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Land Contesting and New Forms of Primitive Accumulation of the Lua Highlanders[1]

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Abstract

This article is a sociological and anthropological study that aims to understand forest land contesting and new forms of capital accumulating of the Lua highlanders through the concept of enclosure and primitive accumulation in an agrarian society. Field work was conducted between 2016 – 2018 (July 2016 – June 2017 and January – March 2018). The researcher selected Ban Na Fon, Hot District, Chiang Mai, as the focus of the study and interviewed Lua farmers and entrepreneur farmers in Ban Na Fon, as well as Karen farmers in neighboring villages.

The research findings indicate forest land is still an important production factor for highlanders. After the mid-1960s, forest land in northern Thailand were enclosed by the Thai government under natural protection policy and contested by highland farmers who claimed rights to their traditional cultivated land. Since the 1980s, however, according to the expansion of tomato growing and trading in highland Hot and Omkoi District, Chiang Mai, forest land surrounding the villages are also accessed and controlled by Lua entrepreneur farmers in Ban Na Fon with two tomato trading strategies: tomato contract farming and green tomato buying. By these two trading methods, Lua entrepreneur farmers can temporarily own forest land (cultivated land of small growers) and make a profit without having their own land or confronting forest officers.

Keywords

Land contesting, New forms of primitive accumulation, Lua highlanders, Lua entrepreneur farmers

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Introduction

Several studies about the highlands and ethnic groups in Chiang Mai province Thailand indicate that the declaration of a national forest policy by the Thai government in 1964 has led to negative effects for the livelihoods and agricultural systems of ethnic groups. Aagaard and Jorgensoen (2011) explained that after national forest projects were declared in highland areas, Karen villagers were prohibited to enter and cultivate their land. They eventually migrated to the city, and worked as off-farm laborers. Similarly, Leeprecha (2011) explained that after cultivated land surrounding the village were transformed to national forest areas and forbidden to cultivate, Hmong in Ban Doi Pui [2] needed to change their livelihood from growing opium and upland rice to growing perennial plants (such as lychee) and selling Hmong handicrafts.

In highland Hot District, Chiang Mai, although forest land surrounding the villages has belonged to Khun Mae Lai national forest since 1972, negative effects that used to happen with Karen and Hmong no longer occur in this area. In Ban Na Fon (Hot District), since the 1980s after tomatoes become a famous commercial plant, through negotiating and making an agreement between Lua villagers and foresters of the Hot District, some parts of the national forest surrounding the village are allowed to cultivate commercial crops. Each household of Lua can still hold irrigated field and forest/slope land as in the past to grow tomatoes and other cash crops. A survey of Ban Na Fon in 2018 which sampled 82 Lua households found that they owned more than 500 *rai* [3] of irrigated field and forest land. Furthermore, many Lua households rent forest land from Karen neighbor villages, such as Ban Mae Lai, Ban Nong Kra-thing, for growing tomatoes and chili (Rugchat, 2018). Latterly, these cultivated areas that both irrigate field and forest land are used to grow 2 – 3 crops of tomatoes each year (Rugchat, 2019).

After the mid-1980s, cultivating areas are not only held by growers, they also have been occasionally used to make money by Lua entrepreneur farmers in Ban Na Fon. These entrepreneurs can temporarily control the land through new strategies of tomato gathering. Moreover, they do not necessary own or extend their cultivated land and negotiate with forest officers. This article questions how irrigated field and forest areas belonging to the national forest project are possessed and who manages the land? Moreover, the paper looks at how these areas are temporarily controlled and how some highland groups are able to extract resources for profit.

The article is divided into three parts. First, a literature review is conducted on enclosure and primitive accumulation in agrarian societies. Second, the research design and

[2] The word “Ban” means “village”.

[3] 2.5 *rai* = 1 acre

methodology will be briefly explained. In addition, discussion on the historical and agricultural contexts of Ban Na Fon will be included with a short explanation of "*Lua entrepreneur farmers*" in Ban Na Fon. Third, research findings are divided into two parts: (1) forestland enclosure and cultivated land holdings of Lua Ban Na Fon, and (2) contesting cultivated land and new forms of primitive accumulation.

Enclosure and Primitive Accumulation in Agrarian Societies

The term "enclosure" formally emerged in England between the fourteenth and sixteenth centuries. During that time the increasing demand for sheep-farming and wool had resulted in land expropriation of farmers. Landlords forced thousands of farmer families from their land. As landowners fenced common land for sheep pastures, poor farmers eventually lost their land and became "free" laborers (Santasombat, 1996, pp. 31 – 32) Enclosure in England during the fourteenth and sixteenth centuries was where primitive accumulation originated. From Marx's viewpoint, primitive accumulation is defined as the process of separation between producer and production factors. With the primitive accumulation process, land is separated and transformed into capital and commodity; meanwhile producers are turned into laborers (Sammukkeetham, 1990, pp. 19).

Enclosure became a crucial tool for elites or nation states to extract resources and transform them into commodities. In northern Thailand, from the late nineteenth to the mid-twentieth century, the forest lands in Chiang Mai and neighboring areas were enclosed by the rulers and nobles in the form of teak concessions. Teak logs were important annual tributes from Chiang Mai to Bangkok. Forests had become a commodity for trade, and concession was granted to British companies. The fees from cutting down trees were paid directly to rulers and nobles who enclosed and expropriated the forests (Ongsakul, 2010).

Since the 1960s, the enclosure process has transformed into a more complex pattern than in the past. Nation states or elites cannot freely fence and capture land for pulling resources out from areas. In order to transform resources to commodities, modern nation states claim legal ownership through development policies and nature conservation ideologies. Under this new form of enclosure, Nevins and Peluso (2008) argue that land, resources, and people in Southeast Asia are enclosed and turned into commodities providing "free" labor with assistance by the state. In Nevins and Peluso (2008) study they employed the term "*ongoing primitive accumulation*" to differentiate previous primitive accumulation. Moreover, they illustrated how the state in the neoliberal age not only enclosed natural resources and allocated them to either corporations or private enterprises, but also dispossessed and controlled resources through various state agencies for national ventures, development policies, and nature protection projects (Nevin and Peluso, 2008, pp. 11 – 21).

By referring to development policies and nature conservation ideologies, the state can hold and change resources to commodities. Santasombat (Under the development polies by Thai government, 1996, pp. 77 – 78) study of *Tha Kwien* community, Ayutthaya province, in central Thailand, found the community was enclosed by development schemes. According to these policies, the *Tha Kwien* community and nearby villages were enclosed and quickly transformed into progressive agricultural areas. Santasombat (1996) found that the term "enclosure" not only refers to "fencing" but also "legal possession". After the Chao Phraya dam was created in 1957, natural resources and aquatic animals were altered, while indigenous people lost their land and became laborers. Similar to Zhang's study (2012), *The political Economy of Contract Farming in China's Agrarian Transition*, underneath agricultural development policies in China, cultivated areas have been "enclosed" intensively by "dragon-head" agribusiness companies, which had been selected and authorized by the government. In the Chinese government's perspective, contract farming schemes driven and managed by companies have become the new way for agricultural and Chinese farmer development. In other words, contract farming policies used farmer's land enclosures and occupied cultivated land. The farmers soon became laborers.

Likewise, the study by Barney (2008), *China and the Production of Forestland in Lao PDR: A Political Ecology of Transnational Enclosure*, found new forms of enclosure were being operated by two nation states cooperating (Chinese and Lao governments). Resources in upland forest in Lao were transformed into commodities and traded in China. In order to meet the Chinese's demand of wood, Lao government enclosed forest areas by allocating and regulating areas under development policies. The government established "plantation forest projects" and cooperated with a Japan transnational company to identify the forest boundary for growing valuable trees. Afterwards, local people became laborers of a transnational company. Potter's (2008) study, *Production of People and Nature, Rice, and Coffee: The Semendo People in South Sumatra and Lampung*, explored how during the late twentieth century the Indonesian government launched natural protection policies by classifying and allocating forest land into three categories: protected forests, nature reserves, and national parks. Under the reforestation policy, coffee growers who grew coffee in protected forests and national parks were evicted by the military. Afterwards they became planting laborers on reforested land. At the same time, certain species of trees, such as timber, durian, and sugar palm, were selected and supported for growing on state forest land by the government.

In Thailand, since the 1960s, after a forest protection policy was declared, the highland forest in the north region was redefined as a preservative area and transformed into state-forest land. Indigenous people were prohibited to enter and cultivate the forest land, while some were moved to other places. Aagaard and Jorgensoen's (2011) study indicated

that as soon as a forest protection policy was announced, Karen local people were identified as forest invaders and destroyers. The Karen finally moved out from the forest and changed their livelihoods (Aagaard and Jorgensoen, 2011). Similarly, Leepreecha's (2011) study found that in 1964 after forest areas surrounding Ban Doi Pui were proclaimed as a national conserved forest, the Hmong were defined as water source destroyers. Consequently, they were restricted to enter the forest land and access previous cultivated areas.

Thus, enclosure and primitive accumulation require the "permission" from a state, corporation, or noble to access and make benefits from forest land and natural resources. In northern Thailand, after a natural conservation policy was declared, indigenous people were prohibited to enter and cultivate their land surrounding the villages. Many of them moved to lowland and became laborers in the city.

Research Design and Methodology

I selected Ban Na Fon, Hot District, Chiang Mai province as a study village. This village is located 150 kilometers south of Chiang Mai city. Most villagers are Lua. Presently, this village has a population of 336 households, 1,410 people. This village's population is the third largest in Bo Luang sub-district, Hot District. The north of this village connects to Ban Khun, another Lua village, while the south is close to Ban Mae Lai Tai, a Karen village in Hot District. Ban Na Fon is surrounded by Khun Mae Lai national forest (Bauluang Municipal District, 2016).

This study took one year and three months, from July 2016 to June 2017 and during January and March 2018, to gather data in Ban Na Fon. In order to understand land contesting, data about land use and types of land holdings were collected from 82 households in Ban Na Fon by questionnaires. Then, some key informants were selected from these household samplings. In order to understand the new form of primitive accumulation and tomato gathering strategies, I selected four Lua entrepreneur farmers – Jae Sunee, Jae Laddawan, Hia Yai, Hia Thongkom [4] – as key informants (Lua entrepreneur farmers will be briefly detailed in the next section). All informants were assigned pseudonyms.

Lua Ban Na Fon

In 1856, nine Lua households (five clans) moved from Ban Bo Luang. They moved around 20 kilometers to the south from their village, seeking areas for cultivating and raising livestock. When they reached southwest Ban Na Fon, they constructed permanent houses and a village temple, and officially established Ban Na Fon. In highland Lua society, generally, property access has often been descended in a particularly male way. Land inheritance for each Lua family has given ownership to the sons because the Lua believe that

[4] Local people call female entrepreneur farmers "*Jae*" while male entrepreneur farmers are called "*Hia*".

only the sons will inherit property and have other rights, while the daughters, to whom land rights are inaccessible, will gain kitchen ware and some appliances, and will separate from her family after marriage. This ideology is exhibited through many Lua sacred ceremonies. For example, the ceremony of tying hands for a Lua couple's first son demonstrates male leadership and the patriarchy of a highland Lua family. This ceremony presumes that the first son of each Lua family will be an important person and head of the family in the future (Rugchat, 2016). In addition, for the traditional land rights and other properties succession, Mr.Chan, an elder Lua villager, explained:

> *"Conventionally, Lua crucial properties, such as houses and cultivated land, would be divided between the father and each son equally. After father passed away, his property would be given to son who looked after him. Daughters would merely receive some household items and kitchenware including dowries, because of after getting married, they would separate from their families and become a member of another family" (Mr. Chan, personal communication, September 15, 2016).*

Before the 1980s, the Lua living in Ban Na Fon were very poor. Several Lua families raised pigs and buffalos for eating, trading and sacrifice. They sustained their families mainly by growing in-season rice during the rainy season. However, because of limited access to irrigated fields, landless Lua villagers lived meagerly because they could not produce an adequate amount of rice for their consumption. During the harvesting period, they needed to work as harvest laborers in the village leaders' fields. They were paid very little compensation for their work. Most of the Lua villagers, thus, moved to highland forest areas surrounding the village so they could have land to cultivate. They cut down the trees, cleared the slope, prepared the land for upland rice planting in the rainy season, and shifted their cultivating areas to another forest land every year. Even though upland rice cultivation would complicate work and yield less than in-season rice planting, it was the only means for landless people to have enough rice for a year. The highland farmer study conducted by Kunstadter (1978) in Thailand explained that upland rice had been an essential crop for Lua highlanders because it was the main agriculture product consumed in the family, and could be effectively grown in highland areas.

Since the early 1980s, tomatoes have become the main commercial crop in highland villages, particularly Ban Na Fon. Lua villagers have allocated their time and cultivating areas – both irrigated field and forest land – for three kinds of plants: in-season rice, upland rice, and tomatoes. In irrigated areas, Lua Ban Na Fon grow tomatoes (two crops for each year), from January to July. After that, during August and December, they grow in-season rice. For forest land, tomatoes are grown from April to August and August to December (see Table 1).

Table 1 Crop calendar after the 1980s in Ban Na Fon

Location	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Irrigated field	T1	T1	T1	T1/T2	T2	T2	T2	Ir	Ir	Ir	Ir	Ir
Forest land	R	R	R	T1	T1	T1	T1	T1/T2	T2	T2	T2	T2

*Ir=In-season rice, T=Tomato growing, R=Rest

Note: Survey conducted in Ban Na Fon in 2016.

After the boom period of tomato trading in highland Hot and Omkoi districts, some Lua Ban Na Fon transformed themselves to "entrepreneur farmers". Lua entrepreneur farmers are tomato growers and traders. They have played an important role in the tomato trading network from highland villages to lowland markets. In Rugchat's (2018) study, Lua entrepreneur farmers are different from highland farmers in the village in 3 ways. First, Lua entrepreneur farmers have been professional about tomato growing and trading. They hold extensive areas of cultivated land, both irrigated and forest land, surrounding the village to grow tomatoes and in-season rice. Second, Lua entrepreneur farmers usually construct their trading warehouses alongside Hot-Omkoi road and hire at least 1 – 5 laborers for each warehouse. Third, Lua entrepreneur farmers own a great number of modern electric and electric appliances, such as flat screen televisions, refrigerators, mobile phones, and mobile applications. In addition, each entrepreneur farmer household owns between two and three pick-up trucks for tomato transporting (Rugchat, 2018, pp. 130 – 131).

Forestland Enclosure and Cultivated Land Holdings of Lua Ban Na Fon

After the National Reserved Forest Act was declared in 1964, 12.2 million *rai* of forest land in Chiang Mai belonged to 25 national forest projects, such as Mae Chaem (2.4 million *rai*), Chiang Dow (1.6 million *rai*), Omkoi (1.4 million *rai*), Mae Chaem and Mae Tuen (1.1 million *rai*), and Mae Fang (1 million *rai*) (Forest Resource Management Office 1 (Chiang Mai), 2018). Forest land surrounding Ban Na Fon were changed to national forest and belonged to the Khun Mae Lai national forest [5] in 1972 (Government Gazette,1972).

The declaration of Khun Mae Lai national forest surrounding Ban Na Fon led to geographical change around the village. An aerial photograph (Figure 1) shows the location of Ban Na Fon and Khun Mae Lai national forest surrounding the village. Irrigated fields located in Ban Na Fon are legal land, while forest lands surrounding the village are national forest. The statistical analysis of these legal irrigated land possessions from the farmers'

[5] Khun Mae Lai national forest covered 293,082 *rai* of forest land in Bo Luang and Bo Sali sub-districts, Hot district, Chiang Mai (Forest Resource Management Office 1 (Chiang Mai), 2018).

name list in Ban Na Fon found that 594 *rai* of irrigated field are legally owned land and owned by clan leaders of the village, such as Sanmuangma, Muangma, Khaochanta, and Laju (Department of Agricultural Extension, 2015). In addition, the picture also shows that some parts of the forest land around the village have become cultivated land for growing tomatoes and other cash crops. As soon as the national forest was proclaimed, most highland cultivating areas surrounding the village immediately belonged to the national forest. Forest officers have fully authorized the arrest of local people who invade and construct any buildings in national forest areas. Local people, then, have been strictly forbidden by law to enter these areas, cut trees, and extend their previous traditionally cultivated areas. During field work, I found some Lua villagers were arrested because they cut trees to construct their houses. For example, Hia Yai, a Lua villager, who is 54 years old, explained the strictness of the forest law and officers:

> *"Last two years (2014), my son cut trees in his cultivated areas (forest land) for building his house. After that, forest officers arrested and jailed him for five years" (Hia Yai, personal communication, October 24, 2016).*

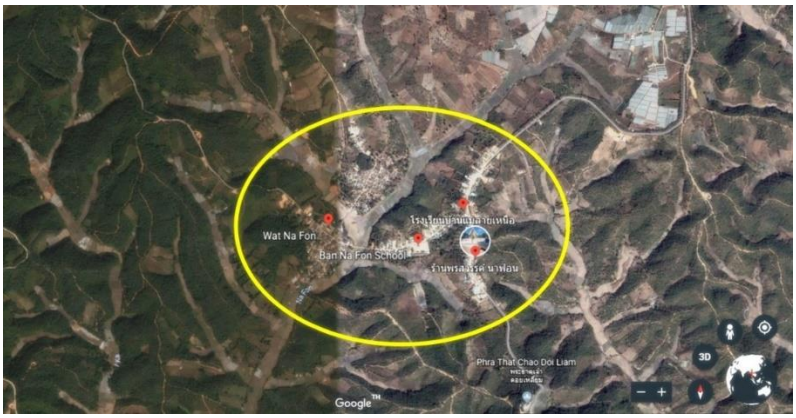

Figure 1 Location of Ban Na Fon and Khun Mae Lai national forest

Source: www.earth.google.com/search/Ban Na Fon, 12 February 2019

Even though forest officers have prohibited people from entering the forests or gathering forest products, in practice, they still allow local people to enter and cultivate their farm land. The study conducted by Nawakijbumrung (2013) explained this case by defining highland areas as "the ambiguous space of forest boundary." He identifies the ambiguous space as a space of contestation of resources and a space to give an opportunity for disorderly trade. His study maintains that the space cannot be completely regulated by the state. In addition, this space has not only given villagers an opportunity to negotiate resources with the state, but it has also given an opportunity for capital or agri-business companies to make a lot of profit from natural resources.

After Khun Mae Lai national forest proclaimed, Lua people in Ban Na Fon negotiated with forest officers by claiming their own illegal land tenure. Most of Lua villagers claimed that their ancestors cultivated the different areas by shifting cultivation [6] before the national forest was announced. Although forest officers eventually agreed with the Luas, they disallowed Lua villagers to expand their cultivating areas. Presently, tomato growing in forest areas is popular for Lua families as well as Karen in neighbor villages. Lua and Karen tomato growers avoid using large machines, such as a tractor, backhoe, and sawing machine because the topography is limited and illegal according to national forest law. Mr. Chao, a Karen in Ban Mae Tom Bon (20 kilometers south of Ban Na Fon), spoke softly about the conflict between Karen and forest officers regarding the national forest invasion, and six forest officers who came to the village and confiscated some logs from villagers.

> *"Those forest officers came here to confiscate some logs and arrested some villagers who cut down the trees, because they heard the sound of sawing machines. Those logs, generally, were cut for building houses in our village (not for sale). Our houses have been made from logs surrounding the village since ancient times. If they (forest officers) forbid us to cut the large trees around the village, how can we build our houses? So, when we saw the forest officers coming to the village, we immediately called and warned the loggers so they could escape before forest officers arrived" (Mr.Chock, personal communication, December 25, 2016).*

Because of the national forest status of the land issued by the Thai government, Lua villagers can negotiate and hold their cultivated land in the national forest area. These land occupations occurred in ancient times by traditional shifting cultivation. Previously, each Lua family occupied and controlled many highland areas surrounding the village for growing upland rice. After the mid-1960s, through the boom of tomato growing and the national forest policy, extending of cultivating areas in highland became very difficult. Most of cultivated areas are located several kilometers from the village and are mostly steep as well. Some places can be reached by motorcycle and take two hours for a round-trip each day.

Under the ambiguity between highland forest and the traditional assertion of forest land surrounding Ban Na Fon, each Lua family can own cultivated areas both legally and illegally for growing tomatoes. In table 2, the survey data from 82 household samplings of villagers in Ban Na Fon shows 58 households (70.73 percent) from all respondents (82 households) can own cultivated land on both irrigated field and forest land, while 16 households (19.51 percent) and 1 household (1.22 percent) of all respondents own only

[6] Shifting cultivation in highland northern Thailand is an agricultural system where growers pioneer, possess, and cultivate the land. They then leave the area and allow the first land to return to its original condition. After that, growers will move to pioneer, possess, and cultivate another place. Within the next six or seven years, growers will return to their first land and cultivate again.

irrigated field and forest land. In addition, table 3 also points out that 74 households (90.24 percent) of all household samplings own irrigated field, meanwhile 59 households (71.85 percent) own forest land. Most household samplings, 49 households, owned between one and five *rai* of irrigated fields, while 18 households own more than five to ten *rai* of irrigated fields. At the same time, 32 household samplings own between one and five *rai* of forest land, while 12 households have held more than five to ten *rai* of forest land. Notably, 8 households own between more than 10 and 25 *rai* of forest land, while 4 households own more than 25 *rai* of forest land (see Table 3). However, none of the forest land around Ban Na Fon has a title deed.

Table 2 The types of land holdings of Lua Ban Na Fon

Type of land holdings	**Ban Na Fon**	
	No. of households	**%**
• only irrigated fields	16	19.51
• only forest land	1	1.22
• irrigated fields and forest land	58	70.73
• landless	7	8.54
Total	**82**	**100.00**

*Survey data from 82 household samplings in Ban Na Fon during February and March 2018.

Table 3 Land possessions of Lua Ban Na Fon

Land possession (*rai*)	**Irrigated field**		**Forest land**	
	No. of households	**%**	**No. of households**	**%**
• 1 – 5 *rai*	49	66.22	32	54.24
• >5 – 10 *rai*	18	24.33	12	20.34
• >10 – 15 *rai*	3	4.05	5	8.47
• >15 – 20 *rai*	1	1.35	2	3.39
• >20 – 25 *rai*	1	1.35	1	1.69
• >25 *rai*	-	-	4	6.78
• Unknown	2	2.70	3	5.09
Total	**74**	**100.00**	**59**	**100.00**

*Survey data from 82 household samplings in Ban Na Fon during February and March 2018.

The data analysis from table 3 also implies that 74 household samplings in Ban Na Fon who possess irrigated fields may own at least 227 *rai*, while 59 households may own forest land more than 316 *rai* of forest land as traditional cultivated land. These forest lands are carefully allocated for growing tomatoes and other commercial plants. Each tomato farm (in the forest area) has a small pond dug for water storage particularly in the dry season (from October to March). The pond size depends on tomato growing space conditions. It actually may be dug on either a higher or lower space near the tomato farm. A part of farm will be separated, and a temporary shelter will be built for cooking and living areas during harvesting time. This shelter may also be used to store some chemicals and tools, including fertilizer, insecticide, knives, hoes, spades, pumps and fuel. Research in Ban Na Fon found that during January to March, Lua tomato growers in the forest land prepare their land to grow tomatoes. Normally, they start the first tomato crop during the first week of April and harvest it around August. After the first crop is harvested thoroughly, most tomato growers grow a second crop immediately in late August, and harvest it in November or December (see Table 1).

Thus, according to forest land enclosure by national forest and natural resources conservation policies, Lua Ban Na Fon can hold their cultivated land in forest areas and negotiate with forest officers through claiming traditional cultivated land rights. Moreover, Lua Ban Na Fon allocate and use their farm land for growing tomatoes and other commercial plants at least 2 crops a year.

Contesting Cultivated Land and New Forms of Primitive Accumulation

Because of the ambiguity of cultivated land throughout Ban Na Fon, Lua highland entrepreneur farmers particularly in Ban Na Fon can accumulate capital via two tomato trading methods: contract tomato growing and green tomato buying.

The first trading method, contract tomato growing is a verbal agreement or informal contract between a Lua entrepreneur farmer and a grower. Tomato growers who want to engage in a contract for a crop normally have been carefully selected by the entrepreneur farmers themselves. Lua entrepreneur farmers often have chosen especially diligent and trusting growers to sign a contract with. Although growers live in other villages distant from where Lua entrepreneur farmer's live, "hua-nuay" or entrepreneur farmer's representatives , live in the same village as the growers, and are assigned to select and monitor tomato growers instead of entrepreneur farmers. After growers accept a verbal contract, they become contractual tomato growers who are obligated to produce and transfer all tomatoes to Lua entrepreneur farmers, or contract owner. According to the contract conditions, contractual growers need to purchase all production elements, such as seeds, chemical fertilizer, and insecticide from Lua entrepreneur farmers. Since the early 1990s, the number of contractual growers has become an important factor for economic guarantees for some

Lua entrepreneur farmers in Ban Na Fon, particularly for the large entrepreneur farmers. Having a great number of members has meant that those entrepreneurs can continuously sell tomatoes to lowland traders all year, and also guarantee profits without interruption.

For the contract tomato growing strategy, research has found that most Lua entrepreneur farmers started their tomato business through seeking a great number of contract growers. For example, from the 1980s to the early 2000s, the initial stage of tomato booming period, Jae Laddawan, Jae Sunee, and Hia Thongkom collected a lot of tomatoes from 60 – 200 contract growers in various villages, while Hia Yai contracted with 35 growers.

The second trading method, green tomato buying, includes the making of an agreement to purchase tomatoes before they are ripened. Before the harvesting period, when tomatoes are still green, Lua entrepreneur farmers need to spend a lot of time visiting tomato farms of growers in many villages. They observe the quality and size of (green) tomatoes, land holding size, as well as the environment of farms. As soon as the visit is finished, entrepreneur farmers will estimate the amount of tomatoes and will immediately offer an appropriate tomato price (all crop) to growers. A few days later, after the price has been accepted, tomato growers receive the deposit from entrepreneur farmers. It may be paid in the form of cash from one thousand to ten thousand baht in advance, depending on the amount of tomatoes. However, after the growers agree to sell the green tomatoes to Lua entrepreneur farmers, they will be temporary laborers on their own lands until all the tomatoes have been harvested.

From the Lua highland entrepreneur farmers' perspective, green tomato purchasing has been a profitable strategy for capital investment. It involves skills, knowledge, experience, and specialization in tomato knowledge, such as tomato planting techniques, climate change, marketing, and price calculating. Each tomato farm visit may incur either great benefit making or a huge loss (if they make the wrong decisions). Nowadays, green tomato purchasing has become an arena of aggressive competition among Lua entrepreneur farmers who need to have a large quantity of their tomatoes even in the tomato shortage season. Furthermore, purchasing green tomatoes has been easy and can be manipulated by many farms at the same time if Lua entrepreneur farmers have enough capital. Hence, green tomatoes have been continuously contested and always given a higher price by richer entrepreneur farmers. Hia Thongkom, for example, a small Lua entrepreneur farmer in Ban Na Fon, explained about green tomato farming contesting and price competition between Lua entrepreneur farmers:

> *"Sometimes, I could not purchase any green tomato crops because richer Lua entrepreneur farmers always proposed higher prices than I did. One time several years ago, I ordered green tomatoes at a price of 80,000 baht from each farm, but a few days later Jae Sunee offered to buy them at 100,000 baht. Of cause, tomato growers accepted her price and traded all of their green tomatoes to her" (Hia Thongkom, personal communication, August 10, 2016).*

Noticeably, without traditional rights, having of the great number of contract growers for each entrepreneur farmer has reinforced to temporarily access enormous forest lands. Cultivated land of contract growers have been controlled and utilized to produce and transfer tomatoes to entrepreneur farmers (the contract owners). In other words, after a verbal contract was made, Lua entrepreneur farmers no longer sought nor provided cultivated land for tomato growing. Provisionally, during the contract period, contract growing land became regulated indirectly by entrepreneur farmers. They can control the cultivated land through commercial tomato species, tomato amount controlling, and chemical fertilizer use. Furthermore, access to other cultivated land has also enhanced opportunities for entrepreneur farmers for capital accumulation, and to calculate more accurately tomato quantity and species for trade in lowland markets. Jae Sunee, a Lua entrepreneur farmer, emphasized her accumulation of contract growers:

> *"I have more than 70 contract tomato growers in many villages. Most of them are Karen in many villages. Some species of tomatoes is ordered specifically to grow in my contract growers' land, while specific fertilizers and pesticides which I provided, also have been used intensively on grower lands. By contractual growing and land controlling, tomato yields can be predicted precisely. Therefore, if I deal with effective growers who own fertile lands, I will get a great number of tomatoes" (Jae Sunee, personal communication, September 16, 2016).*

Because of the huge responsibilities and difficulty to care for all growers, contract tomato growing has declined since the late 1990s. Subsequently, Lua entrepreneur farmers in Ban Na Fon changed their tomato buying method to green tomato buying. By this strategy, they visited tomato farms throughout Hot and Omkoi, as well as neighboring highland areas by themselves, and purchased green tomatoes at an inexpensive rate. Similar to contract growing, green tomato purchasing has become another strategy to control land use as well. Immediately after green tomatoes were traded to some Lua entrepreneur farmers, the authority for taking care of tomatoes and right of land management temporarily belongs to Lua entrepreneur farmers. During this time, entrepreneur farmers together with their laborers will freely look after tomatoes by applying fertilizer and water, managing the farm, and harvesting all of the tomatoes. To clarify this point, Hia Thongkom explained:

> *"Since 1997, every year I bought green tomatoes from growers in many villages. Sometimes if necessary, I would travel to buy green tomatoes in more distant villages in Mae Hong Son province, for example, Ban Pang Oung, Ban Pang Tong. As soon as growers agreed to sell green tomatoes, their farms would be temporarily taken over and operated by me until the harvesting is finished. Every day, my laborers and I would enter the farms to maintain soil fertility, applying fertilizer, monitoring tomatoes both day and night, as well as harvesting, while the actual owner (grower) might start to grow tomatoes in a new place." (Hia Thongkom, personal communication, April 11, 2016)*

Through the strategies of contract growing and green tomato buying, ownership of cultivated lands (both irrigated field and forest land) has changed from highland tomato growers to Lua entrepreneur farmers. That is to say, a great number of irrigated field and forest land will be held by Lua entrepreneur farmers if they buy green tomatoes and make an agreement with growers. For example, through either contract growing or green tomato buying, cultivated land on more than 227 *rai* of irrigated fields and more than 316 *rai* of forest land in Ban Na Fon (see Table 3) can be possessed and controlled temporarily by Lua entrepreneur farmers in Ban Na Fon. In this case, Lua entrepreneur farmers can extend and control their cultivated land as they please without having to confront forest officers.

Although Lua entrepreneur farmers in Ban Na Fon are not official land owners, they can expand tomato cultivating areas indefinitely. According to the natural preservation policy about highland forest enclosure, the accumulation process can be continuously renewed. Significantly, this process of "primitive accumulation beyond entitlement" differs from the previous primitive accumulation ideas of Nevin and Peluso (2008) as well as other academicians, and is characterized by two points.

First, under the Thai government's natural resources conservation policies, Lua entrepreneur farmers no longer have to acquire either forest concession or land entitlement, but they can apply various strategies to borrow and hold cultivated land from small growers (Lua and Karen growers) to grow tomatoes and make a profit from forest lands. For example, Jae Sunee and Jae Laddawan have temporarily held and controlled the cultivated land of their contract growers and small growers through contract growing and green tomato purchasing strategies. Meanwhile Hia Yai and Hia Thongkom can choose the green tomato buying strategy to control cultivated areas after they bought green tomatoes.

Second, despite being under natural protection by the state, after the 1970s, indigenous people themselves appear to be making a lot of profit in enclosed state-forest lands. This finding differs from the studies of Nevin and peluso (2008), Zhang (2012), and Potter (2008) which show that after land and resources were enclosed, the state assigned and enfranchised various state agencies and corporations, including outsiders to make profits on enclosed lands.

Suggestions

This research proposes two main suggestions.

First, the most important issue, the Thai government should give precedence and make an effort to further understand the culture of Lua highlanders, including their way of life, norms, and traditions. Moreover, refusing Lua's traditional land tenure and claiming forest land as national forest where it overlaps with Lua's cultivating areas leads to problems about lacking of cultivating land and conflicts between government and Lua people. On the other hand, national forest and Lua's cultivating areas should be separated systematically by participation of Lua highlanders, forest officers, and the local government. This suggestion confirms Nawakijbumrung's (2013) study which proposes that classifying between agricultural area and forest land by a geographic information system is the solution of conflict regarding land use in highland areas.

Second, the Thai government should help to develop new market channels, such as an online market in highland areas. For developing more producing and trading choices to Lua farmers, the government needs to reinforce entrepreneurial skills; negotiation, interpersonal, creativity, business communication, and risk taking for Lua farmers, and create new commercial connections between Lua highlanders, lowland traders, and online businessmen.

Conclusion

In Hot District, forest land is crucial for highlanders. It has been contested by many actors, such as the government, small growers, and Lua entrepreneur farmers. After the 1960s, forest area surrounded Ban Na Fon where used to be cultivating areas of Lua highlanders were enclosed and become the national forests through natural resources conservation policy. However, in Ban Na Fon (and many villages in Hot District) Lua villagers can informally own and use some parts of the national forest to cultivate upland rice and use commercial crops by negotiating with forest officers and claiming their traditional land rights (shifting cultivation).

After the 1980s tomatoes have been a major cash crop for Lua in Ban Na Fon, as well as Karen in other villages around Hot and Omkoi Districts. Forest lands are more valuable and have been intensively used for growing tomatoes and other commercial plants (e. g. , chili and cabbage). However, these lands are also contested and used by Lua entrepreneur farmers in Ban Na Fon through two tomato trading strategies: contract tomato trading and green tomatoes buying. By these two tomato trading methods, Lua entrepreneur farmers can temporarily expand and control the other cultivated land without having to own land or confronting forest officers. In Ban Na Fon, land contesting and capital accumulating from forest land are different from the studies by Nevins and Peluso (2008) and Zhang (2012)

because they are conducted by highlanders or local people themselves. In addition, Lua entrepreneur farmers can apply two trading strategies to make a profit and seek many commercial advantages from forest land (of small growers).

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