Peasant Transitions and Changes in Livestock Husbandry: A Comparison of Three Mien Villages in Northern Thailand

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This paper presents research aimed at elucidating the characteristics and current state of livestock husbandry in Mien society in Northern Thailand.

Three Mien villages in Phayao Province in different socioeconomic contexts and ecological environments were compared: village A lies on a hillside with limited access to the markets in the district's central town; village B is located in the lowland valley; and village C is situated in the flat lowland area and enjoys easy access to the town markets. A total of 21, 22, and 37 households in villages A, B, and C were surveyed, respectively. Interviews were conducted and the economic activities and livestock husbandry practices were directly observed. Interview topics included the sacrifice of livestock for the Mien New Year celebrations in each household in 2010. The field research was conducted in February, July, and December 2010, February 2011, and January 2012.

The following results were found. First, the main economic activity is agriculture in villages A and B; hybrid maize cultivation is an important source of cash income in these villages. In village C, however, many households earn a living through wage labor in the village. In addition, many of the residents are retired and cannot engage in intensive work due to old age. Some in the three villages must depend on money sent to them by their children working in cities to live. Second, the animals kept by the villages include chickens, pigs, dogs, cats, ducks, goats, and rabbits. Chickens and pigs are common in all three Mien villages, while goats and rabbits are seldom kept. Villagers in villages A and B seem to have a stronger awareness of the benefits of livestock husbandry than those in village C. Third, the Mien ritual of sacrificing chickens and pigs during the Mien New Year celebrations continues in all three villages, with village A having the highest average numbers of sacrificed pigs and chickens per household and village C having the lowest. The Christian Mien of village C no longer conduct Mien rituals. In general, the three needs of fresh meat, cash, and ritual drive the continuing practice of animal husbandry in the villages. Although the socioeconomic situation and ecological environment differ between village C and villages A and B, all three villages still commonly engage in livestock husbandry. Many elderly villagers in village C who are retired farmers but are no longer dependent on agriculture still engage in some animal husbandry. Given the current circumstances, the importance of small livestock husbandry may grow among the aging society of the Mien in rural areas of Northern Thailand.

### 1. Introduction

Peasants in Southeast Asia not only farm but also engage in many other subsistence and economic activities, including livestock husbandry. They raise various livestock such as cattle, water buffalo, pigs, and chickens. While most do not treat livestock husbandry as their main subsistence activity, they have a close relationship with livestock

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[Takai *et al.* 2008:146]. Livestock are sold for cash income and slaughtered for household consumption. In addition, some ethnic groups have traditionally used livestock as sacrificial animals. Livestock constitute an important and significant source of cash income for smallholders in Thailand [Charan and Pakapun 2002], although a shift in the roles of large livestock (e.g., draft animals) has occurred in northeast Thailand [Suchint *et al.* 2003].

Northern Thailand is home to many ethnic minority groups, also called "hill peoples". Among them is the Mien (or Iu Mien), who originated in south China. The Mien is classified as a sub-group of people called the Yao in China, or the Dao in Vietnam [Yoshino 2009:117]. It is believed that many hill peoples lived in the Thai uplands in the 1970s, but due to population growth, expansion of the Thai road network and other infrastructure, and agricultural transformation, hill peoples have come in recent decades to live not only in the upland hillside areas but also in the lowlands. With this change, their subsistence practices and economic activities have diversified. For example, the Mien people of Chiang Kham District, Phayao Province in Northern Thailand once engaged in shifting cultivation to grow upland rice [Yoshino 1996: 140-141], but farming methods changed to those of permanent agriculture in the mid-1990s [Masuno and Ikeya 2008]. In addition, from the early 1990s onward, many Mien started to work away from home [Yoshino et al. 1999]. Amid these rapid changes in subsistence practices and economic activities among the hill peoples, how has this affected the way they keep and use their livestock?

To answer this question, this paper presents research aimed at elucidating the characteristics and current state of livestock husbandry in Mien society in Northern Thailand, by comparing three villages in different socioeconomic contexts and ecological environments.

### 2. Research area

Research was conducted in three Mien villages in the Rom Yen Subdistrict of Chiang Kham District in Phayao Province, Northern Thailand (Figure 1). The central town of the district, Chian Kham, contains the district administrative office, markets, banks, convenience stores, and a large supermarket.

Chiang Kham District can be roughly divided into three landscapes a hillside area, a lowland valley, and a lowland flat area. The Khon Muang, Northern Thailand's dominant ethnic group (their language is a branch of the larger Tai

ethnic group), live mainly in the lowland areas, while the smaller population of the Mien live across all three areas. The Mien villages in the district send many migrant labors to foreign countries [Yoshino 2003:170].

# 2. 1 Outline of the studied villages

# 2. 1. 1 Village A

Village A (Photo 1) is located on a hillside at an altitude of around 950 m (Figure 2). It was established more than 100 years ago, and in 2009 had a population of about 130, in 21 households (Table 1). The villagers are Mien people. I have visited the village several times to conduct surveys since 2003, spending more than two years in total there.

The village is about one hour's drive by car from Chiang Kham town. Some of the villagers visit Chiang

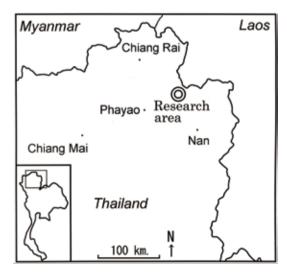


Figure 1. Research area

Kham every week to buy groceries. One third of the road to Chiang Kham is dirt, the rest is paved. During the rainy season from July to September, road conditions become poor and access to lowland is often difficult. The main subsistence and economic activity in the village is agriculture, and all households engage in upland farming. Abundant forest surrounds the village, but it has been designated as protected forest by the Royal Forest Department of Thailand since 1991 [Masuno 2009].

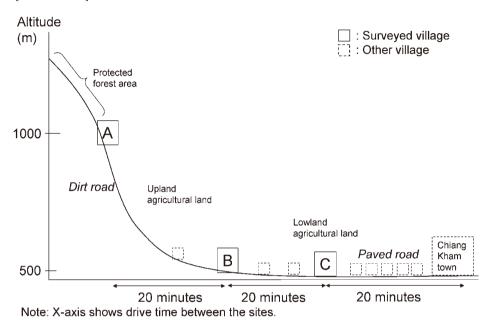


Figure 2. Schematic view of village location

Table 1. Characteristics of the villages studied

Characteristic	Village A	Village B	Village C	
Village establishment	More than 100 years ago	More than 70 years ago	1968	
Location	Hillside	Lowland valley	Lowland flat area	
Latitude (meters above sea level)	950	500	500	
Time to Chiang Kham town by car (minutes)	60	40	20	
Households (n)	21	74	130	
Surveyed households, n (%)	21 (100)	22 (30)	37 (28)	
Population (n)	130	344	581	
Christian Mien (n)	0	2 (1 household)	20 (15 households)	

Note: The number of houses and population are for 2009. The number of houses and population in village A are based on field research. The number of houses and population in villages B and C are based on interviews with village headmen. The number of Christian Mien is based on an interview with the pastor of village C in February 2011.

## 2.1.2 Village B

Village B (Photo 2) is located in a valley at an altitude of around 500 m (Figure 2). It was established more than 70 years ago, and in 2009 the population was 355, in 74 households (Table 1). The villagers are Mien people and they can use both flat lowland areas and hillside areas for agricultural purposes.

Village B also has abundant forest around it which has been designated as protected forest by the Royal Forest Department. The village is about a 40-minute drive by car from Chiang Kham town, and a 20-minute drive from village A. Half of the road from village A to village B is dirt.

## 2.1.3 Village C

Village C (Photo 3) is located on a flat plain at an altitude of around 500 m (Figure 2). The Rom Yen Subdistrict administrative office is just outside of village C. The village was founded in 1968, and in 2009 the population was 581, in 130 households (Table 1). Most of the villagers are Mien people. The village headman told me that eight households are inhabited by Tai Lue (non-Mien) people. The village is a 20-minute drive by car on paved roads from Chiang Kham town.

The people of Village C have kinship and friend networks with Mien villages across the district, including village A. Village C serves as an information center for the local Mien, and a variety of information is exchanged through the kinship and friend networks [Yoshino 2003: 180]. Village C contains a Protestant church and is the only village to have a church among the Mien villages of Chiang Kham District. In February 2011, the pastor explained to me that missionaries started their activities there in 1968 and helped to found the village.

The pastor also told me that the village C has 15 Christian Mien households (20 residents), village B has one Christian Mien household (two residents), and village A has no Christian Mien households.

### 2.2 Livestock use of the Mien people in Chiang Kham District

The Mien keep a variety of livestock and use them for many purposes, which can be roughly divided into four categories: sacrifice, labor, home consumption, and sale (Table 2). It is well known that they frequently sacrifice chickens and pigs, and much less frequently ducks and cattle, in rituals. In the study area, two species of ducks are found: the common duck (*Anas platyrhynchos*), a native species of Asia, and the Muscovy duck (*Cairina moschata*) which originated in South America. Mien people in the study area do not make a distinction between the two species

Table 2. Breakdown of livestock utilization by the Mien people in rural Northern Thailand

Livestock	Utilization					
Livestock	Sacrifice	Labor	Home consumption	Selling		
Chickens	XXX	-	XXX	Х		
Pigs	XXX	-	XXX			
Dogs	-	Χ	X	Х		
Cats	-	-	-	-		
Ducks	Х	-	X	Х		
Goats	-	-	Х			
Rabbits	-	-	Х	-		
Cattle	Х	-	XX	XXX		
Water buffalo	uffalo		Х	XX		

XXX: Very popular, XX: Popular, X: Seldom, -: Not observed

(both are *aap* in Mien language). Both species can be used in their ritual sacrifices. It has been reported that goats can also be used for Mien rituals [Chob Kacha-ananda 2000:115].

The use of working animals has declined in recent years. In the 1970s, horses played an important role carrying heavy packs in Mien villages [Hakari 1978:168-169], but pickup trucks and motorbikes have largely taken over this role. Dogs, however, still live in the village and serve as watchdogs.

There is home consumption of livestock. Chickens and pigs ritually sacrificed are eaten at feasts, and I have often seen Mien people eating chicken, pork, and beef, and sometimes duck. For the Mien, eating dog is not taboo, but few like to eat it and it is very rarely done. The Mien never eat cat.

Cattle and pigs are common livestock for sale. Chickens and dogs can also be sold if there is a buyer. The sale of pigs contributes to the household economy as a side income [Masuno and Nakai 2009]. I have never seen or heard of the sale of cats. When a newborn cat is given, it is as a gift, free of charge.

# 2.3 Mien Religion and New Year celebrations

The Mien are usually Yao Taoists [Yoshino 2005:92-93]. They practice animist rituals strongly influenced by Taoism [Schliesinger 2000:158]. In my field observations in Chiang Kham District, almost all the Mien people I observed were Yao Taoists; only a few have converted to Christianity and are strict monotheists.

The non-Christian Mien conduct a variety of rituals on a daily basis. Many of these rituals are related to ancestor worship and are conducted by Mien priests. The priests have three ranks: little priest, semi-master, and great master [Yoshino 2009:118]. The most complex rituals are conducted only by the great masters.

The Mien hold prominent annual events twice a year, around the first day of the First Month and the fourteenth day of the Seventh Month based on the lunar calendar. The former is the main festival, the New Year celebration of the Mien people. The Mien conduct ancestor worship rituals beginning around seven days before the New Year and continuing until around the seventh day of the First Month. In particular, they conduct intensive rituals of ancestor worship the day before the New Year and on the second day of the First Month. In this paper, these 14 days are referred to as the New Year celebrations, during which time a number of chickens and pigs are sacrificed for ancestor worship (Photo 4). The first day of the First Month of 2010 in the lunar calendar was February 14, 2010, and that of 2011 was February 3, 2011.

### 2.4 Classification of the main household economic activity

Based on the responses given in interviews with the householders about their main activities, the main economic activities of the households were determined to be either independent farming, day laboring in the village, salaried employment, retired from farming, or other. These main household economic activities are defined as follows. Independent farming involves cultivating the household's own land, and thus the main subsistence and economic activity of the household is agricultural. Day laboring in the village signifies laboring to earn a daily wage through a variety of work activities, such as agricultural work, and while some such households have their own agricultural land, it is too small to make a living from it. Salaried employment denotes the earning monthly salary by an employee.

Among the five categories, "retired from farming" is of special importance in this research. A retired farmer was once an independent farmer but has since retired due to old age and does not now engage in intensive subsistence or economic activity. The last category of other denotes any activities not covered by the other four categories.

#### 3. Research methods

All the households I studied in villages A, B, and C were inhabited entirely or almost entirely by Mien people. In villages A, B, and C, respectively, I studied 21 households (100% of households in the village), 22 households (30%) and 37 households (28%) (Table 1). The households were chosen randomly.

I conducted interviews with each household and made direct observations of their economic activities, livestock husbandry practices, and livestock use. In particular, during the interviews I tried to ascertain the number of livestock sacrificed during the New Year celebrations in February 2010. In village C, I also interviewed the village pastor about Christian activity in the village and livestock use by the Christian Mien.

The field research was conducted in February, March, July, and December 2010 and February 2011. Supplemental research was conducted in January 2012.

### 4. Results

## 4.1 Village A

### 4.1.1 Subsistence and economic activities

The main activity of 20 of the 21 households (95%) in village A is agricultural, specifically, independent farming in hillside fields (Figure 3). Each household grows upland rice for home consumption and maize for sale. These households consist of independent farmers cultivating their own land. The remaining household is that of a farmer retired since 2010; they depended on money sent from their children working in the city to live. With regard to age distribution, the proportion of householders in their 40s is the largest (eight houses). Householders in their 30s, 50s, 60s, and 70s or older numbered five, six, one, and one, respectively (Figure 4). The retired farmer is in his 60s.



Figure 3. Ratio of main subsistence practices and economic activities of surveyed houses in the three villages (2010)

A 2005 survey I conducted in the village showed that people in village A used 7.5 ha of agricultural land per household [Masuno and Ikeya 2008], consisting of 0.7 ha for upland rice and 6.3 ha for maize. Upland rice is grown in crop rotation with hybrid maize in permanent fields [Masuno 2011]. Observations in 2010 show a similar breakdown for agricultural land use.

Some villagers have started to tap rubber trees planted in 2003 that have now become productive. In July 2010, six of the village's 21 households were engaged in rubber tapping. Village income from selling rubber resin is rapidly increasing, but selling maize is still the village's main source of cash income. The village has some litchi and tangerine trees, but they do not produce any income. The village is surrounded by forest (Figure 2), but as it is protected forest, the villagers cannot cut the trees or use the forest land for agricultural purposes.

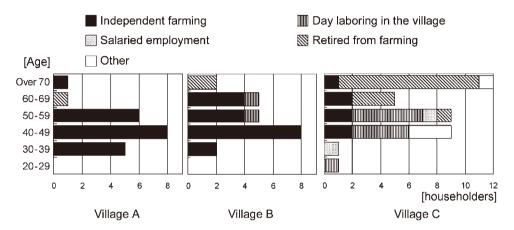


Figure 4. Age distribution of householders and main subsistence practices and economic activities of surveyed houses in the three villages (2010)

### 4.1.2. Village livestock husbandry

All households in the village keep chickens and the chickens range free around the houses [Masuno and Ikeya 2010]. Twenty of the 21 households keep mature chickens (5.7 chickens per household) (Table 3). One household has no mature chickens as they had died from an infectious disease, but they still keep chicks and immature chickens.

Pigs are confined in pigpens in the backyards. Many of the pigpens are wooden, high-floored huts (Photo 5). Twenty households raise pigs (6.2 pigs per household). In December 2010, all the pigs raised in village A were native pigs, a local breed that have black coats and sometimes white patches on body parts such as the leg and belly; their ears do not droop (Photo 6). One household did not have any pigs because they had sacrificed them all before the survey began. A household member told me that they would restart pig keeping as soon as possible. Some of the households involved in rubber tree tapping have built a small hut on the rubber plantation in which to spend the night. Two of these households have built pigpens and poultry houses near the huts so they can care for their livestock on the rubber plantation.

Dogs range free and have no kennels. Twenty households keep dogs (2.3 dogs per household). Dogs serve as watchdogs, and some are also used as hunting dogs. Cats also range free. Nine households keep cats (10 in total), in order to catch rats.

Nineteen households keep Muscovy ducks (5.2 ducks per household). Many of the Muscovy ducks range free (Photo 7), but some households keep them in cages. No households keep common ducks. Duck husbandry seems to be common in village A, but my survey in February 2010 did not find any ducks in the village. A development project run by a Thai public organization provides ducks free to the villagers. Each household got six Muscovy ducks, including one male Muscovy duck. In December 2010, newborn ducklings were observed. No cattle, goats, or rabbits were raised in the village in 2010. I have never, in my yearly visits from 2003 to 2010, seen goats or rabbits being raised in the village.

Table 3. Livestock husbandry characteristics of Mien villages in Chiang Kham District in 2010

Livestock	Item	Village A (21 households)	Village B (22 households)	Village C (32 households)	Cristian Mien of village C (5 households
	Households owning chickens, n(%)	20 (95)	22 (100)	32 (100)	2 (40)
Chickens (Mature birds)	Heads (total)	120	197	220	19
	Heads (range)	0-20	1-15	1-20	0-15
	Average heads/household	5.7	9.0	6.9	3.8
	Households owning chickens, n(%)	20 (95)	20 (91)	24 (75)	3 (60)
Pigs	Heads (total)	130	82	186	25
	Heads (range)	0-18	0-16	0-23	0-20
	Average heads/household	6.2	3.7	5.8	5.0
	Households owning chickens, n(%)	20 (95)	13 (53)	11 (34)	2 (40)
Dogs	Heads (total)	49	30	13	2
	Heads (range)	0-9	0-5	0-3	0-1
	Average heads/household	2.3	1.4	0.4	0.4
Cats	Households owning chickens, n(%)	9 (43)	9 (41)	9 (28)	1 (20)
	Heads (total)	10	19	14	1
	Heads (range)	0-2	0-3	0-3	0-1
	Average heads/household	0.5	0.9	0.4	0.2
Muscovy ducks	Households owning chickens, n(%)	19 (91)	1 (5)	0	0
	Heads (total)	110	3	0	0
	Heads (range)	0-19	0-3	0	0
	Average heads/household	5.2	0.1	0	0
Goats	Households owning chickens, n(%)	0	1 (5)	0	1 (20)
	Heads (total)	0	10	0	8
	Heads (range)	0	1-10	0	0-8
	Average heads/household	0	0.5	0	1.6
Rabbits	Households owning chickens, n(%)	0	1 (5)	0	0
	Heads (total)	0	7	0	0
	Heads (range)	0	0-7	0	0
	Average heads/household	0	0.3	0	0

Note: The data for villages A and C are for December 2010. The data for village B are for July 2010.

In 2004, households in village A raised 91 head of cattle, indicating that cattle keeping was popular [Masuno 2005:163]. In 1992, just after the Royal Forest Department started managing the protected forest around the village, the villagers kept about 20 cattle. Many households kept cattle for cash income, selling the calves. The villagers had seemed to make efficient use of protected forest area, leaving the cattle in the forest and checking on them two or three times a week (Photo 8). No fence was made to enclose the protected forest and the cattle were free to roam. A decade later, the number was considerably increased to 130 head of cattle. Alongside this large increase, there was a marked increase in the amount of land opened up to maize cultivation. Grazing cattle caused frequent damage to the maize and cattle owners had to pay compensation. People in village A had mostly given up keeping cattle around 2007.

The twenty households engaging in livestock husbandry and agriculture include people of all ages. For example, one elderly household consists of a husband and wife in their 70s who continue to grow maize and keep 20 mature chickens, nine pigs, and one dog.

One householder (household A1 in Table 4) in his 60s who has retired from agricultural work and other intensive subsistence or economic activities lives in the village with his wife, who is of a similar age. His case is given below.

Case 1 "I had grown upland rice for household consumption and hybrid maize for selling, but retired from those agricultural activities in 2010 due to old age. My sons and daughters work in cities like Bangkok and send some money for our living expenses. My wife and I have not conducted intensive subsistence and economic activities since 2010, but we continue to keep livestock in the backyard. We need chickens and pigs for sacrificing in our Mien rituals, and the surplus of pigs can be sold for a cash income. In January 2012, my son living in village A had a wedding ceremony, and I offered my son three pigs to sacrifice. I gave him those pigs for free. In January 2012, we still keep 11 pigs, four mature chickens, and one dog." (Interview, January 2012)

After the man and his wife retired from agricultural activities, small-scale livestock husbandry in their backyard became small but important everyday work for them. It allowed them to give the pigs to their son for the wedding ceremony.

Table 4. Number of households retired from farming in the Mien villages (2010)

Household Age No. (Years)	Livestock (Heads)						
		Chickens (Mature birds)	Pigs	Dogs	Cats	Other	Notes
A1	60s	1	7	1	2	Ducks 2	
B1	70s	11	3	0	3	0	
B2	70s	7	3	0	2	0	
Average (	B1-B2)	9.0	3.0	0	2.5	0	
C1	90s	2	0	0	0	0	
C2	80s	8	5	1	1	0	
C3	70s	3	18	0	1	0	
C4	70s	9	10	0	0	0	
C5	70s	7	8	0	0	0	
C6	70s	7	5	1	1	0	
C7	70s	6	3	1	2	0	
C8	70s	6	0	0	0	0	
C9	70s	0	1	0	0	0	Christian Mier
C10	70s	0	0	0	0	0	Christian Mie
C11	60s	3	14	0	0	0	
C12	60s	2	0	0	0	0	
C13	60s	2	0	1	2	0	
C14	50s	8	3	0	0	0	
Average (0	C1-C14)	4.5	4.8	0.3	0.5	0.0	
Total av (A1, B1-B2,		5.0	4.9	0.3	0.7	-	

Note: A1 is a household in village A, B1 and B2 are households in village B, C1-C14 are households in village C.

# 4.1.3 Sacrifice of livestock during the New Year celebrations

During the New Year celebrations of February 2010, 13 of the 21 households sacrificed a pig each (Table 5). Out of those pigs, 12 had been raised by the households, while one household bought its pig from outside the village. This household was the only one not keeping pigs at the time.

All households sacrificed chickens during the New Year's celebrations, as part of their ancestor worship rites. A total of 137 chickens were sacrificed (6.5 chickens per household). Seven households bought 43 chickens in total, mainly from other lowland villages. They bought live chickens and kept them for their rituals.

Case 2 One Mien woman living in the lowland village of Khon Muang visited village A to practice ancestor worship during the New Year celebrations of February 2011. She brought a live chicken bought in her village and asked a priest in village A to conduct the ancestor worship rites. She told me that she had to bring a live chicken to be sacrificed just before the ritual began. (Observe, February 2011)

When the villagers do not have enough good chickens or pigs to sacrifice, they buy live animals for their rituals. They sacrifice the animals just before the rituals begin. Most of the Mien people in these villages believe that slaughtered chickens or pigs sold at market are useless for Mien rituals.

Table 5. Number of pigs and chickens sacrificed for the New Year celebrations in February 2010

Livestocks sacrificed	Item	Village A (21 households)	Village B (22 households)	Village C (32 households)	Cristian Mien of village C (5 households)
	Households conducting sacrifices, n (%)	13 (62)	9 (41)	8 (25)	0
	Boars (n)	11	10	9	0
	Sows (n)	2	2	1	0
Pigs	Total (n)	13	12	10	0
Pigs	Average heads / household	0.62	0.55	0.31	0
	Households that purchased pigs, n (%)	1 (5)	0	1 (3)	0
	Purchased pigs, n (%)	1 (8)	0	1 (10)	0
	Households conducting sacrifices, n (%)	21 (100)	21 (95)	31 (97)	0
	Male (n)	112	70	56	0
	Female (n)	25	31	27	0
Chickens	Total (n)	137	101	83	0
Chickens	Average heads / household	6.5	4.6	2.6	0
	Households that purchased chickens, n (%)	7 (33)	5 (23)	4 (13)	0
	Purchased chickens, n (%)	43 (31)	27 (27)	8 (10)	0

# 4.2 Village B

#### 4.2.1 Subsistence and economic activities

Eighteen of the 22 households (82%) surveyed fall under the category of independent farming, that is, they consist of farmers who depend on agriculture (Figure 3). Among those 18 households, 15 grow upland rice for home consumption and 16 grow maize for cash income. Much of the agricultural area around village B is covered by lowland fields used for double-cropping maize. Wet rice is not grown in village B.

Many people in village B use the hillside area for orchards; the longan tree is popular there. A total of eight households own 100 to 300 longan trees per household. Sale of longan fruit is an important source of cash income for the households. Litchi trees are also found, but do not contribute to the household economies of the surveyed households.

Two households do not farm their own agricultural land but work as day laborers in the village (Figure 4). They earn a daily wage through agricultural work such as harvesting maize. The two remaining households consist of retired farmers (over 70 years old).

## 4.2.2 Village livestock husbandry

All households keep mature chickens (9.0 mature chickens per household) (Table 3). Chickens range free around the houses. Pigs are confined in pigpens in the backyards. Twenty of the 22 households raise pigs (3.7 pigs per household). One household raises 10 native pigs and six pigs from an introduced breed, the Meishan breed, which originated in China and has a black coat and droopy ears (Photo 9). This household has a large concrete pig-house for commercial pig breeding (Photo 10), a structure very different from the other small wooden pigpens in the village. The woman of this household told me that they once tried to make a living selling pigs, but gave up large-scale commercial pig breeding.

Case 3 "We sold pigs intensively until 2007. We kept the mother pigs and sold the piglets. However, the costs of pig transportation and feed were high, and the pigs did not pay enough. We won't engage in commercial pig breeding, but will engage in agriculture to make a living." (Interview, March 2010)

In March 2010, this household still kept pigs for household consumption and occasional sale for extra income.

Dogs range free around the houses. Thirteen of the 22 households keep dogs (1.4 dogs per household). The dogs are kept as watchdogs. Cats also range free; nine households keep a total of 19 cats. Only one household keeps Muscovy ducks, three in all. The Muscovy ducks have a duck hut but range free. No common ducks are kept in the surveyed households.

One household keeps goats. The villagers tell me that it is the only household to keep them in village B. It keeps 10 goats, including one male. The goats are kept on a string in the orchard (Photo 11). The owner of the goats told me the following.

Case 4 "I will sell the goats to anybody who wants to buy them. The Hmong people come to buy these goats more frequently than the Mien people do. The Hmong seem to need the goats to sacrifice in their rituals. The Mien do not use goats as sacrificial animals. The Mien buy goats just to eat them." (Interview, March 2010)

Despite the householder saying the Mien buy goats only to eat them, I have not observed the Mien buying goats to eat or for sacrifice.

Only one household in village B raises rabbits, seven in all, which are kept in a cage. The rabbit owner explained that the rabbits were brought from Chiang Mai.

Case 5 "I have no specific reason for keeping rabbits. I had never reared rabbits, so I tried it. If anyone wants to buy rabbits, I will sell my rabbits." (Interview, March 2010)

This owner just seems to enjoy raising rabbits and is not relying on them for a stable income.

In 2010, no-one in village B was raising cattle, but I did interview one male villager with experience raising cattle there.

Case 6 "I kept cattle until 2007. I had 32 cattle in 2007. I kept cattle to sell so I could earn money. But the cattle often ate the maize in the village. I couldn't afford to pay compensation for the damage, so I stopped keeping cattle." (Interview, December 2010)

Maize is the main cash crop in the village. Village B had the same problem with grazing as village A. Villagers in village B did not give up growing maize but stopped keeping cattle instead.

Two households in village B consist of retired farmers. Both households keep chickens and pigs, averaging 9.0 chickens and 3.0 pigs (households B1 and B2 in Table 4). Both householders are old (over 70), and had given up agricultural work but continue livestock husbandry in their backyards. In addition, one of them explained that he grows pigs to sell them for cash.

### 4.2.3 Sacrifice of livestock during the New Year celebrations

During the New Year celebrations in February 2010, one house sacrificed a pig and no chickens and the other nine houses sacrificed both pigs and chickens. The nine households in village B sacrificed a total of 12 pigs (Table 5). Each pig sacrificed was raised by each household in the village.

Twenty-one of the 22 surveyed households sacrificed chickens during the New Year celebrations. A total of 101 chickens were sacrificed (4.6 chickens per household). Five households bought a total of 27 chickens for this purpose, mostly from outside the villages.

One household killed a cow during the celebrations. The household member explained this to me as follows.

Case 7 "One cow we bought from outside the village was killed and eaten by our household. We did not use it for sacrifice. We killed it to have enough meat for feasting." (Interview, December 2010)

The household did not conduct any Mien rituals when the cow was killed. During the New Year, many people return home to visit from distant cities such as Bangkok, which is a good opportunity for Mien families to spend time together. At these times, they need a lot of meat for feasting.

# 4.3 Village C

### 4.3.1 Subsistence and economic activities

# a) Independent farming, day laboring in the village, or salaried employment

Only seven of the 37 households (19%) surveyed consist of independent farmers (Figure 3). Of those seven households, three grow upland rice and four grow wet rice in paddy fields. They grow maize (five households), longan

(two households), and mango (three households) as cash crops. The two households that own mango trees reported that selling mango fruit is their main source of cash income. No-one in villages A or B plant mango trees for cash crop. Many rubber trees have been planted, but they are still too young for tapping.

Ten households depend for a living on day laboring in the village (Figure 4). One household contains a person who works as a carpenter. The other nine households depend on mainly agricultural labor such as seeding and harvesting. Of these 10 households, six do not own any agricultural land and four have own their land but the fields are too small to support them.

Two households depend mainly on a monthly salary. One includes a policeman and the other the church pastor. The headquarters of the church, located in the United States, provides the pastor's salary and the church's operating costs. The policeman's household owns 200 longan trees but the trees do not contribute to household income. The pastor's household owns a paddy field, 800 rubber trees and 400 longan trees. They grow wet rice for their subsistence; the rubber trees are still young so do not provide cash income yet. Longan fruit is one of the sources of cash income, but the pastor's monthly salary constitutes the main source of household income.

#### b) Retired farming

In village C, 14 of the 37 households (38%) surveyed consist of retired farmers (Table 4). In terms of heads of these households, one is in her 50s, three are in their 60s and 10 are 70 or older (Figure 4). Most of those households are nuclear families. Quite a number of their sons and daughters work in urban areas like Bangkok. Old couples or aging widows remain living in the village.

The money received from their children appears to be important to pay their living expenses. Households C1, C11 and C14 in table 4 are raising their grandchildren as the parents work away. They retired from agricultural work due to old age, not in order to take care of the grandchildren. Households C1 and C10 lease their agricultural land to other villagers. The householder of C12 reported that his daughter married a Japanese man and he gets enough money from the daughter to pay his living expenses.

### c) Other activities

Four households are classified as having other main means of income (Figure 4). The activities of those households are as follows. One household headed by a householder in his 40s runs a small grocery store in the village and does not own any agricultural land.

Two households headed by householders in their 40s do not engage in intensive subsistence or economic activity. Their main activity is raising their grandchildren while the parents work away. These two householders own agricultural land and could engage in agriculture if they were not raising their grandchildren.

The remaining household is headed by a high-ranking Mien priest who conducts Mien rituals not only in the village but also in other Mien villages across Northern Thailand. He has engaged in agriculture in the past, but is now a full-time priest and conducting the rituals provides him with more than enough income.

#### 4.3.2 Village livestock husbandry

Village C contains Mien villagers practicing the Yao Taoist religion and Christian villagers. The 32 households that follow the Mien religion, Yao Taoism, will be described first.

## a) Mien people of the Yao Taoist religion (32 households)

Chickens range free around the houses. All Yao Taoist households keep mature chickens (6.9 mature chickens per household) (Table 3). Pigs are raised in 24 of these households (5.8 pigs per household). They are confined in pigpens. Most pigpens are in the backyards, but at least seven households have built their pigpens on their agricultural land, about a 10-minute walk from their house.

Case 8 "Pig manure has an offensive smell, so the neighbors complain and do not allow me to keep the pigs in my backyard. Feeding the pigs in the fields is troublesome, but I have no choice but to keep the pigs out of the village." (Interview, December 2010)

In village C, which has high housing density, some households struggle to find places to keep their pigs. This problem has not yet emerged in villages A and B.

Eleven Yao Taoist households in village C keep dogs (0.4 dogs per household) and nine keep a total of 14 cats. The dogs and cats range free around the houses. In the survey in February 2010, I saw some cattle in unused fields in village C. In December 2010 and February 2011, I could not find these cattle. They seemed to have moved to find good areas to graze. I found no other livestock, such as goats, ducks or rabbits, among the surveyed Yao Taoist Mien in village C.

## b) Christian Mien (5 households)

Two of five Christian Mien households keep chickens (3.8 chickens per household) (Table 3). Three households keep a total of 25 pigs. Two households keep neither chickens nor pigs. Dogs are kept by two of these households, and cats are kept by one household. One household keeps eight goats, tethered under the rubber trees. The owner of the goats explained to me as follows.

Case 9 "I have no idea how to use goats. Goats do not sell well. The Hmong people have never come to buy my goats. But I enjoy keeping goats." (Interview, March 2010)

This householder seems to have no particular reason for keeping goats—he does not use them for religious purposes and they are not sold. The owner of goats in village B expected to sell his goats to the Hmong people (Case 4), but this was not the case for this householder in village C.

# c) Retired from farming (14 households)

Twelve of 14 households continue both chicken husbandry and pig husbandry despite having retired from farming (Table 4). Two households of Christian Mien are among them. The 14 households retired from farming raise an average of 4.5 chickens, 4.8 pigs, 0.3 dogs and 0.5 cats per household.

Chickens, pigs, dogs and cats are kept by 12 households (86% of surveyed households), nine households (64%), four households (29%), and five households (36%), respectively (Table 4). Among the 14 households, chickens and pigs are more popular livestock than dogs and cats. Eight raise both chickens and pigs. An 82-year-old man (household C2 in Table 4) explained his livestock husbandry practices as follows.

Case 10 "I retired from agriculture because I am quite old. I live on money sent by my sons working in Bangkok. But I still keep five pigs, eight chickens, one dog, and one cat. I feed maize and banana stems to the pigs. I buy the maize at market. The pigs and chickens will be sacrificed when my sons are back home. If I have extra livestock, I can sell them to make money." (Interview, March 2010)

This man plants bananas in his home garden (Photo 12), which provides the banana stems for his pigs. He stays at home with his wife and tends to his livestock. The pigs and chickens will be sacrificed for Mien rituals and feasting with his children.

Household C10 keeps no livestock. The householder is a 77-year-old woman who has been a Christian Mien for 20 years. She explained the following.

Case 11 "I had raised pigs until two years ago. I gave up raising pigs due to old age. I do not raise chickens because chickens walk into the house and leave dirty excrement everywhere. I don't want to raise chickens. I didn't kill any pigs or chickens during the last New Year Cerebrations or last Christmas. Last Christmas, I bought pork and chicken meat at the market for good meal". (Interview, December 2010)

Her husband died about 10 years ago and she lives with her 23-year-old grandchild. Although, she has been a Christian Mien for 20 year, she raised pigs until around 2008. Thus, being a practicing Christian does not mean that the Christian Mien cease pig and chicken husbandry.

# 4.3.3 Sacrifice of livestock during the New Year celebrations

## a) Mien people of the Yao Taoist religion (32 households)

During the New Year celebrations in February 2010, eight of the 32 households (25%) sacrificed a total of 10 pigs (Table 5). Of the 10 pigs sacrificed, nine were raised by the households themselves.

A total of 83 chickens (2.6 chickens per household) were sacrificed by 31 households (97%). A total of eight chickens were bought for sacrifice during this period, mainly from outside of the village. The great master Mien priest explained the use of pigs and chickens as follows.

Case 12 "I need to sacrifice four pigs a year. Now, I sacrifice the pig after I finish eating all of pigs sacrificed previously. But in the past, many pigs could be sacrificed at the same time. I sacrificed four chickens for the New Year celebrations in February 2010. Two of them were raised by me, but I bought the other two at market in Chiang Kham town. The two purchased chickens were already dead and de-feathered at the market. The chickens used for Mien rituals are not sacrificed immediately before the rituals, because we need, not live chickens, but chickens with a whole body." (Interview, December 2010)

In the New Year celebrations in February 2010, this survey found that the people of villages A, B and C bought 43 chickens, 27 chickens and eight chickens, respectively (Table 5). The great master priest is the only person among those surveyed who bought dead chickens from the market. Usually Mien people believe that they should sacrifice chickens or pigs just before the ritual (Cf. Case 2).

## b) Christian Mien (5 households)

The Christian Mien do not seem to conduct Mien rituals. None of them sacrificed or killed livestock during the New Year celebrations of 2010 (Table 5). One Christian Mien explained:

Case 13 "I am Christian, so I do not participate in Mien rituals. Of course, for the New Year celebrations, I didn't sacrifice or kill any livestock. For Christmas, in December 2010, I killed a pig. Part of the pig meat was used for the Christmas feast. I sold what was left of the meat to the villagers by weight. I raise pigs and chickens in my house because I use the meat." (Interview, February 2011)

Case 13 shows that, although Christians do not need to use livestock as sacrificial animals, this man needed to keep livestock both as a source of meat and a source of cash income.

I visited village C during the New Year celebrations in February 2011 and observed that the Christian Mien did not conduct any Mien rituals. The Mien New Year celebrations are no longer a special event for the Christian Mien.

#### 5. Discussion

#### 5.1 Differences in economic and subsistence activities

Village A is located on a hillside and village B in a lowland valley, but both villages have many similarities in terms of economic and subsistence activities. Agriculture is the main activity in these two villages, and the main cultivated crops are the same in both villages: maize for a cash crop and upland rice for a subsistence crop. There are two reasons why the two villages are similar in these respects. First, village A is in the uplands, but as areas higher than the village are designated as protected forest area [Masuno 2009], this means that the villagers cannot use the highland areas for farming (Figure 2). The villagers therefore engage in agriculture at a lower elevation than the village, from 560 m to 900 m. The villagers of village B engage in agriculture at a higher elevation than their village, from 500 m to 800 m. Thus, their agricultural practices largely overlap in the area. Second, maize can grow in both hillside and lowland fields, that is, in any areas around the two villages.

The main subsistence and economic activities of village C are clearly different and more diverse from those in villages A and B. The percentage of households mainly engaged in independent farming in village C (19%) is clearly smaller than that in village A (95%) or village B (82%). However, the percentage of households mainly engaged in day laboring (27%) is larger than in villages A (0%) and B (9%). Likewise, the percentage of the population who have retired from farming is higher in village C (38%) than in villages A (5%) and B (9%). Village C is thus characterized by having many day laborers and many retired farmers when compared with villages A and B.

Ten households in village C are classified as day-laboring households. Six of them do not own any agricultural land and the remaining four do not own enough land to support themselves through agriculture. The existence of many day-laboring households reflects the shortage of agricultural land in village C.

The reasons that village C has many retired farmers are not clear. The shortage of agricultural land could be one reason. Village C also has easy access to work outside of the village, so many villagers go to Bangkok or foreign countries to work. Yoshino [2003: 185-186] pointed out there are the two main reasons for them working away: to buy farmland and agricultural chemicals and build houses; and to cover the cost of living in the village. In many cases, the family members who work at Bangkok or foreign countries to cover the cost of living in the village help livelihood of retired farmers.

### 5.2 Characteristics of livestock husbandry

The species of livestock raised in three villages are basically the same: chickens, pigs, dogs and cats. Chickens and pigs are most commonly kept. This study found that livestock husbandry practices are similar among the three villages, even though their economic and subsistence activities differ, especially between villages A and C. Although 30 of the 37 households in village C are not independent farming households, 34 households in the village keep chickens and 27 keep pigs. This shows that type of engagement in economic or subsistence activities cannot readily explain the nature of livestock husbandry practiced by the Mien people in rural areas. Their preference for keeping chickens and pigs come not only from Mien cultural necessity, such as for ritual sacrifices, but also from economical and subsistence necessity.

Goats and rabbits are seldom raised in the three villages surveyed. The husbandry of goats and rabbits seem to depend highly on the household's preference. Ducks are usually also unpopular. The husbandry of Muscovy ducks in village A is a special case, because the ducks were distributed by a Thai public organization to promote socioeconomic development. In this case, intervention by the development project has clearly changed the varieties of livestock raised in the village.

In this survey, the former cattle owners of villages A and B did not give up growing maize when their cattle damaged the crop through grazing, but instead they stopped keeping the cattle. In the case of two villages in Northern Laos, the conflict between farmers grazing animals and those cultivating the land has been a real problem since around 2000 due to the damage to market-oriented crops by water buffalo, and consequently many villagers have stopped keeping water buffalo [Takai and Sibounheuang 2010: 468]. The relationship between livestock husbandry and crop cultivation is an age-old and common problem in rural areas. Finding a way for the two practices to occur side by side would be beneficial.

Although Christians do not need to use livestock as sacrificial animals, three of the five Christian households surveyed raised pigs in 2010. In addition, household C11, which is Christian, also raised pigs until around 2008. Being a practicing Christian does not mean that the Christian Mien must cease pig and chicken husbandry; they continue to raise these animals for themselves and for uses other than ritual sacrifice.

### 5.3 Characteristics of sacrificial use

In the New Year celebrations in 2010, chickens were sacrificed in almost all households in all three villages, but the average number of chickens sacrificed in village A (6.5 chickens per household) was larger than that in villages B (4.6) and C (2.6). The percentage of households that sacrificed pigs and the average number of pigs sacrificed were higher in village A (62%, 0.62 pigs per household) than in villages B (41%, 0.55) and C (25%, 0.31). The Christian Mien do not sacrifice any animals. These findings show that the custom of sacrificing chickens and pigs during the New Year celebrations is still commonly conducted by the Mien who follow the Yao Taoist religion. Animals are more commonly sacrificed in the hillside area than in the lowland area.

In Case 12, a great master Mien priest used a chicken killed at the market as a sacrifice. As he is a well-known, high-ranking priest, his opinion on ritual matters will very likely be accepted by many Mien people. If his opinion and the practice of using dead animals bought at market for sacrificial use are accepted, Mien people will no longer need to keep livestock solely for use in their rituals.

### 5.4 Contemporary characteristics of livestock husbandry in Mien society

The importance of chickens and pigs as sacrificial animals to the Mien people is clear. For the Christian Mien, however, the importance of keeping livestock is as a source of meat (see for example Case 11). Since the 1980s, motorization has become widespread in Mien society, and even though they can now access the markets easily and buy meat, they still maintain livestock. The basic need for livestock as a source of fresh meat is still high in Chiang Kham District.

In the three villages surveyed, 17 households in total consist of retired farmers (Table 4). Chickens, pigs, dogs and cats are raised by 15 households (5.0 chickens per household), 12 households (4.9 pigs per household), five households (0.3 dogs per household) and eight households (0.7 cats per household), respectively. Many retired farmers continue to keep pigs and chickens. They stay at home and take care of their livestock, which will be sacrificed for feasts when their children visit home. Some of the children work in the city and send money to their elderly parents. Previous studies have pointed out the economic importance [Charan and Pakapun 2002] and cultural importance of livestock husbandry [Takai *et al.* 2008; Masuno and Ikeya 2010] to the peasants in Southeast Asia. The main characteristic of contemporary livestock husbandry by the Mien people in Chiang Kham District is that it is conducted by retired farmers. It appears that livestock husbandry in the backyard, although occurring on only a small scale, is still extremely important everyday work for many retired farmers of the Mien villages in northern Thailand.

#### 6. Conclusion

The objectives of this research were to elucidate the characteristics and current state of livestock husbandry in Mien society in Northern Thailand by comparing three villages in different socioeconomic contexts and ecological environments.

It was found that livestock husbandry is similar among the three villages, even though economic and subsistence activities among them differ. The custom of sacrificing chickens and pigs during the New Year celebrations is still commonly conducted by those Mien who follow the Yao Taoist religion. Those Mien that are Christians do not use these animals for ritual sacrifice but continue to raise them for other uses. Being a practicing Christian does not mean that pig and chicken husbandry is stopped. Small-scale livestock husbandry is rooted in the daily life of the Mien people.

The main characteristic of contemporary livestock husbandry by the Mien people in Chiang Kham District is that it is conducted by retired farmers. The importance of small-livestock backyard husbandry may well grow in the aging Mien society in this rural area of Northern Thailand.

The importance of older people's role in maintaining small-scale livestock husbandry was not clarified in this research, and the role they play in this among their family members living together with them as well as those living separately from them remains a topic for future research.

# Acknowledgement

This research was carried out as part of the JSPS Grants-in-Aid for Scientific Research titled: Environmental History of Livestock Husbandry in the Tropics (No: 21251011, project leader Kazunobu IKEYA) and Comparative study of shifting cultivation in mainland Southeast Asia: Household level analyses of land-use history and socioeconomic change (No: 23710313, project leader Takashi MASUNO).

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Photo 1. Landscape of village A (November 2003)



Photo 2. Landscape of village B (March 2010)



Photo 3. Landscape of village C (December 2010)



Photo 4. Mien New Year celebration, showing a Mien priest and sacrificed pig (January 2006, village A)



Photo 5. Wooden, high-floored pig pen (September 2007, village A)



Photo 6. Native pigs (note the ears do not droop) are caged in wooden, high-floored huts (September 2007, village A)



Photo 7. Muscovy ducks and a chicken range free (February 2011, village A)



Photo 8. Cattle grazing on the forest floor (May 2009, village A)



Photo 9. Meishan pigs, with droopy ears (March 2010, village B)



Photo 10. Large concrete pig house (March 2010, village B)



Photo 11. Goats kept on a string in an orchard (March 2010, village B)



Photo 12. Banana trees planted in a home garden and pigpens (March 2010, village C)