initially proposed in the Fourth Plan. This programme represented a strategy of regional industrialisation and large scale planned investment that covers three provinces (Chon Buri, Rayong and Chachoengsao) along the eastern coast of Thailand. The development of the Eastern Seaboard was originally designed to serve as an alternative industrial location to the BMR and as a gateway to the development of the lower Northeastern region (Dhiratayakinant, 1995:104-105).

The two major industrial sites to be developed at the ESB are the Map Ta Phut industrial estates in Rayong and the Laem Chabang industrial estates in Chon Buri. The Map Ta Phut industrial complex located 200 kilometres southeast of Bangkok is to be

developed for gas-related, petro-chemical and heavy industries. Laem Chabang will be developed to house a mix of industries, including agriculture-based and export-oriented industries. Originally, the total investments were estimated at about US$ 4 billion (at the 1981 price) (Ashakul and Ashakul, 1988:43-44).

Due to the slow down in economic growth during the early 1980s, many of the ESB projects were delayed or scaled down but with the recovery of the economy after 1985, the ESB projects were accelerated (Warr, 1993:144-145). The major infrastructural components at Laem Chabang were built between 1988-1994. Laem Chabang is now almost fully built with large industries manufacturing such items as tyres, television tubes and auto-parts. Most of the petrochemical industries, ranging from gas separation to basic chemicals and plastics and other intermediary products, are concentrated in Map Ta Phut (Simon, 1996:97). However, the full potential of ESB has yet to be realised due to an inability to generate the capital required for such an ambitious undertaking (Dhiratayakinant, 1995:105).

Conclusion

During the early stage of economic development in the 1960s and 1970s, agriculture contributed to the growth of industrialisation. Foreign exchange earnings from agricultural exports provided the manufacturing sector with the capital needed to obtain imported machinery. The policies were biased against the agricultural sector, for while they protected and promoted the manufacturing sector, they imposed heavy taxes on agricultural exports. The most prominent among these policies was the operation of the rice premium on rice exports. The rice premium, by keeping down the domestic rice price, helped maintain a low urban wage level which in turn promoted the manufacturing sector and encouraged the movement of labour from the rural areas to the urban areas where employment was concentrated. The price bias against the agricultural sector plus the structure of investment incentives directed resources away from the agricultural sector. A study by Siamwalla and Setboonsarng (1989) estimated that from 1963 to 1984 there was a net transfer of 30,000 million baht from the agricultural sector through taxation imposed on rice exports.

The high levels of tariff protection aimed at supporting import substitution industries favoured the urban sector at the expense of rice producers. Domestic manufacturing industries benefited from this industrial protection. On the other hand, agricultural producers not only had to pay export taxes, but suffered from the high price of imports necessary for agricultural production which were subjected to import tariffs. One such policy that had a substantial and direct effect on farmers was a policy to promote local fertiliser production. The high tax was imposed on imported mixed fertiliser which was mainly used by the farmers. This policy was criticised as a factor that increased fertiliser prices (Puapanichya and Panayotou, 1985:45). This, together with the rice price policies favouring the urban sector, have significantly benefited the urban consumers at the expense of rice growers, increasing income inequalities and leading to the massive migration from the rural area to urban areas, Bangkok in paticular.

The industrial sector has been consistently supported by government policy. Although recently the policies were geared towards industrial decentralisation to disperse economic activities away from Bangkok, there were some policy measures which both directly or indirectly enhanced the attractiveness of Bangkok. Among these other measures, which conflicted with the explicit policies to decentralise industrial activity and slow rural migration to Bangkok, were the promotion of export-oriented industries and the development of the Bangkok Metropolitan Region. These measures tended to reinforce economic factors which increased industrial concentration in Bangkok and the surrounding provinces. Only very recently have diseconomies, caused by over congested and the high price of land in Bangkok and the nearby provinces, pushed away some industries into the outer regions.

Economic growth in the urban sector, in particular the Bangkok Metropolitan Region, has attracted more and more labour from the rural areas. The government tried to address this problem by adopting the growth pole concept in the late 1970s. Regional urban growth centres were developed to provide an economic base in the regions and provide alternatives to Bangkok. However, these urban growth centres have not proven to be effective in changing the volume and direction of migration flows.

Recently, policy has shifted from the growth pole concept, which focused on urban-based manufacturing, to a regional network which encouraged the development of regional urban centres towards their own specialised and localised hinterland relationships. At the same time, instead of controlling the growth of Bangkok the policy put more emphasis on the development of the Bangkok Metropolitan Region.

The government's efforts to reduce poverty and regional disparities appear to have achieved some degree of success. However, the economic crisis of 1997 is putting more financial pressure on the government to continue and undertake new development projects. This economic crisis causes a substantial loss of employment in urban economies especially in the BMR. This is likely to have a positive effect on slowing down rural-urban migration to the BMR. The impacts of this crisis on the migration process need further investigation. The new issue challenging the government is the plan to accommodate those returned migrants and the potential migrants in the rural economy.

CHAPTER 7

PATTERNS OF MIGRATION

Introduction

Although mobility among the Thai population is relatively low and predominantly involves a movement over short distances within the rural areas, the movement from rural to urban areas has recently become increasingly important. The proportion of rural-urban migrants has increased from 10.5 percent in 1970 to 18.4 percent in 1990 (NSO, 1993:58). The data from the census since 1960 show that over the last four decades Bangkok has continued to be the most popular destination for migrants from all parts of the country, particularly the Northeast region. About 42 percent of the total migrants who moved across the regional boundaries between 1985-1990 moved to Bangkok. The interregional lifetime migrants in Bangkok made up one-third of its population in 1990. This clearly suggests that migration contributed to a large portion of Bangkok's growth (NSO, 1993:61,67). The continuing trend towards population concentration in Bangkok has brought increasing concern among Thai planners as has already been discussed in the previous chapter.

Population movement in Thailand, as in other developing countries, is usually a selective process. However, the pattern of differentials varies by urban-rural status of place of origin and destination. In general, migrants are predominantly young and better-educated adults. Rural-urban migration tends to be female dominated, while male dominated in rural-rural flows. This selectivity of migration plays an important role in demographic, social and economic change in the origin as well as destination areas.

The 1960 population census, for the first time, provided the main source of data for the analysis of migration in Thailand. The questions about the province of birth and the province of residence five years before the census provided information on lifetime and five-year migration. In the 1970, 1980 and 1990 census, a question on the urban or rural character of the migrant's previous place of residence was asked, thus allowing measurement of flows between rural and urban places that was not possible from the

1960 census data. In the 1980 and 1990 census, those who had changed place of residence in the five years preceding the census were asked the reasons for their move.

As noted in Chapter 2, census data are not the best source of data for capturing some types of movement, particularly seasonal movement. However, the census involved a large number of migrants, thus providing adequate representation of all parts of the country allowing comparative analyses of regional or urban-rural differentials. Furthermore, each census was conducted at the same interval which made the analysis of changing migration patterns over time possible.

This chapter describes the patterns of population redistribution in Thailand during the past four decades. The main emphases are on geographic patterns of migration and on identifying the streams of migration which account for the major shifts of population. Attention will be focused on the changing patterns of migration throughout the period and the nature of more recent trends as documented by migration data from the 1990 census. It will also examine the demographic characteristics of the migrants and non-migrants and the differentials among various migration streams.

The main sources of data are the 1990 census and the migration study by Goldstein and Goldstein (1986) in which the data from the 1960, 1970 and 1980 census were analysed. The data from their study are used to obtain information about migration trends during 1960-80 while the data from the 1990 census are added to bring the analysis up to date. Tabulations from the 1990 census are used to present certain characteristic of migrants as well as the reasons for their move.

Lifetime Migration

Lifetime migrants are defined as all those persons whose province of residence at the time of the census was different from their province of birth. In 1960, 11 percent of the Thai population reported themselves as living in a province different from that in which they had been born (Goldstein and Goldstein, 1986:12). This low level of interprovincial lifetime migration indicated a high degree of population stability in Thailand. The data

from the 1990 census show only a slight increase in the level of lifetime migration. It is reported that the number of people who resided in a province other than the province of birth in 1990 was 7.5 million or 13.9 percent of the total population (NSO, 1993:63). This indicates that mobility among the Thai population remained relatively low.

The data in Table 7.1 indicate that migrants in Thailand were distributed unevenly among the four regions and there were also regional variations in the migration rate. In 1970, 13.1 percent of the total population were classified as lifetime migrants. Almost two-fifths of these lifetime migrants were found in Bangkok. Bangkok contained 27.2 percent of lifetime migrants in its population compared with 9.9 to 14.4 percent in the other regions. Intraregional lifetime migration exceeded interregional lifetime migration. About 56 percent of lifetime migration moved within the region in which they were born.

By 1980 the percentage of lifetime migrants had risen slightly to 14.1. Most interesting in 1980 was the substantial shift in the distribution of lifetime migrants between those who moved within regions and those who moved between regions. In contrast to 1970, for the country as a whole, more lifetime migrants had moved between regions or 56 percent of total lifetime migrants. The level of lifetime migrants within regions declined from 7.3 to 6.2 percent, whereas those who moved between regions rose from 5.8 to 7.9 percent.

The lifetime migration level for the country as a whole remained virtually unchanged between 1980-1990, however, the level in Bangkok and the Central region rose, while the level declined in the other three regions. Bangkok remained the area with the largest percentage of lifetime interregional migration in 1970 accounting for 42 percent of all interregional lifetime migrants in Thailand. This declined to 36 percent in 1980 but sharply increased to 46 percent in 1990.

The Central region had the largest increase between 1970 and 1990. The interregional lifetime migrants in the Central region increased from 297,000 in 1970 to over 900,000 in 1980 and up to 1.3 million in 1990 or 30 percent of country's interregional lifetime

migrants. Lifetime migration patterns also reflect the importance of migration in the growth of Bangkok. Almost one-third of its population was born in other provinces. This clearly suggests that Bangkok and the Central region were the centres of migration in Thailand. This may possibly be attributed to the economic boom after the mid 1980s.

Table 7.1: Interprovincial Lifetime Migration 1960-1990 (number in thousands)

Region of residence	Migrants within region		Migrants between region		Total inter-provincial migrants		% of total interregional migrants	% of migrants making inter-regional move
	Number	% of total population	Number	% of total population	Number	% of total population		
1960								
Whole kingdom	u	u	u	u	2,761	10.8	100	u
Bangkok	u	u	u	u	486	22.8	17.6	u
Central	u	u	u	u	634	10.3	23.0	u
North	u	u	u	u	625	8.5	22.6	u
Northeast	u	u	u	u	765	10.9	27.7	u
South	u	u	u	u	251	7.7	9.1	u
1970								
Whole kingdom	2,521	7.3	1,970	5.8	4,491	13.1	100	43.9
Bangkok	-	-	838	27.2	838	27.2	42.5	100
Central	789	10.5	297	3.9	1,086	14.4	15.1	27.3
North	474	6.3	470	6.3	944	12.6	23.9	49.8
Northeast	975	8.1	224	1.9	1,199	10.0	11.4	18.7
South	283	6.6	141	3.3	424	9.9	7.2	33.2
1980								
Whole kingdom	2,756	6.2	3,482	7.9	6,238	14.1	100	55.8
Bangkok	-	-	1,268	27.3	1,268	27.3	36.4	100
Central	796	8.3	929	9.7	1,726	18.0	26.7	53.8
North	558	6.2	640	7.1	1,198	13.3	18.4	53.4
Northeast	1,030	6.6	454	2.9	1,484	9.5	13.0	30.6
South	371	6.7	191	3.4	562	10.1	5.5	34.0
1990								
Whole kingdom	3,249	6.0	4,309	7.9	7,557	13.9	100	57.0
Bangkok	-	-	1,979	33.7	1,979	33.7	45.9	100
Central	965	8.0	1,301	10.8	2,266	18.8	30.2	57.4
North	662	6.3	561	5.3	1,223	11.6	13.0	45.8
Northeast	1,169	6.1	271	2.9	1,440	7.5	6.3	18.8
South	452	6.5	198	3.4	649	9.3	4.6	30.4

Sources: 1955-60, 1965-70 and 1975-80 data from Goldstein and Goldstein, 1986 (table 2); 1985-90 data from the National Statistical Office, 1993 (table I.)

Note: u = unclassified

Five-year Migration

Five-year migrants are defined as those who had changed their place of residence within five years preceding the census date. The data on five-year interprovincial migration from Table 7.2 again indicates a high degree of population stability. Only 3.6 percent of the total population of five years and older in 1960 had been living in a different province in 1955. This five-year migration rate was much lower than the lifetime migration rate. Bangkok had proportionately more recent migrants in its population in 1960 than did any other region in Thailand. In Bangkok, the percentage of the population identified as recent migrants was 7.3 percent of the total population while this percentage ranged from a low of 2.7 percent for the Northeast to a high of 4.1 percent for the Central region.

The number of interprovincial five-year migrants for the whole country more than doubled from 789,000 persons in the 1960 census to 1,675,000 persons in the 1970 census. Most of the interprovincial migration in these two periods were short-distance moves which occurred within a region. The interprovincial migration had stagnated by the 1980 census. The number of persons who changed their province of residence between 1975 and 1980 declined slightly from 1,675,000 persons during 1965-1970 to 1,613,000 persons of 1975-1980.

The evidence from the census indicates that there was more interregional than intraregional movement for the first time during 1975-1980. In 1980, whereas 53.2 percent of all interprovincial recent migrants had moved between regions, only 46.8 percent had moved within the regions. The change was particularly pronounced for the Central region, which for the first time experienced a majority of its migrants coming from other regions.

Longer distance moves continued to increase, as in 1990, 66.3 percent of all interprovincial migrants were classified as interregional migrants. The volume of interregional migrants rose from 858,000 in 1980 to 1.5 million in 1990. The continued rise in the level and volume of interregional migration since the late 1960s may reflect

the fact that the most dramatic economic and social changes in Thailand had occurred during the 1960s. Other factors facilitating the longer-distance movement may have been the improvement in transport, communication and education.

Table 7.2: Interprovincial Five-year Migration 1955-1990 (number in thousands)

Region of residence	Migrants within region		Migrants between region		Total inter-provincial migrants		% of total interregional migrants	% of migrants making inter-regional move
	Num-ber	% of total population	Num-ber	% of total population	Num-ber	% of total population		
1955-60								
Whole kingdom	454	2.1	335	1.5	789	3.6	100	42.5
Bangkok	-	-	131	7.3	131	7.3	39.1	100
Central	124	2.4	86	1.7	210	4.1	25.7	41.1
North	91	1.9	66	1.4	157	3.3	19.7	42.0
Northeast	180	2.4	26	0.3	206	2.7	7.8	12.6
South	59	2.1	26	0.9	85	3.0	7.8	30.6
1965-70								
Whole kingdom	905	3.2	770	2.7	1,675	5.9	100	46.0
Bangkok	-	-	299	11.1	299	11.1	38.8	100
Central	248	3.9	208	3.3	456	7.2	27.0	45.6
North	196	3.1	120	1.9	316	5.0	15.6	38.0
Northeast	330	3.4	100	1.0	430	4.4	13.0	23.3
South	131	3.7	43	1.2	174	4.9	5.6	24.7
1975-80								
Whole kingdom	755	1.9	858	2.2	1,613	4.1	100	53.2
Bangkok	-	-	341	8.0	341	8.0	39.7	100
Central	218	2.5	285	3.3	503	5.8	33.2	56.7
North	166	2.0	104	1.3	270	3.3	12.1	38.5
Northeast	241	1.8	74	0.6	315	2.4	8.6	23.5
South	130	2.7	54	1.1	184	3.8	6.3	29.3
1985-90								
Whole kingdom	771	1.5	1,517	3.0	2,288	4.6	100	66.3
Bangkok	-	-	639	11.6	639	11.6	42.1	100
Central	253	2.2	559	5.0	812	7.2	36.8	68.9
North	130	1.3	127	1.3	257	2.6	8.4	49.5
Northeast	268	1.5	108	0.6	376	2.2	7.1	28.8
South	121	1.9	83	1.3	204	3.2	5.5	40.9

Sources: 1955-60, 1965-70 and 1975-80 data from Goldstein and Goldstein , 1986 (table 3); 1985-90 data from the National Statistical Office, 1993 (table C)

It is clear from the interprovincial migration trends which were observed during 1975-1980 that interregional migration has become increasingly important while the significance of intraregional migration has continued to decline. This pattern was also similar to that observed in the lifetime migration, but the proportion of five-year interregional migrants was much bigger than that of lifetime migrants in the 1990 census.

Regional Migration

The cross-classification of five-year interregional migrants by region shows interesting interregional migration streams. The largest stream was that from the Central region to Bangkok. The Northeast was the second largest source of migrants for the capital, but until 1985-1990, their number was substantially above that from the Central region.

The data from Table 7.3 indicates that the Central region contributed the largest proportion of out-migrants: about 40 percent of all interregional migration originated from this region during 1955-1960 and 1965-1970. The Northeast region contributed a slightly smaller proportion of out-migrants, or about 25 percent, during these two censuses. But during 1975-1980 and 1985-1990, the number of out-migrants from the Northeast surpassed that of the Central region. In the 1990 census the out-migrants from the Northeast contributed to 44 percent of all interregional migration.

The Central region gained more recent interregional migrants from Bangkok than from any other region of Thailand. During 1955-1960, migrants from Bangkok to the Central region contributed to 46 percent of all interregional migration. The predominance of Bangkok as the origin of the largest migration stream to the Central region continued through 1960s and 1970s.

Table 7.3: Interregional Five-year Migration Streams 1955-1990

Current residence	Total interregional migrants	Region of previous residence				
		Bangkok	Central	North	Northeast	South
1955-60						
Total	335,493	64,325	133,092	35,885	85,605	16,586
Bangkok	131,370	-	81,214	13,947	26,745	9,464
Central	86,449	40,006	-	15,560	25,860	5,023
North	66,019	8,900	30,270	-	26,002	847
Northeast	25,796	8,890	10,758	4,896	-	1,252
South	25,859	6,529	10,850	1,482	6,998	-
1965-70						
Total	769,625	129,928	288,348	113,691	185,188	52,474
Bangkok	298,791	-	166,181	36,555	66,813	29,242
Central	207,978	82,823	-	47,231	62,936	14,988
North	120,031	14,646	58,035	-	43,920	3,430
Northeast	100,182	23,592	45,646	26,130	-	4,814
South	42,647	8,867	18,486	3,775	11,519	-
1975-80						
Total	875,194	170,392	235,331	121,568	268,691	61,212
Bangkok	340,792	-	144,397	43,178	119,661	33,556
Central	284,785	115,355	-	53,727	95,890	19,813
North	103,855	20,945	38,746	-	40,558	3,606
Northeast	73,876	20,059	32,142	17,438	-	4,237
South	53,886	14,033	20,046	7,225	12,582	-
1985-90						
Total	1,517,100	272,900	265,600	216,700	662,100	99,800
Bangkok	638,800	-	174,500	99,000	303,700	61,600
Central	559,000	174,000	-	78,900	282,900	23,200
North	127,400	33,200	36,400	-	49,700	8,100
Northeast	108,400	42,600	36,000	22,900	-	6,900
South	83,500	23,100	18,700	15,900	25,800	-

Sources: 1955-60, 1965-70 and 1975-80 data from Goldstein and Goldstein, 1986 (table 6); 1985-90 data from the National Statistical Office, 1993 (table E)

During the period 1965-1970, with the exception of the Northeast where the number of migrants from other regions nearly quadrupled, the interregional migration in each region nearly doubled that in the previous decade. This pattern has changed during the 1975-1980 period. The Northeast experienced a decline in the number of in-migrants from each region while the South had a slight gain from each region over that reported in the 1970 census. The number of interregional migrants in the North was lower than that in the period of 1965-1970. The volume of movement from each region except the South to the North slightly declined during this period.

According to the data from the 1990 census, the Northeast turned out to be the largest supplier of migrants to the Central region. The 282,900 persons from the Northeast who moved to the Central region far exceeded the 174,000 persons from Bangkok. The rising volume of out-migration from the Northeast and the increasing interregional migrants in the Central region, point to the increasing pressure for movement out of the Northeast as well as to the continuing attractiveness of provinces adjoining Bangkok in the Central region. With the exception of movement from the North between 1955-1960 and 1965-1970, the stream from each region to the capital was substantially larger than to any other region. The Central region attracted the second largest number of migrants.

Net Migration

In all four censuses, the Northeast showed a consistent loss to each of the other three regions in each period (Table 7.4). Yet losses did not really intensify until the period 1975-1980. The Northeast suffered a net loss of almost 195,000 during this period which more than doubled the number lost in 1965-1970 and a further 553,700 for 1985 to 1990. Perhaps the most important factor behind the massive flows of out-migration from the Northeast was the greater need for cash in the seventies. This forced northeasterners to search for alternative sources of income of which migration is one (Porpora and Lim, 1987). In contrast, Bangkok consistently gained from each of the other regions. The capital experienced the largest total net gain in each period. The attraction of Bangkok as a migration destination continues, the net gain was more pronounced in the 1990 census when the capital experienced a net gain of 345,900 recent migrants which was slightly more than double the number received in 1975-1980.

Table 7.4: Regional Net Gains and Losses from Five-year Migration 1955-1990

Current residence	Total	Region of previous residence				
		Bangkok	Central	North	Northeast	South
1955-60						
Bangkok	+67,045	-	+41,208	+5,047	+17,855	+2,935
Central	-46,643	-41,208	-	-14,710	+15,102	-5,827
North	+30,134	-5,047	+14,710	-	+21,106	-635
Northeast	-59,809	-17,855	-15,102	-21,106	-	-5,746
South	+9,273	-2,935	+5,827	+635	+5,746	-
1965-70						
Bangkok	+168,863	-	+83,358	+21,909	+43,221	+20,375
Central	-80,370	-83,358	-	-10,804	+17,290	-3,498
North	+6,340	-21,909	+10,804	-	+17,790	- 345
Northeast	-85,006	-43,221	-17,290	-17,790	-	-6,705
South	-9,827	-20,375	+3,498	+345	+6,705	-
1975-80						
Bangkok	+170,400	-	+29,042	+22,233	+99,602	+19,523
Central	+49,454	-29,042	-	+14,981	+63,748	-233
North	-17,713	-22,233	-14,981	-	+23,120	-3,619
Northeast	-194,815	-99,602	-63,748	-23,120	-	-8,345
South	-7,326	-19,523	+233	+3,619	+8,345	-
1985-90						
Bangkok	+365,900	-	+500	+65,800	+261,100	+38,500
Central	+293,400	-500	-	+42,500	+246,900	+4,500
North	-89,300	-65,800	-42,500	-	+26,800	-7,800
Northeast	-553,700	-261,100	-246,900	-26,800	-	-18,900
South	-16,300	-38,500	-4,500	+7,800	+18,900	-

Sources: 1955-60, 1965-70 and 1975-80 data from Goldstein and Goldstein, 1986 (table 7); 1985-90 data from the National Statistical Office, 1993 (table F)

The Central region was transferred from a region of net loss in 1955-1960 and 1965-1970 to one of net gain in 1975- 1980 and 1985-1990. The Central region experienced large net losses until the period 1975-1980 when it gained almost 50,000 persons and the gain increased to 293,400 in the period 1985-1990. The rapid increase in net migration in the Central region could probably be attributed in large part to its proximity to Bangkok, making it attractive to migrants from other regions (Goldstein and Goldstein, 1986). The North showed a reverse pattern. It gained about 30,000 migrants in period 1955-1960 and over 6,000 in 1965-1970 but lost almost 18,000 during 1975-1980 and a further 89,300 in the period 1985-1990. The South only gained about 9,000 migrants in 1955-1960 and continued to experience a net loss through 1990. Its net loss

to the capital increased from just under 3,000 in 1955-1960 to almost 40,000 in 1985-1990.

Rural-urban Migration

Since 1970 the censuses collected information on the urban rural status of both place of present residence and place of previous residence for those persons who had moved in the five years before the census. This information permits an investigation of movements between rural and urban areas. The data in Table 7.5 show that most internal migration in Thailand occurred within the rural areas. Of all migrants aged five years and over who moved within the five years preceding the 1970 census, almost two-thirds were rural- rural migrants. The rural- urban migration was much smaller or only 10.5 percent over the same period. The number of persons moving within rural areas in the five years preceding the 1980 census dropped from 2 million in the previous census to 1.5 million, reducing their proportion of all migrants from 63 to only 52 percent. The declining trend continued through the 1990 census. Although rural-rural migration slightly increased to over 1.6 million, the percentage to all migrants substantial declined to 41 percent.

In contrast to the decline in rural- rural migration was an increase in the proportion of rural-urban moves among all moves. Rural-urban migration comprised a small proportion of the total, only 10.5 percent, in 1965-1970 and increased to 18.4 percent in 1985-1990. Although rural-urban migration is small relative to rural-rural migration, this stream of migrants had a significant impact on the growth of the urban population. It is estimated that net migration accounted for about 44 percent, 30 percent and 25 percent of all urban growth in Thailand during 1960-1970, 1970-1980 and 1980-1990 respectively (Pejaranonda et.al, 1995:197).

Table 7.5: Migration Streams of Migrants

Migration stream	1965-70		1975-80		1985-90	
	Number	Percent	Number	Percent	Number	Percent
Total migrants	3,331,100	100	2,947,700	100	4,026,100	100
Urban migrants	763,400	23.0	1,024,900	34.8	1,448,700	36.0
Urban-urban	297,000	8.9	506,000	17.2	545,100	13.5
Rural-urban	348,000	10.5	420,600	14.3	738,400	18.4
Unknown-urban	118,400	3.6	98,300	3.3	165,200	4.1
Rural migrants	2,567,700	77.0	1,922,800	65.2	2,677,400	64.0
Rural-rural	2,086,700	62.6	1,532,900	52.0	1,645,100	40.9
Urban-rural	180,400	5.4	278,300	9.4	508,900	12.6
Unknown-rural	300,600	9.0	111,600	3.8	423,400	10.5

Source: Pejaranonda et al., 1995 (table 6)

Another migration stream which involved a relatively large proportion of migrants was the movement within the urban areas. This type of migration accounted for 8.9 percent of all five-year migration in 1965-1970. Urban-urban migration increased more and exceeded the total of rural-urban migration by 1975-1980. It had slightly declined by the 1990 census but was comparatively smaller than rural-urban migration over the same period.

The smallest migration stream, often overlooked in migration analysis, was urban-rural migration. Between 1965 and 1970 about 180,000 persons or 5.4 percent of the total migration flow, moved from urban to rural areas. Nonetheless, this stream of migrants substantially increased in the 1990 census to almost three times the volume reported in the 1970 census. It accounted for 12.6 percent of all 1985-1990 migration.

Characteristics of Migrants

Migration generally tends to be a selective process which results in differentials in certain characteristics of migrants from non-migrants both at place of origin and at destination (Zachariah, 1968; Findley, 1977; ESCAP, 1982; Oberai and Singh, 1983). The selectivity of migration has a significant impact on demographic, social and

economic change in the origin and destination areas. This section uses the data from the 1990 census to examine the differentials between migrants and non-migrants of various types.

Age

Almost everywhere, migration tends to be age selective. Many studies found that young adults age 15-29 years predominate among migrants. The Indian study found that 60 percent of the adult migrants were aged 15-24 (Connell et al., 1976:39). In the Punjab, Oberai and Singh (1983:56) found that 73 percent of rural out-migrants were young adults aged 15-29 at the time of migration. This similar pattern also found in Taiwan (Speare, 1974). In China, more than half of all in-migrants were aged 15-29, with the peak at the 20-24 age group (Yu and Day, 1994:104). A disproportionate number of migrants in age group 15-29 were also found in Ghana (Caldwell, 1969:84).

In Thailand, migrants who moved between 1985-1990 were mainly young adults and 40 percent of them were aged between 15 and 24. There was a great concentration of young migrants of this age group in Bangkok, which accounted for 53 percent of all recent migrants in the capital (NSO, 1993). The highest percentage of migrants was in the age group of 20-24 for both males and females regardless of their origin or destination. This indicates a pattern of age selectivity of internal migration in Thailand where peak mobility occurred in the younger adult years.

The age selectivity of migrants can be seen clearly when the proportions of migrants and non-migrants in all age groups are compared. The data from the 1990 census show that migrants were over-represented among those aged less than 25 years with 60 percent compared to 49 for non-migrants but there were far less non-migrants in the age group of over 45 years, only 7 percent compared to 21 percent (NSO, 1993). This suggests that the propensity for persons in the younger cohort to move is substantially greater than the rest of the population. This pattern may be explained by persons in this stage of the life cycle entering the workforce, higher education or marrying (Caldwell, 1969; Hugo, 1987; Weizhi, 1994). Since all these factors usually involve some kind of movement it is not surprising to find a high mobility rate in the younger adult age group.

Table 7.6: Percentage Distribution of Population by Age and Migration Status in 1990

Age	Urban-rural	Rural-rural	Rural non-migrant	Urban-urban	Rural-urban	Urban non-migrant
Males						
0-4	3.8	2.9	9.3	3.2	2.6	7.5
5-9	6.0	6.7	10.6	6.5	3.9	8.4
10-14	5.7	6.7	11.8	6.4	6.6	9.9
15-19	7.4	7.2	10.6	13.7	20.4	9.9
20-24	32.7	34.2	8.9	22.0	26.3	9.9
25-29	14.9	17.3	8.3	15.0	15.9	10.5
30-34	10.7	9.9	8.0	12.0	9.6	9.8
35-39	5.5	4.9	6.8	7.5	5.4	8.3
40-44	4.8	3.0	5.6	4.2	3.1	6.5
45-49	3.3	2.3	4.7	3.1	2.1	4.9
50-54	1.7	1.6	4.2	2.9	1.4	4.5
55-59	1.5	0.9	3.6	1.6	0.8	3.4
60+	2.2	2.3	7.3	1.9	1.6	6.4
Total	100	100	100	100	100	100
Females						
0-4	5.7	4.1	8.4	3.0	2.4	6.7
5-9	8.6	8.7	10.1	5.1	3.6	7.4
10-14	6.5	8.0	11.0	6.6	5.9	8.6
15-19	11.1	13.7	9.9	18.4	26.8	9.7
20-24	18.7	22.3	9.1	24.7	28.3	10.8
25-29	17.9	16.7	8.8	14.5	13.9	11.1
30-34	10.5	9.3	8.3	9.6	7.5	10.3
35-39	6.5	5.5	7.0	6.2	3.6	8.6
40-44	4.3	3.6	5.7	3.9	2.5	6.4
45-49	2.9	2.1	4.9	2.3	1.8	5.1
50-54	2.4	1.7	4.5	1.9	1.3	4.3
55-59	1.6	1.5	3.9	1.4	0.9	3.3
60+	32	2.9	8.3	2.5	1.5	7.7
Total	100	100	100	100	100	100

Source: Calculated from data from the National Statistical Office, 1993 (table 7)

As shown in Table 7.6 the selectivity is more marked among migrants to urban areas than those who moved to rural areas. There are also some interesting sex differentials, with females predominant in the age group 15-19 and 20-24 in the urban areas and males predominant in the age group 20-24 and, to a lesser extent, in the age group 25-29.

Sex

Sex is another individual characteristic closely associated with differences in migratory behaviour. Caldwell (1969:58) found that there were 20 percent more male than female migrants in Ghana. In China, males generally outnumbered females among migrants in towns and cities (Yu and Day, 1994:108). Zachariah (1964:113) concluded that migrants in Greater Bombay have a highly unbalanced sex composition favouring males. A study of migration in Indian Punjab showed strong male domination in out-migration from rural Punjab, with 95.8 percent of the total out-migration (Oberai and Singh, 1983:52). By contrast, a study in the Philippines found that urbanward migration was predominant among females especially in the age range 15-29 (Perez, 1985:355-356). The data on migration into Bangkok revealed a similar pattern as for the Philippines, with 62 percent of total in-migrants in Bangkok being females (NSO, 1988:27).

The sex ratios for different migration streams are shown in Table 7.7. The overall sex ratio of migrants in the period 1985-1990 was 117 males for 100 females. In general, migration within and between regions other than those to Bangkok showed a higher proportion of males than females. The high proportion of female migrants is most evident in migration patterns from all regions to Bangkok. The sex ratio of migrants to Bangkok has constantly declined from 98.8 in 1970 to 89.0 in 1980 and to 87.2 in 1990. These changes suggest that there are increasingly employment opportunities for women in the capital, including work in the service sector and in factories (NSO, 1993:73).

Migration to the Northeast and Central region is male dominated. The two streams with the highest sex ratios are the movements between the Northeast and the Central region. Among migrants in urban areas, sex ratios are low with 90.0 and 91.6 for those who moved from rural and other urban areas. For migrants in rural areas sex ratios are notably high especially among those who moved from rural with 149.5 and 125.1 for those with urban origin. (NSO, 1993). This clearly indicates that women dominated migration streams involving an urban destination while men dominated streams with a rural destination.

Table 7.7: Sex Ratios of Migrants Aged Five Years and Over

Region of previous residence	Region of 1990 residence					
	Total	Bangkok	Central	North	Northeast	South
Total	117.1	87.2	163.7	96.1	143.7	113.1
Bangkok	112.6	96.2	106.8	95.9	126.8	172.1
Central	98.2	87.5	148.7	90.6	175.0	116.9
North	90.9	89.1	88.1	128.4	131.2	70.5
Northeast	143.1	86.0	289.7	109.4	123.9	102.0
South	96.7	89.9	122.0	57.6	155.5	108.6
Abroad	128.2	164.2	225.0	133.6	69.4	66.3

Source: National Statistical Office , 1993 (table M)

Note: Sex ratio = Males per 100 females

Education

The greater mobility of the educated has been observed in a number of studies. Speare (1974) found that migrants in Taiwan were drawn disproportionately from the better educated. Levy and Wadycki (1974) who studied the relationship between education and migration in Venezuela concluded that the educated are more mobile, less deterred by increased distance and are more responsive to wage rates in alternative locations. Evidence from the study in Papua New Guinea indicated that schooling increases an individual's chance of migrating and also increases the period of staying away (Ross, 1984:123). Other studies on migration in Thailand support these findings as well. Data from the National Longitudinal Study indicated that beyond the primary education there was a positive relationship between education and migration (Prachuabmoh et al., 1979:52). Based on a sample survey conducted by the Institute of Population Studies, Chulalongkorn University in 1981, Tirasawat concluded that rural out-migrants, in general, are better educated than rural non-migrants (Tirasawat, 1985:486).

Data in Table 7.8 show that migration rates increase steadily with education. Those with a university education have a higher percentage of migration. Of those who had attained secondary education, 13.2 percent of the males and 11.4 percent of the females migrated during the five years before the 1990 census. Among those who did not go beyond the primary education, only 7.7 percent of males and 6.0 percent of females were migrants.

Education is also positively related to the distance of a move. The data in Table 7.8 clearly show that migrants moving between provinces consisted of more educated persons than those moving within a province.

Table 7.8: Educational Attainment of Population Aged Six Years and Over by Migration Status

Migration status	Primary	Secondary	University	Other
Males				
Migrants	7.7	13.2	15.3	17.4
Within province	*2.8*	*3.6*	*3.2*	*5.3*
Between provinces	*4.9*	*9.6*	*12.1*	*12.1*
Non-migrants	90.9	84.9	82.7	73.5
Unknown status	1.4	1.9	2.0	9.1
Total	100	100	100	100
Females				
Migrants	6.0	11.4	14.7	17.4
Within province	*2.0*	*2.9*	*3.4*	*1.7*
Between provinces	*4.0*	*8.5*	*11.3*	*22.0*
Non-migrants	92.7	86.8	83.2	71.2
Unknown status	1.3	1.8	2.1	5.1
Total	100	100	100	100

Source: Calculated from data from the National Statistical Office, 1993 (table 13A)

The data from the 1990 census as shown in Table 7.9 confirms the educational selectivity of the migration process in Thailand. There is a clear difference in educational attainment between migrants and non-migrants. Migrants consisted of more educated persons than non-migrants. The selectivity of migration with respect to education varies between the various migration streams. Rural-rural moves are most common among those who completed only primary school. Compared with the rural-rural migrants, rural-urban migrants are more highly educated. Among male migrants, nearly 38 percent of rural-urban migrants have a secondary or higher level of education while the figure for rural-rural migrants is 23 percent. Females show a similar pattern, with 32 percent of rural-urban migrants and 17 percent of rural-rural migrants having an educational level of secondary school or higher. Urban-urban migrants consisted of more educated persons than any other types of migrant. They have higher level of educational attainment than do urban non-migrants. This suggests that migrants to urban areas have been positively selected.

Table 7.9: Percentage Distribution of Educational Attainment of Population Aged Six Years and Over

Education	Urban-rural	Rural-rural	Rural non-migrant	Urban-urban	Rural-urban	Urban non-migrant
Males						
No education	3.5	5.6	9.6	3.2	2.5	6.3
Primary	48.4	71.2	76.0	39.4	59.6	44.4
Secondary	34.6	18.1	11.7	34.0	27.4	32.6
University	13.2	4.5	2.5	23.0	10.2	16.3
Other	0.2	0.6	0.2	0.4	0.3	0.3
Total	100	100	100	100	100	100
Females						
No education	7.0	8.9	14.2	4.6	4.1	9.4
Primary	54.7	73.9	75.8	42.2	63.6	44.4
Secondary	24.2	12.0	7.8	30.5	21.4	25.4
University	14.1	5.2	2.2	22.7	10.8	16.0
Other	-	-	-	-	0.1	0.1
Total	100	100	100	100	100	100

Source: Calculated from data from the National Statistical Office, 1993 (table 13B)

Occupation

The differentials in occupational composition between migrants and non-migrants have been observed in many studies. However, there have been difficulties in comparing the results of those studies. Some studies focused on the occupation in the origin areas before migration took place, while others focused on the migrants' occupations in the destination areas. Another problem in the study of occupation differentials is that each study used different categories of occupation. For example, Zachariah (1968:284) concluded that migrant in Greater Bombay are predominantly blue-collared and unskilled manual workers. Gore (1970;25) found in his study of migrants in Bombay that three-fifths of the sample was made up of blue collar workers (including coolie, shoe-shine, household servant, cook, unskilled manual worker, artisan, and skilled industrial worker). The data from the National Longitudinal Study in Thailand indicated that there has been a high concentration of migrants in manual and service work in Bangkok (Prachuabmoh et al., 1979).

Table 7.10. presents the occupational structure of migrants and non-migrants in the 1990 census. There are clearly differences in occupational structure between rural and urban residents, migrants and non-migrants as well as migrants regarding their origin and destination. Among male non-migrants in the rural areas, the single largest group were agricultural workers which accounted for 79.2 percent of the total while among male non-migrants in the urban areas, only 5.8 are engaged in agriculture. A similar pattern also occurred for females. Compared to migrants of both urban and rural origin, rural non-migrants are under-represented in white collar jobs (including professional, managerial, clerical, and sales). In contrast to rural non-migrants, urban non-migrants contained a higher proportion of white collar, 49.6 percent, compared to only 8.3 percent for males and 64.3 percent compared to 9.4 percent for females.

In both urban and rural areas a higher proportion of migrants from urban areas were engaged in high-level occupations compared to migrants with rural origins. With the exception of the equal proportion of those engaged in white-collar occupations among male migrants in rural areas, this pattern of migration differentials holds true for both sexes.

The Thai data also show a higher proportion of migrants in white-collar occupations than non-migrants in the rural areas for both sexes. A different pattern of differentials occurred in urban areas. For males, migrants of urban origin differed only slightly from non-migrants while those who migrated from rural areas differed significantly. Whereas 50.7 percent of the urban-origin migrants, compared with 49.6 percent of the non-migrants engaged in white-collar occupations, the corresponding figure for migrants of rural origin was only 27.4 percent. For females, the proportion of non-migrants engaged in white collar occupation is slightly higher than migrants of urban origin but is much higher than migrants of rural origin, 64.3 percent compared with 53.5 and 29.6 percent.

Table 7.10 : Percentage Distribution by Occupation of Population Aged 13 Years and Over

Occupation	Urban-rural	Rural-rural	Rural non-migrant	Urban-urban	Rural-urban	Urban non-migrant
Males						
Professional	6.8	2.9	2.2	13.9	5.4	12.9
Managerial	13.8	24.1	2.0	12.1	6.9	8.2
Clerical	5.9	2.0	0.9	8.1	4.7	8.7
Sales	6.9	3.4	3.2	16.6	10.6	19.8
Agriculture	30.8	47.5	79.2	2.4	3.6	5.8
Mining	-	0.2	0.1	0.1	-	0.1
Transport	5.3	2.6	2.1	6.8	7.4	10.5
Production	22.2	13.7	8.7	29.6	51.8	26.4
Service	7.7	3.4	1.4	9.9	9.3	7.0
Others	0.4	0.2	0.1	0.5	0.2	0.6
Total	100	100	100	100	100	100
Females						
Professional	14.9	4.6	2.3	17.1	5.8	19.8
Managerial	0.6	0.2	0.1	1.7	0.6	2.5
Clerical	9.4	2.9	0.9	10.9	7.0	11.1
Sales	17.5	7.9	6.1	23.8	16.2	30.9
Agriculture	26.0	60.0	82.8	1.6	2.5	5.3
Mining	-	0.1	-	-	-	-
Transport	0.7	0.1	0.1	0.1	0.1	0.5
Production	21.9	17.5	6.4	23.2	38.9	18.7
Service	8.2	6.3	1.2	22.0	28.5	10.8
Others	0.8	0.3	0.1	0.1	0.4	0.4
Total	100	100	100	100	100	100

Source: Calculated from data from the National Statistical Office, 1993 (table 16B)

With regard to rural-urban migrants, the occupational composition significantly differed from their counterparts in rural areas. For males, over half of all migrants were in production work compared to only 8.7 percent of rural non-migrants. In the case of females, the differences between the two groups was significantly larger in production and service occupations. This reflected the growing employment opportunities for women in the production and service sector. This was most likely to be attributed to the promoted export-led development policies which have been focused on over the past two decades. The high concentration of female migrants in the production and service worker categories can be seen from Table 7.11. One-third of all female service workers and 29 percent of all female production workers are migrants.

Table 7.11: Percentage Distribution by Occupation of Population Aged 13 Years and Over by Place of Present Residence and Migration Status, 1990

	Urban residence		Rural residence	
Occupation	non-migrants	migrants	non-migrants	migrants
Males				
Professional	87.2	12.8	86.7	13.3
Managerial	81.5	18.5	43.9	56.1
Clerical	86.8	13.2	78.8	21.2
Sales	87.7	12.3	90.0	10.0
Agriculture	90.0	10.0	95.3	4.7
Mining	86.7	13.3	87.3	12.7
Transport	87.3	12.7	88.7	11.3
Production	74.6	25.4	86.6	13.4
Service	78.0	22.0	78.9	21.1
Others	88.7	11.3	82.9	17.1
Females				
Professional	89.5	10.5	84.8	13.2
Managerial	91.0	9.0	90.0	10.0
Clerical	85.0	15.0	81.2	18.8
Sales	87.7	12.3	92.5	7.5
Agriculture	92.0	8.0	96.9	3.1
Mining	100	-	91.6	8.4
Transport	94.2	5.8	89.6	10.4
Production	71.0	29.0	87.5	12.5
Service	64.6	35.4	78.3	21.7
Others	85.9	14.1	81.9	18.1

Source: Calculated from data from the National Statistical Office, 1993 (table 16B)

Reasons for Migration

A considerable number of studies showed the overriding power of economic factors in influencing migration. A review of migration studies led Findley to assert:

> No matter which theory is used to explain migration, the predominance of economic motives is generally recognized. Migrants everywhere move from low to high income regions, and survey after survey finds that economic factors are most frequently cited as reasons for moving (1977:11).

Findley categorised these economic motives into two classes, the search for employment and the search for higher incomes. Many other studies in Africa, Asia and the Pacific also confirmed that the basic factor lying behind migration is economic. Caldwell

(1969) in his study of migration in Ghana, though pointing out that both rural and urban areas exert 'pushes' and 'pulls' at the same time, concluded that economic motives were dominant in encouraging rural-urban migration. Gugler (1969:137) also shared the same view that the predominant cause of rural-urban migration in sub-Saharan Africa had been economic. Ross (1984:219) found that migration from villages to towns in Papua New Guinea was fairly responsive to employment opportunities in towns. In the Philippines, Perez (1985:360) concluded that the underlying motivation for migration was deeply rooted in aspirations to be economically better off.

In Thailand, a question about reasons for migration was included in the 1980 census for the first time. This question also appeared in the 1990 census. The data from these two censuses clearly indicate that economic reasons were important motivating factors in all migration streams, especially among those who moved from rural to urban areas. The reasons given by male rural-to-urban migrants are similar to those of female rural-to-urban migrants, with economic reasons, particularly the search for work, the most important. This suggests that migrants moved from rural to urban areas in search of greater economic opportunities.

Table 7.12: Percentage Distribution of Migrants by Reason for Move

Reasons for migration	Migration streams							
	Rural-rural		Rural-urban		Urban-rural		Urban-urban	
	1980	1990	1980	1990	1980	1990	1980	1990
Males								
Economic	36.6	25.9	60.7	63.5	44.7	33.0	41.6	51.0
Education	3.4	1.2	10.7	10.8	2.9	2.0	9.7	12.2
Family-related	57.6	70.0	22.4	23.5	49.7	63.0	43.4	33.6
Unknown	2.5	2.9	6.3	2.2	2.8	2.0	5.3	3.2
Total	100	100	100	100	100	100	100	100
Females								
Economic	20.2	21.7	43.9	56.4	19.2	19.1	22.5	35.4
Education	1.7	1.5	13.5	10.5	3.4	3.3	12.4	17.5
Family-related	75.8	72.9	39.9	30.3	75.7	74.4	60.6	44.5
Unknown	2.3	3.9	2.8	2.8	1.6	3.2	4.4	2.6
Total	100	100	100	100	100	100	100	100

Sources: Pejaranonda et al., 1995 (table 14)

By contrast, family reasons predominated among those who moved to rural areas. Economic motives were clearly less important among both men and women moving to rural areas. For these migrants accompanying a person in their household was by far the main reason given for migration. More women than men cited this reason for their moves. An educational reason was of more importance to those who moved to urban than rural areas.

Conclusion

The overall level of internal migration in Thailand was relatively low in 1960 as indicated by both the lifetime and recent migration patterns with only 3.6 percent of the population aged five years and over identified as recent migrants and 10.8 percent as lifetime migrants. Migration became more evident as the development process accelerated. The 1970 census saw rising migration levels and a slight increase in longer-distance movement. The increase in longer-distance movement continued into the 1990 census. While interregional migration has become increasingly important the significance of intraregional movement has continued to decline. This pattern characterised both lifetime and five-year migration. The movement within the rural areas also declined while the movement from rural to urban areas increased.

The overall pattern of internal population redistribution in Thailand has changed considerably over the past four decades. Earlier, in 1955-1960, Bangkok, the North and the South experienced a net gain at the expense of the Central and the Northeast. Bangkok had the highest percentage of migrants. Most of the migrants in the capital during the earlier period were from the Central region. At the same time the Central region gained more migrants from Bangkok than any other region over the last four decades. This reflects the close social and economic integration between the capital and its adjoining province as well as their geographic proximity (Goldstein and Goldstein, 1986:28).

During the last decade the Northeast replaced the Central region as the largest supplier of migrants to the capital. Most recently, only Bangkok and the Central region gained

while the other three regions lost population. The Northeast consistently lost its population to other regions over time. The net loss was great particularly in 1985-1990 when it involved the loss of 553,700 persons.

The Northeast continued to be the dominant origin of migrants, comprising a large proportion of total interregional migration, 44 percent in 1985-1990. The major destinations were Bangkok and the Central region in this period. Bangkok and the Central region received 46 and 43 percent of the total out-migrants from the Northeast. These patterns reflect in part a failure of the government's decentralisation programmes (discussed in Chapter 6).

The selection processes associated with migration are clearly seen from the analysis of the 1990 census data. Migration is highly selective of the young and more educated. In general, men are more likely to migrate than women. However, females dominate the rural-urban migration stream particularly for the age group of 15-24. Migrants with higher education are more likely to move within and to urban areas while those who move within rural areas are more likely to be those with only primary education. Migration is heavily concentrated in a few occupational categories. Most migrants in urban areas work in production and service while in rural areas they are more concentrated in agriculture. The reasons given for migration by recent migrants clearly indicate that migration is economically motivated especially for migrants in urban areas. In rural areas family related reasons are the outstanding reasons for migration followed by economic factors.

The next chapter attempts to examine the factors affecting migration. It utilises the data from the 1990 census to identify the determinants of migration. The results of the sample about the migration experience of migrants from the Northeast region to Bangkok will be presented. The factors influencing decisions to migrate and the characteristics of migrants as well as the consequences of the movements will be discussed.

CHAPTER 8

REGRESSION ANALYSIS

Introduction

Researchers have applied various models to analyse migration. In general these models are used at a macro level and are usually based on census data. The economic and non economic characteristics of sending and receiving areas are of major interest. The definition and measurement of migration and other variables vary from one study to another. The selected variables may also differ depending on the conceptual framework of each researcher and the context of the study as well as availability of data. In general, though, most of the models used in migration studies are developed from the gravity model (Greenwood, 1975). These models include variables of distance and population at origin and destination whilst economic and non economic variables may be added to test their relationships with migration.

The purpose of this chapter is to explain the distribution of migration in Thailand with particular interest in the Northeast region. Determinants of internal migration are examined by means of regression analysis. The data from the 1990 census are fitted to a modified gravity model which will be discussed in detail in the first section. The second section discusses the estimation method and finally the empirical results of the regressions are presented and discussed.

The Model

The models employed in the study are similar to those which have been widely used in many countries both developed and underdeveloped: in the United States (Lowry, 1966; Greenwood, 1969a,1970); Ghana (Beals et al., 1967); Brazil (Sahota, 1968); Egypt (Greenwood, 1969b); India (Greenwood, 1971); and Venezuela (Levy and Wadycki, 1973). A number of explanatory variables have been incorporated in these models and were found to be significant variables in explaining migration flows . These variables

are included in the model on the basis of assumptions and hypotheses of various migration theories as have already been discussed in Chapter 3.

Many migration studies in Thailand have also used the same type of analytical model (Chamratrithirong, 1973; Garnjana-Goonchorn, 1974; Arnold and Cochrane, 1980; and Jessadachatr, 1989). The explanatory variables used in the models are economic, social and demographic factors related to migration flows at the provincial level.

This study differs from previous studies in that a migrant stock variable is introduced. This is to estimate the influence of relatives and friends on migration. This is encouraged by the studies of Greenwood (1970) in the United States and Levy and Wadycki (1973) in Venezuela. These studies demonstrated that the migrant stock variable dramatically altered the size and significance of many variables in the model. It was also found in these studies that failure to take account of past migration led to an overstatement in absolute value of the other variables.

In this study current out-migration flows from one province to other provinces are estimated as a function of variables which were found to be important determinants of migration in other studies both in Thailand and other countries.

The estimated relationships are of the following forms:

$$M_{ij} = f\,(D_{ij}, EDU_i, EDU_j, INC_i, INC_j, POP_i, POP_j, UNEM_i, UNEM_j, URB_i, URB_j, \text{random errors}) \quad (1)$$

$$M_{ij} = f\,(D_{ij}, EDU_i, EDU_j, INC_i, INC_j, POP_i, POP_j, UNEM_i, UNEM_j, URB_i, URB_j, MS_{ij}, \text{random errors}) \quad (2)$$

where

M_{ij} = number of persons who moved from province i to province j in the five years preceding 1 April 1990, the date of the census

D_{ij} = distance in kilometres from province i to province j

EDU_i = percent of persons aged 6 or more in province *i* who have attained more than primary school in 1990

EDU_j = percent of persons aged 6 or more in province *j* who have attained more than primary school in 1990

INC_i = gross provincial product per capita in province *i* in 1985

INC_j = gross provincial product per capita in province *j* in 1985

POP_i = total population residing in province *i* in 1985

POP_j = total population residing in province *j* in 1985

$UNEM_i$ = percent of economically active population aged 13 and over who are unemployed in province *i* in 1986

$UNEM_j$ = percent of economically active population aged 13 and over who are unemployed in province *j* in 1986

URB_i = percent of population residing in province *i* who lived in urban areas in 1985

URB_j = percent of population residing in province *j* who lived in urban areas in 1985

MS_{ij} = number of persons who were born in province *i* and lived in province *j* in April 1990

Dependent Variable

The dependent variable is the number of persons who moved from one province to an other province within 5 years before the census date (1 April 1990). This data are obtained from the published data of 1990 Thailand Population Census. All interprovincial migration flows are included in the analysis except those zero migration streams due to the log form of the model.

Explanatory Variables

Distance: Distance has long been found to be an important determinant of migration. Its strong deterrent effect on migration has been confirmed by many migration studies (Schwartz, 1973). Distance serves as a proxy for both monetary and non- monetary costs of moving. Sahota (1968) suggested that the economic cost of migration involves the

out-of-pocket money incurred in travelling and income forgone during the transfer period. Psychic costs in which increase with distance including difference in language, dialect, dress, food, social customs and cultural moves are also suggested as having importance. Schwartz, by using United States data argued that the adverse effect of distance on migration was basically a diminishing information effect rather than a psychic cost effect (Schwartz, 1973).

This variable is measured as the shortest road distance in kilometres between each province. The calculation is made based on the data obtained from the Highway Department. This is actually the shortest distance travelling by car, but if travelling by bus or by train it may be slightly different.

Education: Many studies in less developed countries indicated that education has a significant effect on migration (Levy and Wadycki, 1974). In his study on migration in Brazil, Sahota (Sahota, 1968) suggested that the effects of the so-called brain drain of educated individuals from less developed countries to relatively more developed ones, can be maintained with regard to internal migration. Educated people are relatively more mobile and more aware of better opportunities. This variable is measured as the percentage of those who attained more than primary school. Since data of each province for 1985 was not available, this figure is taken from the 1990 population census.

Population: A number of studies on migration, notably those which employ the modified gravity model, included the origin and destination population into migration models. The results from most of these studies showed that the larger the population of either origin or destination areas, the larger migration between these places. The populous province exhibits more job opportunities and diversified labour market. Thus the coefficients of these variables are expected to be positive. Population refers to the total population of provinces i and j in 1985. This reflects the population at risk at the beginning period of migration. The data from the Registration Division published in the Statistical Yearbook of Thailand 1985-1986 is used.

Income: Many migration studies have found that migrants move from a given area in response to better socio-economic in other areas. Migrants tend to move from areas where incomes are lower to ones where incomes are higher. In developing countries where most of the population is engaged in agriculture, wage rates may not be an appropriate measurement of economic opportunities. In rural areas most people are not paid for their labour since they work as family workers. Wage rates may not reflect real income earnings of rural people. Average per capita income has been chosen to represent a decent standard of living, one of the three dimensions of basic human capabilities of the Human Development Index. Average per capita income is meant to register the command over resources to enjoy a decent standard of living (UNDP, 1996). The average per capita income at the provincial level is not available. Thus, in this study, per capita Gross Provincial Product is used as a proxy of income earnings. The per capita GPP for 1985 was obtained from National Economic and Social Development Board (NESDB, 1994).

Unemployment: In general, migrants are attracted to greater employment opportunities in cities. Greater employment opportunities are measured by lower rates of unemployment. Unemployment data for 1985 is not available. Only the 1986 unemployment data, estimated by the Labour Department, and unemployment data from the 1990 population census are available. To avoid the simultaneity problem that occurs when the explanatory variable in the regression depends on the dependent variable, the unemployment rate is calculated from the 1986 data. The unemployment rate here is the number of economically active persons who were unemployed including those who were waiting for the farm season as a percentage of the total economically active population of each province.

Urbanisation: A number of empirical studies on interregional migration have employed degree of urbanisation as an explanatory variable in a multiple regression model and found it to be an important determinant of migration (Beals et al., 1967; Greenwood, 1969b,1971; Jessadachatr, 1989). Urban areas are likely to provide better education, employment and other cultural and social amenities. Regions or cities with a large urban population appear to be attractive to migrants.

In Thailand, there is no official definition for urban areas. 'Municipal' is the most commonly used definition surrogate for urban area. A municipal area is designated by the 1953 Municipality Act. There are three types of municipal areas established by this law according to population size, density, sources and amount of revenue and ability to perform the functions required. A *nakhon* municipality requires a total of 50,000 or more inhabitants and a population density of no less than 3,000 persons per square kilometre plus a sufficient revenue base. A *muang* municipality needs at least 10,000 inhabitants and the same density as a *nakhon* municipality plus a sufficient revenue base. There are no specific criteria for designation of *tambon* municipality. They are established by the Ministry of Interior. In 1990 there were 2 *nakhon*, 85 *muang* and 46 *tambon* municipalities (ESCAP, 1982 and Pejaranonda et al., 1995). The percentage of the population in municipal areas of each province is used to reflect the level of urbanisation of that province. This figure is taken from the published data of the Registration Division published in the Statistical Yearbook of Thailand 1985-1986.

Migrant stock: As pointed out by Wadycki and Levy(1973) in a study of migration in Venezuela, and Greenwood (1970) in the case of the United States migrants tend to move to the same localities as their family and friends. The results from both studies also indicated that the true direct effects of other variables in the migration model were obscured when migrant stock is not included. The models that do not include this variable tend to overstate the direct effects of the other independent variables on migration that may lead to the wrong policy implications being drawn. In this study migrant stock is measured as the number of persons born in a different province from the province where they were enumerated. The life time migration data from the 1990 population census are used. This differs from Greenwood's work in the United States in which he argued that migrant stock taken from the previous census is clearly not influenced by the current migration flow while the one taken from the current census is greatly influenced. However, evidence from the survey of migrants in Bangkok during the course of this thesis suggests that the decision to migrate is influenced not only by the migrants from the same area who have been at the destination for a long period but also by recent migrants who have just moved. Therefore current life time migrants as a migrant stock variable has been chosen.

Estimation Method

The above models will be estimated by the Ordinary Least Squares (OLS) method. In applying this method, there are three major problems that should be taken into consideration. Firstly, multicollinearity, that is the problem when two or more explanatory variables are highly correlated with each other. A common quoted rule is that multicollinearity is a serious problem and something must be done when the correlation coefficient between two explanatory variables is greater than 0.8 or 0.9 (Judge et al, 1980). However with the presence of multicollinearity, the OLS estimated coefficients are still unbiased but the effect of each of the highly linearly correlated variables may be difficult to isolate (Salvatore, 1982). In this study none of the pair of explanatory variables has the correlation coefficient exceeding 0.8. Moreover, the coefficients of multiple determinant (R^2) in every model are high (0.67-0.98) and most of the explanatory variables are statistically significant. It can be assumed that there are no serious multicollinearity in these models. Secondly, heteroscedasticity, that occurs when the OLS assumption that the variance of the error term is constant for all value of explanatory does not hold. This usually happens when using cross-sectional data. The presence of heteroscedasticity can be detected through an examination of residuals. The results of the residuals plot reveal that there are no serious problems of heteroscedasticity. Thirdly, simultaneity refers to the case in which there exists an interdependence between the dependent and the explanatory variables. This problem is usually found in migration models in developing countries where data at the beginning period of migration are not available. In this study most of the explanatory variables are measured at the beginning period of migration to examine their casual effect on migration and to avoid the simultaneity problem. Only education and migrant stock are taken from the 1990 census. These two variables may depend in some degree on migration.

The parameters were estimated in the log-linear form. Log-linear relationships were considered because they provided better fit than a linear functional form. In addition, one of the advantages of the double-log form is that the estimated regression coefficients

represent elasticities (Salvatore, 1982). Then the migration functions in equation (1) and (2) can be transformed to:

$$lnM_{ij} = ln\beta_0 + \beta_1 lnD_{ij} + \beta_2 lnEDU_i + \beta_3 lnEDU_j + \beta_4 lnINC_i + \beta_5 lnINC_j + \beta_6 lnPOP_i + \beta_7 lnPOP_j + \beta_8 lnUNEM_i + \beta_9 lnUNEM_j + \beta_{10} lnURB_i + \beta_{11} lnURB_j + u \quad (3)$$

$$lnM_{ij} = ln\beta_0 + \beta_1 lnD_{ij} + \beta_2 lnEDU_i + \beta_3 lnEDU_j + \beta_4 lnINC_i + \beta_5 lnINC_j + \beta_6 lnPOP_i + \beta_7 lnPOP_j + \beta_8 lnUNEM_i + \beta_9 lnUNEM_j + \beta_{10} lnURB_i + \beta_{11} lnURB_j + \beta_{12} lnMS_{ij} + u \quad (4)$$

Empirical Results

As mentioned earlier, this study is concentrated on out-migration of the Northeast region to Bangkok, within the region and to other regions as well as in-migration from all provinces to Bangkok. In addition the interprovincial migration for the whole country and all migration flows to Bangkok are also of interest. Equations (3) and (4) were fitted to data from the 1990 Population Census of Thailand. These sets of data are tested separately by both the models with and without migrant stock variable. The models that do not include migrant stock variable facilitate the comparison of estimated coefficients of variables used in previous studies at different times.

Interprovincial Migration

Migration flows between 72 provinces of Thailand (excluding Bangkok) are analysed. In this estimation Bangkok is excluded because of its unique characteristics compared to the rest of the country. The regressions are based on (72×71) observations. However, the number of observations is actually less than 5112 (72×71) because of the observations with zero value were eliminated due to the log form of the estimated relationships.

The regression results are presented in Table 8.1. Most of the coefficients in regression 1.1 (where migrant stock is not included) are significantly different from zero at less

than the one percent level except education at destination EDU_j. Distance D_{ij} is negative with the largest absolute value. A one percent increase in distance between i and j reduces current migration from i to j 1.183 percent. It is a strong deterrent to migration. This result is similar to all studies of similar models conducted in Thailand using different census data (Arnold and Cochrane, 1980; Jessadachatr, 1989). This suggests that distance remains as a definite deterrent of interprovincial migration. However the size of the distance coefficient in this study is smaller than that of the previous studies in Thailand. This may reflect the improvement of transportation in the country over time. But when migrant stock is included (regression 1.2), the distance coefficient value reduces from -1.183 to -0.220. Moreover the proportion of variance explained (R^2) increases from 0.67 to 0.81. Most of the coefficients are still highly significant. Migrant stock appears to be the most important variable. These results are similar to those for Venezuela (Levy and Wadycki, 1973), India and the United States (Greenwood, 1971, 1970). A one percent increase in migrant stock results in 0.737 percent increase in migration. If comparing the relative size of distance and migrant stock, it appears that a 33 percent decrease in distance has the same effect in increasing migration as a 10 percent increase in migrant stock. This indicates that the presence of relatives and friends in the destination province reduces the deterrent effect of distance. Migrants seem to respond more to the presence of their relatives and friends than to the distance between their province and destination province.

Education coefficients at origin EDU_i are negative while education coefficients at destination EDU_j are positive in both regressions. This indicates that people tend to move from a province with a low percentage of educated population to a province with a higher proportion. The poorer educated persons may move out to find jobs elsewhere while the better educated individuals may be more aware of economic opportunities at home and elsewhere. The earnings of the better educated are likely to be higher and they may prefer to stay rather to move. Thus, it may possible that the origin education coefficient is negative. This result is similar to that found in Egypt (Greenwood, 1969), Brazil (Sahota, 1968), Ghana (Beals et al., 1967) as well as the previous studies in Thailand (Jessadachatr, 1989).

Table 8.1: Interprovincial Migration

Logarithmic Regression Coefficients (β) and t-Ratio

Independent variables		1.1	1.2
D_{ij}	β:	-1.183*** (1)[a]	-0.220*** (4)
	t:	(-64.516)	(-10.880)
EDU_i		-0.319*** (7)	-0.311*** (6)
		(-4.906)	(-6.442)
EDU_j		0.354	0.190*** (8)
		(0.545)	(3.936)
INC_i		-0.172*** (9)	0.052* (11)
		(-4.375)	(1.784)
INC_j		0.652*** (4)	0.139*** (7)
		(16.549)	(4.594)
POP_i		0.971*** (3)	0.302*** (2)
		(41.719)	(14.951)
POP_j		1.049*** (2)	0.283*** (3)
		(45.135)	(13.477)
$UNEM_i$		-0.220*** (8)	-0.276*** (5)
		(-6.314)	(-10.661)
$UNEM_j$		-0.587*** (5)	-0.088*** (10)
		(-16.763)	(-3.251)
URB_i		0.148*** (10)	0.015
		(5.136)	(0.738)
URB_j		0.281*** (6)	0.067*** (9)
		(9.773)	(3.099)
MS_{ij}		-	0.737*** (1)
			(63.937)
R^2		.67	.81
F		932.83	1888.37
N		5035	5030

Note: [a] Indicate the order of importance in terms of explanatory power (beta value)
* significant at .10 ** significant at .05 *** significant at .01

The positive sign of the education coefficient at destination indicates that the higher the level of education of a destination province the greater in-migration to that province. Since the correlation coefficient of education and income at destination EDU_j, INC_j is high (0.726), it seems to be that a province with a higher level of education also has higher income and attracts more migrants.

The coefficient of income variables of both origin INC_i and destination INC_j have expected sign and are highly significant in regression 1.1. A one percent increase in the origin income reduces out-migration by 0.172 percent, while the same percentage increase in destination income increases in-migration by 0.652 percent. This suggests that migrants respond to income level at the destination province more than income level at their province of origin. The incorporation of migrant stock substantially decreases the absolute value of income coefficients. The origin income coefficient changes from being negative to being positive but it is only significant at the ten percent level and its size is very small. The reduction in the destination income coefficient is about 80 percent.

The population coefficients POP_i, POP_j are positive and highly significant in both regressions. This suggests that these coefficients are important determinants of migration. When migrant stock appears in regression 1.2 their magnitude are substantially reduced but their significance remains unchanged. The result shows a 70 percent reduction. In India there was an 80 percent reduction whereas only about 50 percent reduction of these coefficients appeared in Venezuela (Levy and Wadycki, 1973). This may be because a destination population seems to capture some effects associated with migrant stock variable when this variable is not included. The larger the population of the origin province, the more migrants tend to move out. The larger the population of the destination province, the more in-migrants will be expected.

Both origin and destination unemployment variables ($UNEM_i$, $UNEM_j$) have negative signs and are significant in both regressions. This is an interesting result. In Thailand, Arnold and Cochrane (1980) using 1970 census data, as well as Jesadachatr (1989) using 1980 census, also obtained a similar result. Levy and Wadycki (1973) also found the same result in Venezuela. These results indicated that migrants have a tendency to

move out from a province that has a low rate of unemployment which is inconsistent with the hypothesised expectation. It should also be noted that the unemployment rate in this study is an estimated rate that may not represent the actual rate. This may result from the fact that in rural areas where there is much disguised unemployment in the form of underemployment, true unemployment may be difficult to measure. Although Arnold and Cochrane (1980) and I took into account those who were waiting for farm seasons as unemployed, the results are not different from that of Jessadachatr (1989) in which seasonal unemployment was not considered.

Urbanisation variables (URB_i, URB_j) are positive and highly significant in regression 1.1. The urbanisation coefficient of destination reduces from 0.281 to 0.067 when migrant stock is included. The more urbanised the destination province the greater the attraction to migrants. Urban areas provide more and better opportunities including employment, transportation, social services and other amenities. However the very small size of this coefficient suggests that the effect on migration is relatively unimportant.

In conclusion, the result of this study suggests that interprovincial migration is strongly related to the presence of relatives and friends in the destination province. Distance is not a strong deterrent of migration as it has been indicated. Migration tends to be greater both to and from the larger province. Income and urbanisation have not much effect on out-migration and in-migration. Migrants move out from a province with low level education and unemployment. This implies that migrants are being pulled by the opportunities in the destination rather than being pushed from the harsh situation at home.

Migration within the Northeast Region

Since there are 17 provinces in the Northeast region, there are 16 destinations for each province. Regression results in Table 8.2. are based on 272 (17×16) observations. Seventy-seven percent of the variance (R^2) in migration is explained by regression 1.1. The addition of the migrant stock variable MS_{ij} in regression 1.2 results in an increase in R^2 to ninety one percent. Most explanatory variables are statistically significant at less

than one percent in both regressions. Income, unemployment and urbanisation variables of the origin are not significant in regression 1.2. The coefficient of distance variable is negative and highly significant in both regressions. Distance ranks first in terms of importance in explaining migration. The introduction of MS_{ij} in regression 1.2 results in a decrease in the absolute value of the coefficient of other variables in the regression. Distance elasticity D_{ij} is reduced from -1.311 to -0.460 which is about 65 percent. Distance drops from being the first to the third most important variable. Migrant stock MS_{ij} becomes the first most important variable in regression 1.2. It is positive and highly significant at less than the one percent level. A one percent increase in the number of persons from province *i* who have previously migrated to province *j* results in a 0.586 percent increase in migration from province *i* to *j*.

Both origin and destination education coefficients (EDU_i, EDU_j) are substantially reduced when MS_{ij} is included. There is a 75 percent reduction in EDU_i and 50 percent in EDU_j, but only EDU_j is significant at the 5 percent level. The negative sign of EDU_j indicates that a greater education level of destination province has a deterrent effect on migration to that province. This suggests that migrants tend not to go to the provinces with a high level of education.

In regression 1.1 the coefficient of destination income *INCj* is positive and significant at the 5 percent level and its absolute value is the second largest coefficient. This indicates that migrants tend to move to provinces with high income levels. When migrant stock is included, both *INCi* and *INCj* are insignificant and *INCj* has a negative sign. Migration appears not to be responsive to both origin and destination incomes.

Both origin and destination population coefficients (*POPi*, *POPj*) are positive and highly significant at less than the 1 percent level in both regressions. When migrant stock is introduced these coefficients are dramatically reduced. The reduction is about 70 percent for *POPi* and 55 percent for *POPj*. But the absolute value of a destination coefficient is larger than that of origin. Migration responds more to the population of the destination province than to the population of the province of origin. Furthermore *POPj* remains in the second place in terms of explanatory power.

Table 8.2: Migration within the Northeast Region
Logarithmic Regression Coefficients (β) and t-Ratio

Independent variables		1.1	1.2
D_{ij}	β:	-1.311*** (1)	-0.460*** (3)
	t:	(-18.359)	(-7.738)
EDU_i		0.817* (8)	0.202
		(1.904)	(0.767)
EDU_j		- 1.166*** (7)	-0.581** (7)
		(-2.719)	(-2.209)
INC_i		0.287	0.551* (8)
		(0.579)	(1.818)
INC_j		1.247** (6)	-0.075
		(2.512)	(-.244)
POP_i		0.803*** (3)	0.232*** (6)
		(11.222)	(4.508)
POP_j		1.204*** (2)	0.526*** (2)
		(16.833)	(9.690)
$UNEM_i$		-0.401	-0.539*** (5)
		(-1.622)	(-3.572)
$UNEM_j$		-0.967*** (4)	-0.059
		(-3.911)	(-0.378)
URB_i		0.100	-0.006
		(0.859)	(0.092)
URB_j		0.392*** (5)	0.354*** (4)
		(3.367)	(4.985)
MS_{ij}		-	0.586*** (1)
			(20.992)
R^2		.78	.92
F		83.69	243.17
N		272	272

Note: Indicate the order of importance in terms of explanatory power (beta value)
* significant at .10 ** significant at .05 *** significant at .01

The origin unemployment variable *UNEMi* is insignificant and negative in regression 1.1, but turns out to be highly significant in regression 1.2. The destination unemployment coefficient has a negative sign as expected and is highly significant in regression 1.1. When *MSij* is included in regression 1.2 *UNEMj* fails to be significant. The perverse sign of *UNEMi* is similar to the case of interprovincial migration. The explanation of this result has already been discussed in the previous section.

The presence of *MSij* in regression 1.2 does not yield any change in the absolute value of urbanisation variables. The positive sign of *URBj* indicates that the higher the urbanisation of the destination province the more migrants tend to move to that province.

The results from regression analysis suggest that migration within the Northeast region is largely influenced by the interaction of the pull factors including the number of relatives and friends, population, and urban population in the destination province. The presence of relatives and friends has the most influence on migration in this region. Distance also has a large deterrent effect. Migration within this region tends to be within nearby provinces rather than long distance provinces. The larger population and higher level of urbanisation of the destination province exhibits more attraction of that province.

Out-migration from the Northeast Region to Other Regions

Since there are 72 provinces in Thailand (excluding Bangkok), the regression results in Table 8.3. are based on (17×55) observations of out flow from each province in the Northeast region to provinces in the other regions. Where the migrant stock variable *MSij* does not appear in regression 1.1 destination education coefficient *EDUj*, origin income coefficient *INCi* and origin unemployment coefficient *UNEMi* fail to be significant. The inclusion of *MSij* in regression 1.2 results in quite substantial alteration in parameter estimation of most variables. Though the proportion of variance explained (R^2) is quite high (0.67) in regression 1.1, it is increased to 0.84 in regression 1.2.

Migrant stock becomes the most important variable with the largest absolute value. A one percent increases in *MSij* results in a 0.754 percent increase in migration from *i* to *j*.

Results from regression 1.1 indicate that destination income *INCj*, both origin and destination population *POPi*, *POPj* and distance *Dij* are important variables in explaining out-migration from the Northeast region. Income variable at destination *INCj* exhibits a statistically direct effect on migration. Also this variable has the largest absolute value and rank the first in terms of affecting on migration. The coefficient of origin income is not significantly different from zero. This result clearly show that migration is strongly responsive to income levels at the destination province and is not associated with income levels at the origin province. When migrant stock *MSij* comes along with other variables in regression 1.2, *INCi* turns out to be significant but still positive whereas *INCj* remains positively significant but sharply decreases from 1.276 to 0.304. *INCj* shifts from being the first to the second in term of its importance.

Distance is highly significant and positive in both regressions. In regression 1.1 it is ranked fourth. When *MSij* is included in regression 1.2, distance ranks seventh and its magnitude sharply decreases from -0.972 to -0.198. It is interesting to note that distance elasticity for out-migration from the Northeast is much less in absolute value than that of migration within the Northeast region. As opposed to *Dij* , *MSij* is greater for out-migration from the Northeast than that of within region migration. This suggests that persons who migrate within this region find distance to be a more serious deterrent than do persons who migrate to other regions and are more responsive to the presence of relatives and friends in the province out of the region. This indicates that in the absence of a migrant stock variable distance serves as a proxy not only for transportation costs but also for information and cultural differences. Family and friends send back information to their home community and help new migrants in jobs and shelter searching as well as accommodating them while they are waiting for a job. Within the same region migrants find it easier to adapt to new places where similarities in culture, dialect, food and other social settings exist. In the other regions they may have to face problems in adapting to new places where there is a difference in those aspects. Thus

relatives and friends play an important role in facilitating new migrants in the transitional period of staying in a new environment.

In regression 1.1 both population variables *POPi* and *POPj* are positive and highly significant. In terms of their importance in affecting migration, *POPi* and *POPj* rank second and third respectively. When *MSij* appears in regression 1.2 the size of these two coefficients are reduced more than 80 percent. *POPi* and *POPj* shift from being the second and third to the fourth and fifth most important variable. These results indicate that provinces with larger populations have a tendency to be either the sending or receiving areas of migration.

The unemployment variable at origin *UNEMi* is positive but insignificant in both regressions. It is clear that out-migration from the Northeast is not associated with unemployment levels at the province of origin. Whereas *UNEMj* is negative and highly significant in both regressions. The magnitude and rank of *UNEMj* substantially decreases when *MSij* is included in regression 1.2. The reduction of *UNEMj* elasticity is about 70 percent. The negative sign of *UNEMj* indicates that migrants tend to avoid provinces with high unemployment rates.

The education coefficient at origin is positive and highly significant in both regressions but the absolute value is at about a 50 percent decrease in regression 1.2. The inclusion of *MSij* alters both the sign and significance of the destination education coefficient. *EDUj* turns out to be positive and highly significant whereas in regression 1.1 it is negative and insignificant. It appears that level of education at both origin and destination provinces are directly associated with out-migration from the Northeast region. It can be assumed that educated migrants from the Northeast move out to find better education in other regions. Supporting evidence is obtained from the 1990 census that the Northeast has the lowest level of education compared to the rest of the country.

Table 8.3: Migration from Northeast Region to other Regions
Logarithmic Regression Coefficients (β) and t-Ratio

Independent variables		1.1	1.2
D_{ij}	β:	-0.972*** (4)	-0.198*** (7)
	t:	(-13.241)	(-3.497)
EDU_i		0.914*** (7)	0.496** (10)
		(2.655)	(2.072)
EDU_j		-0.088	0.411*** (3)
		(-0.682)	(4.493)
INC_i		0.598	0.642** (8)
		(1.451)	(2.245)
INC_j		1.276*** (1)	0.304*** (2)
		(15.198)	(4.610)
POP_i		1.172*** (2)	0.231*** (4)
		(19.340)	(4.473)
POP_j		1.069*** (3)	0.187*** (5)
		(19.773)	(3.978)
$UNEM_i$		0.274	0.012
		(1.364)	(0.087)
$UNEM_j$		-0.518*** (5)	-0.157*** (9)
		(-6.843)	(-2.922)
URB_i		-0.169* (8)	-0.173*** (6)
		(-1.770)	(-2.607)
URB_j		0.310*** (6)	0.093** (11)
		(4.698)	(2.011)
M_{ijs}		-	0.764*** (1)
			(31.398)
R^2		.67	.84
F		172.39	409.90
N		929	929

Note: Indicate the order of importance in terms of explanatory power (beta value)
* significant at .10 ** significant at .05 *** significant at .01

The urbanisation coefficient of origin is negative and significant in regression 1.1 and remains unchanged when *MSij* is included. The destination urbanisation coefficient is reduced both in magnitude and its importance. *URBj* coefficient is the least important variable. It thus would appear that the volume of out-migration from the Northeast region is unrelated to the urbanised level of the destination province. Urbanisation at origin exerts a considerable deterrent effect to migration. A one percent increase in the urbanisation at origin province is associated with a decrease in out-migration from that province of 0.173 percent.

Based on the result of the regression which included the migrant stock variable *MSij*, it has been found that migrants from the Northeast have a strong tendency to move to the province where their relatives and friends from the same province have previously migrated. The results also indicate that push factors such as low income and high unemployment levels at the province of origin is irrelevant to the determination of out-migration from the Northeast region. On the other hand, pull factors such as high income, high education and low unemployment levels at the destination province exert a strong influence on migration. This indicates that migrants from the Northeast region are attracted to the better opportunities provided in other regions. The more developed the province in the other regions the more migration to that province.

Migration from the Northeast to Bangkok

The estimated relationship of out-migration from the Northeast to Bangkok is shown in Table 8.4. The results are somewhat surprising. The multiple determination coefficient (R^2) in both regressions are almost equal. The inclusion of migrant stock variable *MSij* in regression 1.2 does not increase R^2 but results in a decrease of population and unemployment elasticity by about 40 percent. In regression 1.1 only population and unemployment variables are significant and ninety five percent of the variance in migration is explained. These two variables are the most important variables in explaining migration in the absence of *MSij*. When *MSij* is added in regression 1.2 it becomes the first most important variable. *MSij* coefficient is positive and highly significant. This indicates that out-migration from the Northeast to Bangkok is directly

associated with the number of relatives and friends from the same origin in Bangkok. A one percent increase in the number of migrants from the same province is associated with the increase in 0.494 percent of migration from that province to Bangkok. The most striking finding is that distance variable *Dij* fails to be significant in both regressions. This suggests that migration out of the Northeast to Bangkok is not associated with the distance between that province and Bangkok. This may be because Bangkok is the centre of the transportation network. Travelling to Bangkok is much more convenient, easier and less costly. There is supporting evidence from the surveys of migrants in Bangkok and return migrants in Roi Et. Most of the migrants interviewed indicated that travelling to Bangkok is much more convenient than travelling to other provinces even if in the Northeast region.

Unemployment coefficient *UNEMi* is positive and significant at the 5 percent level in regression 1.1. When migrant stock is included with the other variables in regression 1.2, *UNEMi* is still positive but significant at the 10 percent level and its size is reduced from 0.855 to 0.538. The higher the unemployment in that province the greater the out-migration from that province to Bangkok. This result may not be surprising since the Northeast has the highest percentage of those who were waiting for farm seasons. Most northeasterners are engaged in rainfed cultivation in which rice is the most important crop. Rice has a longer slack season than other crops. This allows farmers to move to Bangkok to work during the slack season. The result of migrant surveys in Bangkok and in Roi Et also lend support to this finding. Most of the movers indicated that they moved out from their village after rice harvesting or during the period of low demand for labour.

The results of this study are not comparable to those of other migration studies in Thailand, since none of those studies has attempted to explore the determinants of out-migration from the Northeast to Bangkok in particular. Some studies have been done on migration within and out of the region. Other studies have been carried out at the micro level.

It can be concluded that the Northeast province with a large population and high unemployment rate is likely to send more migrants to Bangkok. Migrants from this region are encouraged by the presence of relatives and friends from their province in Bangkok. Important economic variables, notably the income level of the origin province, are unlikely to be related to out-migration to Bangkok.

Table 8.4: Migration from the Northeast Region to Bangkok
Logarithmic Regression Coefficients (β) and t-Ratio

Independent variables		1.1	1.2
D_{ij}	β:	-0.400	0.062
	t:	(-1.397)	(0.259)
EDU_i		0.358	-0.167
		(0.534)	(-0.343)
INC_i		-0.477	-0.155
		(-0.608)	(-0.281)
POP_i		1.125*** (1)	0.669*** (2)
		(8.036)	(4.103)
$UNEM_i$		0.855** (2)	0.538* (3)
		(2.253)	(1.939)
URB_i		0.017	0.097
		(-0.093)	(0.770)
MS_{ij}		-	0.494*** (1)
			(3.465)
R^2		.95	.98
F		29.14	54.18
N		17	17

Note: Indicate the order of importance in terms of explanatory power (beta value)
* significant at .10 ** significant at .05 *** significant at .01

In-migration to Bangkok

The regression result of in-migration to Bangkok is shown in Table 8.5. Regression 1.1 explains about 86 percent of the total variation in the volume of migration to Bangkok. Only distance *Dij*, population *POPi* and unemployment *UNEMi* variables appear to be significantly associated with migration. Among these three variables, population at origin province has the most influence on migration. Its coefficient is positive with the largest absolute value. As the population at origin province increases by one percent, the out-migration from that province will increase by 1.136 percent.

Distance *Dij* is the second most important variable in explaining migration. The negative sign of the *Dij* coefficient indicates that distance between the province of origin and Bangkok has an inverse effect on migration from that province to Bangkok. A one percent increase in distance will lower the volume of migration by 0.326 percent. The distance coefficient in this study is slightly lower than that obtained from Jessadachatr (1989) for migration during 1975-1980. The distance coefficient for migration during 1965-1970 resulted in Arnold and Cochrane (1980) and Garnjana-Goonchorn (1974) studies is -0.713 and -0.43 respectively. The deterrent effect of distance is likely to have declined during the past two decades. This may be attributed to the improvement of transportation in the country.

Results are more striking when *Msij* is introduced in regression 1.2. *Dij* turns out to be positive but insignificant. This indicates that migrants do not take distance into account in making a decision to migrate to Bangkok. A similar interpretation of the deterrent effect can be made as to that in the case of out-migration from the Northeast to Bangkok.

Table 8.5: In-migration to Bangkok
Logarithmic Regression Coefficients (β) and t-Ratio

Independent variables		1.1	1.2
D_{ij}	β:	-0.326*** (2)	0.010
	t:	(-5.501)	(0.179)
EDU_i		0.300	-0.083
		(1.406)	(-0.555)
INC_i		-0.228	0.017
		(-1.575)	(0.165)
POP_i		1.136* (1)	0.474*** (2)
		(15.062)	(5.275)
$UNEM_i$		0.304** (3)	0.087
		(2.618)	(1.058)
URB_i		-0.003	-0.069
		(-0.027)	(-1.077)
MS_{ij}		-	0.693*** (1)
			(8.908)
R^2		.86	.94
F		65.21	134.62
N		72	72

Note: Indicate the order of importance in terms of explanatory power (beta value)
* significant at .10 ** significant at .05 *** significant at .01

Unemployment *UNEMi* is another variable that is likely to be an important variable in explaining migration to Bangkok in the absence of *MSij*. It is positive and significant at the 5 percent level in regression 1.1. The greater the unemployment rate of the province, the greater the number of persons who are likely to migrate to Bangkok. This finding is similar to the result of Jessadachatr (1989) in 1980, but contrast with those of Arnold and Cochrane (1980) and Garnjana-Goonchorn (1974) in 1970. The inclusion of *MSij* in regression 1.2 results in a sharp decline in *UNEMi* elasticity and it is no longer significant. This indicates that with the presence of relatives and friends in Bangkok, migration is not influenced by the level of unemployment in the origin province.

The population variable, though, remains positive and significant in regression 1.2. Its magnitude substantially declines from 1.136 to 0.474 and its rank of importance shifts from first to second place. The larger the population of the province the more migration from that province to Bangkok. A one percent increase in population of the province is associated with a 0.474 percent increase in migration from that province to Bangkok.

Migrant stock becomes the most important variable in regression 1.2. A one percent increase in the number of persons who previously migrated from that province to Bangkok results in a 0.693 percent increase in migration from that province to Bangkok.

The data analysed by regression 1.2 suggests that only *MSij* and *POPi* are relevant to the determination of in-migration to Bangkok. Provinces with larger populations and a greater number of past migrants tend to send more migrants to Bangkok. The only difference between this model and that of the out-migration from the Northeast to Bangkok is that unemployment level at the province of origin is unrelated to migration from that province to Bangkok.

Conclusion

The results of regression analysis indicate that when migrant stock variable does not appear in the relationship the parameter estimate of the distance variable is negative and highly significant at less than one percent level for every model except for the case of migration from Northeast to Bangkok. Furthermore, it is the largest coefficient in absolute value and ranks the first in terms of explanatory power (highest beta value). The introduction of the migrant stock variable into the estimated relationships results in a substantial decrease in the absolute value of distance coefficient and increases the proportion of explained variance (R^2) appreciably. But in the model of in-migration to Bangkok and migration from the Northeast to Bangkok the coefficient of distance turns out to be positive and fails to be significant. This suggests that migration to Bangkok is not related to distance which contrasts with all studies in Thailand to date. The results from these studies emphasise the importance of distance in explaining migration in Thailand. In the case of interprovincial migration for the whole country, migration

within the Northeast region, except out-migration from the Northeast to the other region, the distance variable retains its high rank of explanatory power and still has a negative sign. This means that distance is an important factor affecting the distribution of migrants in other provinces apart from Bangkok. In this study migrant stock is found to be the most important factor in explaining the spatial allocation of migrants. These results clearly show that the current migrants have a strong tendency to move to the province where relatives and friends from their province have previously migrated. Relatives and friends act as a source of information about job opportunities and other information concerning the destination. They may also provide accommodation and help new migrants in finding job. Having relatives and friends of a similar background help migrants to get to a new place more easily. This is confirmed by the result of the survey of migrants in Bangkok and those who return from Bangkok (see Chapter 9). As well as information, these migrants also received help from their relatives and friends in Bangkok and were provided with food and shelter. Many migrants got jobs through arrangements made by those relatives and friends before they moved.

Population at origin and destination appear to be important determinants of migration in every model. The coefficient of population variables at both origin and destination have positive signs and are highly significant. The overall interpretation that can be made is that the larger the size of the population of the province the more migrants move out to the more populous destination provinces. These results are consistent with other studies in Thailand and elsewhere (Beals et al., 1967; Garnjana-Goonchorn, 1974; Arnold and Cochrane, 1980).

The unemployment variable at origin has positive sign only in the case of in-migration to Bangkok and migration from the Northeast to Bangkok. It should be noted that the unemployment variable employed in this study takes those who were waiting for farm seasons into account. Thus it may possible to interpret that most of the migrants who came to Bangkok included those who were waiting for seasonal farm labour demands to change. With migration to other provinces, the relationship between migration and unemployment is negative and seems to suggest that those who move may not be engaged in agriculture and move to find jobs which are not available in their province.

Otherwise this striking result may be attributed to the unreliable measurement of unemployment. This requires further investigation.

The coefficients of education variable at origin are significant only for interprovincial migration and migration from the Northeast to other regions. In the former case the coefficient has a negative sign. This may be because lower educated persons move to other provinces for further education or otherwise to seek employment opportunities. In the case of migration from the Northeast to other regions, migrants from higher education level provinces are more aware of the opportunities outside the region and tend to move out.

The destination education variable is significant and positive except for migration within the Northeast. Interprovincial migration and out-migration from the Northeast is positively related to destination education levels whereas migration within the Northeast has a negative relationship. In this case it may possible that the large provinces in the Northeast which were developed as growth centres were much more developed in the area of education than the other provinces in the region but the employment opportunities were not large enough to attract migrants from other provinces. Another explanation can be that migration within the Northeast may not be related to educational reasons.

The income variable at origin is positive but not highly significant. The result is similar to the study of Arnold and Cochrane (1980) using 1970 census data and Jessadachatr (1989) using 1980 census data. In both studies the authors explained that the increase in income level of the province meant that people earned more and could afford the costs of moving to a province of better opportunities. Another explanation was that migrants base their decisions to move on relative income. The coefficient of the destination income has the right sign and is highly significant for interprovincial and migration from the Northeast to other regions. This means that the higher the income in the destination province the more migrants move to that province.

Most of the urbanisation variables at origin fail to be significant except for migration from Northeast to other regions. This migration is negatively related to the level of urbanisation at origin. The less urbanised the Northeast province the more migrants tend to move out.

The empirical results from this study not only show that the model which include migrant stock variable performs much better than the original model but also that *MSij* is a crucial variable that should not be omitted. The number of relatives and friends in a destination province is shown to have a significant impact on all migration flows. This indicates that the large deterrent effect of distance observed in previous studies was attributed to the omission of past migration effect. Relatives and friends may not only play an important role in providing information, accommodation and other assistance to new migrants but they also represent the existence of greater opportunities in those areas.

The significance and explanatory value of variables which reflect the opportunities at alternative destinations indicates that migration in Thailand are influenced by pull factors rather than push factors. This hypothesis has been suggested for Thailand by Chamratrithirong who analysed the 1960 census data and Prasartkul (1977) who analysed the 1970 census data. An analysis of migration within the Northeast region reveals that migrants are attracted to a province with high levels of urbanisation and a larger population. This implies that the impact of regional development policies focusing on the development of growth centres implemented during the past two decades are now visible. But it should be noted that a larger province in the Northeast is likely to send more migrants to Bangkok. This may be because the development of big cities in the Northeast has not been developed to the level that provides sufficient incentives to retain migrants. The in-migration from the Northeast to Bangkok remains the largest flow.

CHAPTER 9

DETERMINANTS AND CONSEQUENCES OF MIGRATION

Introduction

The fact that rural-urban migration plays a major role in the urban growth of Bangkok has been documented in the previous chapters. The data from both the census and large scale survey suggest that more than two-fifths of in-migrants in Bangkok originated in the Northeast (NSO, 1989; NSO, 1993) Thus, migration from the Northeast has made a significant contribution to the growth of the capital. For example, among the capital's residents in 1990, 12 percent were born in the Northeast region (NSO, 1993).

In fact the large influx of migrants from the Northeast to the capital has been observed and become a cause of concern for policy makers since the mid 1950s (Prachuabmoh and Tirasawat, 1974: 19). Between 1985-1990, the number of migrants from the Northeast region to Bangkok increased rapidly. The census data shows that about 303,700 persons moved from the Northeast to Bangkok during this period which is more than double the number of migrants between the years 1975-1980. The continuing trend of mass migration of people from the Northeast to Bangkok appears to be increasingly recognised by development planners and policy makers, prompting various attempts to slow it down.

Almost all migration studies in Thailand concerned with the migrants in Bangkok have cast some light on the process of this movement. Much has been known of the consequences of migration in Bangkok. However the causes and consequences of migration in the origin areas remain inadequately explored. This, together with the increasing trend of out-migration from the Northeast to Bangkok, call for a study which is concerned with a view of assessing its overall impacts both the points of origin and destination of migration. Such a study will provide a better understanding of causes and consequences of migration which is needed in formulating policies to stem this migration. It is the purpose of the present study to examine the causes and consequences of migration from northeast villages to Bangkok by looking at both

community and individual characteristics related to migration behavior. While the previous chapter examines the determinants of migration at the provincial level using the census data, this chapter utilises the survey data to analyse the causes as well as consequences of migration at the household and village level.

This chapter first briefly describes the research setting in the six sample villages of Roi Et province and issues relating to the sample and survey. Comparable data on villages in the two categories of high and low rate of out-migration are presented. The main concern is to determine the socioeconomic conditions in the village that cause variation in the migration rate among these villages. The data were supplemented by in-depth interviews with key informants in each village. The characteristics of migrants and their relationship to the choice of destination and process of decision are discussed using the data from both actual migrants in the Bangkok survey and return migrants in the village. Finally, the impact of out-migration on villages and its households through remittances and migrants behaviour and expectations on return are examined.

Study Villages

The six study villages vary in size from 42 to 86 households and are located approximately 20-35 kilometres from Roi Et. Three study villages (Phosai Noi, Ban Kok and Nong Daeng) are located in Sri Somdet district approximately 20 kilometres south-west from Roi Et. Another three study villages (Nong Mhu, Nong Phue and Bua Ngean) are in Muang Suwang district about 35 kilometers south of Roi Et. According to the data from the NRDC2C in 1994, within the province of Roi Et, Sri Somdet had the lowest out-migrant rate to Bangkok whereas Muang Suwang district had the highest rate.

All six villages are agriculturally oriented and rice cultivation is the main activity of the people among these villages. Corresponding to what might be regarded as the Northeast village norm, villagers consider themselves first and foremost to be rice farmers. They grow glutinous rice in rain-fed conditions to meet their own consumption needs. In three

villages in Muang Suwang district there are hardly any other agricultural and non-agricultural activities. After harvesting rice in December, most of the villagers in these three villages have nothing to do in terms of agricultural work. By contrast, the villagers in the three study villages in Sri Somdet district are involved also in tobacco cultivation. Almost all villagers grow tobacco on some part of their land immediately after rice harvesting. One of these three villages, Ban Phosai Noi, has a large number of households involved in construction work in the Army Camp located only one kilometre from the village.

Each village is accessible by car at all seasons of the year with the exception of Ban Kok where access by car is uncertain during the rainy season. There is easy access to the town of Roi Et from all six villages. There are privately run pick-up trucks traveling back and forth between villages and town. The bus service goes to Bangkok, leaving Roi Et every day. In Muang Suwang district the buses pass through Ban Nong Mhu and Pan Nong Bua Nguen and pick up the passengers at the villages. There is also another means of transport to Bangkok available in all villages. Minibus services operated by local people pick up the passengers from the village and drop them off at their destination in Bangkok. These minibus services are becoming more and more popular among villagers due to easy accessibility people don't have to go to town to get the bus nor struggle to find their way in Bangkok. Most of the minibus drivers themselves are returned migrants who have spent many years in Bangkok. They know the places where migrants from these villages work and stay and help the new migrants to find the relatives and friends in Bangkok.

All villages have access to electricity and all but Ban Kok have piped water. The villagers of Ban Kok have to fetch the water from the public pond in a nearby village. In terms of health and educational services, each village has a primary school and health centre located in the village or nearby. Each village has at least one or two shops selling basic household goods. There are also pick-up trucks carrying many goods and food items to sell in the village. These goods can be acquired not only with cash but also with agricultural products, for example, rice.

Characteristics of the Villages

The average level of migration at the time of the survey varied considerably across the villages. In the high-migration villages, the mean migration rate per 100 household members was 11.4 compared with 5.7 in the low-migration villages. It is also apparent that the proportion of households with prior migration experience is higher in high-migration villages. About 70 percent of households in high-migration villages had prior migration experience, compared with 56 percent of those in low-migration villages. The high-migration villages have 22 percent of prior migrants whereas low-migration villages have 14 percent. Characteristics of households and villages shown in Table 9.1 indicate that the to a certain degree two types of village differ. It is not surprising to find that the low-migration villages have more households with supplementary occupations. In addition low-migration villages are characterised by higher agricultural productivity. Although the area cultivated per household shows little difference, average annual household incomes generated within the villages are much higher for low-migration villages. This indicates that inadequate access to income generating activities in villages encourages migration. In an interview with a headman from a high migration village, it was pointed out that the lack of job opportunities around the village is one of the direct motives for out-migration. He stated:

> *In this village, after rice harvesting there is nothing to do, the dry rice fields are left idle. The young families migrate for two or three months to Bangkok wherever they can earn supplementary income. They sell goods in the street in Bangkok for a month then bring money back home, rest for a week or two and go again* (field interview, Roi Et, 6 January 1996).

In contrast, a village headman from a low migration village stated that the people in his village had little need to search for employment outside their village because their rice land can be used for tobacco farming. As he said:

> *I have seen tobacco growing in the rice fields since I was born. Almost everyone in the village grows tobacco in the rice fields after rice harvesting. Family members are almost busy in the field throughout the year. Only the young will leave after tobacco harvesting to go to Bangkok for a few months* (field interview, Roi Et, 28 December 1995).

One respondent in Ban Phosai Noi expressed his satisfaction with the economic conditions in his villages. He said:

> *At the time when I went to work in Bangkok there was only rice in the field. After the introduction of tobacco in this village, we have got something to work on and earn more income. Besides tobacco, the construction work at the army camp just nearby the village provides jobs for us throughout the year. Now we don't have to go to Bangkok we can work in the village and stay with our families* (field interview, Roi Et, 1 February 1996).

The evidence from this study suggests that inadequate access to village income generating activities encourages migration. The difference in average household income generated in the villages of these two groups indicated that the low-migration villages have much higher household incomes than the high-migration villages. The difference in average household income among these villages is attributed to the income earned from tobacco and wage labor. It appears that the most important determinant of variations in the incidence of migration between villages is the presence or absence of income-generation activities in the village.

Table 9.1: Selected Characteristics of Villages

Characteristic	Out-migration to Bangkok	
	Low	High
Number of surveyed households	108	96
Average household size	5.3	5.2
Average household labour	3.5	3.6
Mean years schooling of household members aged 13+	5.9	5.5
% household with supplementary occupation	57.4	42.7
Number of household members engaged in agricultural work	2.8	2.6
Number of household members engaged in non-agricultural work	1.4	1.9
% households with current out-migrants	23.1	35.4
Migration per 100 household members	5.7	11.4
% households with prior migration experience	56.5	69.8
Prior-migration per 100 household members	13.6	21.8
Farmland owned per household in rai	14.0	15.7
Income by source in baht		
Rice	2,519	6,540
Tobacco	8,798	398
Vegetable	574	115
Crop	37	73
Livestock	2,157	1,046
Salary	4,267	4,619
Wage	2,058	731
Trade	2,272	1,665
Others *	10,563	3,839
Income support **	606	2,250
Remittances from other places	1,296	5,208
Remittances from the Northeast	1,346	156
Remittances from BMR	759	2,979
Remittances from Bangkok	4,004	7,992
Total	51,257	37,609
Total minus remittances	47,253	29,617

Note: * including construction, dress making, weaving, commission, etc.

** income received from married children not included as household member

Characteristics of Households

Table 9.2 summarises the basic characteristics of the migrant and non-migrant households for the two groups. Migrant households, on average, have larger household size and more household labour. There was also a somewhat higher proportion of households with supplementary occupations for non-migrant than migrant households in the low-migration villages. There was almost no difference in this percentage between migrant and non-migrant households of the high migration villages. It is interesting that there was little difference in the proportion of households with prior migration experience between migrant and non-migrant households in both types of villages. This probably reflects the fact that, in general, these villages have a very long migration experience. As a key informant described the migration history of the village:

> *In the early days, our village faced severe drought, we had to go to other villages to ask for some rice. Some went to work in other provinces including Bangkok. When those who moved to Bangkok established linkage with their kin in the village, more and more continued to follow the same path. You hardly find a household without someone who ever went to Bangkok* (field interview, Roi Et, 15 February 1996).

Table 9.2: Characteristics of Migrant and Non-migrant Households

Characteristic	Migrant		Non-migrant	
	Low	High	Low	High
Number of selected households	25	34	83	62
Average household size	7.3	6.2	4.7	4.6
Average household labour	4.6	4.7	3.2	3.1
Mean years schooling of household members age 13+	6.0	5.9	5.9	5.2
% household with supplementary occupation	48	47.8	60.2	48.4
Number of household members engaged in agricultural work	3.0	2.8	2.8	2.4
Number of household members engaged in non-agricultural work	2.5	2.9	1.0	1.4
Migration per 100 household members	18.0	26.9	-	-
% Households with prior migration experience	56	70.6	56.6	69.3
Prior-migration per 100 household members	9.8	20.3	15.3	22.9
Farmland owned per household in rai	16.2	19.3	13.4	13.7
Income by source in baht				
Rice	1,820	7,050	2,729	6,260
Tobacco	17,600	800	19,159	177
Vegetable	672	88	545	129
Crop	0	0	48	113
Livestock	1,768	1,762	2,275	653
Salary	5,712	2,012	3,831	6,049
Wage	2,020	206	2,070	1,019
Trade	2,800	524	2,113	2,290
Others	14,320	2,112	9,431	4,785
Income support	1,100	1,853	458	2,468
Remittances from other places	0	529	1,687	7,774
Remittances from the Northeast	0	294	1,752	81
Remittances from BMR	800	4,674	747	2,048
Remittances from Bangkok	17,216	17,976	24	2,516
Total	65,828	39,882	46,869	36,363
Total minus remittances	48,612	21,906	46,845	33,847

Characteristics of Migrants

The sample of migrants who were interviewed for this study were generally young. About 70 percent of them are in the age group 15-29. The average age for the total sample is 26.6 years. The age distribution of male and female migrants are not very much different. There is a concentration of young age groups for both sexes. The age group 20-29 includes about 63 percent of the males and 62 percent of the females. The proportion of female migrants in the age group 15-19 is more than double that of male migrants. Conversely, the proportion of males 30-34 years is greater than the corresponding proportion of females. Male migrants are on the average older than female migrants by about one year, the average age being 27 and 26 respectively.

Both male and female migrants are much more likely to be single. Three-fifths of them are single. There is little difference in marital status between male and female migrants. Compared with male migrants, female migrants are more likely to have attained a higher level of education. About 47 percent of female migrants have more than a primary education, while the respective figure for male migrants is 34 percent. The differential is also noticed at the higher educational level, with 16 percent of female migrants and 5 percent of male migrants having an educational level of college or university. The pattern of occupational differentials are similar to that of education. Female migrants are more likely to engage in high status occupations than male migrants. While 25 percent of female migrants are in professional or sales occupations, only 2 percent of male migrants are in these occupations. Male migrants are less likely to engage in service occupations than female migrants. There is a marked difference in the proportion of unemployed. Male migrants are much more likely to be unemployed than female migrants (49 percent compared with 9 percent) It should be noted here that, as most migrants in the sample were drawn from those who were applying for jobs at the Employment Office, we would expect a higher proportion of unemployed among migrants interviewed. However, it seems clear that this difference is partly due to a smaller proportion of male migrants in sales and service occupations.

Table 9.3: Percentage Distribution of Migrants' Characteristics

Characteristic	Male N = 41	Female N =32	Total N = 73
Age			
15-19	5.0	12.5	8.2
20-24	36.6	31.2	34.2
25-29	26.8	31.2	28.8
30-34	21.9	9.4	16.4
35-39	7.3	12.5	9.6
40+	2.4	3.1	2.7
Marital status			
Single	63.4	59.4	61.6
Married	34.1	31.3	32.9
Widow	0	3.1	1.4
Divorce	2.4	6.2	4.1
Education			
None/less than primary	17.1	18.7	17.8
Primary	48.8	34.4	42.5
Lower secondary	21.9	25.0	23.3
Upper secondary	7.3	6.2	6.8
College/University	4.9	15.6	9.6
Occupation			
Labour/production	34.1	37.5	35.6
Transport	4.9	0	2.7
Sales	0	6.2	2.7
Service	9.8	28.1	17.8
Prof./admin./clerk	2.4	18.7	9.6
Looking for job	48.8	9.4	31.5

The Process of Migration

In a study of rural-urban migration one of the crucial questions raised is why do people move? But this question could not be sufficiently answered with only discussing the reasons given for migration. Migration occurs in response to a wide range of factors which affect different people in different ways. To understand the reasons why people move we need to examine the factors involved in the migration process and how these factors affect the migration decision. This section reports on results from individual interviews about the migration experience. The presentation will be focused on factors relating to the decision to migrate. These factors, such as the age at migration, reasons for the move, prior knowledge about the city, reasons for the choice of destination and the persons involved in the decision to move, will provide important insights into the process of migration.

Age at Migration

Data on age at first move indicate that a large proportion of migrants move out of their place of origin while they are young. Among both male and female migrants, almost 80 percent made their first move between the ages of 10-19. Among males 32 percent first moved when they were in the age group 10-14 and 46 percent in the age group 15-19 years. Among females the proportions were respectively, 22 percent and 56 percent.

Data on age at the time when migrants first moved to Bangkok show some differences. The average age at the time of first migration is lower than that at the time of the first move to Bangkok. For males the median age is 17 for first migration and 20 for first move to Bangkok. For females the corresponding figure is 17 and 19. Sixty-six percent of males and 72 percent of females made their first move to Bangkok in the age group 15-24.

The age distribution of returned migrants shows that the majority made their first move to Bangkok when they were under 20 years. About 62 percent of male and 60 percent of female return migrants first moved to Bangkok at age 15-19 while only 34 percent of

male and 47 percent of female current migrants were in this age group. The age distribution of returned migrants shows that the majority of returned migrants were, under 20 years at the time of their arrival in the city.

For both sexes the proportions in the younger age group 15-19 is relatively higher than that of migrants. Further, there is a concentration of female returned migrants in the age group 10-14, which is largely due to the migration of females for domestic work.
One respondent, aged 50, described her first migration in 1961:

> *I was 15 years old, at that time many young girls in our village and nearby went to work as domestic servants in Bangkok. When they talked about the city life I wanted to see Bangkok too* (field interview, Roi Et, 12 January 1996).

Reason for Moving

The respondents were asked to give their reasons for leaving their village for Bangkok. Responses on reasons for leaving refer to the first move to Bangkok for both migrants and returned migrants. If the migrants are classified as repeat or multi movers, the reasons for the current move were also asked. The distribution of responses is shown in Table 9.4. It should be noted that the percentages total more than 100 because most respondents gave more than one reason for their decision to move.

The answers given by the migrants brought out different kinds of factors that weighed in their decisions to move out of their villages. The four main sets of considerations were (i) to look for a job; (ii) to get a job (which had already been arranged); (iii) to earn money for their household; and (iv) no work in the villages. There are some differences in the reasons given for movement between male and female migrants. There is a significantly higher proportion of males who move to search for a job: 51 percent compared to 28 percent of the females. But the proportion of those who got jobs before moving is higher for females: 41 percent compared to 27 percent for males. A similar proportion of both male and female migrants reported that they moved to earn money for their household as well as for themselves. Men were more likely to say that they moved because it was difficult to find work in their village. While 17 percent of males

moved to get experience, only 6 percent of females moved for this reason. Women were more likely than men to say that following family was their reason for the move. Another major reason for female migrants is "free from field work" which was cited by 16 percent of female migrants. A few men mentioned that they wanted to leave home because they could not get on with parents or family members. Only one person stated that he did not want to work in the field. One out of the 32 female migrants gave education as the reason for the move though no male migrants gave such a reason.

Table 9.4: Percentage Distribution of Migrants by Reasons for Leaving Home

Reason	Male N = 41	Female N =32	Total N = 73
To look for a job	51	28	42
To get a job	27	41	33
To earn money for the household	29	22	26
No work in the villages	29	12	22
To earn money for self	19	16	18
To get experience	17	6	12
Following family	7	12	10
Following friends	7	6	7
Free from field work	0	16	7
Visit relatives	0	9	4
Flooding	5	3	4
Problems in the family	7	0	4
Education	0	3	1
Don't like to work in the field	2	0	1
Other	5	0	3

It is apparent that young migrants are motivated to move in part by a desire to earn money not only for their households but also for themselves, although this was not directly expressed by most of the migrants. Informal talks with many respondents in the study villages showed a common impression that the young villagers tend to move out with the expectation that they could earn enough money to spend on their own.

One respondent said the following:

> *They don't want to stay in the village where they have no income. At home if they want something they have to ask their parents, but in Bangkok they earn money and they can spend on their own* (field interview, Roi Et, 12 February 1996).

This attitude is consistent with a comment made by a migrant's parent.

> *Nowadays, the young don't want to work in the field anymore. They want to go to Bangkok to search for better jobs. In the city they can find their own occupation and have their own income* (field interview, Roi Et, 13 February 1996).

Table 9.5: Percentage Distribution of Returned Migrants by Reasons for Leaving Home

Reason	Male N = 40	Female N = 60	Total N = 100
To get a job	62	83	78
Want to see Bangkok	18	18	18
To look for a job	22	7	13
Free from field work	20	7	12
Following friends	10	8	9
To get experience	10	3	6
Drought	5	5	5
To stay with relatives	0	3	2
Dislike field work	5	0	2
To earn money for the household	0	2	1
No work in the villages	0	2	1
Following family	0	2	1
Education	0	2	1

Table 9.5 provides additional information on the reasons returned migrants left home. The most noticeable difference between migrants and returned migrants is that a larger proportion of returned migrants said they left home to get a job. While only 33 percent of migrants indicated that they moved to get a job, among returned migrants almost 80 percent stated they moved for this reason. There is inversely a higher proportion among migrants leaving home to look for a job: 42 percent in comparison with 13 percent in

returned migrant groups. It is also interesting to note that while 18 percent of returned migrants indicated that they moved because they wanted to see Bangkok none of the migrants mentioned this reason. This suggests that in the early stage of migration the influence of contacts that exist among the villagers and the networks in Bangkok play an important role in migration. The networks in Bangkok not only motivate migration by supplying the information and presenting an image of city life, but also by securing employment in the city.

Preference for Bangkok

In any study of migration the factors governing the choice of the particular place to which one migrates are as important as the factors governing the decision to leave one's native home. Both the reasons for moving out from the villages and the reasons for moving to Bangkok are a central concern of this study. Migrants were asked to state the particular considerations which made them choose Bangkok in preference to other places. The majority of the respondents mentioned more than one reason which motivated them to choose Bangkok.

The most important reasons for the choice of Bangkok were (i) presence of relatives; (ii) better employment opportunities; and (iii) better income. These were mentioned by 31-37 percent of individuals. The importance of the presence of relatives in the migration decisions of female migrants is obviously an important reason given by respondents (Table 9.6). The presence of relatives was mentioned as a decisive factor in the choice of Bangkok by over 50 percent of the female migrants. The presence of relatives is also important as the reason for the choice of Bangkok for the male migrants though the percentage who mentioned this reason was smaller.

Male migrants (37 percent) were more likely to mention better employment opportunities as a major consideration in their decision to migrate to Bangkok than were female migrants (28 percent). There was not much difference in the percentage of those who mentioned better income as the reason for their choice of Bangkok between males and females (29 and 34 percent respectively). Thirteen migrants (7 males, 6 females) came with their neighbour.

About 22 percent of all respondents said that Bangkok offered better job opportunities. Twelve percent said that they did not know where else to go and they saw their fellow villagers going to Bangkok. A substantial proportion (16 percent) indicated that they heard many things about Bangkok and they wanted to see it for themselves. A few had moved to Bangkok to take a job and get experience. Surprisingly only 4 percent admitted that the amenities in Bangkok had been the factor in their decision. It is notable that only four of the forty-one male migrants mentioned the enjoyment or adventure of Bangkok life while none of female migrants mentioned this reason. The reasons for the choice of Bangkok support those reasons migrants gave for leaving home.

Table 9.6: Percentage Distribution of Migrants by Reasons for Moving to Bangkok

Reason	Male N = 41	Female N =32	Total N = 73
Presence of relatives	22	56	37
Better employment opportunities	37	28	33
Better income	29	34	31
Better job	19	25	22
Following neighbours	17	19	18
Want to see Bangkok	22	9	16
To earn money	19	6	14
Don't know where to go	10	16	12
Neighbours come only to Bangkok	15	3	12
Presence of friends	12	9	11
Information	2	16	8
To get a job	5	9	7
To get experience	10	3	7
For fun	10	0	5
Following family	2	9	5
Amenities	5	3	4
Others	2	9	5

The most frequently mentioned reason for the choice of Bangkok among the returned migrants was presence of relatives and following neighbours. Other common reasons included information about Bangkok and the desire to see Bangkok. This is consistent with the reasons they gave for leaving home.

When considering both the reasons for leaving their place of origin and the reasons for choosing Bangkok as their destination, it is evident that migration occurs in response to the pull factors rather than the push factors. The northeast migration to Bangkok were determined, to a considerable extent, by employment opportunities in the city as well as the influence of contact networks.

Table 9.7: Percentage Distribution of Returned Migrants by Reasons for Moving to Bangkok

Reason	Male N = 40	Female N = 60	Total N = 100
Presence of relatives	27	40	35
Following neighbours	37	33	35
Want to see Bangkok	20	22	21
Information	25	18	21
Presence of friends	27	10	17
Better income	22	10	15
Better employment opportunities	20	10	14
Neighbours come only to Bangkok	5	8	7
Don't know where to go	0	10	6
Better job	10	3	6
To get a job	2	5	4
To get experience	7	2	4
For fun	7	0	3
Amenities	7	0	3
Following employer	0	3	2
Following family	0	2	1
Education	0	2	1
No work in the village	0	2	1
Others	0	5	3

Knowledge about Bangkok

Many migration studies both at a macro and micro-level found that the presence of relatives and friends in the place of destination is an important migration inducing factor. People will move to places where they have contacts or they know someone. Relatives and friends are the migrant's major source of information about the destination areas. Fuller et al. (1983:70), in their study of migration from villages in Northeast Thailand revealed the importance of information relatives and friends contribute in migration to Bangkok. They found that most movers would not consider going to any town other than Bangkok because they lacked information about opportunities elsewhere, and had no friends or relatives with whom to stay. Findley (1997) suggests that social contacts are an important channel for information transmission and a mechanism for sponsorship in the developing countries.

It is evident that the study villages specialise in particular forms of migration and it is typical that the majority of migrants from particular villages work in the same occupations and live in the same parts of Bangkok. Parnwell referred to a study in Bombay and quoted that more than three quarters of rural migrants in Bombay already had one or more relatives living in the city, from whom 90 percent had received some form of assistance upon arrival (Parnwell, 1993:94). In the Philippines, family contacts were found to be a dominant determinant of internal migration decision-making (Root and De Jong, 1991:221-233). Another study in Thailand which examined the social contacts that link the northeast villagers with urban areas in Bangkok found a positive correlation with migration to Bangkok (Fuller et al, 1990:534-60). Textor (1961) in his analysis of the Bangkok pedicab drivers from the Northeast, pointed out that kinship and friendship were by far the most important interpersonal relationships that the migrant drivers formed in order to meet their needs while staying in Bangkok. As he remarked, "Kinsmen help each other with interest-free loans in the time of sickness and financial crisis, share recreational experience and provide one another with emotional support" (Textor, 1961:29). The findings of the National Migration Survey (NMS) also confirm the importance of social networks in determining migration in Thailand. The NMS pointed out that few migrants moved to a place where they did not have any personal

contacts (Chamratrithirong et al., 1995:73).

Respondents in this study were asked whether before moving they had some ideas about Bangkok. A larger percentage of current migrants knew something about Bangkok than returned migrants. Only 11 percent of out-migrants and 21 percent of return migrants admitted that they had no idea about Bangkok prior to moving there. Among both groups, men were more likely to have knowledge about Bangkok than women. Most respondents obtained information from relatives and friends. However, there is a marked difference between the migrants and returned migrants in how well informed they are. Nearly 50 percent of the migrants reported that they got some ideas about Bangkok from television and radio and in some cases from newspapers. Only 2 percent of returned migrants mentioned this source of information. This difference is probably due to the improvement in mass communications as most households now have radios and televisions.

Decision Making

In migration studies, there is a paucity of knowledge regarding decision making. There are two distinct broad perspectives on this topic. In the human investment approach, migration is viewed as an investment decision involving on individual's expected costs and returns over time. Individuals are expected to migrate where they perceive the personal benefits to exceed the costs (Sjaastad, 1962; Bowles, 1970). The opposing view argues that population movement is a household strategy, that households or families allocate their labour resources to maximise their incomes to ensure their survival. Thus "Migration in this framework is seen as a reaction to stress exerted by the individual's or household's own physical, economic, social and cultural environment" (Hugo et al., 1987:232-234). In their study in the Philippines, Lauby and Stark (1988:473-478) concluded that Filipino families often choose to send a daughter rather than a son to work in the city as a strategy for advancing familial well-being.

In Thailand, where family remains one of the most important units in the society, the model of individual's expectations in decision making may not be suited to explain the migration process in the Thai context. Generally the Thai family is an extended family, with several generations living under one roof or at least under several roofs within the same compound. This extended familial pattern is particularly prevalent in the rural areas. The most prominent feature of the Thai concept of family as it currently exists in Thailand is that children have a moral obligation to care for parents in their old age. Klausner, with respect to migration of the northeasterners to Bangkok, observed that these traditional values played a large part in the migration of the young: "The children saw the cash jobs in the capital not only as a way to partake of the attractions of city life but as a means, through their salary, to pay respect to their parents and repay them for all the care given to children in years gone by" (Klausner, 1960:127). However, in most discussions of migration, emphasis has been placed almost solely on how the individual and household affect or is affected by the movement process. The extent to which it is an individual or a household decision is infrequently mentioned.

Both current migrants and returned migrants were asked a direct question about who decided on their move. Fifty six percent of returned migrants, and 68 percent of current migrants indicated that they made their own decision to move to Bangkok. However, in both groups, women tend to depend more on household decision making. This, probably in part may be explained by the norm of preference for co-residence with daughters which is particularly pronounced in the Northeast. Daughters maintain close ties with their families and tend to depend on their parents' decisions concerning any move. In the Northeast, household heads prefer to have their sons move rather than their daughters because they fear more for daughters than sons in town (Fuller et al., 1983:61).

It is interesting to note that there is a difference in the proportion of those who made decisions on their move between returned migrants and current migrants. Even though the difference is not large, it shows a tendency for migrants to become increasingly independent in decision making towards their moves. This trend has already been observed by Klausner three decades ago. He commented that the images of city life brought back by their friends to the villages encouraged the young northeasterners to

move, giving parents less control over their children regarding their moves (Klausner, 1960:138). The results of another more recent study indicated that almost half of the northeast migrants interviewed in Bangkok did not get their parents' approval (Fuller et al., 1983:61).

A returned migrant from one of the study villages described his experience of first migration the following way:

> *I was only 14 and my parents did not want me to leave for Bangkok. But I heard a lot about Bangkok from friends. I wanted to see it myself. I sold my chickens, got money and went with my friends. My uncle in Bangkok told me to go back home but I insisted and stayed there for 7 years* (field interview, Roi Et, 12 January 1996).

It would appear that in many cases family control tends to decrease as the aspirations and desire to move of the young villagers increase. The lack of employment opportunities and the possibility to boost their incomes in Bangkok encourage them to leave for work in the city.

Help Received in the City

A study in West Java stressed the important role of relatives and friends in population mobility in Indonesia. It was found that they not only feed information back to the village; but they usually help new migrants find a job and housing (Hugo et al, 1987:237). Another study of in-migrants in Bombay also found that the most common help mentioned by the in-migrants is the combination of free accommodation and food given by friends and relatives in the initial period of their stay in the city (Gore, 1970:66). In Thailand, a recent study of in-migrants in Bangkok had similar findings with almost 90 percent of migrants receiving assistance after a move. The most frequently mentioned forms of assistance were accommodation, finance and job placement assistance (Chamratrithirong et al, 1995:70-71)

Data from the present study also confirm high levels of assistance from relatives and friends in Bangkok during their stay in the city. A majority of migrants received help in locating job opportunities. The other major type of help related to shelter and food. In

fact, nearly every type of help was mentioned more frequently by women than men. Women were much more likely than men to have received help in looking for job (81 compare to 49 percent). Among those who received help from friends and relatives, almost 80 percent got jobs through such help. This was also true for returned migrants with 68 percent of women and 72 percent of men receiving this type of help.

Period of Waiting for First Job

Results from the NMS show that the vast majority of migrants to Bangkok either had already arranged employment before moving or found work within one month of arrival (Chamratrithirong et al., 1995:72). In this study respondents were asked how long it took them to find the first job after their first migration to Bangkok. There was a substantial number of current migrants who had just come to the city. Therefore the question "how long?" was not applicable to them. Those who arrived in Bangkok for the first time and stayed for less than one month were not asked this question. The data show that about 84 percent of the migrants were able to find a job within one week of their arrival. Another 5 percent found work within one month. In the returned migrant group 91 percent got a job within the first week of their arrival. Another 7 percent had to wait more than a week but less than a month in getting their first job. Only 2 percent waited more than a month until they got a job.

Perceptions of City Life

Both migrants and returned migrants were asked to compare their village and Bangkok on a number of aspects. The questions required the respondents to indicate their perceptions of whether the village is better, the same, or worse off compared to Bangkok. They overwhelmingly felt that their village is superior to Bangkok in almost all aspects except income and experience, as most basic infrastructures required in the rural areas such as road, electricity, water supply, health and education services have recently been developed. Moreover, most villagers perceive that life in the village is more pleasant.

Table 9.8 shows how respondents compared their village and Bangkok according to various aspects. The majority of migrants tended to be most satisfied with their environment, safety, relationships in the community, friendliness and their housing conditions in their villages. Over 90 percent of respondents were most satisfied in these regards.

Surprisingly, migrants rated the health facilities to be preferable in the village. This may be because of easy access and less cost involved in acquiring the health service in the village. In terms of education, in the sense of learning and gaining more experience, the respondents perceived the village to be clearly inferior to Bangkok. Most respondents rated their village as less advantageous in regard to income. Only 8 percent of current migrants and 20 percent of returned migrants felt that they can earn more income in the village. It may be that those who got low paid jobs in Bangkok, have a greater chance of being unsatisfied with their income in the city, taking account of their expense. There is a significant variation between returned migrant and current migrant in regard to work conditions. Current migrants are generally more satisfied with work conditions in Bangkok than returned migrants. Two-thirds of the migrants indicated that working conditions in the village are worse compared to Bangkok. This is not surprising since 70 percent of migrants are under 29 where the percentage of the returned migrants in this age group was only 26. The young are often reluctant to work in the fields.

One of the migrants, 24 year old Pong, had moved to Bangkok from Roi Et after leaving primary school. Pong first went to Bangkok with her aunt and stayed and worked with her. Then she went to work in another job. Having worked in the city for many years, she considered that working in the city is much better than working in the field. She said:

> *The young generation is now looking for work in the city. They don't want to work in the field facing the sun the whole day. In the city, it is not difficult to find job. There are various jobs we can earn money from* (field interview, Bangkok, 9 May 1996).

Table 9.8: Percentage Distribution of Migrants' Perceptions of Life in Village Compared to Bangkok

	Perception of villages compared to Bangkok		
	Better	Same	Worse
Current migrant			
Living standard	62	3	31
Safety	93	5	2
Environment	93	5	2
Work condition	31	2	66
Friendliness	88	10	0
Enjoyability	64	3	31
Convenience	68	2	30
Relationships in community	95	3	2
Housing	95	2	3
Education	0	0	100
Health	91	5	3
Income	2	5	92
Expense	97	0	2
Returned migrant			
Living standard	70	0	25
Safety	98	2	0
Environment	98	0	2
Work condition	71	1	28
Friendliness	95	5	0
Enjoyability	72	3	25
Convenience	81	2	17
Relationships in community	90	5	0
Housing	90	2	8
Education	15	5	80
Health	68	18	12
Income	19	1	80
Expense	89	4	17

Remittances

The most obvious economic impact of rural-urban migration is the remission of money and goods earned by migrants in the city to family members remaining in the village. Although remittances represent only one subset of resources transferred as a result of movement, they have a significant effect on income levels of the origin household. Having reviewed evidence from migration studies, Hugo concluded that in many parts of the Third World, remittances constituted a major element in village income. In his West Java study he found that remittances from urban commuters and circular migrants made up a large part of the household income, 60.2 percent for the former and 47.7 percent for the latter (Hugo, 1983:25). Oberai and Singh (1983:109), in their work in the Indian Punjab found that remittances raised the average income of out-migrant households by 30.7 percent. They also argued that remittances improve not only the distribution of income among out-migrant households but also the over-all distribution of income in rural areas.

In Thailand, only a few migration studies have collected detailed remittance data. Textor (1961) concluded from his pedicab study in Bangkok, though without statistical support, that the northeasterner drivers spend the most part of their earnings principally for consumer goods for themselves and their family. Thus, such earnings from migration contributed less to the overall economic development of the Northeast than might be possible. Panpiemras and Krusuansombat (1985:337) referred to the results of the survey of the National Statistical Office which indicated that only 30 percent of migrants in Bangkok remit income back home. They further argued that these remittances are very small and do not have a significant effect upon occupation improvement of the migrants when they returned to their villages. In her study on the impact of migration, Tirasawat (1985:490-491) found that 70-82 percent of migrant households received remittances. Remittances constituted roughly 15 percent of the annual income of recipient households but contributed slightly less than 5 percent of the total village income. She also found that a large proportion of remittances was used for general consumption expenditure.

Fuller et al. (1983:98) found in their study of northeast migrants in Bangkok that 61 percent of those whose families were not with them in Bangkok sent or took home cash more or less regularly. The average monthly remittances of these migrants were relatively high compared to the mean household income of rural Northeast Thailand. This amount is equivalent to 48 percent of the mean household income.

In the NMS study, 57 percent of males and 56 percent of females who made a single move sent money or goods back to the village. Female repeat migrants to Bangkok were more likely than males to have remitted (66 compared to 58 percent). About two-fifths of those who remitted money sent it to parents.

In this study it was found that nearly 80 percent of returned migrants interviewed in the village said that they sent money or took money back during their return visits. Parents were by far the most frequent recipients of the remittances from these migrants. Among those who did not remit, low income and no money left were the most frequently cited reasons: 25 percent and 40 percent respectively.

It is interesting that there is no noticeable variation in the remitting behaviour between returned migrants and actual migrants. Almost 80 percent of migrants surveyed in Bangkok sent money back home and more than 90 percent of those sent it to their parents. Those who did not send money also cited the same reasons as returned migrants. These two samples represent somewhat similar patterns of remitting behaviour. This reflects the continuing link between movers and their village-based households. Thus this evidence suggests that family ties were not weakening over time.

In the interview with the migrant households it was found that almost 90 percent received remittances from migrants in Bangkok. Remittances range from 0 to 80,000 baht per year with an average of 17,654 baht per household. On average, remittances account for 35 percent of household incomes. If remittances from household members who worked in the BMR are included, the proportion of remittances in household incomes is raised to 41 percent.

Since remittances can take many forms, including informal transfers in cash or kind, and pass through many different channels and networks, it is difficult to make definite assessments. As in the case of northeast migrants, a common practice is for migrants visiting home to bring some goods from the city with them. These goods include clothes, and food as well as durable goods.

Remittances in this study are defined only in the form of money sent or brought back by migrants or via relatives and friends. It should be noted, however, that data regarding remittances may lack reliability to some extent due to many reasons. Memory recall problems are a major difficulty especially when remittances are irregularly sent or brought back personally on a return visit to the village. Remittances brought back by those who visit migrants in the city are also often overlooked and not reported by the respondents. There is likely to be substantial underestimation of money transferred from migrants to their households in the village of origin. Remittances may be sent to meet a specific need or an emergency cash need, for example, the buying of livestock, the purchase of rice fields, building a house, compensation for crop failure or expense for ceremonies. These may be called in at any time and often are not counted as annual remittances. This form of remittance may not be detected from a question about a fixed time period.

A common practice among migrants from the Northeast is the contribution of the money earned in the city to fund specific community projects. In all study villages, migrants remitted a substantial amount of money per year to raise the village funds, which are used mainly for the benefit of the village as a whole. The most common use of this fund is the renovation of temples and support for village schools. This constant flow of remittances to the village fund usually serves to reinforce the traditional ties and bonds between movers and their community.

The volume of remittances depends not only on the level of income earned in the city but also on the nature and extent of the movers' commitment to their place of origin. In some cases migrants may not send money back home because none of their households members are in the village or those remaining at home are not in need of money from

them. As some of those who sent nothing at all commented:

> *I no longer remit because I have no one there* (field interview, Bangkok, 3 May 1996).
> *No need to send money to them, they got enough at home* (field interview, Bangkok, 6 May 1996).

Use of Remittances

Respondents were asked to indicate what the intended uses of remittances were. It is obviously difficult to estimate the amount of remittance being used for any particular purpose. Thus in this study there was no attempt to quantify the allocation of remittances to different forms of expenditure.

Table 9.9 shows that 72 percent of the actual migrants and 88 percent of returned migrants sent remittances to support everyday household needs. More than one-quarter of actual migrants remitted money for the purpose of agriculture improvements such as the purchase of farm equipment, fertilizers, pesticides and the hiring labour. The other most common use of remittances is the construction or renovation of houses which was cited by 28 percent of actual migrants and 19 percent of returned migrants. Such houses improved the status of the migrant households within the communities. House construction and improvement often lead to the impression of migrant's success in the city and raises the aspirations of others in the community, encouraging them to migrate. Informal talks with key informants in the high-migration villages supported the view that almost all new and improved houses in the villages were built by the money received from migrants working in Bangkok. The overall pattern of uses of remittances indicated by the migrant household appears to be consumption-oriented as well as investment in agriculture. However investment in agriculture by remitted money seems to be more compensation for the loss of household labour than for increased productivity. A significant proportion of household heads mentioned the use of remittances in housing. This suggests that remittances resulted in improved living standards of migrant households.

Table 9.9: Percentage Distribution of the Use of Remittances

Use of remittance	Migrant	Returned migrant	Household
Day-to-day expense	72	88	66
Agriculture	26	23	51
Non-agriculture	4	0	0
Buy land	2	1	6
Land improvement	0	1	3
Education	9	5	9
Housing	28	19	26
Pay debt	11	2	6
Ceremonies	6	1	9
Clothing	6	2	0
Health	6	4	0
Savings	9	0	3
Don't know	13	0	0

Ties to One's Origin

Since the process of migration usually involves separation from relatives and friends, one measure of the interaction between migrants and those who are left behind in the villages is the frequency with which migrants visit friends and relatives in the villages or have visits from them. Among migrants in Bangkok, 76 percent reported having visits from friends and relatives from the origin area and 68 percent having contact with relatives and friends while staying in the city.

Another indication of the close ties with households in the village is the frequency of home visits made by migrants themselves. Since the frequency of these visits is governed by the nature of employment and the costs involved, we cannot use this indicator alone in indicating the close ties between migrants and their home. However, the data on home visits give us a picture of the attachment to the place of origin on the part of the migrants. Almost 80 percent of the migrants visit their home at least once a year.[1] About 16 percent visit home more than 4 times a year.

[1] Excluding those who stayed in Bangkok less than 6 months.

Intent to return to live in their place of origin can be used as a proxy for differentiating between 'permanent' and 'temporary' migrants and could have an important influence on migrants' remittance behaviour as well as contacts between migrants and their home. Almost 90 percent of the migrants interviewed in Bangkok indicated that they intend to return home at some stage in the future, suggesting that a very large majority perceive themselves as 'temporary migrants'. The main reasons most cited for intention to return home were to settle down in the village, a dislike for Bangkok and the gaining of sufficient money. Only a few migrants indicated that they intend to stay permanently in Bangkok (11 percent).

Impacts of Migration

In migration studies, it is widely accepted that much more is known about the determinants of migration than its consequences. As Simmons (1982:163) pointed out, "the literature on the impact of migration on individuals, households and communities is spotty and the conceptual frameworks for interpreting data bearing on these impacts seem poorly developed". Nevertheless, where the impact of migration has been studied the focus was on the movers and their urban destination (Hugo, 1987:136). He further argued that the study of the effects of rural-urban migration is complex, as he put it:

> the subject is complicated not only by the large number of economic, social, demographic, and political factors affected by migration but also by the fact that its effects vary with the type of population mobility, its scale, the length of time over which it has been occurring, and the sociocultural structure of the society affected" (Hugo, 1987:137)

Given that this study is carried on at one point in time, it is difficult to measure the effects of migration. However, these effects can be assessed from the opinions given by household heads. In an attempt to gauge the villager's own perceptions, the respondents were asked about the impacts of out-migration to Bangkok on individual migrants, households, and villages. Table 9.10 shows the responses of household heads, migrants and returned migrants regarding the impact of migration to Bangkok.

Household heads generally expressed positive attitudes towards migration. About 86 percent of respondents interviewed in the village surveys perceived remittances and durable goods provided by migrants as the most positive result. They also saw the increase in income and experience gained in the city as beneficial to the migrants themselves. It is very interesting that only one respondent said that the absence of migrants caused the household members to work hard in order to meet the labour shortage. In contrast with this experience, most of the household heads felt that the effect that migration has upon labour supply is insignificant. Since the households were usually large, the absence of one or more household members may not have a significant negative impact upon the household's ability to maintain levels of production and income from agriculture. The remaining household members took up the extra burden. If labour is absent during seasons of peak demand, migration is likely to result in reductions in household farm productivity. However, migration may not have an adverse effect on the average product per head because there are fewer mouths to be fed. In most cases, households usually meet labor shortages by hiring workers or using labour saving machinery with remitted money from the migrants. Many migrants return home at times of peak labour demand.

Discussion during the interview made clear that in general most household heads perceived economic and other advantages to themselves and to the movers, to a greater extent than disadvantages. Almost half mentioned the benefit to the community in terms of funds for specific project. At the time of the survey the temple in Ban Phosai Noi and Ban Nong Phue were in the process of being renovated, and migrants contributed a large sums of money to fund the project.

Table 9.10: Percentage Distribution of the Impact of Migration

Impact	Migrant	Returned migrant	Household
Migrant			
Income	91	46	34
Experience	55	54	7
Missing home	23	1	0
Delinquency	9	2	0
Better living	11	6	2
Struggle	7	2	0
Obligation to parent	2	0	0
Bad health	11	5	0
Saving	5	0	2
Be cheated	5	1	0
Fun/free	5	2	0
Children's education	0	2	0
Career	0	2	4
Household			
Better living	78	53	86
Work harder	9	12	3
Lack of care	3	2	0
Better yield	2	1	0
Missing children	7	5	0
Household appliances	23	11	14
Housing	3	4	6
Village			
Fund for village	41	30	48
Less collective	3	23	0
Give help	2	0	0
Less close to neighbour	2	0	0
No participation in development	3	4	0
No participation in local election	3	0	0
Delinquency	5	0	0
Information	9	9	0
Different performances	2	0	0
Participation in development	5	6	0

In their answers to questions on impacts of migration, both migrants and returned migrants expressed the view that on balance the benefits to themselves, their households, and villages clearly far outweighed any negative effects. The majority of those interviewed said that they gained more income and experiences as a result of migration and that a good effect of migration on households was the improvement in standards of living. Some, however, mentioned the negative impacts including missing children, lack of care from children, and the greater burden on farm work. They saw positive effects on the village development through the remittances sent back to fund development projects such as temple funds, school funds, construction of meeting houses and so on. Only a few indicated that the absence of migrants resulted in a lack of participation in development work and local elections. Some indicated that migrants were delinquent and returned with different behaviour patterns.

Conclusion

This study has found that the main features of village economy affecting rates of migration are access to wage-income and cash cropping. The established cash cropping systems tend to be linked to lower migration. In high migration villages, lack of employment opportunities and the restricted agricultural potential has been the main factor pushing young and more educated persons to search for jobs in the city. These migrants were attracted to the employment opportunities available in the city.

A prominent feature of out-migration from the study areas was "chain-migration", that is they were following the footstep of their relatives and friends who had earlier migrated. The evidence from this study clearly suggests that ties to relatives and friends, among others, is the most important factor in the migration process of movement of the northeast migrants to Bangkok. This finding is consistent with the result of statistical analysis using the census data (see Chapter 8). Most migrants received information concerning job opportunities from relatives and friends who already worked in Bangkok prior to their move. Many of them secured employment prior to their arrival in Bangkok through the help of relatives and friends. It was these types of contacts and knowledge that were most important in determining the incidence, type and direction of migration in the study villages. The fact that migrants received a wide variety of help from friends

and relatives is in conformity with my general impression that the entire process of migration is family and village based.

In the traditional context of familial support systems, migration occurs in response to alternative opportunities as a means to enhance the income of both individuals and household members. Although the data indicated that the decisions to move were mostly made by the migrants themselves, the aims were often to earn money for the households. This is evident in the high levels of households receiving remittances from their household members who leave the village to work in Bangkok. In spite of a tendency for migrants to become increasingly independent in the decision to move, there is as yet little evidence of a weakening of these obligations and ties between migrants with their households and village. It is clear that migrants retain an overall preference for the village way of life and maintain ties with their households and village of origin. Clearly the large proportion of migrants who have contacts with relatives and friends in rural areas, as measured by visits from friends and relatives as well as home visits made by the migrants, points to the considerable degree of interaction between the migrants living in Bangkok and relatives and friends living in villages. The sending of remittances represents an important continuing link between the movers and their village-based households. Moreover, the lack of migrants' intentions to stay permanently in the city indicates a continued trend of the circular mobility of northeast migrants, which has also been noted in the earlier studies (Klausner, 1960; Chamratrithirong, 1979; Fuller et al., 1983).

It is apparent that households and the community of origin do benefit substantially from remittances. In the village surveys a consistent tendency for households with migrants to have higher incomes than households without migrants was found. The differences were greatest in the high out-migration villages. The data also clearly indicate that it was remittances that made the incomes of migrants' households higher than non-migrant households.

The results of this study, in general, suggest that migrants do succeed in increasing their individual and household welfare as a result of migration. There is no evidence that loss of family labour reduces farm output. Remittances raise the income as well as the levels of living of rural households. With regard to the effects of remittances on agricultural development, remittances are unlikely to be invested in agriculture. Though a significant proportion of households use remittances for agricultural purposes, the main use tends to be compensation for the loss of labour rather than to increase farm productivity.

Most of the villagers in the study villages perceived migration to Bangkok to be good not only for migrants and their families but also for the villages as a whole. This indicates that it will continue as long as better employment opportunities exist in Bangkok. As Parnwell (1993:127) asserted: "Migration would not continue in such massive volume if people did not perceive their prospects to be better through migration and if many were not indeed benefiting from migration". However, in general, the majority of villagers saw their home village as the most desirable place to live. They also saw their village as offering a less risky life than the city. This indicates that circular migration, which is prominent in the Northeast, is unlikely to evolve into permanent migration as long as there are continuing social obligations to the origin household and village and the preference of village life.

CHAPTER 10

CONCLUSION

Introduction

The main objective of this study was to examine the determinants of migration from the Northeast of Thailand to Bangkok and its consequences, yet the focus is on its rural effects. In doing this, I have utilised the 1990 population census data to estimate the relationship between migration and demographic, social and economic variables at the provincial level. This analysis was complemented by rural surveys in Roi Et and an urban surveys in Bangkok.

This concluding chapter aims to highlight the main themes of the previous chapters. It summarises the major findings of the study and draws together their relevance to the socio-economic changes and their policy implications. Attention is also given to problems of analysis and to subjects requiring further investigation.

Main Conclusions of Chapters

Following the examination of the introductory issues in the first three chapters, Chapter 4 deals with the causes of Bangkok's urbanisation which leads to its dominant role both in the urban hierarchy and Thailand's development. It suggests that Bangkok's primacy became established, and its predominant role in urban hierarchy still remains, as a result of a combination of historical, geographical, cultural, economic and political factors. Historically, to counter the threat of British and French imperialism during the nineteenth century, King Rama IV and King Rama V carried out policies of modernisation, such as legal and administrative reform, education reform and transportation development. As a result of these reforms Bangkok therefore developed and became the centre of administration, education and transportation. These policies of modernisation have resulted in increasing the centralisation of power in Bangkok.

Following the conclusion of the Bowring Treaty the Thai economy was integrated into the world economy through international trading relations. The location of Bangkok in

the agriculturally rich central plain further contributed to its geographical advantages. Its location was ideal for extensive rice production and international trade through the port of Bangkok.

The continuing modernisation policies and the growth-oriented development adopted by the Thai government during the 1960s resulted in rapid urbanisation, especially the extraordinary concentration of urbanisation in and around Bangkok. The primary objective of government at the time was the pursuit of economic growth. The development of import substitution industrialisation since the 1960s and the promotion of export- oriented industries from the 1970s resulted in the concentration of income and economic activities in Bangkok. Subsequently, economic growth has increased inequalities between the capital and the rest of the country especially with rural areas which led to a massive flow of in-migration to Bangkok especially from the rural poor in the Northeast.

Thus, overall, it can be suggested that uneven development in Thailand is a complex phenomenon which involves historical, socio-cultural, economic and political explanations.

Chapter 5 is concerned with the effects of Thailand's economic growth and industrialisation, looking at both the urban and rural areas. The environmental costs of rapid development in Bangkok are discussed. The chapter highlights the environmental problems that occur as a result of economic development such as traffic congestion, air pollution, water pollution, noise pollution, flooding, hazardous waste, and slum and squatter settlements. It demonstrates that Bangkok's environmental problems are extreme condition and need to be taken into account as a cost of economic growth.

On the other hand, the most adverse effect of economic growth in terms of increasing inequality is most pronounced in the Northeast region. A combination of factors led the Northeast to lag behind the rest of the country. Among these factors are its relative economic deprivation, its ethnic distinction from the Central Thai, the development process, and biased resource allocation. These, together with the attraction of economic

opportunities in Bangkok were attributed to a continuation of the mass flow of migrants from the Northeast region to Bangkok.

Chapter 6 covers the policies which resulted in the economic growth and structural transformation that Thailand has been going through. It is no surprise that Bangkok's primacy was the result of government policies, in particular its policies on rice pricing and industrial development which favoured urban areas, especially Bangkok. These policies have had a profound effect on rural-urban migration.

In reviewing the population distribution policies adopted during the past two decades, it is evident that the majority of measures employed were economic and related to increasing employment. This would seem appropriate in view of the recognised importance of employment and income as primary migration determinants. However, it has been found that many programmes have not achieved their goals. For example, the rural job creation programme failed to deter rural out-migration largely because it generated very little work and income for the participants. The development of growth centres has not reached the point that they can retain potential migrants.

In the late 1980s, the government accepted the fact that the Bangkok Metropolitan Region would continue to expand. Therefore the approach was a shift away from focusing on growth control policies of the 1970s and the early 1980s to focusing on making the growth of the BMR more orderly and efficient, through regional network development. This new approach recognised the importance of exploiting available local materials in attempts to use the comparative advantage of each of the growth centres. In the Seventh Plan the rural resource-based industries were encouraged to reduce rural-urban migration.

The main purpose of Chapter 7 was to examine the pattern of migration in Thailand using data from the Population Census. The data shows that in the early stages of migration, much of the movements was short-distance moving which occurred within a region. This pattern began to change during the late 1970s and changed more rapidly during the late 1980s as the country developed.

Between 1955-60 only 42.5 percent of all migrants had moved between regions while the percentage rose to 53.2 between 1975-80 and up to 66.3 between 1985-90. Since the 1960s migration to Bangkok has been sizeable and steady. But in the 1970s and thereafter this flow turned into a flood. In 1990, there were over 645,000 migrants aged five or over who had been living in Bangkok for less than five years. This represented close to 12 percent of Bangkok's 1990 population (NSO, 1993:63 Table G). Nearly 48 percent of these migrants came from the Northeast (NSO, 1993:57 Table C).

Migration is highly selective of the young and educated. The data from the 1990 census shows that about two-fifths of all migrants who moved between 1985-90 were between 15 and 24 years of age. The educated migrants were more likely to move within and to urban areas. Thirty-eight percent of male and 23 percent of female rural-urban migrants have a secondary or higher level of education.

Economic factors were of key importance in the decision to migrate. The data shows that economic reasons, particularly the search for jobs, were important in all migration streams especially among those who moved from rural to urban areas. However, for those who moved to rural areas family related reasons were more important than economic ones.

In chapter 8 macro migration models are employed to explain various migration flows. In summary, two significant results emerged from the regression analysis. Firstly, distance was the most consistently significant variable in the regression analysis, acting as a deterrent on all migration flows except from the Northeast to Bangkok. However, the deterrent effect of distance on migration from all provinces to Bangkok has declined during the past two decades. This is supported by the pattern of migration discussed in Chapter 7 which shows the increasing trends of long-distance movement, especially those toward Bangkok. The most striking finding is that the deterrent effect of distance is substantially reduced by the inclusion of migrant stock in the regression. Distance became an insignificant variable in explaining migration from the Northeast as well as all other provinces to Bangkok. This suggests that the presence of relatives and friends from the same origin in the urban areas played the major role in the decision to migrate.

This is especially the case of the Northeast migrants who have a strong sense of regional and ethnic identity as discussed in Chapter 5. Ravenstein's 'law', that distance deters migration, may seem to work well in explaining migration in the early stages, but it appears to be invalid in later stages. Although distance raises the costs of moving and the difficulties in obtaining information, this is reduced by good transportation and well established rural-urban contacts.

Secondly, variables which reflect the opportunities in alternative destinations such as income, unemployment and urbanisation emerged as significant variables. This indicates that the factors associated with destination areas exert more influence on the decision to migrate than those of origin areas. This finding supports the study of Prasartkul who used the 1970 census data in exploring the determinants of interprovincial migration in Thailand. He concluded that the social, economic and demographic conditions at the province of destinations were stronger than those of the origins in determining the volume of migration (Prasartkul, 1977)

In general, the analysis in this chapter suggests that the migrant stock variable is the most significant variable in the regression and substantially reduced the magnitude and significance of other variables. This conforms to the suggestions of other recent macro level studies on migration researched elsewhere including the United States (Greenwood, 1969) and Venezuela (Levy and Wadycki, 1973). The conclusions found in the regression analyses, of the importance of relatives and friends in influencing migration decisions, is reinforced by the evidence from the qualitative data discussed in Chapter 9.

Although it is true that macro analysis provides policy makers with estimates of relationships of the impact of certain socio-economic and development factors on migration, micro analysis provides an understanding of the migration process through analysing the reasons why people move. Since aggregate migration rates are composed of individuals who have made the decision to migrate it is necessary to understand the decision-making process if population distribution policies are to be effective. Chapter 9

was designed to complement Chapter 8 by looking at the determinants of migration at the micro-level.

The results of the rural surveys indicated that migration rates from a village appear to be influenced by the employment opportunities within the village. The high out-migration villages have a lower proportion of households engaged in off-farm employment than the low out-migration villages. The bright lights are not a primary cause of cityward migration. Most migrants are attracted by urban employment and higher incomes in Bangkok. The data on the reasons for migration provide strong support for the importance of economic incentives in the decision to migrate. These findings are in common with much literature on migration in developing countries; Ghana (Caldwell, 1969), Sub-Saharan Africa (Gugler, 1969), India (Oberai and Singh, 1983), Papua New Guinea (Ross, 1984), and the Philippines (Perez, 1985).

The evidence shows that migration resulted from decisions made by individuals rather than families and that migration was often a strategy to ensure family welfare as well as pursuing individuals' aspirations of earning higher incomes. However, it was also found that many migrants' households provided the financial support for the cost of moving and the initial costs of living in the city.

Most of the movements are in the form of circular migration, where the intention on the part of the mover is to return to a village as their permanent home after a temporary stay in the city. This finding also confirms the circularity of the movement from the Northeast as found in other studies (Textor, 1961; Meinkoth, 1962 and Fuller et al., 1983). Most of the migrants in this study stated their intention to return to their villages. Another study of migrants in Bangkok also found that most migrants intended to stay only temporarily (Chamratrithirong, 1979). This similar pattern of mobility was found in Indonesia where the great majority of migrants have no intention of shifting permanently to their urban destinations (Hugo, 1982). These migrants retain strong bonds with their household and community by sending remittances, visiting home and accommodating relatives and friends in the city. Gugler (1969) noted that a strong

commitment of the immigrant to his area of origin is found in many parts of Sub-Saharan Africa. He argued that, as with causes of rural-urban migration, economic factors are of major importance in determining the incidence of urban-rural ties. As he put it:

> Commitment to the community of origin is usually supported by an ideology of loyalty to 'home'. The strength of this ideology derives partly from the fact that it will not be questioned by the great majority for whom such loyalty is an economic necessity anyway (Gugler, 1969:151).

These links with urban contacts provide greater opportunities for rural residents so that new chains of migration can be established. It was clearly seen that families and kin groups play a major role in facilitating migration. Because of the network of contacts between Bangkok and the villages, the majority of migrants had received some form of assistance upon arrival in the city. This, together with the improvements in transportation and communication, are contributing to an increase in out-migration from the Northeast to Bangkok. This is also a finding of Hugo (1982: 73) who concluded that the revolution of transport in Indonesia has greatly facilitated the increase in circular migration as well as commuting.

This study found that most migration flows follow a similar pattern. Many migrants and returned migrants moved to Bangkok directly without intermediate steps. The network of contacts in Bangkok and the convenience of travelling to the capital city could explain the general lack of step migration. It should be noted that if we count the Bangkok Metropolitan Region as an urban destination, the percentage of direct migration would be much higher. This suggests that Ravenstein's 'law' of step migration may be much weaker in explaining current rural-urban migration in Thailand.

In Chapter 9, the impacts of migration were examined in relation to migrants' households and villages. In most cases, the picture from the village studies was much more positive than had been expected. On the whole the villagers perceived that migration had more positive than negative impacts. Remittances were considered a major contributor to household incomes by the majority of household heads. These

remittances were mostly used to help meet the maintenance costs of living. There was no clear evidence that loss of family labour reduces farm output.

Policy Implications

Migration normally has been seen as placing a massive burden on already over-stretched urban amenities and services such as health, education, housing, water supply and sanitation, transportation and recreational facilities. Moreover it is also blamed for the problems of urban congestion, slum and environmental pollution (ESCAP, 1993:108). However, we should be careful as it is by no means clear that migration is the major contributor to such problems.

But to a much greater degree, the city benefits considerably from the flow of labour from the rural areas in that it provides the foundation for industrialisation and other forms of economic development. Therefore, from the viewpoint of national economic development, migration may not be wholly undesirable because it perpetuates an environment conducive to urban industrial economic growth. It should accordingly be regarded both as a symptom of uneven development and a contributor to urban development and should therefore be analysed as an integral part of the development process. Thus, rural-urban migration should not be seen only as the cause of problems in urban areas.

The evidence from this study shows that migration provides an important source of livelihood for rural households which otherwise have few opportunities for economic advancement. The rural households depend to a large extent on urban remittances and have come to enjoy a better standard of living. Whilst migration has provided the opportunity for a majority of rural households to advance economically, it has also greatly increased the dependence of the rural areas on the sources of livelihood that the city provides. As Hugo (1982:75) concluded from the existing studies in Java, the loss of labour from the village has no effect on overall productivity, the flow of remittances from nonpermanent migrants is critical to the well-being of many village households and many individuals would suffer if their access to income-earning

opportunities were cut back in any way. This has significant implications for policy. Firstly, the flow of remittances back to the origin areas help increase standards of living of rural populations. Secondly, the demand on urban services is more likely to be much less severe where migration does not involve permanent relocation of residence.

The results from this study show that household and area factors interact in very complicated ways to determine individual migration decisions and the impacts of migration on individuals, households and community. Thus, if migration-related policies are to be effective, they must affect the decision making of individuals in households regarding migration. The importance of relatives and friends in inducing and directing migration needs to be taken into account to a greater extent than at present.

The ideal objective of migration policies should be to maximise the positive effects and to minimise the negative impacts. This in itself is no easy task, given the difficulty we have in deciding what is 'positive' and 'negative' and also given the fact that both outcomes may result from the same form of movement.

Many migration policies failed to tackle the root causes of migration to the city, of which the most prominent is the underdeveloped state of rural areas. Migration is mainly a response to deep seated inequalities resulting from decades of biased public policy, in both investment allocations and price manipulation against agriculture. While it is clear that migration from the Northeast to Bangkok is a result of spatial economic inequalities, the critical question remains whether it is undesirable? This is a debatable question with no single answer. If we are to answer this question we need to look carefully at the causes and consequences of rural-urban migration at both ends.

Rural-urban migration, particularly to Bangkok, may be viewed by policy makers as undesirable. But we need to consider what effects rural-urban migration has on the long-term prospects for both rural and urban as well as national development. There must be real questions as to whether rural-urban migration widens or narrows the rural-urban inequalities.

It is not the purpose of this study to develop an appropriate population distribution policy, but some suggestions for policy do emerge. The finding that migration has positive impacts on migrants, rural households and rural communities, suggests that policies to curb migration are not justified. The challenge for policy purposes is not only to alleviate urban problems but also to recognise and meet the needs of rural populations. This must become a high priority for policy makers in order to avoid undesirable spatial consequences.

There is clear evidence that the most powerful explanation for the high incidence of cityward migration is the economic opportunities in the city. Therefore, policies designed to discourage migration to Bangkok seem pointless if urban employment is likely to continue to expand relative to rural areas. Therefore, the government should reconsider some of the existing policies to reduce allocating investments and incentives in ways that encourage the expansion of the economy and employment in Bangkok. On the other hand, government policies toward the rural areas should be focused on correcting investment and incentive biases against the rural sectors.

It was found that village access to wage-incomes and cash-cropping tend to be linked to lower migration. It appears that the availability of wage employment and the existence of intensive cash-cropping (tobacco) in the low out-migration villages strongly influence the villagers' decision to stay. This finding has significant implications for policy. An adequate and extensive policy for the agricultural sector and in particular for small-scale production can be successful in improving rural welfare and lowering out-migration. Diversification of agricultural activities may help expand the capacity of the rural areas to retain their population. At the same time, long-term employment opportunities should be created in the rural areas in order to strengthen its attractiveness for the potential migrants.

Areas for Further Research

Early interest in migration primarily focused on its spatial dimension and short-term concerns about its implications for administration and planning. However, its role in the

structural transformation of developing economies from a low-productivity agricultural and rural base to a high-productivity industrial and largely urban base, and its relationships with other socio-economic and demographic processes, have been less clear. This study revealed the close interdependence between the rural and urban sectors. This suggests that rural-urban migration should be viewed in a broader context, recognising the importance of the nature of the rural-urban relationships.

In seeking to explore the relationships between migration, urbanisation, and development, the key question is: does rural-urban migration contribute to or hinder the development process? This question is not easy to answer. The overall assessment of the costs and benefits of migration will help address this question. This calls for empirical research, such as studying costs and benefits of migration at both origin and destination points as well as assessing the overall effect for the rest of the country. Only research of this nature will enable us to understand how rural-urban migration is related to the wider social and economic context of national and regional changes and reach a full evaluation of its impacts.

In this study, in particular, two problems are pointed out. The first is the problem of defining the destination of migration. The second problem relates to the nature of the study. In this study emphasis has been on migration from the study villages to Bangkok. But in the course of the interviews it became apparent that the respondents had difficulties in distinguishing the BMR and Bangkok as migration destination. The definition used in the survey renders it possible that migrants who work in the provinces nearby Bangkok but have their residence in Bangkok and those who work in Bangkok and stay outside Bangkok would have been omitted. On the one hand this undermined the accuracy of both the rates of migration and its effects. On the other hand, it pointed to the high interrelationship between Bangkok and it surrounding provinces. Thus it may be more appropriate to analyse the migration flow to the BMR than restrict the destination to only the city of Bangkok.

Regarding the nature of the study, there was difficulty in assessing the impact of migration on household incomes from a one-shot survey. This type of study cannot

provide the data on household incomes for comparison between the period before and after migration. In order to assess changes in the economic situation of the households through time longitudinal studies are necessary .

Conclusion

Economic changes in Thailand since the 1960s have had a profound influence on labour migration. The developments have generated a demand for labour which have to be met from other regions outside Bangkok. Labour migration from rural areas to Bangkok is of considerable significance and the most important form of population movement in Thailand.

The growth of Bangkok can certainly be explained by labour demands arising out of industrialisation. The growth of the manufacturing industry, particularly during the economic boom of the 1980s, attracted migrants from the countryside who moved to Bangkok and its nearby provinces. It has been demonstrated that circular migration from the Northeast has persisted and is likely to continue which has also been noted in other studies (Fuller et al., 1983; Klausner, 1960).

On the whole, there is substantial evidence that migration from the study villages to Bangkok is a response to the pull of employment opportunities and higher incomes in the city rather than the push of hardship in the origin areas. But the analysis of village characteristics leads to the conclusion that lack of access to cash-earning and cash-cropping opportunities promote high rates of out-migration. Moreover, there is not enough evidence to suggest that individual villagers move because they are poor. This accounts for the fact that today a cause of migration from the Northeast to Bangkok is no longer poverty as was stressed by Textor (1961) thirty years ago.

It is quite clear that urban pulls and rural pushes are working together, eventhough the pull factors appear to have more influence, in determining migration from the Northeast to Bangkok. A similar conclusion was found in Pryor's statement:

> ... while in simplistic terms the attraction of destinations in some ways, appears to be greater than the 'push' of areas of origin, the two 'forces' cannot meaningfully be separated (Pryor, 1979:325-326).

The finding of this study, that most households and migrants regard migration to Bangkok as a means to increase their incomes, but do not regard the city as their permanent home, has important policy implications. Rural-urban migration, particularly to Bangkok, may be viewed by policy makers as a cause of urban problems and, thus, as undesirable. However there is no clear evidence that it is a major contributor to the already existing problems. Beyond this, there must be real questions as to whether rural-urban migration widens or narrows the inequalities and to what extent it is contributing to urban centred industrial development. It seems to be generally accepted that the development of urban-centred industry provides the main engine of economic growth for the developing countries (United Nations, 1993). This is also the case in Thailand. It is doubtful whether Thailand could have achieved high rates of economic growth over the last decade without a continuous supply of labour from the rural areas.

It was evident from this study's analysis that rural-urban migration was a result of uneven development caused by political, social, and economic policies favouring urban areas, especially Bangkok. Thus, it should not be seen as a problem but as a response to inequalities since the process provides a means for rural populations to widen their sources of family support.

However, the question of how far and how fast such a process can go without doing more harm than good to the rural areas, urban areas and the country as a whole should receive more attention. In this context the complex question of the economic and social implications of a continuing high rate of rural-urban migration, both for the rural origins and urban destinations should be closely examined. This calls for empirical research, which is aimed specifically at defining and measuring both costs and benefits resulting from rural-urban migration. Only then can we truly evaluate the positive and negative effects of rural-urban migration. This, together with an understanding of the process and the linkages with development will help policy makers in designing more effective population distribution policies.

While this study has largely focused on the effect of rural-urban migration at the individual and household levels, it also contributes to the understanding of the process. It has demonstrated that rural-urban migration is a response on the part of individuals and families to inequalities in economic and employment opportunities. Furthermore, it was also found that rural-urban networks, together with improvements in transportation and communication, play a major role in facilitating migration to the city.

Admittedly, it is not possible for a study of this nature to provide answers to all issues pertaining to migration. Thus, there is no attempt to provide comprehensive policy recommendations. However, this study does shed some light on the appropriate direction of development policies and certain aspects which require further investigation and analysis.

There are other aspects of migration which have not been analysed here, notably its implications for the areas to which the migrants move and the rest of the country. Research on these aspects could be complementary to the research advocated here to provide a more comprehensive understanding of this mobility. This suggests that a series of studies each accounting for each aspect of mobility are required. Unless policy makers are guided by such studies, it is unlikely that future policy outcomes will be any more successful than those experienced to date.

The economic crisis of 1997 which Thailand is presently confronting has resulted in a substantial loss of urban employment especially in Bangkok and the surrounding provinces. This has caused a massive flow of migrants to return to the rural areas. Open unemployment has risen sharply and is now one of the most worrying problems facing the government. This new situation is a challenging one, calling for new solutions and new policies. But before we can adequately assess the implications of such return migration for future policy, the pattern and impacts on the village economy and social structure as well as the interaction between returned migrants and villagers in their community need to be examined. Therefore, this would probably be a good time to conduct such research which would cover all aspects of costs and benefits of migration as well as the implications of return migration resulting from the current economic

crisis. Moreover, it may provide researchers the ground to assess some aspects of migration both in the rural origin and in the urban destination which otherwise would not be possible in the past.

This economic crisis, coupled with the continuation of planned urban decentralisation and the enhancement of rural productivity would finally bring a balanced population distribution in Thailand.

APPENDIX 1

RURAL QUESTIONNAIRES

Household Questionnaire

1. Is the respondent male or female?

   1: male 2: female

2. How old are you?

   ------ years

3. What is your marital status?

   1: single

   2: married

   3: divorced

   4: widowed

   5: separated

4. What is your occupation?

   (Tick more than one)

   1: farm self-employed

   2: non farm self-employed

   3: skilled labour

   4: waged labour

   5: unpaid labour

   6: trader

   7: government officer

   8: private employee

   9: none

   99: others (specify)

5. Please provide information about your household members

name

relationship to head of household

sex

age

marital status

education

engage in labour force

Name	Relation-ship*	Sex	Age	Marital status**	Educa-tion***	Labour****	Remark

* Relationship

father	son	son-in-law
mother	daughter	daughter-in-law
husband	sister	grandson
wife	brother	grand-daughter
relatives	others	

** Marital status

code as in Q.3

*** Education

0: none	3: high school	9: others
1: primary	4: vocational	
2: secondary	5: university	

**** Labour force

1: onfarm 2: off-farm 3: both

6. Do you hold any plots of land and if so how many ?

7. What is the size of each plot?

8. What is the tenurial status of each plot?

No	Size	Tenurial*	Remark

* Tenurial status

1: owned 2: rent-out 3: rent-in

4: leased free 5: used free

9. Do you consider the land area sufficient to sustain a reasonable standard of living?

10. Have you ever stay away from the village for more than one month?

11. If yes where did you first go to?

12. How old were you when you first stay away from the village?

13. What was your marital status at the time of your first move?

14. Who accompanied you when you first stay away?

15. What were reasons for your first move?

(Tick all the reasons he/she mentioned)

1: work search

2: better work

3: better income

4: better education

5: education for children

6: married

7: accompany family

8: join family

9: amenities

10: calamities

99: others (specify)

16. Have you considered leaving the village in the future?

17. If yes where do you intend to go?

18. What are reasons for your leaving?

(Tick all the reasons he/she mentioned)

1: work search

2: better work

3: better income

4: better education

5: education for children

6: married

7: accompany family

8: join family

9: amenities

10: calamities

99: others (specify)

19. What anticipated period do you intend to stay away?

20. If no what are the main reasons for your decision to remain in the village?

(Tick all the reasons he/she mentioned)

1: land is available

2: agricultural work available

3: good climate

4: cultural life (used to)

5: good environment

6: no information

7: no contacts

8: cannot afford moving

9: others (specify)

21. Did you earn money from these sources if so how much for last year?

Source	Amount	Remark
Rice		
Tobacco		
Vegetable		
Crop		
Livestock		
Trade		
Wage		
Salary		
Remittances		
Others		

22. What were remittances mainly used for?

(Tick all items he/she mentioned)

1: consumption

2: productive investment (farm)

3: productive investment (nonfarm)

4: purchase of land

5: land improvement

6: ceremony

7: housing

8: HH debt

9: own debt

10: schooling

11: others' moving

12: savings

99: others (specify)

Returned Migrant (person who has been away to Bangkok for more than 1 month and has returned)

1. Please provide information about your staying away from the village

destination

age at the time of leaving

marital status

date of leaving

date of returning

duration of absence

accompanied person(s)

Trip	Destination	Age	Marital status	Leaving date	Returning date	Duration	Accompanied person(s)

2. What were main reasons for your leaving ?

(Tick all the reasons he/she mentioned)

1: work search

2: better job

3: better income

4: better education

5: education for children

6: married

7: accompany family

8: join family

9: amenities

10: calamities

99: others (specify)

3. Who was the person who decided your move?

1: make own decision

2: family

3: relatives

4: others (specify)

4. Did you know anything about Bangkok before your first trip?

Yes No go to Q.6

5. How did you get the information?

1: HH members	2: relatives	3: friends
4: visitors	5: visit to Bangkok	6: govt. officer
7: TV/radio/newspaper	8: employer	

6. Why did you chose Bangkok rather than other places?

(Tick all the reasons he/she mentioned)

1: better job
2: more employment
3: better income
4: friends in Bangkok
5: relatives in Bangkok
6: facilities in Bangkok
7: work condition
8: information available
9: follow the others from the village
99: others (specify)

7. How did you obtain the money to support your move?

1: own savings
2: family savings
3: loan from relatives
4: loan from friends
5: loan from other sources
6: others (specify)

8. Did you get a job in Bangkok ?

Yes No go to Q.10

9. How long did it take to obtain a job?

----weeks/months

10. Did you have any contacts in Bangkok before you move there?

1: relatives 2: friends 3: others 4: none

11. If Q. 10 answered 1,2 or 3 what were main types of help you got from them?

(Tick all items he/she mentioned)

1: accommodation

2: food

3: money

4: information

5: find job

6: find house

7: provide job

8: others (specify)

12. Did you send money back to your village ?

Yes Why? No Why?

13. Did you send regularly?

1: regularly 2: irregularly 3: when requested

14. What were main purposes of that money?

(Tick all items he/she mentioned)

1: consumption

2: productive investment (farm)

3: productive investment (nonfarm)

4: purchase of land

5: land improvement

6: schooling

7: housing

8: HH debt

9: ceremony

10: others (specify)

15. What were the main reasons for your returning from Bangkok?

(Tick more than one)

1: low paid
2: couldn't find a job
3: work finished
4: saved enough
5: inherited property/land
6: no more work
7: didn't like work
8: retired
9: sick
10: didn't like the place
99: others (specify)

16. Do you intend to go to Bangkok again?

Yes Why? No Why?

17. How would you compare village life with Bangkok?

	Better	Same	Worse
standard of living			
safety			
environment			
working condition			
friendliness			
enjoyment			
convenience			
community tie			
housing			
education			
health			
income			
expense			

18. Do you intend to go to Bangkok again?

Yes Why? No Why?

19. What were impacts of your move on yourself, household and village?

APPENDIX 2

URBAN SURVEY

Migrant Questionnaire

1. Please provide information about your household members

   name

   relationship to head of household

   sex

   age

   marital status

   education

   engage in labour force

Name	Relation-ship*	Sex	Age	Marital status**	Educa-tion***	Labour****	Remark

* Relationship

father	son	son-in-law
mother	daughter	daughter-in-law
husband	sister	grandson
wife	brother	grand-daughter
relatives	non-relatives	

** Marital status

1: single 2: married 3: divorced

4: widowed 5: separated

*** Education

0: none 3: high school 9: others

1: primary 4: vocational

2: secondary 5: university

**** Labour force

1: onfarm 2: off-farm 3: both

2. What type of accommodation do you have at present?

1: rent 2: obtained a mortgage 3: own 4: others (specify)

3. Did you registere your move?

4. Please provide information about your staying away from the village

destination

age at the time of leaving

marital status

date of leaving

date of returning

duration of absence

accompanied person(s)

Trip	Desti-nation	Age	Marital status	Leaving date	Returning date	Duration	Accompany	Job	Job search	Reasons for return

5. What were main reasons for your leaving ?

(Give reasons for the first and current move)

First move	Current move
1: job search	1: job search
2: better job	2: better job
3: better income	3: better income
4: better education	4: better education
5: education for children	5: education for children
6: married	6: married
7: accompany family	7: accompany family
8: join family	8: join family
9: amenities	9: amenities
10: calamities	10: calamities
99: others (specify)	99: others (specify)

6. Who was the person who decided your first move?

1: made own decision

2: family

3: relatives

4: others (specify)

7. Did you know anything about Bangkok?

Yes No go to Q. 9

8. How did you get the information?

1: HH members	2: relatives	3: friends
4: visitors	5: visit to Bangkok	6: govt. officer
7: TV/radio/newspaper	8: employer	

9. Why did you chose Bangkok rather than other places?

(Tick all the reasons he/she mentioned)

1: better job

2: more employment

3: better income

4: friends in Bangkok

5: relatives in Bangkok

6: facilities in Bangkok

7: work condition

8: others (specify)

10. How did you obtain money to support your move?

1: own savings

2: family savings

3: loan from relatives

4: loan from friends

5: loan from other sources

6: others (specify)

11. How long did it take to find a job?

----weeks/months

12. Did you have any contacts in Bangkok before you move there?

1: relatives 2: friends 3: no 4: others (specify)

13. What were main types of help you got from them?

(Tick all the items he/she mentioned)

1: accommodation

2: food

3: money

4: information

5: find job

6: find house

7: provide job

8: others (specify)

14. How would you compare village life with Bangkok?

	Better	Same	Worse
standard of living			
safety			
environment			
working condition			
friendliness			
enjoyment			
convenience			
community tie			
housing			
education			
health			
income			
expense			

15. How long have you been in Bangkok?

16. How often do you visit home?

1: 1 time/year

2: 2 times/year

3: 3 times/year

4: 4 times/year

5: others (specify)

17. Have you ever been visited by friends/relatives?

1: none

2: friends/relatives from the same village

3: friends/relatives from other villages

4: friends/relatives from other provinces

18. Do you have any friends/relatives in Bangkok?

1: none

2: friends/relatives from the same village

3: friends/relatives from other villages

4: friends/relatives from other provinces

19. What kinds of help did you give to your friends/relatives who move to Bangkok?

(Tick all the items he/she mentioned)

1: accommodation

2: food

3: money

4: information

5: find work

6: find house

7: provide work

8: others (specify)

21. Did you send money to your household?

Yes Why? No Why?

22. How much did you send money back home? (an average per year)

23. What were main purposes of that money?

(Tick all items he/she mentioned)

1: consumption

2: productive investment (farm)

3: productive investment (nonfarm)

4: purchase of land

5: land improvement

6: ceremony

7: housing

8: HH debt

9: own debt

10: schooling

11: others' moving

12: saving

99: others (specify)

24. How would you compare your standard of living before and after moving?

1. better 2. the same

25. Do you intend to stay in Bangkok permanently?

Yes Why? No Why?

26. How long do you intend to stay?

27. Whom you can ask for help while staying in Bangkok?

28. What do you intend to do at the completion of your current employment?

1: search for new job 2: return home

29. Please give your comments (for your peers at home) on the move from village to Bangkok.

30. What were impacts of your move on yourself, household and village?

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