# Growth stages of newly established villages in Northeast Thailand: A case study on villagers' origins in the upper-middle watershed of the Songkhram River

### NAGATA Yoshikatsu

Graduate School for Creative Cities, Osaka City University 3-3-138, Sugimoto, Sumiyoshi, Osaka 558-8585, Japan Email: nagata@media.osaka-cu.ac.jp

### ABSTRACT

The Songkhram River is one of the three major branches of the Mekong River in Northeast Thailand. According to topographic maps of the 1950s, villages were sparsely distributed in its middle and upper watershed, whereas villages were already densely distributed in the middle watershed of the other two major branches, the Chi River and the Mun River. So the watershed of the Songkhram River offered new land for farmers who eagerly desired their own farm land. Brief interviews with senior villagers of newly established villages in this area indicated that most of their original homes had been in the watershed of the Chi River and the Mun River. I conducted household-level surveys in three target villages in the middle and upper watershed of the Songkhram River to obtain information on migration history. Geographical analysis of three important places in their life, i.e., birth, marriage, and current places, suggests four stages in the growth of such new villages. While each of the four stages was of different duration, their pattern was almost similar among the three villages regardless of their location and year of establishment. This similarity may indicate a typical lifetime of a new rural village in this area.

### 1. INTRODUCTION

Watershed of the Songkhram River covers eastern Udon Thani Province, eastern Nong Khai Province, most of Sakon Nakhon Province, and northern Nakhon Phanom Province. According to topographic maps of the 1950s, villages were sparsely distributed in the upper watershed of the Songkhram River. Topographic maps of the 1980s, however, show many new villages, especially in areas that were classified as forest in the 1950s. For example, a topographic map of the 1950s covering a rectangular area between 17°40' and 17°50' north latitude, and between 103°15' and 103°30' east longitude, shows 3.9 villages per 100 square kilometers, whereas the corresponding map of the 1980s shows 13.5 villages.

Rural migration was an important custom by which farmers could obtain enough farmland in Northeast Thailand. Fukui described that migration to the upper watershed along the Chi River had been farmers' tradition of this area since 19th century (Fukui 1993). But nowadays, this tradition is declining because of lack of suitable land for reclamation.

This study aims to find common characteristics among villages established since the latter 20th century in the Songkhram watershed through the geographical analysis of the villagers' migrations. In a preliminary survey in June, 2008, interviews with senior people and village leaders in about 20 villages revealed that their reasons for migration are almost the same, but their original homes are many and various. Some farmers migrated from 300 km away, and they are by no means exceptional with regard to the migration distance.

International Symposium on Geoinformatics for Spatial Infrastructure Development in Earth and Allied Sciences 2010

Households from many different provinces are represented in such frontier villages. This is a further report after the previous report (Nagata 2008).

## 2. MATERIALS AND METHODS

## 2.1 Target Village

Since 2008, in the upper-middle watershed of the Songkhram River, I conducted household-level surveys in three villages which were not shown on the topographic maps of the 1950s. The major interview issues were: year and place of birth, year and place of marriage, household structure, migration history, agricultural activities, and religious activities.

The first target village surveyed in 2008 is here called Ban N. Administratively, it is located in Ban Dung District, Udon Thani Province, Thailand. Geographically, it is located in the upper-to-middle watershed of the Songkhram River. According to the overview booklet of Ban N issued in 2007, Ban N was officially established in 1963. Its population in 2007 was 850 people in 173 households. A primary school and a day nursery are located in the village, but the nearest secondary school is 11 km away. A Buddhist temple received certification as a *wat* in 2007, and an abandoned Christian monastery is there. In total, 146 households were interviewed. The remaining 27 households had not been resident for long at the time of the interview.

The second target village surveyed in 2009 is called Ban S. It is located in Fao Rai District, Nong Khai Province, administratively, and in the middle watershed of the Songkhram River, geographically. According to the village leader, Ban S was officially established in 1987. Its population in 2008 was 364 people in 88 households. No schools are located in the village, so students have to go to school located in the village which is 2 km away. Three Buddhist temples get daily supports from the villagers, however, none receives certification as a *wat*. In total, 70 households were interviewed which actually resided at the time of the interview.

The third target village is here called Ban C which was surveyed in 2010. It is located in Wanon Niwat District, Sakon Nakhon Province, administratively, and in the middle watershed of the Songkhram River, geographically. According to the overview booklet of Ban C, it was officially established in 1970. Its population in 2008 was 1058 people in 203 households. A primary school, a day nursery, and two Buddhist temples are located in the village. In total, 173 households were interviewed which actually resided at the time of the interview.

From the upper stream of the Songkhram River, Ban N, Ban S, and Ban C are located in sequence.

## 2.2 Geographical Preprocess

The interview items included location information at village level, such as places of birth, marriage, and past residence. Such location information was checked for its geographical coordinates, longitude and latitude, based on the name at village, *tambon*,

district, and province levels. Topographic maps of the 1950s and the 1980s were the basic geographical materials used for this process.

The greatest difficulty in this process derives from changes in name at every administrative level. This resulted in significant differences between the names known to informants and present names, especially in the case of senior informants.

### 3. DISCUSSION

#### 3.1 Birth Places

Of 289 informants and their spouses of Ban N, the birth places of 274 people are known at village level. Of these, the birth places of 266 people can be identified in terms of their locations in geographic coordinates. Here, villagers are separated into two groups by age: a) over 50 years, and b) 50 years or less. They are called the senior generation and the meridian generation, respectively.

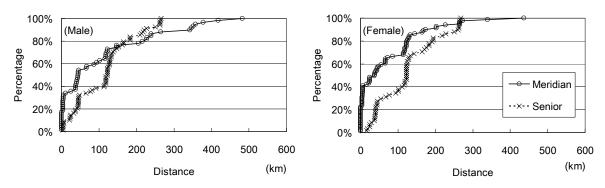


Figure 1. Cumulative Distribution of Distance of Original Homes (Ban N)

Figures 1 shows cumulative distributions of distance of original homes from Ban N by generation and sex. These figures reveal some significant points about the original homes of each generation. Only about 10 percent of the senior generation were born in neighboring villages of Ban N, whereas about 40 percent of the meridian generation were so. About 60 percent of the senior generation were born more than 100 km away, but less than 300 km away. Less than 40 percent of the meridian generation were born more than 100 km away, and their distances are more scattered than those from the senior generation. The farthest place from the meridian generation is almost 500 km away.

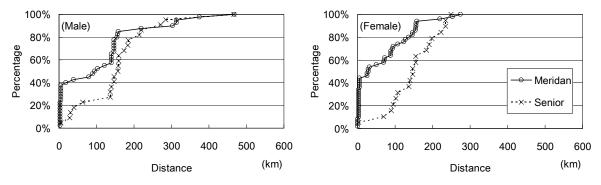


Figure 2. Cumulative Distribution of Distance of Original Homes (Ban S)

The birth places of 134 people of Ban S are known at village level, and of these, the birth places of 131 people can be identified in geographic coordinates. Figure 2 shows cumulative distributions of distance of original homes from Ban S by generation and sex. Patterns of distance distribution are roughly similar with those of Ban N, Figure 1, regardless of the generation and the sex.

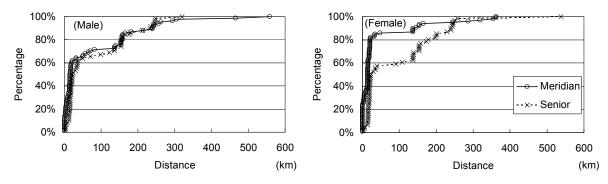


Figure 3. Cumulative Distribution of Distance of Original Homes (Ban C)

In Ban C, the birth places of 327 people are known at village level, and of these, the birth places of 306 people can be identified in geographic coordinates. Figure 3 shows cumulative distributions of distance of original homes from Ban C by generation and sex. While meridian generation and senior generation of male show similar in distance distribution, those of female show difference. Those born more than 100 km away account for 15 percent of the female meridian generation but about 40 percent of the female senior generation.

### 3.2 Growth Stage

Rural immigration was indispensable for the establishment of new villages for many years for expansion. Many migrants came from various distant areas: less than 10 percent of the senior generation of three studied villages have their origins in neighboring villages. Here, place of marriage and place of subadult are used to describe growth stages of the three villages.

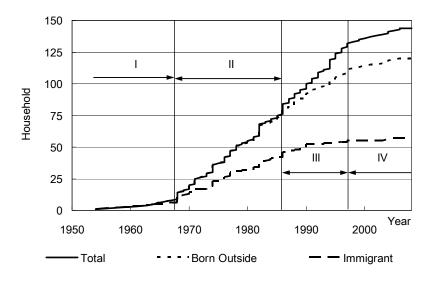


Figure 4. Cumulative Number of New Households by Year (Ban N)

Growth stages of newly established villages in Northeast Thailand: A case study on villagers' origins in the upper-middle watershed of the Songkhram River

Figure 4 shows the cumulative number of new households established by year in Ban N. In Figure 4, the long dashed line, 'immigrant', represents the cumulative number of households which immigrated after their marriage at outside of Ban N. The short dashed line, 'born outside', represents the cumulative number of households in which at least one spouse was born outside of Ban N and immigrated to Ban N before their marriage. The solid line represents the cumulative number of all households. The year of establishment is the year of immigration for immigrant households, and the year of marriage for other households. Some households are excluded since their migration histories are not clear. Also, the number of households which have emigrated to other areas are not included, as I could not obtain data on them.

From Figure 4, the history of this community can be divided into four stages: I) the early stage until 1967, II) a growth stage between 1968 and 1986, III) a growth and reproduction stage between 1987 and 1997, and IV) a slowing down stage after 1998.

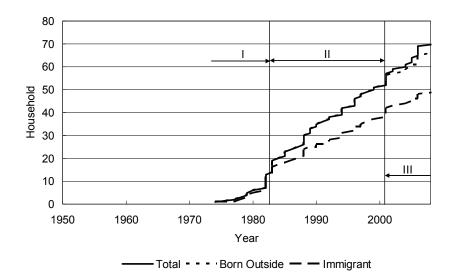


Figure 5. Cumulative Number of New Households by Year (Ban S)

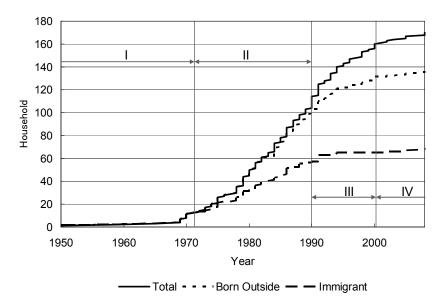


Figure 6. Cumulative Number of New Households by Year (Ban C)

Figure 5 shows the cumulative number of new households in Ban S. Ban S is younger village than Ban N, and three stages can be observed: I) the early stage until 1982, II) a growth stage between 1983 and 2001, and III) a growth and reproduction stage after 2002. Similarity of the tendency with those of Ban N may suggest that Ban S will be in the fourth stage, i.e., a slowing down stage, in several years.

Figure 6 shows the cumulative number of new households in Ban C. Four stages can be observed: I) the early stage until 1972, II) a growth stage between 1973 and 1990, III) a growth and reproduction stage between 1990 and 2000, and IV) a slowing down stage after 2001.

In Ban C, in the growth stage, the number of households increased steadily at a rate of almost five households per year, and at the end of this stage, it reached about two thirds of the present number. The third stage, the growth and reproduction stage, shows the same overall tendency as the previous stage, with households increasing at a rate of almost five per year. A significant difference, however, is that the number of immigrant households is almost none, while the remainder are derived from new couples, at least one of whom was born or grown in the community. In the recent stage, the slowing down stage, the rate of increase in household numbers is as low as only one per year. In other words, this stage can be called the saturated stage. The saturated stage is also observed in the Ban N, Figure 4.

### 4. CONCLUSION

Geographical analysis of three important places in their life, *i.e.*, birth, marriage, and current places, suggests four stages in the growth of the three target villages. While each of the four stages was of different duration, their pattern was almost similar regardless of their location and year of establishment. This similarity, the third generation of the earlier migrants may confront the saturated stage of the village, may indicate a typical lifetime of a new rural village in this area.

This is the second report in this symposium and is still interim report of my current research project. Further surveys in different villages may allow me to make a comparative study of rural migration.

### 5. ACKNOWLEDGEMENT

During the survey, Mr. Wirat Ritthitham, Mr. Somsanay Uppaphong, Mr. Sopsan Petchkam and his students conducted interviews with villagers. I would like to express my heartfelt gratitude to them all.

### 6. **REFERENCES**

Fukui, H., 1993, Food and Population in a Northeast Thai Village, University of Hawaii Press

Nagata, Y., 2008, Rural migration network in Northeast Thailand: A case study in the upper watershed of the Songkhram River, *Proceedings of the GIS-IDEAS 2008*