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**MINI SLUMS IN CHIANG MAI CITY:
A STUDY OF FAMILY GROWTH AND HOUSING CONDITIONS**

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CONTENTS

	Page	
ACKNOWLEDGEMENT	i	
TABLE OF CONTENTS	ii	in ci
CHAPTER I: INTRODUCTION	1	the p
OBJECTIVES OF STUDY	4	count
IMPORTANCE OF STUDY	4	incre
RESEARCH INVESTIGATION	5	a cri
PREVIOUS FINDINGS I.I.....	7	livin
CHAPTER II: METHODOLOGY	10	the f
CHAPTER III: CHIANG MAI CITY, POPULATION AND		25.0
LOW-INCOME COMMUNITIES	13	in Di
HISTORICAL CONTEXT	13	Manil
THE GROWTH OF CITY AND LOW-INCOME COMMUNITIES	17	
MUBAN KHON TUK	19	
CHAPTER IV: MUBAN KHON TUK; NINE COMMUNITIES OF		
LOW-INCOME PEOPLE	21	
CHAPTER V: POPULATION COMPOSITION AND CHANGE	32	to p
POPULATION DISTRIBUTION	32	choi
HOUSEHOLD SIZE	33	popu
LENGTH OF LIVING IN CITY	34	toge
EDUCATION, OCCUPATION, INCOME	35	area
ORIGIN, NATIONALITY, RELIGION	40	beer
CHAPTER VI: VARIOUS TYPES OF HOUSEHOLD AND THE		man;
GROWTH OF THEIR POPULATION	44	slu
TYPES OF HOUSEHOLD	44	pro
POPULATION CHANGE WITHIN A HOUSEHOLD	48	poi
THEY LIVE IN POOR HOUSING CONDITIONS	52	sta
HOUSE STRUCTURE	57	
AVAILABILITY OF UTILITIES AND FACILITIES	60	
ACCESSIBILITY TO SOCIAL SERVICES	62	
CHAPTER VII: CHIANG MAI CITY AND FUTURE GROWTH OF		
LOW-INCOME AREAS	67	th
FOOTNOTES	71	53
		oc
		po
		pe
		ur

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AWATTO

CHAPTER I

INTRODUCTION

In the last thirty years, the ever-increasing population residing in cities has been a new experience to the developing countries. Today, the phenomenon has become common; all big cities of these developing countries are jammed by a huge number of people. As the city population increases, the number of slum dwellers and squatters incredibly rises to a critical proportion. In 1971, the percentages of urban population living in slums and uncontrolled settlements in Asia were reported to be the following: 44.0 percent of city population living in Colombo (1963), 25.0 percent in Taipei (1966), 33.0 percent in Calcutta (1961), 25.0 percent in Djakarta (1961), 25.0 percent in Kuala Lumpur (1961), 35.0 percent in Manila (1968), 30.0 percent in Seoul (1970), and 25.0 percent in Bangkok.¹

In Asia, the rapidly growing population of the major cities, relative to problems of slum and squatting areas has drawn the attention of many scholars and researchers. Of particular interest in analysis of city population growth are comparative studies of migration and natural increase, together with the equally significant question of slums as contributing areas. Over the last decade, considerable knowledge and theories have been developed to a satisfactory point and experience has been gained in many city development programs. But in other large urban areas where small slums and squatting areas are evident, few studies have been done. The problem is not serious at its beginning, but the past failure in many programs points out the gap of knowledge and theory about slum growth at its early stages in the smaller-sized cities of Asia.

Urbanization in Thailand is increasing in importance. Dominating the scene is Greater Bangkok with 45.1 percent of the 1947 urban population, 53.2 percent in 1960, and 55.9 percent in 1967. Larger cities clearly occupy a more important role in the overall growth of Thailand's urban population. Of the total urban increase between 1947 and 1960 of 1,648,526 persons, 68 percent is attributable to the largest 10 of the total of 116 urban areas.²

Chiang Mai City, the second largest urban area, grew from a total population of 38,211 in 1947 to 66,823 in 1960, and increased to 71,579, seven years later. The City of Chiang Mai is comparatively smaller in size, and the population change is therefore behind that of Greater Bangkok. In 1947 the population of Greater Bangkok which was about 781,700 was 21 times greater than that of Chiang Mai. By 1960, the capital city's population had increased threefold to 1,800,700 -- equal to twenty-seven times the population in Chiang Mai City. In 1967, the 2,614,400 persons living in Greater Bangkok outnumbered the residents of Chiang Mai City 32:1. Bangkok's urban primacy is among the most striking in the world.³

A study of Goldstin indicates that half of the 10 largest cities were in the central region; and the remaining five were distributed among other three regions in 1947. By 1960, only 3 urban areas of the central region remained in the top ten cities, and this decreased to two places (Greater Bangkok and Chonburi) in 1967. Considering the northern region, it shared up to 4 places in 1960 but only 3 in 1967. Unlike other urban places, the statistics showed Chiang Mai City had kept the second rank consistently from 1947 to 1967, while there was a great change of ranking among the others.

In the year 1964, the first provincial university was established at Chiang Mai. This brought many people from several regions to Chiang Mai province and affected the economic growth of both the urban center and Chiang Mai as a whole. This population was not added to the total number of the urban place, because the university is located outside the municipal boundary. But the mass migration of people apparently accelerated the growth in business, industries and services in the center, which in turn attracted people from villages nearby who expected higher earnings in town. The population of the Chiang Mai University community is approximately 8,000.

In the urban area of Chiang Mai, the most recent statistics available at the registration office of the municipality are from 1971 to 1976, and they illustrate a relatively slow change in the total population. The population living in the area of Chiang Mai Municipality in 1971 was 91,264,

and roughly 2,000 people were added the following year. The population exceeded one hundred thousand in 1975 and 1976 (100,837 and 104,519). With respect to the registration numbers in this five-year period, the population increased at an annual average of 2.9 percent.⁴

Table 1: Ten Largest Urban Places in Thailand, 1947, 1960 and 1967

Rank	1947		1960		1967	
	Place & Region	Population	Place & Region	Population	Place & Region	Population
1.	Bangkok-Thon Buri, C.	781,662	Bangkok-Thon Buri, C.	1,800,678	Bangkok-Thon Buri, C.	614,356
2.	Chiang Mai, N.	38,211	Chiang Mai, N.	66,823	Chiang Mai, N.	81,579
3.	Lampang, N.	22,952	Korat, NE.	44,630	Korat, NE.	73,050
4.	Korat, NE.	22,340	Hat Yai, S.	36,197	Hat Yai, S.	49,327
5.	Nakorn-Pathom, C.	22,007	Lampang, N.	36,002	Udon-Thani, NE.	46,686
6.	Samut-Sakorn, C.	20,754	Nakorn Sawan, N.	34,371	Nakorn Sawan, N.	44,851
7.	Phuket, S.	19,550	Ayuttaya, C.	33,547	Chon Buri, C.	42,141
8.	Songkhla, S.	18,662	Chon Buri, C.	33,237	Songkhla, S.	40,682
9.	Ayuttaya, C.	17,807	Pitsanulok, N.	33,233	Lampang, N.	40,515
10.	Chon Buri, C.	17,671	Songkhla, S.	31,488	Nakorn Sri-Thammarat, S.	39,426
Total		981,616			2,150,206	3,072,593

Region symbols: C = Central; NE = Northeast; N = North; S = South.

Source: Goldstein, Sidney. "Urbanization in Thailand, 1947-1967",

Institute of Population Studies, Chulalongkorn University, 1972, p. 13.

Observations of both the population growth, and the occurrence of deteriorated areas in Chiang Mai city have suggested several interesting questions; what is the population structure of the areas of low-income people? What are the contributing factors to the population change in the areas: natural increase or migration? What is the population change within households? How do these low-income people live? How do they get access to social and public services? Insight into the problems requires some empirical studies. The study on population in the community of low-income family is insufficient for generalizations. Replication of extant research, as well as wide-ranging exploration of both the population and housing of the deteriorated areas is needed before valid generalization can be made. The purpose of the study here reported is to explore the wide range of population characteristics and housing conditions. The research was conducted in Chiang Mai City, the second largest city in Thailand. The following will be the objectives of the present study:

1. to examine the population growth and present housing conditions of people in the city of Chiang Mai,
2. to study population structure, the growth of the population, living conditions in the areas of low-income families,
3. to assess the growth of the households of different types,
4. to generate some possible, realistic solutions for government and decision-making bodies facilitating the problem-solving of urban areas for development planning at urban, regional and national levels.

Importance of the study

1. For Thailand, the need for studying the population growth, the living conditions of people, and the relationship between them have long been felt and have been reaffirmed and reiterated at several meetings and conferences at international, regional and national levels, but far too little has been done to meet this need. This study will benefit the government and decision-makers for development planning at all levels in Thailand and other areas with similar situations.

2. This study will assist planning organizations, especially the National Economic and Social Development Board of Thailand (NESDB) as well as local authorities and universities.

3. Few studies of this topic have focused on northern Thailand. The lack of research, therefore, tends to give the few available the character of gospel. Thus, this study helps to fill the gap and to change those attitudes.

4. At present, in undertaking research, the emphasis should be on policy investigation and on field studies rather than armchair research. The fact that this research is based on field survey gives it recognizable advantages.

5. This study provides up-to-date statistical information which has been absent since the last census in 1970. It will help development of research projects in this field of study which depend substantially on the availability of statistics.

6. With recognition of the fact that most people's perspectives are limited to the present or near future and to problems close to home, households and their growth are observed in this study. It is also anticipated that the individual will come to realize what is happening close to his or her home.

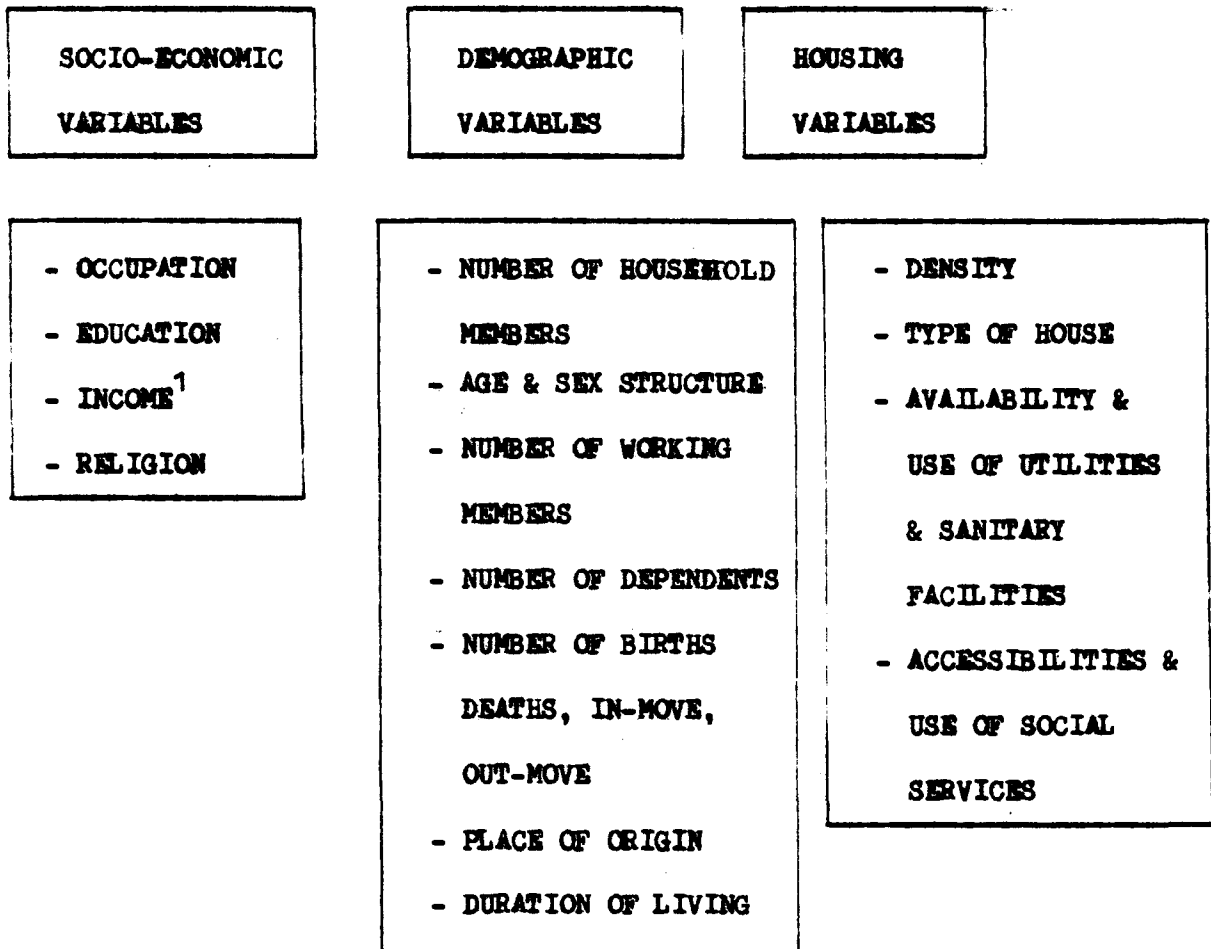
Research investigation

The research examines population growth and present housing conditions within the area of the Municipality of Chiang Mai populated by 104,519 people in 1976.

The research attempts to investigate three sets of variables socio-economic; demographic, and housing. First, answers must be found concerning the socio-economic status of the family, such as occupation status, income, education, etc. Second, the population structure of the household, and the changes within it, number of people in the household, birth, death, migration, place of origin etc. Third, the conditions of houses will be found out by investigating types of house, density, use of utilities, use of public services etc.

The variables and framework of the study will be presented as follows;

FRAMEWORK STUDY



1 INCOME: includes income from major work and other sources.

Defining Concepts.

Population growth:

change of population caused by natural increase and migration.

household:

a private household includes one person living alone or two persons related or unrelated who combine to occupy a housing unit and to provide themselves with food or other essentials of living. A private household may contain one family, two or more families, and other unrelated individuals such as lodgers, employees (from the Statistical Yearbook of Thailand, 1970).

Housing:

residential environment which includes, in addition to the physical structures used for shelter, all necessary services, facilities, equipment and devices needed or desired for the physical and mental health and social well-being of the family and the individual.

Previous Findings.

The growth of city population contributed by natural increase and migration, and its relation to the emergence of slum and squatter settlements, have been observed in many cities. Several studies state that slums and squatters pose some serious problems, even a crisis in the big cities and the metropolitan areas, to urban environments and the quality of life of urban populations, particularly the poor. Besides the natural growth, it is widely accepted that the push of the poor rural areas and the pull of growing urban centers send people flocking to the cities at unprecedented rates. When people migrate to cities in great numbers, it is not possible to supply enough houses, water, electricity, health services, schools and other urban public services to meet their needs. Not even temporary housing provided by the city or national authorities can be expected. Consequently the overcrowding of the population is conspicuous in all large cities in the developing countries.

It was documented by the United Nations in 1971 that slums and uncontrolled settlements result from the increased population in the cities. As rural populations migrate to the city, those areas become common. The United Nations claims that rural-to-urban migration has

been the chief factor responsible for the mushrooming of uncontrolled settlements on the urban fringe.⁵

On the contrary, Janet Abu-Lughod states that in certain of the overpopulated, underindustrialized countries, it may well be that the rate of natural increase is so high in the cities that the process of urbanization (i.e., the shift in population from rural to urban areas) is not occurring at the same rate as in the developed world. Cities grow, certainly but they grow from natural increase just as much as from rural urban migration. She confirms the significance impact of natural increase on the population growth of the city as well.⁶

The role of slums as contributing sources of the total population of the city and its growth is observed by Laquine in the Philippines, where slum and squatter populations are growing by leaps and bounds.⁷

Rural people flow into slums and squatter areas where sub-standard houses stand, and where some services are available at a low price. Clinard says that the most common function of the slum has been to provide housing for the lowest income group in the society. Slums have been heaven for penniless rural migrants and immigrants who needed a first living base in the city at the lowest possible price.⁸ Apparently, the inevitable consequences on rapid population growth of the city are further physical congestion and still further decline of living conditions of the lower income groups. The outward symptoms of this deficiency are inadequate shelter and community services, almost complete absence of sanitation and safe drinking water, filth and squalor in ever-expanding areas and growing rates of disease and mortality.

The United Nations reports that the uncontrolled growth of slums exposes the urban environment to serious risk (contamination, propagation of disease and social friction) which might cause irreversible damage and eventually affect the entire urban population, demanding remedies at a later date at far greater costs --- the inhabitants of slums and uncontrolled settlements encounter serious problems related to health, literacy, vocational training, community services, and security.⁹

Clinard also indicates the poor housing conditions resulting from population growth. Slum housing is invariably associated with poor

facilities and community services. Along with shabbiness and dilapidation, the park facilities are inadequate, the schools are of poor quality and other public facilities are often insufficient --- ¹⁰

The situation in Thailand is perhaps best illustrated by the following results from research conducted in Bangkok. As of 1970, 25,000 families consisting of about 162,000 persons were reported living in 39 district slum areas. And about 650 families in one of Bangkok's squatter communities were facing eviction to make room for new apartments which they could eventually rent. The 650 families were actually occupying only 395 housing units because many of them had allowed their sons' and daughters' families to live with them. One unit contained four families with a total of 34 persons.¹¹ These findings document the overcrowding in both community and housing units.

Thammasat University reported that about 4,500 households (25,000 persons) were living in Klong Toey, the largest squatter community. Perhaps most significant is the finding that 75 percent of the residents have lived in Klong Toey for five or more years, and half have been there for ten years or more, suggesting a considerable degree of stability. Of all the household heads, 71 percent had worked as farmers or farm labourers before coming to Bangkok and all but about 5 percent had lived in small towns or farms.¹²

Table 2 : Number of households and Samples of nine areas

Survey Area	No. of total Households	No of Samples
Patu Chiang Mai	58	15
Tipa Netra	188	41
Kaew Nawarat	75	15
San Pa Koi	84	21
Chinthatsani	45	12
Santitham	88	20
Kam Phaeng Din	243	49
Ti Moh Nob	94	20
Ban Mae Kaew	34	7
TOTAL	909	200

CHAPTER II

METHODOLOGY

This study is based on data from the field survey in nine areas of low-income people in Chiang Mai City during August 1977 to January 1978. The research was designed to reach a target population of 200 households randomly drawn from the universe of 909 households who presently live in those nine areas. Due to the lack of basic data in all official records, and the lack of former studies, the team had to begin the first stage by intensive searching for some basic information that would suggest the next steps and the direction of our study. We found maps, photographs, and some available statistics on the city population at the office of the municipality, Maung district office, Agricultural Development Center, Department of Geography, and the Social Science Research Center. The district map could only give us a very crude, broad picture of the settlements in the city, which was not enough to show the problem areas. After informal conversations with local authorities, however, these natives of Chiang Mai led us to those communities of poor people well known as "Ban Khon Tuk". To be confident that we did not miss any areas, we spent three days travelling along roads and streets in Chiang Mai City, and the locations of all communities were recorded on our map.

A researcher and a very experienced student from the Department of Geography, Chiang Mai University, went out to Ban Khon Tuk to do mapping. Walking through each community, we did a draft of house locations, activity nodes, and environmental characteristics of the community. Total numbers of dwelling units were also counted; we finally came up with a total of 909 units in nine areas.

Before the actual survey and interviewing was started, researchers paid informal visits to each area. We went to see some people at their houses, met them in coffee shops, and grocery shops, or even talked with them on their way to work. Recognizing that the data required in our study were not easy to obtain, we found the informal visits and general conversation were very important. They gave us some degree of

acquaintance with the poor and led us to re-examine the questionnaires and make some corrections.

Three communities contained a number of households whose members were living together for the purpose of prostitution, and contact with them was a difficult task for us. We called for help from two men students who introduced us to those places. Fortunately, it came out that most of them were very co-operative and willing to be interviewed. The Questions had to be reviewed with them before the interview schedule was set up. Once they found out that our study was dealing with general questions on population and housing construction, they all agreed on the schedule.

It was the initial intention of the team that samples of 200 households were to be randomly drawn in a systematic way that would be about 20 percent of the total population in each community. Some difficulties had arisen because people went out to work during the daytime and they were too tired to answer questions. In this case the advantages of obtaining accurate data outweighed the good of systematic random sampling. While we decided to take the approachable households, we carefully distributed the samples among different socio-economic groups to have confidence in their representation. An interviewing schedule of both daytime and night-time interviewing was set up for all areas.

During this time, students of the Faculty of Social Sciences who had some experience in research were selected and trained by the team, aiming to review the techniques of interviewing and observation, and to familiarize them with the questions. Soon after we finished the pre-test, the results were concluded, and the development of the questionnaires was repeated.

The field survey was conducted from October to December 1977 in nine areas: Patu Chiang Mai, Tipa Netra, Kaew Nawarat, San Pa Koi, Chinthatsani, Santitham, Kam Phaeng Din, Ti Moh Nob, and Ban Mae Kaew. The research relied heavily on the data collected from the field survey; the interviewing thus required essentially a high degree of supervision and checking. One supervisor or checker worked closely with three interviewers. Both questionnaires and observation sheets were employed

in order to have complete data. Then the work of office editors and coders began; the interviews were checked and the results were discussed to pick up errors in recording as well as incomplete statements. The same team went back again to the communities to collect and complete those unanswered questions. This procedure had advantages because we had the chance to confirm those responses again, and the respondents felt more comfortable to talk without the questionnaires; some of them enjoyed just talking with us.

The coding was reviewed twice in both formats; one was the coding on household data, the other was the data on individuals. As the coding proceeded, the questionnaires were rechecked for errors.

The team planned the details of data processing, and decided to work on three sets of frequency program, cross-tabulation, and the correlation test of the key variables. A preliminary test showed no significant correlation, and we decided to drop the correlation testing because of limited time, leaving it for further study in this area in the future. All coding formats were developed to fit the requirements of the computer. Since computer use and program design of data processing were new to us, the work at this stage was delayed. Finally we finished it at the end of May 1978.

CHAPTER III

CHIANG MAI CITY, POPULATION, AND SLUM AREAS

Historical Context

Chiang Mai, capital of the Northern Thai Kingdom, has a history of some 600 years, over 200 of which (C.1556-1763) were under Burmese rule. The district was probably settled for most of this period. In 1874 a Siamese Commissioner (from Bangkok) was appointed to the court of Chiang Mai, and the Northern Kingdom began to be politically combined into the Kingdom of Siam.¹ The people of Chiang Mai came from a diversity of ethnic groups who integrated into a united group with unique cultural traits called "Lanna Thai" (the Northern Thai Culture). The district was economically based on agricultural and forest products (rice, tea leaves, tobacco, betel, teak, fruits, game, ivory, honey, bees wax etc..). The social class called "Social estate" was tightly knit with the economic system.

During the period of the Kingdom of Chiang Mai, (1774-1874) the society was characterized by the social estate system: The royal prince; the hereditary aristocracy (cao); minor nobility and officials (nai); the monks; the free peasants (phrai), who could be subdivided according to the nature of their obligations; and the category of "slaves" which comprised a variety of forms of personal dependence: debt clients and hereditary bondsmen (thaat), and subjected non-Thai people (khaa). These estates could be regrouped into three principal social classes: the ruling class (cao-nai), the free peasantry (phrai), and dependent labour and people (khaa). The free peasants were required to make annual contributions in kind rather than labour. They came to town once a year.²

Some Khaa who had labour obligations were brought to town to work in the houses of Cao-nai. They were allowed to build small houses on one side at the edge of the land and they engaged in all kinds of work: cleaning, washing, cooking, gardening, guarding, selling gardening products in the market. A part of the products collected from Phrai were stored for the consumption of the whole family and the rest were brought to sell in the market by the Khaa.

Most Khaa first came to town as unmarried young people; they later settled down and established their families there. There was a great change after the abolition of Thaat (slaves) in the first decade of the twentieth century; all types of obligations between Cao-nai and Khaa was ended. And a new system of a direct cash tax came; the statuses of Cao Ti (land owner) and Lukna (tenants) came to take the place of Cao-nai and Phrai.

Some Khaa who had long been in town (some of them, and their children were born here), preferred to live in town because they did not have any skill to go back to work in the rural fields; but a number of this group decided to go back to their home village where relatives and some opportunities were waiting for them. At the same time, there were opportunities for those who wanted to work in town. At about the same period, Chinese migrants had already secured several areas of business in town, for instance, wholesale and retail trade, saw mills, rice mills, and some food producing factories that made noodles, flour, sauce, liquor, and ice. More and more low-class people soon became the low-wage workers in those work areas, living in rooms or houses ordinarily provided by the owners near the factories. Marketing evidently was another alternative occupation in town. By selling some local foods, mostly vegetables and fruits, or by becoming Kuli who carried heavy things for merchants and for people who came to buy things in the market, some people could earn money to survive. They built small shacks and temporary huts behind the market. In those houses of rich people there were still some low-class people who willingly continued living in the old places earning only small rewards. It could possibly be explained that this was because they did not have any skills; they were afraid and insecure to go out to work independently; or they had a good relationship with their Cao-nai. This continuity can even be seen in some houses of rich people today in Chiang Mai City.

Not only the town poor, but also a number of rural poor who could not afford to be Lukna came to town and took the lowest earning work in the mills and factories. The rent rate of the land was high, as their share of the products was seldom even one-third. Large families found it hard to survive with this sharing, which was insufficient even

for family consumption. Young people came to town and they worked in the houses of the rich land owners, merchants, and government officials as servants, gardeners etc.; and others went to work in mills, factories, and markets.

Rural migration was not evidently defined as a factor affecting the population growth of the town. Seemingly, seasonal migration creates fluctuation in the town's population during the year. The same characteristics obviously appear at the present time; young men and women from villages work in town, they send money back home, and they go back to their villages when the farm work season comes. This may explain the low rate of population growth in the town of Chiang Mai.

A new system of ranking emerged comprising the really rich (Khon ruai, none of whom were thought to exist in the village), those who have (Khon mii) and the poor (Khon con). And without contention, gradually the poor become the "the lowly" (Khon tam tam) and the rich become "the superior" (Khon suung).³ As Chinese families become successful in business, they took more places in the upper section of the social class in town. Chiang Mai has long been a town of ethnic migrants. This characteristic allows Chinese to assimilate rapidly in the northern society; most of them marry northern Thai. It is a common story in many rich families that their Chinese fathers marry young beautiful women in the villages. The Chinese evidently played a big role in creating a channel of migration. Beside the investment in trade, factories and mills which attract many rural labours, marriages have gradually channeled people from a particular village to town. Khon Ban Daew Kan (people from the same village) is a magic word for the village poor who come to seek their fortune, and need some help in town. The rich people (Poh liang, Mae liang) usually offer the first temporary or even permanent housing in town for those who are Khon Ban Daew Kan. Because there is no formal, legal obligation, the poor feel grateful, and economically and socially depend on rich people. The relationship between Poh liang and Mae liang and the poor (Khon Tuk, Khon Con) is based on deep gratitude, and it is much tighter than the patron-client relationship found in many places. It is not a great surprise to see rural migrants continually living in Poh liang and Mae liang houses and doing household work, while their children who get some schooling in town go out and live independently.

Structurally and functionally, this is different from the migration pattern of many cities, even Bangkok. The pattern of Chiang Mai migration provides the rural poor with several channels to flee to the city. They easily find their first place in the city; some of them decide to live in the houses of Poh liang, Mae liang, who are Khon Ban Daew Kan, some live in the row houses near mills or factories which are provided by owners (without payment or very low rent rate); and others have two more alternatives: either to live and work in Cao-nai (the old noble family) houses or to live independently near the market (building houses on vacant land with no payment or paying the low-rent rate).

During the last decades, the growing economic functions of Chiang Mai city as the center of the northern regional growth (the expansion of factories, trade, communication and transportation route, establishment of the new institution of finance etc.), together with the growth in the education sector (Chiang Mai University, Technical and Teacher Training Colleges, Institute of Agricultural Technology etc.) have been accompanied by gradually changing socio-cultural systems. Indeed, there is a new pattern of rich-poor relationships occurring in the city. Rich families (Cao-nai, Poh liang, Mae liang) are unable to offer adequate assistance to the increasing number of rural poor migrants, and all houses near mills and factories are already fully occupied. The newcomers tend to form a new pattern of scattered small settlements, along the old city wall sites, and the vacant private land.

Several small areas or slums comprising old shabby houses along the outer wall take form; other slums became scattered on private lands. In general, these neighbourhoods are comparatively small and are not as so crowded as those in the cities of other developing countries. But the physical conditions of these communities are similar.

Interestingly, there have been significant changes between the former period and the last three decades. The socio-economic structure once highly controlled by the nobles of the old class structure has moved toward a new structural pattern shared by the old elites and the newly rich businessmen. New investment, and expansion of a variety of economic activities create migration of the rural poor to the city. But, the expansion of economic activities is seemingly adequate to absorb the

rural labour. Chiang Mai city is surrounded by seven districts (Hang Dong, Mae Rim, San Sai, Doi Saket, San Kam Phaeng, Sarapee, and San Pathong) within a radius of about 15 kilometers. These supply the city with sufficient labourers who work in the city and then return to their village homes. This has the advantage of lowering population congestion at the city center. Moreover, the type of seasonal migration (temporary residents) which dominates the mobility pattern, and the persistence of old patronage relationships lead to the comparatively low rate of population increase and also the absence of very large communities of low-income people.

The Growth of the City and Low-income Community.

Using a municipal area as equivalent to an urban area or city, attention to the meanings generally given for this term is useful. In Thailand, there are three types of municipal areas: cities (Nakorn), towns (Muang), and communes (Tambol). Generally, a locality is legally designated as a municipal area on the basis of population size density, revenue capabilities and ability to perform certain governmental administrative functions. Chiang Mai is designated as one of the largest municipal areas, called the Municipality of Nakorn (City) Chiang Mai, and the boundary which indicates the geographical size is limited by law (17.5 sq.kms.). As the network of socio-economic activities, communication, transportation and the communities themselves expand to the fringe, the municipality is supposed to be extended to cover all those newly built up areas normally associated with the city. But, the Municipality of Chiang Mai has kept the original boundary since its designation in 1947, while the growth of the city has become obvious. The establishment of Chiang Mai University and its large campus creates a link to the city center. In the North, the development of the existing Teacher Training College of Chiang Mai, together with a new highway road connecting Chiang Mai to Lampang, attracts a large number of people and business. Recently, the growth of the city opened to the North when the construction site of the new city hall was set about two kilometers north of the municipal boundary. On the opposite side of the city in the South, the home industries of teak and silver act as the pull factor, and along with

the development of the airport, lead to the flow of activities in that direction. On the East side, one of the busiest spots was San Pa Koi Market, but the East itself^{is} relatively less attractive at the present time.

Small communities of shabby houses clearly appeared near the markets (Varoroj, Thon Lamyai, Nawarat, San Pa Koi market), and at the largest swampy public land in the North, and in South Kam Phaeng Din. As the result of the fire at Varoroj, the largest market, a poor community nearby was cleared for the construction of shophouses. Later, a small community of about 30 houses at Chai Sri Phum was demolished, to be replaced within one year by a private low-cost housing project. As soon as some communities had been cleared, a new line of houses were formed along the city wall, preserved by law as an historical site.

The old Chiang Mai City is encircled by two rings of old walls: the brick wall is the inner one, and the earth wall is the outer one of the Northeast and Southeast, then continues on the same line to the Southwest where it once again becomes brick. The largest existing community is at Kam Phaeng Din, which means the "Earth Wall Community". This area has expanded up to the wall and across to the other side. Some people have started to break down parts of the wall to make an entrance for their houses.

The same thing continuously occurs at the municipal land serving as a funeral ground, which is near to the Southwest Outer Wall. The expansion became clear when the first shopping center on the outskirts, called "Tipa Netra Shopping Center," was constructed at the area next to the public funeral ground. Many workers and their families continued living in temporary housing at the construction site, while some moved up to build houses on the wall. This area is the second largest community of low-income people. It is evident that the construction or development of the market, together with the availability of public land, particularly the wall site, may have either direct or indirect effects on the emergence and expansion of these communities of the poor. The community has considerable interaction with the market place, where these poor people go to sell food, and perform services, such as carrying things, cleaning,

riding a tricycle ("Sam-Lor") for passengers and goods. Consequently, the community has become the home of the daily-wage earners, Sam-Lor drivers, small traders, hawkers, and construction labourers. Recently, part of the area was occupied by prostitutes and low-salaried professional people.

Today, there are nine mini communities of low-income people existing in the city, with sizes ranging from 34 houses as the smallest at Ban Mae Naew to 243 houses as the largest community at Kam Phaeng Din, in the center of the city. Who are those people? Where do they come from? What does the community look like? All these questions have not been deep concerns of the public and the local authorities. But, the new city plan of Chiang Mai indicates that these areas will become the new green belt. It apparently remains unclear how to deal with the human problems there. What will be an appropriate alternative? Will it be public housing, land settlement, community development, or relocation projects? Moreover, the increasing numbers of the population in the area are a hard issue for the future planning of the city. Although the city environment is not severely damaged, as is the case in Bangkok, the continually growing communities and the destruction of the precious historical wall should be immediately taken into account by the public and government authorities.

Muban Khon Tuk

Compared to low-income areas in other developing countries, the so-called mini slum community of Chiang Mai is relatively new. There is, in fact, no appropriate word for slum or squatter community in the Northern Thai language. In Bangkok, the meaning of Lang Suam Som has been recently translated from the term "deteriorated area". Only one term of the Northern Thai Ban Khon Tuk refers to a house of poor people, but does not actually connote any of the characteristics of the slum area, such as overcrowding, unhealthy, blight, etc. But the term itself indicates smallness, shabbiness, and old age. When we ask people in these areas in Chiang Mai what we should call the communities, they say "Ban Khon Tuk", "Muban Khon Tuk, or village of the poor. Though this term does not carry the same meaning as that used in several other studies,

it is still considered to be the most relevant to the people's feeling.

In response to expanding economic activities, and social, cultural change, several Muban Khon Tuk have emerged from within the city. Because of their small size, some of these communities are easily forced out or torn down in their early stages. There are presently nine areas existing on both public and private land. Three walled Muban Khon Tuk are Kam Phaeng Din, Tipa Netra, and Santitham. The other six communities are scattered on private land near the markets. These are Patu Chiang Mai, Kaew Nawarat, San Pa Koi, Chinthatsani, Ti Moh Nob, and Ban Mae Kaew. It was found that a total of 909 households, comprising approximately 4,090 persons are now living in nine communities. The communities vary in size: 34 households at Ban Mae Kaew, 45 households at Chinthatsani, 58 households at Patu Chiang Mai, 74 households at Kaew Nawarat, 84 households at San Pa Koi, 88 households at Santhitam, 94 households at Ti Moh Nob, 188 households at Tipa Netra, and 243 households at Kam Phaeng Din. All Muban Khon Tuk of Chiang Mai City are small when they are compared to slums in Bangkok, where the average size is approximately 483 households. It is appropriate therefore, to recognize Muban Khon Tuk in Chiang Mai City as mini slum communities.

CHAPTER IV

NINE COMMUNITIES OF LOW-INCOME PEOPLE

Before proceeding to an examination of the population structure, the following section will be a brief profile of the nine mini communities of the poor in Chiang Mai City.

Patu Chiang Mai

A mini area on the southern part of the city stands on a low land area of about 1/8 square kilometer. The community faces a small road which parallels the southern inner wall. It is also very near to Patu Chiang Mai Market, one of the biggest and busiest areas, where the bus terminal for the southern route to Hang Dong, San Pathong, Chom Thong, and Hod District is located. Although, the community stands partly on swampy land, the physical outlook does not appear to be distinctive from the other nearby communities. The community is composed of 58 households living in houses of varying sizes.

The ruins of a stupa belonging to an old Buddhist temple, and a small pond, can be found in the front of the community. Since the definite boundary of the community can hardly be determined, we consequently decide the community area from the apparent outlook of the housing conditions. To go into the community, we must walk along the small path which rises over the swampy land. Next to the small pond, at the front, are a group of 6 houses, belonging to families who are the early settlers. When the first group came here, the land was vacant and slushy, with water plants all around. The settlers started building their houses and filled some parts of the land. They worked and earned day by day, intending their houses for the new born and new relatives. Some young couples built small new houses near their parents' homes. More people came to live in the area which was to be identified as Muban Khon Tuk at Patu Chiang Mai. In the southern lowland of the area, most of the people have never paid the land rent, but some who live in the north pay a small amount of money annually or monthly.

In general, the houses are small and look old; the floor is raised 1½ to 2½ meters above the swampy ground. In the north, the houses are

built on the high land, but the height is kept the same as those in the lowland areas. Most of the houses are built with low-priced local materials which are easily found in all markets, such as Tong Toeng, a kind of leaf collected from the forest to thatch the roof, as well as bamboo and other woods for the floor and wall, etc. A few houses are well constructed, look strong and are made of new materials. We were told that after a long period of living here, some families can afford to build new houses. Two of these good houses belong to higher income families who are newcomers. From what we have seen, the community is not unlike a rural village. The gathering of people, the houses, the walk path, the small plot of vegetables, the wells, the small shops in front of the houses all duplicate the rural scene where they came from.

Recently, the market of Patu Chiang Mai has been extended and improved to serve the new built-up areas, a new middle-income housing project of a private company. Commercial banks and a big tourist hotel have been developed near the market for farmers' products. Each bus of the southern route, encompassing four districts and Mae Hong Son province, brings people and products to the markets. Farmers who come and sell their products may spend many days in town. They build small temporary shelters with blankets and boxes from the nearby market. Among these farmers, some who have found a new way to earn cash everyday, decide to stay. The market is evidently playing a part in attracting more people from rural areas, and the poor communities nearby are simply gaining a larger population within a short time.

Tipa Netra

The second largest community is located behind the fence of Tipa Netra market. Only recently has the area been recognized by the public as one of Muban Khon Tuk. About ten years ago when the first big market and shopping center were constructed by the private company near the outer old wall of the city in the south, there existed a large number of small houses scattered on the large public land area. Later, many temporary houses were built by workers to accommodate themselves to live near their work place. Since some people decided to continue staying after the end of

the construction, there were more houses added to the already existing number. Once it is known that work is readily available, that there is an opportunity to earn money from selling food, that goods and services are plentiful at the new shopping center, more and more people come, and choose to build their houses wherever there is vacant land and even on the other side of the wall when the area behind the market fence is totally occupied. By moving across to the other side, people have to level the land by breaking the wall, which is about ten meters high. To have additional land for their houses, some people fill a part of the canal which parallels the wall to the southern boundary of the old historic city. Some of the bricks taken from the wall are used for several purposes, e.g., walk path, well, ground floor etc. Wisely enough, some people who have just moved into the community find it is easier to build their houses on the top of the flattened wall. They also make step-ways down to the ground so that they can have access to the community, shops, and canal.

The settlements are formed by two connected parts: the wall and the ground settlements, both different in their physical layout and house characteristics. Due to differences in the land structure, status of occupancy, and occupants, the wall settlements of the wall part are characterized by a group of temporary houses, while the ground settlement is composed of strong, well-constructed houses.

When the early settlers moved into this community, the land was wild and uninhabited. They built small temporary houses with available cheap materials (wood, plastic or paper boxes and bags, corrugated iron, split bamboos etc.). The houses generally had the appearance of makeshift structures. After having been in the community for a long time, some of them began to build new houses, and some improved their houses by replacing sections with new strong materials. About three years ago the land on which they had long been squatting was declared by the local authorities as being under the title of the Municipality of Chiang Mai and the Crown Property. These occupants have just recently paid the annual land rent, which is about 5 baht per square wa. This may be the changing point which may stimulate more people to improve their housing conditions. During the survey period, it was reported that three houses were being constructed to replace old ones.

Unlike the early settlers, the newcomers do not feel secure when they have to settle on the top of the wall, or at the area between the wall's base and the canal. Their houses are small, each is a one-room house, and none have been recorded as having any improvements.

Ranking as the second largest community of low-income people, Tipa Netra is composed of approximately 188 households or 902 persons. The people residing here come from many places; it was observed by the team that the community's characteristics are more diverse in nationality and religion than the other eight areas. Two small households of hill people reportedly have recently moved into the community. They were initially invited to settle at the tourist area called "The Center of Northern Culture". They built their houses in that compound and sell their handicrafts to the tourists.

In short, Muban Khon Tuk at Tipa Netra is evidently increasing in its size and density as the city sprawls downward to the south, to the new built-up areas of business, residence, and small industries. Moreover, it is documented in the national and regional plans that the airport will be developed into an international one. In order to accelerate the economy of the northern region, the tourist sector of Chiang Mai aims to be one of the most successful businesses, and will be extensively developed by both national and local, government and private organizations. To facilitate this tourist business, the first attempt has been made to create rapid transportation to the city. Because of this development, the community at Tipa Netra will possibly become a fast-growing area.

Kaew Nawarat

This community is a small compact area, located behind the busy scene of the major road named Kaew Nawarat. Across the Ping River to the eastern side of the city, the big market "San Pa Koi" and a long line of shophouses on this road are considered as the largest wholesale area. This business area had long represented the trade center for both imported goods and farmer's products. While the descendants of the old aristocrats and the noble men formed their community and built big houses surrounded with high walls (Kuam and Tuek) on the land along both sides of the river, the new Chinese migrants settled along the major road about ½ kilometer from

the rich community. A variety of producing units and trade was rapidly increasing at the area of San Pa Koi. These included a rice mill, factories producing sauce, noodles and ice, markets, many Kodang of several kinds of farmer's products and big companies who imported goods.

San Pa Koi has attracted many business people who have settled in the area. Behind the buildings and shophouses there is a community where those working men can find low-rent housing, or vacant land to build their houses. The houses have a makeshift appearance, and are not well built. There is a narrow wooden walkway over the swampy land going from house to house. Compared to other slum communities, this area is more crowded and deteriorated. Many houses facing a small road in the northern part of the community extend the front of the houses as shops selling miscellaneous items, such as candies, toys, rice, fruits, or gasoline. This is the place where people of all ages come to meet; they spend time talking and exchanging news. Some children follow their mothers to the shops and play games while waiting.

A number of households (75) are now living in this community and most of the people are daily wage earners working in the rice mill, market, and small factories nearby.

Apparently, the area has become congested and it seems to be so fully occupied that no other houses can be added. Since the land belongs to a private owner and the area is small, it has already reached full capacity. It is possible that this community will tend to increase in population and density rather than expand its area size.

San Pa Koi

Muban Khon Tuk, near a military base in Chiang Mai and the big market of San Pa Koi, surprises many people who have not been in the area for a long time. Today, there exists a new, large community at the east side of the military base, where people live in houses clustered around an area of about $\frac{1}{4}$ square kilometer. They are poor, and they are people who rely mostly on their daily earnings. The big market at San Pa Koi and the factories located nearby are their work places. There are a number of Sam-lor parked in front of the houses, indicating their other main occupation.

It is interesting to see that the physical features of this community differ markedly from others. Although there is a lack of necessary facilities, the community area appears to be pleasant and clean, showing adequate care by the residents. The community gives a feeling of being a small rural village; it is not crowded, and there is a clear throughfare through the whole area. In the north, row houses, consisting of ten rooms, are the low-rent housing for late settlers. Some households are those of families of young men who were conscripted into the army. While the army provides accommodations for all its soldiers, those who are not professionals are not allowed to bring their families.

There will continue to be a trend for this community to receive more poor people from both rural areas and other over-populated communities. However, the location has not been designated as appropriate for a shopping center or business district due to its proximity to the big military base. Under security laws and military regulations, high buildings are not permitted to be constructed around the base. Thus, while it is possible that this area will experience an increase in population soon, it will be necessary to continue to observe the recent growth of business and commercial activities here.

Chinthatsani

Although the street passing Muban Khon Tuk at Chinthatsani is small, many people like to use this street because it is a short cut from Bamroong Raj Road to Charoen Muang Road, the district with three big schools. There are a number of small houses (45 units) on the west side of the street and in general, the area gives us a picture of people living together in the environment of a rural village. There is a well in the community for the residents' use. Space around the house is arranged by each household to include a place for the children, for drying clothes and for cooking, etc. Since the community is small, there is little activity in the nearby business and commercial district. Thus, there is little reason to anticipate considerable growth for this community in the years to come unless there is new investment to develop the commercial activities which would possibly bring the district back to life again.

Santitham

Along the outer wall in the northwest of Chiang Mai City, a sprawling community of about 88 households is situated. Distinctively, the area is far from the busy road, and surrounded by a wide private estate waiting to be divided up for a housing project. Because one side in the northwest part faces the public funeral place, this makes it possible for people in the community to be less crowded. They use a part of this land to dry their clothes and food and as playground for their children. The community is young, being about 15-20 years old. Some people were evicted from another small low-income community located near the Municipal Stadium. In the past several years, the Stadium has been the site of the biggest fair in the city, held each year during the 7 day-holidays. Chiang Mai people, particularly rural people, the old, the young and children consider it as a very special occasion, after the first work season is ended. They come with their pockets full of money to travel around, to entertain themselves with movies, games, new advertised goods, foods, etc. It is not only fun; some come to buy goods, clothes and new farm tools. Many of the young people decide to stay in the city. It is usual that these rural people spend more than one night or even up to seven nights in the city. Having sleeping sets (mat, pillow, and blanket) they can lay down anywhere behind the wall of the stadium. The area has become well known among these rural people, and it is a good place for those who decide to seek their fortune in town. In the last 5 years, part of the land was developed as a new housing investment for middle income families. When the poor had to move, they found it was easy for them to settle down in the nearest available area along the wall. Most people in Chiang Mai City do not know about this low-income community.

Since the northwest wall is very old and has not been restored, most parts of the wall are falling down. The houses are built partly on land and partly on the old water way which has water in rainy season. Some people whose houses are small manage to build them on the land, and have their pigstys over the water.

It we go to the community during the daytime, it is very quiet. Many houses are left open, but nobody is at home. The community becomes alive in the evening when they get back from work. Everybody has to go out

very early and often get back quite late. It is obvious that there are many young adults living in this area; they work in the tobacco factory, wood carving factories, and construction sites. Some travel quite a long distance to their work places.

At the present time, the land is fully occupied. People living in the southern part of the community are involved in legal problems with the landowner, whose land is next to the water way. This is still a big debate as to whether the land is part of the old water way or private land.

The market nearby has been recently expanded. Three and four-storey shophouses were constructed about half a kilometer to the northeast side of the community. Considering that the land is limited for newcomers wanting to build houses, and that the physical structure of the area does not allow existing houses to be expanded easily, this section will probably not grow at a fast pace.

Kam Phaeng Din

The largest and oldest community of the poor (243 households) in Chiang Mai, is located behind the scene of today's busiest district of the city, along Ta Pae Road and is known as Kam Phaeng Din. Its name has several meanings, and this community is recognized for being a most unpleasant environment, experiencing social and physical deterioration and has particularly become the haunt of prostitutes, gamblers and drunken men.

The area is located along a small street which runs parallel with the old wall from Ta Par Road to Loi Kraw Road. Many small houses stand on the low land area on the west of street, and across the wall to the other side in the east. A number of houses are new, well constructed and painted bright colours. The community has a long shape and is divided into two parts: Kam Phaeng Din Nue (northern part) and Kam Phaeng Din Tai (southern part). In the north the land level is about 3-5 feet lower than the street level, and is slushy almost the whole year. To reach each house, we have to walk on the wooden walkway. A group of two to six houses joins the same walkway. Among those beside the street, there exist many houses dealing with prostitution. This creates some

difficulties, as well as uncomfortable feelings, for those residents living near the houses of prostitution. As we enter the community, we can easily see the words written on the doors warning people not to enter their houses and not to make mistakes.

In the south, many houses along the street are big, and new; some of them are two-storey buildings. At the corner of the road, there is a row of shophouses newly opened for business. Similarly, the land level is about 3-7 feet lower than the street, the floor is raised above the water level, and there are plenty of water plants all around. Consequently, some people have found another way to earn money: by raising ducks. People easily drop garbage and litter under and around their houses. Again, a well-known business in this area is prostitution.

For those who have long been living here, they feel a great change has taken place in their community. In the past, part of the land in the southwest area was inhabited by people suffering from aliment disease. After they had been cured in the hospital, they were allowed to come back to live in the community. They thus grouped themselves on the side of the community where the land was undesirable for others. At the present time, there is no sign of these settlers. A settlement of a group of the lowest wage workers of the municipality had begun almost at the same time on the opposite side. Because they work in the sanitation section located in this area, they found it is convenient to live near their work place. They can also find vacant land where they can build their houses.

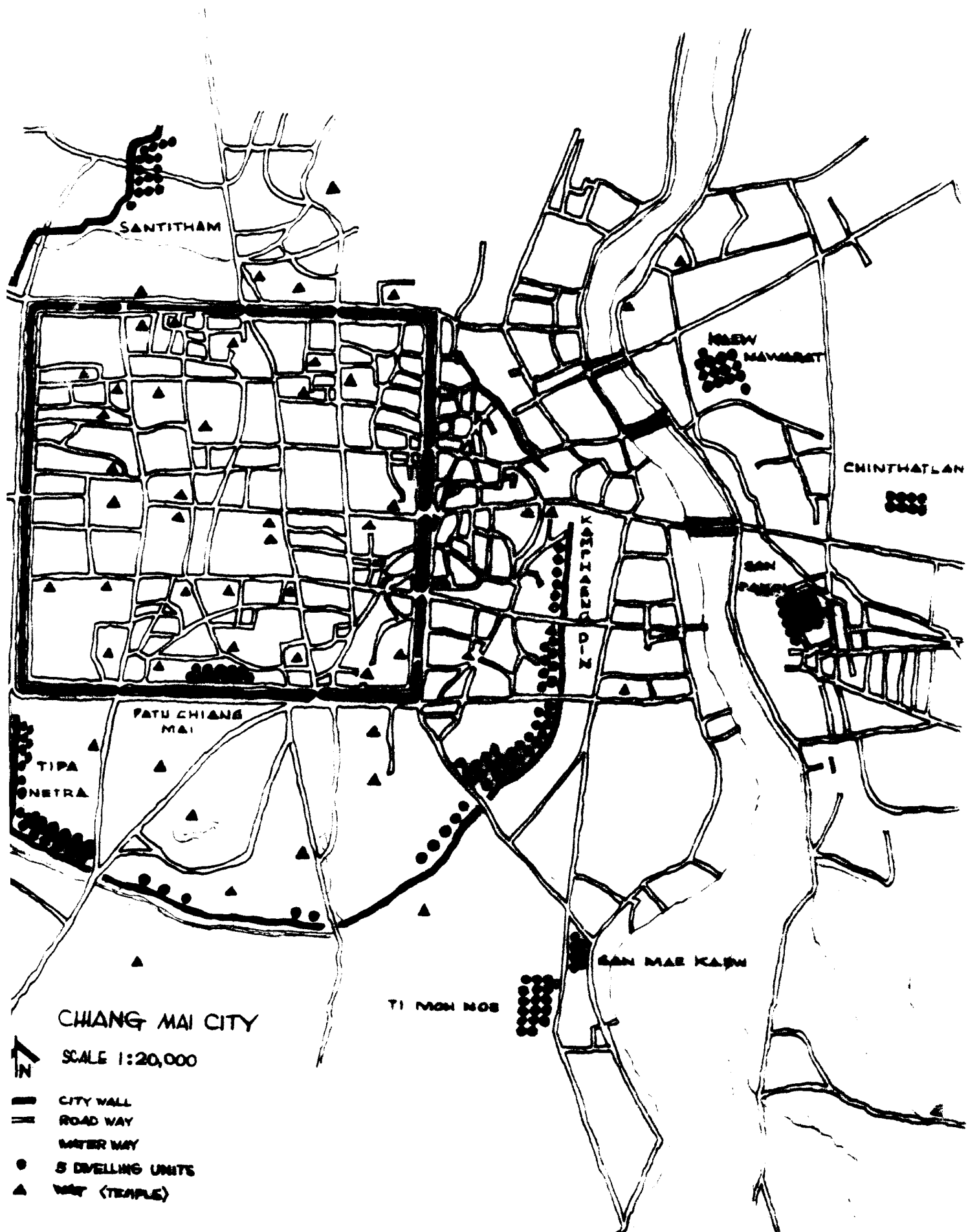
Since the community is in a good location, not very far from the business district on Ta Pae Road which has several commercial activities, services, and entertainment, a great number of people rapidly flow into the area, and today the community is crowded. The physical environment is obviously under-standard, and undesirable and this in turn leads to serious health problems.

Ti Moh Nob

Ti Moh Nob means the land of a doctor named Nob. It is situated on the area surrounded by farm land at the outskirts of the southeastern section of the city. The community area was formerly the rice field. As soon as no more space was left in the largest community at Kam Phaeng Din, the poor people quickly formed a new community about one kilometer to the southwest, where they were allowed by the owner (Moh Nob) to build their houses on a part of the rice field near to Chang Klan Road. They have legally lived there, and pay the land rent, which is about 20 baht per month for one house. During the time of the survey, almost everybody complained about and discussed with each other the question of eviction. In the last 10 years, many shops along Chang Klan Road were shut down because business on this side of the city has been very slow. Surprisingly, within the last 5 years, the area has successfully been rebuilt to become one of the most busiest places in the city, attracting more and more people. A new modern luxurious hotel for tourists opens the way for several kinds of business. The most successful investment is a night market selling a variety of goods, foods, and services. This offers some opportunities for the poor people to earn money. They can work in the shops, restaurants and hotels and they can easily earn money from selling things beside the road during the night. The business area has expanded rapidly along the road for about one half kilometer from the hotel. The old existing food market has been redeveloped to become a center for farm products from the south and the east. The growth of this side of the city draws many people, who settle down in the community at Moh Nob's land.

Ninety-four households are presently living in the community. The houses are small, and of different design and style depending on each individual's needs and the availability of materials. A network of walkways going from house to house through the whole community makes it convenient for everyone to move around. Some people dig a small pit to keep waste water from their houses. This protect the walkways and ground around the houses, but this dirty water has a very strong smell and has become a breeding area for mosquitoes.

Simply because the owner of the land does not intend to let the poor people live there permanently, the land area has not been divided in an



orderly fashion. There is no definite pattern for the existing dwellings and use of space. As a general rule, all people seem to have done all things freely in any way they want. Consequently, this community area is rapidly becoming dense, and has deteriorated. When the expansion of business comes along Chang Klan Road, it is anticipated that the land value will double the old price, and that will be the time for the poor to move out to other places. Before the survey in this studied area ended in December 1977, a part of the community had already been cleared, and some people moved to Tipa Netra, while some built houses at San Pa Koi and Ban Mae Kaew.

Ban Mae Kaew

Across Chang Klan Road to the north of Ti Moh Nob, there exists a cluster of houses on a small area of private land which belong to Mae Kaew. The house of mother Kaew is the meaning of this community located in a low area, facing the road in the front and the river in the back. Almost every year, for about three months, the land is flooded during the rainy season. People helped to build a small wooden walkway above the water level, but later most of the walkways were damaged and fell down. The community is the smallest area, consisting of 34 households living in shabby houses built on stilts. Since this community is quite young, and there are some natural disadvantages, the area is not congested. Each house has enough outdoor space, and the outlook of the area is considered to be more pleasant than others (except in the rainy season). The land rent is between 20-30 baht per month for one house.

In front of the area there is one house whose floor is raised to the same level as the road. The owner has opened a coffeeshop where people passing by and those who live in this community can come to meet friends, buy food and groceries.

Certainly, after the community at Ti Moh Nob is cleared, Ban Mae Kaew will soon become more crowded. This is not too far away, because eviction has recently started, and the residents at Ban Mae Kaew have begun to talk about welcoming their friends to the community.

CHAPTER V
POPULATION COMPOSITION AND CHANGE

As regards the population composition of the surveyed areas, male and female population obviously shares about the same percentage of total population. It is indicated from the total number of 955 persons that males and females comprise 49.0 and 51.0 percent respectively. Most of the people living in these areas are young. About 75 percent or three-fourths of the population fall into the age-group below 39 years old, and they are distributed among four age groups.

Table 3: Distribution of Population among age-group

Age group	Frequency	Percentage
1 - 5	87	9.1
6 - 10	116	12.1
11 - 19	233	24.5
20 - 29	201	21.0
30 - 39	99	10.4
40 - 49	117	12.2
50 - 59	58	6.1
60 +	44	4.6
Total	955	100.0

There are 233 persons (24.5%) occupying the age group of young adults which includes those who are in the active labour force. Fifty-two percent are children and unmarried adults, thirty-nine percent are married, and the rest are widowed and separated persons. Again, we see the characteristics of the population composition in these slums where the majority, about 75 percent, are in the labour force when persons aged 11 to 59 are counted. This great proportion of young people leads to a small number of births represented by only 25.5 percent in the category of having one new-born child in the household in the last five years. The majority of households responded in the first category

of "none". Twenty households or 13.0 percent of households have 2 to 3 new born children.

It is interesting that there is a great variation in household size of from 1 to 16 persons. But the medium between two categories, 3-4 and 5-6 persons, is dominant with its percentage of 40.5 and 26.5 percent. The smallest households mostly are new married couples; and one-person households can also be found in many places. They are young men who have just came to town to find job, and they build one-room shelters. Some of them are wanderers who have not yet decided where to live and what to do permanently. Two of our sample told us that they left their parents and relatives behind in the village. They want just to earn money to send home. They are poor farmers owning a small rice field which is insufficient to grow rice for the family consumption. Having been in the Muban Khon Tuk for almost one year, one man sent 800 baht back home and the other is lucky to have saved a larger sum of about 2,000 baht, which is enough for his family to pay a part of their debts. As long as these young farmers in town can help to support their families and as long as there is no better chance for them to get permanent jobs in town, it is doubtful that they really want to go back to their villages. But without any hope in the village, like many other families who have decided to move to town when their chance in the village has diminished, their families will also come to town.

Table 4: Distribution of Household Size

Household size	Frequency	Percentage
1 - 2	25	12.5
3 - 4	81	40.4
5 - 6	53	26.5
7 - 8	27	13.0
9 - 10	11	5.5
11 +	3	1.5
Total	200	100.0

A majority comprising 426 persons (44.6%) have been living in town for more than 16 years; and roughly about 32 percent have been living in Chiang Mai City as long-time migrants. There is certainly a small number of the new independent migrants or wanderers living in all areas at the present time. Although the number is small, the early mobility of these cases has important implications on examining the probability of the slum area increasing in the future.

Table 5: Time Length of Living in Chiang Mai City

Length of Time (years)	Frequency	Percentage
1 -	33	3.4
1 - 2	36	9.0
3 - 5	79	8.3
6 - 8	106	11.1
9 - 12	119	12.5
13 - 15	93	9.7
16 +	426	44.6
Don't know, no answer	13	1.4
Total	955	100.0

In the same way as the young men, young women from villages come to town because they hope for better earnings to assist their families. Today, there are various sources of work available for young women in town. A great source is in the houses of middle and high income families, where young women are needed to take care of all housework. As a servant, the young woman is fully provided with a room and meals, but she receives a very low wage, ranging from 100 baht per month for young, inexperienced women to 500 baht per month for those who are experienced. It usually takes young women about 3-5 years, starting from the lowest wage to reach the highest. This means that they only get 3.3 to 16.6 baht per day which is very low. A great number of young women from villages, however, flow into this work sector, which is considered to be the safest

place for living in town. Until recently, some middle and high income families have talked about difficulties in finding servants from the villages. While the demand is getting larger, the labour supply in this sector is decreasing, as the number of young women decreases. The new expanding activities in business and industry, where the higher wage (10 to 20 baht per day) is offered, have absorbed a large number of these migrants. Young rural women constantly move to town.

Without provision of rooms and meals from those work places young women have to find their first place in town in the area of cheap housing. Unlike men, women usually come in groups, or accompanied by their mothers. Thus, it is not unusual to find a household of a mother and several daughters.

Interestingly enough, 3 households interviewed are a special type of household existing in 3 Mubans: they are houses of prostitution. Although the total number of these households cannot be obtained, the existence of these households is very obvious, particularly in the largest slum at Kam Phaeng Din. There are many houses of prostitution scattered along both sides of the road which runs through the community of Kam Phaeng Din Nue and Kam Phaeng Din Tai (the north and south earth wall). The availability of work, the opportunity to earn high income in these households have ostensibly created a channel for women's migration from village to city for a long time to come.

Education, Occupation, and Income of Poor people

Children in these nine areas go to either the government schools or municipal schools which are usually located in the area of the Buddhist Temples near the communities. Most of the children were born in the city, and they have a better opportunity than their parents who have grown up in the villages. In the past, compulsory education was 4 years (pathom 4), and it has been extended to 7 years under the new education development plan. Consequently, there is a large group in the category of 4 years of schooling. About 41.5 percent of people in those areas reported having four years of schooling. Similar to those in other low-income areas, there are a great number of people (22.5 percent of 215 persons)

who have never had any kind of education. Only 3 out of a total of 955 persons have earned certificates (Prakatsanibat).

In short, it was learned that people in slum areas do not have problems about school, and under the present law they must send all their children to school for compulsory education.

Living close to the markets, many people earn their daily living from working there. There is a distinction between women's and men's work in the market. Women usually sell a variety of foods (meat, vegetables, fruits etc.), while most of the men work as Kuli (carrying heavy things), or as Samlor drivers. Not surprising, when we walk into the market, we see many women, but very few men.

Table 6: Distribution of Population on the Education Attainment

Education attainment	Frequency	Percentage
Pathom 4 -	162	17.0
Pathom 4	397	41.6
Pathom 5 - 7	89	9.3
Mathayom 1 - 3	63	6.5
Mathayom 4 - 5	11	1.2
Diploma, Certificate	3	0.3
No education	215	22.5
Don't know, no answer	15	1.6
Total	955	100.0

To sell food in the market seems to be the first simple thing to do, and it is done just the way it is done in the villages. In early morning they carry Peaid (two baskets carried by a stick on shoulder) to the market to catch those small trucks bringing fresh vegetables, fruit and forest products from villages. All these foods normally bring them about 50 to 100 percent profit. This means that they will earn 5 to 10 baht if they buy those products from the truck for 10 baht. In general, their daily income is between 10 to 15 baht. But some of them can earn up to 20-30 baht from a business in the big market.

Each day, the men earn approximately the same amount from carrying things, and from driving Samlor. But those who do not have a Samlor of their own have to rent, and this they earn less. Usually, they find their place at one side of the market and wait for passengers. But quite often they have to ride the Samlor around the city to get passengers waiting along the road.

They cannot expect to earn exactly the same amount everyday. Their earnings fluctuate more than persons who are selling food in the market or those who travel around the city to sell food and goods.

Besides the category of "no occupation" which mostly refers to children, the high percentage reveals a large number of people, about 282 persons or 29.5 percent, who work as labourers in several places. Construction sites and small factories tend to be more attractive work places for them, particularly those young men and women. Because it does not require much experience, they can easily learn how to work in those places, and they start to earn money the first day without any requirements for an apprentice period. Moreover, they told us the reasons they choose to work in the factory and in construction: first, they can earn an exact amount as their daily wage; second, there is no difference in the wage rate between people of different ages, and they can start earning the same amount at the age of 13, or even younger; third, it is the excitement of going to work with a group, either friends or family.

Table 7: Distribution of Population on types of occupation

Occupation	Frequency	Percentage
Wage labourer	282	29.5
Samlor driver	10	1.1
Market seller, hawker	104	10.8
Paper bag maker	10	1.1
Services	43	4.5
Vegetable grower	10	1.1
No occupation	495	51.8
Don't know, no answer	1	0.1
Total	955	100.0

Let us now look at service work, which is the only type of work that is totally occupied by women. In this category, including waitress in the restaurants and prostitutes, there are 43 persons from household samples who engage in this area. Comparatively, they are the highest earning category. Each individual, specifically those who are prostitutes, get their daily income of approximately 50-70 baht. The business generally uses the sharing system between the women and the house owners. If the room and meals are provided, they share half with the owners; and they get two-thirds when they do not want the accommodation. The first type is evidently common in all three slums where this business exists. There is a wide range of between 3 to 30 women in a house. This is considered to be a special household type; a group of women are sharing space in the house; they eat together and they do the business. Due to the character of their occupation, most women here are not permanent residents. It was found that the majority of our interviewees from this category are new migrants; they have just moved into the house for 1 to 2 years. A woman told us that she really wanted to go back to the village after saving an amount of money sufficient to cover her family debts. This is common; they choose either to go back to villages or to go to the next city.

Life in the city is rather different for rural people. In slum areas, it seems like no one can stay home idly doing nothing the whole day. Some who are at home (such as small children, older people, middle-aged housewives) engage in some productive activities. They sometimes sell meals, candies and desserts in front of their houses. In the Chiang Mai slum, the area is not so crowded and there is still some space for many families to grow vegetables for the nearby market. Ten people of our household samples grow a variety of vegetables in small plots of land, and they usually go to sell it by themselves. This brings them only small amount of money in each season.

Beside this work, even though the earnings are considerably low, a number of poor people earn money (about 20 baht per week) from making paper bags. Children mostly help do this job after they get back from school. Paper bag making as a way to earn some income is appropriately counted as a category or occupation among these poor people.

Table 8: Distribution of Population on income class

Monthly income (baht)	Frequency	Percentage
500 -	134	14.0
501 - 1,000	225	26.7
1,001 - 2,000	51	5.4
2,001 - 3,000	7	0.7
3,001 - 4,000	1	0.1
4,001 - 5,000	2	0.2
No income	496	51.9
Don't know, no answer	9	1.0
Total	955	100.0

Regarding the figures of income, the findings show a large number of persons in the category of "501-1,000 baht" as a majority (excluding a category of "no income" which refers to a group of children).

From Table 8, a large number of 496 persons (51.8%) is indicated in the category of "no occupation", and this must be cautiously examined. The number includes all children of both groups, students and small children. As mentioned earlier, the number of non-working persons is minimal in Muban Khon Tuk. This means that the individual income among these people is at ^{the} middle level. There are persons whose income exceeds 3,000 baht; they are owners of grocery shops. Although almost everyone in the household engages in different activities, only one person in the family works and earns the main income of the household, and the others who are supportive earn very small amounts of money. Accordingly, when we consider the household income (Table 9), it comes out that the majority of households occupy roughly the same range of income class as individuals, 30.5 percent at category of "501-1,000", 27.5 percent at "1,001-1,500".

Moreover, the figures show that the earnings of 22 households or 10.5 percent exceed 3,000 baht. This group includes households of shop owners, and households of prostitution. In short, people in Muban Khon Tuk

in Chiang Mai engage in several types of work; they work as wage labourers in factories, construction sites, and also in the markets as kuli. Women mostly engage in small businesses in the market, selling foods and a variety of goods. Not everyone earns a large income; many engage in activities of low monetary value and their household income is considerably lower. Furthermore, there are daily wage earners who cannot expect a regular income. For those who sell food in the markets, their decisions on investment one day cannot guarantee the same amount of profit the next day.

Table 9: Distribution of Household on income class

Household income (baht)	Frequency	Percentage
500 -	3	1.5
501 - 1,000	61	30.5
1,001 - 1,500	55	27.5
1,501 - 2,000	30	15.0
2,001 - 3,000	29	14.5
3,001 - 4,000	13	6.5
4,001 - 5,000	4	2.0
5,000 +	5	2.0
Total	200	100.0

Origin, Nationality, Religion and Language

Many people say "slums are the home of migrants", and Laquine says "slums are for people". This reminds us of a fact of life that in one corner of the city a variety of people come from many places to settle down. They primarily begin to settle the same way, building houses, seeking jobs etc. They come, live together and become neighbors.

The results from the question "where do you come from?" indicate that the majority (72.8%) of them are native people of Chiang Mai, and about half of them (362 out of table 747 persons) are second generation who were born in Chiang Mai City. Within this group it was found that long-time migrants share a large proportion; there are few new migrants.

Other groups from 3 northern provinces (Lampang, Lamphoon, Chiang Rai) occupy the second rank in number, about 12.3 percent. All of them originate initially in the villages, but there are some who did not come directly from their villages but they spent time in other places in Chiang Mai City (in the houses of middle income, rich people) before moving in.

It is important to mention the third group who come from several provinces of the central region because they have travelled quite a long distance. Since Bangkok, the primary city, is the major attraction, and it is near to their home town, this then is an unusual case. Some of them pointed out that they were primarily wanderers who wanted to visit

Table 10: Distribution of Population on the place of origin

Place of origin	Frequency	Percentage
Chiang Mai	747	78.2
Other northern provinces	118	12.4
Northeastern provinces	6	0.6
Central provinces	71	7.4
Southern provinces	0	0.0
Other countries	4	0.4
Don't know, no answer	9	1.0
Total	955	100.0

Chiang Mai, particularly at festival time; they came to sell goods in the fair and they did not want to go back. We cannot simply say that this is the only reason for this migration. The other reason which is possible is Bangkok's capacity. The increasing hardship of life in Bangkok has already been recognized by many rural people. Moreover, the numbers unemployed are increasing, along with overcrowding in slum areas. These facts may have concerned among these rural poor. Unfortunately, there are no good figures to indicate this relationship in this study, and a further study is indicated. It is quite possible that Chiang Mai, the second largest city, will grow more rapidly in the next decades.

Now we turn to Table 11 where the figures reveal that there is a similarity in nationality; almost everybody in the household sample is reported as Thai. There are some owners of grocery shops in slum areas who are Chinese. It is noteworthy that the present study excluded some minorities due to both the legal questions and the difficulties in obtaining such data. But from what we have seen, there are other minorities living in the surveyed areas.

Table 11: Distribution of Population on Nationality

Nationality	Frequency	Percentage
Thai	950	99.5
Chinese	5	0.5
Others	0	0.0
Don't know, no answer	0	0.0
Total	955	100.0

The results in Table 12 show that the nationality of people and their religions are similar. The figures show a large number of the population (908 persons or 95.1%) are Buddhists and a few of them are Islamic, and Christian. The proportion of religions among slum people is quite normal, and this does not seem to represent any special characteristics of the area because a great majority of the kingdom's population are Buddhists. One thing that is quite obvious is that a minority tends to live close together, particularly Islamic people. They build their house near to each other.

There is little distinction in language spoken in all slum areas. This seems to be consistent with the places they come from. The figures imply the northern language is in the majority.

Table 12: Distribution of Population on religions

Religion	Frequency	Percentage
Buddhist	908	95.1
Islamic	29	3.1
Christian	17	1.7
Others	0	0.0
Don't know, no answer	1	0.1
Total	955	100.0

There is little distinction in language spoken in all slum areas. This seems to be consistent with the places they come from. The figures imply the northern language is in the majority.

CHAPTER VI

VARIOUS TYPES OF HOUSEHOLDS AND THE GROWTH OF THEIR POPULATION

Since the main purpose of this study was to investigate a particular characteristic of the relation between housing units and the population, a household as an observed unit has a different meaning from several previous studies. A household is defined as a person or persons, related or unrelated to each other living together in the same dwelling unit. The following section will be a present household population characteristics and the change of population within households as well as the factors of change (birth, death, in-moving, out-moving).

In general, the households in Muban Khon Tuk can be classified into 5 types according to the differences in their compositions. They include the following:

(1) Households composed of old parents and one or more young sons and daughters who are still single. This type can be found in all nine areas. Obviously, many of them are not recent migrants; they have moved to live in the city quite a while. It is usual that young people come first, and then their parents join them after they have found a place to settle down. A few of them came to the city a long time ago. Their children were born and grew up here, and they started working when they became adults.

(2) Households of retired old parents and a young couple with or without children. This is quite typical in the old communities like Kam Phaeng Din, Kaew Nawarat, and also the large area at Tipa Netra. Most of them have become permanent settlers, living here for 20-50 years. Usually, they have a long story about their migration and about how hard they fought to live in this new environment. But they have never been successful, while some of their friends now own land and houses in other parts of the city. They themselves developed their houses and built new strong houses. In fact, there are also some other kinds of households in this group: they include young couples moving to the city, later followed by their old parents.

(3) A typical household in the new grown up communities generally consists of a number of young adults, brothers and sisters, friends from the same village living in a housing unit. They are considered to be

new migrants because of their short period of living in the city. It is still doubtful whether they are going to continue living here in the future. It is possible to anticipate they will settle permanently settlements, if they do not have a strong will to go back to their villages.

(4) A newly-married couple with or without children can be easily found in all areas, particularly in the new communities of Tipa Netra, Santitham and San Pa hoi. Most of them have recently moved to the city, but some of them were born here and left their parents to live by themselves in the community nearby their workplace.

(5) Included in this study are households composed of a number of persons who live together in a housing unit in the business of prostitution. With recognition that there are quite a number of this special type of household existing in at least three communities (Kam Phaeng Din, Santitham, Kaew Nawarat), the investigation in this type of household is important. Except for the owner of the house, most of the people in this business are not permanent residents. They move in and move out within a period of 3-10 years. Later some of them go to other cities, but some return to live in villages.

There is a common characteristic among the first four types of household in that they usually allow relatives and friends to live in a part of their houses. Khon Ban Daew or people who come from the same village are warmly welcomed to stay with those who came earlier.

The focus of attention in the next part will be consideration on the household size in nine communities. Regarding the figures in Table 13, there is no great distinction in the household size. The normal size indicated by a large number of households falls into two categories; 62 households in the category of 3-4 persons, and 55 households of 5-6 persons (average household size in the municipal area from the survey of National Statistical Office in 1970 is 5.0 persons). The interesting point is that there is a great variation in the household size, which varies from the smallest with only one person in a household to 11 persons or more. The household size in nine communities is medium, but there are also some large size households with long-time residents. In part, the distribution of figures in the categories of large size households is

Table 13 : Distribution of Household Size by Area.

Household size person/household	Area									Total number of household.
	1	2	3	4	5	6	7	8	9	
1 - 2	3	5	2	2	2	2	7	2	0	25
3 - 4	9	18	6	6	4	6	16	14	3	82
5 - 6	1	10	6	5	4	8	17	2	2	55
7 - 8	1	5	1	6	0	3	6	2	1	25
9 - 10	0	3	0	2	2	0	2	0	1	10
11 +	1	0	0	0	0	1	1	0	0	3
										46
Total	15	41	15	21	12	20	49	20	7	200

Area code	Name of Community	Area code	Name of Community
1	Patu Chiang Mai	6	Santitham
2	Tipa Netra	7	Kam Phaeng Din
3	Kaew Navarat	8	Ti Moh Nob
4	San Pa Koi	9	Ban Mae Kaew
5	Chinthsani		

Table 14 : Distribution of Household Income by Area.

Household income baht/month	Area									Total number of household
	1	2	3	4	5	6	7	8	9	
below 500	1	1	0	0	1	0	0	0	0	3
501 - 1,000	6	14	6	4	5	7	12	4	3	61
1,001 - 1,500	4	9	6	5	1	6	17	5	2	55
1,501 - 2,000	0	5	2	2	2	3	10	7	0	31
2,001 - 3,000	4	7	1	5	3	1	4	4	0	29
3,001 - 4,000	0	3	0	4	0	1	2	0	2	12
4,001 and above	0	2	0	1	0	2	4	0	0	9
Total	15	41	15	21	12	20	49	20	7	200

affected by the household of prostitutes, particularly the figures shown in three communities at Kam Phaeng Din, Santitham, and Kaew Nawarat.

Only one or two persons of a household in all areas engage in earning duties and most of their incomes vary from 300 to 1,000 baht per month. Their household income as indicated has a high frequency falling between the category of 501-1,000 baht, 1,001-1,500 baht per month. In the large households, which have more than five persons working as prostitutes, the household income is much higher. It is between 3,000-7,000 baht.

Population Change within a Household

This study concentrates on the analysis of the change of the population within a household unit aiming to see either the household population growth or its decrement. To obtain this data, the questions concerning the number of births, deaths, in-move, and out-move within each household (or housing unit) during the period of 5 years (roughly between 1972-1977) were used by the research team.

As indicated in Table 15, the household size has tended to get larger during the past five years. The distributions in both observed times indicates a change in all categories of household size. The percentage of households of 1-2 person size has decreased from 23.0 to 12.5, while the percentage of larger size households indicates increasing trends (from 33.5 to 40.5 in the category 3-4 persons, and the increment from 22.5 to 26.5 in the category of 5-6 persons). The figures reveal that the change of household size among people in low-income communities is slow, and considered as being medium size (3-4 persons, 5-6 persons). When comparing the change between these different household sizes, there is a distinction in that small-size households change more than large-size households.

Observing the factors affecting the population change within the household, it is interesting to understand how often each event occurs during the last five years in these low-income areas. Four factors: birth, death, in-move and out-move within a household are compared in Table 16. Moreover, we considered both the changed households and those households which are stable in their population size during this period of five years.

Table 15: Frequency and Percentage of Household Size between the present year and during the past five years

Household size	During the past 5 years		The present year	
	Frequency	Percentage	Frequency	Percentage
1 - 2	46	23.0	25	12.5
3 - 4	67	33.5	81	40.5
5 - 6	45	22.5	53	26.5
7 - 8	31	15.5	27	13.5
9 - 10	10	5.0	11	5.5
11 +	1	0.5	3	1.5
Total	200	100.0	200	100.0

Regarding the figures shown in Table 16 among these four events, birth occupies the highest frequency, indicating the most frequent occurrence. The high number in all four categories of change factors (birth, death, in-move, out-move) ^{as} indicated in the first column, explains that there is little change of household size within this period of time. The results also tell us that a great number of households have not changed in size. As we observe all four factors within each household, there are about 78 households out of 200 households that have not experienced any change factors. Several reasons may explain the unchanged

Table 16: Distribution of Household among Four Factors of Population Change

Factors of	Number of cases occurring within a household						total
	1	2	3	4	5+	none	
Birth	51	15	5	0	0	129	200
Death	17	1	0	0	0	182	200
In-move	15	1	2	4	0	178	200
Out-move	25	8	5	0	2	160	200
Total	108	25	12	4	2	689	800

size of nouseholds such as age, marital status, period of living in town of nousehold members and the space left in the house as well.

Let us now consider the change of a household size in the areas of low-income people in Table 17. All numbers of birth, death, in-move, out-move in each nousehold are calculated to see the nett gain and nett loss of the household population. These results are classified among the nousehold size categories.

One of the first things that we notice in Table 17 is a great number about 88 nouseholds (44.0%), in column "0", which indicates no change of nousehold size. As stated earlier, 78 nouseholds have not experienced any kind of change factors. Thus, the number of nouseholds who have some change occurring but they keep the same size at the time of interviewing is 10. About 37.5 percent of nouseholds (75 nouseholds) in Muban Khon Tuk have increased the nousehold size by gaining 1 - 3 persons within the last five years. By contrast, some of them, 18.5 percent, have lost members and decreased nousehold size. Usually, the nousehold gain or loss is only one to two persons. The figures show that 54 nouseholds gained one new member, and 14 nouseholds gained 2 persons. For the nouseholds that decreased in size, 23 nouseholds lost one person, and there were only 10 nouseholds in the column for "2".

It is quite natural to expect a greater change in the small-size nouseholds rather than the large-size nouseholds. And it is true in the findings that there is a greater growth of small nouseholds, than that of large nouseholds. We can simply see that as the size of nouseholds get larger, the number of nouseholds get smaller. But to be precise, we can compare nouseholds of 1-6 persons and nouseholds of 7-11 persons. The first group, about 33.3 percent (53 out of 159 nouseholds) extend their size, as compared to only 29.3 percent (12 out of 41 nouseholds) of the large nouseholds.

In recent years, the expansion and emergence of areas of low-income people in Chiang Mai City becomes evident. Compared to slum areas in larger cities, like Greater Bangkok, or to slums in other countries, the population growth of nouseholds in the Chiang Mai slums is very different. While the nousehold growth in slums of the big city is strikingly observed by the public and many researchers, the nousehold growth in Chiang Mai

Table 17 : Change of Household Size within the last five years (1972-1977)

Household size.	Number of household													Total house- hold.
	Gain					0	Loss							
	3	2	1	total	total		-1	-2	-3	-4	-5			
1 - 2	3	5	14	22	23	1	1	0	0	0	0	0	46	
3 - 4	3	3	23	29	31	7	7	0	0	0	0	0	67	
5 - 6	0	2	10	12	22	12	7	5	0	0	0	0	46	
7 - 8	1	2	5	8	9	13	6	5	2	0	0	0	30	
9 - 10	0	1	2	3	3	4	2	0	1	0	1	0	10	
11 +	0	1	0	1	0	0	0	0	0	0	0	0	1	
Total	7	14	54	75	88	37	23	10	3	0	1	0	200	

slums is unexpectedly low. This is due to many reasons, as follows:

First; the area size of community is comparatively small: there is a trend to clear most of these communities.

Second; the age of the community is young, with plenty of land to allow many households to build new houses rather than crowding in the same housing unit when new members come. Consequently, the observation of the household growth within a housing unit cannot give the picture of the overall growth of slum areas.

Third; some of the households are new migrants, and sex, age and marital composition of the household do not encourage the growth of the household at the present time. But for the future, the potentialities of growth within the household is considerably high.

Fourth; as mentioned in the previous chapter, the patronage system, Poh Liang and Mae Liang, in Chiang Mai still exists and this gives more opportunity for the poor to live scattered around the city.

In short, several types of households exist in Muban Khon Tuk. We can easily classify them into 5 groups, which are households of parents and unmarried adults, parents and a young couple, a group of young adults, a young married couple, and a group of prostitutes. All households are apparently medium-size households, and only one or two persons in the household are now earning income. Some households in all areas keep their size constant. There is both growth and decrement of household size, but the overall picture shows little change among these. Whether the household gains or lose members, the number does not exceed three persons.

They Live in the Poor Housing Conditions

Conventionally, in talking about the physical conditions of low-income areas, someone may imagine an area of overcrowding and congestion. As a reflection of middle-class standards of western society on "privacy", many people tend to exaggerate that such crowded conditions obviously have low degrees of privacy, which may have an affect upon interpersonal relations, ill personalities, and social disaster. The results from many researches have documented the different situations in developing countries.

Although low-income people live in poor conditions in their city communities, with the assistance of friends, relatives, and neighbours life is not too harsh even in the midst of poverty. In Chiang Mai, poor people in Muban Khon Tuk still maintain relationships among Khon Ban Daew (people from the same village) and Khon Ban Nok.^{*} Many communities apparently copy the same life scene and physical outlook from the rural villages.

Of all the characteristics of the low-income area, the physical conditions have been emphasized most frequently. In terms of this aspect, the area of poor people should be considered physically according to the general living standard of each country. On the other hand, the poor people in Asian countries, particularly in Thailand, may live under physical conditions much inferior to those of Western low-income communities. Thus, it is an intention of this study that we will limit only the presentation and analysis of the present housing conditions concerning the structure, and the pattern. The study will not go far beyond to any judgement, or related effects of the social senses like many researches traditionally do.

Low-income people in Chiang Mai have several ways in which to accommodate themselves to the new environments of the city. They can live with the rich; they can live in the row houses provided by the factory owners and many other workplaces, and they can easily settle down on either the vacant private or public land. How they actually come into the community occurs in 4 possible ways.

First; they freely build their houses, wherever they want to, on the empty land without obtaining permission from the owners or the authorities. Some of them may later become renters when the land owner collects the rent from them.

Second, the early settlers always occupy a large piece of land. They divide it up into small pieces, and sell the right of living (Mai Sit) to the newcomers. Those who come later can build their houses on

* To people who come from the countryside, this word also has an expression of deep feeling on the cultural similarity among rural people. At the same time it refers to the difference between their culture and the city's culture.

land without an agreement with the land owners.

Third, some prefer to build cheap row-houses for renting, and this draws many poor people to the community. They rent the rooms from those early squatters.

Fourth; the last way to become residents of the low-income community is to contact the land owner directly. After learning that their land has been occupied by a number of poor people, the land owners expect some income, and they allow more people to live there as renters.

The findings show that a majority of about 167 households (83.5%) own those housing units; 30 households are renters, and only 3 households (1.5%) occupy the houses without paying rent. Considering Table 18, it similarly shows the same fact; that the majority of households in all nine areas own houses. There are more renters in only one area, Kam Phaeng Din, where the number of renters is 14 households. When we look at the table of land occupancy we see a different picture. Most of the people who illegally occupy land are squatting on either private or public land and build their houses. About 108 households or 54.0 percent of the total are now living in nine communities without paying rent. Those who are land renters, indicated by a percentage of 38.5 or a number of 77 households, pay rent of about 50 to 500 baht per year. Comparing nine communities, a high percentage of squatters are shown: 60.0 at Patu Chiang Mai, 63.4 at Tipa Netra, 80.0 at Santitham, 73.5 at Kam Phaeng Din, and 60.0 at Ti Moh Nob. It is important to note here that people who lived at Ti Moh Nob formerly paid rent, but they have recently become illegal occupants when Moh Nob stopped collecting rent due to the eviction issue. Only one area has a high percentage (33.3 or 5 households) who own the land at Patu Chiang Mai.

The land rent varies greatly between 50 to 500 baht per year. It depends on the difference in the rent system in each area. In some places, the rent rate is collected according to the size of the land, or size of the house. But some land owners simply set an equal rate for every house without regarding the land area that people occupy. When there is a close relationship between owner and renters, the rent rate may be much lower.

Table 18 : Percentage of House Occupancy Status by Area.

[illegible]

Table 19 : Percentage of Land Occupancy Status by Area.

[illegible]

People's efforts to build their own houses are very interesting. We have found that most build houses by labor available within their communities, and by cheap materials collected and bought from the factories. Surprisingly, there is a high ability on the part of the poor to pay on material cost; most of them buy materials (apart of all) from the wood factory. Their neighbors and household members actively join in constructing houses. All these efforts really confirm the ability and resources of the poor people to make it possible for them to accommodate themselves in the city.

Let us now turn to housing structure and the pattern in these low-income areas. We firstly consider the typical type of house. The house is a one-storey house with its floors raised about $1\frac{1}{2}$ to 4 meters. This is represented by 177 houses or 88.5 percent. There is no distinction between the nine communities in this characteristic, particularly; four areas including Chinthatsani, Santitham, Ti Moh Nob, Ban Mae Kaew confirm the dominance of the one-storey house by a percentage of 100.0.

It is quite common among the rural people that they use houses for several purposes: living, working, social activities, religious ceremonies, etc.. This is also true among the communities of the poor in Chiang Mai. What we emphasize here in this study are the living and working functions performed in the house. About 61.0 percent of houses are used by the low-income people as their living places. But some people earn their income making handicrafts and selling foods and candies at their houses. A percentage of 14.0 of households live and make handicrafts in houses, and 8.0 live and open small shops in front of their houses.

Regarding the house structure (roof, floor, and wall) most houses are similar to those in the village. Wide use is made of local materials, such as bamboo, leaves, thatch, bricks and wood. We can roughly classify houses into 3 types.

First, a rural-type house is constructed all with low-cost materials, mostly bamboo, thatch and leaves. The floor and wall are usually made of split bamboo and the kind of leaves available in the northern region of Thailand called "Tong Toeng". For the roof, they usually use tong toeng and thatch. Tong toeng does not last long; every one or two years they have to rebuild the whole roof. This type of house mostly belongs to the poor households who can get their supplies at low-cost and they may have some materials sent by relatives in the village.

Table 20 : Percentage of House Type by Area

[illegible]

Second, a poor city-type house is built with several kinds of materials; mostly woods, zinc, bricks, bamboo, paper boxes and plastic bags. This is the type of house which is often full of holes. These poor people simply collect materials from everywhere and build their houses. Seemingly, this type of house cannot work well during the rainy season and some people use pieces of plastic to patch the holes.

Third, there are a group of people in these communities who are mostly permanent settlers, early migrants and they are able to afford the cost of extensions or new construction with good quality materials. Their houses are well constructed by building companies made of wood, brick, cement and asbestos.

The results of the field survey about the details of house structure: roof, floor, and walls, are presented in Tables 21, 22, 23.

In the majority of houses the floor is made of wood which is mostly pieced or used woods; about 86.0 percent are in this category, and 8.0 percent in the category of bamboo. In fact, bamboo is plentiful in the northern forest, but when it is transported to the city its cost is raised. Compared to low-price woods that are available in the factory, poor people prefer to buy woods which are more expensive, but are strong and last longer. Particularly, the floor structure needs good, strong material. This is also true when we consider the wall materials, which is indicated by 72.0 percent to be in the category of wood and by 24.0 in the category of bamboo.

For the top part of the house, it is evident that most people prefer zinc, thatch and tong toeng, as the figures show 44.5 percent and 36.5 percent respectively. Other material that is quite common is ceramic tile, which is a medium-price roof.

Availability of utilities and facilities has been counted as one of the most important factors to be explored in the study of housing conditions. The lack of utilities and facilities is a common characteristic of the low-income community. Most poor people usually settle in an area of underdeveloped, low, swampy land where the cost of land development is always double the land value. This land has long been uninhabited; and all facilities and utilities are absent.

In Chiang Mai, during the survey, the availability of bath, toilet, water supply, electricity, sewage and drainage, and garbage vessel in

Table 21: Percentage of Floor Materials by Area

[illegible]

Table 23 : Percentage of Roof Materials by Area

Roof Materials	Percentage of house in each area									Percentage of total household
	1	2	3	4	5	6	7	8	9	
Thatch, Tong toeng	20.0	43.9	26.7	28.5	41.7	50.0	28.5	60.0	14.3	36.5
Zinc	73.3	29.3	66.7	61.9	58.3	35.0	34.7	40.0	57.1	44.5
Tile (Ceramic)	6.7	26.8	6.6	4.8	0.0	15.0	34.7	0.0	0.0	18.0
Bamboos	0.0	0.0	0.0	4.8	0.0	0.0	0.0	0.0	0.0	0.5
Several materials	0.0	0.0	0.0	0.0	0.0	0.0	2.1	0.0	0.0	0.5
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

each house is recorded. It was found that water supply, sewage and drainage are absent. The well and small canal are extensively used in nine communities for all purposes. Without proper knowledge, in the community at Tipa Netra many people build their outdoor bathroom and toilet above the water way, while some people use that same water for washing and cleaning. Toilet and bathroom are built separately from the house, or apart from the living section, and two houses may share these. All communities have electricity; at least 40.0 percent are recorded by the team as having electricity in their houses. Electricity may be connected directly from a neighbour's line, and they pay the money to them.

Garbage vessels seem to be absent in many places; the highest percentage of availability is about 66.7 percent at Santitham; the lowest is 13.3 percent at Patu Chiang Mai. People simply throw garbage under or beside their houses. Some people dig a pit, and occasionally burn garbage.

Now we turn to some interesting responses on the extension and repair of houses which may partly show us people's efforts to help themselves, and partly their needs to develop their living conditions. The data states almost a half of the total houses in the nine areas have been repaired or extended by dwellers (45.0%). Most of the people feel that their houses are old and deteriorated. About 58 out of 90 household gave this response. About one-third, 30 households, referred to the feeling of the narrowness of their houses.

Talking about their needs to repair or extend in the future, 54.0 percent of households will need to do that as soon as they have sufficient resources or money.

Accessibility to Social Services

Appropriate distribution of social and public services in the city has become so important that many planners and decision makers fully attempt to integrate them in the development policies of the city. Many social scientists tend to believe that the poor have less of everything. In fact, all social and public services are properly distributed in some cities, but the poor people state their problems is the accessibility to those available services.

Table 24: Percentage of Availability of Utilities and
Facilities in House by Area

Items	Percentage of house in each area								
	1	2	3	4	5	6	7	8	9
Bathroom	33.1	68.3	93.3	76.2	66.7	50.0	91.8	25.0	57.1
Toilet	46.7	87.8	100.0	95.2	91.7	70.0	97.9	75.0	100.0
Water supply	0.0	0.0	0.0	0.0	0.0	10.0	18.4	5.0	0.0
Electricity	60.0	39.0	93.3	80.9	83.3	40.0	79.6	40.0	57.1
Drainage, sewage	6.7	0.0	6.7	0.0	0.0	4.1	0.0	0.0	0.0
Garbage, vessel	13.3	29.3	46.7	66.7	33.3	15.0	51.0	10.0	42.8

In this study, an attempt has been made to determine the physical aspect (such as location of services) and further questions about people's problems with those services. Since the study broadly investigates various related questions, it is not possible to examine the topic in depth. Consequently, only the explorative nature of the research will be touched on here.

Four types of services and an additional category of workplace are studied with regard to distance and mode of travelling.

Going to get all kinds of services, schools, temples, hospitals and markets, most of the people travel roughly the same distance, not more than 3 kilometers. Those who do travel longer distances, travel about 5 kilometers to get services. Having considered the location of all services in Chiang Mai City, this finding is supported by the physical structure and arrangement of the city in many ways.

Historically, old Chiang Mai City had its dominant functions in trade and religion and the market and temple were a part of the life of the people. People travel from all directions to sell and buy goods, and pay respect to the important religious places. At the present time, there are many big markets scattered around the city; 3 markets at the center, and one in each direction at Patu Chiang Mai, Patu Chang Puenk, San Pa Koi. All these places can sufficiently serve the surrounding communities. Similarly, temples are also numerous, particularly along major roads such as Ta Pae. Thai education begins in temple areas and schools accordingly are located there to serve the communities nearby. Social services are thus well distributed in the city area.

Although a hospital is a new service provided by both the central and local government in recent years, the participation of private agencies in this type of service helps to make it sufficient for the whole city. Moreover, it is the practice of most physicians to provide health services in their private clinics to all parts of the city.

Since they usually travel such a short distance, they can walk, use a bicycle, Sam-lor, and mini-bus to get to these service places. The majority of them walk to school, temple and market, while they often take Sam-lor and mini-buses to the hospital. Seemingly, it is an easy, convenient way to travel. This is confirmed by people's responses in a simple question concerning problems which they answer either yes or no.

The question is "do you think there is a problem in using these following services?".

In short, physically, there is a good distribution in the service system of Chiang Mai City so that people from all parts have convenient access to the services, particularly the people in low-income communities. Since it is a special characteristic of the poor community to locate near the market, the market serves as a center that attracts various types of activities and services.

CHAPTER VII

CHIANG MAI CITY AND FUTURE GROWTH OF LOW-INCOME AREAS

The old city of Chiang Mai has its glorious history as a diamond of the north. The city has its essential functions in politics, administration, economy, religion, education, transportation and communication. Recently, this has been recognized by planners, decision makers and the government that Chiang Mai is to become the center of regional development because of the richness in both natural and human resources.

In spite of the fact that there is rapid growth of new built up settlements in all directions of the city, the population growth of the city (Chiang Mai Municipality) is low and changes slowly. There must be some sound reason for this interesting phenomena and some possible answers should be given through this study.

Definitely, there is an obvious growth in socio-economic activities and the population of the city which can be demonstrated by an increasing number of activities. During the last decades, a large number of new activities have increased rapidly at an unusual rate, while the legal geographical size of the city has kept constant for more than 30 years. This is a great problem for local administration and the management of social and public services. While the number of service users residing outside the municipal boundary is increasing, the revenues collected and the provision of services are unchanged. Consequently, there is an additional loss of the Municipal Revenues. Fortunately many types of private investment share the burdens with the city, and the lack of social services is not so clearly evident.

From the study on the population growth of the municipal area, this reveals slowly changing numbers. Even worse, the number of out-moves from the municipal area is great due to the migration of population from the center to the fringe areas. As long as the boundary is unchanged, it is recommended that further study be made of the new built-up area in which the networks of activities are related to the city center. Furthermore, growth is comparatively more rapid at the city's fringe.

The emergence and expansion of the low-income communities and the change of its population has little effect on the growth of the city while the boundary is constant, and the population record has a hole in

the registration system. The poor people usually move around without any record of their presence because they do not need official identity to get access to jobs. The municipality office fails to record a great number of the population, particularly low-income people.

By attempting to examine the population growth in the communities of low-income people, the results of the change within a 5-year period indicates a gradually changing population. We may explain this situation in many ways.

First, an observed unit in this study is a household, which refers to a number of people living together in a housing unit. The population growth within a household is represented by the expansion of household size created by four factors: birth, death, in-move, and out-move. Thus, the study does not include the changes outside households indicated by an increase in the number of households or housing units within a community. It is quite natural to think that the newly settled community normally extends its household number at the initial stage of growth rather than household size. There is space for them to build new houses. The results from this study point out the potentialities of both community and household to grow up in the future.

Second, with the existence of traditional patterns of the rich-poor relationship, a number of low-income people do not fit into the dense communities, but are scattered around the city.

Third, usually a new community combined with the characteristics of a squatting settlement has less security. Particularly, since the private land is easily transferred and this may lead to the eviction. Thus, the poor consider it as a great risk to invest in house building.

Fourth, the population composition in ~~nine~~ communities shows a high proportion of children and young unmarried adults which respond to the slow change in population number. Also, the birth rate is low.

Fifth, most households are composed of only one spouse, and the observational period of 5 years showed little effects on population change within households. But it is considered that the potentialities for change in the long run are high.

In conclusion, this study suggests one interesting future change in low-income communities. There is apparently a trend that at the later

stages of city growth, the communities will decrease in number but there will be expansion in the community size. The growth in community size by extending the boundary at one stage will be stagnant and it will continually move up in population density. The eviction of Ti Moh Nob strongly supports this notion. Sooner or later, the areas which belong to private owners will be cleared, as the business and commercial activities expand along the road to these communities. Patu Chiang Mai, Ban Mae Kaew, Kaew Nawarat, San Pa Koi and Chinthatsani, are the examples which should be observed.

Unlike the situations at Patu Chiang Mai and Ban Mae Kaew, the owners of land in the three communities at Kaew Nawarat, San Pa Koi and Chinthatsani may delay eviction because the business district at San Pa Koi has become old and has been stagnant for a long time. Three big communities on public land at Kam Phaeng Din, Santitham, and Tipa Netra will gain more population in the near future.

Recognizing the population growth of Chiang Mai City and the low-income communities, this present study attempts lastly to put forward some suggestions on the existing situations:

(1) Beside Bangkok which has long been the center of interest, the population growth in many large cities including Chiang Mai City should be intensively studied by government organizations, and this should be the serious concern of local government, decision makers, planners and the central government as well.

(2) The advantages in extending the boundary of Chiang Mai Municipality is substantial since the local government will finally solve at least the problem of revenue and the provision of social and public services, and the confusion of administrative dependence on the central government. At the same time that the local government becomes more independent, a great sum of revenue from the new prosperous areas at the fringe can be utilized for the development of the city.

(3) Specifically, the communities of low-income people in the city are suggested to be the first priority in dealing with the issue of city growth and development. Chiang Mai is planned to be the center of northern regional development; the investigation in population growth is considerably important for all regional, provincial and district planning.

(4) Since, the low-income settlements in Chiang Mai City are related closely with the destruction of the very important historical sites, this problem needs to be urgently solved. It will be too late and too difficult to deal with when eviction begins in the private land areas.

(5) Lastly, to deal with low-income communities, it is recommended that all agencies involved in the planning stage should set up policies clearly defining how? where? when? to manage the residential areas for the poor. The most important is what will be an appropriate policy to deal with this problem: public housing, community development, site and services, or relocation?

FOOTNOTES

CHAPTER I

- 1 The United Nations, Improvement of Slum and Uncontrolled Settlements, 1971, p. 23.
- 2 Goldstin, Sidney, Urbanization in Thailand 1947-1967, IPS, Chulalongkorn University, Bangkok, Thailand, 1972, p. 6.
- 3 Ibid, 1972, p. 5.
- 4 Registration Office, Amphoe Maung, Chiang Mai, 1977.
- 5 UN, 1971, p. 54.
- 6 Abu-Lughod, Janet, Rural-Urban Difference as a Function of The Demographic Transition, Egyptian Data and Analytical Model. American Journal of Sociology, 69, 1964, p. 476-490.
- 7 Laquine, Aprodicio, Slums are for People, Philippine, Bustamante, 1968, p. 8.
- 8 Clinard, Marshall B, Slums and Community Development, 1966, p. 18.
- 9 UN, 1971, p. 54.
- 10 Clinard, Marshall B, 1966, p. 18.
- 11 Goldstin, Sidney, The Demography of Bangkok, IPS, 1972, p. 37.
- 13 Faculty of Social Work, Survey on Squatter Slum at Klong Toey, Thammasat University, Bangkok, 1971.

CHAPTER II

- 1 Turton, Andrew, "Northern Thai Peasant Society: Twenty Century Transformation in Political and Rural Structure" Journal of Peasant Studies, 3:3, April 1976, p. 274.
- 2 Ibid, p. 174.
- 3 Ibid, p. 276.

SEAPRAP

THE SOUTHEAST ASIA POPULATION RESEARCH AWARDS PROGRAM

PROGRAM OBJECTIVES

- * To strengthen the research capabilities of young Southeast Asian social scientists, and to provide them with technical support and guidance if required.
- * To increase the quantity and quality of social science research on population problems in Southeast Asia.
- * To facilitate the flow of information about population research developed in the program as well as its implications for policy and planning among researchers in the region, and between researchers, government planners and policy makers.

ILLUSTRATIVE RESEARCH AREAS

The range of the research areas include a wide variety of research problems relating to population, but excludes reproductive biology. The following are some examples of research areas that could fall within the general focus of the Program:

- * Factors contributing to or related to fertility regulation and family planning programs; familial, psychological, social, political and economic effects of family planning and contraception.
- * Antecedents, processes, and consequences (demographic, cultural, social, psychological, political, economic) of population structure, distribution, growth and change.
- * Family structure, sexual behaviour and the relationship between child-bearing patterns and child development.
- * Inter-relationships between population variables and the process of social and economic development (housing, education, health, quality of the environment, etc).
- * Population policy, including the interaction of population variables and economic policies, policy implications of population distribution and movement with reference to both urban and rural settings, and the interaction of population variables and law.
- * Evaluation of on-going population education programs and/or development of knowledge-based population education program.

- * Incentive schemes — infrastructures, opportunities; overall economic and social development programs.

SELECTION CRITERIA

Selection will be made by a Program Committee of distinguished Southeast Asian scholars in the social sciences and population. The following factors will be considered in evaluating research proposals:

1. relevance of the proposed research to current issues of population in the particular countries of Southeast Asia;
2. its potential contribution to policy formation, program implementation, and problem solving;
3. adequacy of research design, including problem definition, method of procedure, proposed mode of analysis, and knowledge of literature;
4. feasibility of the project, including time requirement; budget; and availability, accessibility, and reliability of data;
5. Applicant's potential for further development.

DURATION AND AMOUNT OF AWARDS

Research awards will be made for a period of up to one year. In exceptional cases, requests for limited extension may be considered. The amount of an award will depend on location, type and size of the project, but the maximum should not exceed US\$7,500.

QUALIFICATIONS OF APPLICANTS

The Program is open to nationals of the following countries: Burma, Indonesia, Kampuchea, Laos, Malaysia, Philippines, Singapore, Thailand and Vietnam. Particular emphasis will be placed on attracting young social scientists in provincial areas.

Applications are invited from the following:

- * Graduate students in thesis programs
- * Faculty members
- * Staff members in appropriate governmental and other organizations.

Full-time commitment is preferable but applicants must at least be able to devote a substantial part of their time to the research project. Advisers may be provided, depending on the needs of applicants.