CIRCULAR MIGRATION IN THAILAND

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(ABSTRACT)

Circular migration is a temporary form of movement and has emerged as a subset in the field of migration and has gained importance since it is the major factor affecting population movements within the countries.

This study documents the role of socio-demographic and other characteristics in rural-urban migration decisions in Northeast Thailand, using data originally gathered to redirect rural to urban movement in the area. The study utilizes multiple regression techniques to account for the above factors on circular migration in Northeast Thailand.

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CHAPTER 1

INTRODUCTION:

The movement of population has been and continues to be a major component of economic development and social change. This movement, whether temporary or permanent, influences the growth and development of cities and towns, the division and allocation of resources and materials and the growing international milieu of business, leisure and politics.

In the field of migration studies, the term "mobility" has acquired a special place. Mobility encompasses all kinds of territorial movements, which can be both temporary and permanent. Migration is far more restricted and relates to a permanent change in residence. Circular migration is a temporary form of mobility which is usually short-term, often cyclical in nature and is characterized by a lack of desire to change residence on a permanent basis; this form of mobility has emerged as a subset in the field of migration. Demographers have realized its importance and magnitude and have begun to view it as a component of population movements and as the major factor affecting population redistribution within countries.

In the past decades, rapid movement of the rural population into Bangkok has been one of the most important features in the urbanization process in Thailand. In fact, Bangkok presents one of the most extraordinary cases of urban primacy in the developing world.

Specifically this study attempts to look into a facet of migration, specifically circular migration originating in Northeast Thailand and into the concomitant migration decision-making process, that is, the role of socio-economic factors, the life cycles of individuals and the agricultural cycle in the decision to move.

It is recognized in the migration literature that demographic, socio-economic and interpersonal forces play an important role in the decision-making process. This study endeavors to provide a link between the above factors and circular migration and presents an analysis for Northeast Thailand, using data originally gathered for the purpose of a controlled experiment to affect spatial patterns of migration in the area (Fuller, et al., 1983).

STATEMENT OF THE PROBLEM:

Circulation is widely recognized as an important component of population movement. It is through circulation that interchange and exchange of individuals and groups takes place between points of origin and destination. What is vital in this study of circular migration is the relationship between the migrant and the circulation process -- the characteristics of the migrants, their life cycle and the socio-economic forces operating, all have a very important role to play in this entire process.

This study presents a test of several key propositions concerning circular migration. An empirical analysis is conducted which attempts to establish a link between socio-economic, demographic and interpersonal forces at work and the level of actual circular migration. Existing literature provides an insight into the patterns of mobility and circular migration in other developing countries; the present investigation tests whether similar forces and processes influence circulation in Northeast Thailand. The study highlights some of the features and characteristics of circular migration and provides a basis from which several policies for reducing rural out-migration can be formulated.

The purpose of this thesis is to analyze rural-to-urban movements originating in Roi-et province, Northeastern Thailand, in relation to the various social and economic conditions within which most Northeastern farmers are likely to be enmeshed.

Mobility patterns and behavior will be accounted for by using several factors such as age, sex, marital status and position of the household member, the level of wealth and education. The study will also look into the effect of the rural job creation program on circular migration. This mobility is going to be analyzed both with respect to movement to Bangkok and to Northeast towns. Data for the original study was collected during three waves of interviews --1978, 1979, 1983. The time frame chosen for this study will be the third wave of interviews which includes retrospective data from 1979-1983. Each year is comprised of four seasons namely planting, growing, harvesting and the dry season. We will be analyzing data for the last two years namely, 1982 and 1983 and specifically for each of the seasons which make up the years.

Previous research conducted using the first two waves of interviews (July-Sep, 1978 and 1979) will be replicated for the third wave and the study will be extended to examine mobility patterns using the above said variables.

SCOPE OF THE STUDY:

This study attempts to elucidate some of the social, economic and cultural forces that characterize rural-urban migration from Roi-et province in Northeast Thailand. Analysis is restricted to the confines of the particular site and the available data set. We know that specific areas may have certain unique kinds of relationships and looking at one site may give us an insight into a bigger picture. But conclusions based on this analysis can be generalized to other places which have the same conditions as Roi-et in Northeast Thailand.

CHAPTER 2

FEATURES AND CHARACTERISTICS OF RURAL-URBAN MIGRATION:

Migration takes many forms. It can consist of local moves which may be of little economic significance; it may involve large, but temporary population movements in search of seasonal employment or the permanent movement of individuals and groups from one economic system to another (Oberai & Singh, 1983).

It is one of several processes that is transforming the third world countries. In the past few decades, an increase in the flow of rural to urban areas has evoked the attention of demographers and planners and the state machinery in various developing countries and they are trying to study the impact of this movement on both the areas of origin and destination.

Much of the migration literature dwells on the consequences of migration, the perceived disadvantages in the place of destination, the difficulties encountered by the migrants in the urban center and their frustrations resulting from experiences in the city (Oberai & Bilsborrow, 1984).

A contrasting opinion holds that migrants are able to improve their standard of living and welfare as a result of their movement (Oberai & Bilsborrow, 1984; Yap, 1977; White, 1979) and tend to be better off than before. It has been seen that there can be an improvement in the socio-economic status of the migrants within brief periods of time (Fuller, 1981).

Nevertheless, migration plays a significant role in developing countries since the ever growing transfer of human population from rural to urban areas is exacerbating already serious problems of unemployment, housing, education, technological progress and other issues that need the attention of the state machinery and public policy in most developing countries (DeJong & Gardner, 1981; Todaro, 1976; Goldstein, 1979; Goldscheider, 1984).

There has been increasing awareness of the problem of out migration and various policies are being formulated in most developing countries which are trying to promote even development, provide infrastructure and other social, economic and cultural improvements in rural areas which will make them more attractive. Rural-urban migration can be mitigated by efforts that increase the area of the arable land and narrow down income differences among other things. Rhoda (1983) argues that it is not necessarily the case that improved conditions in the rural areas will help to reduce rural-out migration, since development often overcomes the hurdles to the migration process; this in turn enables the rural population to take advantage of the urban centers more easily than before.

Rural-urban migration is, in general, perceived to be caused by potential economic gains in the area of destination. Migrants assess the movement process in terms of economic benefits and costs (Sjaastad, 1962). Migration is considered to be an investment which will lead to returns in the future and these returns will be sufficient to offset the costs of moving (Willis, 1974).

At the macro level, migration is viewed as a process which withdraws surplus rural labor force from traditional forms of agriculture to a growing modern industrial sector which utilizes cheap labor (Lewis, 1954; Fei and Ranis, 1961; Todaro, 1984). The process is considered to be beneficial because resources are being transferred from areas where their social marginal products are assumed to be zero to areas where the social product is positive and also "rapidly growing as a result of capital accumulation and technological progress" (Todaro, 1976).

Looking at migration from the other side, Todaro says that it is looked upon as a factor which is contributing to "the ubiquitous phenomenon of urban surplus labor and as a force which continues to exacerbate already serious urban unemployment problems caused by growing economic and structural imbalances between urban and rural areas".

Several economic variables are often thought to be insufficient to explain continuing migration in spite of high rates of unemployment in the urban centers. Other variables can be used for understanding the migration process, such as the socio-demographic characteristics of the migrants. In some studies the social structure of the area of origin is also deemed to be useful. Often decision-making units such as families and households play a vital role in the process of movement. Another very important variable which plays a major role in this context is information. A potential mover will feel some stress regarding his present situation when he receives information about an alternative destination which indicates that he may be better off in some respects -- like housing, education, employment -- if he moves to that particular place.

Rhoda (1983) shed some light on the characteristics of the area of origin and why it is important for rural-urban migration. Evidence from Asian countries suggests that rural areas with low levels of income tend to have high rates of rural-out migration (Connell et al. 1976; Simmons et al., 1977). On the other hand, evidence from the continents of Africa and Latin America suggest that high rates of rural-out migration are from rural areas with high levels of income or high levels of education (Caldwell, 1969; Conning, 1972; Riddell, 1970).

Several studies from agricultural countries like India and Columbia show that rural areas with high rates of commercialization of agriculture are positively related to rural-out migration. These conflicting ideas suggest that there is no clear-cut relationship between the characteristics of the site of origin and the rate of out-migration.

An understanding of the causes of rural-urban migration is vital to an understanding of the development process in any developing country. The causes of out-migration are important from the point of view of this study since it is based on rural-out migration originating in Roi-et province and it is our endeavor to outline the characteristic features which cause this out-migration to take place.

Causes of Rural-Urban Migration:

There can be numerous causes for rural-urban migration -- several of these have been enumerated by Oberoi and Singh (1983), Todaro (1985) and Lee (1966). Some of the major factors that they have proposed include low agricultural income, unemployment and underemployment, rural-urban wage differentials, unequal distribution of land, desire to break free from the rural system, high mortality rates in rural areas and the potential attractiveness of the urban center.

In many developing countries, low agricultural income and unemployment and underemployment are the major factors contributing to the migration process. One of the most important causes of rural-out migration is the high rate of population growth which results in a high man-land ratio causing the emergence of a surplus supply of labor (Oberoi & Singh, 1983).

Such large rural populations are creating severe pressures on rural resources and attention has to be drawn to population redistribution to achieve a more equitable distribution of resources between rural and urban areas. Also, high rates of population growth and increased mortality rates in the rural system due to disease and poor medical facilities, among other things, often cause people to move (Todaro, 1985).

A major economic factor involved in the decision-making process is the prevailing rural-urban wage differential. "The existence of large disparities between wages paid to urban workers and those paid to comparably skilled rural laborers has long been recognized as a crucial factor in the decision to migrate" (Meier, 1986: 176).

Fragmentation and unequal distribution of land ownership is another characteristic feature of the rural economy in developing countries. "Unequal distribution of land has a built-in tendency to encourage large-sized operational farms with adverse consequences for manpower absorption" (Oberoi & Singh, 1983: 31).

Unequal distribution of land also affects the distribution of rural income which often results in rural-out migration. Also, unequal ownership of land has resulted in increased amounts of landlessness in rural economies; hence, several of the landless decide to migrate to cities in search of better employment and higher incomes.

Further, cityward migration holds an attraction to the rural-based peasant economy in the form of "bright city lights". The city is viewed as a center which provides better educational, cultural and economic opportunities, medical services and entertainment. "In addition, a number of other factors such as the presence of friends and relatives in urban areas who often provide initial help and financial security, and the desire of migrants to break away from the traditional constraints of inhibiting rural social structures, have been cited as likely determinants of migration" (Oberoi & Singh, 1983: 33).

Todaro (1985) also cites social, cultural and communication factors which include a desire on the part of the migrant to break away from traditional forms of organization. He also discusses the allure of the bright city lights, the impact of the mass media and better educational opportunities as factors which cause movement.

Lee (1966) examines causes of rural-out migration by breaking them up into origin factors and destination factors -- the former include the 'push' factors which try to hold people in their natal place vis.a vis. the 'pull' factors which compel them to leave. Also, factors prevalent in the urban centers are very important for rural-out migration since it is most often their attractiveness that causes this form of migration.

Individual perceptions about the place of origin and destination are important in the migration decision-making process and these may vary from person to person. "While most theories implicitly assume that migration decisions are made by potential migrants, evidence from developing countries suggests that family heads often make migration decisions for members of their households" (Rhoda, 1983: 38). Migratory behavior essentially depends upon several individual factors; some of the factors that may stimulate migration are higher levels of education, aspiration and the desire to improve one's standard of living.

It is also important to look at some of the socio-demographic determinants of migration which are important from the point of this thesis.

Socio-Demographic determinants of migration:

1. Sex: Male dominance in migratory behavior has been attested to in a number of migration studies (e.g. Shaw, 1975 citing Thomas, 1958; Jansen, 1970). On the other hand, in many developing countries, females are assuming a more active role in labor force participation and hence swelling the numbers of the potential migrants. The study done by Oberai and Singh (1983) in India shows that, of the out-migrants, 95.8% are males.

In Southeast Asia, at present, more young women are leaving their rural homes than young men (Heyzer, 1984). This is supported by census data (Heyzer, 1986 citing Fuller, 1983) and is said to occur frequently in this region due to the poor position of women within the social system and also because there are greater opportunities for female employment in cities in the form of domestic help and other similar activities (Heyzer, 1984; Shaw, 1975).

2. Age: The migration literature shows that individuals in the age groups of late teens to early thirties are more likely to migrate than persons of other ages. Young adults comprise the bulk of the rural-urban migrants (Shaw, 1975; Pryor, 1975; Oberai and Singh, 1983); this may be so because they can adapt better to new situations and different forms of living, are close to the beginning of their working life and are more likely to take advantage of new opportunities

that come with the migration process (Shaw, 1975).

3. Marital Status: Marriage has a tendency to slow down the migration process and thus has a negative association; this is because married persons like to be near their family and friends (Blanco, 1963; Shaw, 1975) and also due to the presence of support groups at the site of residence. Oberai and Singh (1983) show that the percentage of out-migration is higher among single people and also single persons are more likely to engage in rural-urban migration since they do not have the problem of dependents in the form of wives/husbands and children.

4. Education: It is well documented that individuals with more education move out of rural areas since they are more aware of opportunities available at the urban and other centers. According to Oberai and Singh (1983), 88.7% of the out-migrants had received formal education of which a little over one-half had completed at least the high school level in their study of Punjab in India.

5. Relationship to household head: Most potential migrants are either household heads, spouses of the household head or children of the head of the household; this may be due to the fact that individuals who are household heads had a higher probability of migrating since the decision-making process lay in their hands. The relationship factor was important from the point of view of sending back remittances

(this was because the household head exercised a lot of authority and power over the household members) which could be used to hire wage labor for farm activity during the absence of the household members.

6. Income level: Several studies reveal that rural-urban migration is positively related with family income (Connell et al., 1976; Fuller and Chapman, 1974; Oberai and Singh, 1982). These studies show that as income of rural families increases, there is a higher probability for one of their members to engage in rural-out migration. This viewpoint is in direct contradiction to the expected income theory which postulates that rural-urban migration is positively associated with the size of the rural-urban income differential. The association between income and mobility patterns is further confused by other intervening factors like education, occupational skills, information, awareness and attitude towards development, progress and growth.

All these competing explanations for potential migration have a basic assumption -- persons are not limited in their consideration of whether to move or to stay.

Consequences of Rural-Urban Migration:

"In the final quarter of this century, the number of people living in the cities and towns of these developing nations is projected to increase by nearly a billion, from about 650 million in 1975 to over 1,600 million in 2000" (World Development Report, 1979).

According to Todaro (1985), rural-urban migration was previously viewed as advantageous since it was thought to be a process that withdrew surplus labor from the rural economy into the urban industrial sector. The process was considered to be beneficial since resources were being shifted from areas where their social marginal products were very low to areas where their social marginal products were positive and increasing to higher levels.

However, rural-urban migration is no longer seen to be a beneficial process but is viewed as a major factor contributing to uneven development and as a process which is worsening the already existing social, economic and unemployment problems in developing countries.

This study is based on rural-out migration from Roi-et province in Northeast Thailand and one needs to pay attention to the potential effects of rural-urban migration. Consequences of this form of migration are essential for policy formulation to reduce migration in order to achieve even development.

(i) Rural-urban migration increases the supply of urban job seekers by enormous proportions; this is mainly due to the large proportion of well-educated individuals in rural areas who are more aware of opportunities available in the urban centers.

(ii) As a result of rural-out migration, a big surplus of labor is created in the industrial sector; since labor is transferred from the rural economy, demand for rural output by the urban sector increases, which results in an increase in agricultural prices relative to prices of urban goods. On the other hand, rural-out migration can lead to declining rural incomes, since the young and the better educated are the ones to leave and this constitutes a loss of human capital which can lead to reduced productivity and income (Oberoi & Singh, 1983).

(iii) As a consequence of rural-out migration, greater reliance is placed on hiring wage labor since the out migration of young adults changes the age structure of the family and the possibility of hired labor is even greater if the migrants send back remittances which can be used to pay for wages.

(iv) The influx of migrants into cities and urban areas increases the need for infrastructural facilities in the form of greater numbers of schools and hospitals, better transportation and communication facilities. This influx causes overcrowding, pollution, development of squatter places and shanty areas in the urban centers, all of which lead to the breakdown of services and mitigate the process of development.

(v) Rural-out migration, in general, affects the level of urban wages. An increased supply of labor in the industrial sector decreases the prevailing wage level and renders the distribution of urban income very unequal.

Hence, the impact of migration on the development process is far more pervasive and alarming than the impact on unemployment and uneven distribution of income and resources between rural and urban areas. A United Nations (1978) report revealed that almost all developing countries were being confronted with enormous proportions of urban population and their governments believed that rural-urban migration was the greatest contributor to this form of urbanization and city growth.

CHAPTER 3

CIRCULAR MIGRATION IN DEVELOPING COUNTRIES:

Circular migration is playing a vital role in the context of population movements in many developing countries. It entails the movement of individuals and groups between places of origin and destination.

Movements that involve a long duration of residence cannot rule out a 'return' movement to their place of origin which may or may not be permanent (Chapman & Prothero, 1985). The concept of "return migration" is basic to the study of demography.

Zelinsky defines circulation as "a great variety of movements, usually short-term, 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: 225-6).

Gould and Prothero (1975: 42) define circular migration as follows - "If there is a specific desire on the part of the individual or group of individuals who are moving to return to their place of origin, and when before leaving in the first place this intention is clear, then the movement may be considered as circulation rather than migration".

The basic principle behind circulation is a territorial division of activities and obligations which throughout the developing world exerts two kinds of influences. On the one hand, comes the security associated with the home place, the interpersonal networks in the community and the village, land for food and love and care through common values and beliefs. On the other hand, the point of destination is the provider of attractive wages, better employment, commerce, education and entertainment.

J. Clyde Mitchell (Chapman & Prothero, 1985), discusses the oscillatory movement of villagers in South-central Africa between their local village communities and the agricultural plantations and estates and refers to this kind of 'oscillation' as being based on a theory of two contradictory sets of forces -- centrifugal and centripetal. The former pull the migrant away from his community whereas the latter draw him back again. These two sets of forces were capable of producing three different outcomes:

* Centrifugal forces could prevail in a situation where there is an involvement in the system of societal relations in town which downplay the influence of social obligations in the village as a result of which the 'drawing back' effect is reduced.

* Centripetal forces could prevail in a situation where there was an opportunity for employment in the village community or by some kind of share cropping.
* A balance between the two sets of forces -- people migrate to fulfill their economic requirements but are drawn back in order to satisfy their social obligations within the community.

According to Chapman (1985), there are several basic propositions regarding circulation which can be enumerated as follows:

(i) Circulation in the third world is not the result of Western influences; on the contrary, the impact of such forces has reinforced traditional forms of movement.

(ii) Circulation has taken place at the level of the village community, groups within the village and by individuals and families.

(iii) Circulation involves a division of activities and obligations. The division is between the security of the home, the interpersonal networks associated with it, marriage and children on the one hand, and on the other hand is the destination of employment, education, commerce and recreation.

(iv) "Both the incidence and durability of circulation is made possible by the flexibility of indigenous structures: in residence, in social groupings and in leadership"

(Chapman & Prothero, 1985: 9-10). Individuals, therefore, belong to a system that not only permits the exercise of choice but also the fulfillments of desired ends from locations outside the homeplace.

(v) The essence of circulation and its composition and form comes from indigenous or native concepts and traditions. Hence, circular migration in the developing world occurs between a large diversity of regions and communities and territories. Community studies show us the arrival and departure of individuals for marriage, kinship ties, trade and commerce, agriculture and for fulfillment of other social obligations.

Chapman (1970) and Bedford (1971) did two studies in Melanesia and extended Mitchell's model and argued that circular migration encompasses all movements that begin and end in the local community; they justified this by saying that all the tribals returned to their homes no matter why they left and for how long they were away.

Zelinsky formulated his "Hypothesis of mobility transition" around the same time period and said 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: 221-2). Basic to this hypothesis is the idea of territorial movement in which migration is combined with circulation.

Common to all these theories is the assumption that circular migration is a temporary form of movement linked to certain processes and phases of social and economic change and transition -- like modernization, industrialization, urbanization.

What does circular migration achieve? According to Chapman and Prothero (1985), it permits the integration of varied places and circumstances; it is a cause of socio-economic disequilibrium and it involves the transfer of labor from one mode of production to another. The above three points of view are not mutually exclusive in themselves but rather overlap with one another.

If we look at the first perspective, circulation refers to the flow not only of human capital but also of ideas, goods, services and socio-cultural impacts.

The second perspective derives from research done in the field of anthropology in South Africa; Wilson in his study of Broken Hill, in Northern Rhodesia said "the social structure of Broken Hill today is characterized by the presence of a disproportionate number of young men and by a constant circulation of populations between itself and the rural areas, between itself and other towns of Northern Rhodesia, and between itself and other territories. The disproportion and the circulation are intimately connected -

- they are characteristic of disequilibrium (Wilson, 1941-2).

Many economists and sociologists consider circular migration as the transfer of labor from one mode of production to another mode. This approach comes from a dependency theory perspective which says that, in order to satisfy basic socio-economic needs, the potential migrant is viewed as being locked in a world capitalist system and has to move periodically in cycles between domestic and introduced (capitalist) modes of production.

In an attempt to explain circular flows of population, Chapman and Prothero (1985) formulated four emphases -- circular migration as a response to modernization; circular migration in the context of social networks; circulation as a means to increase family welfare and ward off risks; and finally as a cause of capitalist penetration of rural and agricultural societies.

Circulation, in response to modernization, is viewed by Zelinsky as a symptom of underdevelopment and hence "promises to endure, with further variations and complexities, as long as underdevelopment persists" (Zelinsky, 1979: 185-87).

Mitchell (1959) looks upon circulation as a "continuing dialectic in specified political and economic settings between the centrifugal attraction of wage employment and the centripetal power of village obligations, social relationships and kinship ties". Mobility patterns of individuals are viewed from two distinct perspectives. On the one hand come individual needs and choice and on the other hand are the overarching political and economic frameworks. Therefore, according to the above, Mitchell's framework is time free and assumes that circular migration will cease whenever a balance is struck between centripetal and centrifugal forces and hence is essentially a transitory phenomenon of labor movement.

The third view came from Elkan's work (1960) on migrant workers in Kampala, Uganda. Elkan notes that a potential migrant does not want to relinquish the insurance that comes from his natal place in the form of farm income and risk against unemployment and hence would not withdraw permanently from the countryside. Seeking temporary employment in the urban centers can be explained by the effort of the household to maximize the income available both from the rural and the urban sectors. "There is little risk in such a strategy, especially within communities at the knife-edge of subsistence, since family members capitalize upon the absorptive capacity of the informal sector, depend upon kinship networks to identify longer-term jobs, depart during slack periods of the agricultural cycle, leave behind dependents and travel alone to the worksite and return to the rural household whenever their labor is needed for planting and harvesting subsistence and cash crops" (Chapman & Prothero, 1985: 20).

The penetration of the rural economy by capitalism is deemed to increase demand for cash and hence the rural peasants have no other option but to participate in a system of migrant labor in order to satisfy basic needs. Hence, capitalism intensifies regional differences and rural economies become more impoverished as residents have to subsidize absent members.

Research in different countries has given substantial attention to the extent and form of circular migration. Despite clear evidence of the importance of this form of mobility, most demographers working on other areas, including South-east Asia, continue to devote little attention to any other movement besides permanent migration as defined by the census (Goldstein, 1978).

CHAPTER 4

MIGRATION AND URBANIZATION IN THAILAND:

In the past few decades, one of the important features of the urbanization process of Thailand has been the rapid movement of the rural population to Bangkok, Thailand's capital and the major city. This encompasses about half of the national urban population with a population of over 50 times as large as the second largest city in Thailand (Fuller, et al. 1983; Silcock, 1967; Heyzer, 1986).

Bangkok presents one of the most striking examples of urban primacy in the Third World. "Its dominance as the center of commerce, finance, manufacturing and international trade clearly permeates the entire economic fabric of the country, as indeed it dominates in nearly every sphere of activity except agricultural production" (Fuller, 1981). Hence, Bangkok plays a vital role in the network of Thai cityward migration, increasing its urban population from 45% in 1947 to around 55% in 1970 (Fuller, 1981), and still increasing to about 61% in 1980 (Goldstein and Goldstein, 1986).

Internal migration has contributed greatly to the growth of the city of Bangkok and to the country's overall level of urbanization and development. The population of Bangkok more than doubled in twenty years, reflecting an increase from 1.8 million in 1960 to 4.2 million in 1980; as a consequence of this, the level of urbanization increased from 12.5% in 1960 to 17% in 1980 (Fuller, 1990).

In the past ten years, several studies have focused upon circular mobility in Thailand. They are based on the fact that a great number of population movements may not be captured by the standard queries about migration and that this form of mobility has important social and economic consequences (Goldstein, 1978). Several village-based studies on circular migration reveal that there is high level of circular mobility in rural Thailand. Research conducted by Fuller and Lightfoot (1983) on Northeast Thailand focused on movement which involved an absence of overnight or longer from the village community. The particular study area showed that 23% of the villagers aged 10 or above had made at least one move to an urban center at some time during the study period. Fuller and Lightfoot also explain that much of the circular migration in Northeast Thailand is not essentially seasonal in nature; in fact only one-third of those engaging in circular migration during a three-year reference period moved only during the nonfarming seasons; the other two-thirds were at least sometimes absent during the farming seasons.

Why do people move? Economic considerations constitute a very important factor in all migration movements, especially in rural-urban migration and more so in the case of male migrants than female migrants. Urban centers are also the centers of higher education and learning, and according to Goldstein (1986), a greater number of women cited this as a vital factor in the decision-making process than men in rural Thailand.

Family reasons (such as a change in marital status, or accompanying some other member of the household) are other very important reasons for mobility. But it is clear that family-related reasons are in general more important in the migration decision-making of women, while economic reasons are more important in the case of men.

Excitement is another reason that has been put forth as a reason for migration. City life in Bangkok is a welcome change for the rural peasants from the monotonous village life. "The magic, mystery, light and sound, modernity, and conveniences of Bangkok form an irrepressible desire in the young villager to go and see Bangkok. The relatively calm, uneventful and monotonous village life pales in the face of an exciting, complex and everchanging Bangkok filled with all possibilities and adventures" (VichitVadakan, J., 1983: 90).

CHAPTER 5

METHODOLOGY:

INDEPENDENT VARIABLES:

1. AGE:

A large number of empirical studies have investigated the characteristics of rural-urban migrants. In almost all cases, studies reveal that migrants tend to be single and between the ages of fifteen and thirty. Previous research on Thailand tells us that the highest rates of movement occurred among single people in the age group of 25-29. In fact, the propensity to move, for both single sexes increased steadily till the age of 30 (Fuller, et al. 1983). Also, the largest group of movers are young individuals, 37% under the age of 20 and 67% under the age of 25. Therefore, it is predicted that mobility levels are much higher for younger individuals.

2. SEX:

Earlier findings reveal the increasing mobility of Thai women, especially for young females under the age of 20, the rates being higher than those for males. This point is of special interest in view of the fact that most household heads do not encourage their daughters to move. This is so because daughters are more likely to move to Bangkok due to greater number of social contacts in the city.

3. MARITAL STATUS:

Marriage reduces the propensity to move -- it also tends to limit female mobility far more than male mobility, especially in the case of wives of household heads. Hence, it is foreseeable that circulation decreases as number of married migrants increases.

4. HOUSEHOLD POSITION:

Married men between the ages of 25-39 have a greater likelihood of moving if they are heads of households than if they are living as subordinate members in an extended family. The probable reasons could be that as heads of households they have greater power and ability to make their own decisions and especially so if they were heads of relatively young, nuclear families in which they had potential for income generation. The propensity of such a head to move was a reasonable response to the difficult circumstances, more so when the opportunities for increasing family income were limited.

5. LEVEL OF EDUCATION:

It has been seen that education is a factor which positively influences rural-urban migration. The more educated are likely to have greater employment opportunities in urban areas. Therefore, it is predicted that there is a higher rate of movement for the more educated individuals.

6. **RURAL JOB CREATION PROGRAM:**

Job creation programs developed in rural areas are often intended to reduce rural-out migration. (However there is little or no evidence to indicate that this is the effect of such programs). The Rural Job Creation Program was established in 1975 in almost all Thai villages with the purpose of generating additional money in the rural economy, to improve the lives of the people by financing the construction of public works and to enhance the ability of rural councils in the area of governing.

According to Rhoda (1983), rural-urban migration may be reduced by efforts that increase cultivable land, equalize land and income distribution. On the other hand, migration seems to be stimulated by interventions that attempt to increase access to cities, commercialize agriculture, raise educational levels and strengthen rural-urban integration and development. The belief that improved conditions in rural areas will help to reduce rural-out migration is not always true since it has been seen that development reduces several existing hurdles to rural-urban migration and changes the structure of the rural population so that they are more able to take advantage of the urban opportunities.

Past research conducted by Fuller provides little evidence to suggest that the job creation program was successful in reducing rural-urban migration. Participation in the job creation program had little effect on the mobility patterns to either Bangkok or to Northeast towns. These relationships will be re-examined in this thesis.

7. **LEVEL OF WEALTH:**

Lastly, we are going to pose a question regarding the economic wealth of individuals and how it affects their level of mobility. Economic status is expected to have some influence on the migration behavior of individuals. Roi-et has a very high level of poverty and low standards of living. According to the migration literature, the poorest individuals are more likely to move because of economic need; on the other hand, the wealthy are likely to move since they have the ability to withstand greater losses and bear risks involved during movement (Fuller and Chapman, 1974; Oberai and Singh, 1982). Hence, the thesis will examine which of the two groups has a greater propensity to move.

DEPENDENT VARIABLE:

Circular migration involves a separation of obligations, goods and activities. This separation is manifested in two forms. On the one hand comes the security which comes with the home place, and the interpersonal networking going on within the community, marriage; but on the other hand, comes the opportunity for employment, education, trade and commerce in the city. It essentially involves the movement of people from places of origin to places of destination; this movement pattern lacks any desire of permanent residence at the point of destination and basically is comprised of short-term movements which may be cyclical in nature.

This thesis utilizes data for the two-year period 2526 B.E. (Buddhist Era) and 2524 B.E. which are 1983 and 1982 A.D., respectively. Each year is comprised of four seasons namely planting, growing, harvest and the dry season. Hence, we will be looking at a total of eight seasons for the two-year period. The study will focus on circular migrants vis.a.vis. the non-migrants (people who did not leave the village for more than a week) and their movement to Bangkok or to Northeast towns. An individual was considered to be a "circular migrant" if they left the village for a period of more than one week during any of the respective eight seasons, provided they returned within the two-year frame.

An individual who left the village for more than a week but did not return in any of the eight seasons for the two years will be considered as a "non-circular migrant". The individual could be a circular migrant since he/she could return to the village following the two-year period, but for the purpose of this study they will be considered as non-circular migrants and will not be used for the purpose of analysis because we are not certain that they are circular migrants.

HYPOTHESES:

In brief, it is predicted that age, sex, marital status, household position and level of education all influence the magnitude of circular migration in Northeast Thailand. Specifically the following hypotheses regarding circular migration are to be tested:

H1: As the age of the migrant increases, the magnitude of circular migration decreases.

H2: The rate of circular migration for females is higher than for male counterparts.

H3: It is predicted that marriage reduces one's propensity to engage in circular migration.

H4: Marriage tends to limit female mobility more than male mobility as regards circular migration.

H5: It is predicted that married men in the age group of 25-39 have a greater likelihood of engaging in circular migration if they are household heads.

H6: It is predicted that persons with higher levels of education have a higher propensity to engage in circular migration.

H7: The rural job creation program is predicted to have no impact in reducing rural-out migration. Participation in the program does not seem to have any appreciable effect on mobility patterns and levels.

Finally, we will analyze the relation between economic wealth and the propensity to move. Is it the poor or the wealthy who have a greater propensity to move?

The analysis will be broken down into three sets of independent variables which will further be broken down into categories. The first set will consist of looking at age, sex, marital status and household position and their relationship to mobility behavior, independently for each of the above mentioned variables. There will be an overall analysis and the analysis will be replicated separately for movement to Northeast towns and movement to Bangkok. The second set will add to the first set the level of education possessed by individuals and how this affects circular migration; similar analysis will be carried out for Northeast towns and for Bangkok. The third set will look at the Rural Job Creation Program and its impact on the propensity to move to either Northeast towns or to Bangkok.

Two sets of interviews were conducted for this study -- the household head questionnaire (HH) which recorded for all household members aged 10 and above and a younger member (YM) questionnaire which included a male between the age of 15-39 or a never-married female in the same age group. Specifically, hypotheses 1,2,3,4,5 and 7 will use the household head questionnaire for testing and hypothesis 6 will add on the younger member questionnaire to the household head one.

DATA AND SAMPLE:

The Site: The data were collected in the Northeast region of Thailand, an area which has been experiencing significant out-migration, especially migration towards Bangkok. Migration surveys conducted in Bangkok by the National Statistical Office indicate that this trend continued through the 1970s. Also, the Northeast region, as compared to Bangkok, suffers from an acute problem of regional inequality. The region was chosen on account of the high rate of poverty in the area. It served the purpose of the original study which was to redirect movement from Bangkok to other Northeast towns through advertising job opportunities within the Northeast (Fuller, et al. 1984).

Within the region, Roi-et province was selected because of its low income and its high rate of migration to Bangkok. According to census reports, the gross and net rate of migration from Roi-et to Bangkok is higher than for any other Northeast province. Roi-et has the second lowest per capita gross provincial product in 1976 among Thailand's 71 provinces, well below the national mean (Fuller, et al. 1984). Furthermore, Roi-et's per capita gross provincial product has been growing more slowly than any Northeast province and for the nation.

Within Roi-et, Atsamat district was selected because its population growth and its level of accessibility and development were representative of the whole province during the 1970's. Based on the examination of road maps and village population figures for the district, two communes (a commune is an administrative subdistrict in Thailand) in Atsamat were selected, Nong Muun Than and Phon Muang. Within Nong Muun Than, three villages were selected and were designated as the experimental villages; three control villages were selected from Phon Muang. All these villages are relatively poor, neither immediately adjacent to an urban area nor excessively remote, and representative of many of the areas of origin of migrants to Bangkok (Fuller, et al. 1984).

A simple random sample of the households in each village was obtained for the first wave of interviews. The sampling frame consisted of household registration cards in the possession of the village headman. Each registration card contained a three-digit number. The household was eligible to be included in the sample if it had present at the time of the survey a member in the age group of 15-39 (either a male or a never-married female). Three-digit random numbers were selected from a table of random numbers.

If the random number corresponded to the identification number for a household, that household was selected for consideration. If there was no household with the specified three-digit number or if the household was not an eligible household, another household was selected.

Two interviews were conducted with persons from each household: the household head interview obtained information about all household members aged 10 and above and the younger member interview was conducted with a male in the age group of 15-39 or a never-married female in the same age bracket. If the household head was age 39 or less, he was eligible to be interviewed using the second questionnaire; when more than one eligible person was available for the second interview in a given household, random methods were used to select one respondent. Both questionnaires were administered in each household for all three waves.

This study utilizes the third wave of interviews which covers a four-year period from 1979-1983. Accounting for attrition, only one household was lost; the study has a sample size of 355 households (N=2398 individuals). However, many younger members were lost after the first two waves and hence the younger member questionnaire had a sample size of 200 persons in the third wave of interviews.

CHAPTER 6

ANALYSIS:

We begin our analysis by presenting a summary table of movement rates according to the eight seasons that make up the two-year period (1982-83), the two years separately and then combined. This movement is further broken down according to destinations, namely Bangkok and Northeast towns. The following table will give the frequency distributions for non-migrants, circular migrants and for non-circular migrants. This table is based on the Household Head questionnaire which has data for any household member aged 10 and above and consists of a total of 2398 individuals. In order to simplify the table to the reader, the coding needs to be clarified:

CIR = circular migration without a specific destination

BK = movement to Bangkok

NE = movement to Northeast towns

DRY = dry season

PLT = planting season

GRO = growing season

HAR = harvest season

25 = year 2525(1982)

26 = year 2526(1983)

2526 = years 2525-2526 (1982-83)

0 = non-migrant

1 = circular migrant

2 = non-circular migrant

TABLE 1: PERCENTAGE OF NON-MIGRANTS, CIRCULAR AND NON-CIRCULAR MIGRANTS BY SEASON AND DESTINATION

	D E S T I N A T I O N								
	Overall			Bangkok			Northeast		
	0	1	2	0	1	2	0	1	2
DRY25	88.46	8.0	3.54	92.74	4.6	2.58	96.99	2.6	.37
PLT25	90.86	5.1	4.00	95.12	2.1	2.71	97.28	2.2	.45
GRO25	88.53	7.2	4.25	93.16	3.9	2.87	97.16	2.3	.45
HAR25	90.32	5.3	4.33	94.87	2.1	2.96	97.33	2.2	.45
DRY26	84.61	9.3	6.04	90.70	5.0	4.21	96.45	2.8	.66
PLT26	86.86	5.6	7.46	92.24	2.6	5.12	96.87	2.0	1.04
GRO26	84.23	7.0	8.67	90.07	3.9	6.00	96.83	2.0	1.16
HAR26	85.94	3.3	10.67	91.53	1.9	6.54	96.78	1.3	1.87
25	86.65	9.3	3.96	91.95	5.3	2.71	96.41	3.1	.42
26	81.31	11.3	7.38	88.19	6.7	5.08	95.53	3.3	1.08
2526	80.02	13.3	6.67	87.57	7.7	4.67	94.74	4.3	.87

Source: Household head dataset

The above table is formulated using the Household Head (HH) questionnaire. The table gives the percentage distributions of non-migrants, circular migrants and non-circular migrants who undertook migration and the breakdown with respect to destination, i.e. Northeast towns and Bangkok. As can be seen, for six of the eight seasons and for both years, circular migration was greater to Bangkok as compared to Northeast towns. Also, migration rates are lower during the planting and the harvest seasons as compared to the dry and the growing season -- hence we can see the seasonal feature of migration, in particular circular migration, from the above table. The number of migrants is varying for the two-years -- the number of non-circular migrants has increased substantially for the year 1983 and one can see a slight increase in the number of circular migrants over the two years and the same holds when we see the breakdown with respect to destination. This may be because our study is taking into account only a two-year perspective; hence a large number of migrants may be considered as non-circular since they have not returned during the eight seasons but they may be actually circular in nature since they might return in a later season which is beyond the scope of this study.

Hence, our findings tell us that for the two-year period 1982-83, 13.3% of the 2398 individuals were circular migrants, 6.7% were non-circular migrants and about 80% of the persons did not engage in any form of migratory behavior. Also, about 7.7% of the villagers went to Bangkok during the two-year time frame as compared to about 4.3% who went to Northeast towns. We will be looking at the non-migrants vis.a.vis. the circular migrants for our study and the non-circular migrants are going to be excluded.

TABLE 2: PERCENTAGE OF NON-MIGRANTS, CIRCULAR AND NON-CIRCULAR MIGRANTS BY SEASON AND DESTINATION

	D E S T I N A T I O N								
	Overall			Bangkok			Northeast		
	0	1	2	0	1	2	0	1	2
DRY25	71.2	22.5	6.2	83.7	12.4	3.9	92.1	6.9	0.9
PLT25	82.0	11.4	6.5	92.8	3.3	3.9	93.5	5.6	0.9
GRO25	74.2	18.9	6.9	86.6	9.2	4.2	92.8	6.2	0.9
HAR25	81.7	11.4	6.9	93.5	2.3	4.2	93.1	5.9	0.9
DRY26	66.3	24.2	9.5	83.0	11.8	5.2	89.9	8.2	1.9
PLT26	78.1	11.4	10.5	90.2	4.2	5.6	92.8	4.9	2.3
GRO26	70.9	17.6	11.4	84.3	10.1	5.6	92.2	4.9	2.9
HAR26	77.8	9.5	12.7	90.2	3.9	5.9	92.8	4.2	2.9
25	68.3	25.2	6.5	82.7	13.4	3.9	91.5	7.5	0.9
26	60.5	28.8	10.8	78.1	16.0	5.9	88.2	9.2	2.6
2526	56.9	34.3	8.8	75.8	19.3	4.9	85.6	10.5	1.9

Source: Younger member dataset

The preceding table comes from the Younger Member (YM) dataset (the abbreviations used in the table have been explained before Table 1) which covers about 200 households and had, at the time of the original survey, either a male in the age group of 15-39 or a never-married female in the same age bracket.

If we look at the eight seasons, we can see that migration in general was much lower during the planting and the harvest season as compared to the dry and the growing season. For the two-year time frame, about 35% of the people were circular migrants as compared to about 57% of the individuals who did not move from the village for a period greater than a week. Also, about 19% went to Bangkok vis.a.vis. the 10% who went to Northeast towns during the two years. If we look at the two years separately and then together, we find that circular migration was greater to Bangkok than Northeast towns but the same does not seem to hold if we look at the seasonal breakdown. There appears to be a definite seasonal pattern when we look at the mobility rates according to the seasons. For both the planting and the harvesting season of 2525 and 2526, circular migration to Northeast towns is greater as compared to movement to Bangkok. On the other hand, for the dry and the growing seasons for the two years, circular mobility is higher for Bangkok than the Northeast. The younger member questionnaire will be used to see if education (in years) is a major factor which influences the rate of circular migration in an overall manner and also with respect to the two different destinations.

The Subsample:

Only circular migrants and non-migrants are included in our subsample for this study (N of individuals=2238). The analysis is restricted to people in the age group of 15-49 in the subsample. For the selected cases, about 49.2% were male and about 50.8% were females. The proportion of single people in the sample was 59.5% vis.a.vis. the married who comprised 35.2% of the selected cases; 0.5% were either divorced or separated and about 4.8% were widowed. If we look at the relationships within each household, we find that, for the selected individuals, 11.49% were household heads, 5.37% were wives of household heads, 21.81% were sons of the heads, 16.84% were daughters, 25.25% were son-in-laws and others made up 4.38% of the sample. If we look at the age distribution, we find that 25.4% of the individuals were in the age group of 15-19; 20.2% were in the bracket of 20-24; 14.8% were in the age group of 25-29; 21.1% fell in the age bracket of 30-39 and 18.6% in the age group of 40-49.

We now test for the seven hypotheses that were stated earlier:

HYPOTHESIS 1: AS THE AGE OF THE MIGRANT INCREASES, THE MAGNITUDE OF CIRCULAR MOBILITY DECREASES.

The following is a summary table for a breakdown between circular migration for the two-year period (1982-83) and the age-groups of the selected individuals.

TABLE 3: CIRCULAR MIGRATION FOR 1982-83 BY LEVELS OF AGE

AGE-GROUP	MEAN	STD DEV.	CASES
FOR ENTIRE POP.	.2640	.4410	1140
15-19	.2976	.4580	289
20-24	.4174	.4942	230
25-29	.2959	.4578	169
30-39	.1625	.3697	240
40-49	.1415	.3494	212

$F=15.62$ d.f.=4 $p<.0001$

TABLE 4: MOVEMENT RATES BY AGE GROUP AND DESTINATION (1982-83)

AGE GROUP	CIRCULAR MIGRATION		MVMT. TO N.EAST		MVMT. TO BANGKOK	
	NO.	%	NO.	%	NO.	%
15-19	289	29.76	328	10.06	297	16.50
20-24	230	41.74	271	17.71	246	17.89
25-29	169	29.59	188	5.85	172	19.19
30-39	240	16.25	261	3.07	250	10.00
40-49	212	14.15	217	2.30	217	11.06
F	15.62		14.04		3.05	
d.f	4		4		4	
p<	.001		.001		.001	

If we look at Table 3, we see that 42% of the individuals in the age-group of 20-24 engaged in circular migration. Barring the age group of 15-19, the magnitude of circular mobility decreases as the age of the migrant increases. This can be seen from the table since the number of individuals involved in circular migration decreases from 41.74% to 29.59% to 16.25% to 14.15% as the age increases from 20-24 through 40-49. This trend is significant at the .05 level of significance, using one way analysis of variance.

Looking at Table 4, we compare movement by age groups and destination, respectively to Bangkok or to Northeast towns. If we look at movement to Bangkok, we observe that there seems to be a clear cut pattern between circular mobility and age of the migrant in that it is higher for the age-groups 15-29 than 30-49.

If we look at movement to Northeast towns, we find that the pattern is somewhat similar to the overall circular migration. Circular mobility is highest for the age-group of 20-24 and then decreases as the age of the migrant increases. However, there is an increase in the rate of migration as the age of the migrant increases from 15-19 to 20-24. Hence, there is partial confirmation of our hypothesis and we can say that young people are more likely to be engaged in circular migration than older people. Also, the rate of circular migration for almost all age groups is higher for Bangkok than for Northeast towns. All the above results are significant at the 0.05 level of significance.

HYPOTHESIS 2: THE RATE OF MIGRATION FOR FEMALES IS HIGHER THAN FOR MALE COUNTERPARTS (1982-83)

TABLE 5: MOVEMENT RATES BY SEX AND DESTINATION

SEX	CIRCULAR MOVEMENT		MVMT. TO N.EAST		MVMT. TO BANGKOK	
	NO.	%	NO.	%	NO.	%
MALE	1113	17.43	1183	5.16	1147	10.03
FEMALE	1120	11.16	1189	3.70	1134	6.26
F		18.04		2.97		10.83
d.f		1		1		1
p		0.01		0.08		0.01

If we look at circular mobility vis.a.vis. the sex of the migrant, we find that in the case of overall movement for the two-year time frame and for movement to Bangkok and to a Northeast town, the rate of migration for males is higher than for females in all three cases. This trend is significant at the .05 level of significance for overall level of circular migration and for movement to Bangkok but is not significant for movement to Northeast towns. As can be seen from Table 3, the rate of migration to Bangkok is much higher as compared to Northeast towns for both men and women.

HYPOTHESIS 3: IT IS PREDICTED THAT MARRIAGE REDUCES ONE'S PROPENSITY TO MIGRATE.

TABLE 6: MOVEMENT RATES BY MARITAL STATUS AND DESTINATION (1982-83)

MARITAL STATUS	CIRCULAR MOVEMENT		MVMT. TO N.EAST		MVMT. TO BANGKOK	
	NO.	%	NO.	%	NO.	%
SINGLE	1332	15.69	1432	5.94	1365	7.91
MARRIED	787	13.34	822	2.43	802	9.23
F		4.8		7.1		1.8
d.f.		3		3		3
p		0.02		0.01		0.13

TABLE 7: MOVEMENT BY MARITAL STATUS, AGE AND DESTINATION

MARITAL STATUS AGE	CIRCULAR MOVEMENT		MVMT. TO NEAST		MVMT. BANGKOK	
	NO.	%	NO.	%	NO.	%
SINGLE	517	37.72	604	14.07	544	18.38
15-19	276	30.43	313	10.54	284	16.90
20-24	157	53.50	190	24.21	171	21.05
25-29	56	37.50	67	5.97	59	20.34
30-39	22	27.27	28	7.14	24	16.67
40-49	6	0.00	6	0.00	6	0.00
MARRIED	591	17.26	625	3.20	606	11.88
15-19	13	15.38	15	0.00	13	7.69
20-24	71	16.90	78	2.56	73	10.96
25-29	108	25.00	114	6.14	108	18.52
30-39	214	15.42	228	2.63	222	9.46
40-49	185	15.14	190	2.63	190	11.58

TABLE 8: SIGNIFICANCE TESTS FOR MOVEMENT RATES BY MARITAL STATUS, AGE AND DESTINATION

CIRCULAR MOVEMENT:

	F	d.f.	p
MARITAL STATUS	5.85	1	0.01
AGE	3.52	4	0.01
MARITAL STATUS BY AGE	3.35	4	0.01

MOVEMENT TO NORTHEAST :

	F	d.f.	p
MARITAL STATUS	4.85	1	0.02
AGE	3.21	4	0.01
MARITAL STATUS BY AGE	4.63	4	0.01

MOVEMENT TO BANGKOK:

	F	d.f.	p
MARITAL STATUS	0.65	1	0.42
AGE	1.11	4	0.35
MARITAL STATUS BY AGE	0.69	4	0.60

Looking at Table 6, we see that, for the overall circular migration for the two-year period, single persons have a higher rate of circular migration than married persons. The same holds in the case of migration to Northeast towns -- single people have a higher rate of circular migration than their married counterparts. However, in the case of movement to Bangkok, married persons have a higher rate of circular migration than single people although the result is not significant. Also, if we compare the movement to Bangkok vis.a.vis. the Northeast towns, we again find that movement in general is greater to Bangkok for both single and married persons as compared to movement to Northeast towns.

Table 7 tells us that within the single category, the highest rate of migration was for the age-group 20-24 followed by 25-29 age bracket. For the married, rates of overall circular migration were greatest for 25-29 followed by persons in the age-group of 20-24. There does not seem to be any clear trend for these figures -- for the married, overall migration reaches a peak for the 25-29 age and then starts declining. If we are looking at overall circular migration for the two years, we can see that for every age bracket except for 40-49, the single persons have a higher rate of migration than the married people.

If we look at the breakdown with respect to Northeast towns, we find that there is no trend in the movement for the single persons, except that mobility rates are highest for persons in the age group of 20-24. In the case of the married, persons in the age group of 25-29 showed the highest rates of movement. In the case of movement to Northeast towns too, we can see from the table that single persons have a greater propensity to move than the married people for all the age-groups ranging from 15-49.

Looking at movement to Bangkok, we find that the rates for single persons are highest for the age group of 20-24 and then the mobility trend starts declining. For the married, there appears to be no clear trend and the highest rates of movement is for the age group of 25-29; the movement declines for persons in the age group of 30-39 and then rises again slightly for the 40-49 age bracket. In the case of movement to Bangkok, we again see that mobility rates are higher for single persons as compared to married people for all age brackets except for the age-group of 40-49. In this case the married have a greater tendency to move but the comparison is hampered due to the few cases for single persons in the same age-group.

From Table 8, we can see that the significance tests, which take into account the main and the interaction effects, are significant at the 0.05 level of significance for the overall circular migration for the two years and for movement to Northeast towns but are not significant for movement to Bangkok.

HYPOTHESIS 4: MARRIAGE TENDS TO LIMIT FEMALE MOBILITY MORE THAN MALE MOBILITY.

TABLE 9: MOVEMENT RATES BY SEX, MARITAL STATUS AND DESTINATION

SEX MARITAL STATUS	CIRCULAR MOVEMENT		MVMT. TO N.EAST		MVMT. TO BANGKOK	
	NO.	%	NO.	%	NO.	%
MALE	1113	17.43	1183	5.16	1147	10.03
SINGLE	698	16.62	745	6.58	720	8.06
MARRIED	384	20.05	407	2.95	396	14.39
FEMALE	1120	11.16	1189	3.70	1134	6.26
SINGLE	633	14.69	686	5.25	644	7.76
MARRIED	399	7.02	411	1.95	402	4.23

TABLE 10: SIGNIFICANCE TESTS FOR MOVEMENT RATES BY SEX, MARITAL STATUS AND DESTINATION

CIRCULAR MOVEMENT:

	F	d.f.	p
SEX	22.05	1	0.01
MARITAL STATUS	1.77	1	0.18
SEX BY MARITAL STATUS	12.16	1	0.01

MOVEMENT TO NORTHEAST TOWNS:

	F	d.f.	p
SEX	1.60	1	0.20
MARITAL STATUS	14.11	1	0.01
SEX BY MARITAL STATUS	0.03	1	0.85

MOVEMENT TO BANGKOK:

	F	d.f.	p
SEX	18.03	1	0.01
MARITAL STATUS	1.30	1	0.25
SEX BY MARITAL STATUS	16.08	1	0.01

Looking at Table 9, we see that first for overall circular migration for the two-year period, males have a higher rate of mobility than females. Secondly, if we compare the marital status for the sexes, we see that single males have a higher rate of movement than single females and the same holds true for married males vis.a.vis the married females. However, if we look at the males, married males have a higher rate of movement than single males; in the case of females, single females have a much higher rate of mobility than married females. Hence, in this case marriage does not seem to limit male mobility at all but rather increases the magnitude. However, it definitely limits female mobility.

If we look at movement to Northeast towns we find that males have a higher rate of mobility than females and both single and married males have a higher rate of migration than single and married females. Within males, single males have a higher rate of mobility than married males and the same holds true in the case of females; but the more important thing is that marriage tends to reduce female mobility more than male mobility in the case of movement to Northeast towns, although this result is not significant. Looking at movement to Bangkok, within males, married males have a higher rate of mobility than single males. Hence, marriage does not seem to be a limiting factor at all in this case but it reduces mobility for females in the case of movement to Bangkok. Hence, we can say that marriage tends to increase male and limit female mobility for overall migration and movement to Bangkok but not for Northeast towns.

HYPOTHESIS 5: IT IS PREDICTED THAT MARRIED MEN IN THE AGE GROUP OF 25-39 HAVE A GREATER LIKELIHOOD OF MIGRATING IF THEY ARE HOUSEHOLD HEADS.

TABLE 11: MOVEMENT RATES OF MARRIED MEN BY AGE, RELATIONSHIP TO HOUSEHOLD HEAD AND BY DESTINATION.

RELATIONSHIP TO HH HEAD AGE	CIRCULAR MOVEMENT		MVMT. TO N. EAST		MVMT. TO BANGKOK	
	NO.	%	NO.	%	NO.	%
MARRIED	282	26.95	304	3.95	294	19.05
HEAD	143	24.48	147	3.40	147	19.05
25-29	8	37.5	8	0.00	8	37.50
30-39	56	26.79	57	1.75	57	17.54
40-49	79	21.52	82	4.88	82	18.29
SON	33	36.36	41	7.32	36	25.00
20-24	7	42.86	8	12.50	8	25.00
25-29	13	46.15	15	6.67	13	38.46
30-39	10	20.00	13	0.00	12	16.67
40-49	3	33.33	3	33.33	3	0.00
SON-IN-LAW	97	25.77	103	2.91	101	16.83
20-24	14	7.14	14	0.00	14	0.00
25-29	29	31.03	31	6.45	29	24.14
30-39	32	21.88	36	2.78	35	11.43
40-49	22	36.36	22	0.00	23	26.09

If we are looking at overall circular migration for the two-year period, we see that married men who are heads in the age group of 25-39 do not necessarily have a greater likelihood of migration as compared to others. As the figures show, sons of the household head in the age group of 25-29 have a higher rate of circular migration relative to the household heads but sons-in-law have a lower rate. In the case of a household head who is married, it is true that the rate of migration is higher if he is in the age-group of 25-39.

In the case of movement to Northeast towns, male household heads who are married have a very low rate of migration for the age group of 25-39; sons of the household head and sons-in-law have a higher rate of circular migration for the same age group.

If we are looking at movement to Bangkok, we find that male household heads who are married and in the age group of 25-39 have a higher rate of mobility as compared to sons-in-law but about the same rate as compared to sons of household heads.

Hence, we can say that only in the case of movement to Bangkok, married men in the age-group of 25-39 have a greater likelihood of migrating if they are household heads or sons of household heads.

HYPOTHESIS 6: IT IS PREDICTED THAT PERSONS WITH HIGHER LEVELS OF EDUCATION HAVE A HIGHER PROPENSITY TO MIGRATE.

TABLE 12: MOVEMENT RATES BY NUMBER OF YEARS OF EDUCATION AND DESTINATION

EDUCATION (YEARS)	CIRCULAR MIGRATION		MVMT. TO N.EAST		MVMT. TO BANGKOK	
	NO.	%	NO.	%	NO.	%
1-4 (YEARS)	213	29.11	229	2.18	219	19.63
5-16 (YEARS)	66	65.15	71	38.03	72	22.22
F		30.76		95.96		00.22
d.f.		1		1		1
p		0.01		0.01		0.63

Testing to see if the rate of circular migration increases with an increase in the years of education received, we find that for the two-year period 1982-83 and looking at the level of overall migration, the rate of mobility definitely increases appreciably with increase in the number of years of education.

In the case of movement to Northeast towns also, persons with higher levels of education have a higher propensity to migrate. If we look at movement to Bangkok, there seems to be very little difference in the rates of migration for persons with 4 years or less of education as compared to persons with 5 years or more. This may be because of the greater number of contacts that villagers have in Bangkok as a result of which education ceases to be one of the primary factors causing circular migration.

It is important to remember that for testing this hypothesis we are using the younger member (YM) questionnaire which has data for only about 200 households and covers either a male in the age group of 15-39 or a never-married female in the same age bracket.

Hence, we can conclude by saying that education does play a vital role as regards the propensity to migrate and persons with higher levels of education have a greater propensity to migrate relative to others. The above trends are significant at the 0.001 level of significance.

HYPOTHESIS 7: THE RURAL JOB CREATION PROGRAM IS PREDICTED TO HAVE NO IMPACT IN REDUCING RURAL-OUT MIGRATION.

TABLE 13: NUMBER AND PERCENT OF PEOPLE WHO WORKED IN THE RJCP

YEAR	2525		2524	
	FREQUENCY	%	FREQUENCY	%
YES	198	7.9	171	6.8
NO	2320	92.0	2348	93.1

From the above table, we can see that for the two years together, roughly about 7-8% of the population worked on the rural job creation program. The effect of the RJCP can be seen by examining whether people who worked on the program still made trips during the growing season of the same year. The primary goal of the rural job creation program, which was established in 1975, was to reduce rural-out migration by creating employment and other opportunities in the rural areas. We also find that there was a very small percentage of people who worked outside the village during the job creation program for these two years.

TABLE 14: INDIVIDUALS WHO WORKED ON THE RJCP IN 2525 AND NUMBER OF TRIPS MADE DURING THE GROWING SEASON OF 2525.

		TRIPS DURING THE GROWING SEASON OF 2525: NO	YES	
WORK ON THE RJCP IN 2525	YES	21 52.5 8.5	19 47.5 4.6	40 6.1
	NO	225 36.5 91.5	392 63.5 95.4	617 93.9
TOTAL		246 37.4	411 62.6	657 100.0

CHI-SQUARE=4.12
p=0.04

TABLE 15: INDIVIDUALS WHO WORKED ON THE RJCP IN 2524 AND NUMBER OF TRIPS MADE DURING THE GROWING SEASON OF 2524.

		TRIPS DURING GROWING SEASON OF 2524: NO	YES	
WORK ON RJCP IN 2524	YES	30 71.4 8.8	12 28.6 3.8	42 6.4
	NO	312 50.6 91.2	304 49.4 96.2	616 93.6
TOTAL		342 52.0	316 48.0	658 100.0

CHI-SQUARE=6.8
p=0.01

Looking at Table 14, we find that 47.5% of the people who worked on the RJCP left the village during the growing season of 2525, whereas 63.5% of the people who did not work on the job creation program made trips during the growing season. Hence, persons who worked on the program during the dry season of 2525 were less likely to leave during the growing season as compared to those who did not work on the program. Therefore, the Rural Job Creation Program did succeed in reducing rural-out migration from the villages.

Table 15 describes the effect of the job creation program for the year 2524. According to the table, 28.6% of the people who worked on the Rural Job Creation Program left the village during the growing season of 2524. On the other hand, 49.4% of persons who did not work on the program made trips during the growing season of that year. Hence, the RJCP succeeded in reducing rural-out migration during the year 2524. The above results are significant at the .05 level of significance.

Therefore, looking at Table 14 and Table 15, there is evidence that the Rural Job Creation Program did make a considerable impact during the two-year time frame of 2524-2525 B.E. (1982-83). It succeeded in reducing rural out-migration from the Thai villages for the above two years.

TABLE 16: INDIVIDUALS WHO WORKED ON THE RJCP IN 2525 AND NUMBER OF TRIPS MADE DURING THE GROWING SEASON OF 2525, FOR THOSE WHO MADE ONE OR MORE TRIPS DURING THE GROWING SEASON OF 2524.

WORK ON THE RJCP IN 2525	TRIPS DURING THE GROWING SEASON OF 2525: NO	YES	
YES	3 25.0 7.9	9 75.0 3.2	12 3.8
NO	35 11.5 92.1	269 88.5 96.8	304 96.2
	38 12.0	278 88.0	316 100.0

CHI SQUARE=1.95
p=0.16

TABLE 17: INDIVIDUALS WHO WORKED ON THE RJCP IN 2525 AND NUMBER OF TRIPS MADE DURING THE GROWING SEASON OF 2525 FOR THOSE WHO MADE ZERO TRIPS DURING THE GROWING SEASON OF 2524.

WORK ON THE RJCP IN 2525	TRIPS DURING THE GROWING SEASON OF 2525: NO	YES	
YES	18 64.3 8.7	10 35.7 7.5	28 8.2
NO	190 60.7 91.3	123 39.3 92.5	313 91.8
	208 61.0	133 39.0	341 100.0

CHI SQUARE=0.14
p=0.71

TABLE 18: INDIVIDUALS WHO WORKED ON THE RJCP IN 2524 AND NUMBER OF TRIPS MADE DURING THE GROWING SEASON OF 2524, FOR THOSE WHO MADE ONE OR MORE TRIPS DURING THE GROWING SEASON OF 2523.

		TRIPS MADE DURING THE GROWING SEASON OF 2524: NO	YES	
WORK ON THE RJCP IN 2524	YES	2 28.6 8.7	5 71.4 2.3	7 3.0
	NO	21 9.2 91.3	208 90.8 97.7	229 97.0
		23 9.7	213 90.3	236 100.0

CHI-SQUARE=2.90
p=0.09

TABLE 19: INDIVIDUALS WHO WORKED ON THE RJCP IN 2524 AND NUMBER OF TRIPS MADE DURING THE GROWING SEASON OF 2524, FOR THOSE WHO MADE ZERO TRIPS DURING THE GROWING SEASON OF 2523.

		TRIPS MADE DURING THE GROWING SEASON OF 2524: NO	YES	
WORK ON THE RJCP IN 2524	YES	28 80.0 8.8	7 20.0 6.8	35 8.3
	NO	291 75.2 91.2	96 24.8 93.2	387 91.7
		319 75.6	103 24.4	422 100.0

CHI-SQUARE=0.40
p=0.53

Circular migration is dependent on the past mobility or history of the individual migrant. The preceding four tables have been formulated to control for past mobility and to then see the migratory pattern of the migrant in the subsequent year under the impact of the Rural Job Creation Program. Looking at Table 16, we find that if we control for the number of trips made by migrants during the growing season of the previous year i.e. 2524 B.E. and then look at the impact of the Rural Job Creation Program, the following results are obtained. Seventy five percent of the people who worked on the job creation program left the village during the growing season of 2525 but these persons had also left the village during the growing season of the previous year. On the other hand, 88.5% of the people who did not work on the program made trips during the growing season of 2525. But these individuals had also made trips during the growing season of 2524. Hence, if we look at all these individuals who had made trips during the growing season of the previous year, we find that people who did not work on the program had a greater likelihood of making trips during the growing season of this year. Therefore, persons who worked on the program were less likely to leave the village during the growing season of the same year.

Looking at Table 17, we see that 35.7% of the individuals who worked on the program during the dry season of 2525 left the village during the growing season of 2525. What is different in the case of this table is the fact that these people had made no trips during the growing season of the previous year i.e. 2524. Whereas, 39.3% of the persons who did not work on the program left the village during the growing season of 2525. Hence, we can say that for persons who made no trips during the growing season of the previous year, people who worked on the program for the present year were less likely to leave the village in comparison to people who did not work on the program.

Also, if we look at Table 18 which controls for the persons who made one or more trips during the growing season of the previous year, we see that 71.4% of the individuals who worked on the RJCP left the village during the growing season of 2524. On the other hand, 90.8% of the individuals who did not work on the program moved during the growing season of the same year. Hence, we can say that for individuals who moved during the growing season of the previous year, people who worked on the program in the following year, were less likely to leave the village in relation to those who did not work.

Table 19 controls for the number of trips made by persons during the growing season of 2523 which in this case is zero. Looking at the results, we see that 20% of the persons who worked on the program left the village during the growing season of 2524, whereas 24.8% of the persons who did not work on the program left the village during the growing season of 2524. Hence, we can see that persons who made no trips during the growing season of the previous year are more likely to make trips during the growing season of the present year if they did not work on the Rural Job Creation Program.

Looking at the above four tables, we can say that we obtained non-significant results for individuals who made no trips during the preceding year i.e. 2523 and 2524. There is not too much difference in the mobility patterns of persons who made trips during the growing seasons of 2525 and 2524 irrespective of whether they worked on the program or not. However, we do get different mobility rates for persons who made trips during the preceding year and then made trips during the growing seasons of 2525 and 2524. The results are not significant but this may be due to the small number of cases available. Therefore, looking at the above four tables, there is evidence to state that the Rural Job Creation Program did have a considerable impact on the Thai economy for the two-year period of 2524-2525 B.E..

SUMMARIZING HYPOTHESES 1-5:
TABLE 20: BREAKDOWN WITH RESPECT TO SEX, MARITAL STATUS, AGE, RELATIONSHIP TO HH HEAD AND DESTINATION (MALES).

SEX MARITAL STATUS AGE RELATIONSHIP TO HH HEAD	CIR (Overall Mvmt.)		BK (Mvmt. to Bangkok)		NE (Mvmt. to N.east)	
	N	%	N	%	N	%
MALE	577	32.06	609	17.90	640	9.50
SINGLE	291	37.11	311	17.04	332	14.76
SON	264	39.02	282	17.73	302	15.56
15-19	125	26.40	129	13.18	137	10.95
20-24	95	55.79	106	22.64	114	22.81
25-29	33	36.36	35	17.14	37	10.81
30-39	11	45.45	12	25.00	14	14.29
MARRIED	282	26.95	294	19.05	304	3.95
HEAD	143	24.48	147	19.05	147	3.40
25-29	8	37.50	8	37.50	8	0.00
30-39	56	26.79	57	17.54	57	1.75
40-49	79	21.52	82	18.29	82	4.88
SON	33	36.36	36	25.00	41	7.32
15-19	0	--	0	--	2	0.00
20-24	7	42.86	8	25.00	8	12.50
25-29	13	46.15	13	38.46	15	6.67
30-39	10	20.00	12	16.67	13	0.00
40-49	3	33.33	3	0.00	3	33.33
SON-IN-LAW	97	25.77	101	16.83	103	2.91
20-24	14	7.14	14	0.00	14	0.00
25-29	29	31.03	29	24.14	31	6.45
30-39	32	21.88	35	11.43	36	2.78
40-49	22	36.36	23	26.09	22	0.00

If we look at Table 20, we see that for the males, single males had a higher propensity to move than married males -- about 37% as compared to about 27%. If we compare sons who are married versus those who are single, we find that the rate of movement is slightly higher for single sons than married ones. Within sons who are married, persons in the age group of 25-29 have the greatest propensity to move as opposed to single sons where the rate of mobility is greatest for the age group of 20-24. As regards sons-in-laws, persons in the age bracket of 40-49 have the highest rate of migration for the two years followed by the age group of 25-29, if we are looking at overall circular migration for the two years (1982-83). All the above trends are significant at the 0.001 level of significance. Hence, we can say that for males, single males have a higher rate of movement as compared to married ones. Also, sons of the household head have a higher rate of mobility than sons-in-law.

Looking at the movement to Northeast towns, we find that single males have about a four times higher rate of movement as compared to married males. Married males who are heads have a propensity to move at a rate of about 3.4%. If we look at sons in general, we find that single sons have about twice the rate of movement as compared to married sons. For single sons, the highest rate of movement is for the age group 20-24 whereas for married sons, the highest rate of mobility is in the age bracket of 40-49, although we have very few cases for that category. We also find that sons-in-law have a very low rate of mobility of about 3%. Hence, we can say that for movement to Northeast towns, single males have a higher rate of movement than married ones. Also, sons, whether single or married, have greater mobility as compared to sons-in-law. The above results are significant at the 0.001 level of significance.

Looking at Table 20, we see that males who are moving to Bangkok have a slightly higher propensity to move if they are married. This comes as a surprise since for all the above cases, single males had a much higher rate of movement as compared to the married ones. If we are looking at the relationship to the household heads, we find that both single and married sons have a higher rate of mobility as compared to sons-in-law. Comparing sons who are married and single, we obtain significant results at the .0001 level and find that married sons have a higher rate of movement to Bangkok in comparison to single sons. Also, sons of the household head move at a higher rate than sons-in-law.

TABLE 21: BREAKDOWN WITH RESPECT TO SEX, MARITAL STATUS, AGE, RELATIONSHIP TO HH HEAD AND DESTINATION (FEMALES).

SEX MARITAL STATUS AGE RELATIONSHIP HH HEAD	CIR (Overall Mvmt.)		BK (Mvmt. to Bangkok)		NE (Mvmt. to N.east)	
	N	%	N	%	N	%
FEMALE	556	20.68	566	11.48	618	7.12
SINGLE	223	38.57	230	20.00	269	13.38
DAUGHTER						
	196	40.82	202	21.29	237	14.35
15-19	123	36.59	126	21.43	142	11.27
20-24	49	55.10	51	21.57	63	28.57
25-29	14	50.00	15	26.67	21	0.00
30-39	8	12.50	8	12.50	9	0.00
40-49	2	0.00	2	0.00	2	0.00
MARRIED	305	8.52	308	5.19	317	2.52
HEAD	6	16.67	7	14.29	7	0.00
25-29	1	0.00	1	0.00	1	0.00
30-39	3	33.33	3	33.33	3	0.00
40-49	2	0.00	3	0.00	3	0.00
WIFE OF						
HEAD	154	7.14	154	3.90	154	2.60
20-24	2	50.00	2	50.00	2	0.00
25-29	19	10.53	19	5.26	19	5.26
30-39	70	8.57	70	4.29	70	4.29
40-49	63	3.17	63	1.59	63	0.00
DAUGHTER						
	113	11.50	114	7.02	121	3.31
15-19	4	25.00	4	0.00	4	0.00
20-24	30	13.33	31	12.90	36	0.00
25-29	29	24.14	29	13.79	30	10.00
30-39	38	2.63	38	0.00	39	2.56
40-49	12	0.00	12	0.00	12	0.00

Summarizing for all the five hypotheses and looking at females with respect to overall movement for the two years and movement to Bangkok and to Northeast towns, we find that single females have about four times higher rate of movement as compared to married females for the two years. Married women who are also heads of the household move at a rate of about 17%; on the other hand, wives of heads move only at a rate of about 7% relative to females who are married and are heads of the family. If we look at daughters who are single versus those who are married, we find that single daughters move about four times more than married ones.

Looking at females who move to Northeast towns, we find that single women have about a six times higher rate of movement as compared to married females for the two years. The wives of heads move to the Northeast at a very low rate of about 2.6%. If we look at daughters who move to the Northeast, we find that single daughters move about four times more than married daughters.

Looking at Table 21 for movement to Bangkok, we find that single females move at a rate which is four times greater than that for married females. It can be seen that about 14% of the married women who are heads of the household move to Bangkok; on the other hand, only about 4% of the wives of the household head move to Bangkok. If we look at daughters who move to Bangkok, we find that about 21% of single daughters move in comparison to only about 7% of married daughters. Marriage definitely tends to limit female mobility in this case. For single daughters, the highest rates of movement are for the age group of 25-29 and the same hold for daughters who are married except that the rates are much lower for them.

LEVEL OF WEALTH:

The amount of wealth possessed by a household can affect the propensity to move for members of the household. Roi-et has a very high level of poverty and low standards of living. Previous literature on migration reveals that the poor are likely to move on account of better economic opportunities whereas the wealthy can move since the degree of risk involved in movement is far lower for them as compared to the poor. This thesis will examine whether it is the rich or the poor who have a greater probability of moving.

Data will be analyzed for the two-year period 1982-83 and several variables will be used which will be indicative of the wealth of an individual. Some of the variables to be used are number of buffalo possessed, number of cattle, number of chicken and ducks, number of pigs, number of bicycles, number of motorcycles and number of radios. All the above constitute important forms of wealth in the rural Thai economy. Although the number of farm animals would not be a relevant indicator of wealth for non-farm households, virtually all households in these villages are involved in agricultural activities. The following tables will tell us whether the level of wealth possessed by households affects the level of mobility of household members.

TABLE 22: MOVEMENT RATES BY NUMBER OF BUFFALO, NUMBER OF CATTLE, NUMBER OF CHICKEN AND DUCKS, NUMBER OF PIGS AND BY DESTINATION (1982-83).

LIVESTOCK	CIR (Overall Mvmt.)		BK (Mvmt. to Bangkok)		NE (Mvmt. to Neast)	
	NO.	%	NO.	%	NO.	%
BUFFALOES						
0	245	15.9	255	6.7	265	8.3
1	887	15.8	913	7.3	929	5.7
2	406	13.3	408	11.5	436	1.6
3	306	12.4	311	8.7	333	1.5
4	246	11.4	250	8.0	262	3.4
5-7	118	9.3	119	5.0	125	3.2
F		1.48		1.93		6.04
d.f		5		5		5
p		0.19		0.08		0.01
CATTLE						
0	1632	15.3	1674	8.8	1738	4.7
1-13	593	10.9	599	6.0	629	3.2
F		6.63		4.75		2.65
d.f.		1		1		1
p		0.01		0.02		0.10
CHICKEN & DUCKS						
0	399	17.5	407	11.3	435	4.3
1-9	943	11.9	960	7.3	993	3.1
10-19	420	15.9	430	10.0	445	4.3
20-29	172	12.8	185	2.7	193	7.3
30-39	124	16.1	123	6.5	129	9.3
40-98	167	13.1	168	7.1	172	4.0
F		1.87		3.29		3.06
d.f		5		5		5
p		0.09		0.01		0.01
PIGS						
0	2032	14.0	2074	8.2	2161	4.2
1	77	15.6	82	8.5	85	3.5
2-5	58	6.9	58	1.7	58	5.1
6-16	48	18.7	49	12.2	53	3.7
F		1.16		1.44		0.08
d.f.		3		3		3
p		0.32		0.22		0.96

If we look at overall migration for the two years with respect to the wealth possessed by a household in terms of livestock as in buffalo, cattle, chicken and ducks and pigs, we find a distinctive pattern for the number of buffalo. As the number of buffaloes possessed by a household increases, the mobility rate decreases. Hence, wealth in terms of number of buffaloes is negatively related to the rate of circular migration. The same holds for number of cattle -- as the number of cattle rises, the level of migration declines indicating that the poor have a greater propensity to migrate. If we look at the number of chicken and ducks, we find that there is no clear cut pattern between number of chicken and ducks and movement rates. The rate of migration is highest when the individual has no chicken and ducks but no further trend is visible. It is difficult to comment on the relationship between the number of pigs and movement rates since there are very few cases for levels of the variable; if we exclude number of pigs being equal to two through five we find that mobility rates increase as the number of pigs increase. Hence, if we view the above four variables as indicators of wealth of rural peasant households, we find that it is hard to predict a distinct relationship between the two variables although one could suggest that buffaloes and cattle are better indicators of wealth, since they are much more valuable than chicken, ducks and pigs. Then, there is modest evidence that more wealth leads to less mobility. If we look at the above results, we find that only cattle are significant at the 0.01 level of significance.

Looking at Table 22 and the movement to Bangkok, we see that in terms of number of buffaloes, mobility initially increases but then starts falling as the number of buffaloes goes to three. Therefore, no clear trend emerges in the case of buffaloes. On the other hand, looking at the number of cattle, we find that the rate of circular migration decreases as the number of cattle possessed by an individual increases. Wealth, in terms of cattle, seems to slow down the process of migration to Bangkok. Also, no clear cut pattern emerges when we look at movement rates in terms of number of chicken and ducks and number of pigs. The trend for cattle is significant at the 0.02 level of significance.

Looking at movement to Northeast towns, we find that the rate of circular migration decreases substantially but then starts rising again as the number of buffalos go to four and higher. On the other hand, looking at the number of cattle and their relationship to movement, we see that mobility goes down as the number of cattle increases. There seems to be no clear cut pattern again, when we analyze the number of chicken and ducks in relation to migration rates to the Northeast. The same holds for the relation between the number of pigs and the level of circular migration. Therefore, we cannot come up with any definite conclusions about the relationship between the level of wealth and mobility patterns with respect to movement to Northeast towns. For the above results, buffaloes and chicken and ducks are significant at the 0.01 level.

TABLE 23: MOVEMENT RATES WITH RESPECT TO DURABLE GOODS.

DURABLE GOODS	CIR (Overall Mvmt.)		BK (Mvmt. to Bangkok)		NE (Mvmt. to N.east)	
	NO.	%	NO.	%	NO.	%
BICYCLES						
0	566	15.7	582	10.1	607	3.9
1	1280	13.6	1304	7.9	1356	4.0
2	338	13.6	346	6.0	362	5.5
3	37	13.5	37	2.7	38	10.5
F		0.52		2.22		1.79
d.f		3		3		3
p		0.66		0.08		0.14
MOTORCYCLE						
0	1863	13.9	1904	8.9	1989	3.3
1	322	12.1	327	3.9	333	6.9
2-5	40	40.0	42	4.8	45	31.1
F		11.73		4.83		46.21
d.f.		2		2		2
p		0.01		0.01		0.01
TRUCKS & BUSES						
0	2126	13.8	2169	8.3	2261	3.9
1	92	19.6	97	4.1	99	12.1
F		2.35		2.16		15.28
d.f.		1		1		1
p		0.12		0.14		0.01
SEWING MACHINES						
0	1708	13.8	1745	8.4	1815	3.5
1-2	517	15.3	528	7.2	552	6.8
F		0.75		0.74		11.62
d.f.		1		1		1
p		0.38		0.38		0.01
RADIOS						
0	433	13.9	439	9.1	453	2.8
1	1536	13.0	1575	7.1	1633	4.1
2-4	256	20.7	259	11.9	281	7.5
F		5.28		3.82		4.60
d.f		2		2		2
p		0.01		0.02		0.01

If we look at Table 23, and examine the relationship between economic well being and the propensity to move, we see that in terms of number of bicycles, the rate of overall circular migration is somewhat declining. This result is not significant at the 0.05 level. Whereas, if we look at the relation between the number of motorcycles and the rate of migration, we find that there is an interesting trend emerging between the two. As the number of motorcycles increases to anywhere between two and five, the rate of circular migration increases to appreciable levels. This result is significant at the 0.05 level of significance. The same holds for the number of trucks and-or buses -- the rate of movement increases as the number of these vehicles increases; the obvious reason being that the vehicle makes the movement easier to undertake. Also, if we look at the relation between the number of sewing machines and the rate of movement, we find that mobility levels increase with increases in the number of machines possessed by an individual. The results for the trucks and buses and sewing machines are not significant at the 0.05 level of significance. Looking at the number of radios, we find that the movement rate increases substantially as the number of radios goes up form zero to between two and four. This trend is significant at the 0.05 level. Hence, we obtain significant results for the number of motorcycles and radios and find that mobility rate go up as the number of the above durable goods increase.

If we look at the relation between the number of bicycles and the movement to Bangkok, we find that mobility rates decrease as the number of bicycles increases but this relationship is not significant at the 0.05 level of significance. As far as the number of motorcycles are concerned, we see that circular migration declines considerably with one motorcycle but then there is a small increase as the number increases to anywhere between two and five. Hence, we can say that mobility rate is higher when there is no motorcycle. There is no significant relationship between the number of trucks and-or buses and the number of sewing machines possessed by a household and the level of circular migration to Bangkok. The relationship between the number of radios and the level of circular migration is significant at the 0.02 level of significance.

Looking at movement to Northeast, we see that the higher the number of bicycles possessed by an individual, the greater is the propensity to move to Northeast towns but this is not a significant relationship. Also, the number of motorcycles increases the rate of circular migration significantly as their number increases and this result is significant at the 0.01 level of significance. This may be due to the closer proximity of Northeast towns relative to Bangkok. Similar results hold for the number of trucks and or buses possessed by individuals. Mobility rates are enhanced considerably with the possession of these vehicles. There is a significant relationship between the number of sewing machines and the number of radios possessed by a household in relation to movement to Northeast towns; movement rates increase substantially as the number of these durable goods rises in the household.

The above two tables have tried to examine the relationship between the level of wealth possessed by a household and how this might affect the propensity to engage in circular migration in general and also with respect to Northeast towns and Bangkok. As can be seen, it is very difficult to outrightly state that it is the poor or the rich that have a greater probability to migrate during the two year period; but one could say that for certain durable goods like bicycles, mobility rates definitely decline for overall migration whereas for the other goods in general, mobility rates increase as the level of wealth in terms of these goods increases. We analyzed the relationship using several variables and we find that the pattern varies when we look at movement to the Northeast and to Bangkok. Mobility rates for Bangkok decline when we look at wealth in terms of bicycles, motorcycles, trucks and buses, and sewing machines. On the other hand, for Northeast towns, mobility shows an upward trend as wealth in terms of durable goods goes up.

Rural Thailand is primarily an agricultural economy and rice farming constitutes the main occupation and source of income for about 93% of the Thai households in Northeast Thailand (Fuller, 1983). An important indicator of the wealth of an individual is the total area of farm land owned. To measure potential economic level of respondents, the adequacy of land was considered to be an important factor which could affect the economic well being of members. The following table tells us that only about 14% of the household heads who said that their land was adequate were involved in circular migration for the two year period and 14% of those who said that it was inadequate still undertook migration. Another important feature that can be seen from the table is that respondents with no farm land moved at a rate of about 44%, although the number of cases for this category was very small. About 14.3% of the respondents were uncertain as to the adequacy of their land in relation to circular migration for the two years.

No clear cut relationship is obvious between adequacy of the farm land for the family and the propensity to move to town. We find that movement rates were almost the same, around 14%, for both categories, namely those who judged their land to be adequate and those who considered it to be inadequate. The interesting point is that persons with no farm land had the highest rate of movement to town, although their number was very low.

When the perceived adequacy of land is disaggregated according to destination, we find that only about 7% of those who consider their land to be adequate move to Bangkok, in contrast to almost 10% of those who consider the land to be inadequate. Similar results hold in the case of respondents with no farm land -- almost 44% of them move to Bangkok for the two year period.

If we look at movement to Northeast towns, we find that about 5% of the respondents who consider their land to be adequate move for the two-year period; on the other hand, only about 3% of those who consider their land to be inadequate are involved in circular migration to the Northeast. Hence, there seems to be a difference in mobility patterns for the two destinations when we look at the adequacy of the farm land. If we look at households with inadequate land, the mobility rates are far greater for movement to Bangkok than for movement to Northeast towns.

TABLE 24: MOVEMENT RATES BY PERCEIVED ADEQUACY OF LAND AND WITH RESPECT TO DESTINATION (1982-83).

LAND ADEQUACY	CIR (Overall Mvmt.)		BK (Mvmt. to Bangkok)		NE (Mvmt. to N.east)	
	NO.	%	NO.	%	NO.	%
ADEQUATE	1298	14.3	1331	6.8	1362	5.1
NOT ADEQUATE	893	13.9	906	9.8	970	3.3
OTHER	13	0.0	14	0.0	13	0.0
NO FARM LAND	9	44.4	9	44.4	9	0.0
FARMING NOT MAIN	5	0.0	6	0.0	6	0.0
NOT CERTAIN	7	14.3	7	0.0	7	0.0

As discussed earlier, total area of farm plots in a rural economy is an important indicator of the wealth of the household. We are going to group the area of farm plots into categories namely, respondents who possess 0 through 9 rai (1 rai is equal to 0.15 hectares of land) will fall in the first group; persons who possess 10-19 rai of land in second group; 20-29 rai in the third category, 30-39 in the fourth group, 40-49 in the fifth, 50-59 in the sixth and 60 or more area of farm plots will come in the seventh group.

Hence, perceived economic level can be measured by using the area of farm plots as a measure -- it will be interesting to see how the area of land affects the respondents movement to Bangkok vis.a.vis the Northeast towns for the two-year time frame.

TABLE 25: MOVEMENT RATES BY TOTAL AREA OF FARM PLOTS (1982-83)

AREA IN RAI	CIR (Overall Mvmt.)		BK (Mvmt. to Bangkok)		NE (Mvmt. to N.east)	
	NO.	%	NO.	%	NO.	%
0-9, RAI	212	11.3	219	8.2	224	2.2
10-19 RAI	554	12.4	564	9.2	595	2.3
20-29 RAI	623	14.9	635	8.8	665	4.8
30-39 RAI	377	15.1	386	6.5	396	5.5
40-49 RAI	222	14.4	226	7.0	237	5.4
50-59 RAI	117	19.6	120	7.5	122	6.5
60 OR MORE RAI	120	13.3	123	6.5	128	6.2
F		1.05		0.6		2.2
d.f.		6		6		6
p		0.38		0.74		0.03

If we look at the overall level of migration for the two-year period, we find that the movement rates increase as the area of farm plot possessed by respondents increases until the level of about 30-39 rai units. Beyond that, there seems to be no clear trend in the movement pattern in relation to the quantity of farm plots. Hence, for the initial stages, respondents have a greater tendency to move if they possess larger areas of land. This relationship is not significant at the 0.001 level of significance.

If we disaggregate the movement with respect to Northeast towns and Bangkok, we find that in the case of movement to Bangkok, this is not a significant relationship and there appears to be no trend in the mobility patterns of household members, movement reaching its lowest levels when the area of farm plots is at its peak. Therefore, it is impossible to predict a relationship between the two variables for Bangkok.

On the other hand, if we look at the respondent's tendency to move to Northeast towns, we see that the rate of mobility in general shows an increasing trend as the area of farm plots owned by respondents increases. Hence, we can say that area of farm plot as an indicator of wealth does play a significant role in the migration decision making of respondents who are moving to Northeast towns as compared to those who are migrating to Bangkok.

CHAPTER 7

SUMMARY AND CONCLUSIONS:

Circular migration is a temporary form of movement which is usually short-term, cyclical in nature and is characterized by a lack of desire to change residence on a permanent basis. This study emphasizes the relationship between the migrant and the circulation process -- the characteristics of the migrants and their life cycles and the socio-economic and demographic forces operating in the entire process.

Rapid movement of the rural population into Bangkok has been one of the vital features in the urbanization process in Thailand. Our study is based on rural-urban migration originating in Roi-et province in Northeast Thailand. Rural-urban migration is perceived to be caused by potential economic and other gains at the point of destination. Until recently, rural-urban migration was considered to be a beneficial process which withdrew surplus labor from the rural economy into the urban industrial sector. However, it is now seen as a process which causes uneven development and which is exacerbating already existing social and economic problems in developing countries.

Previous literature on migration tells us some of the causes of rural-out migration in the form of low agricultural income, unequal distribution of land, desire to break free from the rural system and several socio-demographic determinants of migration. Our study tells us that several of the above stated factors are at play in causing rural-out migration from our chosen site.

The independent variables chosen for this study attempt to explain the process of circular migration in Northeast Thailand. Circular migration was seen to be related to the socio-demographic characteristics of the potential migrants; however, this does not imply that all of our testable hypotheses were corroborated by the findings.

Initial findings about the rate of circular migration with respect to the eight seasons, using the household head data, tell us that circular migration in general was greater to Bangkok as compared to Northeast towns. Migration rates were found to be lower during the planting and the harvest seasons as compared to the dry and the growing season, highlighting the seasonal feature of migration. The same holds true if we look at the seasonal breakdown using the younger member data set. Circular migration, in this case too, was greater to Bangkok as compared to Northeast towns but the same does not seem to hold if we look at the seasonal breakdown. The rate of migration to Northeast towns seems to be greater for the planting and the harvest seasons as compared to movement to Bangkok.

Testing our hypotheses, we found that for almost all age groups, the magnitude of circular migration decreases as the age of the migrant increases. Also, the rate of circular migration is higher for Bangkok than Northeast towns for almost all age groups but just about the same for 20-24. Thus, it could be deduced that circular migration has a relatively strong relationship with the age of the potential migrant and this relation is significant.

We find that the rate of migration for males is higher than for their female counterparts for the two-year time period and this is true in the case of overall movement and for movement to Bangkok and to Northeast towns. Also, the rate of migration to Bangkok is much higher as compared to Northeast towns for both men and women. Our findings seem to be operating in an opposite direction to the stated hypothesis that females have a higher rate of migration as compared to the males.

As to whether marriage reduces one's propensity to migrate, we find that for the two-year period for overall migration, single persons have a higher rate of circular migration than married persons. The same holds true when we looked at migration to Northeast towns; however, married persons have a higher rate of circular migration than single people when we look at movement to Bangkok. All these results were found to be significant at the 0.001 level.

Regarding the question of whether marriage limits female mobility more than male mobility, we have significant results which tell us that single males have a higher rate of mobility than single females. Within the males, married persons move more than the single ones whereas for females, single females have a higher rate of movement than married females. Hence, marriage does not seem to limit male mobility but definitely limits female mobility. We also find that marriage tends to increase male mobility and limit female mobility for Bangkok but not for Northeast towns.

Married men who are heads of households are not more likely to engage in circular migration for the two-year period. We find that sons of the household heads have a higher rate of circular migration relative to the household heads but this does not hold for sons-in-law of the household heads. Also, we find that only in the case of movement to Bangkok, married men do have a greater likelihood of migrating if they are household heads. Hence, we can conclude by saying that household heads do not necessarily exercise greater power and control and the ability to make their own decisions.

Looking at education as a variable which affects the rate of circular migration, we found a significant relation between the two and that the level of circular migration increases appreciably with increase in the number of years of education. This is true for overall migration and for movement to Northeast towns but not for movement to Bangkok. Hence, this confirms the opinion that the more educated are likely to have greater employment opportunities in urban areas than the less educated.

The Rural Job Creation Program made a considerable impact on the rural Thai economy as we found that individuals who participated in the program were less likely to leave the village during the growing season of the same year. Also for persons who made no trips during the growing season, we found that persons who worked on the program were more likely to make no trips as compared to those who did not work. The Rural Job Creation Program was established in 1975 with the intent of generating additional income and employment in the rural economy.

Concerning the question of wealth, we know that Roi-et has a very high level of poverty and low standard of living. Previous findings tell us that the poor are likely to move on account of economic necessity whereas the wealthy can move since they are in a better position to bear the risks involved during movement. We used a set of variables which could be separated into livestock and durable goods and which constitute important forms of wealth for a rural Thai peasant. Bearing in mind that buffaloes and cattle are better indicators of wealth since they are much more valuable, we find modest evidence that more wealth leads to less mobility overall. Looking at our results, we can say that since almost all mobility is to Bangkok or Northeast towns, it is surprising that there is no effect on mobility to Bangkok and Northeast towns, but there is an overall effect.

Some interesting significant trends emerged when we looked at mobility patterns in relation to durable goods. Overall circular migration and movement to Northeast towns increased appreciably with increase in the number of motorcycles and trucks and buses. The most probable reason is that movement is easier when you have a vehicle at hand. Mobility also rises with the number of radios possessed by household members and this may be due to the mass media effect which entails increased level of communication between rural and urban areas.

Total area of farm land and perceived adequacy of land holdings to meet the financial needs of the household are important indicators of wealth of a household. Our findings tell us that movement rates were about the same for persons who considered their land to be adequate vis.a.vis. those who considered it to be inadequate to meet their economic needs. What is interesting is that individuals with no farm land had the highest rate of rural-urban migration in relation to others.

We also find that a greater proportion of people who consider their land to be inadequate moved to Bangkok whereas the opposite holds true for movement to Northeast towns.

Looking at total area of land holdings, our results tell us that for the initial levels, mobility levels increase with increase in the area of land holdings possessed by household members. Total area of land holdings seems to play a significant role in the case of movement to Northeast towns since the rate of movement rises with increased land holding; however, no distinct pattern emerges in the case of movement to Bangkok.

Therefore, our chosen variables in the form of socio-demographic factors, the Rural Job Creation Program and the level of wealth possessed by individuals do have an effect on the level of circular migration.

It is important to note at this point that the selected study villages are located in a depressed area, one of the poorest in rural Thailand. Hence, circular migration may occur just as a necessity among people.

Recommendations:

This study was conceptualized using data originally gathered for the purpose of a controlled experiment to affect the spatial patterns of migration in the area (Fuller, et al., 1983). Literature on migration provides an insight into the patterns of mobility and this study tests whether similar forces are operating to influence circular migration originating in Northeast Thailand.

As was expected circular migration is affected by several variables including age, sex and marital status of the potential migrant. Also, the position of the household member in the household and his or her level of education, both play a vital role in influencing the rate of circular migration in Thailand.

One of the principal goals of this study was to understand the migration processes especially from the point of view of the causes of rural-urban migration to enable us to come up with some policy measures that may help reduce rural-out migration in order to alleviate the increasing problems associated with this form of migration. In the case of this study, information about the respondent's income from the rural region and some knowledge about the rural-urban wage differential could help us better understand the migration decision-making process.

If we look at the migration process, planners should formulate an information program which details the opportunities available in the urban center, the advantages vis.a.vis. the disadvantages of moving especially to frequented areas. All this information could help a potential migrant and he could be in a better position to make a decision about his mobility. Further, programs like the Rural Job Creation Program should be devised which provide income and employment opportunities to individuals and can help in reducing potential rural-out migration.

For further research it would be interesting to find out whether it is the same individuals who engage in circular migration or different young people who move every year. It would also be fruitful to know the difference between those who return home after a few months (circular migrants) and those who do not return but stay in the city.

Limitations of the study:

Several limitations could be put forth with a secondary analysis of primary data. To begin with, the researcher has to contend with what is available, formulate the concepts and ideas from the available data and possibly critically evaluate the concepts.

It is very likely that the results in this study may differ dramatically if we were dealing with a survey whose focus was on circular migration in the same area since the concepts would then be operationalized and the findings would be much more precise. Operationalization could be possible by choosing certain variables that focus essentially on circular migration like the number of children that individuals have and how that may affect the mobility. The study systematically does not examine gender differences in the process of circular migration. Although gender differences are taken into account for by some variables eg. age and marital status, such gender differences are not examined for other variables, eg. household wealth. Also, our study talks about seasonal breakdown and the patterns of movement during the different seasons but it does not mention migration rates during periods of urbanization, modernization and industrialization in the urban center. The study does not take into account study does not take into account the effect of the mass media specifically as that is an important factor which affect potential migratory behavior. Our study discusses features of the migrants in general but does not really talk about features of the migration process which could possibly induce/reduce migration.

The researcher is also aware that the study did not include all the possible competing explanations of circular migration and there could be other potential indicators of circular migration that were not examined.

The study has attempted to elucidate some of the social, economic and demographic features characteristic of rural-urban migration originating in Roi-et province in Northeast Thailand. Analysis is limited to the confines of the site and the available data set.

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