CHAPTER 5
DIFFERENTIAL LABOR PROCESS AMONG DIFFERENT GROUPS OF FARMERS IN ORGANIC RICE SCHEME

5.1 Introduction

This chapter illustrates the re-arrangement of production at the farm level towards the standardization of new crops which is a high valued food. Accordingly, the objective of this chapter is to examine labor processes under the contract production of organic rice. This chapter illustrates labor re-arrangements in organic and fair trade rice commodity production, which rests on the constitution of production organization on the one hand, and the constitution of self-regulated farmers' subjectivity on the other. The requirements of firms and consumers can increase the complexity and sophistication of the labor process in organic agricultural production system.

5.2 Fair Trade: Control of Labor through Organization of Production

To be certified as fair trade rice, the individual farmers are organized as a producer's group[54], under the supervision of a local NGO. The participating farmers are required to attend the annual meetings and to constantly participate in training sessions. If the farmers do not attend such meetings, they have to send the representatives to attend the meeting otherwise their memberships in the producer's group will be nullified.

The fair trade claims that establishment of producer's organization is an instrument for the social development of small-scale farmers, but the effective of producer's organization to generate well-being for small-scale farmers depends significantly on whether the producer's organizational structure is put in accordance

[54] www.fairtrade.net/standards.html

with democratic line, one which enables control by its members and its board[55]. Yet, in practice the producer's group committees can contact its members a few times per year through meeting sessions. Moreover, the group lacks a means to enforce the regulations, as the project manager signs the contract with individual farmers, not with the producer's organization. The project manager thus holds almost all bargaining power.

The designer of the development project has the authority to control labor through financial support for production and financial management. The labor control is implemented through various technical dimensions such as the control of fair trade premium, the establishment of group saving program, the control of the provision of production inputs and financial loans, the use of organic rice grading, the use of guaranteed minimum price.

The organization of the organic jasmine rice scheme is illustrated in Figure 5.1.

[55] According to fair trade management principles, the producer's organizational structure must be arranged in accordance with democratic line through: (1) an establishment of general assembly which all members can vote for making decisions about the policy of producer's organization such as the use of premium, (2) the organization is controlled by an elected board and is required to hold a general assembly at least once a year, (3) the annual report and accounts are presented to and approved by the general assembly (www.fairtrade.net/standards.html).

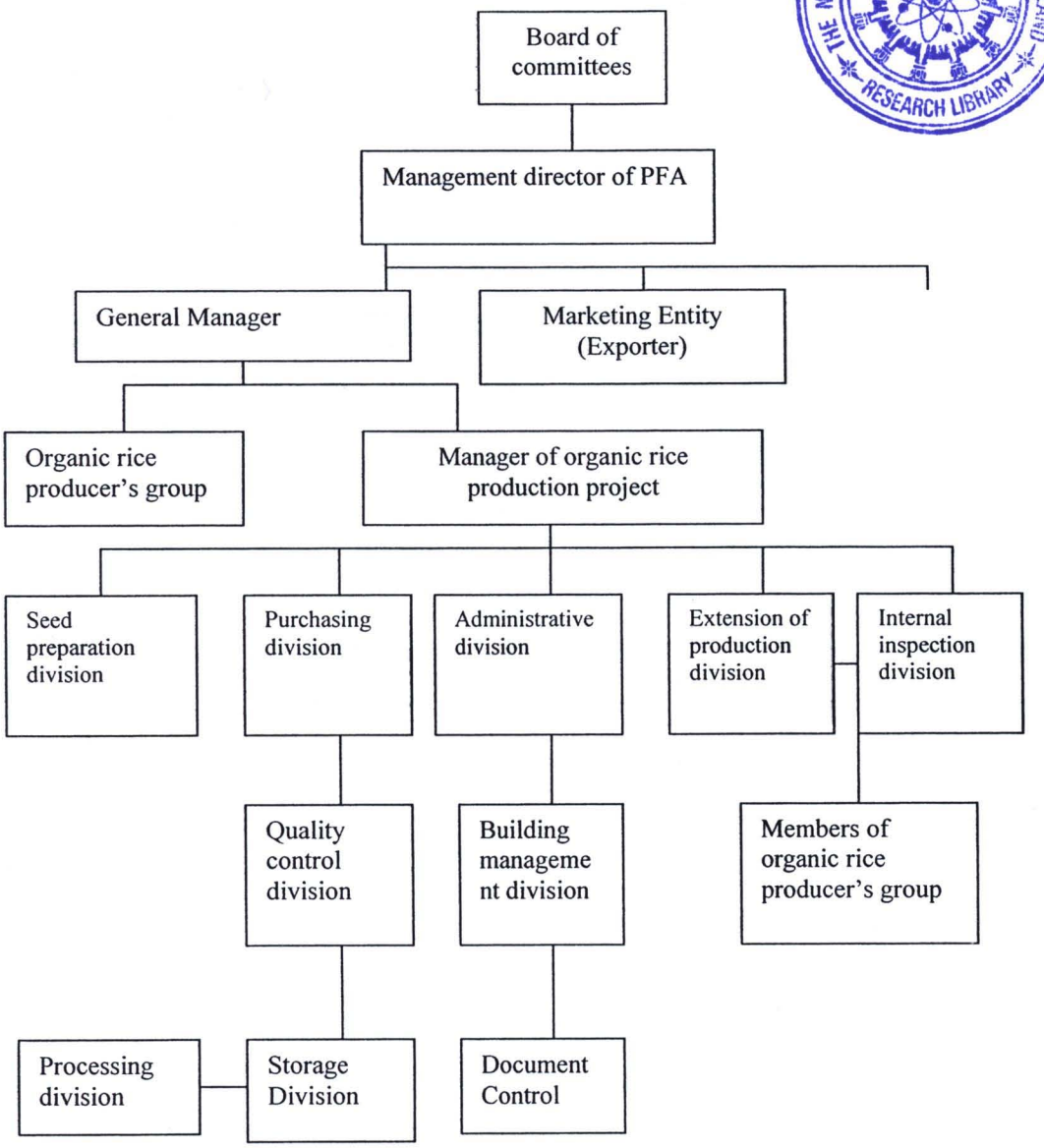


Figure 5.1 Organization of Organic and Fair Trade Rice Production

5.2.1 Fair Trade Premium

Due to their achievement in the long-term links with the fair trade networks, the producer's group received substantial financial support in the form of a fair trade premium. The fair trade premium is additional money paid to farmers in addition to the rice price and is directed to support local development initiatives. The producer's organization will receive a fair trade premium of roughly 760 baht per metric ton

(MT) of organic rice sales and 750 baht per metric ton for non-organic rice (see details in Appendix V). To be able to receive fair trade premium, the producer's organization must show its commitment and capacity to administer the fair trade premium in a way that is transparent for beneficiaries and the FLO. To ensure that decisions about the use of premiums are made democratically by its members, the administration and management of the fair trade premium is decided by the general assembly and documents must be properly prepared. Moreover, progressive requirements about the use of the premium are placed on the yearly premium plan and budget, preferably as part of a general work plan and organizational budget.

From 2003 to 2008, the producer's group received a fair trade premium of approximately 6,059,770 baht (nearly US$ 173,134) (Seeing premium fund received during 2003-2008 in Appendix V). The producer's group used the fair trade premium to begin to focus exclusively on organic jasmine rice production. The producer's group used the fair trade premium to support a variety of activities such as training costs, certification fees of about 450,000 baht per time per year (US$ 12,900). In addition, the premium is used as a fund to disperse group loans for farming improvements, purchase of cattle[56], and leveling rice land.

Due to the support of fair trade premium, after a few years of certification as the fair trade producer's group, the group was certified as organic producer's group. Since 2006 to 2008 which the fieldwork was conducted, the producer's group was certified by five certification systems' standards. It is correct that the certainty of markets is a prior condition for the farmer's decisions to shift to organic agriculture and the growth of the producer's group results from the long-term contract between the fair trade buyers and the suppliers. The group is rapidly growing, with its membership reaching 600 family farms in 2009. It was estimated that this was eight times the membership reported in 2002. In addition, the group was recognized as the number one Thai certified fair trade organic rice producer, with an export volume of organic rice of 3,000 metric tons in 2008 to niche markets worldwide.

[56] Premium loan used for supporting cattle raising in 2003 and in 2004 were 220,000 baht and 692,000 baht respectively.

5.2.2 Financial loans

The financial loan is another mechanism to constitute the self-regulated organization. The farmers access to loans in exchange of the condition that they are regulated by the NGO and the producer's organization. The farmer's organization received a financial loan from the Thai-German Foundation of 2,000,037 baht (US$ 67,817). The producer's group offered three-years loans, ranging between 600,000 baht to 1,000,000 baht (US$ 17,142) at six percent interest to its members in 2008. Such loans were given to 153 farm households who submitted their proposals requesting financial loans. The loans were short-term loans and were used to improve production systems, including livestock purchase and paddy land leveling. The farmers were given the loans only if they were united in a group of three to four farmers. The group shared the risks, if one member refused to re-pay his or her debts, the rest were obligated to re-pay them instead (Participatory observation notes, meeting of organic farmers, March 26, 2008).

However, there are limitations in poor farmers' access to the loans, and not all farmers can be successful in paying back the funds. After forming groups, farmers need to submit proposals to the board of committees of the producer's group for approval. It is not uncommon to find that farmers spending the bulk of the loans for other purposes, such as paying for their children's education or sustenance costs instead of using the money to improve the conditions of production. As a result, the farmers sometimes find it rather difficult to pay back the loans. If the farmers cannot pay back the loans, they cannot resign from the membership of the project. Therefore, loans can be beneficial for improving the conditions of production; at the same time loans are means to bind the farmers to the project.

5.2.3 The Group Saving Program

The harshest criticism of the scheme's financial controls is the establishment of a savings program. It is another mechanism to constitute self-regulated producer's organization. The savings program was established by the development project in

1999. One baht per kg is deducted from the farmer's rice sales per kg as mandatory savings under the control of the committees' of the producer's group. For instance, if the farmers sold 1,000 kg of organic rice or one metric ton per year, he or she had about 1,000 baht (US$ 28.57) deducted from his or her income. The development program claimed that these savings are a prior condition for enhancing the group's export capacity, in accordance with the requirement of FLO because the group savings were used to purchase paddy from individual farmers for export.

In the early stage, no maximum of deduction of rice sales per kg was specified. The designer of development program expects that in 2022 the group savings would reach over of 30 million baht, which will be able for the group to export rice by using group savings (Participatory observation fieldnote, a general assembly meeting on 3 May, 2008). In the point of view of the designer of development program, the group savings are a form of investment which would generate greater benefits for the producer's group than bank deposits would. However, the farmers consider the group savings program as a mechanism of labor control for the reason that the development program sets up a rule specifying that if the farmers have seriously broken the agreements in the contract, their individual savings will be expropriated as a group property. Hence, the deduction in rice sales at one baht per kg is viewed by the farmers as a form of penalty rather than saving.

Moreover, the farmers were told they would get their savings back when they met any of four conditions: (1) died, (2) moved, (3) stopped farming, or (4) retired. And, their demand for getting their savings back must be investigated and approved by the committees of the producer's group. Because of these conditions, the farmers describe the deduction of sale income as "bail money" (*Gyen Tua Pra kun*), or money serves to force farmers to conform to international standards. The threat that their savings being denied to them has led to a crisis of trust, because this caused them to be increasingly dissatisfied (Fieldnote, a general assembly meeting on 3 May, 2008). Dang, a farmer, shared his views as follows:

> *The group savings program is a form of "pledge money" to get us not to break the rules and not to resign from the project. If someone is obligated to the accumulated group savings scheme, he or she would not dare make a mistake and would not dare leave. I do not know how much money they*

> *took from all the members. It was a few years ago and the money has accumulated into hundreds of thousands of baht. I do not know what the group savings has been used for. If he [the project officer] finds that we have made a mistake, we are not guaranteed that we will get our individual savings back (Interview with Dang Tamma, March 23, 2008).*

From the farmer's perspective mentioned above, group saving program serves to assure that the production of organic rice would meet international standards. The use group savings to control the farmers reflects the fact that there is a tension exists in the export-oriented organic jasmine rice scheme, the tension occurs because quality control is difficult and costly. A key question is how to make supervision effective given that monitoring and auditing cannot be performed 24 hours a day throughout the year. From the point of view of the development programmer, the barriers to certification of organic rice production system are the farmers' poverty, semi-literacy, low levels of education. Here, group saving program is regarded as a means to encourage entrepreneurship and to ensure the standardization of agricultural practices.

Kamduang, another farmer, contests the idea of a group saving program: "It is not legitimate to deduct rice sale from farmers and use our savings to buy rice and make money from us". He criticized that the rate of deduction of one baht per kg was too high. If the rate of deduction was reduced to be half a baht per kg, with the time of accumulated saving not over five years, he would accept this savings program. At the time that fieldwork was conducted in 2008, the price of chemical fertilizer was steadily increasing. The farmers bought chemical fertilizer at 800 to 1,000 baht (US$ 22 to US$ 28) per 25-kg sack while industrially produced organic fertilizer was sold at 300 baht (US$ 8) per 25-kg sack. For this reason, the number of farmers who turned to use organic fertilizers significantly increased, and these farmers were interested in becoming members of the producer's group to make more profits. Yet, because of this savings deduction, Kamduang claimed, other farmers were reluctant to apply for membership of the producer's group. The resistance of farmers to the group saving has led to the committees of producer's group set the maximum of accumulated saving for individual farmers not over 50,000 baht (Interview with Kamduang Kamma, March 22, 2008).

The designer of development program insisted that the annual meeting of the general assembly voted for approval of the group savings' program to enhance the

group's export capacity according to the requirement of fair trade standards. (Fieldnote, Annual Meeting, 3 May, 2008). However, many farmers said that they could not recognize their approval of group savings deduction in the general assembly meeting. The farmers directly and indirectly express their disagreements with this program. This has led to a conclusion in the annual meeting in 2008 that the committees of producer's group have limited the individual savings at maximum of 50,000 baht in response to the objection of the farmer members (Fieldnote, Annual Meeting on 3 May, 2008).

Even though the savings program was one of the leading sources of criticism, only a few farmers dared to stand up and broach the issue during meetings. One reason for this reluctance was based on the prior past experience of seeing their fellow farmers have their questions answered vaguely by project officers. Some project officers also vehemently refuted the farmers' criticisms. The farmers tend to resist in a non-confrontational way. Even more commonly, the farmers often choose practices of politics which can be done in their own daily lives. Detail the practices of politics will be discussed in Chapter Six.

5.2.4 The Guaranteed Minimum Price

At first, the guaranteed minimum price offers the farmers the prospect of price stability. Marketing contract agreements between the buyer and supplier builds confidence among farmers that their organic grains will be sold at the fair trade guaranteed price. Initially, the FLO sets up the fair trade minimum price for organic rice exported from Thailand at 12,000 baht (US$342.86) per metric ton. The guaranteed rice price set by FLO is estimated roughly ten percent higher than that of non-organic rice price sold in local markets. The guaranteed price is aimed to protect the local producers from fluctuations in the market price in the open market. The production cost per kg of organic agriculture in the study site calculated in 2008 was estimated at 9.17 baht (3,210 baht per 350 kg). The guaranteed organic rice price calculated by FLO was about 13 baht. Hence, the farmers make a profit of roughly 3.83 baht per kg. As the total income from rice sales are deducted by one baht per kg and transferred to the "collective savings" of the producers' group, the net profit

gained from organic rice sales was 2.83 baht per kg. While the farmers reap high profits, they also incur marketing risks.

At the beginning of market integration, northeastern Thai farmers perceived the fair trade guaranteed price acceptable, because contract farming provided them a satisfactory price. The minimum guaranteed price for organic jasmine rice given to the farmers in 2002 was 9 baht per kg or 9,000 baht per ton, estimated approximately 30 percent higher than that of the non-organic rice price sold in the markets at that time, which was 7 baht per kg, or 7,000 baht per ton (Interview with a committee member of the producer's group on February 2, 2007). Yet, when the organic rice market has been developed, the guaranteed organic rice price set by the FLO was regarded by northeastern Thai farmers as unacceptable. In the cultivation year of 2007/2008, the fair trade guaranteed price for organic jasmine rice was 13 baht per or 13,000 baht per ton, and the price for jasmine rice produced in the first and second year was 12 baht per kg or 12,000 baht per ton. The farmers argued against the guaranteed price as unacceptable. The argument between the contractor and northeastern Thai farmers about the legitimacy of fair trade guaranteed price was heated, particularly in 2008 when the price for non-organic rice sold in local markets was relatively higher than that of organic rice.

When I conducted my fieldwork in November 2008, the non-organic rice price sold in the local market was 16 to 17 baht per kg or 16,000 to 17,000 baht per ton, which was obviously higher than price of organic rice produced under the contract, which was 13 baht per kg or 13,000 baht per ton only. Because of this, the farmers were dissatisfied with the organic rice price given to them. There were various factors contributing to the high rice price in international markets in 2008. The demand side of rice in global markets increased. The national newspaper reported that, compared to the same period of the year 2007, the volume of the year 2008 rose 71.69 percent from 1.64 million tons while the dollar-denominated value was up 95.94 percent from $ 623 million. In baht terms, the export value in the period totaled 40 billion baht, an estimated 84.36 percent increase from the 21.8 billion baht from the same period a year earlier[57]. Another national newspaper reported the comment of the Deputy Prime Minister and Commerce Minister, Mingkwan Sangsuwan, that Thailand had already

[57] The Nation, 28 Mar 2008.

received overseas orders for 6.7 million tons of rice. The non-organic jasmine rice price was claimed by the Minister to be between 19,000 to 20,000 baht per ton in June 2008. Other rice paddy was sold at between 12,000 to 14,000 baht per ton, and sticky-rice paddy price was sold at between 8,200 to 8,500 baht per ton[58].

The farmers always compare the guaranteed organic rice price of the project with the non-organic rice price of the local markets. In the year that the fair trade guaranteed organic rice price was lower than that of non-organic rice sold in local markets, the farmers expressed their dissatisfaction with the production under contract. Some organic farmers said that they were discouraged to be given lower rice prices for organic rice. The farmers asked why they had to spend intensive labor, devote much time, and were more tightly controlled by international regulations but received lower rice prices than their neighboring conventional farmers. Some farmers said that if the fair trade guaranteed price would be lower than the non-organic rice price in the following year, they would stop doing organic agriculture altogether or might sell their organic rice outside the contract.

The farmers inform that the guaranteed price is actually a fixed price and has not been increased for many years, though production costs have sharply increased in recent years. In addition, the rice prices guaranteed by the Thai government have also increased. In November 2008 fair trade minimum guaranteed price was 13,000 baht per ton while the rice price guaranteed by the Thai government was 14,000 baht per ton. Some farmers decided to sell the organic paddy outside the contract. In other cases, some farmers did not violate the agreement but resigned from the project. They justified their decisions to withdraw from the contract by saying they saw no difference between production for fair trade markets and production for conventional markets. They also raised the question of the meaning of "fairness". As one farmer who attended a training session on March 23, 2008, said:

> *If I grow organic rice and sell organic paddy with the price below the production cost, I do not understand why I should grow organic. I have grown organic rice for many years, but in the last few years I sold organic rice at prices lower than my neighbors in conventional farming. I was frustrated and wondered whether I should maintain my identity as an*

[58] Bangkok Post, May 10, 2008.

organic farmer. Do you know how hard it is to grow organic rice? I suffer from hard work, increased burdens from additional investment in production costs. Moreover, I was controlled by a lot of rules. But my average yields per rai were less than that of conventional farming, and I received less income (Observation, a training session on March 23, 2008).

Although some farmers wanted to leave contract production, they were not completely free to withdraw from their contracts, due to debt obligations from field improvement and livestock purchase loans and the accumulated group savings deposits. There was no proof of the number of farmers who have withdrawn from the contract during 2008 to 2010. However, the NGO's report in 2007 specified that the number of farmers who were forced to leave the organic jasmine rice scheme was 54 households, or an estimated 8.87 percent of the total 607 households. In 2006 the number of farmers who were forced to leave from the project was 40 households, or roughly 9 percent of the total 440 households. The contractor has mobilized new members to replace the old members who leave the project. Thus, the resignation of farmer members had no impact on stability of the project. Yet, the percentage of farmers who resign every year reflects conflicts existing in the scheme.

5.3 Comparison of Small/Medium/and Large Producers

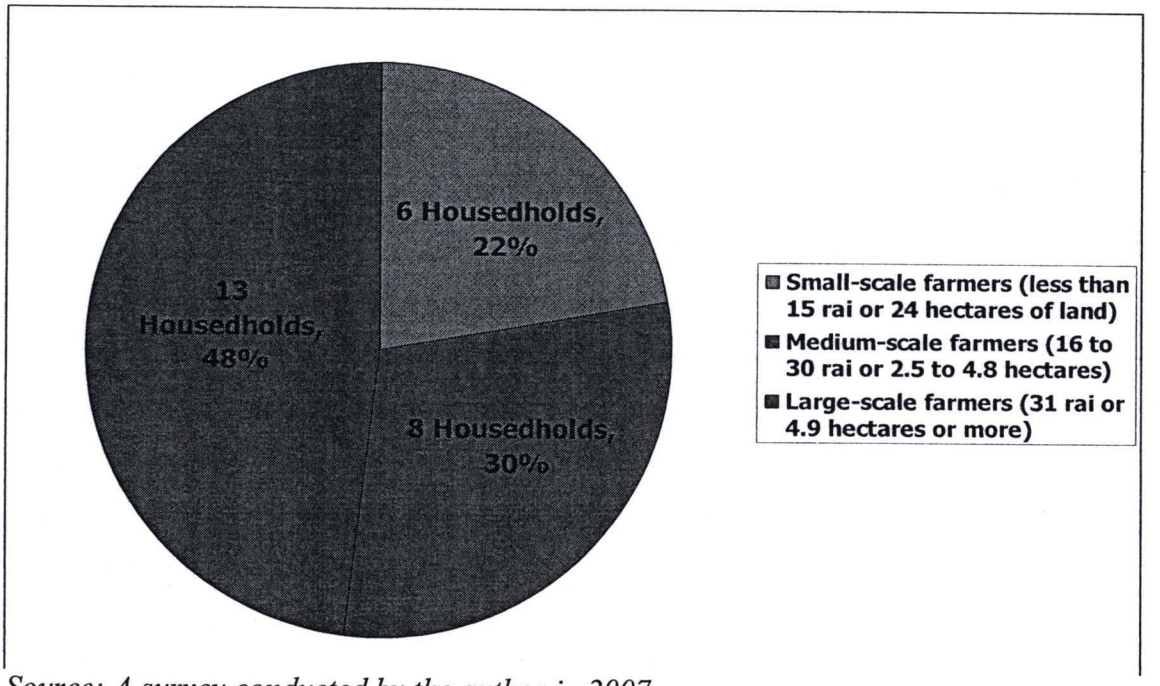
As mentioned in Chapter Two, a survey conducted by the project developer, in 2007 the total of 553 farmers can be sub-divided by land ownership into three categories: small-scale farmers, medium-scale farmers, and large-scale farmers. There were 250 small-scale farmers who grew organic rice on land of size range one to 15 rai (1-2.4 hectares), and they comprised 45.20 percent of total farms engaged in organic rice farming. There were 208 medium-scale farmers who grew organic rice on 16 to 30 (2.5-4.8 hectares) rai of land, and they comprised 37.61 percent of total farms. There were 95 large-scale farmers grew organic rice on 31 rai (4.9 hectares) or above of land, comprising 17.17 percent of total farms engaged in organic rice farming. The number of farm households and size of farms is shown in Table 5.1. That is to say at the beginning of the organic jasmine rice scheme in 1998; approximately 70 percent of the members of the organic jasmine rice producer's group were smallholders.

Table 5.1 Classification of Farm Size by Landholding

Farm sizes	**Number of Farm Households Engaged in Organic Rice Farming for Export**	**Percentage of Farms (%)**
Small-scale farmer (1-15 rai, or 1-2.4 hectares)	250	45
Medium-scale farmer (16-30 rai, or 2.5-4.8 hectares)	208	38
Large- scale farmer (larger than 31 rai, or 4.9 hectares)	95	17
Total (11302.16 rai, or 1834.48 hectares)	**553**	**100**

Source: a survey of the local NGO in 2007.

Moreover, figure 5.2 illustrates in 2007 there were total 27 farming households who engaged in export-oriented organic jasmine rice production in Na Sawan Sub-district, Khemmarat District, Ubon Ratchatani Province. However, the sampling selected in the survey conducted by the author found that from total 27 sampling there were six small-scale farmers who grew organic rice on one to 15 rai (1 to 24 hectares) of land, comprising 22 percent of the total number of farmers engaged in organic rice farming. There were eight medium-scale farmers grew organic rice on 16 to 30 rai (2.5 to 4.8 hectares) of land, comprising 30 percent of all the farmers engaged in organic rice farming. And, there were 13 large-scale farmers grew organic rice on 31 rai (4.9 hectares or more) of land, and they made up 48 percent of the farmers engaged in organic rice farming.



Source: A survey conducted by the author in 2007

Figure 5.2 Composition of Different Categories of Farmers Engaged in Organic Rice Farming in Na Sawan Sub-District Classified by Farm Size

5.3.1 Risks Associated with Organic Rice Farming

The farmers producing in organic farming have three types of risk. The first is the production risk, involving the use of inappropriate seeds, which has led to lower yields and contaminations. The study finds that the farmers have to buy rice seeds, as the regulations specified that rice seeds must be certified organic and must be changed every year. The experts claim that they sell "quality" rice seeds to the farmers at the price of 17 baht (US$ 0.48) per kg. The experts' claim that the seeds are qualified is based on the supposition that seeds are certified by the officers of the Ministry of Agriculture and Cooperatives. The contractor is the integrator of certified seeds, so the contractor can control quality of rice to be grown by individual farmers, and can transfer the production risk to the farmers.

Another production risk is the lower yields of organic rice in transitional periods and pest outbreaks. Soil fertility within the Northeast has less potential for

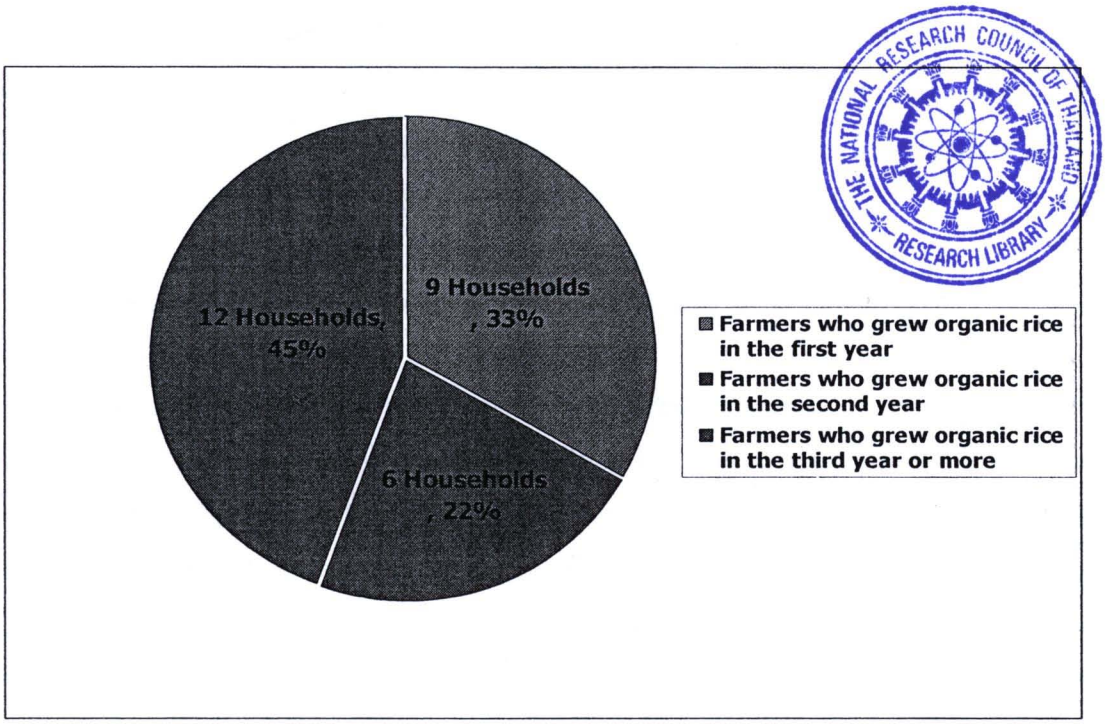
agriculture; averaged yields of jasmine rice cultivated in the study site are estimated from 300 to 350 kg per rai. Average yields of organic jasmine rice farming is lower than the amount of average yields of chemical jasmine rice farming. The transition from conventional to organic rice farming usually takes three years. Some farmers admit that yields cultivated in the first year of the transitional period were significantly decreased, estimated at about half the total yields being cultivated by the farmers at the time when they grew non-organic rice. Average yields per rai of organic jasmine rice farming is gradually increased in the second year of the transition to organic rice farming, but it is still lower than average yields of jasmine rice cultivated from conventional plots. For that reason, I argue that the claim that organic rice farming generates higher yields than conventional agriculture is doubtful. However, it might be possible for organic rice farming to have higher yields than conventional agriculture, if a lot of manure has been put into the soil for longer than three years so that soil fertility is gradually recovered.

Apart from the production risks, the second type of risk that faced by organic farmers is the marketing risks. If the farmers cannot sell organic rice at the guaranteed price for whatever reason, they are risks of loss. The farmers lose if the fixed guaranteed organic rice price set by FLO is lower than that of non-organic rice sold in local markets. For instance, in November 2008, the non-organic rice price being sold in the local market was higher than that of non-organic rice by three to four baht per kg, but the organic farmers were not allowed to sell organic rice outside the contract. This marketing risk always leads to resistance by the farmers as will be discussed in Chapter Six.

The third type of risk is what I call the "risk of transitional period", when farmers change from chemical production to become fully certified organic farmers; which usually is a three-year period. For the farmers, the transition period is mostly vulnerable as they run the risk of not being accepted as organic producers; thus not being able to accept guaranteed price.

The author's survey finds that from the total of 27 farmers engaged in organic jasmine rice production in Na Sawan Sub-district, there were nine farmers who grew organic rice in the first year, comprising 33 percent of the total farmers. There were six farmers who grew organic rice in the second year, comprising 22 percent of total

farmers. And there were twelve farmers who grew organic rice in the third year or more, comprising 45 percent of total farmers, as shown in the following figure 5.3. The author's survey indicates that more than half of total farmers who grew organic rice within the transitional period faced the risk of loss because they invest in transaction costs and production costs, but they cannot sell rice at the guaranteed price.



Source: A survey conducted by the author in 2007

Figure 5.3 Percentage of Farmers Produced Organic Rice Classified by Year of Cultivation

The transaction costs required in organic rice farming includes the costs of marketing, information cost, learning costs, costs to enforce the rules on the growers, logistical costs, etc. In the organic jasmine rice scheme, the producer's group uses the fair trade premium to pay for transaction costs. However, the individual farmers have to pay for some necessary transaction costs, such as registration fees and transportation costs to attend the meeting and activities held by the development project. But these transaction costs are always not taken into account. Some poor farmers decide to quit the organic rice production system in the first and second years

of the transitional period, since they do not want to invest their time and they cannot afford for transaction costs and production costs.

The organic farmers can obtain higher price only if they can persist in growing organic rice in the third year, after which they can be certified as organic producers. The farmers bear reduced yields during the three years of the transitional period without any compensation. Moreover, the farmers bear all of the production risks, if the organic crops generate low yields, be destroyed from pest epidemics or natural disasters. Finally, if the farmers are decertified for whatever reason, they would lose all production costs without any compensation, and they would lose their group saving money deducted at one baht per kg.

5.3.2 Comparison of Organic and Non-Organic Rice Farming

In addition, the farmer's households depend significantly on hired laborers because the number of family laborers working in organic agriculture is insufficient and their average age is fairly old. The author's survey finds that from total 27 farmers engaged in export-oriented organic jasmine rice production in Na Sawan Sub-district, the average number of family members is five persons, but the average number of laborers working on farm is two persons per family. The average age of the head of families engaged in organic rice farming is 49 years. As the family labors working in organic rice farming is insufficient and their average age is fairly old, the family farms have to hire wage labor as additional labor to work on farms.

The use of contract farming allows the capitalists to bypass the problems associated with labor recruitment, labor control, and labor costs to the family farms. The NGO, which is the project developer, shares one basic assumption with many writers on contract farming that the basic production unit is the "family farm". This notion is echoed in the fair trade production of smallholders. Within this perspective, it is expected that the farmers' family would perform most of the work on the farm and that no additional labor cost would be incurred.

However, in fact the family farms rely significantly on hired labor, both Thai and Laotian, to meet labor demand in some seasonal periods when intensive labor is needed. The author's survey in 2007 finds that from total sampling of 27 households,

the estimated family labor cost of organic rice farming was about 12,925 baht per year, which was higher than that of the non-organic costs, which were estimated about 6,257 baht per year, as shown in Table 5.2. The hired labor cost of organic rice farming was 3,581 baht per year, which was higher than that of the non-organic rice farming, which was estimated about 1,117 baht per year, as shown in Table 5.2.

Table 5.2 Comparison of Family Labor Costs and Hired Labor Costs of Organic Rice Farming and Conventional Rice Farming

	Number of Sampling Households	**Average Family Labor Cost Per Year (baht)**	**Hired Labor Cost Per Year (baht)**
Conventional Rice Farming	27	6,257	1,117
Organic Rice Farming	27	12,925	3,581

Source: A survey conducted by the author in 2007

Moreover, the author's survey also finds that production costs of organic agriculture are higher than that of conventional agriculture because organic farmers need to buy some production inputs such as rice seeds, seeds for rotation crops, organic fertilizer, and effective microorganism (EM), while their conventional counterparts do not need to pay for such costs. In the organic jasmine rice scheme, the producers bear all production costs which are fixed costs. Although the farmers have their own land, they need to pay the cost of leveling the land. Moreover, the farmers need to pay production costs such as the purchase or renting of tractors, the cost of seeds, natural made pesticides, organic fertilizers, equipment used for pest spraying, and water supply and electricity.

Additionally, a discussion with farmers in Na Sawan Sub-district in 2008 helps to know estimated production costs per rai of organic and non-organic rice farming. In organic jasmine rice farming the production costs per rai calculated in 2008 were 3,210 baht (US$ 91.71 dollars). The labor costs per rai of organic jasmine rice farming amounted to 2,315 baht (US$ 67.57 dollars) per rai, comprising 72 percent of total production costs, as shown in Table 5.3.

Table 5.3 Estimated Production Costs Per Rai of Organic Jasmine Rice Farming in Northeastern Thailand in 2008

Items	Total Costs	Non-Labor Costs	Labor Costs	% of Labor Cost
Plowing	250	-	250	8
Secondary Plowing	400	-	400	12
Seeds	85	85	-	-
Seedling	140	-	140	4
Transplanting	600	-	600	19
Fertilization Compost	800	800	-	-
Weed Control	35	-	35	1
Harvesting	250	-	250	8
Threshing	500	-	500	16
Packaging and Delivery	140	-	140	4
Transportation	10	10	-	-
Total	**3,210**	**895**	**2,315**	**72**

Source: A calculation conducted by farmers in 2008

Meanwhile, production costs per rai of conventional agriculture calculated in 2008 were 3,450 baht (US$ 111 dollars). The labor costs of conventional rice farming amounted to 2,140 baht (US$ 69 dollars) per rai, comprising 62 percent of total production costs, as shown in Table 5.4. Hence, labor costs of the organic rice farming per rai were higher than that of the conventional rice farming by about 175 baht (US$ 6 dollars) because organic farmers need to pay labor costs of rice seeds, rice seedling and weed control, while their conventional counterparts do not need to pay for such costs.

Table 5.4 Estimated Production Costs Per Rai of Non-Organic Jasmine Rice Farming in Northeastern Thailand in 2008

Items	Total Costs	Non-Labor Costs	Labor Costs	% of Labor Cost
Plowing	250	-	250	7
Secondary Plowing	400	-	400	12
Seeds	-	-	-	-
Seedling	-	-	-	-
Transplanting	600	-	600	17
Fertilization Compost	1,300	1,300	-	-
Weed Control	35	-	-	-
Harvesting	250	-	250	7
Threshing	500	-	500	14
Packaging and Delivery	140	-	140	4
Transportation	10	10	-	-
Total	**3,450**	**1,310**	**2,140**	**62**

Source: A calculation conducted by farmers in 2008

The author's survey indicates that labor costs in organic rice farming comprise about seventy-two percent of total production costs. Thus, the medium and the large farmers have higher production costs because they depend considerably on hired labor. Since the use of medium-scale and large-scale farmers has increasing production costs, the medium-scale and large-scale farmers have less incentives to grow organic. Most farmers combine conventional and organic agriculture to reduce risk from the production of organic agriculture alone.

Furthermore, although the price of organic rice is usually higher than that of the non-organic rice, the farmers have to grow organic rice under the contract in order to obtain higher rice price. Yet, the farmers who grow organic rice under the contract cannot avoid being controlled by the regulations. Moreover, they have to accept

relations of subordination inherent in contract farming. Furthermore, the farmers have to bear tensions from the risk of loss if they cannot conform to the rules and their rice is rejected at the guaranteed price. If the farmers cannot sell organic rice under the contract, they cannot obtain the higher price because rice mills usually do not make a distinction between organic and non-organic rice. Rice mills always buy organic rice at the same price as non-organic rice. Moreover, it is common to find that rice mills frequently mix organic rice with non-organic rice; therefore, the consumers and growers do not receive benefits from the organic rice production.

5.3.3 Family Land and Rental Land

To determine the impact of organic agriculture on local farmers, it is important to take rural differentiation into account because the farmers have different capacities to access land, labor and capital. The introduction of organic agriculture into local communities occurs within the context that rural differentiation existing in the local community, as the farmers have different capacities to access land, labor, and capital. Considering the capacity in access to land, from total 27 farming households the average land managed by small-scale farmers was twelve rai, and the average land used for growing organic rice was nine rai. The average land managed by medium-scale farmers was 24 rai, and the average land used for growing organic rice was 18 rai. The average land managed by large-scale farmers was 44 rai, and the average land used for growing organic rice was 31 rai, as illustrated in 5.5.

Table 5.5 Land Managed by Farmers in Organic Rice Farming and Land Used for Growing Organic Rice Classified by Farm Size.

	Number of Households	Average Land Managed by Farmers (Rai)	Average Land Used for Growing Organic Rice Farming (Rai)
Small-scale Farmers	6	12	9
Medium-scale Farmers	8	24	18
Large-scale Farmers	13	44	30
Total	**27**	**31**	**22**

Source: A survey conducted by the author in 2007

Most land in Na Sawan Sub-district is owned by families, not individual farmers. Majority of farmers grow organic rice on family land. Through contract farming, family land is turned into private land and a means of production to serve the demands of capitalists. The contract production of organic rice sets a criterion that applicant farmers must have their own land in order to apply for membership to the organic rice producer's group. Once the farmers are members of the organic rice producer's group, they are not allowed to engage in conventional agriculture in all plots, including in subsistence plots. The applicant farmers must be approved by their families to join the project. Nevertheless, family members sometimes do not agree with the use of land to grow organic crops. At this point, regulations imposed on the farmers can create new conflict within farmer's family. The disagreement among family members who want to do organic agriculture and those who do not can be a factor to undermine the sustainability of organic agriculture.

Considering different capability of farmers in access to land, the small-scale farmers are the most vulnerable group because they have 15 rai or 2.4 hectares of land which are insufficient for growing organic rice for consumption and commercial. Some poor farmers rented land for growing non-organic rice to make more profits. Cash rental is rare, but rent is paid by the renter to the land owner at a fixed sum at the beginning of the agricultural year. A more common form of rent is a rental land and

paid in kind at the end of the agricultural year. Two small-scale farmers engaged in a shared cropping system which is an arrangement of task-specific contract work akin to wage labor. In shared cropping system, the landowner might invest in some activities such as field preparation, or sowing and tenant did all agricultural activities such as weeding, transplanting, supplied the labor for irrigation, weed control, harvest rice. In the shared cropping the land owners have relatively high authority than tenant, the land owners in Na Sawan Sub-district prefer the tenant to use the land for growing non-organic rice rather than organic rice because they expect to harvest more yields. From the author's survey, the limited evidences indicate that there are two small-scale farmers who rent the land for growing non-organic glutinous rice, and there are two small-scale farmers who grow organic glutinous rice through shared cropping system. They have average production costs of 8,438 baht per household per year, and they have average profits from conventional rice farming in rental land at about 12,500 baht per household per year. Moreover, there are two medium-scale farmers who rent the land to grow non-organic glutinous rice for consumption. Additionally, there is one large-scale farmer who grows organic glutinous rice in the shared cropping system. It is to say that small, medium and large farmers rented the land for growing both organic and non-organic glutinous rice. Diversification of crops allows the small-scale and medium-scale farmers to have greater incomes. It provides the large-scale farmers flexible sources of foods. Yet, the small and medium farmers who manage non-organic plots are risk of loss because they are not allowed by the regulations to do so.

5.3.4 Comparison of Costs in Production of Organic and Non-organic Rice

The farmers who grow organic rice can sell organic rice at higher prices than those of non-organic rice by two to three baht per kg, but they bear high risks and incur high losses. The author's survey finds that the small-scale farmers have average production costs of organic rice farming about 6,771 baht per household per year, as illustrated in Table 5.6. They have relatively low production costs rather than the medium and large farmers, as they depend on family labor to work on farms. They

have about 3,393 baht per household per year in average profits from organic rice farming (see details in Table 5.6).

Table 5.6 Average Production Costs of Organic Rice Farming and Average Profits of Organic Rice Farming Gained by Farmers Classified by Farm Size

	Average Production Costs of Organic Rice Farming (Per Year)	Average Profits of Organic Rice Farming (Per Year)
Small-scale Farmers	6,771	3,393 (2)
Medium-scale Farmers	8,292	4,447 (3)
Large-scale Farmers	34,810 (1)	8,871 (4)

Source: A survey conducted by the author in 2007

Notes: the number of different farmer groups used for calculation in this table are different from those of table as there are some of which the relevant information is not available: (1) the average figure is based on the production cost of 12 large farmers; (2): only four small farmers' profits have been used as that of two small farmers are missing; (3) three middle farmers are excluded as their information of profit are not available and; (4) also, four large farmers have been not included in calculation for some reasons.

Moreover, the small-scale farmers invested in conventional rice farming about 8,438 baht per household per year, as shown in Table 5.7.

Table 5.7 Average Production Costs of Conventional Agriculture Classified by Farm Size

	Number of Households	Average Yearly Production Costs of Conventional Rice Farming Per Household (baht)
Small-scale Farmers	4	8,438
Medium-scale Farmers	4	5,660
Large-scale Farmers	6	7,060
Total	**14**[59]	**7,054**

Source: A survey conducted by the author in 2007

[59] From the total 27 samplings, there are 14 farmers that are engaged in conventional rice farming.

The medium-scale farmers managed an average of 24 rai of land. They depended mainly on family labor to grow rice, but they also hired labor to work on farms as supplementary labor when intensive labor is required. The medium-scale farmers have average production costs of about 8,292 baht per household per year. The medium-scale farmers have about 4,447 baht per household per year in average profits from organic rice farming (see details in Table 5.6). Additionally, they invest in conventional rice farming about 5,660 baht per household per year.

Finally, the large-scale farmers managed land about 44 rai. They depend mostly on wage labor to work on their farms. The large-scale farmers have average production costs of organic rice farming about 34,810 baht per household per year, as illustrated in Table 5.6. They have about 8,871 baht per household per year in average profits (see details in Table 5.6). Additionally, they invest in conventional rice farming about 7,060 baht per household per year (see details in Table 5.7). The profit gained from organic rice farming by the farmers is equivalent to labor costs invested by the farmers. Most farmers do not count their own labor as production costs.

Diversification of livelihoods is an important strategy employed by the farmers to make their living. The farmers combine conventional and organic agriculture; they grow many types of rice such as glutinous rice, non-glutinous rice and native rice. The farmers grow rice on family land, private land, and rented land. At the same time, the farmers earn from non-agricultural activities such as wage labor, trade, small businesses, civil service employment, etc. Diversification of livelihoods is an important strategy employed by the farmers to reduce risks of loss from doing organic rice farming alone.

The small-scale farmers do not survive by growing organic rice. They earned from wage labor about 20,503 baht per household per year, as shown in Table 2.1. The medium-scale and large-scale farmers diversified sources of income by combining agricultural and non-agricultural activities such as wage labor, small businesses, and civil servant jobs (see details in Table 2.1). Therefore, they had sufficient capital to buy machines and hire labor to work on farms. Although the large-scale farmers acted as farm managers and did not use family labor to work on farms, they earned the highest incomes from agriculture. This finding indicates that agrarian transformation in the Northeast is increasingly developed towards capitalist

production. The farmers bear all production costs and increasing labor costs. Farmers who have relatively greater land, labor and capital can make more profits from the capitalist-based production.

In summary, the medium-scale and large-scale farmers reap greater advantages from organic rice farming than the small-scale ones, as the medium-scale and large-scale farmers have greater capacities to access land, labor, and capital. Moreover, the large-scale farmers have greater flexibility in accumulating wealth, because they diversity rice crops, so they can better minimize risks than farmers who rely on organic rice farming only. Furthermore, the large-scale farmers can diversify sources of incomes, so they can gain high incomes from non-agricultural activities.

Therefore, I argue that the recent development of organic rice production indicates the coincidence of two contradictory tendencies. On the one hand, the large-scale farmers benefit more from participating in organic and fair trade markets. On the other hand, the small-scale farmers benefit less from participating in fair trade and organic markets. This finding indicates that although the fair trade aims to promote the well-being of small-scale farmers, the small-scale farmers are increasingly marginalized and excluded from participating in fair trade and organic jasmine rice production.

5.4 The Intensification of Labour in Organic Rice Production

The creation of added value in fair trade and organic rice commodity chain rests on the re-arrangement of agricultural practices to comply with the international regulations. Through contract farming, capitalists can control technical knowledge of organic jasmine rice production and certification, and can control labor being inserted into organic rice production. The project experts have authority to provide technical supervision for the farmers, and specify some corrective measures to prevent contaminations.

The control of labor in the organic rice production system aims to create standardization. The project sets up the standards of rice to be sold at the minimum guaranteed price to force the farmers to invest their labor in order to produce and

deliver high quality organic jasmine rice to the project. Rice grading is a form of quality standard; it is a mechanism by which the labor-force are controlled.

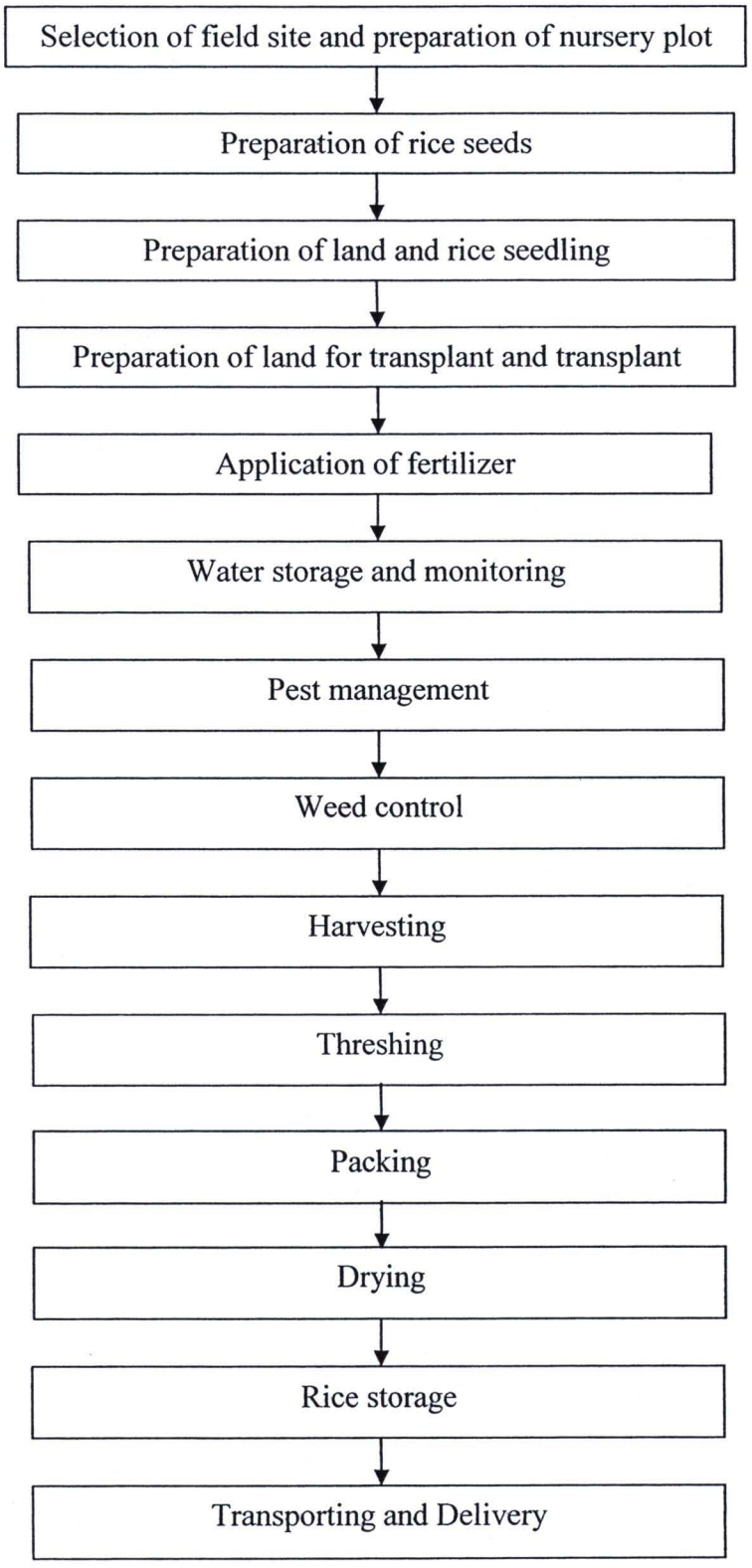


Figure 5.4 Procedures of Organic Rice Farming

The various factors affect the quality of organic rice call for very precise planning of production procedures. Procedures of organic rice farming are illustrated in figure 5.4. Transplanting must be synchronized to match the capacity of the harvest labor, taking into account transport time and the maturity of the rice. In order to plan the harvest, the plowing and the transplanting in the correct order; the individual plowing, transplanting, and harvesting time of each field is controlled by the project developer. In general, coordination can either be achieved through highly centralized decision-making. Time line of organic rice farming production is illustrated in Table 5.11.

Table 5.11 Timeline of Organic Rice Farming Production

Jan	**Feb**	**Mar**	**Apr**	**May**	**Jun**
Plough	Crop rotation			Plough Transplanting	Nurturing Weed control
Jul	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**
Flowering Pest Control	Breeding		Control of Rice Mix		Harvesting Threshing Drying rice Packing Storage Delivery

Procedures of organic rice farming begin with rice seedling and preparation of nursery plots. The soil is made to be ready for transplanting by two rounds of the plowing. After the first plowing, two to four kg per rai of green beans are sown into the fields. The green beans are then left in the paddy fields as green manure. Roughly one week before the second plowing, fertilizing is needed. The regulations specify that farmers should put organic compost onto the paddy fields, at least 200 kg per rai, to ensure efficient fertilizing. Organic compost must be made from the manure of livestock which have been fed non-chemically treated feed. According to the NOP standards, fertilizer must be administered approximately 90 days before harvest to prevent the contamination of bacteria.

After fertilizing, rice seeds are sown into the soil in nursery plots. Water is then stored within the nursery plots at the level of five to ten centimeters. On the following day, the water in the paddy fields must be drained. After the rice seeds have been sown into the nursery plots for six to seven days, the water must be re-applied in the paddy fields at one-third the height of the rice crops. When the rice crops have grown for 25 to 30 days, spraying of effective microorganism is needed. Farmers need to prevention organic jasmine rice from mixing with other rice grains such as sticky rice or red jasmine rice. If the farmers find mixtures of organic jasmine rice and other rice crops, they must remove the non-organic rice crops using manual labor. Weed control depends entirely on manual labor. An integrated pest-management system is encouraged to replace the use of chemical insecticide. Weed management is required in three stages: transplanting, nurturing, and pre-harvesting.

The broadcast sowing technique is not allowed in export-oriented organic agriculture; transplanting must be done manually. In transplanting, farmers must ensure that the distance between rice seedlings is twenty centimeters, and one to three rice seedlings must be transplanted into a hole dug into the soil two to three centimeters deep. Transplanting should be completed within two to three weeks. Transplant rice seedlings too late will result in the rice not growing properly, with low yields resulting. After transplanting, monitoring the water level stored in the paddy fields is important. To control weeds in the paddy fields, water must be stored in the paddy fields at 15 cm. Farmers must then apply fertilizer. Approximately 10 to 70 days prior to harvest, water stored in the paddy fields must be drained to allow the rice crop to mature and be condense to harvesting.

The timing of harvest is extremely important to the outcome. Delay will affect both the quantity and quality of the rice. If organic rice crops are harvested too late, the grains will be easily broken during milling. If the rice crops are harvested too soon, the yields will be too low. Harvesting season begins when 80 percent of the rice crops in the paddy fields are flowering. After the rice crops have flowered for 25 to 35 days, the color of the organic rice changes from dark green to be half green, half yellow. Harvesting should be complete within 7 to 14 days to ensure that the rice does not over-mature.

The post-harvest process is also labor-intensive. Unhusked rice must dry under the sun for two to three days to reduce moisture. Meanwhile, farmers must turn over the grains at least four times to reduce moisture. After drying, threshing must be done in an open space, using machine or manual labor. However, prevention of contamination must be ensured if a machine is used. The machine must be cleaned before threshing to prevent mixing organic rice with other types of rice. After threshing, grains must be stored in the 80-kg rice sacks provided by the project.

After the rice is packed, the ID code number of the individual farmer must be marked onto the rice sack. The rice sacks must be stored in clean and dry barns granaries prior to delivery to the project warehouse. Farmers must ensure that all forms of contamination have been avoided, particularly mixing organic rice produced by members under the contract with decertified rice produced by farmers outside the contract. The contract provides the project the flexibility in reducing the quantity of organic produce in response to fluctuating market supply. As organic rice must be delivered to the project warehouse from December 5th to January 31st every year which the difference between the guaranteed rice price and open market rice price is least. Farmers are responsible for transportation costs to the project warehouse; during transport they are responsible for ensuring that no contamination occurs. Farmers must keep receipts and proof of all rice sales to be ready for checks by internal and external inspectors. These processes are shown in Figure 5.4.

The labor process of organic rice farming is re-arranged to ensure that agricultural practices conforms to international regulations. This study shows the re-arrangement of labor process in three main tasks, namely: (i) transplanting, (ii) fertilizing, and (iii) harvesting.

5.4.1 Transplanting

Transplanting is labor intensive; nevertheless, the farmers prefer it because it generates higher yields than does the broadcast sowing technique. The farmers complained about difficulty of finding wage labor to work in transplanting. Labor scarcity and fierce competition between growers for labor in northeastern Thailand cause from several factors. First, young generations of family farmers spend most of

their time in school. Second, family members out-migrate to work in the cities. Finally, the timing of transplanting and harvest are close from one plot to another. Due to fierce competition among growers for labor, growers have to pay relatively higher labor costs. The wage paid to transplant rice seedlings of conventional rice farming in 2008 was 150 baht (US$ 4.29) per day. However, in organic rice farming the growers paid 200 baht (US$ 5.71) per day for the same activity. Because of the fierce competition of growers for laborers, forms of labor recruitment employed in organic jasmine rice production system are moderately complex.

Contract farming is a basic means to recruit labor, based on the contract between the NGO and growers one the one hand, and between the growers and hired laborers on the other. The local NGO signs contracts with individual farmers on a yearly basis, and the contracts must be renewed year by year. Through the combination of contract farmers and hired laborers, contract farming can create flexibility of labor mobilization and flexibility of wage compensation. Moreover, the use of contract farming allows the capitalists to bypass the problems associated with labor recruitment, labor control, and labor costs to the family farms.

Contract farming gives the capitalists greater access to unpaid labor within family farms. Although the farmer signs the contract on the individual basis, other family members particularly women and children are also mobilized as unpaid labor to work on farms. In the labor intensive activities of transplanting, the smallholders recruit labor among their relatives, including their family members who out-migrate, to meet the labor demand. Wages paid to laborers who are relatives are usually less than those paid to non-relatives. This strategy helps the households minimizing labor costs and managing farm activities as planned. In the changing rural economy households depending more on the cash economy, the smallholders admit that it is difficult to depend exclusively on labor exchanged among their relatives and neighbors.

The NGO which is the promoter of the organic jasmine rice scheme shares one basic assumption with many writers on contract farming that the basic production unit is the "family farm" (Kalantaridis 1999). This notion is also echoed in the fair trade promotion of smallholders which is expected that the farmer family would do most of the work on the farm and that no additional labor cost would be incurred. However,

indeed nearly all farmers hire wage labor, with some paying wages to relatives who worked their farms. Yet, the smallholders prioritize working for the farmers who are their relatives because they expect their relatives to reciprocate and help them when they need help in the future. Their decisions to work for their relatives, Duan, a smallholder, explained:

> *I myself sometimes have been hired by both relative and non-relative employers. If I'm hired by my relatives, I might not receive the same payment as I receive when I'm hired by employers who are non-*relatives. *I prefer working for relatives. However, I also consider the urgency of the work. If my relatives are not in a hurry, I work for neighbors to be able to gain a higher wage, and I will help my relatives later. If my relatives need urgent help, I am going to help my relatives first and work for the neighbors later. Farmers generally choose to help relatives because they recognize that they would ask for help in return in one way or another in the future. (An interview, Duan, a smallholder, December 13, 2009)*

To reduce labor costs, the growers sometimes use a piece-rate system of payment to replace a system of per-day wage. Even so, the growers have to pay relatively higher labor costs. For example, the wage paid in 1998 for transplanting in conventional rice farming was one baht per seedling bunch. In 1998 the wages paid to hired laborers for organic transplanting was three baht per seedling bunch, estimated to be approximately three to five times the wages paid for non-organic rice transplanting. Even so, growers found it is difficult to find sufficient hired labor to transplant organic rice, as Tep, a medium-scale farmer remarked:

> *Organic rice is known among wage laborers for its difficulty in transplanting. Organic crops have long and deep-roots. Moreover, the soil attached to its roots is long, nearly equal to the length of crop, so it is hard to up-root the crops. If you withdraw rice seeds by using force, the roots are torn apart. This causes the rice crops to have faulty growth. You have to use equipment, like a spade, to remove the seedlings one by one. It needs careful attention and takes more time. Therefore, hired laborers feel poorly compensated for the intensive work of pulling out organic rice seedlings. Even if the wages paid are relatively higher, the maximum number of seedling transplants that can be performed is ten per seedling bunch per day, which means the highest wage you earn is 50 baht per day. So if the workers know that the employers are engaged in organic rice farming, they are likely to refuse the job. In other cases where they agree*

to be hired, they usually negotiate for 200 baht per day instead of a piece-rate payment (Interview, Tep, a farmer, August 17, 1998).

In the recent years the farmers have suffered from the problem of climate change, the summers have been longer, rainfall has decreased, and raining seasons have been delayed. The farmers thus postpone the timing of transplanting by a month or more. My observation in 1998 found that the farmers delayed of transplanting about two months because the degree of rainfall was insufficient. This delay of transplanting affected the timing of the harvest. The farmers always worry that the delay of transplanting would affect the quantity and quality of yields, moreover, they concern about the fierce competition for labor in harvest. The organic rice crops usually reach maturity at the same time as their non-organic counterparts. To avoid problem of a fierce competition for labor, some small-scale farmers begin transplanting earlier. Instead of waiting for rainfall, some small-scale holders pumped underground water onto their paddy fields. This strategy was also adopted by the medium-scale and large-scale farmers who relied considerably on hired labor. The farmers re-schedule the transplanting because they need to follow the guidelines of the organic jasmine rice production scheme and to ensure high yields would be generated.

The forms of labor-arrangement used by the medium-scale and large-scale farmers are less complex than the smallholders. The medium-scale farmers combine family labor and hired laborers to work on farms while the large-scale farmers depend almost entirely on hired laborers. To reduce labor costs, it is more common to find that the medium-scale and large-scale farmers combine the day wage and piece-rate systems of payment. Since the large-scale farmers depend mostly on hired laborers, the production costs are increased. Because of this increasing production costs, the large-scale farmers have less incentive to do organic rice farming.

5.4.2 Fertilizing

Fertilizer use is one feature of organic agriculture. It is required that sufficient organic compost is put onto the soil, and that soil fertility is preserved by managing the farm ecological processes, by prohibiting land clearing by burning, and by preventing it from exposure to prohibited substance. According to international regulations, the use of animal manure being raised on industrially-produced feed and injected with hormones and antibiotics is prohibited. Although the use of animal manure is economically and environmentally sound, the requirement to use animal manure is a new source of pressure for farmers. The introduction of the Green Revolution into Thailand over last two decades has led to disappearance of buffalos from rural communities. However, the high price of chemical fertilizer has pressured northeastern Thai farmers to turn to livestock manure. In 2008 I was told by the farmers that the price of chemical fertilizer was 1,000 baht (US$ 28.57) per a 25 kg sack. The high price of chemical fertilizer is an important contributor for both conventional and organic farmers to turn to animal manure.

To determine whether sufficient animal manure has been put into the soil, the inspectors check the number of livestock that each farm has. The project experts set up a minimum requirement of animal manure on organic rice farms. The experts check whether or not the farmers have complied with the regulations by calculating the number of animal livestock within each farm. Small-scale farmers owning land less than 15 rai (2.4 hectares) should have at least two to three buffalos to have sufficient animal manure to put into the soil. Each buffalo cost approximately 10,000 to 15,000 baht (US$ 285.71) in 2008. Hence, small-scale farmers need to spend at least 45,000 baht (US$ 1285.71) to purchase buffalos in order to comply with the regulations. Medium-scale farmers and large-scale farmers are required to have at least ten or more buffalos to have sufficient manure supplies. It is therefore costly for the farmers to meet the livestock requirements.

The requirement to use animal manure has created unintended consequences, since increased number of livestock also means increased competition in access for the land required to feed the buffalos and cows. Since 2008 onwards the majority of farmers decided to build fences along their paddy land. I argue that enclosure of

paddy land is a new phenomenon in northeastern Thailand. Although paddy land is legal private property, paddy land is treated as a semi-common property through customary rights. As such, people recognize the customary norm of being able to encroach upon paddy land belonging to others to make use of certain natural resources such as collecting food, firewood, fish, and animal husbandry. However, once the farmers build fences to close off their paddy land from their neighbors, they signify the denial of access to land from others.

The struggle for access to land is a new source of conflict within local community. For the poor farmers, the fence is a symbol of enclosure because they are forbidden from accessing the land, and their buffalos are deterred from access to grass and fodder. The poor farmers have difficulty engaging in animal husbandry because they lack sufficient fodders to feed the livestock during cultivating seasons from June to December. Because of the problem of food scarcity, they must have their buffalos and cows forage for grass on others' land. From the perspective of land owners, fence is a symbol of authority. They can allow their buffalos and cows to feed freely on their own land, and at the same time they can forbid everyone else's buffalos from grazing in their fields. At the study site, conflicts arising from incursion of livestock onto the land of others occur frequently. The rich always claimed that their crops had been eaten by the animals of the poor. The arguments between the two parties recently resulted in the establishment of an informal rule to be imposed on farmers within their own community. The farmers whose animals invade the land of others and eat the crops must pay compensation.

Due to the requirement to pay compensation, the poor have to assign one family member to monitor the buffalos and cows, ensuring that their animals do not invade others' land. In the cultivating season during which fodder is scarce, some poor farmers buy grass feed from their neighbors in order to avoid conflicts with their neighbors but this strategy can increase production costs. In the case that the farmers choose to buy grass, they need to arrange labor to harvest and collect the grass to feed the buffalos. Thus, majority of the poor decide to sell their livestock to reduce tensions in relation to animal feed demands and labor demand; however, the farmer's decision to sell their livestock has led to insufficient manure for their paddies. Thus, the poor farmers are at risk to fail to comply with the regulations.

5.4.3 Harvesting: Use of Laotian Labour

Harvesting also requires intensive labor. The farmers usually combine family labor and hired labor to meet the harvest labor demand. The large-scale farmers depend mostly on hired labor to harvest. When the problem of labor shortages in the agricultural sector became critical in last decade, the large-scale farmers began to recruit laborers from the Lao PDR to work the harvest. The Laotian laborers are paid lower wages than their Thai counterparts, because of their status as seasonal migrant labor and their inability to negotiate or contest rights violations. For example, the wage paid to Laotian laborers in 2008 was 100 baht (US$ 2.85) per day for harvest, half of the Thai wage of 200 baht (US$ 5.71) per day for the same activity.

Although the employers adopt a piece-rate payment system instead of day-wage payment, wages paid to Thai laborers are relatively higher than those paid to Laotian laborers. If the Thai laborers are paid roughly two baht per bunch, the Laotian laborers are paid only 0.5 to 1.20 baht per bunch. The Laotian laborers usually harvest about 200 bunches within one day; thus they are paid approximately 100 to 200 baht (US$ 5.71) per day. As such, reliance on Laotian laborers during harvest helps the large-scale farmers to reduce production costs. It also provides greater flexibility of labor recruitment in switching between Thai and Laotian wage labor.

Although the use of Laotian laborers allows the growers to have greater flexibility of labor recruitment and flexibility of compensation of wage, only the large-scale farmers can hire Laotian laborers, due to some reasons. Firstly, employers are required to pay for working permit fees of 50 baht (US$ 1.43) per three days, as well as the transportation costs from port to village of 500 baht (US$ 14.29). Secondly, Laotian laborers are required to renew their boarding passes every three days. Thirdly, employers have to prepare daily meals and accommodation when the Laotian laborers stay with their employers during harvest. The employers thus find that hiring Lao laborers is not always cheaper than hiring the Thai ones. The employers have to pay for bundling at the rate of 30 baht (US$ 0.86 dollars) per 100 bunches. In addition, they have to pay the threshing cost of 650 baht (US$ 18.57 dollars) per 1,000 bunches.

Then, the question is: why do Thai farmers prefer hiring Laotian laborers rather than Thai ones? The employers satisfy the use of Laotian laborers, as the Laotian laborers agree to work harder and longer than the Thai ones. The use of Laotian laborers helps shorten the harvest time and provides the employers greater flexibility in procuring cheap labor to meet the intensive labor demand of certain seasons. Despite the use of Lao laborers, reliance on wage laborers can increase labor cost for the large-scale farmers.

The smallholders depend entirely on family labor during harvest. Additionally, the smallholders rely on bartered labor among their relatives for the harvest. While this strategy helps reduce production costs, it also has a limitation. Due to the use of improved rice seeds, the rice crops mature at the same time. Their relatives are often busy harvesting their own plots. The small farmers who cannot wait for labor of their relatives must hire labor to harvest to meet the schedule.

5.5 Conclusion

The role of contract farming in export-oriented fair trade and organic rice production is crucial. On the one hand, contract farming makes possible the re-arrangement of labor processes to comply with international agricultural standards. Hence, contract farming in fair trade and organic rice farming is used to stimulate standardization of the production system in accordance with changing demands of retailers and consumers. Resource-provided contracts in fair trade and organic agriculture ensure certainty of market access as well as certainty of price because smallholders producing under the contract can obtain a guaranteed price for their rice. In this respect, the resource-provided contract employed in fair trade and organic rice production gives the capitalists greater flexibility to access unpaid labor in the agricultural sector and also provides capitalists greater flexibility in labor recruitment and wage compensation.

On the other hand, contract farming makes labor control at a distance possible. In exchange for the ability to sell organic rice at the fair trade guaranteed price, northeastern Thai farmers must follow the rules and instructions set by the contractor. Therefore, decision making shifts from the farm level to the project manager. The

farmers must follow production guidelines and must submit to third-party inspection in which the inspectors have the authority to decide on whether the quantity and quality of the organic rice produced by individual farmers is acceptable.

The resource-provided contract is a means through which international regulations are imposed on northeastern Thai farmers. Through resourced-provided contract production, the contractor can control the farming practices and labor being inserted into the production system. Contract farming accelerates flexible accumulation, as it allows the capitalists to access surplus labor within the family farms. Moreover, contract farming turns the farmers into laborers and makes amenable the subsumption of rural labor to new management.

The adoption of contract farming in organic rice production system of the Northeast is part of a worldwide trend. The farmers who produce organic rice under contract have beneficial in several ways. The contractor provides the farmers with production inputs such as certified seeds, effective microorganism. The contractor later deducts the costs of production inputs from the selling price of the rice. This condition reduces the farmers' need to invest in production costs. Moreover, the guaranteed minimum price is a form of crop insurance against the risk of loss from market rice price fluctuation; it is an important factor to encourage individual farmers to apply for organic rice production scheme. Additionally, the farmers can access loans, technical knowledge, marketing information which is necessary for high-valued food production. Daviron underlines the fact that as contract farming can provide the farmers accessible forms of credit and insurance, the farmers can be able to adjust farm management and agricultural practices towards standardization (Daviron 2002).

While the debate about the advantage and disadvantage of contract farming is going on, there is alternative option to place contract farming within a more locally specific framework of household adaptation and peasant persistence. Andrew Walker argues that analysis of contract farming helps to understand the dynamic partnerships between firms and rural households. From his perspective, contract farming represents a livelihood option that can provide access to market, increase incomes, and generate agricultural employment for laboring rural households amidst the demographic pressures, market uncertainty and environmental change. While a lot of literatures on contract farming concern about rural proletarianisation which suggests labour force

de-skilling, Walker argues that the technical demands of corporations and increasingly specific consumer preferences can increase the complexity and sophistication of the agricultural labour process (Walker 2011).

However, the impacts of contract production of organic rice on local communities of the Northeast are uneven. Since the farmers have different capacities in their access to land, labor and capital, the outcomes of organic rice farming are different. The medium-scale and large-scale farmers have higher capacities in their access to land, labor and capital; therefore, they are likely to gain greater benefits from organic rice production. In contrast, the small-scale farmers have lesser capacities in their access to land, labor and capital; therefore, they gain less benefit from it and are likely to being excluded from it. In this sense, the introduction of export-oriented organic rice farming into rural communities of the Northeast contributes to varying degrees of resilience among rural households.