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Hill Fields, Reforestation, and the Construction of  
Inequality in Maehongson Province, Thailand

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# Hill Fields, Reforestation, and the Construction of Inequality in Maehongson Province, Thailand

## Abstract

Shan farmers have practiced a mixed rice cropping strategy using both irrigated and hill fields. While the hill forest is crown land and it is illegal to cut timber and make fields, until recently these laws have not been enforced. Farmers cleared a hill field, used it for one crop of rice and, perhaps, a second crop of sesame and then left it fallow for ten to fifteen years. Farmers only had usufruct rights to the field and they retained no residual rights to reclear the land; once the trees grew back any one could clear it and plant rice. Due to the increasing deforestation in Thailand and the market for plantation grown teak many hill areas are being re-planted in teak. Reforestation appeals to international ecology movement and benefits the military and elites who gain from the timber concessions. The amount of land available for swiddens is rapidly decreasing with negative consequence for the farmers who relied on it to meet their subsistence requirements.

In this paper I show how use of this common property has changed from maintaining relatively egalitarian economic relationships within the community to a means of reinforcing the wealth differences on both a national and local scale.

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In this paper I examine the social and economic changes that result when access to common property, here hill fields for subsistence and cash crop production, becomes limited. My account draws primarily on Shan community of Thongmakhsan in northwestern Thailand and on its agricultural history. Thongmakhsan is not necessarily unique or typical of all Thai or even Shan communities. However, this account shows the local working out of national and international decisions and the consequences these have. The story of Thongmakhsan and the people's responses to these decisions is important because it shows the consequences, perhaps unintended, of the actions of the national and international communities.

I provide background information on Shan and on Thongmakhsan and go on to discuss three periods in its agricultural history. Before considering the implications of the loss of access to the commons, I briefly discuss other factors which also affect social and economic conditions in Thongmakhsan. In conclusion I examine the future of Thongmakhsan and its implications for the future of other similarly situated communities.

## Shan

Shan live in the mountain valleys of Southern China, the Shan States, and in Maehongson and Chiang Mai Provinces in Thailand. They are one of a number of minority groups in Thailand. Like other lowlanders, Shan have a long history of state organization (Moerman 1966; Mangrai 1965). Most Shan in Maehongson Province are peasant farmers. They settled this area approximately one hundred years ago, primarily from the Shan State of Mawk Mai, now part of Burma (Wilson 1985). They are now incorporated into the Thai state and have the same political administrative structure as the rest of Thailand.

Until recently, Maehongson Province has been marginal to the Thai nation. Maehongson Town while growing, is still a small provincial community of approximately ten thousand people. Because of its remoteness, it has been economically and politically isolated from the rest of Thailand. This is changing as the Thai government has become concerned with the security of its western border with Burma and as the rustic attractions of Maehongson make it an increasingly popular destination for both Thai and foreign tourists.

Like lowland Thai, Lao, and Burmans, Shan are Theravada Buddhist. They support Buddhist temples and monks and observe Buddhist holy days. Each group practices slightly different forms of Theravada Buddhism with slightly different festivals, religious scripts, and ordination

lines. Nevertheless they all identify themselves as Buddhist and recognize the others as their co-religionists.

Most Shan are farmers living in villages located in the narrow mountain valleys of the province. Villages range from 20 to 400 households varying with the size of the valley. They grow a combination of rice and cash crops, the mix depending on the distance to market in the provincial capital and local environmental conditions (Tannenbaum 1982, 1984; Durrenberger 1981; Durrenberger and Tannenbaum 1983, 1990).

#### Thongmakhsan

Thongmakhsan is a small and generally poor village, about 120 years old. The original settlers came from Huay Pha a village three kilometers to the south, when people began clearing fields in this valley. Another cluster of people escaping from troubles with a prince in another statelet also settled here. The last group of people to settle came from Namkat, another village in the same sub-district, when the Thai government in the 1950's asked the people to move down from the hills.

Most of the irrigated fields lie in the valley immediately west of the village and in another, smaller valley north of the village. These are the best fields irrigated from the Mae Ngi River. There are a few fields made in small valleys in the mountains northeast of the village which rely on mountain streams for irrigation.

While the narrow valleys mean that irrigated fields are limited, the mountains immediately east of the village make swidden fields possible. These mountain slopes are the "commons" and it is changes in access to them that I address here.

## The Cropping System and Access to Resources

### The Recent Past

Prior to the road which connected Thongmakhsan to the provincial capital, the agricultural system consisted of two crops of irrigated rice, hill rice, with sesame as the cash crop. People grew most of the rice they needed in the irrigated fields, however those without irrigated fields and those needing more rice than their fields could produce also made hill rice fields. Nevertheless, sesame was the major hill field crop. After sesame was harvested, villagers milled it into oil and sold the oil to provide the money they needed for the year. Sesame oil, like opium, is a low volume high value crop, important because transportation was by foot or ox cart (Durrenberger and Tannenbaum 1990).

Until the Thai government began issuing land ownership papers in the late 1970's, people had usufruct access to both hill and irrigated fields. As long as one kept the land cleared, one had the right to use it. Once plants grew to shoulder height, anyone could reclear the land and use it.

People cleared new hill fields for rice and sesame. The sesame fields were used for a single crop and allowed to return to forest; rice fields may be used a second year to plant sesame. People did not retain residual rights to re-clear land they once used. Households planning to make hill fields selected sites based on tree size, assessment of soil quality, and other households' plans - no one wanted to make an isolated field since it would attract all the pests. Unlike other groups, the village did not control tracts of land and there was no village regulation of field selection. Anyone who wanted to made hill fields where they wanted. There was no shortage of land and the fallow period was a minimum of ten to fifteen years (Durrenberger and Tannenbaum 1990; Tannenbaum 1982).

One gained access to irrigated fields through construction or inheritance. Through time households claimed likely irrigated areas, planted gardens, and slowly converted their land into fields. By the early 1970s the land that has access to river water had been claimed and developed. Households with these fields might expand them, but larger tracts were not available. Inheritance is bilateral and both males and females inherited shares in the field. If, when a field was divided, the shares were too small, the field might be sold. The price was the cost of labor necessary for making a new field (Durrenberger and Tannenbaum 1990).

Because people had access to hill fields, those without

irrigated land were not available as wage workers in the irrigated fields. No one relied on wage labor to provide subsistence, and no land owner could rely on wage labor to make his fields. Someone without irrigated fields might do contract labor preparing irrigated fields, but these opportunities were limited. Those with irrigated fields larger than their household could prepare with the help of a contract laborer, were obliged to rent out the field. Rents were fixed but the rate was set at one fifth of a normal harvest. Few fields were available for rent.

There was little economic differentiation within the village. Most households did not have sufficient irrigated fields to meet all their rice needs while few households had no irrigated fields at all. Access to hill fields meant that those without irrigated fields could grow the rice they needed and maintain non-dependent relations with the rest of the villagers.

Since a logging road was built in 1974, the cropping system changed to a single crop of irrigated rice, hill rice, sesame, and soybeans and garlic. The road meant that people with pickup trucks could come to the village looking for soybeans and garlic to buy. The villagers began growing these crops because the price was good and there was less work involved. Sesame was still grown but now it was sold unprocessed. Soybeans and garlic became the major cash crops, grown instead of a second cold season crop of rice. People relied on a combination of irrigated and hill rice



fields to provide for their subsistence. Hill rice became more important and its labor considerations affected sesame field size. If a household needed to make a large hill rice field, they could only make a small sesame garden.

As before, people had free access to hill fields for rice and sesame production. Those with irrigated fields were in a better position to make soybean and garlic gardens since these are planted in the drained irrigated fields after the rice harvest. However, because both gardens require considerable labor and hired labor was not available, people allowed fellow villagers without irrigated fields to use their excess land for gardens without charge.

### Reforestation

In theory the government owns all forest land and it has long been illegal to cut any forest tree. However, these laws had rarely been enforced against villagers. As long as people cut wood for their houses or cleared land for subsistence production they had little to fear from the forestry officials. Since the mid-1980s, the Thai government has responded to pressure from international agencies concerned with both development and conservation and has begun planting trees and more strictly enforcing the laws. How the forestry officials choose to go about this varies by region. My discussion is limited to what has happened in one area of Maehongson Province.

Initially the government, through the local district

officer and agricultural agents, asked village headmen to suggest to their villagers that they do not make hill fields - for either rice or sesame. Villagers could still make fields. For a period of 2-3 years, forestry officials would plant teak or eucalyptus in these fields, usually after the harvest. If crops were damaged in the process, they offered to pay compensation but to the best of my knowledge people never received it. The people planting the trees were not local villagers since this was done while villagers were harvesting or planting cash crops. Once the trees were planted villagers could not use the land.

Along with the tree planting, the government allowed those with gardens in the forest area to apply for hardship land ownership papers. If they received these papers, they could continue using the land and their children could inherit it but they could not sell it. In some case the villagers were given land papers and if they developed the land within 5 years, they would receive full ownership papers, allowing them to sell if they wanted to.

Hill field production has almost disappeared. In 1977 76% of all Thongmakhsan households made hill rice fields and 36% made sesame fields (33 households). In 1980 the percentages were 71 and 100% respectively (35 households). In 1988, only 39% made hill rice fields and 4% sesame fields (56 households). In 1992, approximately 7% of the households made hill rice fields (60 households). However, these are not "traditional" hill fields. Households are

using garden land rather than clearing new fields and they are attempting to switch to permanent dry rice cropping. Those attempting this have planted fruit trees and other permanent crops and hope to be able to continue growing rice. Others without garden land and without irrigated fields do not make new hill fields because they are afraid the forestry officials and the airplanes they use to check the area.

Sesame is still grown, however, it too is planted in permanent gardens and it is a different, lower yielding variety which can be planted annually on the same land.

#### Other factors

Changes do not occur by themselves and other factors, local, national, and international affect the consequences of loss of access to common resources such as hill fields. I briefly examine four such factors: new farming technology, including rice varieties; non-government organizations; the situation in Burma; and alternative employment.

Since the mid-1980's people have begun using walking tractors to prepare their irrigated fields and soybean gardens. The walking tractors make irrigated field production much faster. Farmers can start preparing the fields before the rains begin. With water buffalo, farmers had to wait until the rains began to soften the fields. Also the farmers can work through out the day with the tractors; water buffalo do not sweat and cannot work in the

heat of the day. With a tractor, a household can prepare a number of fields and those with large fields do not need to rent out the field or hire contract laborers to do the field preparation.

However, tractors are expensive: one needs to buy the tractor, diesel fuel for it, assorted belts, and repair the plowshare and harrow. Without money one cannot own and use a tractor. The households with tractors hire themselves out as a plowing teams to prepare the fields of those without tractors. They are usually paid with rice after the harvest. People with the money to buy tractors now do the work that would have gone to a poorer person without irrigated fields. Once you have the wealth to buy a tractor, you have the means of getting more wealth both through this contract work and preparing larger soybean gardens. This ability to make larger gardens means that those with tractors are less willing to allow others free use of their land for gardens.

Balancing this to a certain extent is the district level agricultural cooperative - a mixed government and non-government organization. It has been providing loans to buy tractors. However, this only benefits those poorer farmers who have irrigated fields. The co-op also buys soybeans and markets them for the farmers so they get a slightly better price. Again those that make large gardens benefit more, although anyone who is a member and sells through the co-op benefits.

Complicating this situation is the increased number of Shan from the Burmese Shan state. Maehongson borders on Burma and the unsettled conditions in Burma means that more and more people come to the Thai side looking for work. A few who have relatives in the area may come to settle; Thongmakhsan has four such households. Since these people do not have irrigated fields and it is almost impossible for them to make hill fields, they form a pool potential wage laborers. Those with larger irrigated fields can now hire sufficient labor to plant all the land with soybeans and/or garlic. And it is now possible to find enough hired labor to supplement the household's exchange labor needed for transplanting the irrigated fields and harvesting them. As a consequence fewer fields are available for rent.

The improved transportation linking Thongmakhsan to the rest of Thailand makes villagers available for work elsewhere. These are primarily the younger girls - those who have finished sixth grade but have not yet begun to work in the fields. Various Thai military men through local connections with forestry officials or school teachers recruit these girls to work as maids in their homes in or around Bangkok. These are maid jobs, not, as I first suspected veiled means of drawing the girls into prostitution. Parents are careful and often go to check out the situation, at the expense of the new employers. These are low paying jobs and that these people have to search into Maehongson suggests that in other places fewer girls

are willing to take this job. Thongmakhsan children seem to enjoy the work, some staying for two or three years, other leaving after two or three months. Less far away, a number of girls have similar jobs in Chiang Mai, while a few work in shops in Maehongson Town. Some of those working closer to home some post-sixth grade education, have studied in Town, and as a result of the time spent there, have fewer farming skills than their age-mates. In the poorer families, children are likely to get jobs away from the village and simply disappear. Those from slightly better off households or more dutiful send a portion of their wages back to their families. In one case money from a daughter working in Chiang Mai has allowed her family to buy a small irrigated field. None of these jobs are high paying or promise much as a career.

### The Future of Thongmakhsan

In the last 15 years, the standard of living in Thongmakhsan has improved. There is electricity. While there is still no mini-bus based in the village, a number of households have motorcycles. Many have walking tractors. Most have more money to spend.

However, increased costs of agricultural production, increased availability of wage laborers, limited access to hill fields mean that there is increasing wealth differentiation in the village. In the past, a household

might temporarily be more successful than its neighbors but when the household dissolved and the children inherited, this modest accumulation disappeared. Now these wealth differences are likely to be more permanent.

Most of what the people do with their wealth remains within the village context. A few have sent their children to study in Chiang Mai but it is difficult for them to get a good job when they graduate since their parents do not have much in the way of connections. One woman, the daughter of the village headman, has a salaried job working for an NGO, her younger sister would like to get similar work.

Households with sufficient irrigated fields make a comfortable living in village terms. These families have new houses, tv's, fans, and electric rice cookers. The wealth and economic differentiation in Thongmakhsan is modest by national standards.

Within the national framework, Thongmakhsan is too late to benefit from the modest wealth these changes bring. Those who study beyond the village level no longer have easy access to jobs higher education brings. In the recent past those with a ninth grade education could teach elementary school. Now you need to graduate from a teacher's college.

Loss of access to hill fields means that more people will have to rely on wage labor and those who cannot find it in the village will move on to join the unemployed in the cities. Their village poverty means they will not have the skills to get good jobs.

Thongmakhsan will remain a poor village increasingly drawn into the regional and national economy. The farmers will need more money to meet production costs. The need for money means that they will be exposed to fluctuations in the cost of diesel, tractor parts, and also in the prices they receive for their crops. The agricultural co-operative because it is run by an NGO may help buffer the problems of farm debt when these fluctuations occur. However, the co-op encourages commercial production by providing loans and helping to market products.

The standard of living in Thongmakhsan has improved but the increased integration into the regional and national economy that has made this possible also makes them more vulnerable to systemic economic fluctuations. What is happening in Maehongson and Thongmakhsan is a later re-play of changes in the Chiang Mai basin and even earlier around Bangkok. Access to hill fields and its general remoteness had delayed the development of the penetration of capitalism and the creation of a rural proletariat. Now this is all changing; the better off have fewer opportunities while those without land have even less,



## "Reforestation" Reconsidered

The mountains once considered common property especially for poor villagers have been redefined as an important national resource and become part of "reforestation" and agro-forestry. "Reforestation" is an interesting term since it implies the absence of forests that once were present. In the Maehongson area forests remain, there are few areas of cogon grass from over use.

What has changed is the definition of forest and its appropriate use. Making swidden fields with a fifteen to twenty year fallow period allows the forest to re-grow. This long terms fallow cycle provided for the people of Thongmakhsan and surrounding villages for over one hundred years. This system was relatively stable, although it is vulnerable to population growth. Villagers are aware of this and use birth control to limit family size. However, the international situation with Burma and the limited availability of land elsewhere in Thailand might have increased the population beyond the swidden system's carrying capacity. But the reforestation has changed the situation and we will never know if this would have happened.

Now these forests are seen as threatened and in need of "reforestation." Who benefits from this redefinition? Obviously not those who relied on the hill fields for rice production. The trees planted are export tree crops -

eucalyptus for pulp paper production, and plantation teak. The benefits will go to those that harvest these crops, the owners of the companies that process them, and to the national economy from their export. The government, concerned about its national image and conservation, also benefits from these programs. Along the way these crops will provide wage labor for the poor displaced from elsewhere. Thongmakhsan bears most of the costs - loss of fields, degradation of the soil from eucalyptus planting, and loss of biodiversity. One ominous sign this year was that in spite of the heavy rains, the river was low and there was less water available for irrigation. Making swiddens are often blamed for this, but few households are making hill fields. I am tempted to blame this on the agro-forestry production.

However, as Thucydides said, the strong do what they will and the weak suffer what the must.

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