

CHAPTER 5

MULTIPLE MEANS OF COPING STRATEGIES

The previous chapter illustrated that garlic production is still popular among small-scale farmers despite the government recommendation of reducing garlic production levels because farmers viewed trade liberalization in a different manner from the government and tried to handle the change in market structure in their favor. In this chapter I will discuss the way small-scale garlic farmers have persisted even in the face of difficulty in selling the own product in the market.

Although farmers of Dong Pa Sak Village produced various vegetables in addition to garlic, most farmers still feel that main crop of Dong Pa Sak Village is garlic. One villager said after introducing what kind of crops they grew in the village, “Yet, garlic is our main crop, and should be at a good price.” The village headman also said, “Despite the garlic price, we have to grow. It is our duty.” He told me that their main income came from garlic, and if they stopped growing garlic, they needed children’s support.

In this chapter, I will raise several concrete cases of garlic farmers who got through the hardest period in their garlic history in the scope of examining their multiple means of coping strategies. Garlic farmers’ strategies are largely divided into five means: diversification of crops, diversification of work into off-farm, cost reduction, rotation of capital, and enlargement of farm land. Those strategies are raised separately here over three sections, but they are in fact interrelated each other, and many farmers take multiple measures at the same time. In relation with enlargement of farmland, increasing land trade is also raised in the last section and analyzed as a tendency of land concentration as well as a case of multiple trajectories among original small-scale farmers. By looking at several case studies, it is helpful for us to grasp what is happening in Northern Thai garlic village as trade liberalization

as a driving force of change.

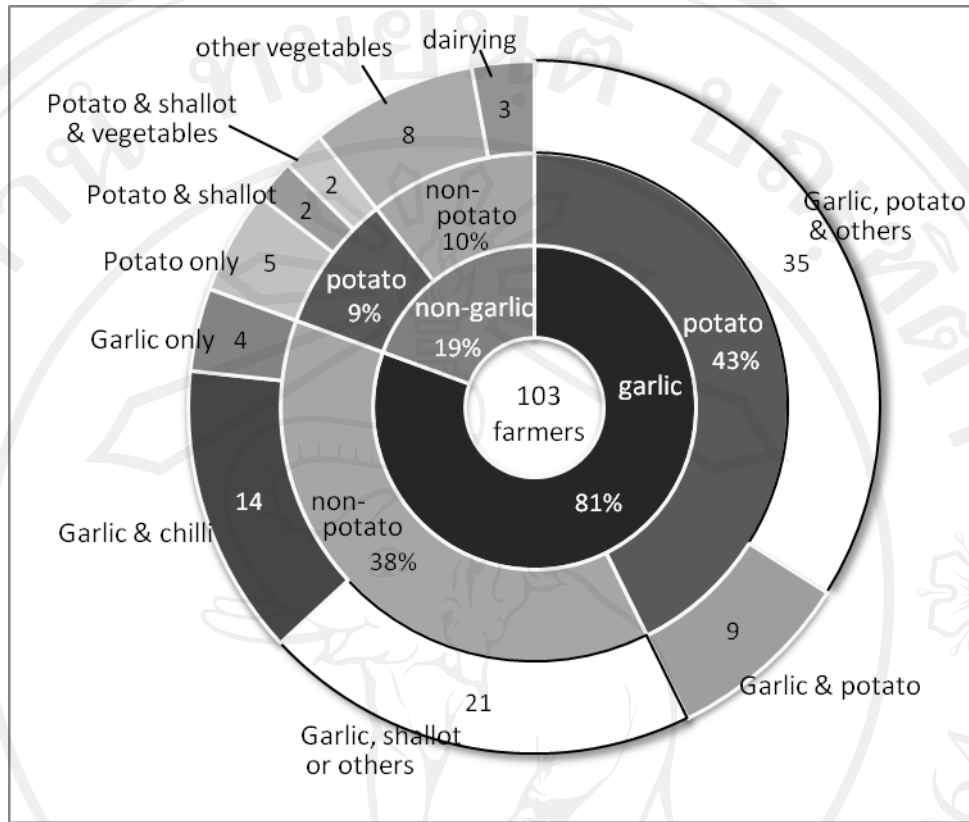
5.1 Diversification of On and Off-Farm Works

In this section I provide case studies and discuss garlic farmers' crop diversification as the main coping strategies, followed by explication of the reason why more than a half farmers gave up potato production in comparison with garlic one. Then, I will also look at the farmers' efforts of cost reduction. Lastly, I show their diversification of their works into off-farm works, as a part of the attempt to increase the income source.

5.1.1 Diversification of Crops

In this subsection, I would like to look at three farmers cases – the first two are small landholders, and the other one is a landless farmer – to understand the first and most popular coping strategy among survived garlic farmers: diversification of crops. The diversification of crop means what a farm family produces various kinds of cash crops in one year. Farmers in Si Dong Yen region used to cultivate a few crops even before trade liberalization, such as garlic, chili, and some fruit trees; or garlic and some popular green vegetables. But the scale of diversification was not as equal as today, and the crop such as potato were not popular at all here in addition to sweet corn. Figure 5.1 is a circle graph that 103 farm families of Dong Pa Sak Village (about a half of Dong Pa Sak farm family) was divided by the crops they grow. The two white-colored regions in the graph are the farm families that diversify their crops to grow, and it occupies 56 families or 53 percent of the total.

In fact, concerning the coping strategies of garlic farmers, diversification of crops goes along with diversification of farm production system, which, in this work, indicates combination of two kinds of productions: self production and production through contract. Since I have so far looked at contract farming in detail already as newly introduced system instead of garlic production of entrepreneur way of farming,



Notes: The number of the outside circle is the number of farmers.
Figure 5.1 Crop productions of Dong Pa Sak farmers.

I will not repeat the issue here. But when I mentioned in this work that farmers cultivate potato, sweet corn, peanuts, etc, that is to say, most of vegetables besides garlic, shallot and some green vegetables, it is produced through contract these days as long as no special mention.

Answering the question of whether trade liberalization has changed their livelihood, Mr. Dee, a small-scale garlic farmer in his middle 40s said:

No, it has not changed really, but we had to increase channels of making money. If we are passive and only waiting, we can fail in garlic production.

(Mr. Dee, a garlic grower in his middle 40s, in Dong Pa Sak Village, 9 Sep. 2006)

| Land holdings | | Crops before 2003 | Crops in 2004 | Crops in 2006 |
|-----------------------|--------------|-------------------|-----------------------------|-------------------|
| 7 <i>rai</i> in total | 2 <i>rai</i> | Garlic and chili | Garlic, shallot, sweet corn | Garlic and potato |
| | 3 <i>rai</i> | Litchi | | Litchi |
| | 1 <i>rai</i> | | | Kale |
| | 1 <i>rai</i> | Orange | <i>Phakchaom</i> | |

Table 5.1 Land usage of Mr. Dee.

Mr. Dee was actively trying several new crops in an experimental manner in search for a better livelihood when I visited him in 2006. His detailed landholding is shown in Table 5.1. He holds a total of 7 *rai* of land for farming: he inherited 5 *rai* of farm land from his parents, bought 1 *rai* of land from his younger sister, and bought another 1 *rai* from the other person. Of these 7 *rai*, he used 3 *rai* of land as a litchi orchard, 1 *rai* for *phakkhana* or kale (green vegetable) field, 1 *rai* as *phakchaom* field, and other 2 *rai* for yearly double-cropping of garlic and potato in year 2006. Garlic farmers often plant chili instead of potato during the garlic off-season, and he also used to do this. However, just like many other farmers in Si Dong Yen region, Mr. Dee was growing potatoes as a trial when I visited him in 2006, looking for better cash crops. He said that he began potato cultivation since last year, but since it did not go well, he stopped in the following season. Before potato, Mr. Dee also used to tentatively plant sweet corn and shallots as off-season crops in 2004 and 2005, but since the outcome was not satisfactory for him, he gave up this practice as well. Although he was planting kale and growing *phakchaom* in 2006, they were also new crops. Furthermore, before 2003, he used to have 4 *rai* of land as a litchi orchard instead of 3 *rai* of litchi and 1 *rai* of kale, and 1 *rai* of *phakchaom* field also used to be an orange orchard. He used to grow litchi and orange since he was young. But the profit from those fruits had also stayed low recently. Thus, he decided to cut some of those trees and to try new ones in the wake of garlic recession. These changes that can be linked to what he claimed “increased channels of making money” after the trade

liberalization. I call this kind of livelihood strategy is ‘diversification of crops’.

Mr. Dee’s livelihood strategy in agriculture is not only to increase the number of crop varieties, but he also has constantly improved his way of farming. When I was helping his family to plant kale in May 2006, Mr. Dee told me:

When I was observing the kale market last year I noticed that the kale was purchased at a higher price during the Chinese vegetarian festival season that is normally held in October. Thus, this year I have arranged and decided to plant it today so that we can harvest it and sell it during the festival season.

(Mr. Dee, a garlic grower in his middle 40s, in Dong Pa Sak Village, 28 May 2006)

In October of that year, I noticed that the price of vegetables was slightly higher than normal in the Festival week. However, considering the fact that I have heard the same idea from some of other farmers from other region later, the vegetable market of the vegetarian week may have already become competitive because of high supply. If many farmers sent their vegetables on that week, the price of vegetables may go rather higher after vegetarian week, as somebody mentioned to me. Even though farmers speculate about the farm plan, it is not at all easy for them to increase their profit.

Another farmer of Dong Pa Sak Village, Mr. San is also very active in on-farm work. I visited Mr. San with NGO staff in November 2007, the time when the garlic commodity price dropped the lowest level of four baht. When we asked how he would solve the problem, he first answered that he was trying to decrease investment costs (see next subsection). The question went on whether he would give up the current land if the price of garlic stayed low for a long time. His answer was definitely no. He said that the quality of land there was good, and that he could not think of other land for farming. Thus, the question came back to the way to solve the problem again. This time, he replied:

I will increase the kinds of crops to produce. --- Yes, if the prices of other crops are good, I will produce them. The land here is suitable for the root

crops, such as taro. But we cannot know the price (in advance) because there is no contract. There is also a bean which people came to experiment to plant here these days. It can be a choice as well.

(Mr. San, a man of in his early 50s of Dong Pa Sak Village, 15 Nov 2007)

Thus, similar to Mr. Dee, the way how to survive recession period for experienced farmers in Dong Pa Sak Village is, first, to decrease the investment cost, and second to diversify the kinds of crops to produce so that the risk would be dispersed.

Mr. San's landholding and usage is as follows. He followed in agriculture from his father and expanded it. He bought 5 *rai* of land near his house in Dong Pa Sak Village and is growing garlic. He is renting 12 *rai* of land in the near village: 8 *rai* as paddy field and another 4 *rai* as vegetable garden. The rent price of vegetable garden is 3,000 baht per *rai* per year as of 2007, and the price of rice field is 7,000 baht for 3 *rai*. For the vegetable land, he used to ask the landowner to sell the land to him, but the land owner, who currently lives in Bangkok did not agree with it because the soil is good and the water is good. He grows potato, shallot, tomato, cabbage, eggplant, cauliflower, and litchi as of 2007.

We also asked about the possibility of chemical-free farming instead of high competitive crop production including garlic, or to decrease the cost for the agricultural chemicals. He replied:

I am willing to doing that, but the cost of chemical-free farming is very high for the first investment such as to buy nets to cover. I also heard from friends who are doing them that it is very difficult. It is difficult, but when we send the products to the market, the traders or sellers are not interested in whether the product is chemical-free or not. So the price is not different from other vegetables. They also think that they cannot compete with the Royal Project¹... They said like this.

(Mr. San, a man of in his early 50s of Dong Pa Sak Village, 15 Nov 2007)

Thus, Mr. San does not engage in chemical-free farming yet.

¹ "Royal project" is a project to produce organic products in Northern Thailand, which is supported by the Thai Royal Family. It has done for 40 years already and has certain fame in Thailand.

Since Mr. Dee's family and Mr. San are examples of farm families of smallholdings, I would like to introduce the other farmer who does not own land of his own, yet vigorously works as a farmer by renting land and diversifying cultivation of crops.

Mr. Kiat is in his early 30s, and does not have his own land for farming yet, because his parents have not transferred their land to their children. Yet, he is very active in farming, enough to be called as a 'real farmer' from the neighbor people. His small son goes to a private school in Si Dong Yen Sub-district indicates the higher level of their livelihood compared with other villagers, although it is also true that his wife has a monthly income by working at a healthcare center of the village.

In 2007, he rented 19 *rai* of land in total: he grew sweet corn on 14 *rai* of land, and grew shallots, potatoes and garlic in turn on 4 *rai* of land. He rents land at a price of 2500 to 3,000 baht per *rai* per year, although the true price rating system is more complicated than this depending on how many crops he cultivates per year and so on. He grows sweet corn by sub-contracting with CP Co. Ltd, a leading company of Thai agro-food industry. He produces potato also through sub-contracting with a Siam Snack Co. Ltd since 2005. For the shallot, it is not through contract farming but cultivates for his own first, and sell to the traders later, just like garlic. He usually plant chili as well, but stopped it in 2007 in order to grow shallot in the chili season (June to August).

I asked him whether it is possible to make ends meet only by agriculture by renting all of land like him. He replied:

I can do it somehow, if the weather is good. But, for example, last year, I lost on garlic. So I have to cover by other crops. --- For other crops, sweet corn is new for me. I don't know yet whether it fits the quality of the soil here well, but I knew that the cost of sweet corn production is not expensive. So I chose it. --- Yet, for this year, I haven't decided whether I grow garlic or not. I have to wait for the result of shallot and potato first. If the profit of shallot is better, I may grow shallot. This year, I don't have so much money to invest. Thus, I will wait for the shallot and potato first. I have already bought and

prepared for potato seeds.

(Mr. Kiat, a farmer in his early 30s of Dong Pa Sak Village, 28 May 2008)

In the face of hard period in garlic production, he was struggling and looking for an improved combination of crops. Being young, although he does not have enough money to buy land or to invest a lot, he has been actively engaged in farming and been quite successful so far. His family's better off may partly owe to his wife, who has monthly income. Yet, his effort and talent are also recognized.

Lastly, although I introduced successful landless farmers' cases here, it does not mean all landless farmers are living better off like this. To the contrary, many of landless villagers are still working as wage labor, and suffer from hard livelihood. For this, as difficulty of livelihood of wage labor, I will look at in detail in Chapter 6.

5.1.2 Resignation from Potato Production

I have already looked in Chapter 2 at how potato production came to Si Dong Yen region after trade liberalization, and that about a half of the farmers returned to garlic production resigning from potato production, while the other half stayed in production of both garlic and potato (see also Figure 5.1 cited before). In this subsection, as a part of phenomenon of diversification of crops, I would like to consider the reason why most of them came back to garlic without staying in potato production in combination with other crops. Since I have already compared garlic production with potato production in terms of investment costs, and of guarantee of price, so far already, in this part I would like to raise other two factors: land size and nature of soil, about which farmers often mention in conversation.

I would like to introduce Mr. Wit's case so as to suggest the necessity of a certain land size to make a profit from potato production. Mr. Wit is one of the few people who ceased garlic production completely and shifted to potato production in the wake of trade liberalization in Dong Pa Sak Village. He is in his early 50s in 2010 and has two children. He owns 7 *rai* of land, and used to grow garlic on 20 *rai* of land

including rented land before trade liberalization. However, following to the recommendation by the government, he decreased garlic production since 2004 and planted shallots and cabbage by way of trial. However, since yield of cabbage was not good, he changed it to potato in 2007. He came to know about the potato production in a form of contract through brokers. The year 2007 was the also the time when the garlic price has dropped to four baht per kilogram at second time after trade liberalization. Thus, he completely stopped garlic production, whose scale has already decreased into only 1 *rai* till then, and began to concentrate on potato and shallot productions in 2007. Increasing the rented land size into 20 *rai*, he grows potatoes and shallot on 27 *rai* of land in total today. His rental fee of land is 3,000 baht per *rai* per year. It is particularly notable that at first he grew potatoes under contract, but that today he produces it for his own without guarantee of price in advance, and then makes a contract with brokers when harvest time came to closer. In this way, he can negotiate with brokers and can get better a price than through normal contract farming.

I asked him what is the difference between farmers who succeeded and failed in potato production, Mr. Wit answered:

We have to grow a lot to gain from the potatoes. If we cultivate only 1-2 *rai*, it is not enough.

(Mr. Wit, a potato farmer in his early 50s of Dong Pa Sak Village, Oct 2010)

This might be one common answer for the success in agriculture. However, in regard with the shift from the garlic production to the potato production, there might have been a pitfall. Many of garlic farmers used to and do grow garlic on only a few *rai* of land, because small-scale garlic production of less than 5 *rai* was and is still possible and profitable. When they changed their crops from garlic to potato, they had just grown potato on a few *rai* of land without noticing the above fact of necessity of large fields. Thus, many of small-scale garlic farmers failed in potato production.

The other important factor alongside land size in decisions about which crops

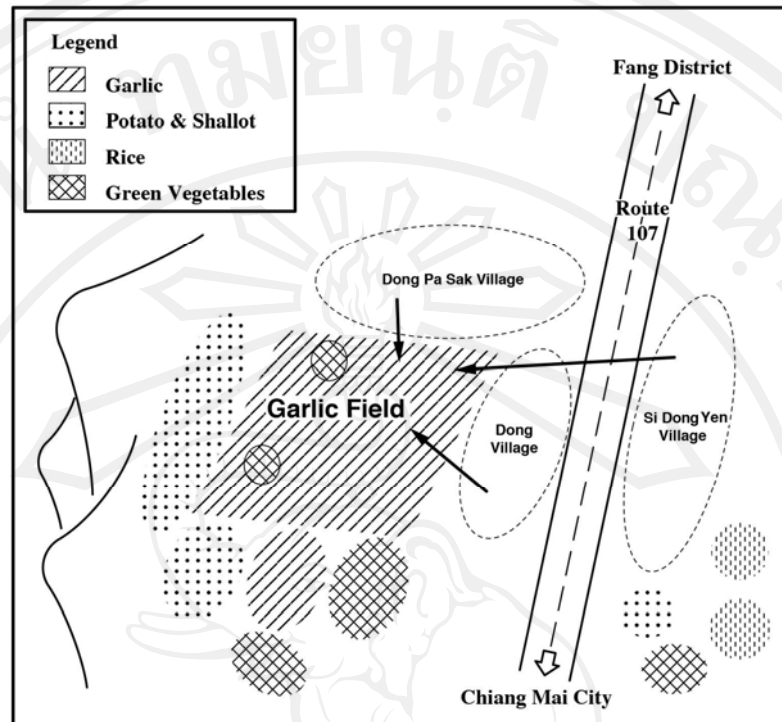


Figure 5.2 Overview of garlic field in Si Dong Yen Sub-district.

to grow, is the nature of the soil. To consider nature or socio-nature aspect as one factor directing social actor's decision or social phenomenon is modern trend including actor-network approach (Castree, 2002, 2008), or even in analyzing commoditization process (Nevin and Peluso, 2008).

The nature of soil and weather of Si Dong Yen region are important factors for farmers in decisions about which crops they should plant on the field they cultivate: garlic, potatoes and shallot, rice, fruit trees, or others. Now I would like to look at an image map of utilization of farmland in Si Dong Yen region (Figure 5.2). The many parts of garlic field in Si Dong Yen region actually belongs to Dong Pa Sak Village, and farmers from several villages in Si Dong Yen Sub-district are utilizing there to grow garlic. Mountains lie on the west side of the garlic fields, or accordingly of Dong Pa Sak Village. The fields in between the garlic ones and the mountain, as well as the fields on the southern part of the garlic fields are often used for potato or shallot productions in addition to other vegetable productions. The field east side of the Route 107 is for the rice and the other kind of potato.

In consideration of these land features in Si Dong Yen region, for example Mr.

San, a small-scale farmer who is actively diversifying his crops, growing garlic along with shallot and potato by himself for more than 15 years, said that the land in Si Dong Yen region could not bear satisfactory products except for these three kinds. He means that these crops go well with the nature of land and weather there. Another garlic farmer, Mr. Yai, who owns 10 *rai* of middle-size land and had grown garlic on as much as 16 *rai* of land including rented land before trade liberalization, also told me in the similar way. I asked whether he reduced garlic production scale in 2004 or 2005 following to the government recommendation. His answer was no. He said:

If I decreased the land of garlic, what should I do for that land? This is our occupation. Actually, we can grow only garlic on the field here. --- We cannot grow the big tree. We cannot grow rice either. --- The soil here does not keep water. It's for garlic.

(Mr. Yai, a farmer in his early 40s of Dong Pa Sak Village, 6 October 2010)

This fact that even a middle-scale garlic farmer who has an alternative choice of crops in terms of land size, views the nature of soil in the same way as small-scale garlic farmers, confirm that farmers are not necessarily replacing their problem in land size with something else. Furthermore, in relation with this, the village headman of Dong Pa Sak Village told me that the soil of Dong Pa Sak Village contained high ratio of calcium, and that it did not fit rice production. Thus, Si Dong Yen people's claim that the land is naturally suitable for garlic production may be physically true.

In connection with the nature of soil, potatoes are difficult to take care of as its heads are highly perishable. I asked Mrs. Pha, whose husband has tried potato production for two years after trade liberalization, ended up in failure, about potato production. She answered:

Potato is not good so much. Some people can gain a lot, some people can gain only little. The heads are easy to go bad. --- What is good is they guarantee the price. But we need a lot of investment. Fertilizers and chemicals are expensive. Potato needs a lot of fertilizers and chemicals.

(Mrs. Pha, a women in her mid 40s of Dong Pa Sak Village, 25 May 2008)

Since the husband of Mrs. Pha, Mr. Dee is one of the experienced and successful farmers as I showed in the first subsection, it does not mean they have failed at potato production because they did not make an effort. The less experience in potato production can be one cause of failure. For example, it is said that the potato is easy to be infested with insects, in comparison with garlic. Another possible cause is that the soil of their field does not suit for potato production. It is said that the potato hates the waterbed.

In addition to the difficulty to taking care of potatoes, most female farmers whom I talked with said that the work for potato production they thought was harder than growing garlic. Most women, first of all, think that potatoes are heavy to carry, which only men can do. Second, to dig potato out is the women's role in potato harvest just like garlic, but potato needs more strength to dig up than garlic. For these reasons, Dong Pa Sak female farmers say: "Oh, potato? The work is very hard."

In Dong Pa Sak Village or Si Dong Yen region, there are two kinds of potato that are produced. One is oval one and the other is round one. The former seed is planted in August and harvested in October. It is oval shape and bigger, but the taste is weak. Thus, the potato-chip factory does not necessarily prefer it. The latter one is planted in November or December, usually at the rice field after rice harvest. In Dong Pa Sak Village, it is cultivated in the east side of R107, not at the garlic field. It is round and smaller, but the taste is better. The potato chip factory preferred it.

As is shown in Figure 5.2, farmers have roughly divided which field is for garlic, which field is for potatoes and others, and which is for rice as of 2008. Although they used to cultivate potato in various place around in 2004 and 2005 after the government recommendation, partly believing the officer's words that Si Dong Yen is the best place to produce potato in Thailand, and failed. It seems possible to produce potato or any crops anywhere to some extent as long as farmers put a lot of fertilizers, insecticide, and so on, but it requires much cost, and waste of money for farmers. By now, they understand the nature of soil of their own region, and utilize it in a better way except for several exceptions.

Through many trials and errors, Si Dong Yen farmers began to stabilize which

crops they should cultivate at which field. Garlic is the crop that they judged as their best crop through 30-years of experience, thus, it is not easy to disappear from the region.

5.1.3 Difficulty of Cost Reduction

Farmers' diversification of crops and their flexibility in work is an effort to increase income even if a little, but they have also other livelihood strategy; that is decreasing the cost of garlic production. After talking about bad price of garlic as well as of other crops, the previously cited Mr. San talked about some of his coping strategies:

If I cannot sell the crop well, I will change the way of agriculture first. I mean that I have to decrease the cost of investment. Otherwise there is no profit. For example, I decrease an amount of fertilizers. I also decrease hiring labor. Or I can join the exchange labor system.

(Mr. San, a man of in his early 50s of Dong Pa Sak Village, 15 Nov 2007)

Mr. San explains that it is not easy for farmers to reduce their cost of investment in garlic production. The cost for agricultural chemicals occupies much of the total cost, and it cannot be reduced. On the contrary, it has only increased year by year, about 500 baht per can in the year 2005 and before to 700 baht in the year 2007 and 2008 and even 1,000 baht in the year 2010 partly due to increasing price of oil as a whole world. Since garlic is chemical intensive crop, the increase of its price of one sack or can meant a lot for farmers. Most of small-scale farmers buy those fertilizers and herbicides from shops near their home or the garlic COOP by credit. Thus, what most of them had done on the year the garlic price showed bad record, was not to pay back the debt.

Dong Pa Sak farmers generally buy garlic from Mae Hong Son Province as seeds. As another measurement to reduce the investment cost, there are also some farmers who kept and used their own garlic of the former year as seeds. Mrs. Phin was

one of them. However, she told me that in their garlic yield, she used their own garlic seeds, which decreased about 80 percent by weight in comparison with other years or with other farmers' garlic of that year, and quality of each garlic was not good either. The cost for garlic seeds is high if they buy those of Mae Hong Son. But I can understand from this example that to save the cost of seeds in this way is not necessarily a good strategy.

Since garlic is a crop requiring intensive labor, the cost for hiring labor is also high along with the cost of chemicals. However, since the wage for labor originally low, again, it is not easy to reduce its cost. Yet, as the farmers tried to reduce it even slightly, it is laborers who suffered the loss from this. Since this is related to changing status of wage labor, I would like to look at this process in detail from the wage labor point of view in the next chapter.

Because of small-scale farmers' already frugal nature, to reduce everyday expenses or agricultural cost is a difficult task. Rather, what was seen among the garlic farmers in Si Dong Yen region was to join a labor exchange circle to save the cost of hiring even a little labor as Mr. San mentioned before.

In the garlic production in Si Dong Yen region, besides the labor of family members, hiring wage labor on a daily basis has been a popular way of planting and harvesting garlic for many years. At the same time, however, a labor exchange system among relatives and some intimate neighbors, which is a traditional way of farming in Northern Thailand, has always been important even at a small scale. Several farm families get together, set up a labor exchange circle and plant or harvest garlic together at each member's garlic field respectively by rotation on pre-arranged days. For the labor exchange, instead of paying wages to friends of the circle, they are obligated to go to help the friends of the circle someday in the same way. For example, Mrs. Duang, whom I will mention in the followings, expressed about exchange labor in this way:

If close friends need labor, I will go to help them. They also help me. We are like relatives. We are like this since old days.

(Mrs. Duang, a woman in her late 30s in Dong Pa Sak Village, 15 Feb 2008)

As Mrs. Duang mentioned as “we are like relatives,” the words “we are like brothers and sisters” and so on are often heard when I talked about the exchange labor system with the farmers.

When the price of garlic dropped, farmers who joined the exchange labor system increased. By doing so, they could save even 1,000 to 2,000 baht of labor cost per *rai*. I have got acquainted with Mrs. Duang as a garlic trader, but when I visited a garlic field to observe harvest in February 2008, she was unusually working as an exchanging laborer there. Looking at my expression of surprise, she said:

Look at me. Since I cannot sell garlic, I have to work as exchange labor at a field. --- I usually do not go to work as labor at a field because I have a job to do. But this year is special. I have no money to invest. So I have to work at a field.

(Mrs. Duang, a woman in her late 30s in Dong Pa Sak Village, 15 Feb 2008)

In this way, although not necessarily successful in finding another source of money, some farmers could get through the slump year and keep up garlic production.

After all, it is not easy for small-scale farmers who had a small investment to start with to reduce the cost more. By reducing the cost of borrowing money, changing the kinds of seeds, and forming an exchange labor circle, they somehow survived the worst years of garlic business.

5.1.4 Diversification into Off-Farm Works

Many of the small-scale garlic farmers who continue garlic production until today engage in extra off-farm works in addition to diversification of crops shown above as coping strategies to the instable livelihoods. Farmers who work in both on- and off-farm field in addition to diversification of crop production can be called “flexible peasants” in reference to the work by Yos (2008). The term flexible peasant

is a new one, but the existence of such flexible farmers has been recorded by agrarian scholars in Northern Thailand since 1960s till today (Moerman, 1968; Calavan, 1975; Turton, 1975, cited in Jamaree 1996: 96; Ritchie 1996).

In agrarian studies in Southeast Asia today, it is also important to consider off-farm income source including remittance so as to analyze persistence of agriculture. In fact, in Dong Pa Sak Village, it is said that one large-scale landowner has a relative who works in Japan, and another is originally from rich family, although those are still minor cases in this village. Yet, they also diversify their work to outside of agriculture as most of today's Northern Thai farmers do. As good examples of flexible farmers, I would like to bring back to Mr. Dee and Mr. San whose cases raised former subsection.

In addition to on-farm work, Mr. Dee is also good at and active with off-farm work. He used to work as a carpenter and a master carpenter for a while as is often the case of rural men. His skill as a carpenter is considerably good, as people around him tell me, and as I observed the houses which he built. Yet, he does not work as a carpenter after the time when I got to know him in 2005 because, as he explains, if he works as a carpenter, a lot of time would be taken away from farming or other things. He even has to stay away his family for several months as well as from farming, whose condition he does not prefer. Instead of that, he is renting out a big speaker set to other people for events such as karaoke, and this business is quite successful. In today's Northern Thai villages, there is a culture of preparing a karaoke set for special occasions such as wedding ceremonies or housewarming parties. He rented the speakers at 3,000 baht per day, and he could constantly make a certain amount of money every year. I call these farmers who are active for engage in on- and off- farm work, and yet those who identify themselves farmers, 'flexible farmers.'

After the garlic price dropped, Mr. Dee's wife, Mrs. Pha, also contributes to increasing the household income. First, she began to work as an electricity bill collector in the village, and the work let her make about 500 baht per month. Second, when I visited them in May 2006, she was selling some soft drinks on the side of the

main street, adjoining to a *somtam*² shop of her sister-in-law. Normally, she and her husband work at a farm from about five o'clock in the morning to the afternoon, depending on the season. As she has free time in the afternoon, she made a plan to sell some drinks during that time. But she gave up this small vending after a while because she could not make a good profit. Third, in 2007, she and her 23-year-old daughter made bead bracelets as piecework. They received work from Mr. Dee's relative who lived and sold beadwork in Bangkok, the capital of Thailand. If they got serious with the beadwork, they might be able to make 20 baht per hour. But they usually did it like a hobby when they had spare time. So they made from around 250 baht to 500 baht per month. In 2008, they still worked on it, expanding a circle of beadwork to a few of their neighbor friends, who are also garlic farmers. But when I visited them in 2010, two years later, the work has disappeared anymore because of the reason of the shop in Bangkok.

In regard with Mr. San, he drives a car for other villagers as a supplementary work at off-farm field because he has his own pickup truck. For example, he takes the wage laborers from their house to the field, or helps to carry fertilizers, and receives money of about 300 baht per time. By making money mainly from on-farm work, especially from garlic, and some money from supplementary work, he could send his child to Chiang Mai University, the best university in the Northern Thailand.

Although the profit from garlic production is big in its banner year, there are also a few bad years that farmers had to endure. What is often seen for small-scale farmers who suffer from red figures is the existence of remittances from family members outside the village, although the amount of such support varies by the household. In most cases, children are working in the city. Sometimes a daughter or a wife works as a housekeeper in Chiang Mai City. Sometimes children who finished technical school or university work as a government official, at a steady company or at a factory, and sent a certain amount of money back home. Mr. San's son is one of them.

² *Somtam* is a spicy papaya salad, which is popular in Thailand. It can be lunch, dinner, or a snack between meals.

After Mr. San's son graduated university recently, he could find stable work in a company and is sending money to his parents about 5,000 baht per month. Mr. San said that his debt used to constantly increase when his son went to school, but that it began to decrease after his son began to work at company. He also said that he usually can live without remittance by his son, but it will be helpful when he cannot make a profit from garlic production. With such remittances of 1,000 baht to 5,000 baht per month, or irregular support, farmers who cannot make ends meet for themselves, can survive the hard periods of their lives.

To sum up, positively engaging in various kinds of on- and off-farm works as flexible farmers, Mr. Dee's family and Mr. San's family live comparatively better-off livelihood among small-scale garlic farmers, and also could get through the difficult years for garlic farmers.

5.2 Rotation of Capital for Risk Prevention

As another distinct strategy to manage risk in garlic production, I would like to discuss rotation of capital (*mun tun* in Thai) by garlic farmers. On the one hand, when I hear the words of the garlic farmers and money, it is true that a problem of increasing debt is a top reason of cancellation of garlic production. However, such indebted farmers' problem has been discussed a lot both in the academic literatures on rural development and practical development fields. On the other hand, it is an important question to consider how small-scale garlic farmers manage their capital without being indebted. While I am staying in the garlic village, I sometimes saw the cases of farmers who do not have to borrow money from the bank but can manage funds by themselves. Thus, in this section, after introducing two cases of farmers who were indebted through garlic production and giving it up, I would like to cover two topics: the necessity of rotating capital, and necessity of loaning.

Now I would like to look at two cases where farmers had to give up garlic as a result of lacking money to invest. Mrs. Ning, who is in her late 50s in 2007, is one of them. She was a landless farmer, and used to grow garlic by renting a few *rai* of land.

But she stopped garlic after 2004 because she had no money to invest for next cultivation, while investment cost rose up. Since then, she works as wage labor in agricultural sector, including planting, harvesting, and breaking garlic, or weeding field. Since she owns a pickup truck, she works as a driver to carry other wage laborers to the field. Her average income is about 100 to 120 baht per day, which is much less than the income through garlic production when the price of garlic stays acceptable level.

As another case of small-scale garlic farmer who gave up garlic production, I would like to look at Mrs. Daa's case. She actually ceased garlic production before trade liberalization. But her case is worth mentioning here to understand the situation of those who gave up garlic as a result of declining livelihoods because of it. Even on the point that she is not old but still middle-aged – being in her early 40s in 2008 – and is not a landless but owns a few *rai* of land, her case is distinguishable from Mrs. Ning's case. Mrs. Daa used to grow garlic with her husband. But the couple gave up garlic production around 1998 because they only increased debt even if they engaged in it. Both she and her husband worked as a wage laborer since stopping garlic cultivation and rented out their land to other people. I interviewed Mrs. Daa, when she was working at a vegetable field as a wage labor. She told me:

If we grow garlic, we have to invest a lot. And if it failed, we increase the debt. --- Before I also used to grow garlic. But I lost. So I gave up it about 10 years ago. --- And I work as wage labor since then. It feels better. --- Yes, the profit is small. But we can live somehow. --- My husband also works as wage labor. We don't have to have headache. (She laughs.) Wage labor is safer.

(Mrs. Daa, a wage labor in her early 40s, 25 Mar 2008)

I introduced Mrs. Daa's words here, because her words clearly show the reason why ex-garlic farmers gave up garlic production and became agricultural wage labor despite landholdings. Although Mrs. Daa ceased garlic production before trade liberalization, some other small-scale farmers who passively cancelled garlic

plantation after trade liberalization would have similar explanation to this as the reason of their garlic cessation.

As illustrated in the Mrs. Ning's case, farmers who gave up garlic production even after trade liberalization ceased it because of age rather than because of being directly affected by trade liberalization. In other words, there are not so many farmers who negatively ceased garlic production in Dong Pa Sak Village as a result of trade liberalization. Most working-age farmers rather chose to decrease area of garlic cultivation and diversified their crops to cultivate. One reason of diversification of crops is to rotate their own capital so as to diversify investment risk in agriculture, in particular garlic. I would like to look at those cases.

Mr. Chai, who is in his early-50s in 2010, is landless since his parents' generation. He has two children: one has already finished school and is working in Chiang Mai City; the other is still in high school. He rents land 5 *rai* for garlic, 8 *rai* for shallot and potato, and another 7 *rai* exclusively for shallot. For the garlic land, he rents inside of the Dong Pa Sak Village, but for the 15 *rai* of shallot and potato land, he rents from a certain company at the outside of the village in Si Dong Yen Sub-district, at rental price of 500 baht per *rai* per year. He makes a contract with Frito-Lay Inc for potato production. He plants shallots twice a year, from May to July, and from December. He cultivates potato the interval time of shallot, that is, between September and November. Potato production is done only a half of the whole land plot he rented, because potato cannot be produced at the same plot for the long time in order to avoid a certain disease, but need to be changed to other plot.

Mr. Chai does not borrow any money from a bank for annual investment for farming, but he manages all funds of investment cost by himself in recent years. He in fact has an old, long-term debt of 500,000 baht to the BAAC. But he stopped paying money to the BAAC several years ago because he thought that as long as he was in the circulation of the debt, he would have to always suffer for it. Instead, he has a registered Farmers' Relief Fund, the government program to relief indebted farmers by letting them pay back money little by little without increasing interest further. When he stopped trying to clear his debt to the BAAC, he also stopped borrowing any

money at all. Today, he makes money from three kinds of crops; garlic, shallot, and potato, and rotate or *mun* the money among them. During an interview with him, I asked how he manages money without borrowing it from the bank. He replied:

I *mun*, and I can manage it somehow. But if I have to pay money to the BAAC, money will finish. If I send 50,000 baht to the BAAC, they let us borrow only 20,000 to 30,000 baht. It is very small money. But if I manage the money by myself and *mun* like this, I have 200,000 baht in my hands. If I *mun* them (means subscribe the investment cost of the former crop), about 100,000 baht remains. I invest it to buy seed, fertilizers, herbicides, etc (for the next round). I can *mun*. I can still use it for sending children to school, and daily food, etc.

(Mr. Chai, a farmer in his early-50s of Dong Pa Sak Village, October 2010)

In 2010, his sale was approximately 300,000 baht of garlic, 520,000 baht of shallot, and 300,000 baht of potato. Of the total amount of the sale of 1.1 million baht, he roughly calculated that about a half or two thirds of it was the fund for investment, and the remaining was for his family's daily expenses of the year.

In relation with diversification of crops to cultivate, the efficiency of rotating money or *mun tun* among the different crops of different seasons became clear. Mr. Chai's coping strategy instead of loaning money is rotating capital among diversified crops. Thus, even though the government recommended garlic farmers to reduce garlic production levels, he did not agree with it. Mr. Chai rather adopted potato production under contract because it was a good opportunity for him to enlarge the types of crops to produce. Yet, expansion to potato production did not mean the cancellation of garlic. It was not either or, but he needed both as his farm strategy. Like the case of Mr. Dee and Mr. San, some farmers diversify their work even into off-farm ones. Through the diversification of agriculture and works, including garlic production, farmers got through the hard period in economy and raised their level of livelihood.

In relation to this issue, there is also a case of a farmer who rotates capital only

in garlic production of every year. He suggests the necessity of garlic production, not any other crops. Mr. Thana is in his late 40s in 2010 and has two children. His parents were landless, and accordingly he was landless until he buys 2.75 *rai* of land at a price of 220,000 baht with a loan in around 2004. He had grown garlic for a long time by renting land, and grows garlic even today by renting 2 *rai* of land in addition to his own new land. Mr. Thana used to grow potatoes and sweet corn for two years on the land he newly bought. But since the yield was not satisfactory, he changed it to garlic field up to the present. Different from this time, he told me that he used to stop garlic production only for one year and then return to it in late 1990s, though he cannot remember when it was. Thus, I asked the reason of his action in this. He talked:

The year I grew garlic, I failed and lost money. Thus, I stopped it (garlic cultivation) for one year. --- But when I didn't grow garlic, I didn't have any money to pay my debts to the BAAC. So, the next year, I borrowed money from the BAAC again and planted garlic. Since then, I have never stopped growing garlic. If I grow garlic, at least, I can pay some money to the BAAC. If I cannot pay all the debt which I borrowed that year, --- I can go to consult with them. Suppose that I borrowed 100,000 baht, but I paid only 80,000 baht. They can still accept it. I can ask them to borrow money for the next year. But if I don't return any money, it will finish. There is no way to negotiate with them. Sometimes, I can pay only the original capital, --- but I cannot pay the interest, such as 5,000 to 6,000 baht. They let us borrow money next time. And when I pay back money (in the next year), I have to pay old interest together. They raise my old interest to 10,000 baht.

(Mr. Thana, a farmer in his late 40s in Dong Pa Sak Village, 3 Oct 2010)

He also compares garlic with other vegetables:

Before (trade liberalization), the government also said that let us grow some green vegetables. But we have still debts. If we grow those crops, we do not have enough money to pay those debts. Because if we grow green vegetables, even though we sell them, the profit is small. I have a debt of 200,000 baht. The profit from green vegetable is only 3,000 to 4,000 baht. How can we return the debt? If we grow garlic, and the price is good, we have a lot of

profit.

(Mr. Thana, a farmer in his late 40s in Dong Pa Sak Village, 3 Oct 2010)

Thus, Mr. Thana has his own reason to persist in garlic as a small funded farmer. He is so far successful in garlic production and bought new land in 2010 with loaned money.

Another interesting topic in relation to capital and garlic is, what farmers confess, the necessity of taking out a loan from the BAAC (Bank of Agriculture and Agricultural Cooperatives in Thailand) to enhance their credibility, which is related to their consumption. As a bank loan system in general sense, it is widely known that if people want to borrow a certain sum of money from the bank in a long-time basis, they need to enhance credibility by often borrowing a small amount of money and clearing the debts in a short-term basis, but this system seems applicable to the BAAC.

In comparatively poor, small-scale farmers livelihood in Thailand so far, it is often indispensable to take out a long-term loan from the BAAC on the occasion of purchase land, house, car, or sending children to school of higher-level. Mrs. Phin of Dong Pa Sak Village, who has two children, told me that there is an even old saying like this: We need to prepare money at once when two kinds of people came to visit us: A red-shirt people, and a white-shirt people. Here, red-shirt people indicate officers of the BAAC whose uniform used to be a red-shirt in the past; white-shirt people indicate school children whose uniform is white. The visit of the BAAC officer meant for farmers that they came to collect loans; while the visit of children who are studying school means for them that they need to borrow money from parents. In fact, not a few farmers reported that they currently or used to have a long-term debt not only because they paid for schooling fee but also because they bought a car for their children. It means that most farmers face necessity of bank loan in long-term basis for their daily life, not for agriculture. Therefore, for farmers in Si Dong Yen region, to take out a short-term loan from the BAAC and to invest in garlic has been one good opportunity to raise their credibility for the bank.

Following this point of view, farming under contract causes some problems for farmers. That is to say, contract farming often takes a form that parent company or broker provides all of necessary investment costs to farmers. Thus, farmers do not have to borrow money from the BAAC, which means lose opportunity of getting credibility. As was seen in the example of Mr. Chai, some farmers say that they do not have to take out a loan from the bank anymore, whether or not related to contract farming. Yet, some farmers loan from the BAAC with intention of keeping credibility. Although they are not garlic farmers, but potato growers without contract, Mrs. Noo and Mr. Wit of ex-garlic farmers talked about forced loan:

Mrs. Noo: When we build house, we borrowed 270,000 baht of money in a long-term loan from the BAAC. We paid back to them 50,000 baht every year for five to six years, and we paid back all. After that, we borrowed 50,0000 baht per year in a short-term loan. But before, when we told them that we would not borrow money any more, they said that we cannot do that. They meant that if we don't borrow money from the BAAC, we will have a problem.

Mr. Wit: Suppose that we borrow money from them for a few years. Then, we stop to borrow it next three years. And then, if we want to borrow new money, we need a person to guarantee us. Otherwise, we cannot borrow money. --- Thus, this year, we borrowed 100,0000 baht from the BAAC, just in case we want to borrow in the future.

(Mrs. Noo and Mr. Wit, middle-scale potato farmers in Dong Pa Sak Village, 4 October 2010)

It is not only Mr. Wit's couple but also there are many farmers who do not hesitate to take out a loan from the BAAC partly because of this aspect of keeping credibility.

5.3 Emergence of Large-scale Farming

I have discussed diversification of crops, diversification into off-farm work, cost reduction, and rotation of capitals as small-scale garlic farmers coping strategies

in the recent risk era. In this section, I focus on the appearance of large-scale farming: in the first part of this section, I examine the enlargement of fields as one kind of coping strategy of former small-scale farmers; in the latter part of it, I explore the emerging phenomenon of land concentration in Si Dong Yen region as an impact of trade liberalization.

5.3.1 Expansion of Farm Land after Trade Liberalization

Different from the time when lack of access to land was the main cause of farmer's poverty in Northern Thailand, today it is comparatively easy for farmers – whether landless or small-scale – to access to land in Si Dong Yen region, partly as a result of the decrease of the number of farmers in the village. It is still true that large land-owners can easily make a profit through agriculture. However, there are also several cases in Dong Pa Sak Village that farmers without their own land eagerly cultivate as much as 20 *rai* of rented land and are successful as we looked at in Mr. Kiat's case in Section 5.1.1. Thus, it can be said that land ownership is not a main factor to think about who persist and who abandoned garlic production in Si Dong Yen region today.

In relation with the easy accessibility to farm land, some landless of small-scale farmers not only actively rent land and are successful at agriculture, but also even buy land for him/herself. I would like to raise one case to highlight this position. Mr. Mee, who is in his early 40s and has two children as of 2010. He was a landless but has been a hardworking farmer since he was young. His distinguishing point is that he bought 8 *rai* of land in 2009 although with a loan, and got out of, so called, landless. His parents have as much as 30 *rai* of land, but let his brothers and sisters cultivate it already without transferring the land right yet.

Mr. Mee's main crops are garlic and potato. Although he used to plant sweet corn on 5 *rai* of plot instead of garlic in 2005, he soon shifted back to garlic. He has grown garlic on 16 *rai* of land plot for a long time since 1990s except for the year 2005 when he reduced it and also for the years after 2009. He rents the plot from an

outside capitalist that owns as much as 100 *rai* of land in the village at about 2,500 baht. After 2009, since his landowner let him rent only 9 *rai* of land on the personal reason of the landowner, he decreased the garlic production into 9 *rai*. He has also rented another 18 *rai* of land for about 10 years to produce potato and shallot at a price of 2,500 baht per year. He cultivates potato and shallot on the second plot because he does not grow garlic due to the nature of the soil.

Mr. Mee bought 8 *rai* of land in 2009 at 80,000 baht per *rai*, borrowing 400,000 baht from the BAAC. According to him, the land is not suitable for garlic, but for other crops. Yet, as a landless farmer, to buy a land plot on his own is a certain achievement. Even though it is comparatively easy to access land today, the degree of security is different between landless farmers and landholders. In a sense, it can be said that purchase of land is also one of the coping strategy to survive through the era of competitive market.

When I asked about his thoughts about trade liberalization of garlic and what it became difficult to sell garlic, Mr. Mee answered:

(If we cannot sell garlic,) we also have alternative choice. If we don't grow garlic, we can grow potato.

(Mr. Mee, a farmer in his early 40s in Dong Pa Sak Village, 3 October 2010)

This means that he appreciated the arrival of potato production after trade liberalization as a new alternative choice of garlic. I continuously asked why he does not cultivate potato on all of his land, he said:

I grow potato now on the 18 *rai* of land, and it is enough. For other land, it is better to grow other crops. I grow garlic on 16 *rai* every year, though these two years only 9 *rai*.

(Mr. Mee, a farmer in his early 40s in Dong Pa Sak Village, October 2010)

As a strategy to get through the unstable livelihood as a farmer, he emphasizes the diversification of crops. By doing so, he has not increased debt except for the one he

bought land, but is managing capital. Being successful at three important coping strategies – diversification of crops, rotation of capital, and enlargement of farm land–, Mr. Mee is enjoying relative prosperity as a garlic farmer today.

Although enlargement of land is a positive aspect for the farmer in question, at the same time this brings new risks to some of other farmers. Not only the landless or small-scale farmers, but middle- to large- scale farmers also taking an action of purchasing land and all of these phenomena put upward pressure on the price of land. Here is another case of land purchase.

Mr. Yai is in his early 40s in 2010 and has two small children. He inherited 10 *rai* of land from his father, and has grown garlic there for a long time. In addition to this, he bought 5 *rai* of land with a loan from the BAAC in 2007, and another 5 *rai* of land in 2010. Those plots are not for garlic but for potato and shallot. He bought the first plot at 50,000 baht per *rai*, and the second plot, which is adjacent to the first plot, at 130,000 baht per *rai* in 2010. He said that the land price is rapidly rising up recently in Si Dong Yen region. In addition to these land plots, he also rents land for cultivation. He rents about 6 *rai* of land for garlic, and rents another 12 *rai* of land for shallot and potato. Thus, he currently cultivates 38 *rai* of land in total.

What is noticeable from the above and other cases in relation with land is that not a few successful farmers began to buy new land after trade liberalization (I will provide some numerical data in the next subsection). Mr. Yai, who is a successful, middle-scale farmer said that his land size of 10 or 20 *rai* is not big anymore, and that other farmers have more. As a way to buy new farm land, there are largely two patterns: to buy from inside villagers, and to buy from outside capitalists or companies that own a large-size of land in Si Dong Yen Sub-district. Throughout my study I found that the latter pattern occurs more frequently, especially in a case of transaction of large land. Regarding the former, it is often traded among relatives, close friends, or from the retired to the younger. In other words, there is not much the case from the poor to the rich.

Even though land concentration so far does not immediately mean the relinquishment of farm land by the poor, yet today's land concentration in Si Dong

Yen region can still cause disadvantage for poorer farmers. First, the more price of land rises up as a result of increasing demands on land, the less opportunity it becomes for the poorer farmers to buy land. Second and more important, although I have just suggested the easy accessibility to land in Si Dong Yen region today, if the land concentration to the better-off farmers has advanced more, it will on the contrary prevent farmers who used to rent a few *rai* of small land from accessing to the plot. When I was staying in Dong Pa Sak Village, one of the leaders of a certain farmers' group mentioned about this land problem:

Some people, who have money, buy land of a large plot in total at once (by combining several small plots). But the land size in the village is same, no change. --- It makes small-scale farmer disappear, and makes large-scale farmers appear. Landless farmers used to rent 1 or 2 *rai* of land. But, if the land owner sold those land plots, they cannot rent land. New land owner came to farm there instead of them. But it does not mean the land has increased.

(A leader of a farmers' group in Dong Pa Sak Village, 6 October 2010)

Thus, old risk of land shortage has gone, yet new type of land risk has come over again partly driven by trade liberalization.

5.3.2 Land Concentration

I have shown in the former subsection that farmers, whether small-scale or middle-scale, who newly purchase farm land is increasing. In association with it, in this subsection, I would like to look at this phenomenon more in detail, considering the official data of garlic planted acreage of Dong Pa Sak farmers.

When I look at the land usage at the village level, the land size of garlic production had been mostly small-scale of a few *rai* in tradition. However, this tradition of the small-scale production by farm family seemed to be changing recently in Dong Pa Sak Village. The Table 5.2 is what expanded the period of data collection

| Planted area size (rai) | Year 2004/5 | | Year 2006/7 | | Year 2007/8 | | Year 2009/10 | |
|----------------------------|----------------------|-----|----------------------|-----|----------------------|-----|----------------------|-----|
| | number of farmers | (%) | number of farmers | (%) | number of farmers | (%) | number of farmers | (%) |
| 0-5 | 57 | 97 | 47 | 90 | 73 | 90 | 27 | 85 |
| 5.1-10 | 36 | | 16 | | 33 | | 23 | |
| 10.1-15 | 2 | 3 | 5 | 10 | 6 | 10 | 3 | 15 |
| 15.1-20 | 0 | | 1 | | 3 | | 2 | |
| 20.1-25 | 1 | | 1 | | 2 | | 3 | |
| 25.1-31 | 0 | | 0 | | 1 | | 1 | |
| Total | 96 | 100 | 70 | 100 | 118 | 100 | 59 | 100 |

Source: Village headman in Dong Pa Sak Village, Tambon Administrative Organization (TAO) of Si Dong Yen Sub-district, and Agricultural Department in Chai Pra Kan District.

Table 5.2 Number of garlic producers and their planted area size in Dong Pa Sak Village.

from Table 3.3 in Chapter 3, and its data bases on the one that Dong Pa Sak farmers reported at the village headman office. Although I defined that a small-scale garlic farmers are those who cultivate less than 5 *rai* of land, in this table, I divided the all garlic farmers group into two groups by land size: the smaller-scale farmers who produced garlic on less than 10 *rai* of field, and the larger-scale farmer who produce garlic on more than 10 *rai* of field. Since this table only shows a transition for six years I cannot rush to a conclusion. However, in this table, while the ratio of smaller-scale farmers has decreased after the year 2004, the number of large-scale farmers has increased.³ In other words, durability of large-scale farmers seems to be stronger than that of small-scale farmers after market liberalization, despite small-scale farmers' strenuous efforts.

The main reason for this tendency of land concentration is explained by the difference in financial power, although what there is a possibility that a landless or a small-scale farmer becomes a larger-scale farmer is shown from the former case studies. When I asked why there were some farmers who continued garlic production and others who did not, in the face of steep price drops of garlic in 2004 or 2008, a

³ The reason why a total number of garlic producers increased in 2007 is probably due to the high garlic price in 2005/6, and likewise, the reason why the number of garlic producers decreased in 2009/10 is probably due to the low price of garlic in 2008.

female farmer, Mrs. Phin, explained that those who had capitals could continue, while those who did not, could not. Another farmer, Mrs. Daa, whom I introduced as a wage labor who gave up garlic production about 10 years ago also talked in the same way. It means that since the production cost of garlic is higher than other vegetables, or since garlic is a high-risk, high-return product, those who have a certain amount of capital can easily endure the hard year for garlic producers and wait for some profitable years. As far as two large-scale land owners in Dong Pa Sak Village, for example, one owner was from originally rich family and is currently a representative of Tambon (sub-district) Administration Office (TAO), and another owner received a certain fund from one of his family member who worked in Japan. Due to these outside funding, even though they had some owing to bank, they could manage it without profit from garlic for a year or so. Furthermore, contrary to giving up the next cultivation, such farmers could even expand the area of garlic planting by renting or buying new land plots. This was one possible reason why land concentration has occurred.

Based on a case study of the Agricultural Adjustment Act (AAA), or the state intervention introduced in the US in the 1930s to control agro-food policy under the Fordist formation, Bonanno (1998: 230) reported that while large-scale producers overwhelmingly benefited from state intervention, medium-scale and small-scale farmers were divided into two groups: those who remained in the farm sector and worked actively, and those who left the sector. Among those who remained, he continued, some farmers expanded their farms because of relatively low interest rates as well as to inflation. This meant that, under Fordism, the agricultural sector in the US became increasingly polarized, and on that process, both the number of agricultural workers and farms had declined.

With respect to garlic production in Dong Pa Sak Village today, it seems that a similar phenomenon to the US in the past was occurring although the process is different. In the Table 5.2, in the row of those who planted garlic less than four *rai*, the number of farmers increased between 2004/5 and 2007/8, but it steeply decreased in 2009/10. The causes can be explained like this. First, between the year 2004/5 and

2006/7, while the number of those who grew garlic over four *rai* but less than 11 *rai* had decreased, those who grew garlic less than four *rai* has increased. This was because when the government announced the provision of compensation fee for reduction of garlic planting acreage, while many of the former group of people decreased their planting acreage by a few *rai* respectively, most of the latter group of people did not reduce their planting acreage, mostly because to reduce it meant to completely give up garlic production. Those who gave up garlic production in the group of under four *rai* of planting area, were only some of tenant farmers who used to grow garlic on a few *rai* of rented land, or those who had been already tired of garlic production due to repeated loss.

In the year between 2006/7 and 2007/8, any size of landholders increased the number, because the price of garlic showed very high price in February 2007, the garlic harvest season. Thus, many farmers enlarged or came back to garlic production in the next season.

However, between the year 2007/8 and 2009/10 the number of the people under four *rai* has decreased by half. This is because the year 2007/8 was the year that the price of garlic showed the lowest in its history, all garlic farmers went into the red, and that thus many of the small-scale farmers gave up garlic production of the next year, although some limited farmers have purchased land and moved to the upper region of the table. Thus, I have emphasized a struggle of small-scale farmers toward a better livelihood through multiple coping strategies so far in this chapter, yet some of them could not survive the second recession of the garlic in 2008.

That this drastic decrease has some contradiction with my argument till now that not so many small-scale farmers gave up garlic production but they have persisted. I would like to explain that I conducted my main field research during 2007 and 2008. Thus, the phenomenon after 2008 is not included. When I conducted my follow up research in 2010, I gained these new numerical data of garlic land acreage of 2010, in addition to some interviews on land purchase etc.

Contrary to the small-scale farmers, it is interesting to see that the number of those who grew garlic on over 11 *rai* of land has increased between the year 2004/5

and 2007/8. Here, I have to accept and repeat again that, despite the effort of small-scale farmers, those who had more land and accordingly stable livelihood are easier to expand their farm land. They have enough financial power to spare for other land in addition to their original plots, by renting or buying the land where garlic production was ceased by the former, small-scale garlic producers. Once they came across a year in which the price of garlic was unexpectedly high, like in 2006/7, these groups of farmers again expanded the area of garlic plantation, often hiring migrant wage laborers as I looked at before.

Lastly, from the case studies of former subsection and the Table 5.2, it is clear that the gap of garlic production is widening even among farmers of originally landless or small scale. The seemingly homogeneous small-scale garlic farmers in fact have followed “multiple trajectories” (Hart, 1997). One main reason of this is in farmer’s skill in the way how to manage various coping strategies I raised in this chapter: diversification of crops, diversification of works, cost reduction, rotation of capital, and expansion of land. For example, Mr. Dee, who was highlighted as a good example of garlic farmers who vigorously diversified his works both in on-farm and off-farm, seems quite successful in his works, partly because I observed that they had saved enough money to re-build their rough, wooden-built house into a modern-style, concrete and block house in 2006. Although they saved the construction cost by Mr. Dee building the house for himself with some assistant carpenters, to build a house needs stable income. In addition, the better-off livelihood was also shown through their ability to fund their older daughter to finish her university degree – one of the biggest tasks for rural villagers in terms of money. In the meantime, among original small-scale farmers, those who did not have a certain capital stopped garlic production and became wage labor.

5.4 Conclusion

It is only seven years after the implementation of FTAs, so both quantitative and qualitative data related to garlic production keep changing, although the latter

tend to be more stable. Under such situations it may be still too early to grasp the big picture of its impact. Thus, what this chapter showed was the garlic farmers' livelihood in the transitional period, when farmers were struggling to adjust themselves to the new market situation that was brought by trade liberalization.

This chapter aimed to answer the question of how farmers persisted in garlic cultivation. Five kinds of coping strategies were found: diversification of crops, diversification of work by farmers seeking off-farm jobs, cost reduction, rotation of capital, and expansion of farm land. First, before trade liberalization, the dependence rate upon garlic by Si Dong Yen farmers was very high as an income source partly because of the lack of alternative choices. Thus, after trade liberalization, farmers actively adopted new crops, in particular potatoes. Garlic dependency was tempered a little through such diversification of crops, and the risk of bankruptcy through garlic production was also eased. Yet, the nature of both soil and weather in Si Dong Yen region is still important as a reason why farmers there still choose garlic production despite the presence of alternatives. After a few years' trial of potato production, Si Dong Yen farmers began dividing the field according to the nature of the land, including unsuitableness of potato, was also shown in this chapter.

Second, diversification of work into off-farm jobs is to increased alternatives for besides garlic, and was achieved by working in a flexible manner. In fact, today, most of farmers in Northern Thailand have adopted this strategy so as to survive today's hard period. Yet it was an important strategy especially for garlic producers who needed to prepare for the risk that comes once in a few years, if it is impossible to avoid it. Their wives also increasingly contributed to household income.

Third, reducing cost was not easy for farmers who originally managed their farms with low investment costs. They reduced the cost of agricultural chemicals, seeds and labor, without seeing much difference. They also increased opportunity to join exchange labor circles so as to reduce labor costs.

Fourth, contrary to most people's expectation of small-scale farmers' lack of capital to invest, recently the number of farmers who can prepare and manage capitals to invest agriculture is increasing among garlic farmers. Their strategy is to rotate

capital or *mun tun* across several different crops. However, they sometimes still need to borrow a certain sum of money to buy land or a car, for example, and to make this possible, they need to enhance credit by constantly borrowing money from the bank and clearing it. In this sense, for successful farmers, garlic production is a better source of investment than potato contract farming. Thus, related to the consumption aspect of today's villagers, garlic production is still popular in Si Dong Yen region.

Fifth, as a result of comparatively easy accessibility to farm land, many landless and small-scale farmers rent farm land, cultivate it, and are doing better. In other words, although most garlic farmers stayed in small scale farming before trade liberalization, it became clear that through trade liberalization a certain production scale is advantageous in garlic production. As a part of this strategy, farmers who survived the economic recession period of garlic production began to buy new farm land, pushing the land price up while decreasing available land for rent. This illustrates multiple trajectories even among original small-scale garlic farmers: some farmers held out and expanded field size while some others decreased or even gave up garlic production, which resulted in a widening gap among farmers as well as land concentration.

After all, in opposition to neoliberal theory of flourishing economy through trade liberalization, the local, small-scale garlic farmers persisted in garlic production with an enormous effort of adopting multiple coping strategies.

In Dong Pa Sak Village, other important actors who experienced difficult economic periods of garlic production were wage laborers. Some of them are also ex-garlic farmers who gave up garlic production being unable to get through the period of economic depression. Thus, in the next chapter, I will critically analyze decreasing livelihoods of wage laborers with a concept of feminization of agricultural labor.