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Strategies of Organic Producers in Thailand

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Abstract

It is the goal of the study to investigate and describe the roles and strategies of different types of organic producers in Thailand. Thai organic producers range from subsistence farming of small-scale farmers to agro-industry. It is the assumption of the study that there are three types of producers: “farmers groups and co-operatives”, “commercial family farms” and “large conventional companies with an organic product line”.

The differences and similarities of these three groups have been brought out in this paper. The topics that were studied were production, methods, processing, marketing, certification, but also work organisation, knowledge management, social topics and finally the estimation of own strengths, weaknesses, opportunities, threats and future goals.

The goals of organic producers and the strategies to achieve them vary considerably,- the farmers in farmer groups and co-operatives mostly aim at becoming more self-sufficient by improving the farm management with organic farming methods and by reducing costly external in-puts. Furthermore, the improvement of their health by doing without pesticides and spirituality are important goals for these small-scale farmers. While they could not succeed as single farmers they gain strength in group by co-operating and learning from each other. They co-operate with a fair-trade organisation to sell rice or sell products such as vegetables in the region.

The second group of “commercial family farms” are often higher educated people, career changers that are convinced by the idea of organic farming. They have entrepreneurial ability and skills. Their products are sold to restaurants, in domestic supermarkets and a considerable portion of the products such as tea, is exported. The third group, the “large conventional companies with an organic product line”, dispose of the financial means to develop large scale organic farming. Their customers are supermarkets in Thailand and abroad.

So different groups of organic producers rather supplement each other by being exporters, providers of the local market and by contributing to the solving of social problems. For the future development of organic farming in Thailand a list of possibilities has been compiled resulting from a SWOT analysis. Measures are to be taken both in the area of production and consumer information, the latter for instance through reinforced presence of organic farming issues in television. Further, an organic cluster might be a strong tool to enhance the development of the organic farming movement as a whole.

This thesis is an explorative study which can only be looked at as one amongst many thought-provoking impulses regarding future development. The main focus, however, should be on the question as to who is going to benefit from development and which role every interest group should take on. Real action must be taken and closer co-operation between different interest groups will be essential.

Zusammenfassung

Ziel der Arbeit ist es, unterschiedliche Rollen und Strategien von Bioproduzenten in Thailand herauszufinden und zu beschreiben. Diese Arbeit geht davon aus, dass die Bioproduzenten sinnvollerweise in drei Gruppen eingeteilt werden können. Diese sind Bauern, meist Kleinbauern, die sich in informellen Gruppen oder Kooperativen zusammengeschlossen haben, kommerzielle Familienbetriebe und große Firmen, die neben konventioneller Produktion auch eine Bio-Linie haben.

Die Unterschiede und Ähnlichkeiten dieser drei Gruppen werden in der Arbeit dargestellt. Untersucht wurden dabei Produktion, Methoden, Verarbeitung, Marketing, Zertifizierung, aber auch Arbeitsorganisation, Wissensmanagement, soziale Themen und schließlich die Einschätzung der eigenen Stärken, Schwächen, Chancen und Gefahren.

Die Ziele von Bioproduzenten variieren von Selbstversorgung mit gesunder Nahrung über spirituelle Fragen bis zur Eroberung neuer Märkte im Ausland. Die Bauern in Gruppen und Kooperativen organisierten Bauern versuchen mit dem ökologischen Landbau unabhängiger von externen Inputs zu werden. Außerdem sind Gesundheitsaspekte und Spiritualität ein Grund, auf Pestizide zu verzichten. Als Gruppe zusammen zu arbeiten und zu lernen macht diese Kleinbauern stark. Sie kooperieren mit Fair-trade-Organisationen um Reis zu exportieren; frische Waren werden in der Region verkauft.

Die Betreiber der kommerziellen Familienbetriebe sind oft gebildet, mit unternehmerischen Fähigkeiten, Quereinsteiger und überzeugte Biobauern. Die Produkte verkaufen sie an Restaurants und heimische Supermärkte, ein beträchtlicher Teil wird aber exportiert, etwa Tee. Die dritte Gruppe sind große Firmen die in ihre Produktion auch eine Biolinie aufgenommen haben. Sie verfügen über die Mittel, Biolandbau im großen Maßstab zu entwickeln, die Produkte gehen an Supermärkte im In- und Ausland.

Ebenso unterschiedlich sind auch die Strategien um die Ziele zu erreichen. Daher ist die Konkurrenz zwischen diesen Gruppen nicht so groß, eher ergänzen sie sich in ihren unterschiedlichen Rollen als Exporteure, Lieferanten lokaler Märkte und indem manche zur Lösung sozialer Probleme beitragen. Für die zukünftige Entwicklung des Ökologischen Landbaus in Thailand wurde als Ergebnis einer Stärken-Schwächen-Analyse eine Liste möglicher Maßnahmen erstellt. Maßnahmen wären im Bereich der Produktion und Konsumenteninformation zu setzen, letzteres etwa durch Sendungen im Fernsehen. Ein Bio-Landbau-Cluster könnte die Entwicklung und Verbreitung des ökologischen Landbaus in Thailand wesentlich vorantreiben.

Diese Arbeit ist eine explorative Studie, die nur einen weiteren Denkanstoß für die zukünftige Entwicklung der Biolandwirtschaft in Thailand geben kann. Eine der wichtigsten Fragen jedoch bleibt immer, für wen Entwicklung sein soll und welche die Rollen jeder Interessengruppe daher sein sollten.

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1 Agriculture in Thailand

1.1 Thailand - the rice bowl of the world

Thailand is among the world's most important food producers and exporters and also known as the "rice bowl" or the "kitchen of the world". The agricultural sector accounts for 10% of the GDP in 2004 (CIA 2006) and in 2006 employed 38% of the population (NSO 2007). The main crop is rice, for which Thailand is a leading exporter. Sugar, corn, cotton and pineapples are other important crops. The country is also the leading producer of rubber in the world. An industrial and export oriented agriculture has been promoted by the Thai government.

Since the 1950s, however, the contribution of agriculture towards the national economy has been steadily declining - amounting to only about 10% in 2005(CIA 2006). From 1960 to 2006 the employment in the agricultural sector declined from 82% to 45%. Agricultural production is still growing, but at a declining pace and agricultural export has also lost some of its significance in creating income from abroad.

In Thailand, as a country in transition, production is relatively expensive, so in order to be competitive it will be essential to embark along new paths in regard to diversification, quality production such as in organic farming. Effects on society and environment

From the middle of the 20th century the "green revolution" brought innovations in the cultivation of crops. Partly, a considerable increase in yields could be attained by introducing new high-yielding varieties, artificial fertilisers, pesticides and irrigation plants. To afford the risen costs for external inputs farmers left their families for months to work off farm. In Thailand, many farmers had to take up loans to buy fertilisers and pesticides. As a consequence of a shortfall or even failure of crops the loans could not be repaid, resulting in indebtedness of many Thai farmers (Donner 1989) which still presents a great problem to this day. Furthermore, the need to earn money and the decreasing opportunities to find work in rural areas forces many from the countryside to the cities.

Disparities between the rural and the urban population are considerable. In the late 90s poverty was widest spread among small-scale farmers (World Bank 2001). In 1999 farm operators made up 54% and farm labourers 15% of the poor in Thailand. This can be partly explained by the stagnation in agricultural productivity among small and medium farmers during the 1990s until today (World Bank 2001).

Agriculture can cause severe environmental problems because it changes the natural environment in several ways. Potential environmental effects include (e.g. El Hage Scialabba and Hattam 2002)

- Effects on water: Surpluses of nitrogen and phosphorus and residues of pesticides in surface- and ground water.
- Effects on air: Particulate matter, including ammonia and ammonium off-gazing from animal and odour from agricultural waste, dust from fields, all contributing to air pollution. Locally higher temperature of fields compared to woodland.
- Effects on soil: Soil erosion, depletion of minerals in the soil, loss of organic matter, soil salination.
- Effects on living organisms: Harmful effects of herbicides, fungicides, insecticides and other agrochemicals, reduction of high biodiversity.
- Additionally overall environmental effects such as the contribution to the global climate can be considered as well as the social and economic implications.

Access to natural resources such as water, land and soil is crucial for rural households. If the quality or quantity of natural resources are not given to a sufficient degree, the productivity of these households will be low. Then, in turn, poverty forces them to over-exploit natural resources which undermines their natural capital base and their incomes from it (World Bank 2001, 41).

The Thailand Social Monitor (World Bank 2001) underlines the gravity of environmental problems in Thailand and the importance of environmental protection, not least because of its role for the well-being of the population. The rapid development in Thailand over the last 30 years was accompanied by significant pollution and degradation of natural resources in rural areas, as the Thailand Environment Monitor 2004 (World Bank 2004) reports. Among other sources of pollution, agricultural run-off has increasingly polluted coastal, surface, and ground water. Forest cover was halved from 53 % in 1961 to 28 % in 1989, when a logging ban was imposed. This problem is especially serious in the Northeast, where forest cover decreased by nearly 60 % in the late 80s and early 90s. Following FAO estimates, four fifth of the total area in Thailand soils are severely degraded, half of the area is even very severely degraded (FAO 2003) by water erosion and chemical deterioration caused by agriculture and deforestation. In regard to biodiversity conservation too, there is also need for action and it is

recommendable to “integrate biodiversity conservation into economic planning and into production landscapes” (World Bank 2004).

Thailand Environmental Monitor (World Bank 2004) records an increasing environmental awareness. Environmental problems need to be addressed, not least because of their correlation with poverty (World Bank 2001, 41 et seqq.). Awareness of the link between environmental damages and social problems is high among civil society representatives and the government (World Bank 2001). Therefore, the Ninth National Economic and Social Development Plan (9th Plan) for 2002-2006 stresses that conservation of natural resources is important as a basis for sustainable poverty reduction (World Bank 2001).

Apart from these socio-economic and environmental problems, the Green Revolution had negative effects onto public health which were caused by the inappropriate use of pesticides. The use of pesticides has considerably increased in the past twenty years (IPM Thailand 2003). In 2003, pesticide consumption was at 1,3 million tons and 2406 cases of pesticide poisoning were recorded (WHO 2004, p.9). However, the actual figures are considered to be much higher than reported because very few farmers go to hospital when they fall ill and many deaths occur without the cause ever having been recorded.

Symptoms of pesticide poisoning were detected in 68% of the observed vegetable farmers in Kanchanaburi (IPM Thailand 2003). Over 90% of agricultural workers in Thailand are said to be affected by agrochemicals. Contamination with these substances leads to headaches, dizziness, exhaustion, nausea and itchy skin. Not only can pesticides lead to illness, they are also responsible for lower quality of work and reduced productivity (IPM Thailand 2003).

There are several movements and projects in Thailand trying to help to resolve these socio-economic and environmental problems. Three influential forces are worth mentioning here the King of Thailand, NGOs and Buddhism.

1.2 The role of Thai Buddhism in agriculture

In the area of alternative agriculture systems Thai Buddhist movements play a significant role. An important actor in the development and spreading of chemical-free and partly certified organic agriculture is Asoke, a Buddhist movement in Thailand. Concerned with the socio-economic situation of the population it tries to help translate Buddhist ethics into action in daily life, such as into agricultural production. The Asoke network has branches in many parts

of Thailand, the central organisation is Santi Asoke. Together the farming groups build the “Natural Farming Network of Thailand”. This Network, the members of which are vegetarian, promotes chemical- free agriculture. As Asoke is successful in helping farmers to reduce their debts by following a certain Buddhist lifestyle and by implementing natural farming, the Bank of Agriculture and Agricultural Co-operatives (BAAC) co-operates with Asoke with the “Toxic free agriculture” program for farmers who are indebted. In this project farmers learn how to farm organically, how to live a self-sufficient life and to become less dependent on external farm resources.

1.3 The role of the King of Thailand

In the early 90s the King of Thailand published a guideline for agricultural development (Chainuvati and Athipanan 2001) The goal was to manage land and water resources in a specific way to support the development of agricultural activities of small-scale farmers. Land should be divided into several lots for different uses in order to enable farmers to sustain themselves. This approach to rural development is called the “New Theory” (Chainuvati and Athipanan 2001). The land is divided into four parts, the first is reserved for a water reservoir, which provides water for agriculture all over the year, allows fish breeding and the cultivation of water plants. The second part is dedicated to rice production, in rotation with other crops such as legumes to improve soil fertility. Surpluses can be sold. The third part is for the cultivation of field and garden crops and trees. An integrated farming system can be developed according to local conditions and the demand on the market. The last part is used for the house, nursery, animals and further vegetable cultivation.

The King further developed the “New Theory” to a “Three Steps New Theory” (Thailand Public Relations Department, n.d.),NO NA. The first step concentrates on producing enough to become self-sufficient. In the second step farmers are encouraged to join groups or co-operatives, to work together in the fields of production, to take concerted action in marketing their goods, welfare, education, religion, social work and every day life. These activities require the co-operation of the government, the private sector and the community members, which should strengthen the community and the society as a whole. In the third step co-operation with financial and energy sources is pursued, for example to build a rice mill and to invest into the co-operative. These steps should improve the quality of life of the population in rural areas, which is also active in the non-agricultural sector. The "3-step-New Theory"

was designed as a development alternative in rural areas. The concept comprises social and economic principles, which are part of a sufficiency economy. According to this concept, Royal Projects have been set up, such as in the North of Thailand (Sittipraneed, 2003).

Another Royal Project in the North of Thailand, initiated in 1969, focuses on research and development. Its goals are to improve highland agricultural production, to preserve water and other natural resources; to improve the living conditions of the local hill tribes, to eliminate opium cultivation; to conduct land-use zoning and to encourage proper landuse and soil conservation; to produce agricultural goods so as to improve the economic conditions in Thailand.

The project areas are situated in mountainous areas in five provinces in the North of Thailand. They include 4 experimental stations and 36 development centres, and approximately 24.000 families from different tribes such as the Mong, Yao, Akha, Karen, Lahu and Lisu are involved in the project.

1.4 Structure of the Thesis

After this short outline of agriculture in Thailand, the second chapter provides an overview of available relevant literature. Then, in chapter 2 the rationale, goals of the study are defined and methods used are described. The first part of chapter 3 is concerned with the definition, goals and standards of organic farming, then the development of organic farming in Thailand is outlined and what potential it has for society, economy and environment. Section 3.3 reports on production, certification and marketing, gives an overview on organic farming activities. In 3.5 the organic farming network with its key actors are portrayed. In chapter 4 the knowledge gained on organic producers is presented. Organic producers are divided into three types which are described subsequently. The description includes production issues, the farmers' motives, some examples and special cases. The producers' strengths, weaknesses, opportunities and threats are assessed. A SWOT analysis (section 4.5) tries to identify new approaches for development for each kind of producer. Then an overall picture is drawn on organic producers, including a collection of criticism and recommendations formulated by farmers and other key actors. The thesis concludes with a summary of findings and an outlook on the future of organic farming in Thailand.

2 Goals and method of the study

2.1 Goals

Conditions for organic farming in Thailand are favourable due to several factors. Not only are there good climatic conditions that allow cultures all the year round, there also are human resources and resources in terms of knowledge one can build on such as the technical knowledge of conventional agriculture but also a diverse traditional knowledge and “local wisdom”. Human resources also include soft skills such as networking and a widespread entrepreneurship as well as attitudes such as to try things out before one believes it, which originate in Buddhism,

Still, there are other factors hampering a smooth development of this movement. While producers are quick in learning and developing their activities, the domestic market lags behind. NGOs and producer groups would prefer to sell products locally to serve the local population, but as the market for the products is not well developed they are compelled to export or deliver to supermarkets or speciality shops in Bangkok. In addition, in contrast with the well organised NGOs, the government can be criticised for their lack of co-ordination and co-operation in this field.

Having high potential for a sustainable development of Thailand’s economy, society and environment, domestic organic farming is worth being supported. As outlined above, organic farming is an emergent sector in Thailand. The basic structures for a functioning market are laid. The main focus should be on the main actors, the producers. To create a reasonable policy, knowledge on these farmers and companies is necessary. To be able to give more accurate and effective support, further knowledge is needed on the types of producers, their strategies and the types of support they may need to encourage their development. So, as there is not much material on Thailand’s organic farmers so far, this explorative study wants to create some more understanding of the situation of Thai organic producers and it aims to provide keys to effective support of organic farms.

The objectives of the study are:

- To gain knowledge on Thai organic farmers. Farm management issues such as production issues, processing issues, certification and marketing are major topics in interviews with

farmers, but socio-economic questions are included too. Furthermore, the farmer is studied as part of an organic farming network in which he is acting. All in all, these interviews aimed at finding out the rationale and motivation of organic producers in Thailand as well as constraints, opportunities and strategies as perceived by the farmers.

- To investigate whether it makes sense to categorise Thai organic farmers according to their size. Specific information on organic farmer classification is scarce. In comparison to information gathered in interviews with different farmers, knowledge shall be gained on how their strategies differ or complement each other and what size-specific problems and strengths there might be.
- To visualise the distribution of organic producers: a map of Thailand was compiled, indicating the locations of organic production and the types of farms involved (farmers groups and co-operatives, commercial family farms, large conventional farms or companies with organic product line).
- To find out major obstacles and opportunities for organic farming in Thailand. As It can be assumed that these different producer types need specific support (e.g. in extension, marketing, packaging, certification, etc.), with the knowledge gained in the interviews and a SWOT analysis, an outlook and options for the future shall be formulated.

The focus of the study lies on giving an exploratory insight into the topic. Due to financial and time restrictions a comprehensive quantitative analysis of organic producers in Thailand could not be carried out in this investigation.

2.2 Methods

2.2.1 Preparation

This study was carried out from Autumn 2005 to Summer 2006. The first phase of the study was dedicated to theoretical preparation. This phase was necessary to define the status quo situation of organic agriculture in Thailand, the number and characteristics of organic producers, where their products were grown, what they produced and for whom. Earlier typologies were studied as well as studies on sociological, economical issues concerning organic farmers, with the focus on Thai farmers. The theoretical preparation included a literature review and evaluation. Official and other statistics were analysed; in addition maps were interpreted and new maps were compiled. The study in Thailand also required organisational work, preparation of interview forms and acquisition of technical skills such as interview techniques. The expert and key actor interviews as well as the interviews for the case studies were prepared and carried out using interview techniques with reference to relevant literature such as by Lehmann (2001).

The second phase of the study was dedicated to field research in Thailand, carried out from March to May 2006 to collect data with farmers, experts and other key actors:

2.2.2 Expert and key actor interviews

Goals of these interviews were:

- to learn more about organic agriculture in Thailand. To collect new data on organic farming in each region and information on recent developments which have not been mentioned in any known literature yet
- to study the key actors in the organic farming sector, to learn about their competencies and responsibilities
- to learn about the goals of the individual institutions, focusing on organic agriculture
- to discuss about the goal and content of the study, in order to correct the hypothesis or the interview guidelines, if necessary to find out who, apart from the producers, is involved in organic farming and what the roles of these actors are.

Interviews were carried out with officials of the Ministry of Agriculture and co-operatives (MOAC), the Department of Agriculture (DOA), the Department of Agriculture Extension (DOAE), the National Bureau of Agricultural Commodity and Food Standards (ACFS), the Land Development Department (LDD), the Department of Fisheries (DOF), the Department of Livestock (DOL), the Department of Export Promotion (DOP), the Private Thai Certification Body Organic Agriculture Certification Thailand (ACT), the NGOs Alternative Agriculture Network (AAN), the Green Net Foundation and a quality line manager of a supermarket (Carrefour).

For these interviews interview guidelines with open questions were prepared. The interview questions took up criticism and recommendations from several authors e.g. the policy recommendations in the National Study Thailand by UNESCAP (2005, p. 202). All interviews were recorded by MiniDisc-recorder. To many interviews the author was accompanied by Dr. Suthichai Somsook, and/or his assistant, Nakorn Limpacuptathavon to overcome any arising language barrier. Interviews were mostly carried out in English, sometimes in Thai, in which case each sentence was interpreted by the assistant. The interviews usually took place at the offices of the interviewees and took approximately one to two hours. The interviewees were asked about their responsibilities they held within their departments, about their projects and other activities, successes and problems, respectively.

2.2.3 Interviews of organic producers

The goal of the interviews was:

- to gain knowledge on Thai organic farmers
- to address farm management issues such as production issues, processing issues, certification and marketing
- to address socio-economic questions
- to understand the farmer as part of a network (an organic farming network) in which he is acting
- to find out the rationale, motivation and strategies of organic producers in Thailand as well as constraints and opportunities as the farmers perceive them.

Subject of the research was to cover the entire country of Thailand, but sample regions were selected in order to identify possible regional differences and differences between regions

around large cities and peripheral regions, such as with farms near Bangkok (supply with fresh vegetables) and farms situated in remote areas, e.g. in the north-east of the country (rice, preserves and other durable products). As there are regional concentrations of organic farming, farms to be visited were chosen from three parts of Thailand where most organic farming activity takes place. These are in central Thailand, including provinces relatively close to Bangkok, the North and the North East.

To select farms for the investigation, operators lists by DOA and ACT as well as information provided by experts and from the internet, provided a basis to determine a pool of farms to choose from. Fifteen farms were chosen. Considering the small scale of the investigation, sampling needed to conform to temporal and financial means. therefore the initial farm selection by the author was changed after being discussed with the experts from Thammasat University and after the key actor interviews had been carried out. One of the reasons to change the original plan was that time for case studies was limited, therefore and to reduce driving time it was decided to concentrate on farm visits to just a few provinces.

Codes for farms/producers: For easier identification of the individual producer in the text, each farm visited is provided with a code number valid for this study. This number is used for quoting, so that details or original interview proceedings can be looked up. The code contains three letters, such as CSC, CSN, CSE or CSM. CS stands for Case Study, the last letters C, N, E stand for Central Thailand, Northern Thailand, North Eastern Thailand, respectively. CSM stands for a producer interviewed by email. The number behind the three letters was added according to the order of visits. Each farmers group, commercial family farm, large conventional company with organic product line was provided with such a code. To address a single farmer or certain person inside a group and to make quoting more accurate, some codes are extended by an additional letter. For example at CSC 3, Suphanburi Organic Farmers groups, three farmers were visited, they are quoted as CSC 3 a, CSC 3 b, CSC 3 c. CSC 3 meaning that the group as a whole is referred to.

After the farms had been chosen so that all producer types of farmers were included they were contacted and asked if they were willing to be interviewed and the trips were planned accordingly. The farm visits were completed in two trips, one to provinces in Central Thailand, one to the North and the northeast. A minibus with two drivers was hired for the journeys. During the case studies and expert interviews Dr. Suthichai Somsook from the Department of Agricultural Technologies, Thammasat University and his assistant, Nakorn

Limpacuptathavon acted as interpreters, and contributed Thai-related specific knowledge and organisation. Being well acquainted with organic farming in Thailand they were also helpful dialogue partners in reflecting on the interview outcomes.

Depending on the size and complexity of the producer or producer group, the number of interviewees and distance between the farms, about a day or half-day was dedicated to each case study. Farms were visited and interviews were carried out with the farmers, the managers and the presidents of groups or companies. Depending on the interviewee's English skills, conversations were conducted in English or Thai with interpreting.

Although a questionnaire had been prepared, it proved more useful to have a free conversation, as it better reflects the interviewees' very own interests in the topic. Following points were addressed in every interview:

Data to be collected included:

- General information for data organisation such as name, address, date, code and farm type (as defined in this study).
- Characteristics of organic farms: Size of farm, size of plots, number of crops grown, type of crops grown, number of harvests/year for each crop, number of farm labourers employed (year round/seasonal), certification issues, marketing channel, share of production for household consumption / local / national / international market; defining the trading partners;
- History, co-operation, networks, support, inputs and sources of knowledge, change in life and community
- Motivation for organic production (demand-oriented; marketing opportunity; values of the organic movement, etc.)
- Perceived problems with organic production (e.g. with plant production issues, certification, marketing constraints, export constraints, customer information on organic production, competition with safe/hygienic foods on the domestic market)
- Perceived opportunities in organic production (e.g. niche markets, export potential, healthy farm- working conditions, lower environmental pollution, less debt/dependence on inputs)

- Future expectations (expected development of organic farming in Thailand, market development); wishes/needs (government policies, regulations, extension, research, customer awareness, transport, marketing, etc.)
- Remarks on the conditions during the interviews (atmosphere during the conversation, disturbing factors from outside, influence by the interviewer etc.) and other relevant observations.
- A brief description of the location and appearance of the farm.

2.2.4 The SWOT analysis method

In this section the relative strengths and weaknesses of the different producer types are evaluated to find elements for a possible future agenda. The SWOT analysis is based on the weaknesses and strengths, opportunities and threats found during the visits to organic producers, and, the interviews with key actors. Internal factors are strengths and weaknesses of the producer, external factors are opportunities and threats to the environment that have to be calculated. This is supplemented by the author's observations and reports taken from relevant literature.

These elements are combined following the rules of SWOT analysis to create a variety of situations organic producers might be in or might become confronted with. (Steiniger 2003, Dunlap 2006). The internal factors of weaknesses and strengths are combined with the external factors of opportunities and threats to create situations, which may occur in the future. The combinations are strengths-opportunities, strengths-threats, weaknesses-opportunities, weaknesses-threats. For each combination a question was formulated such as "Which strengths of organic producer groups can be employed to fight which threats?". The answers to these questions are entered into a SWOT-matrix. Accordingly a selection of promising activities is listed.

The SWOT analysis should be seen as a preliminary result that would strongly benefit from a validation by stakeholders. This validation might be done as a participatory process applying creativity techniques. Interest groups could find a common basis for the development of organic farming in Thailand. By use of moderation techniques a consensus could be achieved. The outcomes can then be grouped, structured and weighted, to find priorities for own activities and to determine policy suggestions. Also, the measures must be formulated concretely, depending on the specific situation of the producer or producer group.

3 Organic farming in Thailand

3.1 Definition of organic farming

It is especially important to exactly delimit the term “organic” as it is often confused with other terms of quality indication such as “hygienic” or “safe”, meaning that these products have been processed with lower pesticide use or residues. Sustainable and alternative farming comprises many different approaches. In Thailand, for example five differing farming systems are perceived as being sustainable: integrated farming, organic farming, natural farming, agro-forestry and New Theory farming (Jitsanguan 2001). The term “organic”, however, can be used only for those products which have been produced following specific criteria and which are certified.

Organic farming is a term for farming methods which follow a specific minimum criteria laid down e.g. by the Codex Alimentarius Commission (CAC 2001) or the International Federation of Organic Agriculture Movements (IFOAM, 2004). The Codex Alimentarius defines, that organic agriculture is: “based on holistic production management systems which promote and enhance agro-ecosystem health, including bio-diversity, biological cycles, a soil biological activity. It emphasises the use of management practices in preference to the use of off-farm inputs, taking into account that regional conditions require locally adapted systems. This is accomplished by using, wherever possible, cultural, biological and mechanical methods, as opposed to synthetic materials, to fulfil any specific function within the system.” (CAC 2001)

According to IFOAM, organic agriculture is put into a wider context, adding social aspects by defining four principles. The first, the principle of health, says that organic agriculture should “sustain and enhance the health of soil, plant, animal, human and planet as one and indivisible”. Second, the principle of ecology, meaning that the production system should be based on living ecological systems and cycles, that it should work with them, imitate them and help to sustain them. The third, the principle of fairness, says that organic farming should “build on relationships that ensure fairness with regard to the common environment and life opportunities”, the fourth and last is the principle of care, it appeals to precaution and responsibility to protect “the health and well-being of current and future generations and the environment” (IFOAM 2005 a).

The Thai private organic certification body “Thai Organic Agriculture Certification” (ACT 2003, 8) sets following basic rules and aims for organic production:

- To develop the production system to integrated farming which deals with a diversity of plants and animals.
- To develop a self reliant production system in terms of organic matters and nutrients on the farm.
- To improve and maintain natural resources by seeking to use renewable resources on the farm.
- To maintain the ecological system on the farm and with respect to ecological sustainability
- To protect and avoid practices that will cause pollution to the environment.
- To promote the production system and management respecting humanity.
- To adhere to principles of handling and processing by applying natural methods, conserving energy and reducing negative effects on the environment.

3.2 Development of the Thai organic farming movement

Even though still at the beginning, in Thailand too organic farming has been gaining in importance. NGOs recognized the potential of organic agriculture to alleviate poverty among the rural population, so in the early 80s farmers chose organic farming as a possible alternative to mainstream agriculture. The first time the government mentioned organic farming - together with other alternative farming methods, was in the 8th Economic and Social Development Plan 1997-2001. It set the goal to convert 20 % of the arable land to sustainable agriculture, including organic farming. However, so far this goal has not yet been reached.

In 1999 the Department of Export Promotion initiated a “Pilot Project on the Export of Organic Farm Products”. In 2001 the official “Standards for Organic Crop Production in Thailand” (SOCPT) came into effect. A certification system and a logo for organically grown products were developed, too. In 2002 the National Office of Agricultural Product and Food Standards developed a national organic agriculture criterion. The standards therefore are freedom from chemicals for at least three years before the first organic harvest.

Planning to become a major organic crop producer (PRD 2004), export has been a main aim in Thailand's organic farming policy and thus the Department of Export Promotion is active in the support of export production and encourages private companies with organic product line to put up organic food exhibitions in Thailand and abroad. The Department of Export Promotion also facilitated trade promotion projects such as the "Pilot Project of the Export of Organic Farm Products", which was initiated in 1999 and aimed to promote the production and export of organic rice, banana, asparagus and baby corn.

Organic agriculture in Thailand is often confused with sustainable agriculture or alternative agriculture. There are more activities of the government in the field of "organic farming" through local government agencies, but these products have not gained organic certification yet. No subsidies for organic agriculture have been provided so far.

3.3 Production, certification and marketing

3.3.1 Acreage, location and products

Compared to other Asian countries Thailand lies in the upper middle range regarding the development of organic farming (Willer & Yussefi 2004, p. 71). So far, about 13900 hectares are under organic management, i.e. 0,07% of the total agricultural area. The Asian average in 2004 was about 0,16% (Willer & Yussefi 2005, p.15). At present, organic production in Thailand focuses on export and thus products worth about 17 million Euro worth are exported per year (Chaivimol 2004, p. 1) with the market leader Capital Rice accounting for 30 % of the sum. The domestic market is still weakly developed but growing. Products are sold in supermarkets, speciality shops and through direct marketing (Panyakul 2003, p.77, Roitner-Schobesberger 2006, p. 8). Partly, organic products are sold on local markets free of premium at normal prices.

There has been a considerable increase in organically managed areas and in organic producers in Thailand in recent years. The area under organic management in 2003 in Thailand was by 4324 hectares, representing about 0,02 % of the total farmland (Willer & Yussefi 2003, p.61), according to IFOAM in 2005 the acreage rose to 13900 hectares, representing 0,07 % of the total farmland (Willer & Yussefi 2005, p.15). Figure 1 shows the development of organically managed area in Thailand from 1998 until 2005.

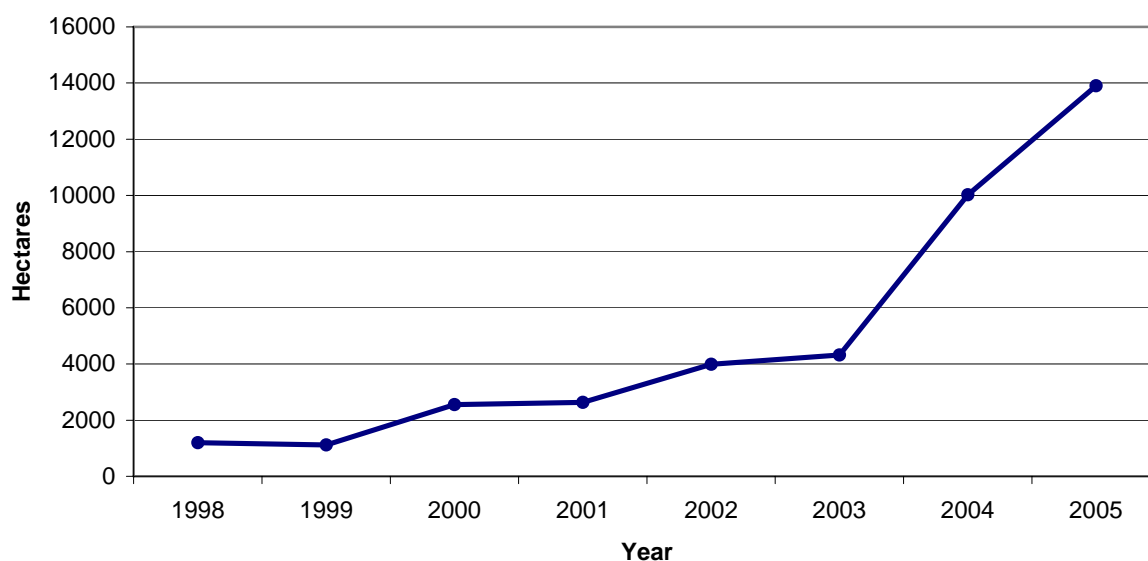


Figure 1: Development of organically managed area 1998-2005 (Approximate figures, (Panyakul 2003, p. 76, Willer H. and Yussefi M. (eds.) 2004, p. 76, and 2005, p.15)

Table 1 shows the number of farms and areas under certified organic management in 2004, separated by several certification bodies (Ellis, Panyakul 2005, Green Net 2004). Differing total numbers may result from double counts of producers who are certified by more than one certification body.

Table 1: Certified organic areas of Thailand 2004 (source Chaivimol 2004)

Certification bodies	No. of farms	Area in hectares
DOA	818	3246
ACT	982	1979
Foreign CB's*	1000	4800
Total	2498-2800	10025 - 13899

* foreign certification bodies include the Italian Bioagricert, the German BSC, Australian Certified Organic, Krav-Ekonomisk Förening from Sweden, the British Soil Association, and International Certification Services Japan ICS (IOAS 2006). Compare chapter 3.3.2.

Organic Agriculture Certification (ACT) certified farms and operators doubled between 1998 and 2000 from 83 to 156 (UNESCAP 2005), but then decreased again to 72 operators in 2005 because farmers had formed groups to facilitate group certification which is cheaper than individual certification.

Farm sizes vary widely and considerably, comparing the average size of producers with different certification bodies, depending on their different needs and financial capacities. The farm sizes of individual ACT certified producers range between 0,48 to 31,5 hectares whereas the average for individual organic producers is about 5 hectares. ACT certified groups managed areas between 6 and over 1000 hectares, the average size of the single farms in these groups is 2 hectares (ACT 2005). DOA certified individual farms manage 3,5 ha on average, the largest groups managed areas up to 400 hectares (DOA 2005). Areas certified by foreign certification bodies are larger, such as the areas certified by the Italian Bioagricert which are in average 554 ha in size, as their customers are mainly larger companies.

The location of the farms certified by ACT, DOA and Bioagricert is shown in Figure 2. Organic producers are concentrated in the central provinces around Bangkok, in the northeast, especially in Surin and Yasothon and in Chiangmai in the North. There are only a few producers in the South.

Crops grown are predominantly rice and vegetables. Production of organic jasmine rice is concentrated in Yasothon, Surin, Konkaen, Chiangrai and Phayao. Organic baby corn is mostly grown in Chiangmai and Kanchanaburi; Soybean in Chiangmai; herbs in Prachinburi and cotton in Sakonakhon (UNESCAP 2005). Two thirds of the area are used for rice and field crops; herbs, vegetables and fruits are cultivated on almost one third of the area. In the South, coconut and oil palm are grown, in the East fruits, coconut and herbs (ACT 2005, DOA 2005, Bioagricert 2006). Mulberry for silk production is grown by one group, honey is gathered in wild. There are also initiatives to produce livestock, fish and shrimps, such as the shrimp production by the large agrobusiness Capital Rice (Pongvutitham 2004).

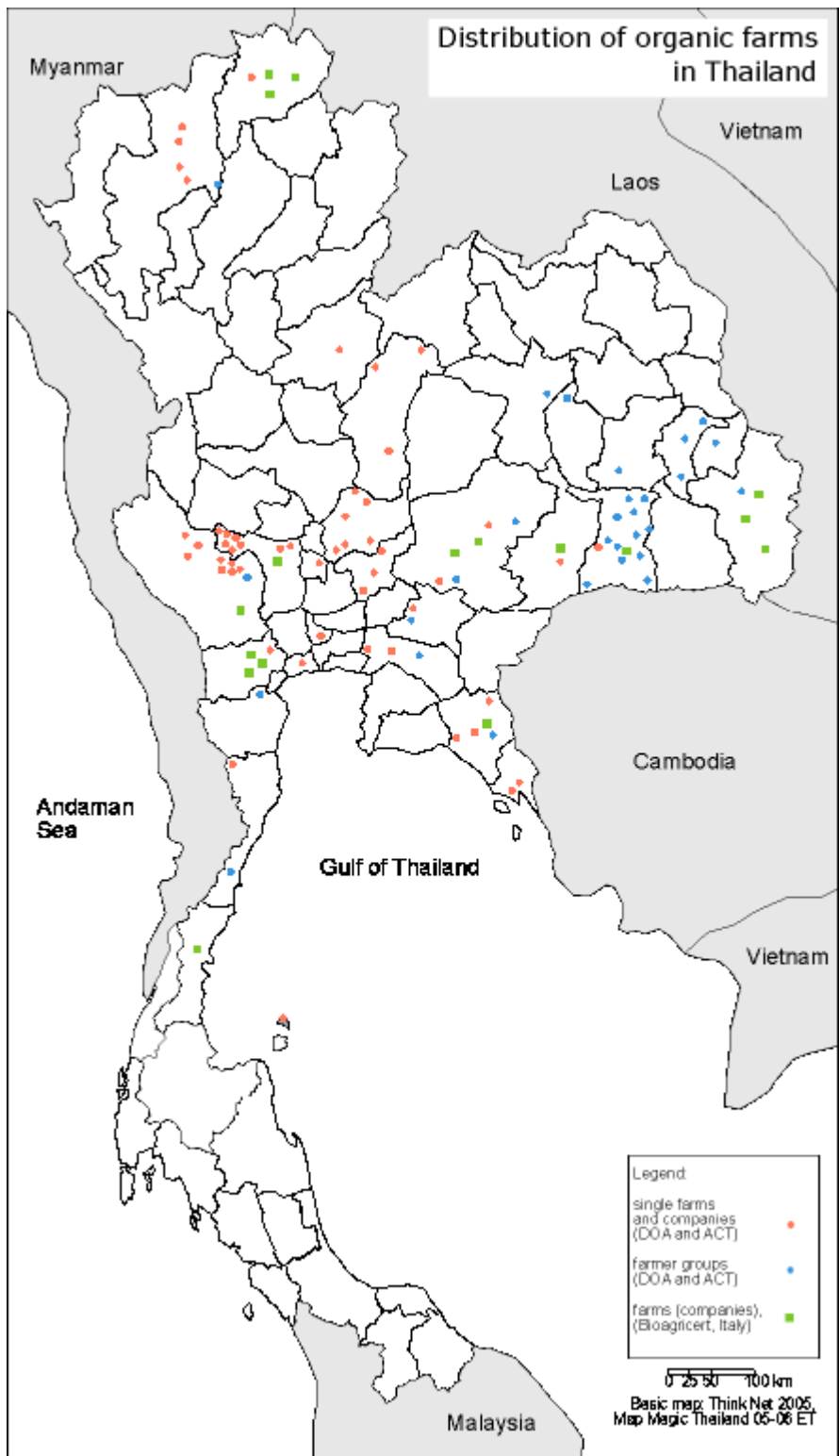


Figure 2: Distribution of organic farms in Thailand, classified by producer type and certification body. (note: only DOA, ACT and Bioagricert certified producers are included)

3.3.2 Certification

A considerable number of farmers in Thailand are working without agrochemicals. While there are about 11200 ha (13900 ha according to Willer and Youssefi 2005) of certified organically tilled land (Chaivimol, interview March 2006), Chaivimol estimates that 64000 ha are “non-certified organic” farming area, (interview in March 2006). All agricultural area managed with sustainable farming methods make up 10 % of the total agricultural area in Thailand (according to Green Net/Earth Net 2004). These “non-certified organic” activities include traditional farming and other sustainable farming methods, probably having similar beneficial impacts on health, environment and society. However, the focus of this paper is on organic farming, so only organic certified farmers have been looked at.

Certification is necessary to make sure that organic criteria are being followed correctly, so that the customer can trust in the quality of the products and that organic brands can be created so that the product is distinguishable from products from other sustainable or conventional farming systems. This is of special importance in Thailand, where awareness of organic products is still weak (Panyakul 2003, p.77, Roitner-Schobesberger 2006, p. 7). Organic farming is often confused with alternative or sustainable agriculture, customers do not know the difference between organic products and so-called green or hygienic products, i.e. products produced with less agrochemicals (Roitner-Schobesberger 2006, p. 7).

According to a study by Green Net/Earth Net (2004), 37 % of organic farm land are certified by ACT (Organic Agriculture Certification Thailand), 13 % by the Department of Agriculture (DOA), 0,3 % by NGOs operating in the North and 50 % of organically managed land is certified by foreign companies. Organic Agriculture Certification (ACT), an independent private certification body, established in 1995, was the first Thai certification body offering internationally recognised organic certification. The Thai government adopted national standards for production of organic products in 2000. In 2002 the Institute of Organic Crops was established as a national certification body and as a research and development centre. Also in 2002, the “Organic Thailand” brand was established. The Ministry of Agriculture and Co-operatives attempted to adopt the DOA procedure for organic fisheries and organic livestock. Unlike the integrated certification of ACT, in this case crops, fish, livestock and fertilisers etc. must be certified at four different departments of the Ministry, which is difficult as farmers with integrated farm systems then require up to four separate certifications. Foreign certification bodies acting in Thailand comprise certification bodies from Italy

(Bioagricert), from Germany (BSC), from Australia (Australian Certified Organic), from Sweden (Krav-Ekonomisk Förening) and from Britain (Soil Association) (IOAS 2006).

3.3.3 Marketing

The prevailing opinion of the NGOs is that (organic) production should meet the farmer-family's needs first. Once that is secured, surpluses can be sold to others. Ideally, organic products should serve the local population next, instead of being delivered mainly to foreign markets. But currently, even NGOs concerned with social and health issues export the bulk of the organic farmers produce, because the local market is not large enough yet. Therefore, certified organic food presently is produced mostly for export (Setboonsarng and Gilman 2003). Thailand exports rice, vegetables, beans, fruits with price premiums of 10 to 30 percent (Willer and Yussefi 2000, p. 46).

Potential for the production of organic foodstuffs for export is considered to be high as the European and U.S. American demand for tropical organic products is increasing. Despite production increase, the demand still seems to outstrip supply (Willer, Yussefi 2000, 70; Pilkauskas 2001), as is the case with organic Hom Mali or Jasmine fragrant rice (Chaivimol 2004,1). Therefore, there is an opportunity for exports to meet demands in these countries (Pilkauskas 2001).

The potential in local markets of many countries has not been tapped yet either. (Willer, Yussefi 2000). As in most Asian countries, there are few local markets for organic produce in Thailand and local distribution is problematic. Often, organic products are sold without premium price (Willer, Yussefi 2000, 42). There are a few specialised shops, but access is difficult for producers and customers (Setboonsarng and Gilman 2003). Although awareness for "health food" has developed during the recent years due to health problems caused by contact with or consumption of pesticide residues on fruits and vegetables (IPM 2003), organic products still are considered a product for the upper classes and for foreigners. Thus it will be necessary to transport more information to, local customers in order to develop the local market (Roitner-Schobesberger 2006).

3.4 Potential of organic farming in Thailand

Ellis and Panyakul (2005) identify three major trends that contributed to the development of an organic agriculture movement in Thailand. These trends are: rising public ecological and health awareness and a response to the crisis faced by the farm sector.

The major motive for Thai farmers to convert to organic farming is to be found in the crisis the agricultural sector is in, for, in Thailand 12 % of the rural population live beneath the national poverty line (ADB 2005, 140). Although much lower than in most other South East Asian countries this is still a matter of concern. The support of organic farming to alleviate poverty is one of the goals of the UN Economic and Social Commission for Asia and the Pacific (ESCAP 2002). In a regional workshop on the role of organic farming in poverty alleviation in Chiangmai in November 2001, five conclusions were reached (Stevens 2002). One to be mentioned here is, that organic agriculture can alleviate poverty mainly by reducing the dependence from external inputs. Another outcome was the demand, that governments of developing countries should support organic farming because of its potential to increase employment, income and food security for small-scale farmers in rural areas (Stevens 2002, 17).

The profitability of organic farming was shown in a cost benefit equation between conventional and organic farming in Thailand conducted by Ratanawaraha (2002). The net income was calculated for conventionally and organically grown rice, pomelo and cucumber. In all three examples the net profit of the organic production outstripped the conventional one. In the first example, the yield of organic rice was lower than that of conventionally grown rice, but on the conventional farms, expenditures for pesticides, fertilisers and labour were higher. Thus the net profit for the organic productions was slightly higher. The calculations for pomelo production showed the same pattern, the yield of organic pomelos being higher than that of the conventional ones. However, this study does not mention product quality, which is more of interest for sale and export.

3.5 Key actors of organic farming in Thailand

The main actors in the organic sector are producers and producer organisations, NGOs, Certification Bodies, traders, the government, international organisations and the customers. Figure 3, p. 31 gives an overview over the most important actors and their roles in the organic sector.

3.5.1 Producers

Producers in organic farming are mostly farmers organised in farmers organisations and NGO-supported organic projects but there are also a number of commercial family farms and large businesses. Jitsanguan and Sootsukon (2005) observe a dualistic structure between large-scale agribusiness and small-scale farmers in Thailand. Ellis and Panyakul also distinguish between two major categories: producers with single farms and smallholders working together (Ellis, Panyakul 2005; UNESCAP 2000). The main focus of the study is on the producers who are described in more detail in chapter 4.

3.5.2 NGOs and other organisations

NGO play a crucial role for the development of organic farming in Thailand (Panyakul 2002a: 26). Green Net and the Alternative Agriculture Network, AAN are important players in this field. They promote organic farming by co-operating with farmers groups and co-operatives, and traders e.g. fair-trade organisations, by mediating between the farmers and the government. They are active in organic farming extension work, marketing of the products, research and development and market development. Extension is promoted by the Alternative Agriculture Network AAN (Od-ompanich (n.d.), pp. 3 and 6) and by Earth Net; Green Net plays an important role in the marketing of organic products (Green Net, Earth Net web site 2006).

Based on spiritual principles and active in extension of organic farming Buddhist institutions such as local Buddhist temples and especially the Buddhist movement of Santi Asoke, supports poor farmers to convert to organic farming, which will enable them to live an independent, debt-free and healthy life, according to Buddhist values (see chapter 4, special cases).

The Alternative Agriculture Network AAN is also engaged in the extension of sustainable agriculture, it has undertaken the task to find funds to support farmers' activities, and to support extension to reduce pesticides, and, also co-operates with farmers in regard to research issues, as for example soil improvement, in each area. It attempts to push the policy for sustainable agriculture and is also active concerning free trade agreements, against GMO, for the conservation of native varieties and for the improvement of local genetics. The Sustainable Agriculture Foundation (SAF) was established with government support, it is doing academic research on sustainable agricultural topics.

3.5.3 The Government

The Government's interest in organic agriculture started later than that of NGOs and its role in organic agriculture is still small although increasing. Since the economic crisis in Thailand in 1997 the King of Thailand has been supporting the idea of Sufficiency Economy. In his Royal speech given on December 4, 1997 he said that "to be a tiger is not important, the important thing is to have a self-supporting economy" (UNDP, 2003). A self-supporting economy means to have enough to survive, explained the King. Not each family must produce its own food and everything they need for life, but each local unit such as the village or the district should be relatively self-sufficient. Surpluses can be sold in the same region, not too far off to minimise transportation cost. "Some other people say that we must have an economy that involves exchange of goods that is called "trade economy", not "self-sufficient economy" which is thought to be unsophisticated. However, Thailand is a country that is blessed with self-sufficient productivity [...]" (UNDP 2003).

Since the King of Thailand has been supporting the idea of sufficiency economy it has become popular, even if export-oriented agriculture continues to be strongly supported still. The first time sustainable agriculture, including organic farming, had received more weight was in the 8th National Economic and Social Development Plan (8th Plan), which was also the result of the work of NGOs. This plan for the five-year-period 1997-2001 started out from socio-economic and political conditions that are described as increasing imbalance of development among economic and social issues and environment. Therefore the Eighth Plan "pursues sustainable development by regarding human development as the main target of national development. It focuses on administration, management, and decentralisation of authority planning to allow greater popular participation" (Royal Thai Government, 1997).

This was the first time sustainable agriculture, which included organic agriculture, was mentioned in Thai politics.

In the 9th National Plan for the years 2002 – 2006 sustainability was a significant term. It followed the King's principle of "Sufficient Economy", to be the "country's development and management philosophy". It attached importance to a balanced development, the "middle path" strategy being another important keyword in the 9th plan (NESDB, n.d.).

Today government organisations are involved in organic farming through policy, certification, accreditation, support, extension, research and development the responsibility for this policy lies mainly in the hands of the Ministry of Agriculture and Co-operatives. The Department of Agriculture, the Department of Fisheries and the Department of Livestock are responsible for extension issues, the Department of Agriculture Extension is responsible for the support and extension matters. Certification is provided by the Department of Agriculture. Accreditation is carried out by the ACFS. The Land Development Department co-ordinates the 6 Ministries concerned with organic agriculture. Only a handful of government officials are assigned to deal with organic farming matters only, the majority have many other additional responsibilities (Interviews ACFS, LDD, DOF, DOL).

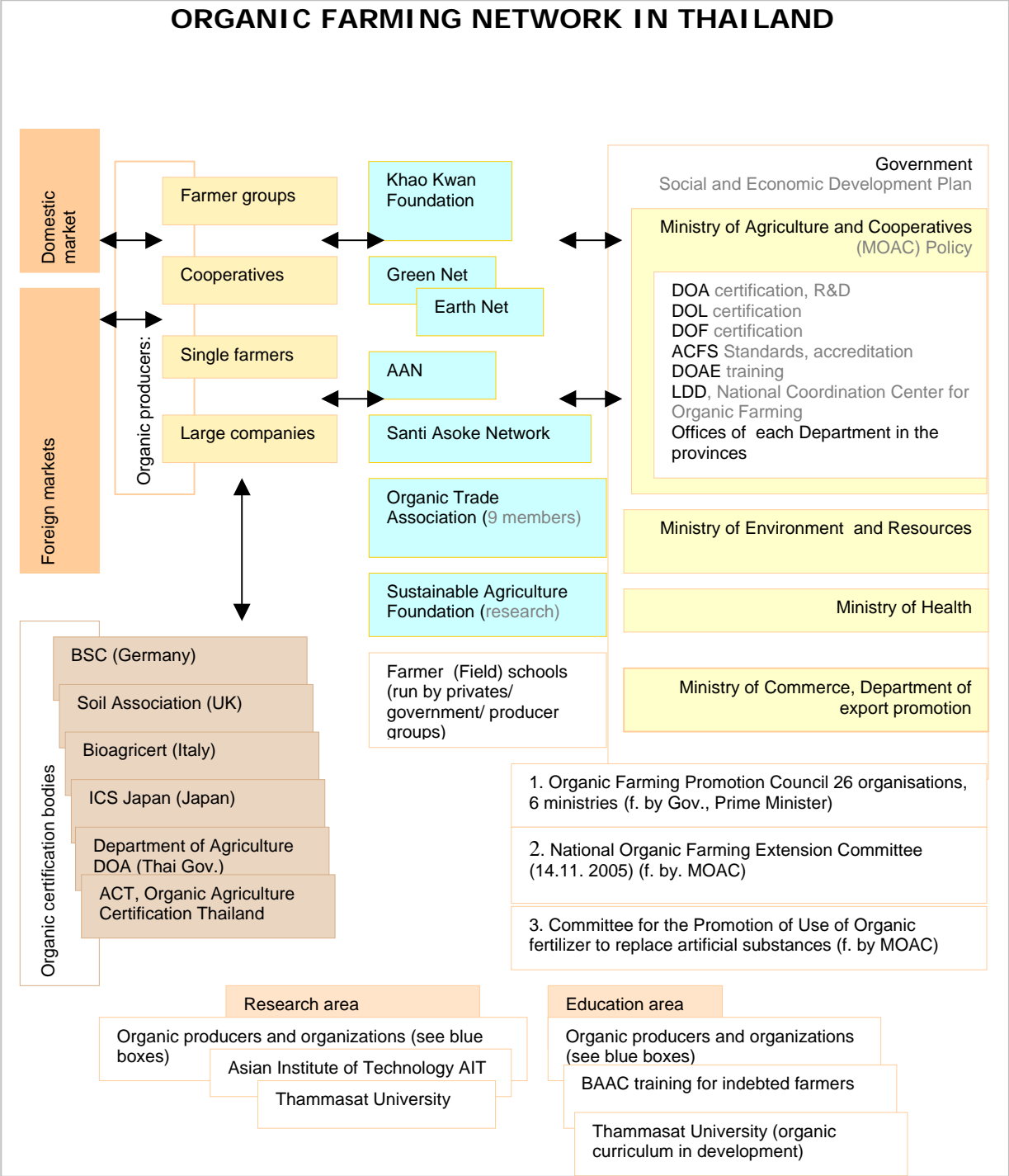


Figure 3: The organic farming network in Thailand

4 Typology of organic farmers in Thailand

The basic idea of this work was to categorise organic producers in Thailand. These are:

- farmers groups and co-operatives
- commercial family farms
- agribusinesses (large conventional farms with organic product lines).

These three types differ from each other in their market orientation, products, their technologies and their geographical location.

This division into three types of farms is a differentiation based on organisation and, to a limited extent, on farm size. The organisation structure of a producer is more essential and hence more useful for classification than the size of the arable land or the kind and amount of production in this context, that is because different production focuses such as herbs and rice require differently large areas under cultivation therefore they are very different in size even if comparable concerning the organisation of the producer.

4.1 Farmers groups and co-operatives

Ten farmers groups were visited, three in the North, four in the Centre and three in the north-east and East of Thailand (see Figure 2, p. 24). Most of the visited organic farmers groups are grassroots movements, founded by farmers or by NGOs. Some have registered as co-operatives and are therefore bound to certain governmental regulations. Many farmers groups' activities are being supported by the King of Thailand. In the North of Thailand one large royal project is, in progress, a part of which is dedicated to organic farming. Buddhist farmers groups play a significant role in the support of organic farming, as will be described later. Farmers groups CSC 3 is an informal group of organic farmers. In the overview map of organic producers these farmers are depicted as single farmers as they held single certifications when the study was being compiled. One to five interviews or group interviews, together about 30 interviews were carried out, 19 producers visited (see Table 2, p.33).

Table 2: Farmers groups and co-operatives chosen for the study

Farmers groups and co-operatives in the North:	Type, size and location of the group	Organic certificate	Organic produce	Interviews / visits
CSN 1, Organic Agriculture Project Maetha Sustainable Agriculture Coop. Co. Ltd.	co-operative with 135 producers, 54 ha, Chiangmai	ACT	baby corn	4/2
CSN 2, "The Organic Vegetable Project" by The Royal Project Foundation	Royal Project, 24 families in Chiangmai, together 50 ha	DOA	vegetables	2/2
CSN 3, Organic Agriculture Group, Agriculture Development Coop. Ltd., Maerim	co-operative, 30 members in Chiangmai	ACT	soy bean, red jasmine rice	3/1
Farmers groups and co-operatives in the Centre:	Type, size and location of the group	Organic certificate	Organic produce	Interviews / visits
CSC 1, Lavothani Asoke	Producer Group of Asoke Network, 60 producers, Lopburi	DOA	vegetables	2/2
CSC 3, Suphanburi Organic Farmers groups	Producer Group, 9-14 families, about 8 ha, Suphanburi	ACT	vegetables and fruits	3/3
Farmers groups and co-operatives in the North East and East:	Type, size and location of the group	Organic certificate	Organic produce	Interviews/ visits
CSE 1, Monmai Development Network Eastern Region	Producer Group, 14 producers, 6,2 ha, Konkaen	ACT	mulberry	Group/1
CSE 2, Nature Care Club	Producer Group, network of partly registered groups, 324 producers, 1072 ha, Yasothorn	ACT	rice	5/1
CSE 3, Loengnokta and Taicharoen Organic Agriculture co-operative Ltd.	co-operative, 60 members, 260 ha, Yasothorn	ACT	rice	Group/2
CSE 4, "The people of a neighborhood development study centre" Nakhon Ratchasima	Producer Group, 30 organic producers	DOA	vegetables	3/4
CSE 5, Organic Herb Project, Foundation of Choapraya Abhaibhubejhr Hospital	Producer Group, 17 farmers, 17,5 ha Prachinburi	ACT	herbs and ornamental plants	1/1

4.1.1 Production, marketing and certification

4.1.1.1 Production

Organic farmers groups and co-operatives are spread nearly all over Thailand, often in remote districts which are unfavourable for agriculture. Production is very diversified, including many local varieties. For every visited farmers groups self-sufficiency is a main goal, even if the methods to achieve it vary. Some groups try to produce things of daily need on their own,

from food to washing liquid and even housing whereas others produce only one crop, which can be sold through Green Net.

Certified production comprises rice, vegetables, fruits, and some herbs. Some farmers, after having converted to organic farming start producing a variety of vegetables, but then develop an integrated cropping system including fruit and timber (CSC 3c, CSN 1e). This way the farmer has a permanent source of income and also provides for his old age (CSC 3c). Some farmers in organic production invest money in irrigation systems, ploughs or power shovels to dig for water. Other external inputs are gasoline, seeds, straw and chicken manure.

To some extent products are processed and packed in community owned facilities, always depending on the group's funds. Facilities vary greatly ranging from simple huts to which vegetables are brought and then packed or houses for the processing and packaging of rice up to actual rice mills, small organic fertiliser plants and cooling houses which are jointly used.

4.1.1.2 Certification

Out of the ten farmers groups and co-operatives visited seven were certified by ACT (Organic Agriculture Thailand), three were certified by DOA. It is an often pointed out fact that many farmers practice chemical-free agriculture but do not apply for certification as they market their products locally or with special marketing schemes such as customer supported agriculture. DOA certification is often preferred because it is free of charge, other organic certification can become expensive. ACT encourages farmers to apply for group certification as it is cheaper and easier than to certify each individual farmer. As many others, a group in Suphanburi has followed this suggestion (CSC 3). Previously they had certified individually, but were now applying for group certification. The group was not interested in the new DOA certificate, as it is thought that the DOA works slowly because they employ fewer inspectors. The older and better-known label "Organic Thailand" was worth considering for the group. The group leader wanted to keep his individual certification, to be more unrestricted.

Still, since the Department of Agriculture offers free organic certification, many farmers choose this type of certification to avoid the costs demanded by private certification bodies. Another way to reduce certification costs is to get group certification combined with an internal certification system, in which the farmers group establishes a system of internal self-control, which ensures that all individual members comply with the required standards and that documentation is complete and precise. The certification body then controls if the internal

control system is working properly and makes random checks on individual farmers. (IFOAM, 2005 c)

Another possibility chosen by one producer, who also holds national certification was, to invite the importer from Europe over to his farm in order to convince him of the origin and quality of his products. Small-scale farmers can even quit certification if they have a market for their products, especially when they work on a trust basis with customers and the customers appreciate the farmers' work.

4.1.1.3 Marketing

So far, the major part of sold organic products is exported. Farmer organisations and NGOs can co-operate with fair trade organisations to reach higher prices. This is especially true for marketing of durable products like rice. Some groups sell fruits and vegetables at the local market. This way co-operating farmers can save transportation costs.

Surplus is exchanged for other products or sold on the local/ provincial market, at schools, or small shops (CSC 3, CSN 1). Some products (rice, corn, cold-weather varieties of vegetables) are exported, mostly via an NGO such as Green Net. Marketing in groups is considered easier than as a single farmer. Fresh products are collected and transported to one place and then sold together. Farmers groups, co-operatives and NGOs are making great efforts to develop the domestic market as for example in Suphanburi (CSC 3), where a small organic farmers groups is attempting to establish an organic market. They are engaged in customer education and have been implementing a Community Supported Agriculture scheme (CSA) for three years. In a customer supported agricultural scheme customers share the costs of production, this way the risk for the individual farmer is minimised (see chapter 4.1.2.2, p. 39).

4.1.1.4 Motives

The majority of visited farmers stated that they had to convert to organic farming for economic reasons. Many farmers convert to organic farming because they are in debt and hope to solve the problem by reducing their dependence on purchased farm inputs and by making higher profits for farm products. Some want to convert because the prices for conventional products have dropped too low. Concern about health-risks ranks highly too. The farmers are motivated to reduce health risks due to agrochemicals and to improve the farm's environmental condition and fertility. (CSC 3 first health problems, second financial problems). Among farmers groups and co-operatives organic farming is often promoted by non-governmental organisations as one tool among many towards sustainable rural

development. There are some career-changers in organic farmers groups and co-operatives which worked in non-agricultural sectors but then decided to become farmers, to change to their lives and /or society.

Lavothani Asoke's expectations for the future are to make an attempt to produce vegetables for the local market. At present healthy food is not available for the local population because organic producers sell their farm products in Bangkok. A member of a small farmers group said, if the land belonged to him, he would like to make a homestead and go into agro-tourism, because he intends to offer healthy food to tourists in order to promote the ideas of organic farming and subsequently tourists might become customers of organic products. His future plans are to grow fruit trees, timber and medicinal plants.

4.1.2 Distinction among organic farmers groups. Four cases

Ten groups were visited with ten to over 300 family members. Within the category of organic farmers groups a further distinction between four groups can be made. Four cases of farmers groups and co-operatives in organic farming shall be described here, these are:

- Co-operatives. They are subject to certain rules regarding structure and organisation of the group, but they can apply for financial support for investments (co-financing) for the co-operative.
- Unregistered groups. These groups cannot get such financial support, but they are freer concerning their self-organisation. Funding can sometimes be obtained on provincial level, depending on the responsible provincial official. Otherwise other sponsors must be found such as the Canadian Government in the case of (CSC 3), or people supporting the project by buying shares (CSE 1).
- A Royal Projects' organic farmers group. This group is a farmers groups established within the frame of the Royal Project. The members belong to ethnic groups living in the mountains of northern Thailand. The working procedure is similar to a large business assigning contract farmers to produce a certain amount of a certain product. The seeds are provided by the extension worker.
- Farmers groups of the Asoke Network. The farmers group Lavothani Asoke is part of the Asoke Network of Thailand, the activities are religiously motivated, the organisation and

working procedure is, compared to the other farmers groups, similarly participatory. Buddhist monks play an important role as teachers, motivators, authorities.

4.1.2.1 Co-operatives

The “Co-operative for Sustainable Agriculture Maetha” in Chiangmai was registered in 2001 emerging from the Maetha Co-operative which was founded in 1986, when activists of a non-governmental organisation stated that the region was very poor. This co-operative operated as a buyer’s co-operative. When the network expanded it started to face major problems due to corruption within it. In addition it could not be supported by the government as it was not registered as a co-operative. The network was eventually eliminated because of these problems, but some representatives made efforts to develop a more effective group by visiting and studying successful co-operatives. When they had gained insight and had analysed the root of the problem in the former group, they found that most farmers had been using chemical fertilisers and pesticides. When the network had first been established, the use of fertilisers and pesticides was even intensified. After having studied further groups they finally founded the “Co-operative for Sustainable Agriculture Maetha”, registered in 2001. The main purpose of this co-operative lies in the promotion of the farmer self-efficiency.

On average the farm-area owned by each member amounts to 0,72 hectares (ACT list December 2005, conversion area included). The main product is baby corn, some farmers, however, follow integrated farming methods. One grows native vegetables and herbs, such as basil, chives, celery beneath passion fruit alcoves, pineapples and lemon grass (CSN 1, Mrs. Paturngsee), similarly another farmer is also responsible for a herd of pigs. The co-operative is trying to raise them following organic principles, however, certification for livestock is not available yet.

The group is structured according to the regulations for every co-operative. There are 135 producers. The co-operative is run by ten staff members. The members of the committee belonging to the old generation, train the young to work in the co-operative. Some hold a bachelor degree, some have graduated from at high school or at a vocational education level. It is important for the group that the old and the young generation share experiences and thus the group develops its participatory technology skills. A farming school in co-operation with Green Net was set up for training. Teachers are experienced farmers and from time to time visiting teachers are invited. The farmers survey the ecosystem, observe the plants, discuss problems in the group. They analyse problems and discuss what the best solutions might be. If

a conventional farmer is thinking of converting the old members have the duty to encourage him in the process and to build up his self-confidence when he is discouraged when yield and income are low. Some co-operative members are still conventional farmers. If they have received a loan from the co-operative but finally do not convert, they cannot stay members of the co-operative.

The administration team allows inspectors to control every activity, to ensure a transparent administration. The head of the group and the working committee try not to take advantage of their position. It is important that the leader is without self-interest, so that he can be trusted. The head of the co-operative should be a „natural leader“ with a vision who is elected every two years according to co-operative regulations. He is selected after careful consideration of his experience, analysing ability, honesty and devotion to the task. The leader tries to stimulate participation and activity, to give ideas, to find solutions to problems with others, ensures a transparent management, so that the co-operative can be inspected any time.

Gender and age diversity are supported at the Maetha Co-operative. Every family can nominate one member. As in most co-operatives the problem is that there are only male members, even if the president would prefer to have women in the group because he thinks they are calmer in discussions and take problems more seriously than men. As the working committee sometimes takes very long,- discussions take up to 6 hours- it is a problem for women to take part seeing they have to get the housework done too. However, there are subcommittees, where women play an important role.

Money for the co-operative's fund is collected in several ways. Firstly by way of shares, that are bought by the members of the co-operative, and secondly through the fact that the co-operative also works as a bank. Depending on the financial situation of the farmer, he can accumulate money in an account and get interest from the co-operative. With this fund, the co-operative can buy fertilisers, seeds etc. to sell to the farmers. They collect one million Baht (over 20000 Euro) per year from the DOAE, staff members are paid by outside support e.g. from foreign sponsors. Also there is co-operation support from MOPH, Green Net and others.

The co-operative sets prices for sales in Chiangmai in school, twice a week. Farmers also sell on small local markets, and baby corn is exported via Green Net. The market for these products in Chiangmai developed gradually. Farmers take products to the market and customers visit the farms, so they learn about native varieties of vegetables, fruits and herbs. As many people still prefer to eat Chinese varieties, the farmers then have the chance to

persuade them to try the native ones and to show them how to prepare and enjoy them. It is an advantage for farmers to sell their own products because then they learn about the customers' wishes. In turn the customers have learnt that it is better to buy according to the season and are changing their consumption habits.

The co-operative's future goals are to change organic mono-cropping to integrated farming. On the question of the succession of the next generation one farmer says that the young generation is watching them and if they are successful they will probably follow their example. In respect to standards, there is, apart from ACT standards for export, interest in the local "Northern Organic Standard" as it is better known and more popular in the region. One farmer says, they should have a right to protect their health and social welfare, and being a farmer should be accepted as any other occupation, offering social security. After all, their activities have many positive effects. They would wish for better education for their children, insurance, health services, and more dignity in their role as farmers. Besides, if farmers had a better image and the pride of being a farmer could be demonstrated to the children, they might feel the desire to follow in their father's footsteps.

4.1.2.2 Suphanburi Organic Grower Group

The Suphanburi Organic Farmers (CSC 3) groups has 9 to 14 members living in the remote hilly areas in the West of Suphanburi and the North of Kanchanaburi. The average size of the farmland is about 1,3 hectares. 30-40 different crops are grown, all over the year there are about 90 varieties. One farmer, in his fourth organic year, grows various kinds of vegetables (CSC 3 b). Another farmer (CSC 3c) first grew vegetables only, but then developed an integrated cropping system including also papaya, banana and timber. This is also for later when he is old, he said, so that there is always something he can either eat or earn money by. The group leaders' family owns several plots of land, together 6,4 ha. Last year the group leader grew organic sugar cane for the first time, sold most of it but reserved some of it in order to try to make sugar, to diversify his production. Otherwise he grows rice, various cereals, vegetables and fruits, such as okra and sugar apple, a local Thai fruit, herbs, herbal tea and spices like cinnamon and sweet basil; he collects wild honey in a sustainable way to sell in the Lemon Farm Store, a speciality shop. For export to Germany he produces jackfruits, papayas and eggplants.

The farmers of the Suphanburi Organic Farmer's Group harvest about 600 to 800 kg per week, at times even up to 2 tons. If there are droughts, there are less products thus resulting in a rise in transport costs. 70% of the farm inputs come from the region, seeds must be bought,

as only 30 % of the seeds are produced on-farm. Some parts are neat fields with irrigation plants, some plots hold an assortment of vegetables, bushes and trees. Self-made pesticides from plant extracts such as tobacco or neem are used. Protected from the sun, in the shade of Jackfruit trees, one farmer planted new trees. In this region, plants must be heat-resistant as temperatures can range between 40° down to 1°C. The group leader tried to grow cold climate trees like peaches but day temperatures were too high. The family also keeps chicken and goats. They study the goats and observe their habits so as to understand their nature, for later they intend to produce meat and milk. When ACT standards for livestock are available they may have the goats certified.

The goods produced by the group are sent to Bangkok twice a week. When the products are collected for the market, the farmers document kind and proportion of each farmer's products. The earnings of each farmer depends on what proportion of their products was sold. 15 % of the profit is spent on transport and group maintenance. The group is engaged in creating an organic market. In this case they work as an NGO to get funding. The group is committed to customer information, and they have been pursuing a kind of community supported agriculture scheme (CSA) for three years now. The group delivers to the lemon farm stores, a food shop, a school canteen, and to individual customers via CSA.

The Community Supported Agriculture scheme (CSA) is a system adopted from CSA schemes in the USA. In the case of Suphanburi Organic Growers Group, about 30 customers are participating in the scheme. These customers, mostly from Bangkok, share the risk of production, i.e. the production costs with the farmers. As production costs are shared, the risk for the farmer is minimised. Customers pay 12000 Baht per year for the delivery of 3 kg of vegetables, for fifty weeks. The box is delivered to a centrally located meeting point where customers pick it up. Four to five members are at least necessary to establish a meeting point so that it pays off. However, one crucial reason for this marketing system is also, that it helps establish a community of customers, which will help to push organic farming. The group is also thinking of establishing a delivery service that can be compared to pizza-services even if initially they did not like the idea of home-delivery because they were afraid it might destroy the customer community.

Furthermore the group co-operates with other networks and stakeholders to widen the marketing field. The group thinks that one of the problems is due to the fact that while the farmer movement is developing the customers are not as they are not being sufficiently informed. So they think it's necessary to inform them, to enable them to differentiate between

standards, brands, etc. The group holds seminars in Bangkok, visits farms, inform via the mass media, in order to build a network of customers.

The principle motivation for members to join the group were health problems, secondly financial problems, says Payong, the group leader. The reason why farmer Attaphon converted was that many farmers were growing the same crops and the price of conventional products dropped. So he decided to change to organic farming and to diversify the production (CSC 3 c). Another farmer's family previously used to grow corn conventionally, and could not pay back a debt. When they were hired by an organic farmer they made their first contact with organic farming (CSC 3 b).

4.1.2.2.1 An important group leader

The Suphanburi Organic Farmers groups was founded by Payong, the leader of the group. Payong calls himself an individual development activist He considers himself to be the founder of a small NGO, an agro-ecology development project. The aim is to give support, to facilitate learning processes, to help the Karen ethnic minorities to maintain a sustainable lifestyle. Three major activities are: firstly the promotion of ecological agriculture, secondly the support of community based natural resources management, such as community forest and native plants and thirdly the documentation of Karen traditional knowledge.

In 1992 the group leader started with organic production. They had experimented with multiple cropping, mixed cropping, agro-forestry before. Payong encouraged farmers to apply for certification to add value to their products. As the group lives in a very remote area, transport costs are high. Since the Suphanburi Organic Grower Group was founded, farmers have come and gone, at present there are about 14 families, 15 left the group but are still applying organic methods. Some leave to save the costs on group maintenance, which is 15% of the income. Payong encourages the farmers to do organic farming by themselves and to form new groups. Some of the farmers who left the group built a new group and are now in contract with River Kwai Co. Ltd. (CSC 4). Some rejoined the old group because of better market opportunities and inner conflicts in their new groups.

It is difficult for an organic farmer to work alone, because of the small market in Thailand. Therefore farmers work in group: smallholders, who fell bankrupt in the lowland, farmers lacking finances and human capital, not owning enough land. Illiteracy is a hindrance to apply knowledge gained in training, according to Payong. He wants the people to "grow up". So he facilitates others to be organic farmers, to teach them entrepreneurship, and shows them how

to learn and manage by themselves. And to learn a new way of thinking. Farmers will learn how to process their products, thus adding value to them, how to be self-reliant, and how to build a strong group. The changing of attitudes is part of the learning process, the group leader believes. From mere growing of cash crops they move to a variety of crops and grow rice for their own consumption. This way farmers are in the situation to save money and produce healthy food.

4.1.2.2.2 Conversion and certification

For the conversion to organic farming farmer CSC 3 b had to invest into an irrigation system. He gained knowledge from observation and from other farmers. Another farmer (CSC 3c) plunged into debt for an irrigation system, a plough, and a machine for digging for water. Other external inputs were gasoline seeds straw, or chicken manure. He sees difficulties in improving the land, to increase soil fertility (CSC 3c). Overall certification was considered easy by group members. Previously the farmers certified their production individually by ACT (therefore they are referred to as single farmers Figure 2), but now they are applying for group certification, as this is cheaper. As the DOA certification body has less inspectors, it works slowly, so there is no need for that, says Payong. ACT is sufficient, but they are considering to acquire the Organic Thailand certificate. Payong himself wants to keep his individual certification, to be more independent.

4.1.2.2.3 Finances

The group leader thinks that the two most important things are advice and financial support. The group saves money, it maintains a small saving bank and small loans are available. The group leader managed to get financial support for the group from the Canadian Embassy. A fund is provided, from which the farmers can take out loans. Moreover, each farmer is entitled to 3000 Baht for initial investments.

4.1.2.2.4 Changes, success, problems, plans

About 30 families have converted to organic farming, and as a result they now have a broader source of income. Another major change is that they have healthy food for consumption (CSC 3b). Jobs within the farm are created, out-migration is forestalled and family ties are strengthened as they learn to work as a group. Some families can use the risen income to pay back their debts. The farming system is more intensive now, as they harvest twice a week, whereas in a mono-cropping system they harvested only twice a year. In addition, formerly these crops often weren't edible, so that farmers were forced to buy food.

One of the negative drawbacks in organic farming is that farmers still rely on chicken manure from non-organic sources and that customers still demand certain products which are not domestic and therefore not easy to grow (for example Cruciferaceae similar to cabbage). Another difficulty is still a lack of crop rotation and green manure and that the production is vulnerable to extreme weather.

One farmer (CSC 3b) described the changes as follows: Firstly, growing organic vegetables provides healthy food, it contributes to better health, as previously the family had health problems. Secondly, he can control the production system, can produce according to the water supply and therefore can influence the income generation. Thirdly, even if the prices he gets are not so high, they are satisfactory. Fourth, the psychological situation of the family has improved. Their production is under control, the income is predictable. They can repay the debts, they had made in conventional corn production. Before they had not been able to pay back the money even after six months of hard work. This caused tensions within the family, quarrels and conflicts were the result.

He still finds weaknesses in the management as he cannot apply advice he gets from others; he feels he lacks knowledge (such as on nutrition deficiency symptoms). Furthermore the land does not belong to the family, therefore no long-term investment is possible. He is renting the land at present. If the land belonged to him, he would like to make a homestead and go into agro tourism, because he wants to offer healthy food to tourists, in order to promote the idea of organic farming. Then these tourists might become customers of organic products. His future plans are to grow fruit trees, timber and medicinal plants (CSC 3b).

Another farmer (CSC 3 c), asked for the differences to before he started doing organic farming says he gets a good opportunity to learn new things. Concerning threats he thinks that the climate change will raise the cost of investments and that the price of gasoline will increase. He does not know his net income, he only knows it has increased, even though he recently faced higher expenses, because he had invested in his house, water digging etc.

One positive outcome to be named is that people from neighbouring communities buy vegetables from organic farmers now.

4.1.2.3 The Royal Project's Organic Vegetable Project

“The Organic Vegetable Project” (CSN 2) is part of a Royal Project in the North of Thailand. This Royal project comprises 37 Royal Project Development Centres in Chiangmai, six of which include organic farming activities. There are 6 organic sites with a total area of about

50 hectares. According to the interviewed manager, the project can be compared to those of NGOs, except for its market orientation. Infrastructure like transportation, roads, water etc. are made available by several institutions and departments. As the members of the Royal Family are highly admired by the Thai people, departments of the government and other organisations are keen to support a Royal project (CSN 2a, b), therefore it is easy for such a project to obtain better infrastructure like roads or water reservoirs.

The project structure is similar to a company's, however, the approach seems to be more top-down oriented than farmer- initiated or NGO- based producer groups. Land is provided, there are specialists the farmers can ask for advice. Initial research is carried out by specialists, then the gained knowledge is applied. The next research projects were planned to be on beneficial insects and the improvement of seeds for organic production.

258 tons, worth about 117 000 Euro were produced last year. 35 kinds of vegetables were produced on 56 ha organically managed land, 202 farmers are involved. The project is specialised on temperate vegetables, such as carrots, cabbage, French beans. These, however, are partly unknown to the farmers and are not eaten by them. Products have been certified with the "Organic Thailand" certificate since 2002. The IFOAM standard is said to be achieved, but one is not willing to pay the accreditation fee as yet, but possibly will in the future.

Each centre has an extension worker who works with the farmers and the headquarters. He or she plans, receives the quota from the headquarter – the kind and amount of vegetables to be grown, then the farmers groups decides on the amount and kind of vegetables they can grow. Then the extension worker tells the headquarters which defines the quota to the farmers, then the seeds are distributed, and production is carried out according to standards. Before harvest time the extension worker visits the farm, determines the time of harvest, estimates the quality and whether the quota can be fulfilled, and examines the plants for residues. The headquarters organises packing and transportation, and since it does not amount to much to cover these expenses, the rest of the money goes to the farmer.

One share of the products is sold by the project, the rest is sold by the farmers themselves. The products are divided in quality grades. Grade 1 is very good, 2, 3 are medium, U is low-grade and used for ready- to- eat products. The products are collected in the cooling house in the research station and taken to the central packing house in Chiangmai. The project sells products to supermarkets like Carrefour, Tesco Lotus, hotels, restaurants; the farmers sell to

middlemen, without premium price. 90 % are sold via the project, 10 % are sold by farmers, if there is an overproduction, they can sell it at the local market, the central market in Chiangmai. For the farmers a Royal Project soft loan is available, it is seen to that the loan is paid back.

The evident function of farmers groups or co-operatives and a company producing organic food is similar. Both may produce a certain range of products for supermarkets. However, there are differences in the procedure. In a company most is determined by the management. They determine the product and the quantities to be produced. They contract farmers, who either grow the plants on their own land or they are allocated a plot on the company's land, where they grow the demanded amount of vegetables. Means of production such as seeds and fertilisers are either provided by the company or by the farmer, depending on the contract. The payment also depends on the contract, it is usually fixed in advance. Farmers organised in groups are stronger in the pricing discussion than if they were alone.

4.1.2.4 The Asoke Buddhist movement

The fourth type of farmers groups are groups belonging to the nation-wide Asoke Buddhist movement which was founded in the early 1970s. Asoke members practice "Natural Agriculture" seeking to enhance the community's self-reliance, according to Buddhist principles e.g. the first principle that forbids the killing of living creatures. Therefore the use of pesticides is prohibited, but also the use of other industrial inputs such as artificial fertilisers, is not allowed, nor shall suffering be caused to animals, the environment, the farmer or the consumer.

Surpluses are sold in Asoke- owned shops and restaurants at low prices and the income is spent on community activities. So the motive of Asoke members to take up organic farming is primarily to follow correctly the rules of Buddhism so that market orientation is low. "Natural agriculture" as a concept follows the production theory of Buddhist economy which deals with the integration of the economy. It implicates that the real cost – not only material costs – of all resources must be taken into consideration, such as human resources (wisdom, experience, human labour), social and technical resources (physical and social capital as well as hard and soft technology) and natural resources (energy and other natural resources). Also outputs such as waste are considered as cost factors. (Sangsehanat, 2004)

The network is so successful that it serves as a model for self-sufficiency and sustainable development. Centres in the northeast of Thailand serve as "showcases for the local

authorities, all of which are also involved in actively training local people in the art of natural agriculture, self-sufficiency and sustainable development.“ (Heikkilä-Horn, Krisanamis 1991). Due to the economic crisis, many farmers have been struggling with their debts from the Bank of Agriculture and Agricultural Co-operatives (BAAC). The government, therefore, has launched a project called “stop the debt” (krong karn pak cham ra ni) for three years via BAAC. During this 3-year period, the bank sent their farmer debtors to Asoke communities for courses of study on natural agriculture, self-sufficiency and sustainable development. The main purpose is to train these farmers to be more self-sufficient and to avoid getting into further debt. Training courses began in 2002 and have been running for three years. During this time, over 300000 farmers will have been trained in “bun-ni-yom”¹ principles“ (Sangsehanat 2004).

For many of the interviewed farmers groups, Buddhist monks or the Asoke network played a significant role in encouraging or helping members to convert to organic farming. One of the groups, Lavothani Asoke in Lopburi, is part of the Asoke network.

This farmers groups in Lopburi is based on Buddhist beliefs, it is part of the network of Santi Asoke. The members of the group live in an irrigated area in the centre of Thailand where they produce a wide variety of vegetables and fruits. Conventional rice farms in the region have four harvests a year, the group harvests twice a year.

The group comprises: one leader, a secretary and a person responsible for marketing and co-ordination and about 60 members. They all are certified organic farmers making a living on their work Products are bought from farmers by the marketing group and sold in Lopburi in Buthabat District at the market. Women try to find nearby markets where to sell the products locally, to reduce transport costs.

Not all members own the land they are farming. The management of the group provides poor people with land to grow rice and vegetables for their own consumption. The land is rented from others and given to the poor. Big landlords will sometimes give land freely, as they have more than they need and they recognise that this is profitable because the leased land will be developed for them.

The group aims to live self-sufficiently i.e. to produce everything it needs by itself, but there is some exchange of goods, especially within the Asoke network. The Santi Asoke rice mill produces natural fertilisers. Wood vinegar is used as repellent. Pesticides are not used, as

¹ Bun niyom literally means "to prefer merit" (as opposed to tun niyom "to prefer capital" (ESSEN, 2004)

killing is not allowed. Basically machines are prohibited excepting machines for work in the rice fields that are shared, and the machines in the rice mill. Technology and processing knowledge comes from outside.

The number of members rise every year. In 2004, when people started to become aware of the significance of organic farming, there were 10 members, now there are 60. The required qualification to apply for membership is a strong intention to farm without chemicals. Chemical fertilisers are absolutely forbidden. Secondly, the farmer has to change his attitude, he or she has to develop the farm and must wait until the ecosystem is balanced. Up to this point the farmer must tolerate the attacks of insects and other pests, develop a spiritual attitude to tolerate problems that might arise. Thirdly, he or she must subject him/herself to five rules: no alcohol, no gambling, no polygamy, no animal killing, no lying. The farmer must also change his habits in regard to eating, spending money etc. Some poor families cannot wait to develop the organic farm, they want money quickly. When they have converted too fast, and do not have enough to live on, they are supported by the group, that teaches them to produce other things, such as soap from natural substances for the family, and any surplus can be sold. The group is certified by DOA, it holds the „Organic Thailand“ sign, now it is applying at ACT, following the wish of a government official who wanted to improve the image of the province he was working for.

In order to develop their skills, farmers meet in a group- owned meeting place once a month where problems are discussed and they learn about Buddhist principles, instructed by a monk or priest. Thereby farmers can develop a strong mind, heart and soul, which is a powerful support for organic farming and a self-sufficient economy. Lavothani Asoke is part of a network, which arranges training courses to enable people to produce things of daily need themselves, such as food, shampoo, toothpaste, building material for the construction of mud houses etc. For some activities, Lavothani Asoke co-operates with another group, which is supported by the DOAE local authority. The demonstration plot of the group is a prototype for organic farming in the local area of Lopburi which attracts many visitors.

By offering them vegetarian food, prepared by the head of the group, visitors have a chance to taste the difference in flavour compared to an ordinary meal which presents a good opportunity for them to grasp the meaning of the word “organic”.

Support for Asoke is provided by BAAC (Bank for Agriculture and co-operatives) and the Institute of Health Promotion (a free organisation structure by the Ministry of Health, which

is funded by the alcohol tax). The support for Asoke consists of offering training and courses for farmers, courses in Buddhist topics, self-sufficient economy and natural farming practices.

The goal of the group is to create a self-sufficient society, not trying to do big business. They just set up a community market, where they collect their products. Sometimes they trade-off products or offer neighbours their products to low prices. The group's desire is to live peacefully together. While money is not important, social issues and religion are. One difference to some other groups is that those apply organic methods just to earn more money, as the manager claims.

Strengths to be mentioned are a strong impulse to change one's life, success is to reach the goal of happiness. Most members of the group were into conventional farming before. A case in point was a family who had farmed 16 hectares according to conventional methods made the experience that although they were realising high prices for their products the handsome profit they had made was not at all satisfactory once the expenses had been deducted. This made them decide to look for alternatives and they turned to Lavothani Asoke to inquire about organic-type farming. They were advised to start by reassessing their values in respect to their life conduct,- for example to do without alcohol or gambling- and to cease giving money top priority. Furthermore it was suggested to use only 1,6 hectares and to lease the rest to other farmers.

Expectations for the future are to produce vegetables for the local market. At present healthy food is not available for the local population because organic producers sell their farm products in Bangkok. The principal object is to create a community in which all members are content to lead a self-sufficient life and feel comfortable and happy.

4.1.2.5 Advantages to work as a group

Farmers working in groups acquire and gain strengths by working together. As it is difficult to work independently for smallholders(CSC 3 b), the principal motive for farmers to join a group is that it is considered to be easier for organic producers on the market. Groups are in a far stronger position regarding bargaining power and several costs, for example costs for transport can be shared. In addition, a registered co-operative raises the chances of being co-financed by the government significantly. As a farmers group (such as CSC 3) one can apply for livestock, as the DOL supports the integration of livestock into the farming system. For unregistered farmers groups, financing by the government is not available, notwithstanding, some groups decide not to register as a co-operative to stay more independent from

governmental regulations for co-operatives and from control. The approach of business organisation of visited farmers groups and co-operatives is mainly participatory, bottom-up, which supports the initiative and the learning process of each farmer. So, apart from the improvement of the farmer's livelihood, a self-reliant and holistic lifestyle and attitude is continuously developed and farmers support each other in these activities.

Although most groups can be characterised by well developed networking and participation, most groups choose leaders with very strong personality, in the majority of cases a farmer who is trusted and perceived as unselfish and to be a good net-worker, but often with academic education or business experience (CSC 1, CSC 3). Transparency in the groups or co-operative's actions is taken seriously as it inhibits corruption. The Maetha Co-operative group's success is perceived to depend on the competence and visions of both the leader and the working committee, and on the ability to analyse factors, one member of the committee said. Furthermore the fully participatory working-approach is a significant element of the co-operative's success. However, the dependence on a leader may also be seen as a weak point, and the election of a new leader is an extremely delicate issue.

4.1.2.6 Difficulties in group management

The members of Maetha co-operative believe that one of the major problems is that full participation is time-consuming, especially regarding lengthy discussions. These particularly pose a problem for those who are not yet fully convinced by the idea of organic farming but also for housewives who cannot spend their time discussing for hours. Apart from that the co-operative has not yet succeeded in scheduling a fixed date for meetings which is perceived as another problem. Sometimes members worry whether the money they are contributing towards the co-operative on a monthly basis is well invested. Further, if the group is registered as a co-operative it has to adhere to the principles of the governments' regulations for co-operatives. Sometimes the group feel like side-stepping these regulations because they believe that they are hindering the solutions to some problems. So. even if the co-operative does not want money from the government, the group is under control of the provincial government officials, who only see the debts, not the whole process with its beneficial effects. The co-operative could get permission to take up a loan from the central co-operative, but they refuse to because they want to be self-sufficient and want to solve financial problems internally. The central co-operative offers advice concerning the accounting system, but the group thinks that this may not be suitable for the co-operative.

4.1.2.7 Difficulties in production and marketing

Often, difficulties mentioned were in respect to the question how to improve soil fertility and how to cope with their vulnerability to extreme weather. A further and frequently named difficulty is the low availability of suitable material for organic farming, for instance farmers still rely on chicken manure from non-organic farms (CSC 3), appropriate seeds are difficult to purchase. Moreover they face ever-increasing fuel prices.

Perceived as a problem was also that customers still demand certain products that are not easily grown in Thailand - so called cold-weather varieties such as several Cruciferae, similar to cabbage. The farmers movement is thought to be developing fast but the customers do not seem to be moving on as they do not understand what organic farming is about (CSC 3).

4.1.2.8 Difficulties in personal attitudes

Whereas in Buddhist organic farmers groups mental attitudes such as a strong impulse to change their lives and the goal of happiness (CSC 1) is identified as a strength, it can be said that some of the farmer's shortcomings in respect to alcohol abuse and gambling must be dealt with urgently. Threats are commonly perceived in climate changes that may raise the cost of investments and the price of petrol (e.g. CSC 3).

4.2 Commercial family farms

Commercial family farms act independently, and there is quite a difference regarding the social background and education of farmers organised in co-operatives or groups. For example career changers from other professions or agricultural related professions who decided to practice organic farming are more frequent here. These producers recognise organic farming as a market niche with strong growth potential. However actual demand on the domestic markets is partly considered still too small.

Table 3: Commercial family farms chosen for the study

Commercial family farms	Type, size and location of the group	Organic certificate	Organic produce	Interviews / visits
CSC 2, Rai Thon Noey	Family farm, 209,3 ha, Lopburi	DOA	vegetables and fruits	1/1
CSC 5, Rangsit Farm	Family farm, 16 ha, Wang Nam Khiao, demonstration plot and packaging in Rangsit near Bangkok	DOA	vegetables and fruits	2/1
CSN 4, Thai Organic Products	Family farm, 35 ha, near Chiangmai	DOA	Veg., herbs, fruits, probiotic products	1/0

Three of the visited farms can be assigned to the category of commercial family farms (Table 3). Two of them are located in the centre of Thailand, close to Bangkok, one is close to Chiangmai in the North (CSC 2, CSC 5, CSN 4, Table 3, p. 51). Further companies were interviewed by e-mail (Table 4, p. 51).

Table 4: Commercial family farms interviewed per e-mail

Commercial family farms	Type, size and location of the group	Organic certificate	Organic produce	Interviews / visits
CSM 1, Thai Tea Suwirun	Family farm, 224 ha*, Chiangrai,	DOA	Tea**	e-mail
CSM 2, Choui Fong Tea	Family farm, over 160 ha**, Chiangrai,	DOA	Tea	e-mail
CSM 3, Thai Organic Agri Co., Ltd.	Family farm, 6,5 ha*, Chiangmai	JAS	Vegetables and fruits (fresh, dried, preserved, frozen), essential oil, herbs, tea	e-mail

* information from email, see appendix ** information from brochure edited by the company, *** information from DEP information leaflet, **** information from company's web site

All three farm owners had worked in other professions associated to agriculture or horticulture. Earlier on they developed knowledge on organic farming by studying privately, visiting other farms and by trial and error. For all of them practising organic farming not only meant a major change in lifestyle but a shift to more freedom in respect to their occupation. Major reasons for their decision were growing concern for environmental and health issues.

The motivation of these producers is very different to that of small-scale farmers. Lacking an agricultural background, they consciously made a decision in favour of organic farming, they seem to be convinced organic farmers, being very interested in their work and organic-based matters. On the other hand they conduct a different, more expensive life and first of all they are business people rather than the small-scale farmers are. So, production on commercial family farms may be more market-oriented than that of farmers groups as dependence on sales is higher and a higher standard of life has to be supported.

4.2.1 Production, marketing and certification

The interviewed producers owned land, not more than two hours away from a major city (Bangkok, Chiangmai). Land sizes vary between 10 and over 200 hectares. The production on commercial family farms is market-oriented, the products of two producers are mostly sold nationally, to supermarkets and restaurants. The production is focused on fresh produce such as lettuce, vegetables, fruits. Especially so called cold-weather varieties are produced. The production of processed products among the visited producers is not much developed (CSC 2 and 5), however studying other commercial family farms (Table 4, p. 51) it reveals that there are some organic producers who have taken up processing, such as the production of several kinds of tea, coconut products and sugar.

Whereas one of the interviewees reports she cannot meet the supply, the other thinks the market is still small and is growing very slowly. Therefore the first mentioned intends to build a network of farmers who let her see to the marketing of their organic vegetables. Also, a tea producer (CSM 1, Table 4, p. 51) reports that the demand exceeds supply and therefore the company trains others to grow organic tea in order to meet the demand. The second interviewee believes one must continue as before and just wait for the market to grow. The third producer (CSN 4) adds value to his farm products by processing it to health products for export to Europe. This has proven successful and a next step is to plan a kind of spa in Chiangmai province, where, among others, organic cooking classes shall be held.

Packaging, processing and cooling varies and depends partly on the customer, e.g. the supermarket or restaurant. Work is done partly by the owner and his family, and/or additional labour is hired. Some have labourers working for them on the farm otherwise contract farmers are employed. Subcontracting seems to be difficult, as the farmer must rely on the contract farmers' skills and trust-worthiness. The procedure to develop such a basis of contract-farmers has proved to be slow and difficult. The owner of CSC 5, for example, finds it difficult to survey contract farmers, CSC 2 tries to co-operate or subcontract with neighbouring small family farms.

Interviewed commercial family farms producers sell to the domestic market, one also exports to Europe. However, the commercial family farms interviewed by e-mail produce processed food such as cereal products and tea which is partly exported (See Table 4, p. 51).

It is remarkable that the interviewed commercial family farms are predominantly certified DOA, the reason may be that there no certification costs have to be paid. The entrepreneur who exports to Europe (CSN 4) holds the "Organic Thailand" certificate for the domestic market, but for Europe, he invites his business partners to conduct the quality control themselves, by way of which he is avoiding certification and the products are sold under a company -owned brand name.

4.2.2 Strengths, weaknesses, opportunities and threats

Strengths are seen in useful contacts with helpful people, good networking activities, the ability to learn by trial and error. The commercial family farms operators visited are all career-changers whose educational and professional backgrounds have nothing to do with agriculture, they have additional useful skills, such as entrepreneurial competencies (CSC 5, CSN 4) or expertise in research (CSC 2). CSC 5 perceives a big opportunity for his business as soon as the market will start to grow, because his brand is known to most customers and retailers and many restaurants are interested in his products. Other opportunities may be found in tourism or gastronomy, as one farmer (CSC 5) opened a restaurant, which however has not been very successful yet.

4.3 Large conventional farms - companies with organic product line

The third group are the large agribusinesses, in which organic production mostly makes up only a small part of the whole business. For the study, one large conventional company with organic product line was visited (Table 5, p. 54), but there is additional information available on other companies, especially through their internet presence (Table 6, p. 55).

Table 5: Large conventional company with organic product line chosen for the study

Large conventional company with organic product line	Type, size and location of the group	Organic certificate	Organic produce	Interviews / visits
CSC 4, River Kwai International Food Industry Co., Ltd. (RKI)	195 ha in Kanchanaburi, 60 ha in Chiangrai, Surin, Sa Kaeo **	Bioagricert, Soil Assoc., OMIC, DOA, ACT	Baby corn, Sweet corn, Asparagus, other fresh and processes fruit and vegetables	2/1
** information from a brochure edited by the company				

Table 6: Large conventional farms – companies with organic product line

Name of the company	Location and area of organic production	Organic certificate	Products
Siam Preserved Foods Co., Ltd.	n.d.	JAS	dried papaya
Merit Food Products Co., Ltd.	352 ha in Chanthaburi	IFOAM by Bioagricert, USDA NOP, ACO (Australian Certified Organic)	Canned coconut milk
Lanna Agro Industry Co., Ltd.	Chiangmai	JAS	Frozen green soy bean
Swift Co., Ltd ** **** Brand "Thai Fresh Produce"	Kanchanaburi (company's farm), Sra-Kaew (Groups of growers), Petchaboon, Loei contract farmers (48 ha organic?)	Certification OMIC/JAS since 2002, DOA, Ökogarantie BCS	Asparagus, baby corn, lemon, lychee, chili, lemon grass, passion fruit
Adams Enterprises Ltd.,	n.d.	JAS, USDA, Skal Internat., ACT,	Hom Mali rice, honey, cane sugar and roasted coffee; organic hybrid vegetable seeds since 2000
Capital Rice Co., Ltd. Brands "Great Harvest" and "Tai Tai" Stakeholder of Top Products and Supplies Co., Ltd.	800 ha in Phayao and Chiangrai	Bioagricert	Rice. Major rice producer of Thailand, mainly export (90 %), home delivery of organic rice, organic pioneer in Thailand, other products coconut milk, coffee, shrimp; coop. with others for organic palm oil and tapioca production
Capital Trading Co., Ltd.	n.d.	Bioagricert	rice, coffee
Top Organic Products and Supplies Co., Ltd.	Contract farmers in Chiangrai, Chanthaburi; 1369,68 ha	Bioagricert	rice, coconut milk, shrimp, coffee
River Kwai International Food Industry Co., Ltd. (RKI) (Visited for the study)	Kanchanaburi 195 ha, Chiangrai 60 ha, Surin, Sa Kaeo **	Bioagricert, Soil Association, OMIC, DOA, ACT	Baby corn, Sweet corn, Asparagus, other fresh and processes fruit and vegetables
** information from brochure edited by the company, **** information from company's web site, other: information from DEP information leaflet			

4.3.1 Production, marketing and certification

Large companies with organic product line include Thailand's largest sweet corn producer (River Kwai Co. Ltd., CSC 4), producing and exporting baby corn, sweet corn, asparagus, okra and Thai herbs, mainly to EU countries and Japan and some fresh vegetables and fruit for the domestic market; a producer of organic hybrid seeds and organic fresh vegetables for export (Adams Enterprises Ltd.), a producer of organic Hom Mali rice, honey, cane sugar and roasted coffee for export (Capital Rice Co., Ltd.), with vegetables, fruits and herbs for export (Swift Co., Ltd.) and one company offering organic coconut products (Merit Food Products Co., Ltd.).

Farms tend to be located in areas favourable for “cold-weather vegetables” with high agricultural productivity where irrigation facilitates 2-3 rice harvests per year. The production is focused on durable products for export such as rice, rice products, baby corn preserves and coconut products, as the major part of products is exported. Also, processing adds value to fruits and vegetables. Compared to some self-sufficient farmers, the crop diversity on the farms is lower as only few specific crops are grown, as monoculture or together with other varieties.

Processing and packaging take place in company-owned facilities. the products are washed, prepared as ready-to-eat products, processed, canned, and frozen. The mechanisation level is considerably higher than at commercial family farms or small farms organised in groups.

Labourers either work on the company-owned farm or as contract farmers on their own farms. Depending on the contract, the means of production are supplied by the company or by the farmer. Labourers on company- owned farms are given the required amount of seeds for the plot they are in charge of, mostly one or two crops at a time. Farmers are paid for the amount of harvest they yield. A female farm worker interviewed (CSC 4a) has been working there for three years now. She likes her work on the companie’s farm because of safe working conditions, and because of job security, as she is offered other work should there be a bad harvest. There is nothing she does not like, she says, although the man in charge of the farm is present.

Large conventional companies with organic production are export-oriented (typically 70-90% of total revenues origin from export), but they do put their goods on the domestic market too, selling to premium-supermarkets. The companies co-operate with international partners such as with foreign supermarket chains. These large companies invest in several organic and other quality certificates, organic production is certified by international certification bodies, as required for export.

The motivation to turn to organic farming was “part of the management - profit, environment, social issues, customer platform” as the vice-president of the company (CSC 4) put it. Although the organic line is growing rapidly, the company has not made big profits so far, the organic line is merely surviving within the company. Part of the management are convinced by organic methods, the vice-president is sceptical, for him, one target is to find out what it means to act in a sustainable way and if this is possible at all.

4.3.2 Strengths, weaknesses, opportunities and threats

The vice-president of River Kwai Co., Ltd. identified following strengths in his organic production: The chance to develop one's knowledge in the field of farming; the management is very keen to support organic farming and, as the company is the main producer of baby corn in Thailand it is very strong on that market. Rising fuel prices are perceived as a threat. He regards the development of new products as a great opportunity, particularly of such that cannot be produced elsewhere during the winter.

4.3.3 Development perspectives

“If you want to eat organic food, you have to go to Thailand” (CSC 5). Perhaps this vision of an interviewed organic producer will be true one day. But this depends very much on the ideas of the actors in defining what organic farming should be and which development strategies are decided and pursued.

4.4 Recommendations by producers and other key actors

Measures recommended in literature (ELLIS, PANYAKUL 2005, pp. 31-34; PANYAKUL 2002b: pp. 201-202 and PANYAKUL 2003, pp. 79-80; ALRADI 2002, p. 18; HIRAKOA 2002, pp. 21-23) to enhance organic agriculture in Thailand include the building of domestic markets, the development of an effective extension scheme to reach small-scale farmers, the development of appropriate post-harvest handling, and the intensification of the co-operation between the public and the private sector. Strategies suggested by Pilkauskas (2001, 19), for strategies of developing countries are the development of a national organic legislation, acquirement of know-how on organic farming, development and improvement of post-harvest handling, infrastructure and logistics, building up of partnerships with importers abroad.

In the interviews carried out during the study, further suggestions and options for development were collected:

4.4.1 Different views of and attitudes towards organic farming

The co-ordinator of the Sustainable Agriculture Network of the Ministry of Agriculture and Co-operatives stated that there is no precise understanding of organic agriculture in the Ministry (I1, 2006). Also, it is not viewed in a holistic way, comprising environment, social issues, economy and tradition. According to the co-ordinator it is seen as an opportunity for production for export only, as a way to satisfy EU needs. He thinks organic food is broadly considered to be for the upper-class, who choose to keep healthy by eating health-promoting food.

The idea of organic farming, he says, depends on the education system, which is presently a “conventional education” at the universities and therefore the way of thinking in the ministries is also conventional too, reductionist, and one-dimensional, as only economy is being considered. Organic production however, requires a holistic approach and social and environmental issues are intrinsically tied to each other (I1, 2006). So presently the support of organic agriculture by government agencies consists of the provision of organic fertiliser, but it is not enough to replace artificial fertilisers by organic fertilisers. The system of the farm,- the ecosystem as well as the social and economic system of the farm and its environment, must be strengthened, dependence from external resources is to be questioned. Therefore fundamental reassessment and change of life-conduct is necessary.

4.4.2 Policy

An expert for the organic agriculture scene in Thailand and owner of a commercial family farm (CSC 5) observed that there is no clear government policy, and that there is still no clear understanding of organic agriculture among the government officials, and that at present the government is looking to foreign markets only. The departments have few possibilities to act as they do not even have money to give support (CSC 5). As it is the policy that needs to be changed it is essential that the official representatives of all political parties, ministries and the government are made to understand the imminent importance of organic agriculture for the future.

The afore mentioned expert thinks it is a prerequisite to train all officials involved in organic affairs (CSC 5). They need to be informed in detail about the organic agriculture movement; case studies of some countries must be conducted or studied, and they must be instructed on all the regulations for and, standards of the certification system. The present situation is that public officials from the Department of Agriculture have been assigned to promote organic farming all over the country, but they are doing so without profound knowledge.(CSC 5). Furthermore the expert suggests the government to set up an organisation with people from all sectors: individuals, farmers, companies, organisations etc. to deal with the development of the organic farming issue, supported by funds from the government (CSC 5). He also thinks that a representative promotion campaign in Bangkok and other big cities of the country would be advantageous.

Another producer (CSN 4) noticed that Thai organic producers mainly produce raw materials and do not show much interest in processing them. He thinks that it is necessary that producers organise themselves in co-operatives. On the question, whether he considers the creation of an organic cluster as useful, meaning a regional network of producers, deliverers, research institutions and service providers in a field (Porter 1998, p. 78), that work closely together, he said, co-operatives may be better as they are smaller than clusters. The vice president of a large conventional company with organic product line (CSC 4) thinks cluster development would be best practice but he cant think of anyone to take over the leadership. He does not expect much from the government sector.

NGOs (NGOs, AAN, Green Net) are sceptical regarding the efficiency of GO's involvement in the organic area. Though there is no money for organic or sustainable farming at government level, on a provincial level there is to some extend but it depends on the provincial official whether sustainable development benefits from it. Criticism includes a lack

of knowledge, a lack of co-operation, and that policy and projects are seldom more than words.

Also there is a widespread assumption that important decision makers are influenced by personal economic considerations, so that agrochemical business can influence political decisions. Indeed, there seems to be some disunity concerning the goal of organic agriculture. Government officials (I7, 2006) said that they supported the small-scale farmers, the project following the King's idea. But this kind of support is often criticised to be not much more than words. Support for farmers converting to organic farming is not available at all on state level. It depends entirely on the respective government official in each province to whom the subsidies are allocated.

The Department of Agriculture (DOA) has officials all over the country, but there is a lack of knowledge, they know just the basics. Therefore all involved officials should be informed on the details of the organic agriculture movement, all the regulations for and the standards of, the certification system and case studies of some countries should be carried out too (CSC 5). Then they will have acquired the knowledge and they need to go out and promote organic agriculture to the farmers.

4.4.3 Roles

An official from Green Net (I10, 2006) thinks that the government should be a supporting mechanism and he has already observed a shift towards this role. The government should listen to the needs of the industry and the organic movements. He thinks it is hard to say they should do this or that, as they cannot change all the time. The agenda has in fact changed: 10 years ago he might have thought that it is a good thing for the government to have an accredited system for certification. But today he thinks that there is no need for it. So his recommendation is to listen carefully and to provide a supportive environment. He also wishes for a more consistent policy. For instance, if one plans to promote organic agriculture one should not allow genetically modified organisms to be introduced. Further requests to the government are the development of the local and domestic market, the promotion of organic consumption and the improvement of farmers' image.

4.4.4 Information and co-operation

A representative promotion campaign in the provincial capitals and Bangkok should be conducted (CSC 5). The government should educate the public about the difference between organic and conventional farming. A group leader Payong and his wife (CSC 3) perceive a development gap between producers and customers. They say it is important to make customers understand, so that they can differentiate between standards, brands etc. Therefore the group (CSC 3) holds seminars in Bangkok, organises farm visits, informs the media, assists the efforts to strengthen the network of customers.

The co-ordinator of the Sustainable Agriculture Network of the Ministry of Agriculture and Co-operatives (I1, 2006), came forward with a proposal to make NGOs, private sector, government sector, farmers groups and co-operatives work together. The government was asked to set up an organisation with people from all sectors (CSC 5): individuals, farmers, etc. The required funds were to be contributed by the government. So far, this proposal has not yet been agreed to by the government. The National Co-ordination Centre for Organic Farming, was founded in 2005. It is co-ordinated in the Land Development Department (LDD), but difficulties can be seen in lacking communication and co-operation between the departments.

An official from Green Net (I1, 2006) does not think it is possible to create a board that unites stakeholders of organic farming to discuss common matters. He says, it would be a good thing, if there were someone who knew what is going on. The organic farming scene is still so small that it is easy for Green Net to overlook it (I1, 2006). He also thinks of non-certified groups, doing natural farming. If they are included, the movement would expand, he believes. So far, it is easy to speak just with the certified farmers groups, and it would also be beneficial to know more about them. All these groups have very different perceptions on how things should be, such as standards, certification, marketing. But he thinks that people do not want to share information. So even if there is a committee, one does not know what is going on. But until now the certified organic movement is still quite small, so basically one knows each other and one hears about what is happening. Green Net knows what is going on by talking to the people and collecting information.

Co-operation may be weakened by prejudices. The farmer's image, as the urban population perceives it, is not good. In interviews with government officials it seemed that they tended not to trust the farmers' abilities very much. These perceptions may partly be caused by the social and spatial distance between them. On the other hand, while NGO work is commonly

seen as very efficient, NGOs tend not to be satisfied with the government's performance. This is partly due to the way competencies are assigned. As a member of an NGO puts it, the roles of the government and NGOs should be defined clearly.

4.5 SWOT analysis

In this section the relative strengths and weaknesses of the different producer types are evaluated to find elements of a possible future agenda for the organic farming movement as described in chapter 2.2.4. on the SWOT analysis method.

4.5.1 Strengths

Strengths of a producer identify those factors that help to gain a relatively strong competition advantage. They can be employed to realise opportunities or to fight threats (Table 7).

4.5.1.1 Farmers groups' and co-operatives' strengths

Farmers in groups and co-operatives hold specific agricultural education, they grew up in an agricultural setting and have worked as farmers before, so in the area of farming techniques farmers groups and co-operatives may be the most skilled - as compared to other producer types.

Their agricultural knowledge is in part based on the knowledge of conventional farming methods and in part on acquired local traditional knowledge. Organic farmers groups profit from this knowledge.

The rooting in tradition also shows in the choice of products, often native plants, which can be seen as speciality and therefore as a strength. If connected with a Royal project, a farmers group can profit from the project's infrastructure and advice and so minimise potential errors. It is another advantage when groups or co-operatives work hand-in-hand with fair-trade organisations and by this way find a specific market. Money for investments can be obtained from the government, especially when the group is organised as a co-operative.

As a result of the group's knowledge-management and mutual help, costs can be kept low. For instance companies pay researchers for their studies, farmers in groups do a kind of research themselves by trying out new methods. Problem solutions are found by discussing the matter in the group, by exchanging experiences, by trying out other methods learned from others in the group or from another.

In most groups the close co-operation of farmers creates advantages. This is, for instance, higher competitiveness compared to small-scale single farmers. But also social advantages are not to be underestimated such as community development and further education.

4.5.1.2 Commercial family farms' strengths

In this group the commitment to organic farming is strong but they are also highly motivated to be commercially successful. Their entrepreneurship is characterised by finding and realising new ideas, and they often create good networks, cultivating contacts to other producers, organisations and other helpful individuals.

Coming from other professions and having studied, they have non-agricultural knowledge, but being also relatively long in organic farming, they also have considerable experience in the agricultural area. If no knowledge on a certain issue is available, there is readiness to try out things, but they also include local wisdom.

Established brand names and a good reputation can also be regarded seen as strengths that commercial family farms can count on. (Table 7)

4.5.1.3 Large conventional farms – strengths of companies with organic product line

Large conventional companies with organic product line build on high quality production, they hold certificates on international standards, that guarantee a certain quality level, they also hold several organic certificates which opens a large market for them. The reputation of a large reliable company is an advantage too.

A company delivering to foreign supermarkets may still have little competition in the area of relatively cheap organic products for supermarkets. Particularly with its specialisation on certain products it is strong in its field.

Because of a high degree of division of labour specific know-how in agriculture and business is available, experts are able to minimise potential errors and there are also the financial resources to increase knowledge and experience in research and development and further education of the staff. (Table 7)

Table 7: Strengths – Factors that may help to a relatively strong competition advantage.

Farmers groups and co-operatives	Commercial family farms	Large conventional farms - companies with organic product line
<ul style="list-style-type: none"> - Specific agricultural education and experience - Strong knowledge management - Involvement of local wisdom - Fairness in production and trade - Subsidies by the government for co-operatives - Broad variety of products, indigenous plants - In case of groups connected to Royal projects: help to minimise potential errors (labour, advisory service, support) 	<ul style="list-style-type: none"> - High motivation, commitment for organic farming - Entrepreneurship - Innovative ideas - Good networks / contacts to other producers, groups, organisations, politicians - Relatively long experience - Involvement of local wisdom - Well known brand name, image 	<ul style="list-style-type: none"> - Quality, meets international standards - Little competition, specialisation on certain products - Reputation - Know-how in agriculture and business - Financial resources - Resources to increase knowledge and experience - able to minimise potential errors through experts

4.5.2 Weaknesses

Weaknesses are factors that may block advantages of a company. This can include a lack of experience and knowledge in certain areas and a lacking access to resources. So the farmer should consider which area of his business may benefit from outside assistance or where further education may be helpful (Table 8).

4.5.2.1 Weaknesses of Farmers groups ' and Co-operatives'

A weakness that is often named among members of farmers groups is that the quality of products does not meet the requirements of the market. Vegetables may be smaller or look different than conventional vegetables the customer is used to when he shops at the local market or in the supermarket. Also a high degree of specialisation can be a disadvantage, as quantities may be too small to be interesting for supermarkets.

Farmers partly lack knowledge and experience in non-agricultural but also important areas such as in accounting and record-keeping. Also a lack of writing skills is widespread among the older generation, which made them dependent on other people's help, if skilled – mostly the younger. But the younger family members are not always available and no support has been organised for these problems in the farmers groups yet.

Also, the remoteness of many farms makes the transport of products to the market or shop difficult and expensive. Small-scale farmers and especially those in remote areas often face the problem of not being in the position to take advantage of economies of scale. Therefore

most small-scale organic farmers are organised in farmers groups which partly solves the problems of high production- and transport costs.

Furthermore, limited financial resources, debts and lack of own land are a hindrance for farmers to develop their farming and connected activities such as agro-tourism (CSC 3). Many farmers would need more money to improve their production, for example by installing an irrigation system. In addition, on rented land, long-term activities are problematic.

Generally, the dependence on off-farm resources is regarded as disadvantageous. Means of production that must be bought are expensive, such as seeds, plants, fertiliser or materials for fertilisers. If enough land and knowledge are available, the farmer can save costs by producing most these materials by himself.

4.5.2.2 Weaknesses of Commercial Family Farms

Similar to the farmers groups and co-operatives, weaknesses of commercial family farms are that they have high production costs. The costs for energy and labour are especially high, as in the case of commercial family farms at least seasonal labourers must be employed. Furthermore suitable labourers are not easily found, the instruction of contract farmers is time-consuming and they must be trustworthy and have to be controlled.

Problems must be solved by the owners themselves otherwise specialists must be paid for their service. Limited financial resources may be a weakness of this group, even if the producers can often rely on family resources (CSC 2) or capital made by own business (CSC 5, CSN 4), partly from earlier activities.

4.5.2.3 Large conventional farms – weaknesses of companies with organic product line

Also the large conventional company with organic product line sees high costs for labour, energy and seeds as a main weakness. Other resources too, such as compost, are just as costly (CSC 4).

Table 8: Weaknesses – factors that block advantages

Farmers groups and co-operatives	Commercial family farms	Large conventional farms - companies with organic product line
Quality of products does not meet the demands for marketing in supermarkets Low degree of specialisation Limited financial resources, therefore limited possibilities to develop the farm Remoteness of farms and resulting high transport costs; difficulty to touch with customers and other producers or producer groups Dependence on external resources such as organic seeds, organic fertiliser and fuel Insufficient writing and reading skills cause problems for instance in record keeping Lack of non-agricultural skills s.a. accounting and record-keeping	Dependence on and therefore high costs for external resources such as organic seeds and organic fertiliser, energy/fuel but also labour Weaknesses in knowledge management (seasonal workers develop less knowledge on organic farming practice; probably less networking than in groups, own research limited to the entrepreneur)	High costs for labour, energy, seeds and (production of) fertiliser Low commitment and little knowledge on organic agriculture Low participation of hired workers and contract farmers

4.5.3 Opportunities

Opportunities are chances in the business environment that can be used by the producer if they suit the businesses’ strengths (Table 9). Pilkauskas (2001, 18) identifies three main opportunities of organic production for developing countries in regard to the European market: Firstly, the fact that demand continues to exceed domestic supply, secondly the demand for counter-seasonal fresh products, and thirdly the demand for non-temperate zone products. Further trends are (Pilkauskas 2001, 15) - and therefore they are also opportunities, - organic supermarkets, biodegradable packaging, organic convenience food, internet sales, public canteens, organic catering.

4.5.3.1 Opportunities for Farmers Groups and Co-operatives

Organic farmers groups and co-operatives perceive the growth of the organic market as opportunity (CSC 3, CSN 1) not only internationally but also locally and therefore try to develop the local market. If production is not yet fit for supermarkets the group tries to develop their products to make them suitable (CSE 4), others try to find market niches (organic cane sugar, CSC 3, CSE 5).

Some groups profit from co-operation with or integration into a Royal agricultural project (CSN 2, CSE 4), some support the Kings’ ideas of sufficiency economy, put them into action

(CSC 1) and therefore become more interesting for visitors or possibly for investors or customers. This combination of organic farming and sufficiency economy may open several opportunities, if further pursued. Also a rising social and environmental awareness of tourists may be an opportunity for farmers groups, as it might, for instance open new markets for their products or opportunities for agro-tourism activities.

4.5.3.2 Commercial family farms’ opportunities

Also commercial family farms’ owners hope the organic market will grow and try to support it (CSC 5). Eco-tourism is also seen as an opportunity (CSN 4, CSC 5). Especially one producer has recognised chances in specialisation to fill market gaps (CSN 4) but the local organic network too should be checked for gaps that may offer business chances. Co-operation with Royal projects may be possible and would open up new possibilities too.

4.5.3.3 Opportunities for Large Conventional Farms and Companies with Organic Product Line

Opportunities for large conventional farms with organic product line are similar to those for commercial family farms. Apart from the question of new markets, specialising on certain products may be interesting as is the development of products, for which the company should find out what the customers needs or wants are.

Furthermore the company may think about possible effects organic production may have on the company’s core activities, e.g. organic production may help create a new modern image for the company.

Table 9: Opportunities – chances that can be used by the producer because they match strategic resources and values

Farmers co-operatives	Commercial family farms	Large conventional farms - companies with organic product line
Growing market for organic and fair-trade products Growing importance of eco-tourism and agro-tourism Royal f./New Theory Specialisation to fill market gaps/gaps in organic network Demand continues to exceed domestic supply Demand for counter-seasonal fresh products Demand for non-temperate zone products	Growing market for organic products Growing importance of eco-tourism and agro-tourism Royal f./New Theory Specialisation to fill market gaps/gaps in organic network Demand continues to exceed domestic supply Demand for counter-seasonal fresh products Demand for non-temperate zone products	Growing market for organic products Effects on core activities Specialisation to fill market gaps/gaps in organic network Demand continues to exceed domestic supply Demand for counter-seasonal fresh products Demand for non-temperate zone products

4.5.4 Threats

The threats from the business environment should be identified as soon as possible, as the producer might have to deal with them, so he should give thought to fend off any harm to be expected from possible threats (Table 10).

Threats are similar for farmers groups and co-operatives, for commercial family farms and large conventional farms. Farmers and organic companies always have to reckon with the entry of new competitors in the market place and should start thinking in time about how to stay competitive in this case. Higher competition on the market is created through the implications of free trade agreements, such as that with China, which has resulted in lower prices for agricultural products, as cheap Chinese products are now sold on Thai markets (such as the drop of soy bean prices, CSN 3).

In case of a general economic decline the customers' spending power and therefore willingness to pay for organic food may be strongly reduced. Another often mentioned fear is that fuel prices are rising and may continue to do so (group CSC 3c, company CSC 4). The dependence on off-farm resources makes farmers dependent on external inputs which may not always be available or its price may increase such as organic materials from the wild, water supply and seeds. Also for some farmers the fact that the land is not owned, but only rented, is a factor of insecurity.

An important area to consider, concerning threats, is the natural environment. Through local regional or global climate changes the conditions for agricultural production can be altered considerably, there may be beneficial effects but also climate deterioration may occur, such as droughts, higher temperatures or episodic heavy rainfalls.

At last a very significant problem has been recognised: the customers' lack of knowledge on organic farming and organic products. It should also be considered that in case of an economic decline the spending power and the customers' interest in organic food may dwindle.

Table 10: Threats - risks that the producer must deal with inevitably

Farmers groups and co-operatives	Commercial family farms	Large conventional farms - companies with organic product line
<ul style="list-style-type: none"> - Higher competition on the market, lower prices for fruits and vegetables in general, such as through free trade agreements - Higher competition on the (international and regional) organic market, lower prices for organic products, as soon as neighbour countries develop organic farming - Rise of energy/ fuel prices - Availability of resources and raw materials - Climate change and linked effects (droughts, episodic heavy rainfalls causing increased soil erosion, heat, etc.) - A possible economic decline may reduce spending power of customers and willingness to buy organic products - Customers interest may shift to other quality food such as "hygienic food" 	<ul style="list-style-type: none"> - Higher competition on the market, lower prices for fruits and vegetables in general, such as through free trade agreements - Higher competition on the (international and regional) organic market, lower prices for organic products, as soon as neighbour countries develop organic farming - Rise of energy/ fuel prices - Availability of resources and raw materials - Climate change and linked effects (droughts, episodic heavy rainfalls causing increased soil erosion, heat, etc.) - A possible economic decline may reduce spending power of customers and willingness to buy organic products - Customers interest may shift to other quality food such as "hygienic food" 	<ul style="list-style-type: none"> - Higher competition on the market, lower prices for fruits and vegetables in general, such as through free trade agreements - Higher competition on the (international and regional) organic market, lower prices for organic products, as soon as neighbour countries develop organic farming - Rise of energy/ fuel prices - Availability of resources and raw materials - Climate change and linked effects (droughts, episodic heavy rainfalls causing increased soil erosion, heat, etc.) - A possible economic decline may reduce spending power of customers and willingness to buy organic products - Customer's interest may shift to other quality food such as "hygienic food"

4.5.5 Combination of the internal and external factors to find measures

To find possible measures, the internal factors strengths and weaknesses are combined with the external factors opportunities and threats.

4.5.5.1 How can strengths of organic producers be employed to realise the producers' opportunities?

(see Table 12, 13 and 14, p. 86)

Organic producer groups respond to the growing of the market for organic and fair-trade products by emphasising their socially and ecologically sound production and by appropriate marketing. The groups' well-functioning knowledge management can be reinforced and improved for example by knowledge- exchange with other groups in the region or abroad.

More knowledge would be useful in the area of processing so that new products can be found and value can be added. Here, local wisdom is useful in applying cheap working methods for quality production; added value can be reached by offering local and/or traditional

specialities. With the growing of organic markets farmers groups can use their knowledge of indigenous plants by supporting the customers' knowledge and acceptance of those plants. Specialised markets such as in the herbal medicine area should be sought for.

The growing importance of eco-tourism and agro-tourism is an opportunity for farmers groups, they can support the rising awareness for social and ecological topics in tourism, they can create sustainable tourism offers themselves. The rich knowledge of organic producer groups can be used by marketing it by themselves or in co-operation with a regional tourism office offering courses to tourists. Farmers might also be interested in activities elsewhere, in educational trips for experience exchange. Here the farmers have a unique selling proposition as local wisdom and the daily work of farmers are an attraction for tourists that nobody else can offer. Further, it may be important to give more attention to infotainment, edutainment, to the opportunities to be found in the local cuisine, cooking classes, in handicraft; and to think about what life style and philosophy can be communicated.

Another opportunity worth thinking about may be the Royal Projects that deal with the New Theory of the King of Thailand. So, a co-operation with a Royal project, may be useful for both sides as farmers groups members produce fairly and organically, which goes well with the Royal projects and, in return, organic farmers groups may profit from better publicity and technical or financial support.

Other possible profits in co-operation with Royal projects may be co-operation in research or joint infrastructure use. Nevertheless, one must take care not to end up in a sort of top down dependency. With the gathering, evaluation and application of local wisdom and a reinforced combination of old skills and new knowledge, a showcase of the sufficiency economy, combined with organic farming, enhancing regional development can be developed.

Commercial family farms can profit from a growing market for organic and fair-trade when they search for new business links in time, and new markets such as in the area of organic convenience food, internet sales, public canteens and organic catering. The strength to find innovative products, their entrepreneurship helps the commercial family farms to widen their product range and its marketing. Here too organic convenience food may open new marketing channels and market gaps, like internet sales, public canteens and organic catering, value can be added to production through offering local specialities and be kept cheaper by applying local wisdom.

The growing importance of eco-tourism and agro-tourism is an opportunity for commercial family farms also. In co-operation with event managers or conference centres, organic catering for events, such as conferences, can be provided. Further new markets for their products may be found in the spa area. Similar to the farmers groups, family farms might also be interested in offering courses: by offering on-farm practical training for those interested, customers can gain insight into organic production and the producer earns extra money with course fees. A similar procedure can be followed to promote the idea of the King's New Theory on sufficiency.

With Royal organic projects and "New Theory" Projects commercial family farms can co-operate, for example in research; if the area is close enough, the joint use of Royal projects infrastructures is possible. New high-quality products may be created, that could be marketed as part of a Royal quality product line. A modern model farm or community, following the Kings "New Theory" ideas might be developed. Such a community may be the crystallisation core for a kind of a "Royal organic cluster in the region.

Large companies with organic product line can profit from the growing market for organic and fair-trade, if they seek a leading position in the world market for organic products in time. Here the companies' specialisation is an important strength. The companies' names may even become a synonym for the product. Apart from supermarket delivery, new marketing channels such as organic convenience food, internet sales, public canteens, organic catering is also interesting for the large companies as they can provide goods on a larger scale than the other two producer types. Large companies with organic product line are especially strong in the area of research and development. New organic products are to be developed; research on crops, cultivation techniques, new products, market developments, customers' needs and wishes etc. should be dealt with.

Large companies can profit from the growing importance of eco-tourism and agro-tourism if they search for new markets in quality tourism such as hotels, they can deliver to gastronomy businesses, also here new products might be interesting, for gastronomy and the health spa area. If large companies with organic product line engage in Royal Organic Projects this may improve the company image and co-operation in research may be fruitful.

4.5.5.2 Which strengths of organic producers can be employed to fight which threats?

(see Table 15, 16 and 17)

As competition on the market is getting tougher and prices for organic products are falling, organic producer groups can use their fair and organic production to get or develop quality brands to improve their competitiveness. Furthermore, by searching for new marketing channels such as internet sales, producers become independent from traders. They also might think about delivering to specific customer groups such as conference centres, where organic and fair food is wanted as a statement or suits the corporate identity.

The skills of knowledge creation and knowledge management can also be helpful in co-operation with other groups. Offering on-farm hands-on situation training to interested people brings insight to customers and money for the producer. When it is offered for agriculture students it is useful experience for students acquired in a practical and at the same time, the producers are being supported.

Through the involvement of local wisdom groups can become more competitive by applying cheaper working methods for quality production and by adding value through offering local specialities. The broad variety of products offered by small-scale farmers may be an advantage but groups too might consider specialising on certain products to become more competitive or to find new marketing channels for seeds and for special and old varieties.

Another threat to be taken into account is that in case of an economic decline the customer's spending power and interest in organic products may decline. In this case it is especially important to make sure that the customer's loyalty is preserved by taking special measures as are to provide specific information and also to emphasise the social aspects of the organically produced foods.

Groups might publish facts on organic products and production. But they also should try to find new markets, both domestically and internationally, such as in markets in the business area i.e. canteens or in schools and health centres. One clever combination of environmental and socio-economic problem solution is that farmers plant trees on community ground and thus are in the position to reduce their debts while they are contributing towards environmental improvement at the same time.

And again, the organisation of information days, excursions, courses, offering on-farm practical training for the interested may be useful, bringing insight for customers and money

for the producer. Further the co-operation with the media for example for an organic gardening program, or an organic cooking program can raise the customer's interest in organic products. The farmers group's tendency to try to live self-sufficiently helps them to endure economically difficult periods.

For the case that resources should decline or availability of raw materials such as water or fertiliser become insecure several questions arise which should be thought of in advance. For example, farmers should think about whether they might be affected by the consequences of variety protection rights or patent rights. Farmers can learn how to produce seeds themselves to be less dependent from seed companies. Farmers groups can also improve their networks for procuring, for example they could establish a trading centre on the world wide web or in a magazine.

If natural resources such as water or soil become scarce or lose in quality, new and traditional knowledge may be applied to protect resources and the specialisation on local varieties, low-input crops and low impact agriculture may be useful. When fuel prices rise, farm own energy for example from oil plants can be used and perhaps the energy input can be reduced through the application of simple technologies.

Similar measures are to be thought of should climate change deteriorate the farm environment such as through droughts, episodic heavy rainfalls, heat; soil erosion etc. New, better farming methods conserving resources such as soil, water etc. must be applied. The use of varieties and races that are well adapted to the new environment, and the choice of more appropriate land management systems such as agroforestry in mountainous areas, may then become necessary.

Furthermore, farmers groups can demonstrate the positive impact of an organic farming system to gain supporters and co-operation partners.

Commercial family farms might have to deal with similar threats and measures will be similar to those of the organic farmers groups. When competition on the organic market rises, and prices decline, commercial family farms may be strong enough by using their personal connections to find new business opportunities and marketing channels for their products. They may be found in organic convenience food, internet sales, public canteens, organic catering. For this end specific and high quality production is also important.

Like the farmers groups, the commercial family farms must invest in the customer loyalty to prevent a loss of buyers in case of an economic decline and reduced spending power. Some

marketing channels such as small markets and box schemes help also to build a good relation to the customer. Further measures may be co-operation with marketing experts, event management agencies, the media, to publish books and folders, organise events, to wake interest by explaining traditional techniques and their functions and presenting products and their qualities. Apart from these conserving measures, looking out for new both domestic and international markets, must be a principal objective.

Should the availability of resources and raw materials drop and fuel prices rise, the measures to be taken are the same as for farmers groups. Again the development of a good local network of suppliers is important, so that material can be exchanged or bought at lower prices. If funds are available, consultants that support businesses in becoming more ecological but more economical at the same time, can be hired. Simple, but appropriate and appealing packaging may be made from renewable primary products available in the region.

If climate change and effects linked to it occur, such as droughts, episodic heavy rainfalls, heat, soil erosion etc., organic farming is certain to gain in interest on account of its farming techniques which sustain the nutritive and ecological values of soils. The commercial farmer will then be in the situation to promote the organic farming system by demonstrating the positive impact on his farmland and thus may gain supporters and co-operation partners. In addition he might think over his product range and search for new products which can be easily grown and processed under the new circumstances.

When large companies with organic product line perceive that competition on the organic market is getting tougher they can always react from a favourable position profiting from being able to increase their production volume easily and then can sell good quality at good prices. Their research and development departments will find new products for market niches. They will also have to find new marketing channels e.g. internet platforms, public canteens, organic catering services for these newly developed products e.g. organic convenience food.

For better availability of resources and means of production the creation of an organic cluster might be initiated by a large company, for example to locally provide the organic fodder for shrimp production, which, so far, has had to be imported at high costs. Large companies also have the advantage of being in a position to buy new technologies or to develop them e.g. to produce more inexpensive energy and to save water.

4.5.5.3 How can weaknesses of organic producers be converted to opportunities?

(see

Table 18, 19 and 20, p. 90)

Some organic farmers groups and co-operatives are rather less commercially, than spiritually motivated to commit themselves to organic farming. This does not necessarily have to be a disadvantage from an economic point of view, as these groups may find more opportunities to sell their products as soon as interest in organic and fair trade products rises. They should search for customers who are interested in the ethic background of their products, such as social (Buddhist) institutions and companies but also in the health area such as hospitals, spas and wellness centres.

They may also benefit from the fact, that their philosophy matches that of the Royal projects, based on the King of Thailand's "New Theory". A further point in their favour to be mentioned is that the value-attitude of organic farmers which is largely inspired by Buddhism, is interesting for foreigners and city people. So, the farmer should think carefully before he decides what is worth being conserved and what has to be changed.

If organic farmers groups produce fruits and vegetables of quality that is not fit to be sold in supermarkets, this weakness may become less important if customers start to understand that the size or shape of the product is not necessarily a sign of quality. So it would make sense for farmers to invite customers to their farms so they can demonstrate how they work. in the fields This could improve the acceptance of lower grade or under- grade vegetables through information on the nutritional and social value of the organic product.

On the other hand, improvement of the outer appearance of the products may be possible as experience increases. One option to be mentioned is to improve the appearance of the products cooling them on the way to the market for instance in a cold storage truck, which could be jointly acquired. In co-operation with a Royal Project production might be improved through better counselling or by finding solutions that are beneficial for everyone. On the other hand, if products are bought locally, the appearance may be less important, in which case costs for transport are negligible and cooling is not required so they can be sold at cheaper prices

As competition within the organic market is rising farmers will need to start thinking in a more innovative way. They will need to re-think their production, think about specialisation

or search for new products. Also the way of marketing must be thought over, perhaps direct marketing like box schemes will be a profitable alternative or addition to market or shop sale.

Small funds are not necessarily a hindrance for development, farmers groups can try to find new ways of financing, e.g. by co-operating with business partners or socially or environmentally engaged institutions. Co-operation with other groups can enrich the groups' ideas especially when tourism is conceived as an opportunity to forging new paths, bearing Thai and local traditions in mind, learning and development will be enforced.

Commercial family farms name the high costs for labour, energy and seeds as weakness, but as soon as the demand for organic product starts to grow, higher product volumes can lower production costs. Another possibility to be pointed out is to concentrate on low input agriculture but at the same time finding ways to earn extra money. Running a guest-house could be one example or offering courses for cooking or handicraft.

If limited financial resources are hindering development, co-operation with business partners, buyers, traders, socially and environmentally motivated institutions should be sought to facilitate investment or resource sharing. Co-operating with Royal Projects could possibly bring support of some kind too.

The question is: How can large conventional farms, or companies with organic product line turn their weaknesses into chances? One of the possibilities is to initiate clusters should production costs rise above a tolerable level, as it would be easier to improve the availability and to reduce the price of resources from this strengthened position. In case the agribusiness has an image problem this "weakness" can be improved by seriously engaging in social and ecological projects, thus positioning the company as "green", healthy, social.

It could possibly turn out to be beneficial if the management vented possibilities to overcome seemingly contradictory expectations from the exponents of sufficiency economy and industrial production which may lead to a co-operation with a Royal Project, or integration in a "Royal Organic Cluster". The creation of an organic cluster is not only interesting for the company regarding advantageous procurement conditions but it would also make it easier to improve the image of the certain regions in order to attract tourism (eco-tourism, agro-tourism) and investors.

4.5.5.4 Where are the weak points of organic producers, which preliminary measures must producers take to evade possible harm from threats?

(see Tables 21, 22 and 23, p. 92)

If the competition on the organic market rises and prices for organic products drop, organic producer groups will have to improve production processes and transportation, always keeping an eye on their competitors' activities. One possibility to evade disaster is to focus on local sales – then the quality requirements in respect to size, form and appearance of goods may be lower than for export. A broad variety of products and the growing of special varieties reduces the degree of dependence on world market prices.

Beside product specialisation marketing specialisation may be advantageous too, or the farmers groups can try to offer special services such as online delivery, or organic catering services. Apart from that, the farm and its fields must permanently be improved to maintain and increase productivity.

To answer the problem of rising fuel prices, energy cost might be reduced by purchasing cold storage trucks, which are then used jointly. This kind of acquisition may possibly be co-financed by the government; also, fuel expenditure could be reduced by concentrating more on the local market. In the area of farming techniques, a specialisation on indigenous and wild plants which require little mechanic treatment, as well as the application of certain techniques such as low-till or no-till agriculture, will help.

One of the major problems for organic producers is the consumer's lack of knowledge on organic farming and its products and subsequently they prefer to buy a similar but cheaper products. During an economic decline the situation gets even worse because consumer spending power is reduced. Therefore the farmers groups must focus on informing their customers by explaining why their products look different from products available in supermarkets, which they are used to and by demonstrating how indigenous vegetables can be prepared and turned into delicious and healthy meals. The broad variety of products reflects the idea of organic farming – rare varieties can awaken interest.

The farmers groups should also try to communicate with the customers as their opinion is significant. The customers' feedback can in fact prove useful as it can help the organic producer group to find out where it stands and which improvements have to be made.

Another problem is that the availability of natural resources and raw materials is not secured and may deteriorate. Therefore the dependence on external resources must be minimised and

the farm, water reservoirs, cycling of all material must be improved. Besides, indigenous and well- adapted varieties may need less inputs, such as water, fertiliser or protection. It may further be helpful to try out other, either traditional or newer methods and to exchange experiences with other groups, on a national and international level.

To react to climate change and effects linked to it, such as droughts, episodic heavy rainfalls, heat, soil erosion etc., techniques must be improved and adapted, plant varieties can also be adapted continuously through own seed selection. Mixed farming with shrubs and trees provide protection for other plants. Again the gathering and development of traditional and new knowledge and the exchange of experience in group can bring essential knowledge.

When commercial organic family farms are confronted with higher competition on the market and get lower prices for their products, they need to ask themselves, if their work can be done more effectively, output volume should be increased to decrease production costs. Again they must find new marketing channels such as in the area of organic convenience food and catering, on the internet, in public canteens, and they also can increase their competitiveness through new or value-added products, or market products that are a regional speciality or produced in a traditional way.

An answer to the rise of fuel prices and the dependence on external resources, the insecure availability of resources and raw materials such as water and fertiliser is to be found in checking and improving the energy efficiency of the production, in joint transportation, in seeking self-sufficiency to be less dependent on external sources or by the initiation of a network of providers.

The customers lack of knowledge on organic issues becomes more noticeable when an economic decline reduces the spending power and the interest of customers. Therefore efforts must be made to improve the customer's knowledge to understand the whole picture of prices, of the effects of organic and sustainable agriculture etc. Commercial organic family farms can also offer on-farm practical training for interested individuals which brings insight for customers and money for the producer or – in the case of agriculture students – supplements their education in terms of practical experience and, in turn, working power for the producers.

If climate deterioration becomes a more burning topic the commercial family farm should seek self-sufficiency to be less dependent from external sources and to strengthen the farms' ecosystem. The farmer may raise interest by informing on techniques to improve the micro-climate of the farm.

Large conventional farms, i.e. companies with organic product line also need to find answers to growing competition, costly means of production and difficulties with changes in the natural environment. They can support the reputation of the companies' organic brand, find new marketing channels, convey information on the production by explaining the organic production process in booklets that are added or sold with the products. But it is essential that not only the customers but above all the entire staff should understand organic farming ideas.

If the availability of resources and raw materials gets less secure and climate change and effects linked to it occur, firstly the biological cycles in the companies' farms may be closed to reduce dependence on external resources. Improved maintenance of the company farms' ecosystem may be used for image improvement.

Referring to energy, more energy saving methods must be found; the company might find better sources, or supply itself through own energy production; it could even become a model company in the area of energy supply. The company might initiate the creation of an organic cluster for better procuring of seeds, fodder, fertiliser, appropriate packaging, which is also a good marketing move as it may create the image of a company playing a beneficial role for the region.

4.5.6 Selection of possible measures for future development

▪ Measures in the area of production and farm development

- Seek self-sufficiency to be less dependent from external sources, concentrate on low input agriculture and/or gain additional income e.g. through a guest-house offer, courses etc.
- Reduce competition through specialised production - increase competitiveness through new, value- added or high-quality products, market the traditional, local way of production (OTOP, "One Tambon (i.e. sub-district), one product")
- Learn how to produce seeds (e.g. local rice varieties) to save costs and to adapt the plant to local conditions
- Check energy efficiency to reduce energy consumption; consider the production of farm own energies (e.g. bio-fuels from waste or oil plants)
- Indigenous and well adapted varieties may need less external inputs, such as water – grow drought resistant and heat resistant varieties

- **Measures in the area of marketing**

- Seek a leading position in the organic world market for the company's specialisation
- Search for special markets e.g. herbal medicines
- Find new marketing channels and new products, niche markets
- Show that it works; working on the basis of the King of Thailand's "New Theory"
- Make the organic farm a model company for ecology and economy.

- **Measures in the area of culture and customer education (infotainment, edutainment)**

- Organise shows in shops and on the farm
- Organise workshops for interested individuals and groups (organic gardening, local (organic) cuisine, cooking classes, handicraft)
- Awaken interest by explaining traditional techniques and their functions
- Support customers' knowledge and acceptance of indigenous plants.
- Support rising awareness for social and ecological topics in tourism
- Create eco-tourism offers and agro-tourism offers

- **Media**

- Promote the environmental friendliness of organic farming systems and show the positive impact for customers and society etc.
- Make outstanding headlines through interesting products
- Organise events, publish books, create a telecast on organic gardening or on a social project including organic farming activities.

- **Co-operation**

- Seek closer co-operation with other groups (e.g. for joint transport with others), research institutions, Royal research projects, with business partners, socially/environmentally motivated institutions
- Create a local network of suppliers (for seeds, fodder, packaging), an organic cluster.
- Establish a trading centre (online or in a magazine)

5 Conclusion

- 1) There is great potential for organic agriculture in Thailand in many ways. This is recognised by several groups which adopt this approach in order to reach their goals. The range of organic producers comprises subsistence farming by small-scale farmers and agro-industry.
- 2) It was the goal of this study to learn more about this wide range of organic producers. It describes different roles and strategies of the different kinds of organic producers. The assumption was that there are 3 types of producers, “farmers groups and co-operatives”, “commercial family farms” and “large conventional companies with organic product line”. The differences and similarities of these three groups have been brought out.
- 3) The classification into these three groups proved useful. They differ from each other in production, production methods, processing, marketing, certification, but also work organisation, knowledge management, social topics and finally the estimation of their own strengths, weaknesses, opportunities and threats and future goals.
- 4) The goals of organic producers vary considerably from self-supply with safe food to finding new markets in other countries. So do the strategies to reach these different goals. The different groups of organic producers do not compete than rather supplement each other. For example, while exporting co-operatives sell their products in the fair trade segment, large companies serve the large supermarket chains with relatively low-priced organic products. The first mentioned play an important role in community development, the second also play a crucial role in regional development, but on a different level.
- 5) In Thai organic farming, the government’s role is increasing, but it is not as yet clear exactly which role it should play. Both farmers, NGOs and the government consider support as the main task of the government, it should provide a supportive environment for organic farming enabling step-by-step growth, and the producers should be the main actors in organic farming scene. Nevertheless, there is some uncertainty about that and efficiency should be improved.
- 6) Ideally, a common vision should be found for sustainable development. A policy is in place but attempts to implement it have been half-hearted so far. However, the central government has limited possibilities to act as it is in the hands of the provincial

governments to support organic farming. Many actors in the organic movement argue that a more holistic way of thinking is needed at government level.

- 7) For the main actors in organic farming, the producers, a list of possible measures for future development has been compiled as the result of a SWOT analysis. These are measures in the area of production, of farm development, of co-operation and marketing. This list of measures may be a contribution to a discussion among the stakeholders of organic farming in Thailand.
- 8) One of the possibilities for further development found may be the creation of a Royal Organic Cluster, for example in Isaan, in the northeast of Thailand. Carried out as a bottom-up approach to regional development, a cluster can not only enhance organic production, processing and marketing, improve the region in social, environmental and economic terms, but may also have a positive impact on the organic movement nationwide.
- 9) One of the most important questions is: Who is to benefit from development and what the tasks of each interest group may look like. For example organic farming can be an element in a common sustainable development agenda, especially for the rural areas in Thailand. For this object real action must be taken and closer co-operation between different interest groups is necessary. It may be of great advantage for the stakeholders and the country as a whole.
- 10) This thesis is an explorative study which can only be one further starting point among many for future action.

6 Appendix

6.1 Abbreviations and acronyms

ACT - Organic Agriculture Certification Thailand

BAAC - Bank of Agriculture and Agricultural Co-operatives

DOA - Department of Agriculture, MOAC, Thailand

DOAE - Department of Agriculture Extension, MOAC, Thailand

DOP - Department of Export Promotion, Ministry of Commerce, Thailand

FAO - Food and Agriculture Organisation

FFS - Farmer Field Schools

ICS - Internal Control System

Ifoam - International Federation of Organic Agriculture Movements

IOAS - International Organic Accreditation services

IPM - Integrated Pest Management

JAS - Japan Organic Agriculture Standard of Organic Agricultural Products

MOAC - Ministry of Agriculture and Co-operatives, Thailand

MOPH - Ministry of Public Health, Thailand

OMIC - Overseas Merchandise Inspection CO., Ltd.

OTOP - One Tambon, One Product

UNCTAD - United Nations Conference on Trade and Development

UNDP - United Nations Development Program

UNESCAP - UN Economic and Social Commission for Asia and the Pacific

USDA - United States Department of Agriculture

6.2 Interview list

- Interview 1 (I1): Mr. Charoeanvit, Ministry of Agriculture and Co-operatives (MOAC), Bangkok, March 22, 2006
- Interview 2 (I2): National Bureau of Agricultural Commodity and Food Standards (ACFS) official, Bangkok, March 22, 2006
- Interview 3 (I3): Mr. Supote Chaivimol, Department of Agriculture Extension (DOAE), Bangkok, March 23, 2006
- Interview 4 (I4): Mr. Paitoon Poolsawat Department of Agriculture, DOA, Bangkok, March 23, 2006
- Interview 5 (I5): Ms. Siangjeaw Piriyaarin, Microbiologist (Research); Ms. Benjarat, Director of organic farming project (Policy and Budget). Land Development Department, LDD, Bangkok, March 29, 2006
- Interview 6 (I6): Department of Fisheries official (DOF), Bangkok, March 30, 2006
- Interview 7 (I7): Ms. Jintana Indramangala, Animal Husbandry Division, Department of Livestock (DOL), Bangkok, March 30, 2006
- Interview 8 (I8): Mrs. Nartrudee Nakornvacha, General Manager, Organic Agriculture Certification Thailand ACT, Bangkok, April 4, 2006
- Interview 9 (I9): Ms. Sonee Thongchai, AAN Alternative Agriculture Network, Bangkok, April 2006
- Interview 10 (I10): Vitoon Panyakul, Green Net, interview at Thammasat University, May 23, 2006
- Interview 11 (I11): Mrs. Pacharin Chitaurjaisuk, Carrefour Quality Line Product Manager Thailand, Bangkok, May 26, 2006

The interviews were recorded with a mini-disc recorder.

6.3 Tables

Table 11: Overview over large and medium size companies producing organic food

Name of the company	Products	Certification Body	Location and area of organic production
Thai Organic Food Co., Ltd.	Vegetables, fruits, herbs and spices	ACT	Ratchaburi, 60 ha
Xongdur	Cereal products, sesame products**	DOA	n.d.
Ban Thanyathip	Cereal products, sesame products**	DOA	n.d.
Thai Fresh Produce, Swift	Vegetables and fruits**	DOA, JAS	n.d.
Thai Tea Suwirun	Tea**	DOA	Chiang Rai 224 ha*
Choui Fong Tea	Tea	DOA	Chiang Rai over 160 ha**
Earth Born Co., Ltd.	virgin coconut oil	Bioagricert	Ratchaburi; 86,4 ha
Be the Chef/ APZ Corp. Ltd.	Rice dishes, cereals, seasoning	Bioagricert, USDA, DOA	Ubonratchathani + Surin; 120,64 ha
Top Organic Products and Supplies Co., Ltd.	rice, coconut milk, shrimp, coffee	Bioagricert	Chiangrai, Chantaburi; 1369,68 ha
Merit Food Products Co., Ltd.	Canned coconut milk	Bioagricert	n.d.
Capital Rice Co., Ltd.	Rice. Major rice producer of Thailand, mainly export, home delivery of organic rice, organic pioneer in Thailand	Bioagricert	n.d.
Capital Trading Co., Ltd.	rice, coffee	Bioagricert	n.d.
Southeast Asia Organic Co., Ltd.	white cane sugar, tapioca starch	Bioagricert	n.d.
Sampran Food Co., Ltd.	forest honey	ACT	Nakornpathom, wild production operator
Siam Preserved Foods Co., Ltd.	dried papaya	JAS	n.d.
Thai Organic Agri Co., Ltd.	Vegetables and fruits (fresh, dried, preserved, frozen), essential oil, herbs, tea	JAS	Chiang Mai 6,5 ha*
Lanna Agro Industry Co., Ltd.	Frozen green soy bean	JAS	Chiang Mai
Swift Co., Ltd ** ****	Asparagus, baby corn, lemon, lychee, chili, lemon grass, passion fruit	Certification OMIC/JAS since 2002, DOA	Kanchanaburi (company's farm), Sra-Kaew (Groups of contract growers), Petchaboon, Loei
Adams Enterprises Ltd.,	Hom Mali rice, honey, cane sugar and roasted coffee; organic hybrid vegetable seeds since 2000	JAS, USDA, Skal Internat., ACT,	Phayao and Chiang Rai 800 ha
River Kwai International Food Industry Co., Ltd. (RKI)	Baby corn, Sweet corn, Asparagus, other fresh and processes fruit and vegetables	Bioagricert, Soil Association, OMIC, DOA, ACT	Kanchanaburi 195 ha, Chiang Rai 60 ha, Surin, Sa Kaeo **

* information from email, see appendix ** information from brochure edited by the company, *** information from DEP information leaflet, **** information from company's web site

Table 12: How can strengths of organic producer groups be employed to realise the groups' opportunities?

	Strengths				
Opportunities	Farmers groups and co-operatives	Fairness in production and trade	Knowledge creation and knowledge management, networking	Involvement of local wisdom	Broad variety of products, indigenous plants self-sufficiency
	Growing market for organic and fair-trade products	Emphasis on socially and ecologically sound prod. and appropriate marketing	Knowledge must be increased, more coop. for knowledge exchange, experiences from other countries Development of new products – processing to add value	Support cheap working methods for quality production; added value through offering local specialities	Support customers' knowledge and acceptance of indigenous plants. search for specialised markets s.a. herbal medicine.
	Growing importance of eco-tourism and agro-tourism	Support rising awareness for social and ecological topics in tourism, create sustainable tourism and appropriate marketing	Eco-tourism can increase knowledge on activities elsewhere (if educational trips, experience exchange of producers) therefore co-operation with regional tourism office or organisation of group own offer courses for tourists	Local wisdom and daily work of farmers as attraction for tourists - may bring out a unique selling proposition	infotainment, edutainment, local cuisine, cooking classes, handicraft, OTOP; communicate a life style, philosophy
	Royal Project, New Theory Project	Combination creates a special value added product; bottom-up approach, self-management/ opportunity to become stronger must be secured. Maybe governments support/private sponsoring can be gained.	Possible profits in co-operation with Royal projects may be coop in research, or joint infrastructure use. (take care not to end up in top down dependency)	Gathering, evaluation and application of local wisdom, reinforced combination of old skills and new knowledge	Suitable plants help sustain farmers' lives; develop a showcase of the sufficiency economy, combined with organic farming, enhancing regional development

Table 13: How can strengths of commercial family farms be employed to realise their chances?

		Strengths			
Opportunities	Commercial family farms	Good networks	Innovative ideas	Involvement of local wisdom, knowledge	Entrepreneurship
	Growing market for organic and fair-trade	New business links, such as Organic convenience food, internet sales, public canteens, organic catering	Find new marketing channels such as: Organic convenience food, internet sales, public canteens, organic catering	Support cheap working methods for quality production; added value through offering local specialities	Recognise chances, market gaps: Organic convenience food, internet sales, public canteens, organic catering
	Growing importance of eco-tourism and agro-tourism	Coop with event managers/conference centres: organic catering of conferences etc.	Search for new fields of business and new business connections such as in the spa area	Marketing, courses: Offer on-farm practical training for interested people (brings insight for customers and money for the producer)	Search for new fields of business and new business connections such as in the spa area and edutainment area
	Royal Project, New Theory Project	Co-operate with a Royal Project, such as in research, maybe use of the Royal projects infrastructures is possible if close enough	Create new good products, maybe market it within a Royal quality product line. Develop a modern model farm or community, following the Kings "New theories" ideas	Try to combine traditional and new knowledge	Offer on-farm practical training in self-sufficiency and organic farming for interested people (brings insight for customers and money for the producer)

Table 14: How can strengths of large companies in the organic sector be employed to realise their opportunities?

		Strengths			
Opportunities	Large conventional farms/companies with organic product line	Quality of the products, production meets international standards	Little competition	Specialisation on certain products	Strong in research and development
	Growing market for organic and fair-trade	Seek leading position in organic world market for companies' specialisation Find new marketing channels such as: Organic convenience food, internet sales, public canteens, organic catering	Seek leading position in organic world market for companies' specialisation Find new marketing channels such as: Organic convenience food, internet sales, public canteens, organic catering		Develop new products, carry out research on crops, cultivation techniques, new products, market developments, customers' needs and wishes etc.
	Growing importance of eco-tourism and agro-tourism	Growing demand for eco-tourism, find new markets in quality tourism (hotels)	Delivery to gastronomy businesses		carry out research on new products for gastronomy and the health spa area, on market developments, customers' needs and wishes etc.
	Royal Project, New Theory Project	Project with social concern meets know how of large company – company image	The co-operation with a Royal project may be an effective marketing measure		Consider if mutual profit can be reached through co-operation in research

Table 15: Which strengths of organic producer groups can be employed to fight which threats?

Threats	Strengths				
	Farmers groups and co-operatives	Fairness in production and trade	Knowledge creation and management Networking	Involvement of local wisdom	Broad variety of products, indigenous plants self-sufficiency
Higher competition on the market, lower prices for products, such as through FTA	Quality marks improve competitiveness new marketing channels s. a. internet sales makes producers more independent from traders deliver to specific customers such as conference centres, where fair food is wanted as a statement	Improve knowledge and competitiveness by co-operation with other groups Offer on-farm practical training for interested people (brings insight for customers and money for the producer) or for agriculture students (compulsory practical brings experience for students and help for producers)	Support cheap working methods for quality production; added value through offering local specialities	Reduce competition through specialised production Find new marketing channels s. a. sale of plants and seeds of special and old varieties. Combine environment and socio-economic topics (such as tree planting on community ground for debt reduction etc. (Mr. Amnart, CSE 4))	
Customers' lack of knowledge on organic Economic decline reduces spending power and interest of customers	More information, also emphasise on social aspects	Farmers institution publishes facts on organic products and production Find new markets (domestic, international), schools, health institutions, markets in the business area (canteens)	Organise information days/excursions/courses, offer on-farm practical training for interested people (brings insight for customers and money for the producer)	Co-operation with gardening area, the media (e.g. organic gardening program, organic cooking program) etc. Self-sufficiency helps endure difficult periods	
Rise of fuel prices Declining or insecure availability of resources and raw materials such as water or fertiliser	Are the farmers affected by questions of variety protection rights and/or patent rights?	Use/ production of farm own energies (e.g. from oil plants) Farmers learn how to produce seeds themselves Improve networks for procuring, e.g. establishment of a trading centre (online or in a magazine)	Reduce energy input through application of simple technologies Use new and traditional knowledge to protect resources	Specialisation on low-input crops Use of local varieties	
Climate change and linked effects (droughts, episodic heavy rainfalls, heat; soil erosion etc.)	---	Develop new, better farming methods conserving resources as soil, water etc. Demonstrate positive impact of organic farming system to gain supporters, co-operation partners	Use new and traditional knowledge to protect resources	Use of adapted varieties/races to environment, choose appropriate land management system such as agroforestry in mountainous areas.	

Table 16: Which strengths of commercial family farms can be employed to fight which threats?

		Strengths			
Threats	Commercial family farms	Good networks	Innovative ideas	Involvement of local wisdom	Entrepreneurship
	Higher competition on the market, lower prices for products, such as through FTA	Use personal connections for new business/marketing channels	Specific and high quality production Find new marketing channels such as: Organic convenience food, internet sales, public canteens, organic catering	Quality production	Find new marketing channels and new products, niche markets: Organic convenience food, internet sales, public canteens, organic catering
	Customers' lack of knowledge on organic Economic decline reduces spending power and interest of customers	Co-operation with marketing experts, event management agencies, the media, Work together with the customers	Special marketing channels, box schemes	Wake interest by explaining traditional techniques and their functions.	Events, actions, books Find new markets, domestic, internationally; companies' canteens – for employees
	Rise of fuel prices, dependence on external resources, declining availability of resources and raw materials	Create a (local) network of suppliers	Energy reduction, energy production Packaging made from renewable primary products	Use of traditional techniques (e.g. using gravity for irrigation)	Better management – resource saving Create network of suppliers
	Climate change and linked effects (droughts, episodic heavy rainfalls, heat; soil erosion etc.)	Demonstrate positive impact of the organic farming system to gain supporters, co-operation partners	Search for new products which can be easily grown/processed.	Improve local ecosystem, learn from local tradition (and adopt useful techniques from elsewhere, learning through online communication, magazines etc.)	Promote environmental friendliness of organic farming system and show positive impact for customers/society etc. Make outstanding headlines through interesting products

Table 17: Which strengths of large companies with organic product line can be employed to fight which threats?

	Strengths			
Threats	Large conventional farms/ companies with organic product line	Quality of the products, production meets international standards	Little competition; specialisation on certain products	Knowledge, R&D
	Higher competition on the market, lower prices for products, such as through Free Trade Agreements	High quality as an important competitive advantage Production competitive through quality and good price	Secure position on market; quality image, brand stands for a specific product Find new marketing channels such as: Organic convenience food, internet sales, public canteens, organic catering	Find market niches; how can quality be improved and cost reduced
	Rise of fuel prices, Higher costs, problems in procurement and/or production problems because of declining availability of resources and raw materials, such as water, straw etc. due to climate change	Initiate the creation of an organic cluster for better procuring	Efficient working methods Create network of organic suppliers Adapt the product range to new circumstances	Energy saving techniques; own energy sources How can natural resources be protected Improve ecosystem stability

Table 18: How can weaknesses of organic producer groups be converted to opportunities?

	Weaknesses					
Opportunities	Farmers groups and co-operatives	Little commercial, but spiritual interest	Low quality of products Size, form, freshness	Little concern for innovation	Partly no specialisation	Small funds
	Growing market for organic and fair-trade products	Search for markets of special interest and social institutions / e.g. health area (public canteens, organic catering)	acceptance of lower grade or under- grade vegetables through information on nutritional and social value of the organic product. Develop better transport, cooling etc.	Search for new products	Direct marketing box schemes, local, holistic working method as special bonus in marketing strategy	Find new ways of financing, such as shares, Seek co-operation with business partners, buyers, traders, socially/environmentally motivated institutions
	Royal Project, New Theory Project	Matches well together, common ideals for big goals strengthen the producers' motivation	Co-operation with the Royal Project can improve production through better advisory or joint problem solving	Co-operation with Royal Project may enrich ideas of the group	Show that it works working according to the New Theory	Co-operation with Royal Project brings money for investments, infrastructure
	Growing importance of eco-tourism and agro-tourism	Market Thai Buddhist way of life to tourists	Local, direct use of products, appearance is less important, no transport and cooling needed, cheap	Take eco-tourism as opportunity to take innovative steps, with tradition as base	Holistic attitude and farming methods are more interesting for tourists.	Financing through coop. with tourism businesses

Table 19: How can weaknesses of commercial family farms be converted to chances?

Weaknesses				
Opportunities	Commercial family farms	High costs for labour, energy, seeds	Technical/production problems	Limited financial resources
	Growing market for organic and fair-trade	Higher amounts of products decrease production costs co-operation with other producers	Seek co-operation/experience exchange with other organic producers, traders	Seek co-operation with business partners, buyers, traders, socially/environmentally motivated institutions
	Royal Project, New Theory Project	In co-operation with Royal Projects support of some kind may be possible	In co-operation with Royal Projects support of some kind may be possible	In co-operation with Royal Projects support of some kind may be possible
	Growing importance of eco-tourism and agro-tourism	Concentrate on low input agriculture and/or gain additional income e.g. through guest-house offer, courses etc.	Local, direct use of products, appearance is less important, no transport and cooling needed, cheap. Offer on-farm practical training for interested people (brings insight for customers and money for the producer)	Financing through coop. with tourism businesses, or own extra earning in tourism

Table 20: How can weaknesses of large companies with organic product line be converted to chances?

Weaknesses				
Opportunities	Large conventional farms/companies with organic product line	High costs for labour, energy, seeds	Image of a large agribusiness may be a hindrance	Weak organic commitment
	Growing market for organic and fair-trade	Find partners for cluster creation	Position company/brand as "green", healthy, social – publicity projects	Train the staff about the idea of organic farming
	Royal projects/New Theory Project	Co-operate with Royal Projects, Royal cluster	Ask yourself how the industry can be combined with the seemingly opposed idea of sufficiency	In co-operation with the royal project an image of a socially engaged company may be created
	Growing importance of eco-tourism, and agro-tourism	Initiate the creation of an organic cluster for better procuring as well as for improving the regions image for investment and tourism	Be active: Initiate the creation of an organic cluster for better procuring and better image (image of a company playing a beneficial role for the region)	Contact with interested customers may promote staffs interest in organic farming

Table 21: Where are the weak points of organic producer groups, how can the businesses be protected from threats?

Weaknesses				
Threats	Farmers groups and co-operatives	Low quality of products Size, form, lack of freshness because of lack of cooling	Little specialisation	Technical/ production problems (such as soil fertility)
	Higher competition on the market, lower prices for products, such as through FTA	Improve production process and transport, focus on local sales – requirements of size form etc. may be lower than for export	Broad variety of products and growing of special varieties reduces dependence on world market prices Find new marketing channels/services such as: internet sales, public canteens, organic catering	Continue and improve organic techniques, in the long run the organic farmers land will be more productive
	Rise of fuel prices	Organise cold storage truck shared by many, co-financed by government, partner; local sales	Specialisation on indigenous and wild plants which need little mechanic treatment	Application of certain techniques such as low-till or no-till agriculture
	Customers lack of knowledge on organic Economic decline reduces spending power and interest of customers	Give information, explain why products look different Customers critique used for improvement of offer and image	Broad variety of products reflects idea of organic farming – wake interest	Explain why products are different to what customers are used from products available in supermarkets
	Insecure availability of natural resources and raw materials	Improve farm, water reservoir, cycling of all material.	Indigenous and well adapted varieties may need less ext. Inputs, such as water – grow drought resistant/heat resistant var.	Gather and develop traditional and new knowledge, exchange experience in group, nationally and internationally
	Climate change and linked effects (droughts, episodic heavy rainfalls, heat; soil erosion etc.)	Improve and adapt techniques, adapt varieties through own seed selection	Mixed farming: shrubs and trees provide protection for other plants	Gather and develop traditional and new knowledge, exchange experience in group, nationally and internationally Protecting nets, mixed farming

Table 22: Where are the weak points of commercial family farms, how can the business be protected from threats?

Weaknesses				
Threats	Commercial family farms	Dependence on external resources, insecure availability of resources and raw materials such as water, fertiliser	Limited financial resources	(in case of) little concern for innovation, no added value
	Higher competition on the market, lower prices for products, such as through FTA	Can work be done more effectively, should amounts of products be increased to decrease production costs?	Find new marketing channels such as: Organic convenience food, internet sales, public canteens, organic catering	Increase competitiveness through new or value added products, market traditional way of production (OTOP)
	Rise of fuel prices High costs for labour, energy, seeds	Check and improve energy efficiency of production maybe joint transport with others	Seek self-sufficiency to be less dependent from external sources	Can production be changed to a less costly, more profitable one? Combine new services with the business
	Customers lack of knowledge on organic agriculture Economic decline reduces spending power and interest of customers	Improve knowledge of customers to understand the whole picture (price; effects of sustainable agriculture etc.)	Offer on-farm practical training for interested people (brings insight for customers and money for the producer) or for agriculture students (compulsory practical brings experience for students and help for producers)	Raise customers' interest through more appealing products
	Climate deterioration	Inform on techniques to improve micro-climate etc., Seek self-sufficiency to be less dependent from external sources	Seek self-sufficiency to be less dependent from external sources	Inform on techniques to improve micro-climate etc., seek self-sufficiency to be less dependent from external sources

Table 23: Where are the weak points of large companies in the organic sector, how can the business be protected from harm?

Weaknesses				
Threats	Large conventional farms/ companies with organic product line	High costs for labour, energy, seeds	Reputation of large agribusiness	Low commitment to organic agriculture
	Growing competition (domestic + international), through free trade agreements	Close biological cycles in the companies farm to reduce dependence on external resources.	Support reputation of organic brand Find new marketing channels such as: Organic convenience food, internet sales, public canteens, organic catering	How about the management's knowledge, commitment, succession
	Customers lack of knowledge on organic	Information on production	Explain organic production process in booklets, sell it with the products	Explain production process in booklets, sell it with the products
	Rise of fuel prices Dependence on external resources	Find better sources, own production of energy; Initiate the creation of an organic cluster for better procuring (seeds, fodder, fertiliser, appropriate packaging)	Find more energy saving methods; Initiate the creation of an organic cluster for better procuring and better image (image of a company playing a beneficial role for the region)	Explain the work-intensive organic production process in booklets, sell it with the products Whole thought of organic, company as an organic closed system
	Availability of resources and raw materials	Own production, partners, ecosystem care	Support sustainable resource use	The entire staff should understand organic farming ideas. Understand biological cycles
	Climate change and linked effects (droughts, episodic heavy rainfalls, heat; soil erosion etc.)	Improved care for the company farms' ecosystem (and maybe local/regional coop. for improvement of natural conditions)	Show that the company supports the protection of the environment; create a positive image: green, healthy, fun.	The entire staff should understand organic farming ideas. Understand biological cycles and the potential positive contribution of the company

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7.2 Information folders

Inthanon Royal Research Station, information folder, (n.d., collected in May 2006 at Inthanon Royal Research Station, Chiangmai.

The Royal Project Foundation, information folder, (n.d., collected in May 2006 at Inthanon Royal Research Station, Chiangmai.

Organic Vegetable, Royal Project's Organic Vegetable. Information folder, (n.d., collected in May 2006 at Inthanon Royal Research Station, Chiangmai.

EARTH BORN CO., Ltd. n.d.: Earth Born, Information leaf collected in May 2006 at Thaifex Food Fair 2006, Bangkok.

BANTHANYATHIP n.d.: Natural Product. Healthy home. Food for health. Information folder collected in May 2006 at Thaifex Food Fair 2006, Bangkok.

THAI TEA SUWIRUN Ltd. n.d.: Thailand Premium Tea. Thai Tea Suwirun. Information folder collected in May 2006 at Thaifex Food Fair 2006, Bangkok.

XONGDUR Thai Organic Food Co., Ltd., n.d.: Xongdur. Organic from Farm to. Table, Information folder collected in May 2006 at Thaifex Food Fair 2006, Bangkok.

CHOU FONG TEA Co. Ltd., n.d.: Chou Fong Tea. Natural Health Tea. Best Tea of the High Mountain. Information folder collected in May 2006 at Thaifex Food Fair 2006, Bangkok.

SWIFT n.d.: Fresh & Safe. Information folder collected in May 2006 at Thaifex Food Fair 2006, Bangkok.

APZ n.d.: Organic Meal from 100% Jasmine Rice made with passion and integrity. (Be the chef, brand of APZ) Information leaf collected in May 2006 at Thaifex Food Fair 2006, Bangkok.

GREEN NET CO-OPERATIVE n.d.: Green Net co-operative. Live Fair. Live Organic. Information folder collected in May 2006, Bangkok.