CHAPTER V

SOCIAL DIFFERENTIATION AND LOCAL STRATEGIES FOR SUSTAINABLE LIVELIHOODS

This chapter analyzes socio-economic differentiation that occurred in Ban Thin Pheer under the market economy system. This chapter is divided into two sections. The first section examines adaptive strategies of local peasants in Ban Thin Pheer to the state institutional promotion for commercial agricultural production and services under the market mechanism. This section also examines access to basic state services such as roads, irrigation, credit, electricity, water supply, telecommunication, educational opportunity and healthy services. The second section analyzes the effects of integration of the market economy system on agricultural productions and local economy, society and culture, including responses of local people to state policy and new economic mechanisms.

5.1. From Subsistence to Market-Oriented Agriculture

Before 1986, the principle economy of the peasant households in Ban Thin Pheer was agricultural economy based on the cultivation of wet-rice and some green vegetable crops in accordance with domestic animal raising for family consumption such as pigs, traditional cattle, water buffalo and poultry. The majority of agricultural practices rely on natural environment and local knowledge that descended from their ancestors, known as *Vithi Thammasaat* (natural way). Rice-based agricultural production has been sustained by local traditional techniques, which are characterized by mutual labor exchanges in community. The villagers assist one another in agricultural and traditional ritual practices. In this case, Kaysone's speech at the LPRP Congress in late 1986 that a great number of the peasants in our country are organized under different forms of collective work, ranging from mutual aid teams, solidarity production groups to various types of cooperatives (cited in Propaganda Committee of Party Central Committee, 1986).

Labor collectives and exchanges are not only for economic benefit, but also political and social harmony. Kaysone emphasized that our country must try our best to consolidate and heighten the peasants, raising their political consciousness, deepening their patriotism and love of socialism, enhancing their tradition of diligent labor, solidarity, mutual love and assistance, thus inspiring them to implement actively party and state policies, to intensify production in order to build up a civilized style of living and the new countryside (Kaysone, 1986 cited in Even, 1995: 182). Evans (1995) mentions that labor-exchange among farmers in Lao PDR are designed to both stabilize and potentially enhance the peasant farm's productive capacity. Similarly, he mentions that labor exchange is a delicately tuned social mechanism, with checks and balance (Evans, 1995: 146). Most of labor exchanges are conducted during transplanting, weeding, plowing, harvesting, and threshing periods.

In the 1990s, patterns of the villagers' traditional agricultural practices began to change from subsistence-based and isolated agriculture to more commodity production and services. These agricultural transitions seem responsive to the renovation policy of the government. According to an interview with the official chief of the village of Ban Thin Pheer on March 11th 2006); she explained that villagers started to grow cash crops during the 1980s, most of the farmers grew glutinous rice, spinach, long beans, corn, cucumber, union, mint and tobacco. Tobacco had been widely grown for Lao Tobacco factory and market within country; because it had a high price and could sell in general marketplace. Lao Tobacco Company bought and introduced technology for the villagers to cultivating and maintaining tobacco leaves. Furthermore, the government and Tobacco Company also built two tobacco-curing factories in Thin Pheer village.

Based on interviews with the village head, cash crop cultivation became increased economic process by the 1990s; but it is a mixed cash crop cultivation and diversification system. She told me that the leaders of the party and the government often visited and introduced the villagers to produce commercial agriculture for the market in Vientiane. After that, each household began to grow mixed diversely cash crops. She told me that the cultivation of cash crops in Thin Peer village began in the mid 1990s, and cultivated more cash crops. However, tobacco cultivation is limited by techniques (interview with official chief of the village, on March 11th 2006).

In 2000, the government has attempted to promote peasants to grow more cash crops and services to respond to the needs of domestic markets and to export gradually. Cash crop cultivation has improved many peasants' household economy in the village. The standard level of living has improved. According to an interview with the villagers in 2006, most of them told me that cash crop cultivation has generated more cash income for their family. Additionally, they can also support the education of their children. At the same time, I observed that the majority of the villagers seemed to be involved in commercial agricultural production. At the same time, they seem content with cash income and modern electronics and other house appliances. Many households own new houses, cars, hand-tractors, rice mills and motorcycles.

As a result, most of villagers grow diverse mixed cash crops and use the land intensively in accordance with using chemical fertilizers and insecticides. These agricultural practices have been continuously intensified, though it will be a danger to farmland and the surrounding environment, but it seems to be still benefit to increase their agricultural products. The peasants explained during my interview that cash crop cultivation has to use chemical fertilizers and insecticide for fast crop growth and quality. They explained again that the vegetable crop cultivation for market has to use fertilizers to enhance quality of vegetables. "If we do not use fertilizers" (interview with villagers, 2006); vegetables have very low growth and lower quality, and it can not compete with other producers; because their vegetable crops will be sold faster. On the other hand, land for cash crop cultivation is leasehold (leased land) and it has declined, but lessees have to pay for land rental every month. The majority of lessees have no farmland or less farmland, therefore they have to rent it for practice commercial agriculture to create food security and earn more cash income (Interview with the villagers on March 14th, 2006).

According to official data, agriculture along the banks of the Mekong River has entered a period of transformation. Rapid economic and population growth in Vientiane is changing subsistence agriculture to intensive commercial agriculture. Some researchers state that market forces are starting to drive peasant traditional agriculture for market through commercial channels. However, shifting from subsistence to market-oriented agriculture seems to have been driven by state policy and market forces. Land law is a factor in promoting self-sufficient agriculture to

commercial agriculture. Because, agricultural law specified that peasants or landowners must use their agricultural land to generate economic benefits, if the peasants or landowners neglect their agricultural land without any benefit, landowners will be fined. Moreover, land tax is a factor for stimulating increased commercial agricultural production in accordance with intensive land uses. But it involves food security and market price stability, market forces make the process of villagers' traditional agricultural production become more commercial production and privatization orientated. Simultaneously, their household economy has improved.

Since the 1990s, villagers' life has changed dramatically and many peasant households are able to access to capital sources, roads and transportation, and access to labor and material markets for buy and sell agricultural commodities. Villagers can access to health services. Moreover, their children also have opportunities in access to educational services. However, some peasant households have been facing the issues of instability of market prices, living cost, and environmental degradation because of using increased insecticide and chemical fertilizer.

Nowadays, peasants' socio-economic life has faced problems of soil erosion and farmland deterioration. For example; Mrs. Mae Nang's family is one of household who faces floods, soil erosion and lacking of labor forces. Therefore, she engages in weaving as her main occupation. She told me that her paddy field and vegetable field is on lower land, which is difficult to grow cash crops in the rainy season because of annual flooding. Crops can grow only in the dry season, but she has no work force to grow it. She would like to grow cash crops by herself, but it is difficult to grow them due to land far from village and higher costs of production. In order to solve issues of food shortages within her family, she opened a small grocery shop and weaving inside her house simultaneously. She said that it easier to grow cash crops when her husband was alive. Nowadays, she has to manage everything by herself for family members (Mae Nang, on February 21st 2006).

Since 1986, the government encouraged peasants to grow more cash crops in both dry and rainy seasons to solve food deficit problems. Besides this, the government also induced peasants to grow diversified cash crops during the dry season to create the statistical figures of commercial agriculture production. Presently, the peasants in Thin Pheer village have being asked from the government and

improved-industrial company's agents for grow ordinary rice called "CR 203" ordinary rice, maize and sugarcane for responding domestic improved-industrial factories.

According to developmental history, state power and market mechanisms play key roles in driving the village economy, particularly the moral agricultural economy towards commercial agricultural economy. In the same case, roads, irrigation, electricity, education and agricultural technological progress are significant components in driving peasant economy and society. According to agricultural economic experts, the commercial agricultural production of Laos is based on two principle mechanisms of strong guidance of the party and the government supporting and promoting the process of commodity agricultural productions. However, the government still cannot purchase marketable surplus at a rewarding price acceptable to the growers. As result, it makes some producers have reduced quantity of production and neglecting commercial farming practices.

5.2. Market-Driven Economy and Local Adaptation

The growths of national, market economy and technological progress are the main causes of village socio-economic changes. But, the market economy growth and technological progress have both positive and negative effects on villagers' livelihoods. The "Green Revolution" is a factor that has generated the process of the agricultural economic development into the modernization and it makes agricultural technologies have largely been used in Thin Pheer village. The goal is to increase the crop yields and to diversify crop varieties, and to meet food security and sufficiency for the rapidly population growth.

Furthermore, the market economy also generates hired labor opportunities for villagers who can receive cash by working as laborers. However, moving to a market economy and commercial agriculture has forced the peasants to adapt their livelihood strategies to a market mechanism. Some peasants explained that now cash crop cultivation has to use technology to increase products. Otherwise, it is not possible to make profit or cash income for everyday expenses. On the other hand, the types of crops often have changed depending on the needs of consumer market.

Villagers explained that chemical fertilizer; insect-powder and modern agricultural equipment have necessary for commercial agricultural practices.

The transition from moral economy toward market-driven economy has been creating complexity for villagers' agricultural practices. Many peasants explained to me that they do not know what should grow for the market, because agricultural product prices are not stable. In contrast, commercial agricultural productions have to spend more money for production, especially soil preparation, seedlings, diesel or tractor rental, land rental, fertilizers and irrigation fees. Besides, they also pay school fees for their children. According to an interview with the elders of the village, they explained that market-oriented economy creates new social and economic norms in their community. In addition, socio-economic activities also have more competition. Some groups told me that "we are often unaware that the most important element of a market-driven economy depends on the ability of the producers in managing self-livelihoods" (interview with elders of the village in April, 2006). This shows that transformation from a purely natural economy into money make local peasants' socio-economic activities have gradual been replaced cash economy.

According to Connell (2004), the problems of market economies are being addressed through the introduction of agro-enterprise development toward examining the whole supply-chain from producer to consumer, and involving all actors along the chain to identify 'critical points' (Connell et al., 2004: 361). Based on scholars, most of Lao peasants would like to ask the government to support and extend market network to respond their agricultural products. Even though, agricultural markets are extending within country but it extend only in large cities such as Vientiane, Savannakhet, Champasak, and Luangprabang. On the other hand, most consumers in Laos need to consume glutinous rice, which accounts for 96 percent of total rice consumption. Non-glutinous rice is consumed by Vietnamese and Chinese who live in Lao PDR.

5.3 Variation of Local Livelihood Adaptation

Generally, socio-economic life of the peasants under the government policy of the market-oriented mechanism and development has gradually progressed. Many peasants enjoy access to material market with increased income from commercial agricultural practices. The majority of the villagers in this area engage in cash income by growing cash crops. They told me that cash crop cultivation could create income more than construction workers could.

In Ban Thin Pheer, each household can earn income from cash crops cultivation of about 5,000,000 to 7,000,000 Kip per year (about 500 to 700 USD per year). Particularly, the households that cultivated tobacco can generate income about 20,000 000 million Kip per year. However, income from tobacco cultivation has begun to decrease rapidly. Nowadays, it remains at only 5,000,000 to 10,000,000 Kip per year because of decreasing tobacco productivity; limitation of consumer market and higher cost of productions. Consequently, tobacco and rice productions have declined. While crops like lettuce, maize, tomatoes and other mints have increased economically grown in this village. Nevertheless, some peasants have changed from farmers to retailers, hire labor and construction workers.

Agricultural activity, many households engage in commercial agriculture as their main form of occupation. However, the higher prices of fertilizer and irrigation fees make some peasants reduce commercial agricultural practices. They explained that cash crop cultivation now has high risks of losing capital because of the market prices is not stable. In this case, the villagers told me that they would like to ask the government to provide them fertilizers with low prices or loans at low interests rate and long terms. They would also like to ask government to guarantee their crop prices in suitable and stable levels.

The fluctuation of market prices cause some peasants of the village to stop cash crop cultivation in dry seasons especially irrigated rice cultivation and wait for cultivation only in the rainy season. They explained to me that the price of the vegetables in the dry season are not stable, because vegetables are able to grow many places in surround suburban Vientiane, which cause vegetables in this season are less cost intensive. They also told me that if the price of the vegetables is increased, traders or wholesalers like to import crops from Thailand. Nowadays, most of the villagers have been facing problems of lower product prices.

Table 5.1 Comparison of Cash Crops between 1975-1986 and 1986 - Present

Type of Crops	1975 – 1986		1986 – 2006		
	HH number	Percent (%)	HH number	Percent (%)	
Rice	11	11.1	6	6	
Tobacco	32	32.3	7/0/9	7	
Lettuce	10	10.1	13	13.1	
Tea	3	3	0	0	
Maize	7	7	12	12.1	
Beans	11	11.1	8	8	
Cucumber	5	5	6	6	
Tomatoes	3	3	7	7	
Union	4	4	10	10.1	
Cabbage	2	2	3	3	
Other mint	9	9	14	14.1	
Non-farming activities			13	13.1	
Total	99	100	99	100	

5.4 Agricultural Development and Local Needs

5.4.1 Access to Irrigation Services

In the 1970s, cash crop cultivation in this village was not extended, because basic infrastructure was not developed at that time the patterns of self-sufficient agricultural production were remained. In the early 1980s, irrigation was constructed with small irrigation canals, which were dug by the villagers, prisoners, youths and students under management of the government. After that, the government tried to stimulate and mobilize the villagers to grow crops in both rainy and dry seasons to create food sufficiency, but it was unsuccessful, because of capacity of the irrigation system was not sufficient for needs of peasants' agricultural activities. Even though the government improved irrigation systems, it could not provide enough water to meet the demands of the peasants especially in dry season.

In 2004, irrigation systems in this village have been improved, which was financially supported by the Vientiane Division of Agriculture and Forestry (VDAF) with 236,203,650 Kip. The area of irrigation covers 285 hectares and it is transferred to the villagers for manage and use in 2005, by participating among village committee, the state concerned authorities and private construction company agents.

Nowadays, it can not provide enough water for the needs of the villagers in the present but it can respond some water to peasants for their agricultural production in dry season.

According to the village leader's report, there are 162 households using water from irrigation. Based on the irrigation facility, many households grow more cash crops in both rainy and dry seasons, and the activities of villagers' commercial agricultural practices become more privatization. Peasants can chose to grow whatever they think that it is benefits for their household economy. The water from irrigation system is not only useful for agricultural production, but also useful for bathing and washing cloths and other benefits.



Figure 5.1 Ceremony of Irrigation Transferred to the Peasants for Management and Use. (Taken from village administrative office during first visit in March, 2006)

According to the VDAF's data, Vientiane has 108 irrigations projects and can irrigate rice field area in dry-season about 28,600 hectares and vegetable field area about 5.350 hectares. Besides this, the government also has transferred irrigation to the peasants in accordance with establishing village development fund with 57 villages. Most of the peasants in the irrigation areas can own and manage irrigation system by themselves. However, water supply of the irrigation system in Thin Pheer village still is limited. In addition, the irrigation fee is very expensive, which is a cause of inefficiency of growing cash crops in dry season. Furthermore, the market for agricultural products still has not developed suitably. Nowadays, peasants have

been orienting to use water from natural sources as an alternative for their agricultural practices, particularly water from the Mekong River, natural ponds, rain water, natural dams and deep-wells. The uses of water from these sources help to reduce the cost of production. Therefore, some peasants have oriented to use it for their commercial agricultural practices. Some peasants explained that applying underground water and the Mekong River help to reduce the cost of production.

In order to make irrigation use in this village sustainable, the village administrative committees calculate irrigation fees from water user's groups about are 55,000 Kip/rai. This money of irrigation fee will be saved for establish village fund, the village administrative committees will calculate 14,000 Kip for village administration, 16,000 Kip is for repair pumping machinery and irrigated canal, and 25,000 Kip for irrigation and electricity fee. In this case, there are many rich farmers have willingness and able to pay full irrigation fee. While, poor peasants are unable pay irrigation fee and land tax, because cash income from agricultural practices are not enough for daily expenditure due to increased cost of living. This case is a cause of difficulty in irrigated fee collection from water user groups. However, most of peasants of this village have cooperated and participated in improving and expanding the irrigation canals. Nowadays, irrigation system is used and managed by people within village.

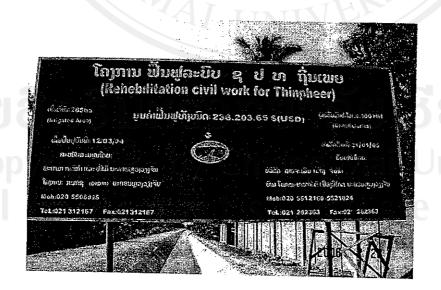


Figure 5.2 Irrigation Canal in Ban Thin Pheer.

5.4.2 Cash Crop Cultivation and Credit Support

Generally, the Agricultural Promotion Bank (APB) has played a significant role in financial credit promotion and other facilities for commercial agricultural practices, especially fertilizers, seeds and animal breeds. However, many producers explained that local moneylenders and rich peasants in the village have facilitated more than the APB. The loan of APB has a very complex process, short term and high interest rates. If they return the loan not on time, they will be fined by the APB or they will calculate more interest rate continuously (interview with producers of village, March 2004). In this case is a cause make peasants do not dare to borrow money from the APB. Some peasants in this village said that cash crop cultivation has high risks; sometime do not achieve costs. They said that irrigated-rice cultivation must high invest in preparing soil, fertilizers, transplantation, land rental, irrigation fee, and threshing rice.

In the case of crop cultivation for responding to domestic agro-industrial factories, the producers of this village explained that firstly, agents of the company contracted about buying and selling agricultural products with the villagers who grow direct crops. For example, the Lao Brewery Company will respond and facilitate in fertilizers, seeds and finance to producers for growing "CR_203" (ordinal rice). But, the company is unable to prove fertilizer and financial credit on time, which makes producers faced problems of lacking capital. On the contrary, producers explained that rice millers and moneylenders within their village can give more facilities than APB and Lao Brewery Company (interview with producers, April 27th, 2006). Therefore, the peasants in this village would like to ask the government to provide financial and fertilizer credits in the long-terms and low interest rate in accordance with technical advice. At the same time, they explained that cash crop cultivation has higher risks, if it has a good season they will be able to achieve profits, on the contrary if it has a poor season; they will loose profits.

Regarding policy, the banking services and agricultural credit facilities offered through informal village and household networks, which is serviced by state owned banks. The APB has played an important role in supporting and promoting financial credits, pesticides and fertilizers and other facilities. Similarly, local peasants capitalists such as rice millers and private dealers are main moneylenders at

local level the peasants in Ban Thin Pheer. However, according to my interview with villagers in March, 2006, the process of commercial agricultural production of the peasants still have limitation, because of poor access to credits and marketing information.

The government does not only promote the villagers to grow cash crops, but also encourages and motivates villagers grow more crops for domestic improved-industrial factories. This case may create conflicts between the peasants and private agro-industrial companies, and between rice millers inside village. However, the peasants in this village have greater opportunity for access to market in Vientiane town when compare with villagers from other villages. Therefore, many villagers engaged in commercial agriculture more than self-sufficiency.

Nowadays, some peasants of the village start to cultivate maize and rice (CR-203) for animal feed factory and brewery factory by using local owned fund. These plantations of the villagers' crops seem respond to state policy of commodity production and raw material import substitution from foreign. In the rainy season, nearly 90% of them planted rice for family self-consumption and sell it if surplus of consumption but irrigated rice is grown for sale. In sum, there are 93% of households that grow cash crops by using local owned fund for production activities.

5.4.3 Access to Cultivatable Land and Technology

Introduction of market system causes agricultural practices to gradually change from using traditional tools to modern technology. Under market forces, the peasants use more chemical fertilizer in their commercial agricultural practices, particularly rice and vegetables. Furthermore, market forces also caused some peasants to applied techniques of growing cash crops by many differentiated methods. Nowadays, many peasants have been looking for new techniques for agricultural practices and other livelihood activities. The majority of the peasants have looked for a channel to access to new agricultural technology for introducing into their commercial agricultural practices. The objective of each technique is to create food self-sufficiency and better standard of living.

The use of new agricultural technologies for agricultural productions has helped to reduce human, animal labor, and helped to save time in agricultural practices. However, the introduction of new agricultural technologies makes the peasants face new problems such as increasing cost of production and land degradation due to using chemical fertilizer in agricultural practices. Farmland degradation makes some villagers begin to perceive negative effects of chemical fertilizers on their farmland. Unfortunately, these farmlands have been weakened and have reduced fertility, because of the use of large amounts of chemical fertilizers every year, and they start to review to fertility of their farmland over the past decades.

Most peasants in the village have limited land and many households have no cultivable land; they have to rent it for agricultural practices. Generally, the rental rate of rice field will be calculated into paddy rice as rental. For example; one rai of rice field will be calculated into paddy rice about 60-70 kg/season (1 rai = 60-70 kg/season) or one rai of rice field will be calculated into one unhusked rice. For rent rate of vegetable field will be calculated into cash money. Calculation depends on soil quality, water source and location of farmland. In general, one rai of vegetable field will be calculated about 150,000 to 200,000 Kip/rai/month.

Similarly, many households have no tractor. These peasants have to employ peasants who have tractors for preparing the soil. Wage rates for plowing are equal to 250,000 Kip/rai for tractor and 150,000 Kip/rai for hand tractor. Some peasants borrow relative's tractor; but they must pay for oil themselves. This case has broadly appeared in Thin Pheer village and neighboring villages. Besides this, the peasants also have to spend for electricity and irrigation fee, fertilizer, oil for tractor or tractor rental, pumping machinery for pumping water from Mekong River and underground, improved seeds, land rental, pesticides and labors and so on.

In the case of Mrs. Bua Ram's family, they grow both wet rice and tobacco for over twenty years; she explained that in each year her family has created cash income from these crops cultivation is over 30,000,000 Kip/year. Her family has four rai of tobacco field and six rai of vegetable and rice field. Currently, she grows diversely mixed crops such as wet rice, tobacco, and union. Especially, wet rice and onion are grown in both dry and rainy seasons with using agricultural technology at the same time, she expends more for land rental, labor, electricity and irrigation fee, oil and fertilizer to create products and profits. Her family is a household that has received high cash income from cash crop cultivation (interview, March 3rd, 2006).

5.4.4 Access to the Market

Historically, the process of growing cash crops in the village has been conducted for three decades, especially glutinous rice, tobacco and some green vegetables. Tobacco has widely grown in this village during 1970s-1990s. Most of cultivation was conducted at paddy field after harvesting rained rice. The villagers who had grown tobacco in the past 25 years explained that they have provided wage labors for help their commercial tobacco cultivation.

In this village, there are two tobacco-curing factories. One is a private curing factory, and the other is a state curing factory. At that time, tobacco cultivation of the peasants was guided, price guaranteed and bought by state through Lao Tobacco Company. Besides this, tobacco also can be sold at general marketplaces throughout Laos. In the middle of 1990, Lao Tobacco Factory canceled to buy tobacco in this village and changed to buy tobacco leaves from Pakxan province as stead. Nowadays, both tobacco-curing factories were shuted down.



Figure 5.3 State Tobacco Curing Barns in Ban Thin Pheer, February, 2006

According to interviews with the villagers, most of them explained that low quality of tobacco is main causes in shutting down both tobaccos curing barns. Presently, Lao Tobacco Company that had ever bought tobacco from this village has changed to buy tobacco at Pakxan province. Nowadays, there are only four to five households that grow tobacco. Over the twenty years, tobacco was main economically crop and it was largely grown for Lao Tobacco Company. Besides, tobacco also could

sell in the local market both in Vientiane and different provinces. On the other hand, tobacco from Pakxan province has higher quality. Households who have no or limited labor have to wage outside labors to grow, harvest and cure their tobacco. The villagers enjoyed in tobacco cultivation with cash income based on semi-market economy (interview with the villagers on March 15th, 2006).

Using chemical fertilizer in each year is a cause that effects tobacco quality. In this case, I asked the questions to the peasants; why do you not apply manure and compost for your agricultural production? They answered that manure and compost is difficult to look for and difficult to buy, because villagers do not raise domestic animals. I asked him again, do you fear that your soil will become infertile? They said that they have no choice for maintain family economy security. Nevertheless, some peasants manage risks from the agricultural scheme change by fallowing their soil in dry season and wait for growing only in rainy season.

Nowadays, private curing factory is not usedn. Some villagers more especially landowners brought brick from this tobacco curing barn to build their house. In the past two decades, this tobacco curing barn was managed by private entrepreneur, and it was used to cure tobacco to respond direct Lao Tobacco factory. There were many labors worked in this tobacco curing barn as hired labors.



Figure 5.4 Private Tobacco Curing Barns in Ban Thin Pheer, February, 2006

As a result, many villagers grow less tobacco and change to grow new crops as an alternative for their livelihood activities. Nowadays, they grow mixed crops and often change to grow new crops in each season depend on market demands.

Especially, short-term vegetable crops such as dill, sweet basil, union, coriander and other mints which easy to sell at marketplace in Vientiane urban. These vegetable crops spend to grow only 20-25 days can harvest to sale and earn cash income for family members. Even though, lower prices have only 700,000-1,000,000 Kip/rai, but it can harvest to sell every month. However, the prices of these vegetable crops have always changed each month, and have higher risk if they grow too much. Many villagers explained that cultivation of short-term vegetables for market has risks if the peasants grow little crops, the prices of crops will higher. On the contrary if the peasants grow increased crops might loose profits. The producers of this village told me that the highest price of coriander is about 70,000 Kip/12 kg; the lowest price is 20,000 Kip/12 kg. On the contrast, cash income from tobacco cultivation is about 10,000,000 Kip/rai, but it is not easy to sell at marketplace as vegetable crops.

Table 5.2 Income Sources between Subsistence Economy and Market Economy Period

Subsistence-based	Market-Oriented Economy		
Economy (Before -1986)	(1986-present)		
Pigs, cattle, buffalo,	Poultry and aquatic animal raising		
fishing and poultry	1		
Rice, tobacco, maize,	Rice, tobacco, cucumbers, beans, sweet-tomatoes,		
teas, chili, beans, and	dill, chili, onion, cabbage, coriander and other		
banana	mints		
None	Farmland rental, trade, passenger car, tractor		
analla	services, waged labor and rice milling machines		
None	Remittance from relatives and children in abroad		

However, these cash income of the villagers derive from many factors are; (1) economic, social and political policies, more particularly "chin-ta-na-kan-mai" and NEM. These policies have opposed good opportunity for villagers' commercial agricultural practices. In addition, it also creates condition to villagers' relatives and children in Ban Thin Pheer who live abroad can remit their relatives money in this

village, and it helps villagers who have relatives or children in abroad have chance become richer in village; (2) market economy growth has created villagers are able to more access to livelihood resources and various income sources in market system; and (3) population growth in both the village and Vientiane. The Population growth creates greater demand of food and land. This village is a main source of food production for market in Vientiane urban. Therefore, land for agricultural practices have more been needed to use from villagers in Ban Thin Pheer and Ban Hom area.

In the case of tobacco has been still grown, but there are only five households still grow tobacco for general marketplaces. After shutting down tobacco curing barn, villagers who grow tobacco have to slide its leaves by private small machinery and curing and drying with sunlight. Tobacco had been drying as shown (in figure 5.5) is preparation for sale at the general marketplaces in southern of the country. In this case, I asked the villagers who had ever grown tobacco in the past twenty years that why did you stop growing tobacco, and why do you begin to grow it again? They answer to this question that now has no market and factory for buying their tobacco. So, they stopped grow tobacco and change to grow new crops as alternative for their agricultural activities. However, cultivation of non-tobacco crops make villagers have faced inequality of market prices, and they often have to adapt livelihood strategies following momentum of market mechanism.



Figure 5.5 Tobacco Is Dried for Sale to Southern Laos

The patterns of villagers' agricultural practices in this village are still characteristic of semi-subsistence and unable to produce fully commodity. Even

though, the most of villagers practice commercial agriculture but they are unable to compete with market prices and agricultural products from Thailand, more particularly papaya, chili, tomatoes and cabbage and etc. These agricultural products have been imported from Thailand by wholesalers or middlemen because of its price are cheaper. Competition in market prices might involve difference of cash income in agrarian society. Competition and fluctuation of market prices have affected both favorably and undesirably to the process of villagers' commercial agricultural productions.

Nevertheless, some consumers prefer to consume domestic vegetables, because most of the consumers in Vientiane believe in fresh vegetable crops that are produced in Laos. Therefore, villagers are able to compete with agricultural products that imported from Thailand. Nowadays, nutritional quality have been influencing to consumer choices in Vientiane. Consequently, food safety is a consideration in the purchasing decisions of consumers. Committee for Planning and Cooperation (CPC) and JICA (2002) indicate that when agricultural products of Lao PDR are exported to developed countries, they have to compete with the cheap products that use modern technology. Therefore, Lao products should appeal to the consumers in the export market. Environment-friendly products will be more consumed (CPC and JICA, 2002: 14).

The prices of vegetable crops Vientiane markets are rather cheap in the dry season because of villagers grow vegetables large qualities in this season, especially dill, morning glory, onion, coriander and other mint. Some households wait to grow cash crops only in the rainy season because of the higher price. However, wholesalers often like to import vegetables from Thailand when prices of domestic vegetable crops are high due to the price of agricultural products from Thailand are cheaper. In this case it causes the peasants who grow cash crops in this village go back to practice semi-market agriculture.

In the case mentioned above, some scholars argue that the government should support and develop sufficient infrastructure to stimulate peasants to practice more commercial agriculture to create food security. Similarly, the government should create agricultural market networks in both internally and externally in accordance with improving better institutions. At the same time, the government

should promote and give various priorities for private entrepreneurs and local producers for investing in agricultural sectors and create a stage of dialogue among consumers, wholesalers, rice millers, producers, and concerned institutions.

In order to distinguish the differentiation of villagers' income that is derived from cash crop cultivation and wage labors. These classifications of cash income reflect disadvantages, advantages and increased economic space between successful and unsuccessful peasants. The classification of cash income dose not only derives from cash crop cultivation, but also derives from other sources. In this case, I showed only income differentiation that derives from cash crop cultivation, which separate income classification into four groups (see table 5.1).

Table 5.3 Cash Income from Cash Cop Cultivation

Income (Kip/year) from cash crops	HH number	Percent (%) 61.6	
Less than 5,000,000 (500 USD)	61		
5,000,000 – 10,000,000 (500-1000 USD)	22	22.2	
10,000,000 – 20,000,000 (1000-2000 USD)	14	14.2	
More than 20,000,000 (over 2000 USD)	2	2	
Total	99	100	

In the village, most agricultural products are sold via wholesalers and rice millers within the village. These wholesalers like to buy rice and vegetable crops at directly from rice storage and vegetable fields. The prices of vegetable crops are determined by wholesalers both inside and outside village, while the prices of rice are determined by rice millers within village based on market prices and demand and supply laws. The prices of rice crops are easy to distribute to consumer market compare with non-rice crops. It can be sold both inside and outside of the villages. Producers explained that rice crops are easy to sell at certain prices. The sale is only to rice millers within villages or neighboring village; they will come to buy rice. Nevertheless, rice cultivation spends so much time and capital cost of production. Moreover, land for rice cultivation is limited.

Under market forces, wholesalers play a key role in determining the price of goods in Vientiane. Producers cannot determine the prices of their agricultural crops by themselves. Each month the price of vegetable crop often fluctuates following demand and supply law. Many peasants can not adapt to fluctuation of market prices, which cause some peasants practice agriculture in characteristic of semi-market and semi-subsistence.

In Ban Thin Pheer, vegetable crops can be grown everywhere but access to the market is limited. Therefore, the competition in the market has increased. The majority of wholesalers come from Vientiane and neighboring villages. These wholesalers employ daily labor within village for harvesting and collecting crops before they would bring to sell at consumer market.

5.5 Market Forces and Local Agricultural Practices

5.5.1 Mixed and Intensive Agriculture Practices

In the past three decades, the villagers required hired labor from outside for working in the tobacco fields in the dry season. Today, the villagers who grow tobacco have changed to grow new types of crops following market needs. However, limitation of rice field cause peasants has to use land intensively to maintain food family members. While, leasehold involves intensive and diversified cash crop cultivation. The villagers give the reason that we have to use intensive land with growing diversified crops; otherwise we do not gain profits and have no money for land rental.

Economically, the villagers perceive that commercial agricultural practice and export seems possible in the future if they are given support from the Government. Presently, peasants in this village still are restricted by market prices, credit, fertilizers, and modern agricultural tools, including technical recommendation and marketing guarantee from state sector. Based on local situation, the villagers have been facing various difficulties and challenges, particularly environmental issues, uncertain market price and so on. Some villagers would like to ask concerned authorities restrict illegally vegetable crops import of wholesalers.

The villagers explained that the rice millers and capitalist peasants can access more consumer markets and gain commercial profits from loan fertilizer and

financial credits include investment in agricultural production by using modern agricultural technology. Samata (2003) mentioned that the development of sprinkler-irrigated- systems through the investment of rich farmers has allowed them to make larger profits to cultivate more cash crops with a lot of chemical input throughout the year (Runako, 2003: 171). As a result of study between CPC and JICA (2002) explained that it is surely a possible strategy to raise income by heavy depending on modern technology and producing and exporting cheap products but it is strategy that will not be sustainable. Consumers in developed countries are now becoming more and more cautious about chemical problems and pay more attention to environment-friendly products. Therefore, local knowledge and environmentally friendly methods should not be neglected. At the same time, the government should concentrate on greater market orientation.

Some peasants explained that cultivable land has been deteriorating; but they do not know exactly the cause of soil deterioration. They explained that now they have to apply increased chemical fertilizers every year, otherwise they are not able to achieve food sufficiency for family consumption. Deterioration of farmland is directly related with using chemical fertilizer and growing diversified and intensive crops because of their farmland is not fallowed the long enough that will generate rejuvenation as before.

Plantation of mixed crops is a way in sustaining household cash income because it is able to access to regular cash income in each month. Mr. Mi, (43-years-old) explained that his family apart from growing rice crop, also grows mixed dill and coriander crops in my paddy-rice field where sloping land to create regular cash income for feeding family members. These crops can be harvested faster than rice, tobacco and other vegetable crops, only twenty to twenty-five days it can harvest for sale. In this village, many households grow short-term vegetables at construction land close their home, because they can access to profit faster than other crops. Some households have home-gardens and it close to house due to agricultural land is reduced. Most of them grow mint, coriander, sweet basil and eggplant for self-consumption and sale.

Limitation of cultivatable land is a cause that has led to intensively diversified agricultural practices, which is the main cause of soil quality change. In

this case, I asked the question to the villagers who face soil deterioration; why do you cultivate several mixed crops, and why do you not cultivate a single crop? Most of them answered that it depends on the demand of consumer market. On the other hand, the objective of growing several mixed crops is to maintain soil quality and stability of the household economy. They said that if they grow single crop is not enough for family domestic consumption. This mixed several cropping is to increase productivity per unit of land.

5.5.2 Risk of Chemical Fertilizer Use in Agricultural Practices

In the past several decades, the majority of peasants practiced agriculture without using chemical fertilizers, because of land in this area was fertile, derived from rain and flood in each year, agricultural land received nutrients from mineralization of available soil nutrients. Before 1977, this village flooded every year. The elders in this village explained me that in 1976, there was a serious flooded and created greatly damage on farmland of the villagers.

In 1980s, the government, local administration joined with villagers constructing river embankments. However, the deterioration of farmland makes some peasants begin to review fertility of their farmland in thirty years ago that it derive from flooded in each year. This does not imply that they want to flood their farmland, but they think that it flood help to make land has more fertility. At that time, villagers used animal manure for create agricultural products but nowadays, animal manure is used less because few cows and buffalos are raised in this village. Animal manure deems to be higher source of nutrition for crops. It contains significantly more nutrients than other farm residues such as ferment straw and rice husks. The MAF (2002) points out that manure gives more high nutrients than inorganic fertilizers, and it is importance for increase rice yields (MAF, 2002: 122).

Since the market system has been introduced into agricultural production, many peasants have used land intensively, which creates plots of soil has shortened the fallow period, and the soil cannot maintain natural regeneration as before. Consequently, the peasants have to use chemical fertilizers in increased amounts each year on their farmland to sustain agricultural products. Following this situation, many peasants have been struggling with the decline of products per unit of farmland. Many

peasants informed me that their farmland is starting to deteriorate. Farming activities without using chemical fertilizers cannot sustain products per unit of land area as before. However, according to interview with many producers on February 23rd, 2006, they reported that using chemical fertilizer in village has been historically low, but there is evidence that it is increasing. From 1986-1990 fertilizer use averaged about 4-10 kg/ha on wet-rice crops and 10-20 kg/h on irrigated rice crop. From 19990-2006 using chemical fertilizer averaged about 50-70 kg/h on wet-rice and 70-100 kg/h on irrigated rice. This figure shows peasants still uses little chemical fertilizer when compare with peasants in neighboring countries.

Based on many studies, the use of chemical fertilizers and insecticide in agricultural practice has impacted on the sustainable livelihoods of the peasants. Moreover, the cost of production has increased continually, because fertilizers, oil, wage labor and tractor employment rate has become more expensive. As result of this many peasants neglected their agricultural practices and changed from farming activities to retailers, service car drivers and weaving, for example. Based on interviews with the peasants (March 17th 2006), chemical fertilizers and pesticides are applied in one or two time per cropping season. According to official data, the main application is on vegetables in targeted areas for market, especially area of flatland along the Mekong River near Vientiane. But, it is still low compare with other countries in the region.

Fertilizers and pesticides are most commonly imported and sold through the private sector. Despite some fertilizers and pesticides have sold through the APB, but is mostly handled by private dealers, such as CP Thailand. In the past, there has been a general lack of availability of fertilizer and a shortage of capital among farmers, but there is evidence that this situation is changing. Nowadays, CP Thailand appears to be the only retailer of any size in the Vientiane area.

The high prices of pesticides cause some peasants to change from using pesticide to apply oil and powdered detergent in managing pests and other crop enemies. The villagers told me that diesel and powdered detergent could eradicate pests and crop enemies as pesticides. Moreover, it helps to reduce the cost of production. However, the use of diesel and detergent powder has created impacts to environment as pesticides. In 2003, the FAO Vegetable Integrated Pest Management (IPM) Program

conducted study on pesticide use in Laos, especially Champask, Savannakhet, Vientiane Capital and Vientiane Provinces found that pesticide use is relatively low compared with other countries of the region, that active promotion of pesticides is not widespread (FAO, 2002).

5.5.3 Risk of Double-Season Crop Cultivation

In the past, agricultural practices of the peasants in Thin Pheer village rely on the annual monsoon rain. Most of them grow rain-fed rice production and green vegetable crops by using manure, ferment straw and rice husks with local knowledge and traditional agricultural equipment under condition of the moral economy. Wetrice and green vegetables are primarily grown during the rainy season for shelf consumption. After the move towards a more market oriented economy, many peasants changed from using animal manure to organic and chemical fertilizers into their agricultural practices in particular rice, tobacco, and short-term green vegetables to increase agricultural productivity. Firstly, many peasants have enjoyed more rice, tobacco and green vegetable outputs and more cash income than before. Some peasants have grown intensive onion, dill, and mints in rainy season and extended more during the dry season by pumping water from underground water and the Mekong River with using sprinklers.

Nowadays, commercial agricultural production practices are occurring in both dry and rainy seasons, and it is able to grow continuously. Because of irrigation systems, electricity, road and market network has developed. Geographical condition is a factor that led double-season crop cultivation in this community, because of Thin Pheer village is well linked to the consumer markets in Vientiane town. Many villagers explained that the objective of growing double-season crops is to create food security for family's members and to avoid poverty. Some peasants said that an agricultural activity in the present situation depends on many factors which have both internal and external implications. In this case, I believe that rapid population growth and needs in material goods consumption is principle factors for villagers' growing double-season crops to make cash income. In the rainy season, cash crop cultivation has faced very obstacles particularly pests, mice, insects. Therefore, many producers

have to spray more pesticides for maintain their agricultural products and cash income.

In this village, there are many households that grow irrigated-rice to secure enough rice for household domestic consumption. Simultaneously, they grow some green vegetables in the paddy field for self-consumption and sale such as mint, dill, coriander, sweet basil and chili. Plantation of double-season crops increases competition in market price and water uses. Limitation of responding irrigation water makes many peasants orients to use largely underground water. Some peasants obtain on get water from Mekong River by pumping with private pump. According to my survey during visiting research site, agricultural practices of villagers become more privatization. Peasants can choose to grow whatever that they think that it is economic benefits. Nowadays, underground water is used largely for villagers' commercial agricultural practices. Because of their agricultural land is far from irrigated canal. Some peasants use water from natural pond by pumping. On the other hand, water use from underground and natural pond help reduce the costs of production (see figure 5.6).

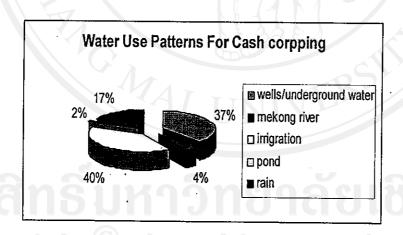


Figure 5.6 Water Use Patterns

In the dry season peasants who have rice fields close to irrigation canals have greater advantages than other peasants who have rice field far irrigation canal. Therefore, peasants often argue over rights of irrigated water use during irrigated rice plantation. As a result, many peasants have deep wells close to their home, some households have at both home and vegetable field, particularly where far from

irrigated canal. Underground-water has largely been used in cash crop cultivation in both dry and rainy seasons. Deep wells have been used both for consume and irrigate vegetable crops. The depth of the deep well is bout 7-12 meters. However, some villagers explained that they dug underground water before irrigation has been improved. In this village, the peasants have not constructed fences of preventing encroachment of cattle, buffalo and pigs, if villagers raise animal, they must take special care of them. The peasants do not concerned that domestic animals will eat their agricultural products. This is a facility for the peasants in commercial agricultural practices.

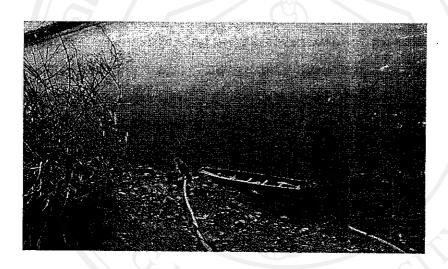


Figure 5.7 Private Pumping from the Mekong River in Ban Thin Pheer

5.6 Local Peasants' Response on Market Economy

Through my research points out that, firstly the peasants have responded largely to the policy of market-oriented economy. As result, vegetable crops have increased grown in paddy fields to increase number of crops per year land unit. Similarly, the peasants grow double-season rice per year in accordance with growing alternately other crops such as maize, mint, union, cabbage, tomatoes, cucumber and long bean for sale. However, according to my household survey in 2006, March, the peasants' traditional lifestyles seem to be forced to change for seek good opportunity in market economy.

In this case, villagers explained that "under condition of market system, everything now is bought, sold and exchanged in the market. Even though cash

income and general living level of standard better than before, but we have to work harder. Otherwise, livelihoods of the family's members would not achieve food sufficiency and other necessities". Nowadays, cash expenditure in everyday life has increased when compared with subsistence economy period (Interview with the elders, March 7th 2006).

Table 5.4 The Expenditure in Agricultural Production and Livelihoods

Important Expense	Subsistence-based Economy Period (before- 1986)	Market-Oriented Economy Period (1986-present)		
1. Agricultural activities	Digging tools, plow, knife, food and local drink for assistant labors			
2. Non-farming activities	Salt, sugar, firewood, battery, and cloths	Electricity fee, modern clothes, and food		
3. Facility assets	Radio, tape recorder, and bicycle	VCD player, refrigerator, tape recorder, tractor, TV, car, mobile phone, motorbike and other household appliances		
4. Health care	Medicinal herb, poultry for spirit or shamanism and scientific medicines	Scientific medicine, and health service fee		
5. Educational services	Educational equipment, children's cloths	Educational equipment, Bicycle, children's modern clothes, motorcycle, and school fees		
6. Housing	Wood, Local material, and labor	Wood, zinc, ceramic, cement, labor and other construction equipment.		
7. Religious ceremony	Buffalo/cow, poultry for feeding spirit and temple festivals	Poultry for offering spirit and expense for temple festival in some times		

The government policies of cash crop cultivation cause many households to grow both wet and dry rice for household consumption and sale if there is a surplus. There are some households that have cultivated irrigated-rice for sale. However, rapid changes of natural and socio-economic environments make some peasant households begin to review their commercial agricultural practices. According to some villagers,

begin to review their commercial agricultural practices. According to some villagers, market-based economy as force to local farmers to adapt and reconsider their livelihood strategies for survival. The villagers explained that market-based economy made them spend a lot of money and faster than the subsistence economy period.

Nowadays, cash is a necessary factor for livelihoods. From this perspective, we are able to say that market-oriented mechanism in agricultural practices has affected both positively and negatively on local livelihoods and their surrounding environments. In short, the villagers have responded to the state policy of market-oriented economy but they feel that market system use money in many socio-economic activities. Villagers have new values and consume more material goods. Everybody have to cope in earning cash income to buy modern material goods as other neighboring villagers such as villa, rice mill, hand tractor, television, video-compact disc player, motorcycles, refrigerators, mobile phones and household appliances.

5.6.1 Economic and Social Differentiation

Growing under the market economy system, the global and national economy has greatly influenced for the peasants' socio-economic life in Ban Thin Pheer. In the same way, agricultural technological progress has been influencing to the peasants' livelihoods. Under the light of agricultural technological modernization, a number of peasants who have high income from selling increased agricultural products from 30,000,000 Kip/year to 50,000,000 Kip/year, which shows number of wealthy peasant households in village have increased. However, socio-economic life of villagers under market force has more largely differentiation due to inequality of access to cash income source and basic infrastructure including agricultural technology.

Unequal access to sources of cash income and agricultural technologies among villagers create wider economic and social difference in their community. Similarly, the gap between rich households and poorer households has increased. In addation, economic and social competition has increased following market economy and globalization growth, which creates a new socio-economic differentiation in Thin

Table 5.5 Cash-income Difference of Households

Group of people	Items Paddy -rice cultivation	The optimum source of income						
		Cash crop cultivation	Business, trade or service	Wage work	Remittance from abroad	Others	Total	
Poor	Count	2	8	0	3	0	1	14
	% Within group of people	14.2%	57.1%	0.0%	21.0%	0.0%	7.1%	100%
	% of total	2.0%	8.0%	0.0%	3.0%	0.0%	1.0%	14.0%
Middle	Count	8	41	5	0	11	3	68
	% Within group of people	11.8%	60.2%	7.3%	0.0%	16.1%	4.4%	100%
	% of total	8.0%	41.4%	5.0%	0.0%	11.1%	3.0%	68.5%
	Count	27°3	8	2	0	4	0	17
Rich	% Within group of people	17.6%	47.0%	11.8%	0.0%	23.5%	0.0%	100%
	% of total	3.0%	8.0%	2.0%	0.0%	4.0%	0.0%	17.0%
Total	Count	13	57	7	3	15	4	99
	% Within group of people	13.1%	57.6%	7.0%	3.0%	15.1%	4.0%	100%
	% of total	13.1%	57.6%	7.0%	3.0%	15.1%	4.0%	100%

The table 5.5 indicates the differentiation of access to source of income between groups of people within Thin Pheer village. The main source of income of the poor households is from cash crop cultivation and wage works. The poor groups of people have got rice enough for household domestic consumption as mentioned in Chapter IV. Peasants who have no paddy field they can rent irrigated field for irrigated rice cultivation for self-consumption. Some households of poor peasants have no paddy field but they have some vegetable field for cash crop cultivation, and they bring cash income from cash crop cultivation to buy rice for family domestic consumption. For middle income villagers, about 60% of their income is from cash crop cultivation and about 16.1% of them got the income from their relatives and children in abroad. Even though, they have got less paddy field but they have got

crop cultivation and about 16.1% of them got the income from their relatives and children in abroad. Even though, they have got less paddy field but they have got enough vegetable field for cash crop cultivation to earn more income. These groups of middle people have got enough income for everyday living. On the contrast, the richest groups of people have got enough paddy-rice and vegetable field for cash crop cultivation. Besides, they also have got paddy-rice and vegetable field for rent, which differ from the groups of poor and middle people that have no paddy field or less paddy field. In addition, these groups of rich people have received so much money from their relatives or children in abroad and it make them have got capital for running small-size business within village.

In this village, there are some peasants who are able to access to annual agricultural revenue over 50,000,000 Kip/year. This revenue excludes cash income from other sources (mainly money from relatives abroad). In this case, I can not give example because of interviewee do not want to show their names. Therefore, I do not include their names for secrecy. In this village, there are many households who have low cash income and little purchasing power, but they often are stimulated to consume new material goods indefinitely through various media such as television programs both from Laos and Thailand. Therefore, socio-economic life of the villagers seems to have been intervening from materialism and consumerism thinking.

Linking market mechanism into agricultural production, the peasants seem to be forced to join in the market economy system and productive competition. At the same time, it has introduced issues of buying and selling to business entrepreneurs. Based on this system many peasants work harder for access to modern agricultural equipment, new houses and various modern consumer goods, which make their traditional moral livelihoods have changed.

According to interviews with the villagers (March, 2006), they explained that since the market system has been integrated into the agricultural productions, and it makes economic and social status within village begin to have more differentiation. Social stratification between rich households and poor households has widely been increased among them. As a result, the poor households are increasingly exploited by rich households. Concurrently, new social relations have emerged and it seems to have increased trend.

Nowadays, economic, social and cultural lifestyles of the villagers are connected to market economy, and consumerism especially new values in both material and non-material, which make the peasant traditional moral values and cultural life, have gradually changed and degenerated. Simultaneously, their traditional subsistence livelihoods seem to have being driven by state developmental policy. Accordingly, the villagers are beginning to have new values in consuming material goods, especially motorbike, modern car, mobile phone, new fashion clothes and various electronics. Similarly, economic decisions are determined primarily by market forces and consumer preferences. Some villagers must to go out to work hardly to earn money by various means to gain material goods following new values as other villagers. Some scholars pointed out that integration of market economy into peasant community as guidance of the peasants for adopts to consume more material goods.

5.6.2 Semi-Market Strategies

Generally, the introduction of the market mechanism integrated into the system of the agricultural production caused many peasants to produce intensive agriculture in both dry and rainy seasons for household consumption and sale. Moreover, the process of agricultural production for their market has increased diversification. Rich peasants are satisfied with the increased outputs than previously. However, applying increased chemical fertilizers into their farmland year by year has led to the degeneration of soil.

Presently, there are some peasants of Thin Pheer village who are beginning to reduce production forces and neglect their agricultural production because of the fluctuation of market prices and higher costs of production. There are many households practice agriculture only for family consumption. Some households practice commercial agriculture only some seasons. In this case, some development scholars mentioned that Laos has gone a long way in moving from a command to a market economy, but competition still operates under a weak institutional framework.

Based on the fluctuation of market prices, there are diverse strategies of livelihood in each household in Ban Thin Pheer. Each household have developed their own strategies of cash cropping to access profits; such as mint, union, tomato, corn

and cabbage following the needs of market. These strategies of livelihoods make them able to maintain sustainable livelihoods. Rich and poor households have different livelihood strategies. Rich households easily gain access to market and increased profits and have more opportunity to earning cash income. But for the poor households, they have limited opportunities for sustaining their livelihood activities. While, for some villagers, before they will begin crop cultivation in the dry season, they must assess what their neighboring villages cultivate. The observation and assessment is a strategy of the peasants to avoid loss status from uncertainty of market prices.

According to my observation in late 2006, the decision-making sequence to agricultural choices of the peasants are never homogeneously based on the economic incentive towards the gross returns, but rather literally 'survival strategy' as a result of deliberate consideration and evaluation in accordance with local condition and their own criterion. For instance, Mr. Thongchanh's family is one of the households that engage in cash crop cultivation as main occupation. Presently, he is the vice leader of the village, he explained to me during a household survey in early April, 2006 that his family now grows cash crops in the rainy season more than the dry season. In each dry season, his family grows less cash crops and primarily focuses on cultivation for household domestic consumption. Sometimes, he sells his surplus products to purchase fertilizers, foodstuffs and necessary consumer goods. In rainy season, he rents more land for growing cash crops, Main crops that he cash grow namely chili, long bean, tomato and some mints.

Market-oriented economy makes the wealthy households of this village to develop their livelihood strategies by using their availability of cultivable land, financial capital, and technical skills for maintain sustainable livelihoods. In contrast, some poor and medium households remain self-reliant on production and consumption. According to my household survey, these households are unable to produce surplus rice, but they produce only for self-sufficiency. Some households grow both rained and irrigated rice to sustain food sufficiency.

5.6.3 Subsistence Strategies

According to interviews with poor and medium groups of people in this village in early April 2006, the majority of them explained me that they grow rice for self-consumption more than for commerce. There are only some households that grow irrigated rice for sale to compensate the cost of rain-fed rice production and to earn more income for everyday living expenditure. In contrast, some rich households provide irrigated field for rent. Each year, irrigated-rice fields like to be rented by villagers from other districts in Vientiane such as Sisathanak and Xaithani district. In this village, the cultivation of cash crops continues to be practiced it has decreased. Similarly, rice production has gradual gone back to subsistence as before, and it has increased trend because of higher cost of production.

Under pressures from environment and market force cause some peasants begin to review methods of subsistence agricultural practices as practiced before. There are many households of village have gradually oriented to subsistence rice production. By subsistence oriented strategies, agricultural fields were produced mainly for household consumption. According to my household survey, over 65% of peasant households (on average) practice agriculture for commerce. Less than 35 % of them start to produce only for family self-sufficiency. Today, the peasants grow subsistence rice rather than cultivation for market compare with vegetable crops. Mainly cause of subsistence-oriented livelihood strategies in rice cultivation because (1) limited access to irrigation water; (2) lack of improved seed, new tools and techniques; (3) lack of credit and technical support; and (4) high cost of production; and (5) lack of access to marketing information.

Through my study of 99 households of research sampling group, I found that many households have been going to back to subsistence agricultural production. The majority of these households have no labor and own land or small amounts of cultivable land. Some households lack financial capital, technological knowledge and market information. My household surveys showed that the great of them have no enough money to buy fertilizers and other agricultural inputs in their commercial agricultural practices. Therefore, these households have returned to subsistence agricultural production as practiced before. To earn increased cash income for

spending in other necessary things; they have been weaving and sometime work as wage labor in dry season.

5.7 Summary

In this village, the patterns of the peasants' agricultural practices have transformed from a subsistence-based and isolated agriculture to more production for market and services through commercial channels. This transformation is a response to government policy of market-oriented economy or (NEM). It seems to be an adaptation to national socio-economic change process, population growth, and farmland reduction. According to the villagers' perspectives, agricultural production under market-oriented conditions, general standard level of living has better improved but everything is bought, sold and exchanged. Cash becomes necessary thing for livelihoods. Moreover, expenditure in agricultural productions and livelihoods has increased.

In this village, local rice millers and peasant capitalists still play a significant role in supplying chemical fertilizer inputs and providing financial credits for support the peasants' cash cropping. Moreover, there is now increased flow of agricultural inputs, including fertilizers, improved seeds, pesticides, power tillers, farm supplements, and other agricultural products coming across the border from Thailand without passing through customs.

Market-based agriculture causes the socio-economic life of the peasants to rapidly change. Basic needs of living and standard level of living have developed and improved. Many peasants have more cash income. Cash income sources of the villagers are not only come from selling agricultural products and trade, but also come from remittance of their relatives and children in abroad. Many peasants can access to capital sources, transportation, and communication, labor and material markets for buy and sell commodities. Furthermore, they also can access to health services and better educational opportunities. However, moving to market-oriented economy and commercial agriculture make the peasants have affected both favorable and undesirable for their sustainable livelihoods.

The competition in market prices and the scarcity of farmland is beginning to lead increased intensive agricultural practices and makes greater requirement of

new technology into agricultural practices. Even though, peasants still use small amounts of chemical fertilizers, but there has increased trend. Nevertheless, higher cost of production makes some peasants practice subsistence agriculture in rice crops. There are merely vegetable crops that are grown for market in Vientiane, but the peasants in village have gained access to different livelihood resources, particularly cultivable land, credit, irrigation water, market information, technical knowledge and new agricultural technologies. Inequal access to livelihood resources of peasants makes socio-economic differentiation and gap between rich households and poor households have widely increased among them.

