Improvement of service to organic rice farmers in Thailand

(For member of Farmer's Federations Association for Development Thailand in upper Northeast of Thailand**)**

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Abstract

The pilot project “Improvement of service to organic rice farmers who are member of Farmers Federation Association for Development Thailand or SorKorPor in North-East of Thailand was initiated by SorKorPor together with ZLTO and Agriterra. This project aims to develop business of local SorKorPor groups.

The methodology of the research is divided into three phases. Firstly, the information on internet and book of WUR library were searched to be a guide for making a preliminary research as well as making the research. Moreover, the archives from Mr. Kees which relate to organic rice sector in Thailand were reviewed. Secondly, Field research was undertaken in Thailand from May 2009 to August 2009. It comprised two phases of study. The first phase was done by interviewing three groups of organic rice producers. The first group is located in Kalasin province. Another group is located in Khon kaen province. Those two provinces are in the middle. And last group is located in Sakonnakhon province in upper Northeast region. 50 organic rice members and non-members of SorKorPor were totally interviewed consequently, 35 farmers of SorKorPor member and 15 of non SorKorPor member. Lastly, chain players were interviewed to get a thorough understanding of all issue at all levels in the chain which focuses mainly on their characteristic and function

The result of the study has turned out that there are three aspects should be strengthened in order to improve position of the organic rice farmers include knowledge and technology transferring on organic rice producing and marketing, input supply consists of water resource, labor supply, and organic fertilizer supply, and disease and insect management includes preventing and controlling. All three aspects are priority aspects that the supportive organizations should consider in order to enhance the organic movement on rice sector. Additional, better communicating and tracking is necessary for conducting the project.

In order to fulfill the needs and services to the organic rice farmers, following supportive organizations are concerned. Government agencies, Offices of commercial affairs and Agricultural extension office are responsible for transferring knowledge on organic rice producing and marketing to the farmers. Besides, a private sector, Asoke community network and Inpang Community Network also can provide the knowledge on organic rice producing and marketing for the farmers. Department of Land Development and Sufficiency Economy Office for Community Development are in charge of providing the input supply. The Agricultural Extension office which locates in every district has a role to provide the knowledge on disease and insect management. To be achieved in providing the needs and services to the farmer, SorKorPor should play a role as an intermediary to facilitate the farmer by communicates and cooperatives with concerned supportive organizations.

To give recommendations to SorKorPor how to perform their role at various levels to strengthen the market position of organic rice producers in upper and middle northeast of Thailand is rather hard because most SorKorPor members in the upper and middle northeast are subsistent farmers. They do not have a large amount of organic rice for the market. SorKorPor can mostly help them in production aspect first. Now, SorKorPor has a rather low number of organic rice producers to initiate the organic rice chain. It is a long and steep way for SorKorPor. However, growing organic rice is more sustainable for the farmers in this region where the land is so infertile. But it is hardly possible to grow it commercially, especially in middle northeast. So, SorKorPor should concentrate more to the production aspect rather than market position at this moment.

Abstract (Thai version)

งานวิจัยเกี่ยวกับ การปรับปรุงพัฒนาความต้องการของสมาชิก สกพ
เกษตรกรผู้ปลูกข้าวอินทรีย์ในภาคตะวันออกเฉียงของประเทศไทย เกิดขึ้นจากความคิดริ่เริ่มร่วมกันระหว่าง สกพ ZLTO และ Agriterra โดยงานวิจัยชิ้นนี้มีวัตถุประสงค์เพื่อพัฒนาธุรกิจชุมชนของกลุ่มสมาชิก สกพ

ขั้นตอนการดำเนินงานวิจัยชิ้นนี้มี 3 ขั้นตอนประกอบด้วย หนึ่ง การสืบค้นข้อมูลทางอินเทอร์เนทต์
เอกสารเกี่ยวกับข้าวอินทรีย์จากคุณ เคส ZLTO
และหนังสือของห้องสมุดมหาวิทยาลัย วาเคนนิงเกน ประเทศเนเธอร์แลนด์ เพื่อเป็นแนวทางการศึกษาระยะต้น สอง การลงพื้นที่สัมภาษณ์เกษตรกรผู้ปลูกข้าวอินทรีย์ในระหว่างเดือนอพฤษภาคม ถึงเดือน สิงหาคม พ ศ 2552
ซึ่งการสัมภาษณ์ได้ลงพื้นที่สัมภาษณ์เกษตรกรผู้ปลูกข้าวอินทรีย์ทั้งสมาชิก สกพ และไม่ใช่สมาชิก สกพ ใน 3 จังหวัดดังนี้ กาฬสินธุ์ ขอนแก่น และ สกลนคร ทั้งนี้ได้สัมภาษณ์เกษตรกรทั้งสิ้น 50 คน แบ่งเป็น สมาชิก สกพ 35 คน และ ไม่ใช่สมาชิก สกพ 15 คน สาม สัมภาษณ์ผู้ดำเนินประกอบธุรกิจข้าวอินทรีย์เพื่อให้เกิดความเข้าใจเกี่ยวกับการผลิต การตลาด และทำความเข้าใจเกี่ยวกับอุปสงค์อุปทานของข้าวอินทรีย์

ผลของการวิจัยพบว่า
เกษตรกรสมาชิกผู้ปลูกข้าวอินทรีย์มีความต้องการใน 3 ด้าน คือ หนึ่ง
การถ่ายทอดองค์ความรู้และเทคโนโลยีเกี่ยวกับการผลิตและการตลาดข้าวอินทรีย์ สอง ปัจจัยการผลิต อันได้แก่ ปุ๋ยอินทรีย์ แรงงาน แหล่งน้ำ สาม การจัดการดูแลเกี่ยวกับเชื้อโรคและแมลงต่างๆ
ทั้งนี้สามสิ่งที่กล่าวมานั้นควรจะได้รับการช่วยเหลืออย่างเร่งด่วนเพื่อยกระดับการปรับปรุงพัฒนาของข้าวอินทรีย์
ยิ่งไปกว่านี้แล้วควรมีการปรับปรุงการสื่อสารระหว่างหน่วยงานสนับ

สนุนกับเกษตรกรให้ดียิ่งขึ้น
การติดตามโครงการต่างๆควรจะได้รับการใส่ใจยิ่งขึ้น
เพิ่มให้เกิดประสิทธิภาพและประสิทธิผลการปรับปรุงพัฒนาความต้องการของเกษตรกรผู้ปลูกข้าวอินทรีย์
หน่วยงานรัฐและเอกชนที่เกี่ยวข้องควรช่วยกันให้มากยิ่งขึ้น
โดยหน่วยงานรัฐ อาทิเช่น กรมการข้าว กรมพัฒนาที่ดิน
สำนักงานเกษตร องค์กรเอกชน อาทิเช่น กลุ่มอโศก
และกลุ่มอินแปงควรจะให้ความช่วยเหลือดำเนินการในเรื่อง
การถ่ายทอดองค์ความรู้และเทคโนโลยีเกี่ยวกับการผลิตข้าวอินทรีย์
และการตลาด ปัจจัยการผลิตควรได้รับการส่งเสริมจาก
กรมพัฒนาทีดิน สำนักงานเศรษฐกินชมชนพอเพียง
สำนักงานเกษตรอำเภอควรจะให้ความรู้เกี่ยวกับการจัดการโรคพืชและแมลง
ข้อเสนอแนะสำหรับ สกพ
เกี่ยวกับการดำเนินงานเพื่อช่วยเหลือเกษตรกรให้มีบทบาทมากขึ้นค่อนข้างยากเนื่องด้วยสมาชิกส่วนใหญ่ปลูกข้าวอินทรีย์เพื่อดำรงชีพ
ดั้งนั้น อันดับแรก สกพ
ควรจะช่วยเหลือสมาชิกเกษตรกรผู้ปลูกข้าวอินทรีย์ในด้านการผลิตเพื่อให้เกษตรกรสมาชิกมีชิวิตความเป็นอยู่ที่ดีขึ้น
จากนั้นจึงควรดำเนินการพัฒนาการส่งเสริมการตลาดต่อไป

Introduction

Structurally, this report presents the research on improvement of service to organic rice farmers who are member of Farmers Federation Association for Development Thailand or SorKorPor in middle Northeastern region of Thailand in order to strengthen their market position. The report consists of seven chapters as follows

Chapter 1 is described the introduction of the project which covers background of the project, problem definition, objectives, methodology, and notes for the reader.

Chapter 2 is the description of the Farmers Federation Association for Development Thailand such as history of organization, vision, mission, an importantly present service providing for their organic rice farmers members at all level national level, regional level, provincial level, and Tumbol (subdistrict) level.

Relevant literatures are reviewed in the chapter 3 which concerns organic rice farming in Thailand, organic agriculture sector in Thailand, and main obstacles for consumer awareness of organic product.

Chapter 4 is presented the analysis of organic rice sector in Thailand. PESTEC analysis model is used for describing and analyzing the macro environment on organic rice sector in the Northeast of Thailand.

Chapter 5 is an important chapter of the report; the organic rice chain map and organic rice chain operators is illustrated and analyzed. It shows the characteristic and function of all organic rice chain players. Besides, supportive chain players are also described. Moreover, sustainable analysis is used for analyzing the sustainable of the chain.

Chapter 6 holds this core aspect of the report. It presents the result of research. The needs and services of the organic rice farmers who are member and non member of SorKorPor are presented.

Chapter 7 is thoroughly described possible stakeholders and service providers the needs for the organic rice farmers who are members of SorKorPor. It consists of private providers and public providers.

Finally, the conclusion and recommendation is presented at the end of the report. Followed by the sources of the information from the literatures and internet site is in the references. Information of interviewees, Contact information of possible providers, and question lists is in annexes.

1. Introduction of project

In order to fulfill the educational program of the fourth year students in Agri-Systems Management (ASM) course of Van hall Larenstein University of applied sciences, a thesis has to be carried out in 2009. The thesis has to be undertaken individually.

During the mission in September 2008, SorKorPor was advised from Agriterra and ZLTO to continue optimizing and expanding the economic activities that already started in the different regions. But instead of trying to develop economic activities in all regions, SorKorPor would better choose the most promising region and economic product to pilot with the further strengthening of economic activities, and especially the business development of local SorKorPor groups. This is to enable SorKorPor to put more concentration on all stages of the value chain and the role of SorKorPor. In subsequent communication with SorKorPor it has been decided to facilitate a student research on value chain analysis of organic rice in Upper and Middle North East region. This mission concerns a Bachelor thesis for two Thai students of Larenstein (Agriterra, 2009).

The pilot project “improvement of service to organic rice farmers who are member of SorKorPor in northeastern region of Thailand” was performed by two Thai students of Van Hall Larenstein, part of Wageningen University and Research. The two students have been selected for this assignment: Mr. Chatchai Munkong and Mr. Surachet Chamontri. Chatchai Munkong carried out the task in Middle Northeast and Upper North-East was undertaken by Surachet Chamontri (Agriterra, 2009).

1.1 Background information

According to FAO statistic data 2008, cultivation area of rice in Thailand is approximately 10,072,000 hectares in 2006. Organic rice in Thailand was cultivated just over 18,000 hectares in 2006 (Wanlop Pichpongsa, 2007). This is only 0.0012 percent of total rice cultivation area in whole country. The average size of the organic rice farm is two to six hectares. The average yield of organic rice is 2.56 tons per hectare while the average yield of conventional rice is 2.30 tons per hectare. The cost of organic rice farming is 332 euro per hectare and conventional rice farming is cost around 327 euro per hectare. The certified organic rice selling at premium price (10baht/kg) was more expensive than that of non-organic rice (7-8 baht/kg). Thus, the organic rice growing farmers had more average income per hectare (5900 baht) than the non-organic rice producing farmers (Dr. Manat Losirikhun, 2006). According to the data from Organic Jasmine rice Information Network, there are two regions where producer organic: 80 percent of organic rice is grown in the Northeast region and 20 percent is produced in the North region. Around 96 percent of organic rice is sold on the international market especially in European countries. The rest is sold domestically (Organic Jasmine rice Information Network, 2009).

1.2 Problem definition

One of the ongoing economic support activities of SorKorPor deals with organic rice in the Northeast region: Upper, Middle and Lower zones (all together called Isan).
In total there are ten SorKorPor groups involved. SorKorPor chooses two groups in Upper and another two groups in Middle Northeast regions to pilot with the further strengthening of economic activities with special attention to business development of local SorKorPor groups. As organic rice is a promising and economic product of those two regions. Therefore, SorKorPor needs to know the needs of their members in order to strengthen their market position. This is to enable SorKorPor to put more concentration on all stages of the value chain and the role of SorKorPor.

1.3 Objectives of project

The main objectives of this research are following:

1. To analyse the value chain of organic rice in Northeast of Thailand.
2. To describe the information and service needs of organic rice producers in upper northeast of Thailand who are members and non-members of SorKorPor.
3. To give an overview of the stakeholders and (potential) service providers in the value chain of organic rice in upper of Thailand who can address the service needs of the local SorKorPor groups in organic rice production

4. To give recommendations to SorKorPor how to perform their role at various levels (tumbol, provincial, regional, national), mainly on tumbol and provincial levels to strengthen the market position of organic rice producers in upper and middle NE of Thailand.

1.4 Methodology

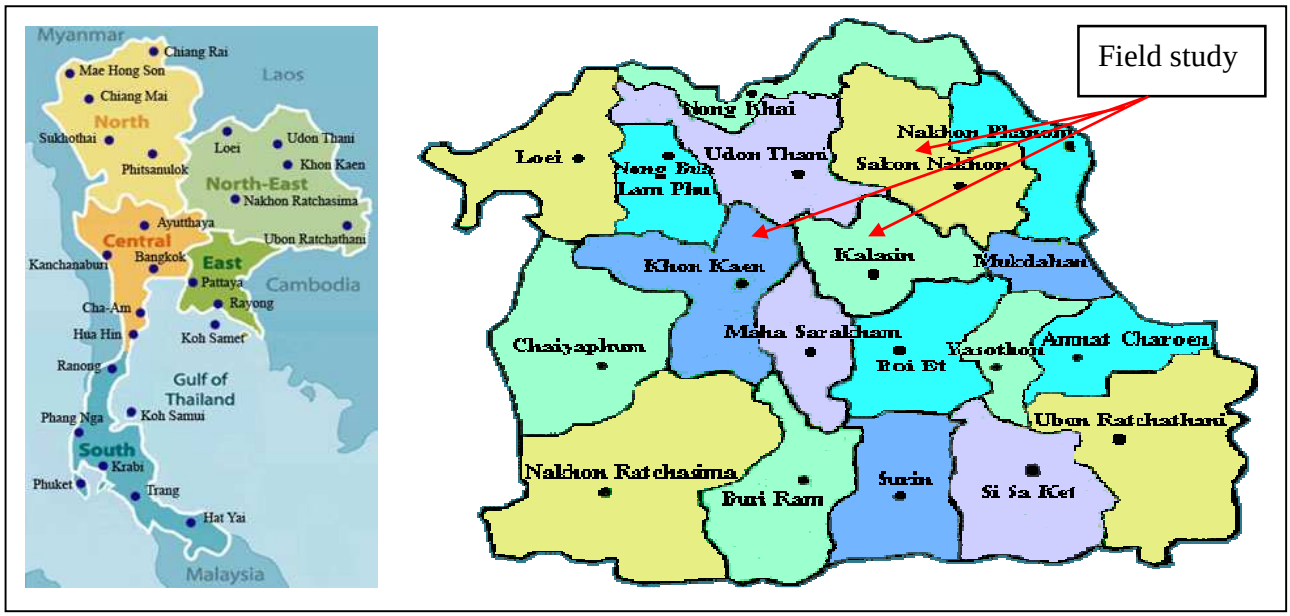
Desk study

The information on internet and book of WUR library were searched to be a guide for making a preliminary research as well as making the research. Moreover, the archives from Mr. Kees related to organic rice sector in Thailand were reviewed.

Field research

Field research was undertaken in Thailand from May 2009 to August 2009. It comprised two phases of study. The first phase was done by interviewing three groups of organic rice producers. The first group locates in Kalasin province. Another group locates in Khon kaen province. Those two provinces are in the middle Northeast region. And last group is located in Sakonnakhon province in the upper Northeast region. Members and non- members of SorKorPor were interviewed in order to compare existing service providing. Consequently 50 organic rice members and non- members of SorKorPor was totally interviewed which 35 farmers are SorKorPor member and 15 farmers are non SorKorPor members.

Figure1: Map highlighting survey area (North East region; Khon Kean, Kalasin, and Sakonnakhon province)



The second phase was spent with organic rice chain players such as millers, traders, retailers and exporters. Those organic rice chain players were interviewed to get a thorough understanding of all issue at all levels in the chain. The interview of the organic rice chain players focuses mainly on their characteristic and function. Importantly all organic rice chain players have been investigated in figures on the incremental values at each level of the chain. Moreover, domestic and international consumers were interviewed to get input in the organic rice price and their characteristic.

1.5 Notes for the readers

Calculation

Thai Baht 1 Euro = 47.63 baht 1 dollar = 32.74 baht
Date of reference is 10 July 2009 (Bangkok bank of Thailand)

1 rai = 1600 square meters,
1 hectare = 6.25 rais

2. Farmer's Federations Association for Development Thailand

2.1 History of organization

Farmer's Federation Association for Development (FAD) or SorKorPor has been initiated from the Thai Ministry of Agriculture associated farmer-organization Farmers Association Federation of Thailand (FAFT). After the economic crisis in 1997, the key

leaders of 42 groups of farmers, farm women groups, young farmer groups, related agro-producers and businesses formed themselves as FAD in order to help one another to alleviate the impact of the crisis and poverty in the rural areas. With the support of the FAFT, Development of Human Resource for Rural Area (DHRRA) of Thailand and Department of Agricultural Extension (DOAE) and Agriterra and ZLTO of the Netherlands, FAD developed and was registered as Farmers' Federation Association for Development in June 2000 (Strategic Plan of SorKorPor 2009 – 2012).

It has three layers: national, regional and local (Tumbol) level. At all three levels SorKorPor have a general assembly, and at national and regional level an executive committee (Board) and an operational unit (Board of Directors). There are currently 10 regional federations, each covering 5-7 provinces, with a total amount of around 45,000 members. Its services to members are twofold:

- Successful lobby & advocacy of farmers' interests and rights on local, national and international level.
- Assist farmers in developing their capacity as entrepreneurial farmers and enable them to make a decent and sustainable living out of agriculture by promoting "Sufficiency Economy" (Strategic Plan of SorKorPor 2009 – 2012).

2.2 Vision of SorKorPor

To be an organization on supporting knowledge, local wisdom, develop standard by sufficiency economy, protect rights and benefit of farmers by co-operation with alliance. The view of SorKorPor in the future SorKorPor will be the strengthen National Farmers Organization having potential and efficiency by the strengthen points learning and wisdom to develop the quality of life and can really protect the right and interest of farmers, by the ways of sufficient economy and cooperation with alliance to more impact to go to the target which be the farmers' organization having more members with quality and quantity in very regions all over the country, and make the policy for farmers and can mobilize and implement the policy come true by lobby and negotiate with government (Strategic Plan of SorKorPor 2009 – 2012).

2.3 Mission of SorKorPor

Referring to Strategic Plan of SorKorPor 2009 – 2012, the missions are following

1. To develop the organization to more potential and strength that can really represents farmers and members, by integrate and improve structure, system and mechanism of organization, add up the attitude and potential of Boards, Staffs and members to united and more Quality that can implement the Mission to the target by focus on the base of production and units of activities that is: Sub-district level.
2. To promote knowledge, understanding and expert by systematically, on "lobbying for policy and capital" with Government, Private Sector and Donor's both in country and international of Board National, Regional and Sub-district level.
3. To develop attitude, knowledge and skill on "Economy, Marketing and added value and value chain on Agriculture" of Board and member, focus on the strengthen area of members.

4. To promote cooperation with alliance and enhance to be their members in local, regional national and international.

2.4 Present service providing of SorKorPor

National level

The head office of SorKorPor is situated in Bangkok province. SorKorPor is now the farmer's Organization which focuses on knowledge, wisdom by the ways of sufficient economy and co-operation with alliance. The main goal is to negotiate and lobby with the government and others which is more effect to development the agricultural sector and to support farmers by

a) *Other Farmer's Organization* will be adapted the ways of negotiation on and lobby with the government, sufficient economy and more cooperation with SorKorPor, which will get more impact to the government.

b) *Government's Sector and NGO* will be more recognized the role of SorKorPor and will be accept the negotiation and lobby too, and this is a chance of government's sector and NGO will support budgets and projects to SorKorPor and other farmer's Organizations.

Regional level

There are totally ten administrative regions of SorKorPor such as upper North, lower North, upper North-East, middle North-East, lower North-East, Central region, East region, West region, upper South, and lower South. Each region has a regional office which functions as a central of working and communicating. The regional administration is undertaken by a regional administrative board which has been selected by its regional members. Usually, the regional administrative board is elected in every four years. The regional office of SorKorPor middle and upper North-East is located in Kalasin and Sakhonnakhon province respectively.

A present service providing of SorKorPor middle North-East to its members is

- Communicating and cooperating with partners in order to make a project. SorKorPor middle North-East has communicated and cooperated with its partners. Aim of this is to have more bargaining power to contact with government agencies in order to ask for support. The project is based on need of the members. "Agricultural machinery support for rice farmers in middle northeast project" is an interesting project and initiative by the administrative board of SorKorPor middle North-East. The project is just starting; the administrative board is working closely with the Farmer network institutions to make it realistic by asking a budget from the department of Agriculture and Cooperatives.

- Communicating with the government's organization and other NGOs. Being a representative of its members to connect with the government organizations at regional, provincial, and Tumbol level in order to has informed ongoing activity and contribute to the members.

- Being an intermediary between the members in the region and national level. Transfer message from the regional members to the national administrative board, and also turn the message back to the regional members.

- Arrangement seminar on organic agricultural production.
Seminars on organic agricultural production were occasionally arranged. All SorKorPor members are free to participate. The content of seminar concerns partly on organic fertilizer making.

- Organizing workshop or training course on organic fertilizer making.
Training courses on organic fertilizer making were occasionally organized. Local and home raw material used for making organic fertilizer is the core of the training course.

- Organizing training course on self sufficient economy
Training course on Self sufficient economy is the main activity that SorKorPor regional has done.

However, the seminars, workshops, and training courses as described above were not fully accomplished, there were not many members could participate. Only the member near by could participate, the members in remote area could not participate because of travelling cost and some farmers had to continue their work.

Provincial level
There are six provinces under administration of SorKorPor Middle North East such as Kalasin, Yasothon, MahaSarakham, KhonKaen, Chaiyapum and Roi Et. While, there are six provinces under administration of SorKorPor upper North East include NongKhai, Nakhonpranom, Udonthani, Nongbulamplu, Mukdahan and Sahonnakhon province. There is no administrative board at provincial level. So all work/responsibility/service providing is done by the regional board.

Present service providing is
- Organizing the meeting among SorKorPor members
Meeting is taken place in order to exchange general and specific knowledge and experience among the members. Moreover, the member can propose whatever during the meeting for example his/her need. The meeting will be done when there is a requirement of the members.

Tumbol level
There is a SorKorPor administrative board at Tumbol level. Usually, the Tumbol administrative board will be re-election in every four years.
The main service providing is

- Organizing training course or seminar
Training courses or seminars are organized according to respect of SorKorPor Tumbol members. Soil management, self sufficient economy, household product making are the main issues of the training course and seminar.

- Being a representative of SorKorPor Tumbol members to transfer whatever (e.g. need/problem) to regional administrative board and transfer the message from upper level to the Tumbol members.

- Organizing the meeting among SorKorPor Tumbol members
The meeting is usually organized once a month. The content of the meeting is mainly following the work of SorKorPor at all level. Open hour is in the end of the meeting, the members can talk, discuss, and propose whatever they want. .

3. Review of Literature

It was found that the organic rice producing farmers held average farm size from 12.5 – 36.75 rais. Most of paddy fields were lowland alternated with upland with problem paddy

soils low in plant nutrients and water holding capacity and soil structure compaction. There were generally rainfed paddy fields. On farm water management during drought period was done by water pumping not only from farm ponds but also from natural water resources. (Dr. Manat, 2006).

The yield per rai of organic Hom Mali rice during the crop year 2004/05 was different depending on rice cultivation methods and soil-water-pests management. On the average, yield of organic Hom Mali rice was 410.66 kilograms per rai. The average total production cost per rai of organic Hom Mali rice was 2,662 baht per rai. The certified organic Hom Mali rice selling at premium price (10 baht/kg) were more expensive than that of non-organic Hom Mali rice(7-8 baht/kg) (Dr. Manat, 2006).

According to conclusion of Sunnuntar, a combination of contract and organic farming has been effective in enhancing the profitability and to some extent the efficiency of small-scale rice farmers in Thailand. Particularly in the case of provinces in Northeast Thailand where a majority of the poor resides and where the green revolution has not been effective in addressing poverty, and has worsened ecosystems, contract farming of organic rice is shown to be effective means of raising incomes and by implication addressing rural poverty (Sununtar Setboonsarng, 2006).

The international and local market is demanding in its standards and regulations, there is a lack of market information and producers lack knowledge in organic production practices. Furthermore, there is need for coordination between government ministries and the private sector on the best strategy to develop and realize growth in exports (Dr. Arunee, 2008).

In 2008, organic rice farmers have three channels to export their rice. First is a limited distribution in overseas markets through cooperation with NGOs which assist them with accreditation. This is based on principles of fair trade. Another channel is cooperation with an export company which also helps farmers certify their products. However, in many cases farmers' groups or cooperatives obtain certification on their own and then sell their organic rice to the export companies. Some farmers decide to sell their organic paddy rice into the general rice market to earn high returns quickly. This because the present high price of normal rice is affecting organic rice farmers. (Tunya Sukpanich, 08/06/2008)

No specific organic producers' organization exists at the national level. Small-scale producers are organized at the local level, especially for the benefits of organic certification and logistic arrangements. The Green Net's producer network is the largest network of organic producers' organizations, representing around half of organic producers in the country. (Vitoon Panyakul, 2009)

Thailand's organic sector has probably passed early infancy and has entered the growth stage. Most organic productions systems are simple, without the use of sophisticated farming technologies or machinery. Most organic products are basic unprocessed commodities such as rice, fresh fruits, and vegetables. Increasingly, more intermediate

processed products are being developed, such as sugar, tapioca starch, and palm oil. There are few finished processed organic products, as the raw material is usually insufficient to supply processing plants, and the supply often is not continuous. Also, the importers prefer to buy organic raw materials from Thailand and do the processing in their own countries in order to ensure high quality and lower import taxes. (Vitoon Panyakul, 2009)

One of the main obstacles for consumer awareness is the resistance of government agencies, especially the Ministry of Agriculture and Cooperative, which has an interest in the expansion of 'safe food' and thus finds it difficult to accept that organic agriculture is superior to the 'safe food' scheme. It may be interesting to put organic agriculture in the hands of the Ministry of Environment or Public Health, as they may have more motivation to promote it. Key obstacles for the public sector are the lack of regular and reliable supplies (especially for fresh vegetables), limited product variety, higher costs, and lack of commitment of the kitchen staff to accommodate the seasonal variation. (Vitoon Panyakul, 2009)

4. Analysis of organic rice sector in Thailand

4.1 Political

4.1.1 Thai policy on rice sector

Since rice is the most important crop in Thailand and involves the majority of farmers on the one hand and all consumers on the other, rice sector received top attention from the government. Various policy measures have been implemented since World War II. Policy

impacts were analyzed especially the export premium by a number of economists. This section lists selected policies and highlight effects of some schemes.

The overall objectives of Thailand rice policy have long been to raise rice production to meet increasing domestic consumption and to maintain an exportable supply (at least up to the 5th Economic and Social Development Plan 1982-86). Production policy and marketing as well as trade policies are interwoven in their impacts on the price which return affect production and export. In 1966, The Bank for Agriculture and Agricultural Cooperatives (BAAC) was established to provide farm credit as well as to serve price support programs for example Warehouses and Pledging Scheme. During 1974-83; the government was intervened the market directly through the Marketing Organization of Farmers (MOF) and indirectly through the buffer stock operations of the Public Warehouse Organization (PWO) to maintain farm price above the target levels. Public Warehouse Organization, the marketing arm of the Ministry of Commerce, bought rice from farmers. In 2001 farmers are encouraged to grow jasmine rice varieties. In the same year 176 subdistrict paddy centers were established, they are belong to the Department of Agricultural Extension, Ministry of Agricultural and Cooperatives. They promote local competition and provide facilities for example drying lawns, weighing machines, and warehouses. These government buying centers accommodate rice price policy measures. (Aree, 2001)

The Rice Department plans the commercial launch of a new fragrant rice strain, Kor Khor 33 or Ubon 80. Developed from Dok Mali 105, Kor Khor 33 is ideal for the northeast. Highly resistant to droughts and diseases, especially bacterial blights, the variety grows well even in sandy soil or loam with few nutrients. Notably, it is less sensitive than Hom Mali to seasonal changes in the length of the day, enabling up to three crops a year. Such qualities could meet needs of farmers in the north and northeast, where most can grow only one crop a year due to poor seed and soil quality. Droughts and insufficient irrigation are also major impediments to crop expansion. In fact, the department has done constant R&D on rice breeds. They are able to get high productivity breeds that could yield up to a ton of paddy per rai but the grain could lose some qualities such as shorter kernel and aroma. The representative of the department has suggested that the government should have many grades of fragrant rice, similar to white rice, which has many grades, to meet different market demands. (WALAILAK KEERATIPIPATPONG, 2009)

The Thai rice strategy 2008-2011: the government is going to raising the price of rice. The additional budget will be slated for setting up product development centers, promoting inra-provincaial match-market, and increasing distribution outlets. The government's plan is to stabilize prices of rice is planed o forge closer partnership with the world's major rice producing nations such as Vietnam, china, and India. The Plan is also afoot to encourage trading of rice and other key farm products through future exchange mechanism. The government aims to convince farmers to upgrade their product to meet varying demands of individual market and to produce more organic rice. In the longer term, contract farming will be extended as part of plan to stabilize rice price. In

marketing, the government will seek partnerships in advanced sectors to achieve wider space for product locally. (Phusadee Arunmas, 19/01/2009)

4.1.2 Interventions of the government on rice sector

The government has intervened on rice sector for example *intervention on soaring rice price*, in 2008; the government had set aside a rice quota for use in its low priced rice scheme to ease the burden on consumers from soaring rice prices. Under this scheme the rice would be sold on domestic market about 10% lower than market price (Chatrudee, 02/04/2008). Another example is *Intervention on rice shortage crisis,* in 2008, Rice shortage has been witnessed in several countries in Asia. The Ministry of Commerce has tightened measures to prevent a rice shortage on domestic market by requiring exporters to set aside 500 tons of rice as working stock in a move to prevent a rice shortage. To ensure adequate rice stocks, exporters and millers to report their stocks to the ministry monthly. Any breach would be subject to one year in jail and fines up to 500,000 baht. (Phusadee Arunmas, 10/04/2008)

4.1.3 Significant scheme on rice sector

Paddy mortgage scheme

Paddy mortgage scheme was established in 1986, the reason was rice prices in that time would be cheaper because farmers had no rice barn, they had to sell rice as quick as possible. This allows intermediaries to lower the price of rice down. Therefore, the government approved this scheme in order to help rice farmers. Paddy mortgage scheme targets small scale farmers. This scheme is in attempt to prop up price for farmers. Previously, each farmer would be restricted to mortgage no more than 350,000 baht, equivalent to 25 tons. The government decided to renew the paddy mortgage scheme in 2008. The government limits the guarantee to 500,000 baht per farmer, equivalent to 40 tons. This adjusting is because of rising of current market price and expanding cultivation area of the farmers.

Rice price guarantee scheme

In 2009, the cabinet approved the National Rice Committee's proposal to replace the current paddy mortgage scheme with a price guarantee scheme. The government has operated the price guarantee scheme to buy rice from farmers at higher than prevailing market prices, putting a huge dent in the national budget as the government has to sell the rice stocks at reduced prices to exporters. The Agriculture and Cooperatives Ministry has been assigned to fix a suitable paddy price based on capital cost and a suitable return for farmers, and to quickly complete registration of farmers joining the rice price guarantee scheme. The Bank for Agriculture and Agricultural Cooperatives will be responsible for a public relations campaign to ensure that farmers benefit more from the new scheme. Under the rice price guarantee scheme, the government will pay farmers less as there is no need to manage rice stocks. However, this scheme has encouraged farmers to plant rice varieties with big yields. There has been no emphasis on quality. The quality of Thai rice has thus deteriorated and foreign buyers have reduced their purchases. (Bangkok Post, 21/07/2009)

Asean rice free trade

According to speed of Prime Minister Abhisit Vejjajiva told the Asean ministerial meeting in Phuket in July 20, 2009 that Asean would become like the EU within six years with people, labour, capital and goods flowing freely within the 10 Asean member countries. Asean member countries will gradually reduce or abolish tariffs on several products in the years to 2115, when a completely free trade environment is implemented. Starting from January 1st 2010, rice trading within Asean will be tariff free, which means neighboring countries can sell their rice to Thailand and Thailand can sell its rice to other Asean countries tariff free. This may seem to be good news as Thailand is the world's No1 rice exporter. But the facts, Thai farmers can not compete against Vietnamese rice farmers in terms of productivity and price, meaning Vietnam will gradually grab a bigger rice export market share at the expense of Thai rice exporters. When the Asean Free Trade Area on rice takes effect 2010, rice from Vietnam, Burma, Cambodia and Laos will be exported to Thailand to compete with the local variety, and could win a significant share due to lower prices. Another adverse effect of the government policy is that some rice traders are importing cheaper rice from neighboring countries such as Burma and Cambodia and selling it to the government under the rice price guarantee programme, reaping double benefits. The result of this corrupt practice is many farmers in Burma and Cambodia have expanded production for export to Thailand to be sold to the government. (KAMOL HENGKIETISAK, 2009)

Thai's policy on organic agriculture

The Thaksin government announced in 2001 its intention to develop and transform Thai agriculture to be a big producer of organic food products for domestic and export markets. Three years later, promotion of organic farming was formally incorporated into the national agenda, with concerned various ministries such as Ministry of agriculture, Ministry of natural resources and environment working together on an ambitious plan to convert at least 85 million rais of farmland to organic cultivation farming. However, under the government of Surayud Chulanont (October 2006 to January 2008) all plans were dissolved and the issue was taken off the national agenda. Only the national committee formed to implement policy on organic farming remained. When the administration under Prime Minister Samsak Sundaravej took over in January 2008 organic farming was once again made a priority, and work on national plan was resumed. However many still express doubts that government agencies really understand the true concepts behind flaw in the national organic plan. The root of the problems seems to be that the years long process leading up to the national plan lacked participation of the farmers who have been implementing organic farming practice over the last few decades. (Tunya Sukpanich, 08/06/2008)

In 2008, Ministry of Agriculture had set aside a budget of 1.7 billion baht for improving organic plantations. The funds would spend to improve land and on research and development, in addition to marketing to promote Thai organic products. The ministry also had the budget of 354 million for a mentor programme, in which selected experts would be hired to advise farmers over organic farming. There are now 40 centers for mentors program. (Phusadee Arunmas, 09/01/2008)

The efforts by the royal family, especially the king, to promote a 'self-sufficient economy' concept has led to many sustainable agriculture projects, both pilot production

and research projects. This concept leads to non chemical used and use local and home raw material to make green fertilizer.

National Organic Agriculture Strategic Plan 2008-2011
According to the Bureau of Trade and Economic Policy Thailand 2008 published that, in 2008, the Samsak government approved the four year (2008-2011) national plan on organic farming. It is the first National Organic Agriculture Strategic Plan of Thailand. There are four strategies such as 1) To develop knowledge and innovations in organic farming. 2) To develop traditional and local organic farming methods that enables farmers to depend on themselves. 3) To develop organic products for domestic and international market. 4) To manage and administrate national strategy on organic agriculture in order to develop organic agriculture in Thailand. There were some people in the private sector who have long worked to promote organic farming welcome this as a sign that the state wants to replace the present destructive chemicals based agriculture with a more sustainable and healthy alternative.

The development of Thai organic agriculture has so far been driven by the private sector and NGOs. These play key roles in organizing organic conversion projects and marketing, making a major contribution to the growth of organic agriculture. The government may have played a supportive role through national regulations and some favorable policy activities. (Vitoon Panyakul, 2009)

4.2 Economical

4.2.1 Rice on Thai economy

Global rice trade averages 30 million tons a year. Approximately, Thai rice is exported eight to ten million a year. Rice is the main crop in Thailand and rice is very competitive at the international market. Thailand is the biggest rice exporter in the global trade (Phusadee Arunmas, 16/02/2009).

FAO (2008) reported that in 2007, Thailand has grown paddy rice 10.36 million hectares. It is roughly one fifth of the total area of Thailand. The rice milled production is 18.5 million tons. Thai rice export volume of 9.5 million tons, nine million tons is sold on domestic market. The average rice yield is 2.33 tons per hectare. Thailand has a reputation for high-quality, long-grain white rice. Main markets of Thai rice are Philippines, Indonesia, Nigeria, Senegal, Iran, South Africa, the, the Ivory Coast, Malaysia, and the United States.
As article of Jay L. Maclean (2002) stated that Rice is the staple food of the entire population regardless of income. The average annual per capita consumption is 100.8 kilograms of milled rice. Rice provides reasonable amount of food nutrients and over half of the calories in the Thai diet. In addition, it is an important raw material for various food industries, for example; noodle, starch, bran, oil, animal feed manufacture and raw material for industrial used.

4.2.2 Organic rice on Thai economy

According to FAO statistic data 2008, cultivation area of rice in Thailand is approximately 10,072,000 hectares in 2006. Organic rice in Thailand was cultivated just over 18,000 hectares in 2006 (Wanlop Pichpongsa, 2007). This is only 0.0012 percent of total rice cultivation area in whole country. The average size of the organic rice farm is two to six hectares. The average yield of organic rice is 2.56 tons per hectare while the average yield of conventional rice is 2.30 tons per hectare. The cost of organic rice farming is 332 euro per hectare and conventional rice farming is cost around 327 euro per hectare. The certified organic rice selling at premium price (10 baht/kg) was more expensive than that of non-organic rice (7-8 baht/kg). Thus, the organic rice growing farmers had more average income per hectare (5900 baht) than the non-organic rice producing farmers (Dr. Manat Losirikhun, 2006). According to the data from Organic Jasmine rice Information Network, there are two regions where organic rice is produced: 80 percent of organic rice is grown in Northeast region and 20 percent is produced in North region. Around 96 percent of organic rice is sold on the international market especially in European countries. The rest is sold domestically.

According to the statistic of organic export commodity in 2007 of Ministry of commerce, the proportion shows that around 68 percent of organic export commodity is organic jasmine rice, 12 percent is organic vegetable, eight percent is organic fruits, eight percent for organic tea, and organic herb and others around four percent. In 2007 organic commodity is export valued approximately 1500 million Baht.

4.3 Social and Cultural

4.3.1 Rice as Food

Rice has been the staple food of the Thai people from ancient time. Thais eat both glutinous and non-glutinous rice, prepared as meals, as snacks, as desserts and as drinks. Most people in central and southern Thailand eat plain rice with every meal, even breakfast. In the north and northeast, people eat sticky rice with their hands. Rice as a component of Thai food, there are many ways of consuming rice. Numerous ways of consuming rice have evolved over time, from the normal way of cooking rice to boiling to steaming and to grilling in bamboo. (Dr. Kwanchai, 2001).

4.3.2 Rice as a source of labor

The Longkheakkaekhao culture or rotated harvesting culture is an old culture. Rice farmers gather to be a group when the rice is ready for harvest, the owner of the field to be harvested first would prepare food for the neighbors, who would come to help cutting, binding, and carrying the sheaves of rice. Exchanging labor among them like this, the farmers move from field to field until finishing the harvest of everyone in the group without paying any money.

4.3.3 Rice rituals

Rice is the only crop that Thai farmers arrange to give 'blessings' at every stage of its life, from planting to harvesting. It is done to boost morale and reduce worries, with the hope that the produce will be abundant and will ultimately bring joy, happiness and stability to

the farmers, their families and the community as a whole. Thus, the various rituals of rice are closely related to both the communal way of life and their religious beliefs. They emphasize the need to live together in harmony and to be mutually supportive. In addition, such rituals also play an important role on the village economy that involves rice production, distribution and exchange. A sample of rice ritual is

Rituals for protecting the rice crop: these rituals make the end of transplanting. They give offerings to ancestral and wandering spirits to ask them to protect and nurture the rice crop towards a plentiful harvest. They also pay homage to Mae Posop, the Rice Mother, to gain protection of the rice fields throughout the whole season. In most rice growing countries of Asia, the spirit of rice resides in the Rice Mother or the Rice Goddess. In Thailand, the Rice Goddess is Mae Posop. Mae Posop is treated in respectful and protective (Dr. Kwanchai, 2001).

4.3.4 Gender roles in paddy production

Referring to FAO (2003) reported that rural women play a major role in all aspects of paddy production, including seed preparation, transplanting, weeding, fertilizer application, harvesting, and seed storage. Given the lack of appropriate technologies for most paddy-farming activities, women perform labor intensive tasks with the use of simple and traditional technologies. As a result, they are sometimes overworked and exhausted. By comparison, men are responsible for those parts of paddy production that are mechanized such as use of the tractor for ploughing. Men are the main or even only target group in agriculture and rural development. Technology and related technical information and training are targeted at men.

4.4 Technical

4.4.1 Farm level

The duality in production systems extends to production technology usage. In most cases manual transplanting and harvesting is still common, with low levels of fertilizer and pesticide applied. Considering the duality in production systems and changes in market prices not affecting those farmers only growing glutinous rice, only those farmers facing price incentives to increase yields will actually invest in upgraded technology to enhance productivity (Ir. Corné van Dooren, 2005).

Ploughing

In Thailand most farmers still plough their fields in a traditional manner with buffalo. Mechanized ploughs are very expensive due to the high cost of fuel. Unfortunately many farmers do not own a buffalo and have to rent one. They can rent a buffalo from the buffalo bank. They purchase and raise buffalo and give a fertile female buffalo to a member farmer. The farmer must return the first calf to the ‘bank’ and subsequent odd numbered calves. The ‘even’ calves belong to the farmer. He saves the money he would have spent renting a buffalo and acquires an asset that easily can be converted to cash. A buffalo calf when fully raised is worth 15000 baht (approximately € 300) (Ir. Corné van Dooren, 2005).

Moreover, very few farmers still use water buffalo rather than tractors. Nowadays, the water buffalo are mainly kept by almost all rural families as status symbols. The main piece of agricultural equipment in use today is the vehicle plow field colloquially referred to as steel buffalo. A mini tractor comprising a small diesel engine mounted on two wheels with two long wooden or metal handlebars for control and steering. It is usually attached to a trailer or a plow. Buffalo are now mainly used for grazing on the stubble in the rice paddy which they in turn fertilize with their manure.

Harvesting
The farmers begin the harvest. Moving slowly and methodically through the fields, the rice stalks are cut with sickles and then tied in sheaves and dropped behind each worker. There are some farmers who use a small harvesting machine.

4.4.2 Milling level

The commercial milling operations have relatively good technology, but suffer from excess milling capacity (ACI, 2005). Sometimes the rice mill is powered by mechanical energy from falling water, and can process 300 kg of rice in eight hours with minimal physical labor. The mill was working correctly, but could produce even more if more community members were trained to use it (CBO, 2002). Millers indicated that existing technology employed by most mills is inefficient especially when energy costs rise. Modern technology is only used by large millers cum exporters to reduce broken grain, to increase milled rice quality and to produce better packaging (Aree Wiboonpongse, 2001).

Warehouses provided by The Bank for Agriculture and Agricultural Cooperatives (BAAC), cooperatives and Sub district-Agricultural Extension's program are insufficient to hold paddy for later sales. In addition, most of these warehouses are not equipped with dryer which is especially needed for the dry season crop (harvested in rainy season). There are relatively good levels of basic infrastructure including transportation networks, but advanced infrastructure and quality standards still need to be enhanced (Aree Wiboonpongse, 2001).

4.4.3 Infrastructure

The Northeastern region also lags in new technology: there was only one Internet connection per 75 households in 2002 (national average one per 22 households), but by 2006 every district town had at least one publicly accessible internet connection either in the local computer shop or in the district office. Extension of landline telephones to remoter areas not previously served has been largely superseded by the use of cell phones, primarily of the GSM format, which now cover the entire region with the exception of a few sparsely populated mountainous areas and large national parks.

4.4.4 Technology transferring

It found that some organizations including the Agricultural Extension Office, the Community Development Office, Public Health Stations, Non-formal Education Stations and, Subdistrict Administrative Organizations play a major role in technology identification and transfer, and NGOs play a relatively less important role in this aspect. Middle and high-income households have greater access to available technology and

resources, and that technology transfer activities supported by government organizations and NGOs tend to miss the poor. Poorer households, which usually depend on day labor to generate an income, normally cannot spare the time to participate in village meetings or training, which would represent a loss of earnings. Nor can they afford to take the risk associated with the trial of new technologies. In addition, while training courses can help to advance the skills of some villagers, there is no formal obligation on the part of those trained to communicate their new knowledge with other villagers. As a result, new skills are not systematically shared, and opportunities to multiply and scale up technology transfer are lost (FAO, 2003).

4.5 Environmental

Thailand is geographically divided into four major regions: Central, North, Northeast (or Isan) and South. Rice farmers in the Northeast, the main rice growing region and the home of the famous Jasmine rice, are generally subsistence farmers, selling only their excess production. Environment factors of Northeast region are

4.5.1 Geography

Almost one-third of the land area of Thailand is located in the northeast region. Nearly a half of the rice land is located in this region and the average size of the rice farm is smaller than in other regions. The Northeast covers 160,000 km² or approximately 16.9 million hectares. It is roughly half the size of Germany, four times the size of Switzerland, and twice the size of Austria. The Northeast of Thailand is bound on the west by the Phetchabun Mountain Range and on the south by the San Kan Pang and Dangrek Mountain Ranges. The Phu Phan Mountains run in the Northwest to the Southwest direction which divides the region into the Korat and Sakon Nakon basins. The Korat basin includes a large part of a plain known as Tung Kula Rong Hai, an area of 336,000 hectares. This plain includes six provinces such as Surin, Buriram, Sisaket, Yasothon, Maha Sarakham, and Roi Et. It is the major rice growing area of the region. The Sakon Nakon basin comprises the northern part of the Northeast region and includes Sakon Nakon, Mukdahan, Nakon Phanom, Nong Khai, Udon Thani, and Loei provinces. Rice is the main crop planted on 70% of arable land in the region (S. Suetrong, 2002).

4.5.2 Water and Irrigation

Chi and Mun rivers are the two main rivers of the Northeast region. The Mun river originates from the Sum Kam Pang Mountain in Nakon Ratchasima province and flows through Buriram, Surin, Roi-Et, Sisaket and finally into the Mekong River in Ubon Ratchathani Province. The Chi River originates from the Phetchabum Mountain Range in Chaiyaphum Province and runs through Khon Kean, Maha Sarakham, Kalasin, Roi-Et, and Yasothon before meeting with the Mun River in Ubon Rachathani and then flowing into the Mekong River (S. Suetrong, 2002).

Rice production in the Northeast region is almost exclusively rainfed. Drought is common even during the rainy season and can result in rice damage and yield reduction. Facilities and infrastructure for irrigation are lacking. The potential irrigated area in the northeast region is about 12 percent of the total agricultural land and leaving 88 percent of the area under rainfed condition (Arunee, 2008).

The traditional irrigation system in the Northeast of Thailand has three distinguishing features: (1) the Earthen bunds for irrigation are higher than the banks, blocking off the river completely, (2) most of them have no diversion canal and supply water to adjacent plots directly, and (3) some cause damage to a percentage of the plots (Keisuke Hoshikawa, 2003).

4.5.3 Soil

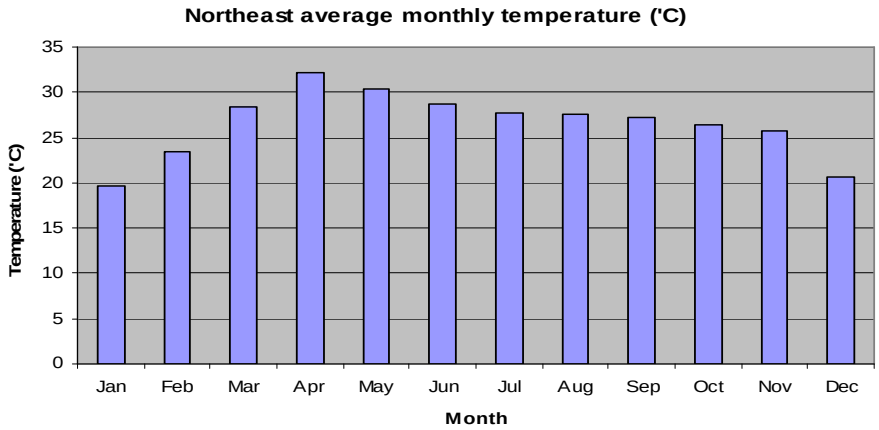
Most types of soil in the Northeast are sandy loams and loamy sands. They are very low in fertility, low in water holding capacity, often highly acidic, and low in their organic matter content. With the exception of Loei province, the region is underlain by salt bearing rocks giving rise to salinity problems that have affected 2.85 million hectares of paddy field. This has resulted in a loss of soil productivity and decreased rice production compare with other regions (Arunee, 2008).

There is about 2.8 million hectares of saline soils or 17 percent of the total area of northeast Thailand. The soils are classified as severe, moderate and slight saline areas of 240,000, 590,000 and 2,020,000 ha, respectively, and another estimated 3,140,000 ha of recharge area. The continuing impacts of groundwater-induced salinity are reduced crop yield, environmental degradation (Arunee, 2008).

4.5.4 Climate

According to Meteorological Department of Thailand, the climate characteristic of Northeast can be described as following. The climate of the Northeast region can be described as a tropical savannah climate. The climate is prone to drought, while the flat terrain of the plateau is often flooded in the rainy season. The tendency to flood renders a large proportion of the land unsuitable for cultivation.
Temperature: The average temperature range is from 30.2 °C to 19.6 °C. The highest temperature recorded was 43.9 °C in Udon Thani, the lowest -1.4 °C at Sakhon Nakhon.

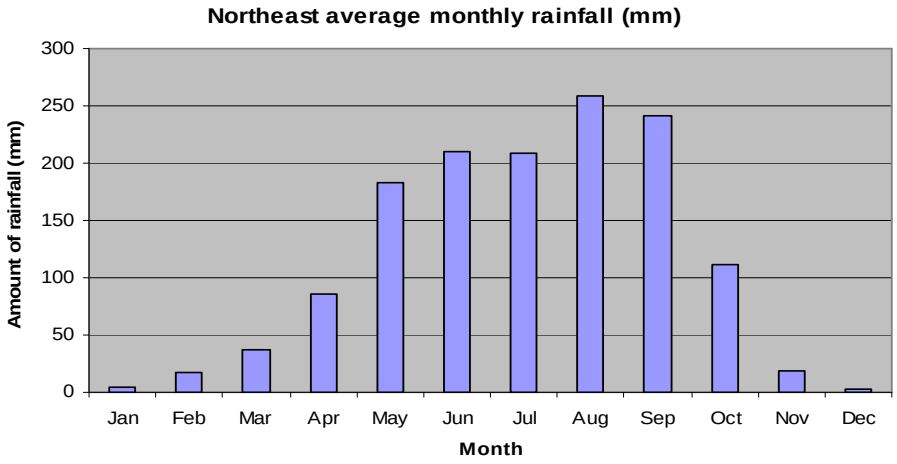
Figure 2: Average monthly temperature (°C) in Northeast



Source: Thai Meteorological Department

Rainfall is unpredictable, but is concentrated in the rainy season from May to October. Average annual precipitation varies from 2000 mm in some areas to 1270 mm in the southwestern provinces of Nakhonratchsima, Buriram, Mahasarakham, Khon Kaen and Chaiyaphum. The average annual rainfall in Northeast is maximally 1400 mm. The average relative humidity in this region is about 73 percent.

Figure 3: average monthly rainfall (mm) in Northeast

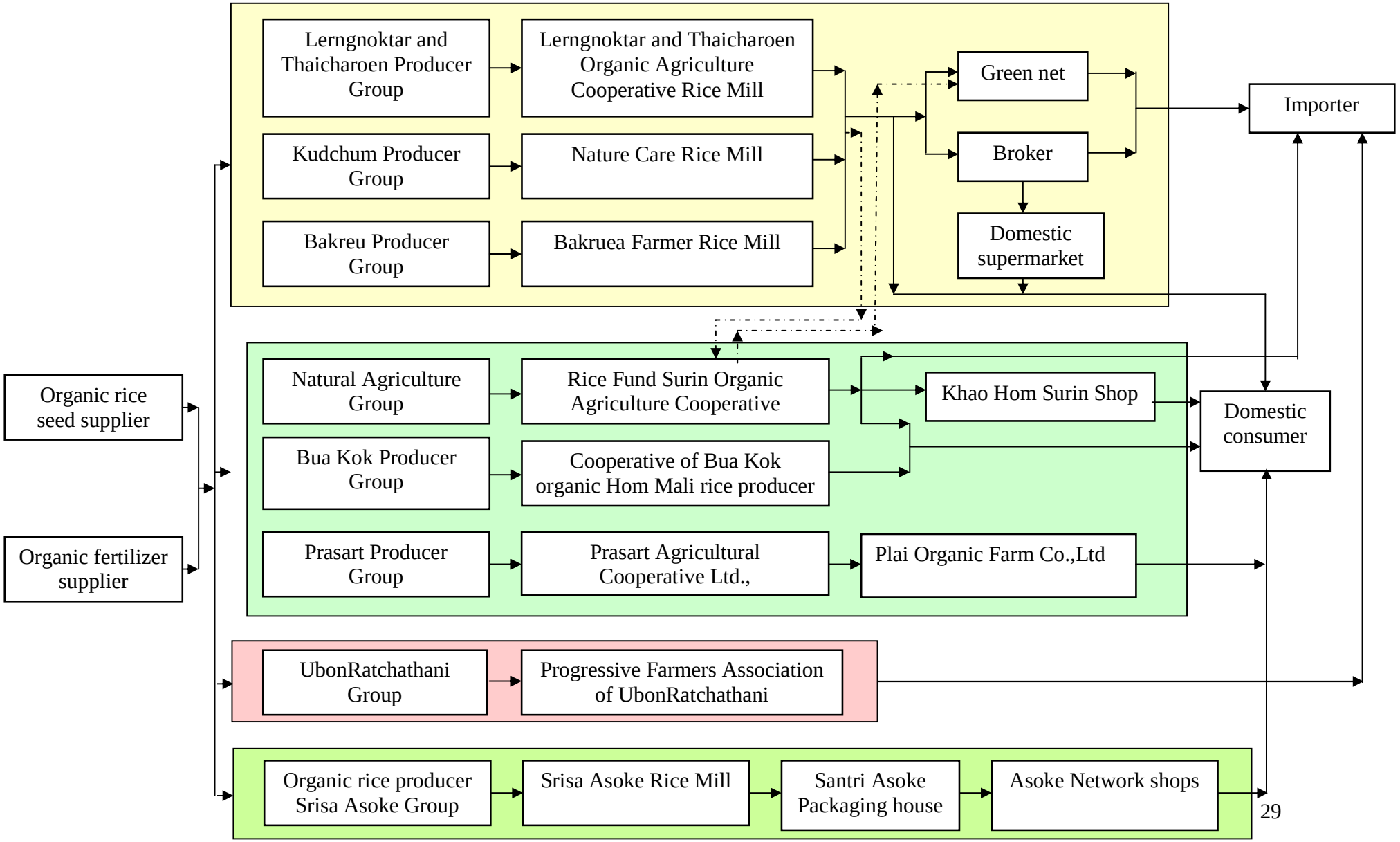


Source: Thai Meteorological Department

Seasonal: the rainy season begins with occasional short but heavy showers, eventually raining very heavily for longer periods almost every day, usually in the late afternoon or at night until it ends abruptly at the onset of the cool season. The other seasons are the cool season from October to February, when the people sit outside around fires in the evenings, and the hot season from February to May with its sudden peak of high temperatures in April.

5. Organic rice value chain analysis in Northeast of Thailand

5.1 Value chain map of organic rice in Northeast Thailand



5.2 Value chain players in Northeast of Thailand

5.2.1 Organic rice seed suppliers

There are three sources of organic rice seed supply as follows

5.2.1.1 Farmers

The first source is farmers themselves. Organic rice farmer will keep some seed in order to grow for the next season. Normally, the farmer will use the seed for three years. Then they will change the seed by buying from the Rice Seed Center and other organic rice farmers who can be trusted in quality. The buying price from other organic rice farmer depends on negotiating.

5.2.1.2 Rice Seed Centre

The second source; organic rice seed is partly supplied to farmer by Rice Seed Centre. There are totally 23 Rice Seed Centers in 23 provinces of Thailand. Those are located in Phichanulok, Nakhonratchasrima, Lampang, Chainat, Lopuri, Patchalung, cheangmai, payao, Kampangpat, Ubonratchatani, Roi ET, Udontani, Kalasin, Prae, Nakhonsawai, Surin, Khonkean, Sakonnakon, Chonburi, Ratchaburi, Sukothai, Surattani, and Patani province. Not all Rice Seed Center that supplies the seed to farmers, concerning the area of the study the Rice Seed Center of Kalasin province provides the seed to farmers.
The Rice Seed Center has made a yearly contract to some farmers to grow organic rice in order to use the seed for next season which have to be treated before. The Rice Seed Center normally will prepare organic rice seed for selling to farmer every year. Usually there are two types of variety such as Kor Khor 6 (sticky rice) and Jasmine rice. The price will be a bit different depending on method of treatment of organic rice seed. The average price of Kor Khor 6 and Jasmine are 15 Baht per kg and 25 Baht per kg respectively.

5.2.1.3 Private company

There are four mills which three mills are located in Lerngnoktar, Kudchum, Mahachanachai district of Yasothorn province and a mill is in Muang district of Surin province. These mills will store some seed in the mill every year. If there is a lack of seed farmers can buy the seed from these mills. The price is determined by the mill. Another is a private company such as Plai organic farm and CP. Price is almost one time higher than for seeds provided by the rice seed center.

5.2.2 Organic fertilizer supplier

5.2.2.1 Agricultural shop

Organic fertilizer can be generally bought from agricultural shop in every district. The rank of the price is between 300-500 Baht/sack (50 kilograms). Price of the fertilizer is determined by the owner of the shop. The selling price is dependent on negotiating. Sometimes, the selling price will cover transportation sometimes not. In some cases, payment is paid immediately but sometimes the payment would be paid after harvesting. This means that the price will higher than normal price because interest will be added. The type of fertilizer is various because of raw material content. Srisa Asoke also sells organic fertilizer to farmers near by.

5.2.2.2 Local organic fertilizer factories

There are many local organic fertilizers factories locate in a whole region of Northeast. Usually, farmers will buy organic fertilizer from the local organic fertilizer factories. They could arrange the transportation easily. The price is similar to market price, normally; the selling price is about 300-450 baht per sack (50 kilograms) depending on raw material use and setting up of group of producer.

5.2.3 Organic rice producers

There are four main provinces of organic rice producer in the Northeast Thailand such as Yashthorn, Surin, Ubonratchathani, and Srisaket province.

5.2.3.1 Yasothorn province: There are three groups of organic rice producer in this province as follows.

Lerngnoktar and Thaicharoen group

In 2008, there are totally around 77 farmers in the group. The area of 77 farmers with approximately 2128.53 rais of farm land produced about 178 tons of organic jasmine paddy. All 77 farmers have share in Lerngnoktar and Thaichareon Organic Agriculture Cooperative Rice Mill. All organic paddies from these producers are sold to Lerngnoktar and Thaichareon Organic Agriculture Cooperative Rice Mill. The buying of organic paddy is determined by farmers together with Lerngnoktar and Thaichareon Organic Agriculture Cooperative Rice Mill and Green net. In 2008, the buying price of organic jasmine paddy was 16 baht per kilogram. 72 farmers have got the organic certification from ACT and five farmers are conversion. Cost of having the certification, Green net is responsible for this cost. Kor Khor 15 (sticky rice) is produced for household consumption and Jasmine rice 105 is grown for commerce. The farmer has to take a responsibility for transporting the organic paddy to the mill. The group has its own Annual General Meeting; the farmers can discuss the current year's rice crop, the price for farmers, earnings for their rice mill and other issues.

Kudchum group

Since 1996, a farmers' group from Kudchum District of Yasothorn Province has also been active in rice export. It has specialized in organic production of Hom Mali (Jasmine) rice. In 1998, it produced 65 tons of certified organic Jasmine rice but only managed to export 15 tons. In 2008, there are totally 220 farmers in the group. The area of 220 farmers with approximately 3300 rais of farm land produced about 1,155 tons of organic jasmine paddies. All 220 farmers have share in Nature Care Rice Mill. All organic paddies from these producers are sold to Nature Care Rice Mill. The buying price of organic paddy is determined by farmers together with Nature Care Rice Mill and Green net. In 2008, the buying price of organic jasmine paddy was 16.30 baht per kilogram. All 220 farmers have got the organic certification from ACT and IFOAM. Cost of having the certification, Green net is responsible for this cost. Kor Khor 15 (sticky rice) is produced for household consumption and Jasmine rice 105 is grown for commerce. . The farmer has to take a responsibility for transporting the organic paddy to the mill. The group has its own Annual General Meeting; the farmers can discuss the current year's rice crop, the price for farmers, earnings for their rice mill and other issues.

Bakruea Farmer Group
In 2008, there are totally 400 farmers in the group. The area of 400 farmers with approximately 6,000 rais of farm land was produced about 2,100 tons of organic jasmine paddy. All 400 farmers have share in Bakruea Farmer Rice Mill. All organic paddies from these producers are sold to Bakruea Farmer Rice Mill. The buying price of organic paddy is determined by farmers together with Bakruea Farmer Rice Mill and Green net. In 2008, the buying price of organic jasmine paddy was 16 baht per kilogram. 400 farmers have got the organic certification from ACT. Cost of asking for having the certification, Green net is responsible for this cost. Kor Khor 15 (sticky rice) is produced for household consumption and Jasmine rice 105 is grown for commerce. The farmer has to take a responsibility for transporting the organic paddy to the mill. The group has its own Annual General Meeting; the farmers can discuss the current year's rice crop, the price for farmers, earnings for their rice mill and other issues. The membership is fully involved and does not hesitate to voice differences of opinion.

In term of exporting, organic rice of all three groups will be transported to the Rice Fund Surin Organic Agriculture Cooperative in order to re-pack in vacuum package. The volume of the vacuum package is depended on Green net.

5.2.3.2 Surin province
Sustainable organic agriculture in Surin province is structured around small and middle-sized farms. In 2009, main organic rice producer is located in four districts.

Natural Agriculture Group
Natural Agriculture Group or NAG is a group of organic rice producers in Meuang district, Surin province. NAG was established in 1991 in order to deal with the problem of price determination. At that time farmers faced two immediate concerns: the low price of paddy, and the control traders and mill owners exercised over the price of unmilled rice. NAG also established saving and cooperative activities in order to give loans to its members at low interest rates. In 2008, there are 200 organic rice farmers involve in this group. The average size of cultivation area of each farmer is 10-15 rais or roughly two hectares. The average yield per rai is 300-350 kilograms. Two-fifth of the cultivation area is grown Jasmine 105 variety and the one-fifth is cultivated the traditional variety for example Homnin and Nangloi, both varieties are grown for commerce. The rest of the cultivation area is planted Kor Khor 6 (sticky rice variety) for household consumption. The organic paddy is sold to the Rice Fund Surin Organic Agriculture Cooperative (RFSOAC). According to the agreement between RFSOAC and the group, the farmer would sell the paddy 20%-30% higher than normal rice price. The price last year was 18 baht per kilogram for organic Red jasmine and organic jasmine 105 and 13 baht per kilogram for traditional rice. All 200 organic rice farmers have share in RFSOAC. In addition, all farmers have grown other cash crops for example vegetable, peanut, and sesame. Moreover, many farmers have also had a small animal farm like pig farm or chicken farm or cattle farm, this is to find other sources of money.

Prasart Producer Group
Prasart producer group is a group of farmers who grow rice in Prasat district, Surin province. This group has started grown organic rice in 2006. In 2008, there are totally 263 organic rice producers in Prasart producer group which 65 farmers are certified by ACT and 197 farmers are certified by Organic Crop Institute. The average size of cultivation area of each farmer is only five rais or less than one hectare. The average yield per rai is 300-350 kilogram. Jasmine rice variety is only one variety which grows for commerce. The organic rice producers of Prasart producer group sell organic paddy directly to the Prasart Cooperative Ltd., the Prasart Cooperative Ltd., is responsible for transporting from the field to its mill. In 2008, the farmers could sell the organic paddy 18 baht per kilogram. The price is determined by administrative board of the Prasart Cooperative Ltd., which usually the price is higher than normal rice price two baht per kg. All 2632 farmers are member of the Prasart Cooperative Ltd., Besides, most farmers have grown other cash crops for example vegetable. Moreover, many farmers have also a small animal farm like pig farm or chicken farm or cattle farm, this is another source of money.

Bua Kok Producer Group
Most farmers in Bua Kok are very small scale farmers. The average size of the cultivation area is seven rais or approximately one hectare. Jasmine 105 (or Hom Mali) is a commercial variety. There are 50 organic rice producers in the group in 2008. The organic paddy is sold to the Cooperative of Bua Kok organic Hom Mali rice' producer. The price per kilogram of organic jasmine paddy was 17 baht last year. The logistic is undertaken by farmer itself. A part from organic rice producing, many members have grown some vegetable and fruit for household consumption. Besides they have a very small chicken farm which also for household consumption and partly sell to market.

5.2.3.3 Sisaket province
Srisa Asoke Group is a group of farmers who grow organic rice in Kantalalak district, Sisaket province. There are 85 families or 200 people involve in the group. The total cultivation area is approximately 70 rais. The average total yield of organic rice is 30 tons per year. The average yield per rai is about 500-550 kilograms. Usually, 11 tons of organic paddies will be kept for whole group consumption and the rest will be to Srisa Asoke Rice Mill. There is no any certificated of production. Most people rely on Srisa Asoke Group because they are strongly religion respect. Variety of organic rice is sticky rice, Red Jasmine rice, and White Jasmine rice. The production of organic rice is done once a year. The production is dependent on rainfall. The buying price last year was 14.50 baht per kilogram for Red Jasmine paddy, and White Jasmine paddy and 12 baht per kilogram for organic sticky paddy. This group not only grows the rice but also grows some cash crops e.g. fruit and vegetable.

5.2.3.4 Ubonratchathani province

Trakrantrapatpon district is an only organic rice production area in Ubonratchathani province. There are two groups of organic rice producer in this district such as commercial group and health awareness group.

The commercial group has been cultivating organic rice for 4-7 years. There are approximately 500 organic rice farmers of the group who are member of Progressive Farmers Association of Ubonratchathani. Jasmine rice variety is a commercial rice variety and Kor Khor 6 is a sticky rice variety which grows for household consumption. The average paddy yield per rai is approximately 340 kilograms. The average farm size is about 15 rais or two hectares. The farmers cultivate, harvest and process the rice, often the whole family is involved in these works. It is certified by ACT of Thailand. Usually, the farmers get one baht per kilogram higher than normal market price. The buying price in 2008 was 16 baht per kilogram for organic jasmine paddy.

The health awareness group has been growing organic rice for 2-6 years. This group mainly grows rice for household consumption. They are aware of health care and environmentally product. Three-fourth of cultivation area is cultivated Kor Khor 6 (sticky rice) and the rest is cultivated Jasmine and Kor Khor 15 (normal rice). The average paddy yield per rai is about 340 kilograms. The average farm size is about 10 rais or one and half hectares. Whole family is involved in cultivate, harvest and process the rice.

Farmers in four provinces mainly practiced pluvial farming, which was dependent on unpredictable rainfalls. Rainwater is stored in natural or artificial ponds, as reserves in the event of dry weather. But this way of rice growing allows only one harvest a year, and the yield is relatively low. Farmers in four provinces usually grow the rice in June or July and harvest in October or November.

5.2.4 Organic rice mills

5.2.4.1 Lerngnoktar and Thaichareon Organic Agriculture Cooperative Rice Mill

Lerngnoktar and Thaichareon Organic Agriculture Cooperative Rice Mill or LTOACRM In 2008, there are 100 mill shareholders. The contract between LTOACRM and Green net was made. Brown organic jasmine rice and white organic jasmine rice are processed for selling to Green net every year. There are three types of package such as two kilograms, five kilograms, and 50 kilograms. The product is sold in Fair Trade Brand. The selling price is set up by LTOACRM together with Green net. 23 baht per kilogram of Brown organic jasmine rice and 25 baht per kilogram of white organic rice were selling price in 2008. The product of LTOACRM is sold to domestic market only 1-3 percent and 97-99 percent is sold to international market by operating of Green net. The product of LTOACRM has got the ACT and IFOAM certification. Averagely LTOACRM could sell approximately 150-200 tons of organic jasmine rice to Green net. Another product of LTOACRM is rice oil and husk.

5.2.4.2 Natural Care Rice Mill

The Kudchum Jasmine paddy is milled in the Nature Care Rice Mill. 57.72% of the mill is owned by local rice farmers who purchased shares (mill shareholders), the rest is owned by Bangkok consumers. The mill is operated fully by farmers. It employs seven people and is managed by an executive committee that meets every two months and a workers' committee that meets twice per month. NCRM has two silos and one rice mill. One silo is located at Kudhin village, Tumbol Na Soe, Kudchum District, Yasothorn. The Kudhin silo is a contracted silo owned by Nongyoa Natural Agriculture Group (Kudhin). The group purchases paddy from producers in Kudhin, and stores it in the silo before selling to NCRM. The main silo of NCRM is located at the main rice mill at Sokkhumpoon village, Tambol Nasoe. This silo stores all paddy purchased from members. The mill operates by NCRM which locates in Sokkhumpoon village, Tambol Nasoe. The mill mainly processes organic jasmine rice.

In 2008, there are 220 mill shareholders. The contract between NCRM and Green net was made. Brow organic jasmine rice and white organic jasmine are produced for selling to Green net every year. There are two types of package such as two kilograms and five kilograms. The product is sold in RuangTong Brand. The selling price is set up from NCRM together with Green net. In 2008, the selling price of Brown organic jasmine rice and white organic jasmine rice per kilogram was 23 baht and 25 baht respectively. The product of NCRM is sold to domestic market only 3-5 percent and 95-97 percent is sold to international market by operating of Green net. The product of NCRM has got the ACT and IFOAM certification. Averagely NCRM could sell approximately 800-1000 tons of organic jasmine rice to Green net.

5.2.4.3 Bakruea Farmer Rice Mill

Bakruea Farmer Rice Mill (BFRM) is a cooperative of Bakruea farmers which established its own rice mill in 1994. The BFRM purchases organic jasmine paddy from members, mills and sells Jasmine rice both for bulk wholesale and retail packing. Some of the enthusiastic members also set up the ‘‘Sawan Banna Group’’ to cooperate in producing organic inputs, e.g. compost, green fertilizer etc. for the members in the group. The organic producers of BFRM started applying for organic certification in 1999. BFRM has two silos and one rice mill. The main silo is located at the rice mill at Donphing village, Tambol Bakruea, Mahachanachai District, Yasothorn province. The main silo stores all paddies purchased from members while another silo, a small one, located in the same village, is only supposed to store organic rice. In 2008, there are 400 mill shareholders. The contract between BFRM and Green net was made. Brown organic jasmine rice and white organic jasmine are produced for selling to Green net every year. Normally, there are three types of package such as two kilograms, five kilograms, and 50 kilograms. Sometimes it also determine by the order. The product is sold under Tungnatong Brand. The selling price is set up by BFRM together with Green net. In 2008, the selling price of Brown organic jasmine rice and white organic jasmine rice per kilogram was 23 baht and 25 baht respectively. The product of BFRM is sold to domestic market only five percent and 95 percent is sold to international market by operating of Green net. The product of BFRM has got the ACT and IFOAM certification. Averagely BFRM could sell approximately 2,000 tons of organic jasmine rice to Green net.

5.2.4.4 Prasart Agricultural Cooperative Ltd.,

Prasart Agricultural Cooperative Ltd., is located in Prasart district, Surin province. The cooperative was established in October 1974. It is formed a combination of three cooperatives; Prasat cooperative one, Prasat cooperative two, and Prasat irrigated land cooperative. In 2008, there are totally 5083 members in the cooperative. There are various types of group in the cooperative for instance rice production group, fish production group, and fruit production group. There are two groups of rice producer within the cooperative. The first one is normal rice production group, this group has been growing rice more than 20 years ago and another is organic rice production group. The cooperative has its own a normal rice mill and an organic rice mill. The capacity of the organic rice mill is 40 tones per day. The cooperative will buy organic paddy for its members only. The product and processing of the cooperative's mill is certified by Organic Agriculture Certification Thailand and Organic Crop Institute of Thailand. There are two kinds of product; white organic jasmine rice and brown organic jasmine rice. Mostly the organic rice is packed according to the customer's order. The cooperative also has its own standard of package; there are two types of vacuum package, two kilogram and five kilogram. In 2008, the cooperative sold 500 tons of organic jasmine rice to somes private companies partly to Plai Organic Farm Co.,Ltd . Last year, the price for both products is 35 baht per kilogram.

5.2.4.5 Cooperative of Bua Kok organic Hom Mali rice producer

Cooperative of Bua Kok organic Hom Mali rice' producer is located in Bua Kok Village, Tambon Bua Kok, Tha-Tum District , Surin Province. The cooperative was established in 2001 by a group of organic rice. The cooperative could produce and sell two tones of milled organic rice a month in 2008. There are two types of product the first is organic jasmine paddy, second is milled organic jasmine rice. The first one has only one package that is five kilogram per sack the retail price is 110 baht per sack and the wholesale price is 100 baht per sack. The second one has two kinds of package those are two kilograms price is 56 baht, and five kilogram price is 140 baht. The products are certified by the Organic Agriculture Certification Thailand. The cooperative sells the product to domestic channel mainly at Surin Green Market.

5.2.4.6 Srisa Asoke Rice Mill

There is an organic fertilizer shop within Srisa Asoke Rice Mill. Normally Santi Asoke will transfer five millions baht in advance to Srisa Asoke in order to buy organic paddy. Around 19 tons of organic paddies are bought from Srisa Asoke Group in every year. Another organic paddy is bought from farmers who buy the organic fertilizer from the Srisa Asoke organic fertilizer shop. Then the organic paddy will be stored in the mill. The organic paddy will be milled according to order of local shop and Santi Asoke. The mill produces 30-40 tons of organic rice per month to Santi Asoke and 200 kilograms per month for local shop. The organic rice will be packed 30-40 kilograms per sack, and then the organic rice will be transported to Santi Asoke after that the organic rice will be re-packed at Santi Asoke. Normally, the Srisa Asoke Rice Mill buys the organic paddy higher than normal market about 0.50-1.00 baht per kilogram. In 2008, the Srisa Asoke Rice Mill sold the organic brown jasmine rice and white organic jasmine rice to Santri Asoke at 23 baht per kilogram and 18 baht per kilogram for organic sticky rice.

5.2.4.7 Rice Fund Surin Organic Agriculture Cooperative

Rice Fund Surin Organic Agriculture Cooperative was established in 1995 to be responsible for market service for member. The Rice Fund currently markets the rice locally and for export. The current beneficiaries are around 353 families. The Rice Fund is responsible for purchasing paddy from Surin Natural Agriculture Group and running the rice mill. In 2000, the Rice Fund has built up its own rice mill located at Kokmaka village (so-called Rice Fund Surin Organic Agriculture Cooperative Mill). There is a vacuum packing unit at the office of the Rice Fund. This packing unit is the final processing unit to which the rice from all groups is delivered to be packed for the Green Net Project. Rice Fund also handled the vacuum packing process for all export rice of Green Net. The packing unit is located at the office of the Rice Fund, Tambol Kaeyai, Muang District, Surin.

There are three types of product such as Red organic jasmine rice (brown organic rice and white organic rice), organic Jasmine rice 105 (brown organic rice and white organic rice), and traditional organic rice (brown organic rice and white organic rice). The Rice Fund has three types of package such as A half kilogram, one kilogram, two kilograms, and five kilograms. The order can be done by sending an e-mail and telephone. The product has ACT, FLO, and BCS certification. Averagely the Rice Fund sells approximately 300 tons a year. Around 60 percent is sold to international market for example USA, France, and Singapore. The rest is sold to domestic customer for example Hou Ham Surin Shop, local shop, and Surin Green market. In term of price, the Rice Fund buys organic paddy from Surin Natural Agriculture Group at appropriate price. It means that the buying price is considered from market price, trend of market, and cost price of the farmer. For the selling price, the price of organic rice is higher than normal rice about 20-30 percent. In 2008, the selling price of brown organic rice for Red jasmine rice and Jasmine rice 105 varieties was 33 baht per kilogram. The selling price of white organic rice for Red jasmine rice and Jasmine rice 105 varieties was 35 baht per kilogram. And the price of organic traditional rice was 26 baht per kilogram for brown organic traditional rice and 28 baht per kilogram for white organic traditional rice.

There is one local shop of Rice Fund Surin Organic Agriculture Cooperative. This local shop sells all product of the Rice Fund and other organic products for example soup, shampoo and so on. The selling price of the organic rice is the same as sell to others.

5.2.4.8 Progressive Farmers Association of Ubon Ratchathani

The Progressive Farmers Association of Ubon Ratchathani (PFA) is a farmer's cooperative self help group. The PFA was founded in 1986. The member of the association is located in Ubonratchathani and Amnatchareon province. The association buys organic rice from its members only. Most its organic rice producers is in Ubonratchathani province. Usually, the association buys the paddy 10 percent higher than normal rice market. The Association then stores the rice at PFB Storage Company. When there is an order, the rice is transported to the Gold Quality mill to mill. After that, the organic rice is transported and ship. There are two kinds of organic rice such as brown organic jasmine rice and white organic jasmine rice. The association produces the organic rice only for exporting. The product is certified by Organic Agriculture Certification

Thailand. The price in 2008 was 35-37 baht per kilogram. In 2008, the association exported 2500 tons of organic rice to the Fair Trade Original in the Netherlands, importer in France and Hong Kong. Normally, the association uses only a Jumbo package which contains one ton of organic rice to transport.

5.2.5 Santri Asoke Packaging House

Santri Asoke Packaging House is a package house locates in Bangkok province. This packaging house usually gives five millions baht to Srisa Asoke rice mill to buy organic paddy, store, mill, and delivery the organic rice to the packaging house. Averagely 30-40 tons of organic rice per month is delivered to the packaging house. Then the organic rice will be re-packed into two kilogram and five kilogram per package. After that, the product will be sold to Asoke Network Shop or Organic Farming Network Thailand shops include Organic Farming Network Thailand shops at Amnatcharoen province, Organic Farming Network Thailand shops at Yashthorn province, Organic Farming Network Thailand shops at Ubonratchathani province and Santri Asoke Shop. Last year, the selling price of Red organic jasmine rice and white organic jasmine rice was 26 baht per kilogram and the selling price of sticky rice was 21 baht per kilogram. The organic rice is sold under Organic Agriculture group of Thailand brand.

5.2.6 Broker

In organic rice chain, the broker is dealing with the group of farmers and the mills. Mostly, the broker will buy the rice directly from the farmers or the mill. The broker actually buys the organic paddy one baht higher than normal rice market. In 2008, the broker bought the organic paddy at 15 baht per kilogram. The organic rice will be stored at broker's storage house and sells to domestic supermarket. Selling price of milled rice is set up with margin added. Last year, the broker sold at 24-26 baht per kilogram of brown organic jasmine rice and 26-28 baht per kilogram of white organic jasmine rice.

5.2.7 Domestic retailer

5.2.7.1 Khao Hom Surin Shop

Khao Hom Surin Shop was established in 1995 by a group of people who are aware of green environment and health benefit. Every year the shop will buy unpack organic rice from Rice Fund Surin Organic Agriculture Cooperative. Then the organic rice will be packed within the shop. At the present, the buying price of brown organic jasmine rice and white organic jasmine rice are 33 Bath and 35 Baht per kilogram respectively. The buying price usually is determined by the Rice Fund Surin Organic Agriculture Cooperative. Averagely, the shop could sell six tones per month, four tones of brown organic jasmine rice and two tones of white organic jasmine rice. In 2008, brown organic jasmine rice was sold at 36 Baht per kilogram and the price of white organic jasmine rice was 38 Baht per kilogram. The organic rice is sold in Khao Hom brand. There are three types of package such as one kilogram, two kilogram, and five kilogram. Normally, the selling price is determined by the acting manager of the shop. Middle class people and officer is main customer of the shop. Some customers buy for being a gift, some customer buy for selling to others. The shop opens from Monday till Saturday and closes on Sunday.

5.2.7.2 Organic Farming Network of Thailand shops or Asoke Shops

Organic Farming Network of Thailand shops or Asoke Network Shops, there are five Asoke Network shops where sell organic rice such as Amnat Asoke Shop, Yasothorn Asoke Shop, Ubon Asoke Shop, Srisa Asoke shop, and Santri Asoke Shop. Srisa Asoke Shop is a local shop of Srisa Asoke farmer group and Srisa Asoke Rice mill. The shop is located in Kantalalak district, Srisakat province. This shop sells many kinds of product not only agricultural product but also household product for example book, clothes, shoes, fan, etc. Three types of organic rice are sold in this shop such Red jasmine rice, white jasmine rice, and sticky rice. There are two types of package such as two kilogram and five kilogram. In 2008, the price of the Red jasmine rice and white jasmine rice was 28-29 baht per kilogram. 24-26 baht per kilogram was the selling price of sticky rice. Statistically, the shop could sell about 200 kilograms per month. Most products are come from Santi Asoke packaging house.

Santri Asoke shop is the biggest shop of Organic Farming Network Thailand where sells many kinds of product from its groups throughout the country. The shop is located in Bangkok province. The shop opens every day. The price of the Santri Asoke's product is normally lower than other shops. The organic rice is also sold here, the price per kilogram of Red organic jasmine rice, White organic jasmine rice, and organic sticky rice are 28 baht, 28 baht, and 26 baht respectively. The organic rice is sold under Organic Farming Network Thailand brand.

5.2.7.3 Plai Organic Farm Co.,Ltd

Plai Organic Farm Co.,Ltd is located in Mueang district, Surin province. The company not only sells organic rice but also organic fertilizer, organic rice seed, and Agricultural equipment. Usually, the company buys the organic rice from the Prasart Agricultural Cooperative Ltd., the buying price of the organic rice is 30-33 baht per kilogram. The company sells two types of organic jasmine rice those are brown organic jasmine rice and white organic jasmine rice. There are two kinds of package such as two kilogram per bag and five kilogram per bag and the price of the brown organic jasmine rice per kilogram is approximately 40 baht. And the price of the white organic jasmine rice per kilogram is 38 baht. The company sells the product to domestic consumer. The customer of the company mostly is officer and middle class people.

5.2.8 Domestic supermarkets

Organic rice is sold in TOPS, Villa, Carrefour, Top, Emporium, and Siam. There are two types of product which sell in those supermarkets such as brown organic jasmine rice and white organic jasmine rice. The price of the first one is usually five baht per kilogram higher than the second one. In 2008, the price of brown organic jasmine rice was between 45-50 baht per kilogram and white organic jasmine rice was 40-45 baht per kilogram.

5.2.9 Domestic consumer

Main domestic consumers are officer and middle class people who are aware of eating healthy food. The consumer can buy organic rice directly from Yasothorn mills. The organic rice is sold in local shop such as Local shop of Rice Fund Surin Organic Agriculture Cooperative, Amnat Asoke Shop, Yasothorn Asok Shop, Ubon Asoke Shop, Srisa Asoke shop, Santri Asoke Shop and Khan Hom shop. Surin Green Market is an alternative market of organic product. There are many kinds of organic product sell on every Saturday morning at the market.

5.2.10 Exporter

5.2.10.1 Green net

Green net established in October 1993, Green Net is a Thai NGO and IFAT member working to promote sustainable agriculture through providing a Fair Trade market access to producer groups, and promoting organic food among Thai consumers. It has one of the few export licenses for rice in Thailand and has now become a large food product exporter to the European Fair Trade Association (EFTA). Green Net also is a member of the World Fair Trade Organization (WFTO).

Green Net Cooperative is one of the largest organic producers and wholesaler in Thailand. At present, there are over 20 product assortments (e.g. organic vegetables, fruits, rice, teas, cotton etc.) sold through approximately 40 retail outlets in Bangkok and around the country. Beside domestic market, Green Net Cooperative operates fair-trade exports to Europe. The Cooperative is currently purchased from eight farmer groups in the Northern, Northeastern and Central regions of Thailand which three organic rice producer groups are in Yasothorn province. Green Net is trading about 2,000 tons a year of organic rice, supplied by cooperatives mainly in Yasothorn, and partly in Chiang Mai, Uttaradit, Loei, Khon Khen and Chachoengsao provinces. The Green net exports only organic jasmine rice. The packages of the product mostly are one kilogram, two kilograms, five kilograms, and 50 kilograms' sometimes it also depends on the order. Averagely the price of the product is 70-80 baht per kilogram or 40,000-45,000 baht/ton excluding package cost. Green Net exports Fair Trade rice to most of the members of the European Fair Trade by Claro importer. All products are organically produced, the rice is certified Fairtrade according to FLO's standards.

5.2.11 Importer

5.2.11.1 Claro Switzerland

Claro Switzerland is the official importer for Fair Trade rice and all Fair Trade organizations in Europe place their orders for Thai rice via Claro to Green Net. Rice is exported through Fair Trade networks in many European countries. The current importer of Fair Trade rice is Claro (Switzerland). The Claro will distribute the product to Solidar Monde (France), Oxfam Wereldwinkels (OWW) (Belgium), Oxfam -UK, Gepa (Germany), CTM (Italy), Eza (Austria) and El Puente (Germany).

The range of goods covers more than 2000 products. The main products are coffee, tea, honey, juices, rice, chocolate and handcrafted products. In Switzerland Claro products are available in 140 Claro shops. Claro fair trade also supplies products to over 500 shops around the world, whole food shops, health food shops, district shops and partner organizations in Europe and the whole world.

Claro fair trade is a member of the European Fair Trade Association (EFTA) and the World Fair Trade Organisation (WFTO, former IFAT). These support the issues of the south with targeted lobbying the EFTA in the European parliament, among others, whereas WFTO primarily addresses matters relating to the producers.

There are three types of product such as White organic Jasmine rice, Brown organic Jasmine rice and Red organic Jasmine rice. There are five types of packaging such as 500 gram, one kilogram, five kilogram, 25 kilograms a bulk, 50 kilograms a bulk. Packaging/Labeling: vacuum sealed and in carton box for 500 gram and one kilogram (private labels possible), vacuum sealed bag with customized sticker for five kilogram. Certification of the white, brown and red organic Jasmine rice is fair trade by FLO (Fair Trade Labeling Organizations and Organic by ACT (Organic Agriculture Certification Thailand).

5.2.11.2 Alter Eco

Alter Eco is located in USA. Alter Eco is fully dedicated to the importation and distribution of fair trade and organic food products. Alter Eco works directly with 25 cooperatives of small farmers in 19 countries and is now offering fair trade certified rice, sugar, coffee, tea, chocolates, hearts of palm, spices, quinoa and olive oil. There are four unique types of organic rice such as

1. Alter Eco Coral Jasmine Rice or red organic jasmine grain
2. Alter Eco Purple Jasmine
3. Alter Eco Ruby Red Jasmine Rice
4. Alter Eco Thai White Jasmine Rice

The price of all four types is the same that is the price per 1 lb. Box or 450 gram is $4.99 and the price for 8 packs (8 x 1 lb. Box) is $35.92.

5.2.11.3 Fair trade original

Fair Trade Original is one of the initiators of the Max Havelaar Seal of Approval. Fair Trade Original contributes to the development of the socially responsible movement. Fair trade original has participating in the European Fair Trade Association or EFTA and the International Federation for Alternative Trade or IFAT. The office of Fair Trade Original is located in Culemborg, the Netherlands.

Fair Trade Original buys organic rice from Progressive Farmer Association of UbonRatchathani. The organic rice will be repacked into 400 grams per package, the price is 1.59 euro. The product is sold to supermarket for example C 1000 supermarket.

5.2.12 International retailer

5.2.12.1 C1000

There are brown organic jasmine and white organic jasmine sell in C1000 Supermarket. Both brown organic jasmine rice and white organic jasmine rice is packed in 400 grams per box. The price of both products is 1.89 per box or 4.75 euro per kilogram approximately 235 baht. The product is sold under Fair Trade Original brand.

5.3 Figures on the incremental values at each level of the value chain

Figures on the incremental values of Yasothorn organic rice chain (domestic chain)

Value chain players	Yasothorn											
	Lerngnoktar and Thaicharoen group				Kudchum group				Bakruea Farmer Group			
	Cash (baht/kg)		Percentage		Cash (baht/kg)		Percentage		Cash (baht/kg)		Percentage	
	Brown Organic rice	White organic rice	Brown Organic rice	White organic rice	Brown Organic rice	White organic rice	Brown Organic rice	White organic rice	Brown Organic rice	White organic rice	Brown Organic rice	White organic rice
Farmer	16	16	40	45.72	16.30	16.30	40.75	46.58	16	16	40	45.72
Broker	8	10	20	28.57	7.7	9.7	19.25	27.71	8	10	20	28.57
Supermarket	16	9	40	25.71	16	9	40	25.71	16	9	40	25.71
consumer	40	35	100	100	40	35	100	100	40	35	100	100

Figures on the incremental values of Yasothorn organic rice chain (international chain)

Value chain players	Yasothorn											
	Lerngnoktar and Thaicharoen group				Kudchum group				Bakruea Farmer Group			
	Cash (baht/kg)		Percentage		Cash (baht/kg)		Percentage		Cash (baht/kg)		Percentage	
	Brown Organic rice	White organic rice	Brown Organic rice	White organic rice	Brown Organic rice	White organic rice	Brown Organic rice	White organic rice	Brown Organic rice	White organic rice	Brown Organic rice	White organic rice
Farmer	16	16	4.58	4.58	16.30	16.30	4.58	4.58	16	16	4.58	4.58
Miller	23	25	6.57	7.14	23	25	6.57	7.14	23	25	6.57	7.14
Green net	41	39	11.71	11.14	41	39	11.71	11.14	41	39	11.71	11.14
Claro	270*	270*	77.14	77.14	270*	270*	77.14	77.14	270*	270*	77.14	77.14
Consumer	350*	350*	100	100	350*	350*	100	100	350*	350*	100	100

*270&350 is from estimation

Figures on the incremental values of Ubonratchathani organic rice chain

Value chain players	Ubonratchathani			
	Cash (baht/kg)		Percentage	
	Brown organic rice	White organic rice	Brown organic rice	White organic rice
Farmer gate price (1 kg paddy)	16	16	6.82	6.82
Progressive Farmers Association of UbonRatchathani	17	19	7.23	8.08
Fair Trade Original	167	165	71.06	70.21
C1000 Supermarket	35	35	14.89	14.89
Consumer	235	235	100	100

Figures on the incremental values of Srisaket organic rice chain

Value chain players	Srisaket					
	Cash (baht/kg)			Percentage		
	Brown organic jasmine rice	White organic jasmine rice	Organic Sticky rice	Brown organic jasmine rice	White organic jasmine rice	Organic Sticky rice
Farmer gate price (1 kg paddy)	14.50	14.50	12	51.79	51.79	52.17
Miller	8.50	8.50	6	30.36	30.36	26.09
Santri Asoke packaging house	3	3	3	10.71	10.71	13.04
Asoke Network Shop	2	2	2	7.14	7.14	8.70
Consumer	28	28	23	100	100	100

* Red organic jasmine variety and organic jasmine variety is sold at the same price

Figures on the incremental values of Surin organic rice chain (domestic chain)

Value chain players	Surin											
	Natural Agriculture Group				Prasart Producer Group				Bua Kok Producer Group			
	Cash (baht/kg)		Percentage		Cash (baht/kg)		Percentage		Cash (baht/kg)		Percentage	
	Brown Organic rice	White organic rice	Brown Organic rice	White organic rice	Brown Organic rice	White organic rice	Brown Organic rice	White organic rice	Organic rice	organic paddy	Brown Organic rice	organic paddy
Farmer	18	18	50	47.36	18	18	45	47.36	17	17	60.71	85
Miller	15	17	41.67	44.74	17	17	42.5	44.74	11	3	39.29	15
Plai Company					5	3	12.5	7.9				
Retailer (Kao Hon shop)	3	3	8.3	7.90								
consumer	36	38	100	100	40	38	100	100	28	20	100	100

* Red organic jasmine variety and organic jasmine variety is sold at the same price and traditional organic rice of Natural Agriculture Group is sold to international market only.

Figures on the incremental values of Surin organic rice chain (international chain)

Value chain players	Surin											
	Natural Agriculture Group											
	Cash (baht/kg)						Percentage					
	Red organic jasmine rice		Organic jasmine rice		Traditional organic rice		Red organic jasmine rice		Organic jasmine rice		Traditional organic rice	
	Brown	White	Brown	White	Brown	White	Brown	White	Brown	White	Brown	White
Farmer	18	18	18	18	13	13	5.11	5.11	5.11	5.11	3.70	3.70
Rice Fund	15	17	15	17	13	15	4.26	4.84	4.26	4.84	3.70	4.26
Alter Eco	319	317	319	317	326	324	90.63	90.05	90.63	90.05	92.60	92.04
Consumer	352	352	352	352	352	352	100	100	100	100	100	100

* There is only one international chain

5.4 Supportive player

5.4.1 The Surin Farmer Support (SFS)

SFS is a local NGO established in 1985. SFS is a non-governmental organization (NGO) that works to support sustainable agriculture and community development in Surin Province, in the northeast region of Thailand. SFS works with about 400 small-scale rice farmers (10 to 30 rais) to develop an alternative agricultural system that promotes sustainable livelihoods, community food security and environmental conservation. SFS farmers' groups train farmers in organic methods and help maintain organic standards. The majority of SFS farmers are also members of Rice Fund Surin, a Fair Trade certified rice cooperative that sells rice domestically in Surin at the Raan Kao Hom (Jasmine Rice Store) and exports to markets in the U.S., Europe, and Asia. One of SFS' biggest initiatives is the Surin Green Market, in which farmers sell directly to consumers every Saturday in Surin City. SFS also works closely with Thailand's Alternative Agriculture Network (AAN), which coordinates campaigns on agriculture and trade policy reform. The Surin Farmer Support (SFS) collaborating with the Natural Agriculture Group had been promoting sustainable agriculture through integrated and natural farming for quite sometimes without involving the market access.

5.4.2 Alternative Agriculture Network Isaan (AAN)

Alternative Agriculture Network is an organization established by a combination of non-governmental organizations (NGOs) working in the agricultural development of an alternative agriculture as an alternative for farmers to get debt arising from farming to make a green revolution in the last 30-50 years. Alternative Agriculture Network is a group of people to stand up and announce that people know and understand the principles that do not rely on agricultural chemical use and factors of production that imported from foreign countries and have impact on the environment. Through joint development with local farmers as philosopher villagers during the past 4 years has implemented pilot projects conducted nationwide sustainable agriculture. The budget has been in operation from the government about $ 600 million. The AAN supports SFS farmers through sustainable agriculture education and training.

The AAN has currently supported organic rice farmers in Surin, Srisaket, Yasothorn, and Ubonratchathani province in several terms such as

- Community resources used; moving beyond what is available to an individual farmer and working on a community level to sustainably utilize common resources like local raw material for making organic fertilizer.
- Develop a sustainable agriculture system focuses on organic seed saving and local rice variety production.
- Policies and movement; being a middle man to create a relationship between the farmers' movement and government policies by distributing information about government policy plans, agro-industry and other issues to organic rice farmers.
- Alternative Markets; establishing Green Markets throughout the Isan region.

5.4.3 The Earth Net Foundation

The Earth Net Foundation received registration as non-profit organization on 12 October 2000. The Foundation's main objective is to promote and support initiatives related to production, processing, marketing and consumption of organic food, natural products and ecological handicrafts. ENF has supported PFA in different ways. They supported the rice bank project and the rice farming training project. They also support the set up of a production of organic seeds and a program to enhance the soil which experiments with green manure and effective micro organisms.

5.4.4 Organic Agriculture Certification Thailand

Organic Agriculture Certification Thailand or ACT was granted IFOAM accreditation in 2001 and was the first certification body based in Asia to become IFOAM Accredited. Agriculture Certification of Thailand or ACT was established in 1995 arising out of the Alternative Agriculture Network, a national network of 85 NGOs working on sustainable agriculture. ACT offers its service on a fee-based system. Each has its own organic standards and labeling scheme. ACT offers the IFOAM Accreditation scheme as well as those of the EU, NOP, and JAS. ACT has focused attention on providing certification services to small-holder producers through the grower group certification with the internal control systems which operates fully in line with IFOAM Norms on smallholder certification. ACT runs one certification programme covering crop production, processing, wild products, input manufacturing, aquaculture and smallholder groups.

5.4.5 Agriculture Extension Office of Surin province

There are four main services that the Agriculture Extension Office of Surin province support to farmer

1. Organize a training course about organic rice production cover seed selection, soil management, cultivation method, maintenance systems management.
2. Contribution knowledge about factor of organic rice seeding, organic fertilizer production, pest and disease management, and marketing system.
3. Arrange a workshop about value-added processing and packaging of organic rice.
4. Organize an excursion to other organic rice production groups in order to add more experience to farmers.

5.4.6 Office of Commercial Affairs Surin

Promotion of organic product is done by the office of Commercial Affairs Surin.
A seminar about marketing of organic rice is regularly organized. The content of the seminar covers method of organic rice production, certificated receiving, and marketing of organic jasmine rice. This seminar is a free participated seminar. The office of Commercial Affairs Surin has regularly promoted organic rice of Rice Fund Surin Organic Agriculture Cooperative and organic farmer in Surin by organizing the exhibition of organic product. The exhibition is organized once a year. Besides, when the department of commerce organizes the national exhibition about organic product at Bangkok, the office of Commercial Affairs Surin will inform Rice Fund Surin Organic Agriculture Cooperative in order to bring the product to show at the exhibition.

5.4.7 Land Development office of Surin and Yasothorn province

Trial project about organic rice production by applying organic fertilizer of Land Development Department's formula was established by Land Development office of Surin and Yasothorn province. The project aims to expand organic rice field which applies organic fertilizer in stead of chemical fertilizer. The project also objects to contribute knowledge about organic fertilizer making to farmer. Some drought area, Land Development Office of Surin and Yasothorn is trying to solve this problem by using machine to make a small pond.

5.4.8 Administrative capital of Surin province

In the area around Surin, the administrative capital of Surin province, over 100 farming families have established mixed culture or integrated farming and are engaged in raising fish, small animals (ducks) and buffalos to improve the soil fertility. They also plant various types of trees surrounding the land to increase its fertility. This contributes to soil improvement to organic rice cultivation.

5.4.9 Administrative capital of Yasothorn province

In 2004, the administrative capital of Yasothorn province gave 8,130,000 baht to the Lerngnoktar and Thaicharoen Organic Agriculture Cooperative Rice Mill. This money was from the budget of strategy development of Yasothon province. This money was spent to build the organic rice mill.

5.4.10 Cooperative Promotion Department

The department has supported the budget for the Prasart cooperative 14,100,000 baht. The budget was spent as follows

Organic rice mill values	8,100,000 baht
Sorting machine values	5,800,000 baht
Vacuum packaging machine values	1,200,000 baht

5.4.11 Social Investment Fund

Social Investment Fund or SIF has given 2.5 million baht to the Nature Care Rice Mill in 2001. The money was spent to build up the organic rice mill.

5.4.12 Environment Fund of Science & Environment Department

In 1996 the Bakreau Farmer Rice Mill (BFRM) was supported by the Pilot Project for Community Rice Mill Development, a local NGO funded by the Environment Fund of Science & Environment Department, to promote organic farming among its members.

5.5 Sustainable analysis

5.5.1 Profit

Organic rice producers are obviously benefited from the higher price than the conventional farmers. Generally, the market price for jasmine rice in the northeast of Thailand is approximately 14-15 baht per kilogram and the organic jasmine rice is 16 baht per kilogram. The price of organic jasmine rice for farmers is 1-2 Baht per kilogram higher than the conventional jasmine rice for Yasothorn and Surin chains. Regarding the Asoke chain, the price is 0.5-1 baht higher than the market price. The price in Ubon chain is 10 percent higher than the market price. In each year, the price is determined before the harvesting season by farmer representatives, miller and probably the Green Net officials for Yasthorn chain. The price is based on the production costs, market price and profit for farmers. Therefore, the farmers are guaranteed for the higher price and profit for their effort. Moreover, the production cost for organic farming is lower, especially fertilizer. The chemical fertilizer price in Thailand has increased more than two folds in the past three years from 500 baht per sack to 1200 baht per sack.

5.5.2 People

Organic rice farmers in each chain seem to have better services than the conventional farmers. They are guaranteed for a higher price. They are trained from their cooperatives or networks to grow rice sustainably. Moreover, they have safe food for their consumptions from their own rice and food from the farm. Besides, they are risk free from the pesticide. However, only a small ratio of farmers in the northeast of Thailand is organic farmers. According to the chain presented in the previous sub chapter, there are approximately 4,000 real organic rice farmers in the northeast of Thailand. It is a tiny number incomparable with the 12 millions farmers and 10 millions rice farmers in the whole region.

5.5.3 Planet

Obviously, the organic rice is an environmental friendly product, especially for the soil fertility. The soil quality in the northeast of Thailand is rather poor. It is sandy soil with low organic matter, nutrient and water-holding capacity. This results in the low productivity. The only method to improve soil quality in the region is to apply organic fertilizer to increase organic matter in the soil to increase water holding capacity. On the other hand, after the green revolution most farmers in northeast of Thailand has relied a modern technology including chemical fertilizer and pesticide. These have worsened the soil quality in the region. The soil becomes lifeless, acid and hard resulting in a serious low productivity. After the farmers have changed into organic farming, most of them can see the obvious difference. The soil is lifeful, neutral and loose again. The productivity is quite the same as the using chemical fertilizer but lower cost. The byproduct of organic farming is safe food from the farm. Local fish and vegetable in the paddy are safe to consume again after being organic. They are another food source for the farmers and guarantee for the food security.

6. Service needs of organic rice farmers in Upper Northeast of Thailand

6.1 Characteristics of the farmers

Number	Gender	Age	Land	Yield	Marketing channel	Need and service
1.	Man	56	2	1200	-	- Water resource - Cattle - Organic fertilizer factory
2.	Man	71	21	7,500	- Miller	- Water resource - Cattle - Organic fertilizer factory
3.	Man	50	8	4,500	- Miller	- Water resource - Channeled apple snail - Organic fertilizer factory
4.	Woman	45	11	8,000	- Cooperative	- Organic fertilizer factory - Milling machine
5.	Woman	57	7	4,500	- Miller	- Organic fertilizer factory
6.	Man	66	7	3,900	-	- Water resource
7.	Woman	57	6	3,000	-	- Water resource - Budget for local project
8.	Man	40	6	1,500	-	- Organic fertilizer - Water resource
9.	Man	65	3	1,500	-	- Water resource - Cherry snail control
10.	Man	76	4	1,200	-	- organic fertilizer factory
11.	Woman	51	13	3,000	-	- Organic fertilizer factory - Training - Budget for local project
12.	Man	56	6	3,000	-	- Water resource - Organic fertilizer

						factory
13.	woman	55	1	800	-	- Cattle - Training
14.	man	46	2	1,200	-	- Training and excursion
15.	Woman	41	20	8,000	- Rice seed center	- Cherry snail control - Sufficiency economy Training

Number	Gender	Age	Land	Yield	Marketing channel	Need and service
1.	Man	44	6	3,600	- Middle man	- Water resource - Cherry snail control
2.	Man	46	10	5,400	-	- Water resource
3.	Woman	44	17	6,000	- Cooperative	- Flood control
4.	Woman	52	18	8,000	- Cooperative	- Water resource
5.	Woman	50	10	4,000	- Rice seed center	- Cherry snail control - Water resource - Training

The region of upper northeast of Thailand consists of 7 provinces , Loei, Udon Thani, Nongbualamphoo, Nongkai, Nakhon Panom, Mukdaharn and Sakonnakorn. But, the interviews were carried out only in Sakonnakorn provinces because there are no Sorkorpor members who are organic rice farmers in other provinces. 15 Sorkorpor members and 5 non-Sorkorpor members were selected to interview. The number of the interviewees is rather low because it is really hard to find organic farmers in the region and it is even harder to find real organic farmers. They claim themselves as organic farmers but they are still not certified because organic agricultural trend has just started in the region for a few years. Chemical fertilizer and pesticides are used extensively by most farmers.

1. Gender

From 20 interviewees, there are 11 male interviewees and 9 female interviewees. The number of both genders is quite equal in the research population. In northeast of Thailand, both men and women have contributed the same amount of labor force in the farm. However, men are still the decision makers in most families

2. Age

The ages of interviewees range from 41 to 76 years old. They are mostly 40 to 50 years old. The average age is 53 years old.

3. Yield
The average yield of rice in the upper northeast of Thailand is relatively low because of poor soil and lack of irrigation system. The average yield is approximately 2,200 kilogram per hectare for sticky rice and a bit lower for jasmine rice. Besides, rice can be cultivated only once a year.

4. Amount of land ownership
The average land ownership of farmers in the upper northeast of Thailand is between 2-3 hectares per household. In addition to the low amount of land, poor soil and lack of irrigation system lead to a low production.

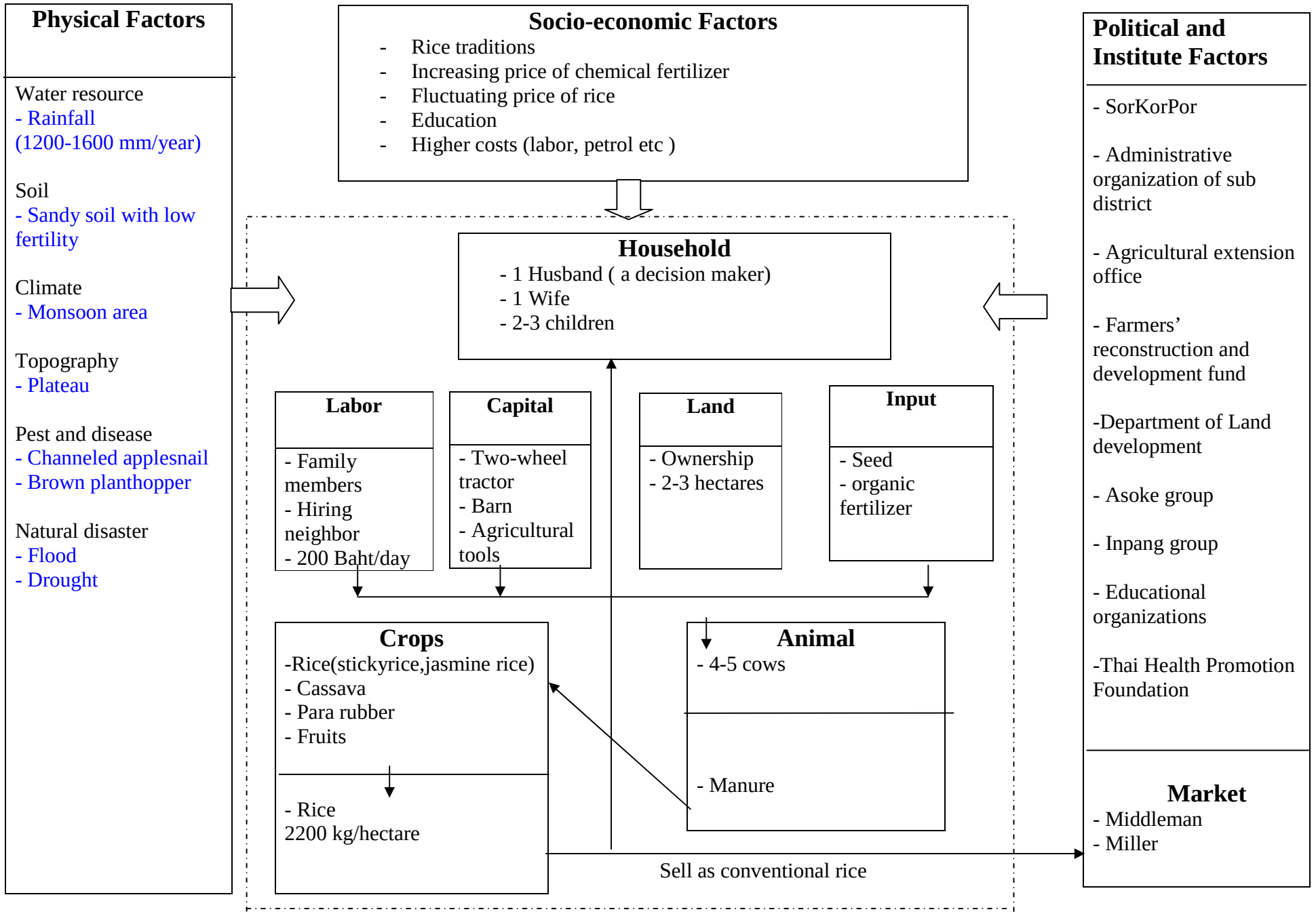
5. Type of production
Although rice farmers have low yield and income, they still grow rice for the household consumption. Some farmers have shifted for other cash crops but still keep small piece of land for growing rice. This is for food security.

6. Variety of rice
Most farmers grow sticky rice for their household consumption and the surplus is sold to the market. However, the only marketable organic rice is jasmine rice because it can be sold the middle class and exported. Some farmers with low amount of land cannot shift from sticky rice to commercial jasmine rice because sticky rice is the stable food in the Northeast of Thailand.

6.2 Farming system diagram

The diagram below is the typical farming system diagram of rice farmers in the northeast of Thailand. It is based on the data from the interviews. Although it cannot represent all farmers, it can give the picture of most organic rice farmers in the region. It is a typical subsistent farm in the northeast. Rice is grown for household consumption but the main income is from other cash crop like rubber tree and cassava. It also illustrates the relationship and interaction between the farm and its environment. There are three categories of factors affecting the farms consisting of physical, socio-economic and political factors.

6.2 Farming system diagram



6.3 Overview need of SKP organic rice farmers in Upper Northeast of Thailand

6.3.1 Need and service category

1. Water resource
The northeast of Thailand is well known for its unfavorable climate and drought. Therefore, it is not surprising that water resource is the first need of farmers in both upper and middle parts of the region. They require to have some kinds of water resource in their farms consisting of a small-scale pond, a well with electric pump and a large irrigation project. However, the most possible water resource for the farmers is a small pond in the farm because the well with electric pump and a large irrigation project are too costly and sometimes technically impossible. Some farmers would like to have a pond to store some water from the heavy rain at the beginning of rainy season and use it later when there is a rainfall shortage at the middle of the season.

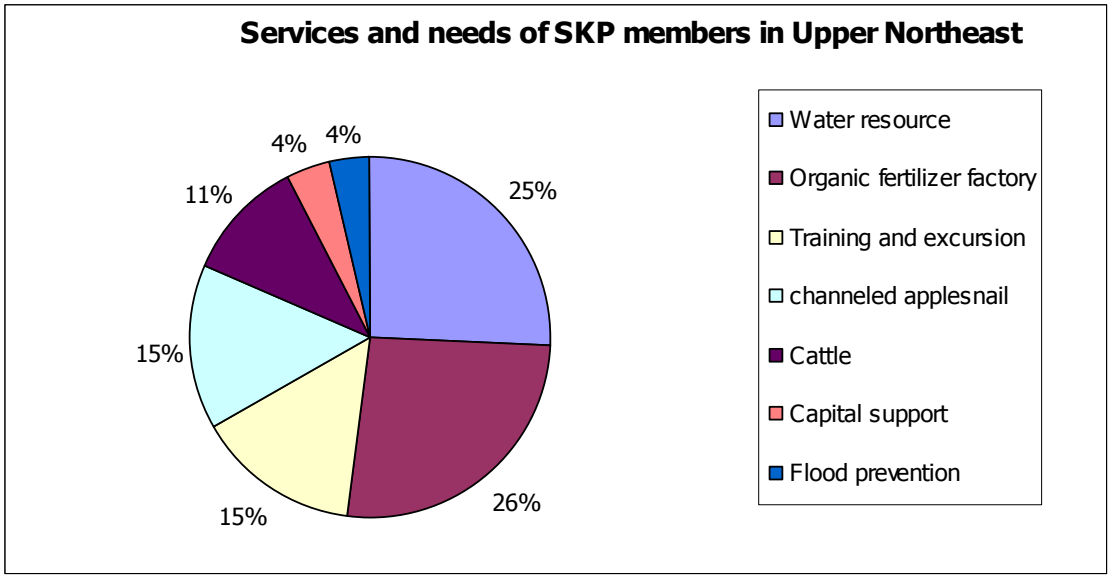
3. Organic fertilizer factory
Organic fertilizer is gaining popularity in Thailand because the price is lower than the chemical fertilizer price approximately 3 folds. However, it costs farmer around 300 baht per sack but it is cheaper if the farmers can produce it themselves by using the local materials. Many farmers, especially Sorkorpor members in the upper northeast desire to have a local organic fertilizer factory as it is called in Thailand. The factory consists of a small building, small open ground and some equipment. There are many examples in Thailand. Farmers can transform their home-grown manure into convenient ballet fertilizer.

4. Training and excursion
Sorkorpor has arranged some training and excursion for its members. Some of them like it very much because it expands their knowledge and altitude. Therefore, they would like Sorkorpor to arrange the training in various topics and excursion to interesting places to learn something for the interested members. The required topic for training is sufficiency economy.

5. Channeled apple snail
Channeled apple snail or shortly called apple snail is an alien specie in Thailand originating from South America. Its scientific name is *Pomacea canaliculata*. It is quite a problem for the farmers in the northeast of Thailand because the apple snail is extremely destructive. They can damage a large paddy field in a few hours. Besides, they can spread in a large area in Thailand and Asia. Both members and non-member of Sorkorpor desire to control this snail. Usually, the farmers control apple snails by picking them from the field to make fertilizer or use it as animal feed. It is very time consuming activity and not so effective. Therefore, they want to know how to control it organically or use it differently.

6. Cattle
Cattle are the need required by some farmers in upper northeast. Generally, farmers in the northeast of Thailand raise cattle as their supplement income. They often have 4-6 cattle. Besides, the manure can be sold or used for improving soil quality. Therefore, some farmers want to raise the cattle and use the manure to fertilize their farm.

6.3.2 Needs and services of SKP members in upper Northeast



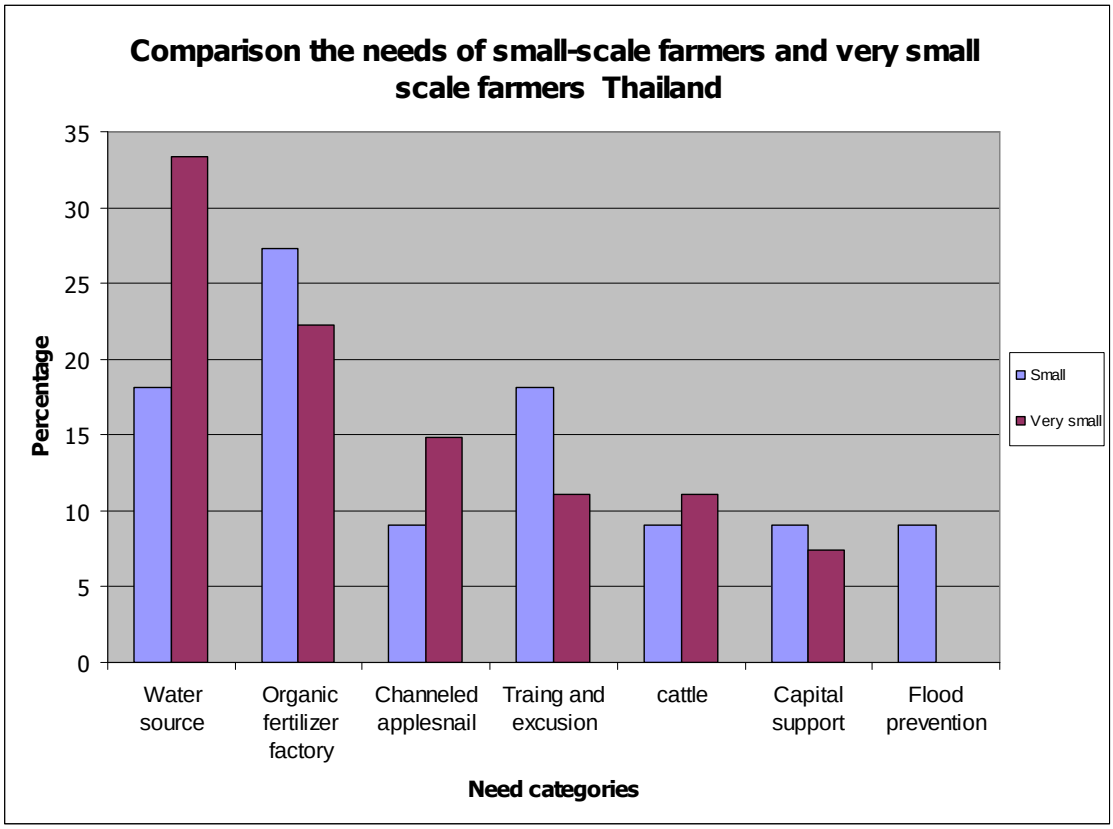
The graph shows the needs of SorKorPor farmers in upper northeast. There are clearly four main services and needs required by the SorKorPor members. There are water resource, organic fertilizer factory, training and channeled apple snail control. The needs are quite similar to SorKorPor members in middle northeast, except the marketing aspect because they mostly grow sticky rice for the household consumption. Therefore, they do not think much of the market. Moreover, channeled apple snail is quite a problem in this region. Farmers really want to know how to deal with it in a sustainable approach. Water resource is always the priority of farmer's need in the region. Moreover, there is a strong need to have the shared organic fertilizer factory from the farmers because they still have to buy organic fertilizer from the agricultural shops and middlemen. If they can produce organic fertilizer themselves, they can reduce their production cost and utilize the local materials.

6.3.4 Needs and services of non SKP members in Upper Northeast

Although there are only 5 non-Sorkorpor members interviewed in the field research, they can give the idea of non-members' need because they are the leaders of their groups. They can represent the needs for the rest of their groups. They Inpang group, Asoke group and parboiled rice group. Their needs are quite similar to Sorkorpor members because they are in the same region. Water resource seems inevitable problem for most farmers in the region. It is required by most of them as well as Sorkorpor members. It is followed by the problem of apple snail or well known by cherry snail in Thailand.

Besides, they are also not interested in marketing aspect because they either are satisfied with their situation or see no possibility to find the market.

6.3.4 Comparison needs of SKP very small farmers and SKP small farmers



The bar chart shows the comparison of the needs of SKP very small scale organic rice farmers and small scale organic rice farmers in upper northeast of Thailand. The very small-scale farmers own less than 10 rai or 1.6 hectares. The small scale farmers own more than 10 rai of land. There are only small scale farmers and very small scale farmers in our filed research. As it is presented in the table previously, most Sorkorpor members are very small scale farmers because the land has been divided after some generations. They grow sticky rice for household consumption and hardly have the surplus for the market.

7. Stakeholders and potential service providers the needs for organic rice farmers

7.1 Private Service providers

7.1.1 Asoke community network

Asoke community network or Organic Farming Network of Thailand, a Buddhist section, has long been promoting ‘non-toxic’ farming, a system that does not use chemical fertilizers and pesticides. They have a strong influence on organic production, especially at the extension level. For professionals in good faith does not encroach on other people, including animal life and natural environment. The experimental study began with a natural agricultural practice for approximately 20 years and a fraction expertise. The group can transfer knowledge to farmers on organic agriculture and rural development groups that are interested to see the job training. Publishing knowledge and experience in organic agricultural such as radio, print journals, and conduct VCD are published.

This is a possible service provider to support knowledge and technology transferring to SorKorPor organic rice farmers in middle North East. Mentioned to Asoke network in organic rice chain play, this network has knowledge and technology related to organic rice adequately. This network opens for every one to learn, they are willing to tell everybody. Therefore, Organic rice knowledge and technology might be transferred and trained by this network.

7.1.2 Inpang community network

The Inpang Community Network began in the mid 1980s with local farmers in Northeast Thailand embracing the tenants of the "Sufficiency Economy". As such, Inpang families have transformed a number of fields to diverse agro-forestry systems. The Inpang Community Network includes more than 4000 households in five provinces in Northeast Thailand. The Network is based on a cluster of villages on Phu Phan mountain range and is currently led by Mr. Serm Udom-na. The organization has village members in Sakorn Nakorn, Kalasin, Udon Thani, Mukdaharn and Nakorn Panom. The group’s projects are characterized by sustainable community development, self-reliance and the use of indigenous knowledge.The major project enables farmers and their families to transform part or all of their farms from single-product cash crops to multi-product agro-forestry systems. In addition to transforming their farming systems, the group produces high-quality natural-based goods, e.g., bio fertilizer, wine, local fruit juice and herbal products. They have established the Inpang Community Learning Center to provide ongoing life-education for local people.

Inpang Community Learning Center might be a possible service to provide information, knowledge, and technology about bio fertilizer making and crop rotation to SorKorPor organic rice farmers in middle North East.

7.1.3 Earth Net Foundation

The Earth Net Foundation received registration as non-profit organization on 12 October 2000. The Foundation's main objective is to promote and support initiatives related to production, processing, marketing and consumption of organic food, natural products and ecological handicrafts. Among the staff there are one person for rice quality testing and two persons for farmer field school training. ENF expanded collaborating producer organizations from 14 to 16 groups, of which 7 deal with rice.

Earth Net also runs the Internal Control System for the Organic Project. For every 50 farmers there is one staff member to support and train them. Developing rice-based (processed) products would help to further reinforce the organic rice projects by utilizing rice by-products in a more efficient manner.

Earth Net Foundation works together with its sister organization Green Net Cooperative to help develop organic agriculture and fair trade market access for small-scale farmers in Thailand. ENF also works to develop capacity in north eastern area for other farmers' organizations and NGOs in the region and to promote and build awareness of organic agriculture and fair trade amongst consumers and the general public.

Internal control system of organic rice might be supported from the ENF. This might be training staff, knowledge and technology transferring. Moreover, this foundation might be an alternative one for finding the market for SorKorPor members.

7.2 Public service providers

7.2.1 Department of Land Development

As the water resource is the main problem for most members and non-members of SKP in the Northeast of Thailand. It is really hard to deal with water problem in the northeast since it has the bad location in the rain-shadow area, sandy soil and salty soil. Many farmers require water resource for their farms in different forms such as small pond, water pump and large scale irrigation system. The second and the third ones have a low possibility because of the high cost.

However, the first one is still possible for some farmers. Department of Land Development has a project for the farmers outside irrigation area. The criteria for the farmers who want to have a small pond in their farms and want to participate the project are

1. The farmer must have the ownership of the land
2. The farmer is willing to pay 2,500 Baht for the machine transportation and fuel cost.
3. The soil has a good water holding capacity and must not have salt problem.

The price for the small in the farm in this project is 10 times lower than the private contractor. However, it is quite complicated for some farmers to deal with documents and procedure. So, SKP could be a link between farmers and the Department of Land Development.

7.2.2 Sufficiency Economy Office for Community Development

Under the administration of prime minister Aprisit Watchachiwat, the government has an urgent policy begins in the first year. The economic action fund to allocate sufficient budget directly to the villages and communities around the country more from the budget previously allocated to the old village and every community the opportunity to access government's budget covers all quickly. The policy aims to drive all sectors in the villages and communities together to manage and develop their potential to increasing potential of generating revenues, job creation and lower costs of production factors in agriculture. Develop a higher valuation and opportunities to develop or increase their ability to build economic capacity in communities and villages to the foundation.

In 20 January 2552 the government has approved the establishment of a project to enhance the economic self-sufficient community. Sufficiency economy office for community development was established in order to support enhancing of economic self sufficient community. The office is under administration of the Office of the Permanent Secretary.

Purpose of the project
1. To allocation a direct budget to the communities around the country so that every community has an opportunity to access resources of the government budget quickly and thoroughly.
2. To support and encourage all sectors in the community together to manage and develop their existing capabilities to potential increases.
3. To support and promote the creation of a revenue-generating and reduce costs in production factor.
4. Resources to develop community level to increase value and create opportunities to develop or increase their ability to build capacity in the economic base to the community level.

Many farmers want to have small organic fertilizer factory for their community. It is a good idea for farmers because it can reduce their production cost of fertilizer. The farmers have manure from their cattle and the factory can process into a convenient ballet fertilizer. The small organic fertilizer factory is in accordance of the project objectives. So, SEOCD could be a possible provider for the need of many farmers of small organic fertilizer factory.

7.2.3 Agricultural Extension Office

Agricultural Extension Office is a government agency which supports all farmers in terms of advisory, training, and development agricultural production and agricultural product. Agricultural extension office is located in every district of Thailand. Way of supporting is determined by the government. The supporting can be subsidy, loan, and information; this depends on the project making of the government. The organization mainly supports small farmer and processor. Its main tasks are

1. Transfer agricultural production technology to farmers.
2. Promote and develop farmers and farmers organizations.
3. Provide services and agricultural occupational training to farmer.

The office in every district has shown an impressive working for farmers. The office can help farmers for the need of pest and disease control, especially the problem of channeled apple snail.

7.2.4 Organic Crop Institute

Organic Crop Institute is a public agency under the Ministry of Agriculture and Cooperatives. The institute was established in 2002. It is located in Bangkok.

The institute is responsible the Organic Agriculture project. There are two missions as follows

1. Inspection and certification of organic crop production. The institute offers a free certification service. The certificated product will have the Organic Thailand label on package. Due to lack of international recognition, this label is only used for domestic markets.
2. Training and transferring technology. The institute serves a service as a lecturer and consulting in organic agricultural training courses.

This institute might help the organic rice farmers by certificate the organic rice, providing a training course related to knowledge and technology about organic rice production.

Conclusion

Organic agriculture has been listed as a national agenda of Thailand for a few years. Although the government is in favor of it, the market share for organic agriculture is still low. Rice is the most potential crop for organic market but the market is limited only to jasmine rice as it is a high of quality rice. The major amount of organic rice is grown in the northeast of Thailand as jasmine rice is grown widely in this region. The chains of organic rice in the northeast of Thailand can be divided into three important chains according to their market. There are Surin chain, Yasothorn chain and Asoke chain. market. All of them are in middle and lower northeast accounting for more than 90 per cent of organic rice. The rest is from uncertified and isolated farmers. Besides, the export is only from Surin and Yasothorn chains. Sorkorpor members who claim to grow organic rice are not included in the organic chain because they are not certified and importantly they sell their rice to a conventional

As organic rice is a trend in Thailand, some farmers including Sorkorpor members have changed from conventional farming into organic farming. Most farmers both members and non-member of Sorkorpor in middle and upper northeast Thailand have the same problem of water resource. Most of them are outside irrigation area. Besides, the sandy soil worsens the problem of farmers. Therefore, it is not surprise that water resource is the number in service and need required by farmers who are members and non-Sorkorpor member in both regions. Services and needs required by farmers in upper and middle northeast of Thailand shows many similarities because they share similar environment in term of soil, climate, tradition, attitude However, there is a slight difference in need of farmers in marketing aspect as a result of amount of land holding and type of production. Farmers in upper northeast have less amount of land. Therefore, they grow sticky rice for their household consumption. There is rather little surplus for the market. As a sequence, most farmers do not require anything concerning marketing. Most needs and services are for production. On the other hand, some small scale farmers from the middle northeast who have a higher amount of land. They can grow sticky rice for their household consumption and jasmine rice for sale. Therefore, they are more concerned about the market and require a market for their rice. Sorkorpor can act as the link between farmers and some government agencies such as department of land development.

To give recommendations to Sorkorpor how to perform their role at various levels to strengthen the market position of organic rice producers in upper and middle northeast of Thailand is rather hard because most Sorkorpor members in the upper and middle northeast are subsistent farmers. They do not have a large amount of organic rice for the market. Sorkorpor can mostly help them in production aspect first. Now, Sorkorpor has a rather low number of organic rice producers to initiate the organic rice chain. It is a long and steep way for Sorkorpor. However, growing organic rice is more sustainable for the farmers in this region where the land is so infertile. But it is hardly possible to grow it commercially, especially in upper northeast. So, Sorkorpor should concentrate more to the production aspect rather than market position at this moment.

Recommendation

In order to give the proper recommendation to SorKorPor, the recommendation is divided into two parts. The first part is the direct recommendation to improvement of service to members and second part is generally concerning organizational strengthening and development in order to enable SorKorPor to play its role with concern to the issues of the first part.

Recommendation on improvement of service to members

The following recommendations are the important issues to improve service to organic rice farmers in middle and upper North East region of Thailand especially for SKP members.

1. Knowledge and technology transferring

There are totally four aspects related to knowledge and technology transferring such as firstly, *concept of true organic agricultural producing*, many farmers still misunderstand about organic agriculture. They do not truly understand about it but they still claim that they are organic farmers. Some farmers think that when they use organic fertilizer, they will become organic farmers. Secondly, *pest and disease controlling*, the farmers still use a little amount of pesticide when the problem of cherry snail occurs. Thirdly, *flood prevention*, some cultivation area is not suitable for growing organic rice because of location is risk of flooding. Lastly, *crop rotation*, most farmers in the northeast of Thailand can cultivate rice only once a year because they are off the irrigation area. The soil is sandy soil or sandy loam which does not have much water holding capacity. Farmers always leave their land useless after the harvesting season in November and December. So crop rotation might be the choice for the farmer to improve the quality of soil and generate another source of income.

Possible service providers

-*Asoke community network* or Organic Farming Network of Thailand is a private secotr, this network has knowledge and technology related to organic rice adequately. This network opens for every one to learn, they are willing to tell everybody.

-*Inpang Community Learning Center* is a private network might be a possible service to provide information, knowledge, and technology about bio fertilizer making and crop rotation to SorKorPor organic rice farmers in

-*Agricultural Extension Office* is a government agency, the office can help farmers for the need of pest and disease control, especially the problem of channeled apple snail and brown planthopper. The office of agricultural extension might also provide the knowledge about the crop rotation.

Role of SorKorPor

-*Sub district level*

Sub district SorKorPor shall play a role as finder; it means that to fine the suitable place and time for the members in order to get the training course or organizing the excursion.

-Regional level
Regional SorKorPor shall be the link between farmers and mentioned service providers. Regional SKP might communicate with the possible service providers in terms of asking the expert to contribute the knowledge and technology to the members. Importantly, in this stage, Regional SKP is a constant linking pin between its member and possible service providers. Because SKP has more bargaining power to communicate with the providers. Another issue is that regional SKP is initiator to advise the recommended crops to grow after harvesting season should be in the legume family which has Nitrogen-fixation capacity from the air. In this way, farmers do not have to buy chemical nor organic fertilizer for their land.

2 Building establishment
Following is two buildings required by the farmers
- *Local organic fertilizer factory*
Local organic fertilizer is required by many farmers. The reason is that farmers have used chemical fertilizer for very long time. They get used to using a convenient ballet fertilizer. When, they change to organic farming, some farmers have to buy organic fertilizer from the agricultural shop. If there is local organic fertilizer factory, farmers can process manure from their cattle into convenient ballet fertilizer. This form of fertilizer is much convenient than the manure and can be stored easier.

- *Warehouse*
Warehouse is required by some farmers. The purpose of the regional warehouse is that, farmers can store their rice together and sell together to create a bargaining power. Farmers can store their rice waiting for the higher price which is mostly before the harvesting season. Moreover, they can sell to the middleman who offers the highest price. However, to construct and operate warehouse is really complex. To have a warehouse for the farmers is a good idea but farmers should have the knowledge how to operate and collaborate as a cooperative first.

Possible service provider
Sufficiency Economy Office for Community Development (SEOCD) is a promising source of budget. Both SKP and Sufficiency Economy Office for Community Development (SEOCD) have the same purpose. They both want to help farmers in the countryside of Thailand to be self sufficient.

Role of SorKorPor
-Sub district level
SKP at sub district level should find the suitable place to build up the factory and set up the management team.

-Regional level
The farmers are not familiar working with the government organization because they have to deal with bureaucratic procedure. So Regional SKP might play a role in establishing the first contact between its members and possible service providers. For example Regional SKP should prepare the proposal for asking budget.

-National level
National SKP should cooperate with Sufficiency Economy office for Community Development. Due to the workers in National level have a good relationship with many government institute, they might know already know each other so they might establish the good contact. They might able to force the project proposal to be approved. Moreover, location of National SKP is near by the SEOCD.

3. Find the market (domestic and aboard)
Most farmers produce organic rice but they have to sell as conventional rice because there is no market for them. If SKP want to strengthen the market position of their farmers, SKP should find the market for their organic rice because the farmers alone have no ability to access market channel.

Possible service provider
Offices of commercial affairs of Surin and Yasothorn province has promoted organic rice by introducing an organic rice producer group to international exporter at the national organic exhibition. In case of exporting, the product is needed to be certified by *Organic Agriculture Certification Thailand or ACT*. The ACT is the most appropriate organic certificated body in Thailand at the present. ACT label is global acceptable.
Organic Crop Institute is a public agency under the Ministry of Agriculture and Cooperatives. The institute is responsible the Organic Agriculture project focusing on inspection and certification of organic crop production. Due to lack of international recognition, this label is only used for domestic markets. This institute might help the organic rice farmers by certificate the organic rice.

Role of SorKorPor
-Sub district level
Regard to finding the market, Sub district SKP shall play a role of rice database collector, this means that Sub district SKP should make the rice database. There should be information about number of farmers, location, and product. This will very help in terms of contacting for the upper level.

-Regional level
Regional SKP shall play a role as establishing first contact between its members and possible service providers. This is to ask the possible service providers to find the market.

National level
National SKP shall also play a role as a constant pin when there is a deal between its members and buyers especially in terms of selling to international market. Because many members do not have much education so they are not used to deal with the document. Therefore, National SKP must help its members in this aspect. Moreover, in terms of asking for certification, National SKP has to responsible for its members, National SKP shall contact the certificated bodies because the National SKP has more power to negotiate with the certificated bodies.

4. Lobbying
Nowadays, the rice mortgage scheme from the government has distorted the rice market in Thailand because it makes the price of conventional rice to be equal to organic rice. Therefore, some farmers have changed from organic rice to conventional rice from this policy. Moreover, the government should divide the market in the paddy mortgage into two market channels: conventional rice market and organic rice market, the price of organic paddy should obviously higher than conventional rice.

Role of SorKorPor
-National level
Due to the local government does not have any supporting for the organic rice. The project of the local area (regional and sub district level) is mainly focused on infrastructure. So in this stage, the work is mainly deal with the government. Therefore, the lobbying is only responsibility of the national SKP. Lobbying is the most important thing that SKP in the national level should do. SKP has some networks in many government and non government organizations. This can be beneficial for SKP to lobby a project for their members. Moreover, SKP can do more in term of government policy to be more beneficial for organic farmers.

Recommendation on organizational strengthening and development

In this part, the recommendations are mainly focused on how SKP could strengthen its position at the different levels of the organisation such that it can better play its role with concern to the issues, services as identified in the first part of the recommendations.

Sub district (Tambol) level
- Increase the members
SKP does not have many members as other organizations in the same field. Therefore, it does not have much bargaining power both in the high and low level. In order to increase bargaining power of the organization and its members, it should increase the number of its members. Organic rice farmers of SKP are rather few to produce to the market. If SKP wants organic rice to sell in the market, it must have a larger number of members to produce in a larger volume for marketing. The responsibility to expand the area of SKP is mostly done by the leaders in sub district level through their network. However, expanding the area of SKP has some expenses, especially fuel but they cannot really afford that. Importantly, when there is a new member it means that the organization will have more money because the member has to pay 2 euro for being the membership. If they have many new members, they will have much more money. SKP might spend this money to conduct the project and support its members. If they can conduct the project by themselves they might become a successive organization, the member might recognize or realize the efficiency and effectiveness of being the member to stand by themselves.

Regional level
- Extend period of regional chairman
The period of SKP' regional chairman in the middle northeast is 2 years. Every 2 years, the regional chairman has to be selected again by votes from the regional committees. The period of 2 years is rather short for the chairman to work for SKP and its members.

The period should be extended into 4 years like other regions. This might enable the chairman to continue work on project more efficiency and effective. Finally, this will enable the members to get continue and coherent supporting.

- *Database*

Database is really important to any organization. But, SKP in upper and middle northeast do not have such a complete and efficient database. They should pay more attention to that. The organization should know the number of its members and relevant data, but it actually does not. When they have the database they can know about their member, they might have more choice to exchange knowledge between the members within the region and also members with different region. Essentially, when the SKP wants to organize the conducting training course, SKP can easily organize it because the organization knows about the members well.

- *Communication within region*

The communication between the SKP members in the middle northeast region is not quite good because some members feel they are neglected. The regional office now is located in Kalasin province. So, members in Khonkaen and nearby feel that they do not have much to do with SKP. Then, the members are divided into two parts as it is shown in the recent election. This situation should be solved to improve the organization. Moreover, some farmers still do not know that they are member of SKP, so SKP should inform the member about what have been working out and what are going to be work.

National level

- *Concrete result*

SKP does not really have concrete result for their members and the public because the main objective of SKP is to educate the farmers. Most projects are training for farmers with untouchable result. It is a good objective to educate people but SKP should have a concrete result as well to attract more farmers. To be a member of SKP, a farmer has to pay 100 baht a year. When farmers have to pay for the membership, they also expect something return more than training in one year. Local organic fertilizer factory is the example concrete result that SKP can implement for its members. This might enable SKP to increase the member.

- *Communication with local government organization*

Many members of SKP, especially regional committees in upper and middle northeast are ex-members of Thailand's communist party. Sometimes, it is a problem for them to do anything because of their background and image of the past. Some local government organizations suspect what the SKP members are doing because they are afraid to be a political meaning. So, they do not facilitate SKP members. SKP on national level should communicate more with the government organizations and let them understand the SKP members now.

Recommendation (Thai version)

เพื่อความสะดวกในการให้คำแนะนำและง่ายต่อการเข้าใจ
เราจึงได้แบ่งข้อเสนอแนะออกเป็นสองส่วน ได้แก่
ข้อเสนอแนะเกี่ยวกับการปรับปรุงการให้บริการให้สมาชิก สกพ
ผู้ปลูกข้าวอินทรีย์ และ
ข้อเสนอแนะเกี่ยวกับการพัฒนาภายในองค์กร สกพ
เพื่อให้องค์กรสามารถแสดงบทบาทของตนเองให้ดีขึ้น

ข้อเสนอแนะเกี่ยวกับปรับปรุงการให้บริการให้สมาชิก สกพ ผู้ปลูกข้าวอินทรีย์ในภาคอีสานกลางและอีสานเหนือได้แก่

1. การถ่ายทอดองค์ความรู้และเทคโนโลยี

มีองค์ความรู้และเทคโนโลยีที่เกี่ยวข้อง 4 ด้าน ได้แก่
หนึ่งหลักการของเกษตรอินทรีย์
เกษตรกรหลายคนยังเข้าใจผิดเกี่ยวกับเกษตรอินทรีย์
เกษตรไม่เข้าใจอย่างแท้จริงว่าเกษตรอินทรีย์คืออะไร
แต่ก็อ้างว่าตนเองทำเกษตรอินทรีย์
เกษตรกรคิดว่าเมื่อใช้ปุ๋ยอินทรีย์ก็กลายเกษตรอินทรีย์ได้ทันที
ซึ่งโดยแท้จริงแล้วเกษตรอินทรีย์มีอะไรมากกว่านั้น
สองด้านการควบคุมโรคและแมลง
เกษตรกรผู้ปลูกข้าวอินทรีย์จำนวนมากยังคงใช้ย่าฆ่าแมลงเพื่อทำลายเชื้อโรคและแมลงต่างๆ
เกษตรกรจำนวนมากไม่มีความรู้เกี่ยวกับการควบคุมโรคและแมลงโดยถูกวิธี สามด้านการป้องกันน้ำท่วม
พื้นที่เพาะปลูกในบางพื้นที่ตั้งอยู่ในเขตเสี่ยงต่อน้ำท่วม
แต่เกษตรกรยังคงใช้พื้นที่นั้นปลูกข้าว
จึงทำให้ในบางปีเกิดปัญหาน้ำท่วม
สุดท้ายด้านการปลูกพืชหมุนเวียน
โดยทั่วไปการเพาะปลูกข้าวในภาคอีสานสามารถทำนาได้ปีละหนึ่งครั้งเท่านั้น เนื่องด้วยการเพาะปลูกส่วนใหญ่เพาะปลูกโดยน้ำฝน
ดินในภาคอีสานเป็นดินร่วนทราย มีประสิทธิภาพในการอุ้มน้ำต่ำ

หลังจากการเก็บเกี่ยวเกษตรกรจำนวนมากมักปล่อยพื้นที่เพาะปลูกให้ว่างเปล่า
เกษตรกรไม่ได้ใช้พื้นที่เพาะปลูกเหล่านั้นให้เกี่ยวประโยชน์สูงสุด
การปลูกพืชหมุนเวียน เช่น พืชตระกูลถั่ว
เป็นการปรับปรุงคุณภาพของดิน อีกทั้งเป็นการสร้างรายได้อีกด้วย

หน่วยงานที่เกี่ยวข้อง
เครือข่ายอโศก เครือข่ายอินแปง และ
สำนักงานเกษตรอำเภอสามารถถ่ายทอดองค์ความรู้และเทคโนโลยีทั้งสี่ด้านที่กล่าวข้างต้นได้

บทบาทของ สกพ
สกพ ระดับตำบล
มีหน้าที่ในการหาสถานที่และเวลาอันเหมาะสมสำหรับการจัดการอบรมให้แก่สมาชิกในสนใจ
สกพ ระดับภาค
มีบทบาทหน้าที่ในการประสานงานกับหน่วยงานที่เกี่ยวข้องในด้านติดต่อจัดหาวิทยากรเพื่อบรรยายในการอบรม
สกพระดับภาคอาจจะทำหน้าที่เป็นผู้ให้คำแนะนำเกี่ยวกับการปลูกพืชหมุนเวียนแก่สมาชิก

2. สิ่งก่อสร้าง
- โรงปุ๋ยอินทรีย์ขนาดเล็ก
เกษตรกรจำนวนมากต้องการโรงปุ๋ยอินทรีย์ขนาดเล็กในชุมชน
เนื่องด้วยเกษตรกรใช้ปุ๋ยเคมีมาเป็นเวลานาน
เมื่อเกษตรกรหันมาใช้ปุ๋ยอินทรีย์
เกษตรกรต้องซื้อปุ๋ยอินทรีย์จากร้านค้าซึ่งราคาค่อยข้างจะแพงซึ่งเกษตรกรสามารถผลิตเองได้ในราคาที่ต่ำกว่าเท่าตัว
ประกอบกับเกษตรกรสามารถนำมูลสัตว์ของตนมาเป็นวัตถุดิบผลิตปุ๋ยอินทรีย์ได้เป็นประโยชน์อีกด้วย

- ยุ้งฉางหรือโกดังเก็บข้าว

เกษตรกรบางรายต้องการยุ้งฉาก
ยุ้งฉากนี้มีความจำเป็นระดับภาคเพราะจะได้ใช้เก็บข้าวร่วมกัน
เพื่อเกษตรกรจะได้ขายข้าวในราคาที่เป็นธรรม
ประกอบกับมีอำนาจในการเจรจาต่อรองกาขายมากขึ้น
อย่างไรก็ตามการบริหารจัดการยุ้งฉางหรือโกดังเก็บข้าวนั้นค่อยข้างยาก การสร้างยุ้งฉางให้กับสมาชิกเป็นสิ่งที่ดี
แต่ทว่าเกษตรกรควรจะได้รับความรู้ในการบริหารจัดการก่อน

หน่วยงานที่เกี่ยวข้อง
สำนักงานเศรษกิจพอเพียงเพื่อพัฒนาชุมชน
มีบทบาทหน้าที่ในการสนับสนุนงบประมาณการก่อสร้าง

บทบาทของ สกพ

สกพ
ระดับตำบลมีบทบาทหน้าที่ในการจัดหาสถานทีที่เหมาะสมในการก่อสร้างและจัดหาบุคคลากรบริหารดำเนินงาน

สกพ ระดับภาค
มีบทบาทหน้าที่ในการเตรียมเอกสารเสนอโครงการแทนสมาชิก
เนื่องด้วยสมาชิกไม่คุ้นเคยกับการดำเนินการของระบบราชการ

สกพระดับชาติ
มีบทบาทหน้าที่ในการประสานงานขอความช่วยเหลือกับสำนักงานเศรษกิจพอเพียงเพื่อพัฒนาชุมชน

3.หาตลาดเพื่อสมาชิก
เกษตรกรจำนวนมากผลิตข้าวอินทรีย์ในระยะปรับเปลี่ยน
แต่ว่าเกษตรกรไม่มีตลาด
เกษตรกรต้องขายผลผลิตให้กับตลาดข้าวธรรมดา

ถ้าสกพต้องการช่วยเหลือสมาชิกให้มีบทบาทมากขึ้น สกพ ควรจะหาตลาดข้าวอินทรีย์ให้กับสมาชิก

หน่วยงานที่เกี่ยวข้อง

สำนักงานพาณิชย์จังหวัดสุรินทร์และยโสธรมีบทบาทหน้าที่ในการหาตลาดข้าวอินทรีย์

สำนักงานมาตระฐานเกษตรอินทรีย์ไทยและสถาบันพืชอินทรีย์เป็นหน่วยงานรับรองผลิกภัณฑ์สินค้าอินทรีย์ในประเทศไทย

บทบาทของ สกพ

สกพ ระดับตำบล

มีบทบาทหน้าที่ในการรวบรวมข้อมูลของสมาชิกที่เกี่ยวข้องกับการผลิตข้าวอินทรีย์เพื่อความสะดวกในการติดต่อ ดำเนินการค้าต่อไป

สกพระดับภาค

เป็นผู้ติดต่อประสานงานกับสำนักงานพาณิชย์จังหวัดสุรินทร์และยโสธรเพื่อหาช่องทางการตลาดให้กับสมาชิก

สกพระดับชาติ มีบทบาทสำคัญในการติดต่อการค้าเป็นผู้ซื้อเป็นตัวแทนสมาชิกรับผิดชอบเกี่ยวกับทำการสัญญาการซื้อขาย ประสานงานกับสำนักงานมาตระฐานเกษตรอินทรีย์ไทยและสถาบันพืชอินทรีย์เพื่อขอใบรับรองเกษตรอินทรีย์ให้กับสมาชิก

4.การผลักดันนโยบาบรัฐ

ปัจจุบันนี้โครงการรับจำนำข้าวเปลือกกำลังทำลายกลไกลตลาด ทำให้ราคาข้าวธรรมดาสูงเกินจริง และราคายังเท่ากับราคาข้าวอินทรีย์ ทำให้เกษตรกรจำนวนมากหันกลับมาปลูกข้าวธรรมดาเนื่องด้วยราคาที่สูงจูงใจ ยิ่งกว่านี้แล้วรัฐบาลควรจะแบ่งตลาดออกเป็น 2 ช่องทางที่ชัดเจน คือตลาดข้าวธรรมดาและตลาดข้าวอินทรีย์ ราคาของข้าวแต่ละชนิดควรจะมีความแตกต่าง เพื่อทำให้เกินแรงจูงใจในการผลิดข้าวอินทรีย์

บทบาทของสกพ

สกพระดับชาติควรประสานงานกับรัฐบาลในการดำเนินงานเสนอโครงการต่างๆที่เกี่ยวข้องกับข้าวอินทรีย์
ผลักดันการแบ่งทางการขายข้าวในโครงการรับจำนำข้าวเปลือก
ยิ่งกว่านี้แล้ว
สกพระดับชาติควรจะประสานงานกับรัฐบาลเพื่อรับทราบเกี่ยวกับโครงการที่รัฐบาลจะดำเนินงาน

ข้อเสนอแนะเกี่ยวกับการพัฒนาภายในองค์กร สกพ
เพื่อให้องค์กรสามารถแสดงบทบาทของตนเองให้ดีขึ้น

ระดับตำบล

- เพิ่มจำนวนสมาชิก

ปัจจุบัน สกพ ยังมีสมาชิกที่เป็นรูปธรรมจำนวนน้อย
ด้วยเหตุนี้ทำให้ สกพ
ไม่มีอำนาจในการเจรจาต่อรองทั้งระดับสูงและระดับพื้นล่าง
เพื่อให้เกิดการเพิ่มอำนาจในการเจรจาต่อรอง
สกพควรจะขยายจำนวนสมาชิก
โดยเฉพาะจำนวนผู้ปลูกข้าวอินทรีย์ปัจจุบันยังมีอยู่น้อย
ทำให้ผลผลิตมีปริมาณน้อย ดังนั้น สกพ
จะสามารถขยายตลาดข้าวอินทรีย์ได้ก็ต่อเมื่อมีปริมาณข้าวที่มากขึ้น
การเพิ่มจำนวนสมาชิกนี้ควรจะเป็นหน้าที่ของหัวหน้า ผู้นำในชุมชน
อย่างไรก็ตามการปฏิบัติเพื่อเพิ่มจำนวนสมาชิกจำเป็นต้องมีค่าใช้จ่าย เช่น ค่าน้ำมัน ผู้นำชุมชนต้องการเงินสนับสนุนในส่วนนี้
เพื่อการทำงานที่มีประสิทธิภาพและประสิทธิผล ยิ่งมีสมาชิกมาเท่าไร
สกพสามารถใช้เงินค่าบำรุงสมาชิกในการดำเนินงาน
หรือดำเนินการสร้างโครงการต่างๆได้อีกด้วย

ระดับภาค

- ขยายวาระการดำรงตำแหน่งประธาน สกพ ระดับภาค

วาระการดำรงตำแหน่งประธาน สกพ ระดับภาคใน
สกพอีสานกลาง คือ 2 ปี ทุกๆ 2 ปี จะมีการเลือกตั้งประธานคนใหม่
ระยะเวลานี้ถือค่อนข้างน้อย อาจทำให้การดำเนินการไม่ต่อเนื่องได้
ดังนั้นจึงควรเปลี่ยนเป็น 4 ปี

- การจัดทำข้อมูลพื้นฐานของสมาชิก
สกพ อีสานกลางและอีสานเหนือ
ควรจะจัดทำข้อมูลพื้นฐานของสมาชิก
เพื่อจะได้ทราบว่าสมาชิกประกอบด้วยใคร ทำอะไร ที่ไหน
เพื่อประโยชน์ต่อการนำมาใช้ ทั้งการพัฒนา สนับสนุนในอนาคต

- การสื่อสารภายในภูมิภาค
ในปัจจุบันการสื่อสารทำความเข้าใจใน สกพ
อีสานกลางยังมีปัญหาอยู่ สมาชิกบางรายรู้สึกว่าตนถูกทอดทิ้ง
ดังนั้นเพื่อให้เกิดความเข้าใจที่ตรงกัน
คณะบริหารระดับภาคควรปรับปรุงแก้ไข ดำเนินการในเรื่องนี้ด้วย
ยิ่งกว่านี้สมาชิกบางรายยังไม่ทราบว่าตนเองเป็นสมาชิกของ สกพ
ดั้งนั้นสกพ
ควรจะทำความเข้าใจกับสมาชิกเพื่อให้เกิดประโยชน์สูงสุด

ระดับประเทศ

- ผลงานที่เป็นรูปธรรม
ทุกๆวันนี้ สกพยังไม่มีผลงานที่เป็นรูปธรรม
สมาชิกและสาธารณชนยังไม่รู้จัก สกพ
การสนับสนับของสกพส่วนใหญ่จะเป็นการให้การอบรม ดังนี้น สกพ
ควรจะมีผลงานที่เป็นรูปธรรมเพื่อจะได้ดึงดูดคนให้เข้ามาเป็นสมาชิก
โรงปุ๋ยอินทรีย์คือตัวอย่างที่น่าสนใจสำหรับสกพ

- ประสานงานกับหน่วยงานราชการท้องถิ่น

สมาชิกสกพจำนวนมาก
โดยเฉพาะในอีสานกลางและอีสานเหนือเป็นสมาชิกของพรรคคอมมิวนิสต์เก่า บางครั้งการติดต่อกับหน่วยงานราชการท้องถิ่นมีปัญหาเนื่องด้วยหน่วยงานรัฐคิดว่าจะดำเนินการอันไม่เป็นภัยต่อสังคม ดังนั้นสกพระดับประเทศควรจะประสานงานกับหน่วยงานที่เกี่ยวข้องเพื่อทำให้เกินความเข้าใจที่ตรงกันระหว่างสมาชิกกับหน่วยงานรัฐเพื่อประโยชน์ในการดำเนินกิจกรรมของสกพต่อไป

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Annex I: Contact information of possible need and service providers

Private Service providers

Asoke community network
Contact: 266 Moo 1, Tumbal Krachaeng, Kantaralak district, Srisaket
Phone: + 66 (0)
E-mail: annet@sathai.org

Inpang community network
Contact: 266 Moo 1, Tumbal Kudbak, Kudbak district, Sakhonnakhon 47180
Phone: + 66 (0) 4278-4056, + 66 (0) 4278-4116

Earth Net Foundation
Contact: 183 Regent House Bld., Radjadamri Rd., Lumpinee , Patumwan , Bangkok 10330
Phone: + 66 (0) 2651 9055 and + 66 (0) 2651 9056
Fax: + 66 (0) 2651 9072
Website: http://www.greennet.or.th/
E-mail info@greennetorganic.com

Organic Agriculture Certification Thailand
Contact: 619/43 Keatngamwong building, Ngam Wong Wan Road, Tumbol Bangkhan, Meaung District, Nonthaburi 11000
Phone: + 66 (0) 2-580 0934, + 66 (0) 2-952 6677 Fax: + 66 (0) 2-580 0934
E-mail: info@actorganic-cert.or.th
actnet@ksc.th.com
Website: http://www.actorganic-cert.or.th/index.php

Public service providers

Sufficiency Economy Office for Community Development
Contact: Bangkok
Phone: + 66 (0) 2629-9226, + 66 (0) 2280-3000 press 8098 or 8307,
Fax: + 66 (0) -2629-9227
Website: http://www.chumchon.go.th/home.php
Email: ChumChonThailand@gmail.com
info@chumchon.go.th

Department of Land Development
Contact: head office of Department of Land Development, Jatujak, Bangkok 10900.
Phone: + 66 (0) 2579 4132 - 40 or + 66 (0) 2941 2131
Website: www.ldd.go.th
E-mail: cit_1@ldd.go.th

Or contact the Regional Office of Land Development. The Department of Land Development has 12 regional offices. There are three regional offices locate in North East such as

Nakhon Ratchasima Regional Office, provinces of working area is Nakhon Ratchasima, Buri Rum, Chaiyaphum, and Surin.
Contact: 64 Moo 7 Tumbol JoHo, Meaung district, Nakhon Ratchasima province 30310
Phone: + 66 (0) 44-371-354, Fax: + 66 (0) 44-371-716
E-mail: r03_2@ldd.go.th

Ubon Ratchathani Regional Office, provinces of working area is Ubon Ratchathani, Nakhon Phanom, Roi Eet ,Yasothon, Sri Saket, Mukdaharn, and Amnaj Charoen.
Contact: Jeangsanit Road, Meaung district, Ubon Ratchathani province 34000
Phone: + 66 (0) 45-312-646
E-mail: r04_2@ldd.go.th

*Khon Kaen Regional Office***,** provinces of working area is Khon Kaen, Udon Thani, Maha Sarakham, Nong Khai, Karasin, Sakon Nakhon, and Nongbua Lampoo
Contact: Mittraphap Road, Meaung district, Khon Kaen province 40000
Phone: + 66 (0) 43-246-667-8 Fax: + 66 (0) 43-243-913
E-mail: r05_2@ldd.go.th

Organic Crop Institute
Contact: 50 Phahon Yothin Road, Jatujak, Bangkok 10900
Phone: + 66 (0) 2579-0151-7 press 105 and + 66 (0) 2579-7520

Offices of commercial affairs of Khon Kean province
Contact: 4/1 Tumbol Naimeaung, Meuang district, Khonkean 40000
Phone: + 66 (0) 4323-6571
E mail: kk_ops@moc.go.thmailto:khaowong@doae.go.th
Website: http://www.moc.go.th/opscenter/kk/index.html

Offices of commercial affairs of Kalasin province
Contact: 3/3 Baipasstungmon road, Meuang district, Kalasin 46000
Phone: + 66 (0) 4381-1631
E mail: - mailto:khaowong@doae.go.th
Website: http://www.moc.go.th/opscenter/ks/

Contact information of concerned Agricultural Extension office of Khon Kaen province

Agricultural Extension office of Chumpae district
Contact: Prasertwong Road, Tumbol Chumpae, Chumpae district, Khon Kean 40220
Phone: + 66 (0) 4331 1110
E mail: kk_chumpae@doae.go.th

Contact information of concerned Agricultural Extension offices of Kalasin province

1. Agricultural Extension office of Kamalasai district
Contact: Sanjararatchakit Tombol Kamalasai, Kamalasai district, Kalasin 46120
Phone: + 66 (0) 4389 9231
E mail: kamalasai@doae.go.th
Website: http://kamalasai.kalasin.doae.go.th

2. Agricultural Extension office of Khaowong district
Contact: Khaowong district, Kalasin
Phone: + 66 (0) 4385 9121
E mail: khaowong@doae.go.th
Website: http://khaowong.kalasin.doae.go.th

3. Agricultural Extension office of Nakhu district
Contact: NakhuBanchad Road, Tumbol Nakhu, Nakhu district, Kalasin
Phone: + 66 (0) 4312 6708
E mail: Nakhu@doae.go.th
Website: http://nakhu.kalasin.doae.go.th

4. Agricultural Extension office of Somdet district
Contact: Somdet district, Kalasin
Phone:
E mail: somdet@doae.go.th
Website: http://somdet.kalasin.doae.go.th/untitled/main.html

5. Agricultural Extension office of Khongchai district
Contact: Khongchai district, Kalasin
Phone:
E mail: khongchai@doae.go.th
Website: http://khongchai.kalasin.doae.go.th

Annex III: Check / questions lists

Question of interviewee (farmers)
How old are you?
How many people are there in your house?
How about rice situation at the present?
How many rais do you cultivate rice?
What is your characteristic of cultivation area?

What is variety of rice?
How many times did you practise rice?
Did you practise rice by household or hire?
How do you usually practise rice?
How about fertilizer? Buy? Make?
How do you deal with disease and insect problem?
How much paddy did you get last year?
Where did you sell paddy to?
How about the selling price?
Who is determining selling price?
Are you satisfied with the price?
Who was responsible for transporting?
Which problem are you facing with?
What do you really want to have?
Do you only grow the rice?/ do you have another farm?
How about the support form SKP?
Are there any support concerns organic rice?

Question of organic rice chain players
Can you tell me about the company background information?
How many types of product do you have?
How much could you produce/process/deal per month or year?
Where did you sell product to?
How about the price?
How about package?
Which certification of product did you have?
Who is setting up the price?
Who is responsible for logistic?
How about the promotion
Did you get any support? From where and what

In fact, there were many specific questions occurred during conversion.