



Dynamic Change in Rice Production Systems in the Mekong Delta

A students field study report from An Gian

Sofia Palmer, Anna Nilsson, Adam Roigart

Supervisor: Associate Professor Lennart Salomonsson

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Institutionen för stad och land SLU
Postadress: Box 7012 750 07 Uppsala
Besöksadress: Ulls väg 28 A-B
Telefon: 018-67 10 00
Fax: 018-67 35 12
E-post: sol@slu.se
www.sol.slu.se

Preface

This report *Dynamic Change in Rice Production Systems in the Mekong Delta – A Students field study report from An Gian* was prepared by three highly motivated undergraduate students at the Swedish Agricultural University (SLU) after thoughtful study in an experimental course, *The Food Chain in the Global World*, in autumn semester 2006. The course was the second half of a semester in which these students planned their own studies, in consultation with a faculty advisor. Their goal was to add context and relevance to their studies in the conventional course sequence in the curriculum in crop science. For this work, they were enrolled for independent study credits (called "individual course", used as non program credits in their study programs) that are allowed in the SLU system.

These "test pilots" were seeking a way to increase their level of motivation and ownership in the curriculum, to learn first hand in the field about complexity of farming and food systems, and to do an independent project that would develop their professional capabilities to deal with uncertainty and multiple dimensions of challenges in agriculture. They decided to approach this task by taking into account the production, the economic, the environmental, and the social aspects of agriculture and the multiplicity of interactions among the key factors.

In the first half of the semester, the three students designed a course called *Analyzing Swedish Farming Systems* and came together with the instructor once each week to discuss their readings of the book *Ecological Farming (Ekologiskt lantbruk)* by Inge Kjellander, as the main introduction of an agronomy perspective of Swedish Farming Systems – including cropping system, animal husbandry and agricultural economy – in an integrative way. The literature also included different relevant papers and book chapters on different aspects of farming systems, as they were introduced during the course. Early guidance by the instructor was rather quickly replaced by the student initiatives and organization of these sessions. The course included multiple visits to two neighbouring farms about 20 km from the campus, and culminated with the students' report to the farmers on their reflections on the present situation of the farm and discussions on possible steps for improvements. One of the farms was a small mixed organic farm with about 90 ha agricultural land (60 ha rental) and multiple crop and animal enterprises, while the neighbour had a larger farm of about 800 ha stockless farming, but including about 20 ha of organic cereal production. During several visits, they included planned interviews, walked the fields, observed the crops and livestock, learned from the farmers about their philosophy and choice of practices. The students' analyses included production, economic, environmental, and social dimensions of the farms. The results of their several analyses were expressed in mind maps, activity calendars, general economic evaluation, and environmental and social impacts of the farming systems. The results were presented to the farmers to obtain feedback and to test the relevance of their recommendations.

The preparation and experiences in the analysis of two Swedish farms was excellent background for a more ambitious project in the second course on global food issues. After reading, discussion, and consultation with instructors, the students decided that an experience in the field in a developing country would be the best way to realize their goals of learning farming systems first hand in an entirely different context. The department that hosted the course (The Department of Urban and Rural Development) agreed to support the travel costs, and support in the field for a two-week trip to Vietnam, for three students and their instructor. This was possible through the department's ongoing teaching and capacity building project with several universities in Vietnam (a project called RDViet, see www.rdviet.net), supported by Swedish Development Agency (SIDA). The field studies in Vietnam took place during 5 weeks in December 2006 – January 2007.

In this period they were accompanied by four interpreters from the agricultural university in visiting a village *My Luong Commune* where the major cropping system was intensive rice production, with up to three crops per year. Because of the fluctuations in price of rice, high cost of production inputs, and the yield decline that is typical of Asian flooded rice production, farmers are seeking to diversify their enterprises with vegetable crops. They would like to add value to these new crops by attracting a processing plant to the community to avoid less profitable sales to middle men. The complexity of the farming systems, the potential for conversion to higher value crops, and the uncertain future as Vietnam enters the WTO were all factors that were taken into consideration in the analyses.

In visits to a second community, the *O Lam Commune* in a nearby district in the same province, they were joined by a Khmer-speaking interpreter to be able to communicate with farmers of this ethnic minority. The village was characterised by semi-intensive rice production with irrigation and two crops per year as well as upland rice farming that depended on rainfall. In both systems the farmers were interested in diversification of the cropping enterprises, in adding vegetables or other high-value crops to their mixtures.

In both villages, the students interviewed leaders, met with a focus group of ten farmers to learn about systems and the village in general, and interviewed three individual farmers. These included a rich farmer, a farmer with intermediate land resource, and a poor farmer. They wanted to better understand the range of farming activities and social strata in the community to develop a better rich picture of the agriculture and food situation. This type of triangulation, with information from at least three sources, was used to capture as clear an impression as possible given the short time of the visits.

Based on reading this report from the study tour in Vietnam, I am impressed with the depth of information and insight gained by the students in a short period in the field. To be sure, they were well prepared with a number of soft systems methods before leaving Sweden, and had some prior practice in the Swedish farming context, as well as a joint excursion together with the RDViet class at Hue University, just before the study tour to the Mekong Delta. The help of people from the An Giang University (also part of the RDViet project) and from village leaders was essential in locating people to interview and providing them with credibility in their task. Yet it is truly amazing what was accomplished in a short time. The production numbers are limited, of course, and the economics are necessarily shallow because it is difficult to obtain detailed information in such a short time and with so many people in the group – three students plus four or five interpreters. It would take a longer time and perhaps some fluency in Vietnamese language to achieve close confidence of the farmers and gain access to more detailed data on production and incomes. The environmental analysis is rather general, and relates primarily to pesticide use and comments about impacts of too much chemical residue in the ecosystem. The social elements are especially well developed, as the team focused in on labour use, family involvement, relationships with the commune leaders and women's groups and relatives, and national politics and their influence on local success in agriculture. This dimension is impressive, especially as conducted by crop science students with limited prior exposure to the methods needed to get this information.

In my opinion, this was a highly successful field exercise. The students gained an invaluable experience in the international arena, leaving their comfort zone in the Nordic Region and travelling to the tropics and a completely different culture and series of farming systems. They had to adapt quickly to a new regime of food, language and translations, time change, and culture – typical of southeast Asia and extremely different from Scandinavia. They took methods that had been tested in their own language and culture, and adapted these to a completely different context. It was essential to present themselves well and to quickly gain confidence with their interpreters and especially the people in the two villages. This is a momentous task to accomplish in a short period of two weeks (the field study), but they seemed to do a wonderful job of overcoming all these challenges with grace and good humour. They stayed healthy. They adapted to the new situation, collected a large amount of information, took countless photos, and assembled a report that is truly impressive.

This report should serve a model for other student groups to emulate as they seek innovative ways to pursue an independent education. As instructors, our mission should be to provide some guidelines for design of a learning experience, and some check points as students navigate themselves through the learning landscape. In a conventional curriculum made of up courses on campus, tested over decades and found to help students achieve certain learning goals, this path through the landscape is clear. What we are learning is that not all students are motivated by this traditional path, not all people learn in the same ways, and some seek new routes that will provide them with a broader perspective about what farming and food systems include. They want to be able to deal with complexity and uncertainty, and to deal with the multiplicity of factors that will be important in food systems in the future. This experience in Sweden and in Vietnam has definitely provided such an experience for the three Swedish test pilots. With their help, we hope to improve the learning environment and provide more opportunities for growth in potential for independent thinking, setting personal and group priorities, and thus be better prepared for professional contributions in the future. The test pilot experience is one large step in that direction.

Charles Francis
University of Nebraska – Lincoln, U.S.A.

Abstract

Vietnamese agriculture has undergone many changes in modern time connected to politics, social structures and a globalised economy. Looking at statistics rice production seems to be the key to understand the situation of a Mekong Delta farmer, which was the objective of this study. In reality though the farming systems of high yield rice production are starting to fail and are rapidly being supplemented by new systems. Because of a quick increase in infrastructural quality and foreign investments it is possible to redirect the production towards vegetables which need a higher level of industrialisation. The individual farmers are struggling to keep up with “the new times” as governmental policies are often confusing and somewhat contradictory. Since there are no subsidies and no social safety-net farmers are not keen on doing rapid changes that may not give any profit in the end, and would rather than stick to what has “always” worked. The different organisations such as village committees, women union, farmer cooperatives and banks create a complex web of economic and social aspects which must be considered when thinking of what affects a household in the region. What is clear is that the region, and probably the whole country is facing a new era in agriculture history.

Svensk sammanfattning

Vietnamesiskt jordbruk har i modern tid genomgått många förändringar kopplat till politiska, sociala strukturer och en allt mer globaliserad ekonomi. Statistiskt sätt verkar risproduktion vara tyngdpunkten i att förstå livssituationen för lantbrukare i Mekongdeltat, vilket var målet med denna studie. I verkligheten har dock jordbrukssystem baserade på risproduktion med hög avkastning börjat fallera och har snabbt ersatts av nya system. På grund av snabb tillväxt gällande kvalitén på infrastruktur och utländska investeringar är det möjligt att rikta produktionen mot grönsaker, vilken är i behov av en högre industrialiseringsgrad. Individuella lantbrukare kämpar för att hänga med i dessa “nya tider”, när statliga riktlinjer ofta är otydliga och i vissa fall motsägande. Då det inte finns några subventioner eller sociala skyddsnet så är lantbrukare inte så villiga att anta snabba förändringar som kanske inte ger så mycket inkomst i slutändan, och fortsätter hellre med det som ”alltid” har fungerat. Olika organisationer såsom *lokala styrgrupper*, kvinnoföreningar, lantbrukskooperativ och banker bildar en komplex kedja av ekonomiska och sociala aspekter vilket måste tas i beaktning vad gällande *synen på vad* som kan påverka ett hushåll i regionen. Tydligt är att regionen, och förmodligen också hela landet, står inför en helt ny era i jordbrukshistorien.

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1 Introduction

1.1 Background

We are three students from the Swedish University of Agricultural Sciences (SLU) who are test pilots for a new program in rural development. Together with Lennart Salomonsson we have been planning and creating new courses with the main purpose to get an understanding of agriculture. We have been analyzing Swedish farming systems from different perspectives in the course “Analysing Swedish Farming Systems”. This report is the result of a project in Vietnam during the course “The Food Chain in the Global World”. The idea was to analyze the farming system of rice production in the Mekong delta from agronomic, political, social and economic perspectives.

1.2 Objectives

To gain an understanding and describe rice farming systems in the Mekong Delta, with focus on case farmers in the An Giang province as examples. The aim was also to practice and evaluate PRA-methods during the case studies.

1.3 Perspectives

- AGRONOMY (cropping, forestry, livestock, mixed/monoculture, organic/chemicals)
- ECONOMY (labour, income, self consumption, transport, middle men, market prices)
- SOCIAL (traditions, religion, family, organisations, activities)

1.4 Time Duration

16 Dec - 24 Dec 2006

1.5 Location

An Giang Province in the Mekong Delta, south Vietnam.

My Luong commune, Cho Moi district

- Intensive rice farming system (three crops of rice per year: vegetables)

O Lam commune, Tri Ton district

- Traditional rice farming system in upland: (1 crop of rice per year + rain fed rice cultivation) as well as semi-intensive rice farming system (2 crops of rice per year), by Khmer ethnic groups

2 Methods

2.1 PRA-tools

PRA, Participatory Rural appraisal (www.fao.org) is a combined interview and evaluation technique developed for facilitating development processes in rural areas together with the local people. The PRA methods are used to collect and evaluate local knowledge, and to analysis and evaluate this information and develop conclusions together with the participants. It can be described as a set of tools for visualising the complex reality of the village. In this study the tools were used to help us gain an increased understanding of the farming systems in the case study. No participatory synthesis or evaluation was done in this study, as all pre-processing was done by the student group. Neither was feedback, from the evaluation process, accomplished with households included in the study due to the lack of time.



The PRA tools are often used in interviews where a translator is necessary. In traditional interview techniques, communication problems and misunderstandings between the players are common. A technique to keep the farmers in focus was needed. The development workers or interpreters are facilitating the process, not controlling it. They have to be open minded, flexible and able to learn from the participating farmers and leaders. The problems of agriculture are illustrated with pictures and figures. The tools can show many different kinds of perspectives. The goal is to get an overview picture about the farmers' situation. The involved people in the village have a greater capacity to map,

model, quantify and estimate, rank, score and diagram they own realities than any outsider. The PRA-methods can be used in group discussions but also in individual interviews with separate households.

To ensure that information is valid and reliable, PRA teams follow the rule of thumb that at least three sources must be consulted or techniques must be used to investigate the same topics, the so called triangulation method of investigation.

The PRA tools used in this study in different situations are listed below:

2.1.1 Group discussions

- ***Rich picture***

The farmers were asked to draw a rough rich picture of the village, with the main road, properties, households, fields, paddies, livestock, forest, fruit gardens, school, commune office, water sources. We focused mainly on the overview of the farming systems and not the details.

- ***Season calender***

To illustrate the farm work during one year we made a calendar together with the farmers. The purpose was to understand when, what and by whom different tasks in the cropping system of the farm were made. The farmers are often following the Lunar calendar (which starts in February). We wanted them to show what they were doing with their main crops during one year and how much time they, and other involved, spent on each task. While they were drawing the picture we asked about amounts and costs of different inputs to the cropping system (for example fertilizers).

- **Scoring (production, economy, social)**

We started with a brain storming in each category and continued with a scoring exercise of the most important ones. Each participant was given ten stones to divide between the different categories previously listed. Separate scorings were then made on the top scoring types.

In each village (My Luong and O Lam) ten farmers from different kinds of households were invited for a group discussion.

2.1.2 Individual Households

- **Rich picture**

The farmers were asked to draw a rough rich picture of their properties and production. For example, the included household, fields, paddies, livestock and water sources. During the activity we also asked them about the distance between the paddies and the household and how big the paddies were. We focused mainly on the overview of the farming systems and not the details.

- **Venn-diagram**

The method uses symbols to identify relationships between the household and the community. Both formal and informal institutions - like people committees, working groups and unions - were included. The venn-diagram also shows us the interviewed household's estimated importance, decision making and influence on the household, by viewing the different parts in the diagram and interactions among components. The main purpose is to understand the socio-economic groups in community institutions. A big paper with a circle in the middle represents the household. To symbolize the different kind of indicators we had round papers in different colours. We started to ask which kinds of institutions affect the household, followed by a ranking scoring of the most important ones (scoring 1-10). In the scoring ten was most important and one least important for the household. In the next step farmers were asked to put out the circles in relation to one another: very important ones were considered close to the household and the once that was experienced as less important was placed further away. If placed inside the household circle, it meant that that factor had a big impact, on the household, and outside the circle meant no impact at all. The circles could also affect each other, interact and overlap.

- **Ranking (production, economy, social)**

We started with a brainstorming in different categories and continued to do a ranking with the most important ones, and then followed with a discussion. The ranking was made with points between 1-10, with ten as the most important and one as the least important.

In each village (My Luong and O Lam) different kinds of households were interviewed: poor, middle and rich families. The households were selected by the village leader and the university people after directions by us. Our wish was to have representative households from different classes of the village society.

2.2 Interpreters



Four people from the university staff were allocated by the An Giang University as interpreters for the case study. In the khmer village (O Lam) we had one extra interpreter from the university who could speak the khmer language.

2.3 Material

Materials for the PRA-tools were: big piece of papers, coloured markers, scissors, and tape. Cameras, note book and pen were used for documentation.

Fruit, candy, cigarettes and water were used as gifts to the farmers for their time-sharing during our field activities.

2.4 Measures

In the text the areas are given sometimes in m^2 and sometimes hectares ($1 \text{ ha} = 10\,000m^2$) depending on the situation. Economic transactions are given in the local currency VND (Vietnamese Dong), 1 SEK (Swedish Crown) equals 2000 VND.

3 Agricultural Issues in the Mekong Delta

The background and general context descriptions below provide a summary of facts and perspectives collected by interviewing Mr Vo Lam, Acting Director, Centre for Rural Development, and Vo Tong Xuan, Headmaster An Giang University.

3.1 The rice farming systems

The irrigation systems around the rice paddies are built up by a main canal, secondary canals and ditches. The ground gets flooded every year. In many areas they have built banks along the canals and dikes around the paddies to keep the flood out of the paddies. The reason is to be able to grow high yield rice or vegetables also during the flooding season. As the sediment brought by the flood is important for the fertility of the soil, projects have started this year to make gates to let flooding water in. Some sediment gets in anyway through the water used for irrigation but this does not match what would get in through an annual flooding.

Three rice crops per year, without any fallow or intermediate crops, are common in the Mekong delta. This system degrades the soil and increases the need for fertilizer. It also causes a lot of problems with pests and diseases. The market price fluctuates much over the year. The competition between farmers is strong, and makes the price low and unstable. Another trend is that diseases and pests can be severe some years, and thus create a temporarily high price on the market. This can create big problems for the domestic market, and to balance too high prices on the domestic markets, the government can stop the rice export, which makes the domestic price go down again.



The Khmer people have historic traditions to live in the highlands where the soils are sandy and not very fertile compared to the low land in the Mekong Delta, and the Kinh people have a tradition to live in the low land of the delta. Both groups have grown traditional rice with a crop cycle of 6–8 months, one crop per year. The Khmer have always had one crop of bean before the rice crops, and mostly produce rice and vegetables for self-subsistence in the household. As their production has been oriented towards a bigger market the crop rotation has become less important, as they find the use of fertilizers and the crop rotation “unnecessary”.

Clay soils completely lose their structure after a season of paddy rice which makes it impossible to grow beans. This is exactly the situation in the lowland areas and so the paddies were usually fallowed between the rice seasons.

3.2 Soil issues

The bottom soil in the area we visited is a deep layer of acidic sulphate soil that can not be used for growing any crops except for some kinds of forest, which make the topsoil very important as the layer used for growing rice and vegetables. After a flood this layer is about 20 cm thick and gets thinner for every growing season which means that traditionally the flooding is completely necessary for the agriculture. If the top layer is

completely worn down, acidity is released and the soil becomes permanently damaged. Restoring of damaged soil can be done but only at great effort and cost.

To get better structure and build up nutrition status in the soil the extension workers now encourage the farmers to grow two crops of rice and one crop of vegetables a year. It's also a benefit for the farmer since it makes their economy better. The problem is that fresh vegetables are spoiled after only a week. The farmers can't adjust the selling time according to the market prices and instead become very dependent on middlemen. To create a well working production process it's important to look at the entire food production system and its different kinds of technology. A first step would be to open local processing industries, a process that is under way through both domestic and foreign investments.

3.3 Poverty and new markets



Improving the problematic situation of poverty is a combination of looking at the farmer's situation, climate, soils, flooding and other factors in order to find out why people are poor. It is also important to find out where the market is and what it demands, and for the farmers to get used to the new markets if necessary. Social scientists do not always see the whole picture by just listening to the farmers. Of course the tradition, experience and religion should be respected but to not be able to adapt to changes and just follow the past will likely make the farmers stay in poverty. Even if there is a will, there will not necessarily be a way; individual farmers might have difficulties in getting loans big enough to really start something new. If investments can not be done by the farmers, it might be very difficult to change their situation. This makes the impact of state-run programs for changing production strategies even bigger.

Some very unsuccessful programs have been tried in past years. The first was to build two sugar processing factories in each province and encourage the farmers to grow sugarcane. The tactic was developed in a time of sugar shortage on the world market but when the production was ready to start the already stabilising market was completely flooded with sugar. The biggest

losers of such a project are the farmers who have no safety net if they don't manage to sell their crop. Another example of the same kind was a decision at governmental level that milking cows should be imported from Holland to start a dairy industry - the devious fact that the cows could hardly stand the trip nor the climate change was neglected. The program was a complete failure and again the farmers involved got into economic difficulties.

3.4 Quality or quantity

In Vietnam in general, and especially in the Mekong delta, people focus very much on the quantity instead of the quality. This way of thinking has been dominating since the end of the war when there was a big shortage of food. A different way of doing things has been developed by Thai farmers that focus on quality, by doing so they can export to a much higher price. As a comparison a Thai farmer might get 2 tons of quality rice at the same field as a Vietnamese would get 6 tons. If the companies can't trust the quality, they give low prices, even if some Vietnamese farmers care about good quality and can deliver it. The traditional rice grown by the Khmer people though is a different story. It is considered to be the best rice for taste and is a necessity for the Tet holiday (Chinese New Years Eve) celebrated in the whole country. Unfortunately the higher price a farmer can get for this product does not stand in relation to the higher production costs. The farmers we

interviewed, who were growing this special kind of rice, did so mostly because the irrigation was not good enough to withstand a high yield variety.

3.5 Extension system

The national agricultural extension in Vietnam is a top down very hierarchical system. Instructions are given by the government to be followed by the lower levels of the organisation; districts and communes. Extensionists are employed by the government and get some training every year. The provinces set up the program to follow in all the constellations down the hierarchy and are given money by the central government to hand out to development programs.

3.6 Livestock

The price for pigs is very unstable because there is not a stable production rate. At some point there will simply be too much meat on the market, yet this is followed by a shortage. Raising pigs is a very common activity and the cycle is only four months which in part explains why there can be sudden booms in the market. When market prices get high everyone sells their pigs, and a price-crash follows. To raise pigs is much easier than raising cows, which also is a bigger investment because the cows are growing more slowly. Feeding a cow is more complicated, it's more difficult to find fodder and more fodder is needed. The situation for many farmers is that they have no margins and can simply not invest in something that will not give profit until a year later – like a cow. The positive aspects of the cow are that it can give labour and that the price for beef is much more stable.

3.7 Waste

It is very obvious when coming to Vietnam that their culture concerning waste is very different from Sweden. The usage of plastic bags is very spread out and when they are used they are usually thrown away. These bags wind up in the ditches, lakes, forests and pretty much everywhere. It can also be seen in the backyards of the farmers that tidiness when it comes to litter is simply not an issue. From our point of view it simply looks quite dirty. This is becoming an increasing problem for the environment and the state is trying to change the attitudes of people on how to handle waste, an activity that is easier said than done.



3.8 Cooperatives

The government tries to encourage farmers to start cooperatives, but it has not been working as well as hoped for. It very often goes as far as cooperating with irrigation but then nothing more. The aim was for the farmers to always sell their products to the organisation, but many join the cooperative for the irrigation and then sell their products on the normal market or directly to middle men. One reason for this development is that the cooperative put taxes on the goods sold while this can be avoided if the products are sold in other ways. If a

group of farmers have enough capital they will be more likely to start a company instead of forming a cooperative.

3.9 History

In 1980 came a policy to encourage farmers to grow high yield crops to supply the need of food after the war. This led to an over-producing of rice and downward trends of profits. In 1997 there came a new policy to encourage the farmers to apply crop rotation instead. But still many farmers grow only the rice crop over and over again. Many farmers don't really see the point in crop rotation. They think that the problems can be solved with fertilizers and pesticides as the cheapest way. A problem is that there is no state control to check up on how the farmers use these products, resulting in over-usage and environmental problems as consequence.

Japan was in the same situation as Vietnam in the 1960s. The growing industrial sector needed more labour and took people from the agriculture sector. For a labourer there was more money in industry than in agriculture. The government though wanted to keep people in the fields because otherwise no one would produce rice, in order to provide a land of food security. The farmers were encouraged, by state initiatives, to join cooperatives and were paid a very good price for their rice if they did. To afford this kind of subsidy, money was taken from the industrial sector. In this way the growing industrial sector was keeping the domestic farming going. It also led to the situation where export was unthinkable because the price for Japanese rice was not market orientated but dictated by the government. An open market would have ruined the system, though giving much cheaper prices to consumers in the domestic market. A simple comparison: the price for one ton of Japanese rice today is 2 000 USD, the same amount of Australian rice costs 500 USD!

The current situation in Vietnam is that they have to compete with world market prices, for example rice from Australia and California where production costs are much lower, and there is simply no budget to subsidise the domestic farming in Vietnam.

3.10 Future perspectives

Vietnam is about to join the WTO which might escalate the development mentioned above. On a free market Vietnamese agriculture would have to compete with for example US-products. Another simple comparison: One ton of Vietnamese corn costs 80 USD, while the same amount of corn produced in the U.S. costs 19 USD!

One way of surviving for the farmers will be to rethink what they should be producing. Many farmers are starting to grow vegetables instead of rice because of a much better market demand and less competition. The problem is described above that a higher grade of industrialisation is needed to support such production and keep the crop from getting spoiled if the products can not be sold immediately. There have already been incidents of this kind resulting in economic - and related social - problems for the farmers who tried the new ways, and were encouraged by the state to do so.

Another effect of this development is that the market will become more oriented around larger quantities of uniform products thus creating problems for small-scale farmers. This trend is already quite visible: small farmers are being forced to sell their farms and the remaining farmers become bigger. The only way for small-scale producers to survive will be focusing completely on the local market.

The state tactic to facilitate the new requirements is to start "zoning" the agriculture. This means combining the land of many farmers to form bigger fields of the same crop. In this way it will be easier to control the production and to get, as required, large amounts of uniform products. Another gain might be that crop rotation could actually be more easily done when size increases, with the long-term benefit of a more fertile soil.

4 Kihn Village My Luong

4.1 Group Discussion

The discussion group consists of ten men and one woman from poor to richer households.

As shown in the village map of My Luong, the village seems pretty well-off with a highly developed water system, good infrastructure including roads and stable houses placed together around the main road through the village.

In 1997 a cooperative was started in the village by initiative of the government. All farmers can be members if they want to. The main purpose with the cooperative was from the beginning to extend the irrigation system. Nine years later almost all farmers are connected to the system. Cooperative members get cheaper irrigation fees.

A project for introducing a mixed cropping system with vegetables has been running since the project started 1997. Growing vegetables generates a better income, with a higher product price, than solely rice production, and this also improves the soil condition. To improve the soil quality the farmers are forced to use less fertilizer and pesticides. They are planning to take down the river banks for flooding, to let the mud slurry that comes with the annual flooding improve the topsoil. To change the production system the farmers may see other farmers' success, and will follow good examples. The cooperative arranges free training, advisement and working groups for the members. The training includes support such as technical advice, services and information on new varieties.

A new task from 30th of November is to cut off middle men and sell baby corn directly to the market. In the future a processing factory will start in the village.

To reduce poverty in the village the cooperative supports the poor families with calves. After breeding the calves the farmers keep 60 % of the profit and the cooperative gets 40 % as a pay-off for the calves.

The main production in My Luong was rice but the vegetable production was growing strongly. Everybody was raising some livestock but it was less important for their total income. Some were also growing fruit. Many farmers had a small business besides agriculture, like a grocery shop, coffee shop or farmer shop with farmer supplies like fertilizer and pesticides. Some also did work such carpentry, tailoring or making handicrafts.



Table 1. General season calendar for My Luong

Month	1	2	3	4	5	6	7	8	9	10	11	12
Rice	Crop I	Land prep	Crop II		Land prep	Crop III		Land prep	Crop I			
Sweet Potato	Growing season One crop per year		Fallow						Growing season One crop per year			
Corn/ Baby Corn	Continuous growing in 2 month cycles, 5 crops per year											

The biggest problem for the farmers in all production types was unstable market prices for rice. Rice production is the most important and also gives the biggest income. The use of fertilizer and pesticides is greater than ever and the costs are increasing. Different kinds of disease problems have become an increasing problem in the area. Livestock production is also affected by the low and unstable prices. Pigs are easier than cows to raise. It is harder to find cow fodder, and cows are larger to feed. Because of this it is more expensive to have large-scale production units.

If farmers could invest an infinite amount of money they would raise more livestock, increase their land property, and invest in machinery. Other listed investment needs were; equipment, plants, aquaculture and funds for starting a small business. One farmer said that he wanted to travel and all the others laughed at him.

4.2 Group discussion on general production facts

4.2.1 Rice

The land preparation is done by hired specialized and mechanised labour. The plowing is done with the help of machines and takes on average one day per household, depending on the size of the paddies. Planting is done ten days after land preparation is finished and takes roughly five days per household. Harvesting takes five days and the rice is sold five days later. Herbicides are sprayed once, fungicides 3 times, and pesticides 3 times. The pumping and delivering the irrigation water is done by the cooperative.

4.2.2 Corn

Land preparation takes 5-10 days per household and is followed by a quick planting with many people working during one day, with five persons for 1000m². During the growing period weeding is done by landless people and the crop is sprayed on average five times with pesticides. 80% of the work is done by men, and the rest of it consists of weeding and selling.

4.2.3 Baby Corn

Production of baby corn follows the same principles as the other corn but is more time-consuming due mainly to a more complicated harvest. The crop must be harvested in portions as it matures, so the total harvest time becomes more extensive.

4.2.4 Sweet Potato

For 1000m² the planting takes 10 days and is done by men. The same time requirements are needed for the harvest, but is done by women and during only one day with many people collaborating. The crop is sprayed two times with fungicides, four times with pesticides and fertilizers.

4.2.5 Livestock

Cows are kept as meat producers and are fed the stems of corn and baby corn, rice straw and wild grass. The calves are bought at the age of one at a weight of about 100kg, and then sold at a weight of 300kg.

Pig production is even more popular as livestock production. They are fed either by industrial feed, based on fish or local fodder depending on the market price for pork. If there is a positive trend, the industrial fodder is applied since it gives a quicker growth rate. The local fodder is water spinach, rice bran and sweet potato. The piglets are produced locally by some 20 sows, which are kept by local farmers. The sows give birth to an average of 10 piglets twice a year.

The average time spent on the livestock above is about two hours per 10 head per day. Additionally to this the farmers are generally keeping chickens in their back yards, but these are neither costly nor time consuming. Some farmers report having some shrimp farming, but that is rare for the village.

4.2.6 Other production

Some of the farmers have fruit trees, and for those that have it is an income of importance. The fruit trees are mainly mango and soursop (*Annona sp.*).

4.3 The Cooperative

We were talking to one of the heads of the cooperative in My Luong. The cooperative started in 1997 with an initiative from the government. All farmers in My Luong village are invited to join, and to be a member they have to become a stakeholder. At the start they were 84 stakeholders with a capital of 48 million VND. Now they are 100 stakeholders with a capital of 75 million VND. At the start the value of the stocks was 300 000 VND and has now grown to 1.2 million VND. In the area there are about 500 farmers which mean that about 20 % of the farmers members in the cooperative. When they join they get the profit, depending on how many stocks they own. The farmer members also get a cheaper irrigation fee. The economy is a complex problem; the cooperative wants to raise more capital and get more members. But many farmers think it will become too expensive to become a stakeholder.

The main purpose of the cooperative was to create an irrigation system in the village. Another activity is to provide the poor farmers in the cooperative an ability to begin “cattle fattening”. They buy calves and give them to the farmers for rising.

In the village the farmers have two opportunities for agriculture training. All farmers are invited for the training organised by the government. The cooperative is also arranging training courses for members only. They provide services like advising and technical support. The focus in the cooperative is to encourage the farmers to switch from rice production to grow cash crops instead, for example baby corn.

The cooperative wants to cut off the middle-men to let the money instead go directly to the farmers.

If the farmer sells the rice product to the cooperative, they get 80 000 VND per 1000 m² and the members reduce the irrigation cost by 1 million VND per ha / year. The price from the cooperative for other cash crops is about 40 000 VND/1000m² per year. To decrease the costs for the farmers, the cooperative is planning to invest in technical equipment for rent.

Every year the cooperative arranges a big conference with all members invited. They discuss the programme for the next year and which companies want to invest in the village. The members also get the profit share from the net return of the cooperative’s activities during the year.

Environmental problems are increasing in the area. The use of pesticides and fertilizer is greater than ever. The harvest is reduced and many pests have increased. A big problem is soil degradation. The farmers have pushed their production from traditional one crop per year to high yield production with three crops per year. They are only considering quantity, not quality. The neighbours are competing with each other and everybody wants to have the highest yield. They never discuss economy and prices, and that makes the benefit low. Before, when the farmers were growing rice just for own consumption for a self-subsistent household, they didn’t have to care about the quantity demand of the market. Now they have to change direction and start producing a higher quality. But it is hard to change production routines for farmers. One aspect is to help the farmers realize the importance of good soil quality to get higher production. That will make their rice quality better and in the end the product will be more profitable. It’s more difficult to encourage the smaller farmers to care about the soil. They have other jobs, for example on the market or on other farms, besides their own rice production. They don’t have to care about rice product quality. If the farms are bigger, up to 3-4 hectares, the farmers get their income mainly from rice production and can focus on agricultural issues. The cooperative wants to solve these problems with training and work shops. The cooperative has an extension program every year to teach new techniques in cash crop production, new varieties, how to use the



pesticides, and how to create a sustainable agriculture. They have training in field, work shops, and experiments in production.

Machines are replacing the labour force. The labour cost is getting expensive because fewer people want to stay in the village to do farm work. The young people wish to find jobs in the big cities. The machines costs are more stable than the labour costs and the farmer can get a higher profit if they can afford the investment of machineries.

Most machines in the area are operating on bio-diesel from the cat fish factory. This is a recently started production operation.

In the future the cooperative is looking forward to promoting develop. The ment of production of cash crops, cut off the middle-men and be able to sell direct to the market. They want to turn the farmers away from focusing too much on rice production, and look into other crop production opportunities to increase the profits and improve the soils. The local government is supporting a company to build a processing factory for vegetables and that would be a great opportunity for the village.

The members of the cooperative should start to work together to get better price for their products, and through the cooperative they can negotiate better with companies to sign collective contracts. The cooperative wants to work closely with to the members and help them extend their production and economic growth.

4.4 Village Leader

To answer our questions about the politic effects in the village we had an appointment with the village leader of My Luong.

The village leader has to be a member of the party and is selected for five years. If the leader does a good job and has respect, the same person can be chosen once again. His vision of his leadership is that it should be easy, clear and democratic. The village leader grew up on a farm in a nearby village, and is earning 1.5 million VND/month on the job as a village leader.

The village leader meets and discuss together with the people in the village to solve problems, answer questions, and explain regulations from the regional authorities. Every Friday everybody in the village invited



to an open meeting. The leader also has contact with the people through the cooperative, the women's union and the farmer association. The village leader affects the organizations with policy and strategies, but they have an independent budget. The government supports the local government meetings.

In the village there are two day-nurseries, two primary schools (95 % participating), and two high schools (95 % participating) and one secondary school (92 % participating).

Most farmers have low level of education. When it comes to new techniques they often don't know why or how to use them. In the past the children with poor parents didn't go to school,

and information and education didn't reach people in remote areas.

The poverty in My Luong has sunken to about 6 % of the households. A household is classified as poor if its earning is less than 260 000 VND/month. To reduce poverty the local government provides loans, on a one year basis, for the poor people to invest in improved agriculture production or starting business. The interest rate for these loans is 0.65 %.

Reasons why the poor people are poor, according to the village leader:

- Many children
- No land property
- No salary jobs
- Low education

The fact that Vietnam will join WTO in 2007 will also have some effects in the village. They will for example be able to export their products overseas, which also will force the farmers to produce high quality products.

Production problems in the village according to the village leader:

- Water supply
- Lack of modern high yielding varieties
- Diseases

The future challenges for agriculture production in the village are to get a tighter contract between companies and farmers in the village, and to find ways to start services and businesses. Trade is estimated to increase in the coming years. The village leader wants to develop the aquaculture, infra structure, and continue to work closely together with the people. More people are expected to work with business and service.

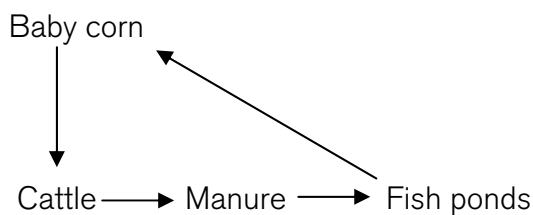
The strategy is to change partially from rice production to vegetable production. The number of farmers will probably be reduced and the size of the rest of the farms will grow.

Ways for improvement according to the village leader:

- Ask the farmers to visit other places with successful vegetable production and a better economic profit to improve their own production
- Get some farmers to start growing vegetables
- Set up and working groups
- Develop techniques and production systems
- Discuss together with the farmers
- Identify how some farmers' success, so that others will follow.

With a vegetable processing factory in the village, more profit will stay in the village. They produce a big amount of food raw material but the bigger profits are in food processing.

The village also must develop closed production systems to solve problem with pollution. Joining cash crop/livestock together could be one improvement:



Zoning is a way to increase benefit and efficiency by aggregating production activities to concentrated areas. Instead of having, for example, rice production spread out over a large area in many small fields, the paddies should be lumped together.

The village leader would like to force the farmers into vegetable production because it would give the farmers more benefit than rice production. He wants to encourage better contact with the companies to cut off the middle-men to make a higher profit for the farmers. He doesn't think that it is any problem that the farmers should compete with each other, even though they will grow the same kind of vegetable.

In the future the village leader wants to have more processing factories in the village. One agriculture food processing company will soon establish in the village. That means the chemical use has to be reduced, since the company will not accept chemical residues in the products or bad quality products. The farmers will then use more machinery instead of labour. The labour will instead work on the factory. In these days it is getting harder to find labour because many young people move to the big cities to find a better paid job.

4.5 Households, My Long

4.5.1 Mr V, Variety Breeder



Since 1979 Mr. V has had the ambition to test, sell and reproduce new rice varieties. This became possible 1985 when he started collaborating with the rice institute connected to the An Giang University. Every year he gets to try out a couple of new varieties and if the tests are successful the new variety is set “to production”. He used to sell directly to the farmers but now a seed centre functions as a middle-man. The farmers keep on coming to visit him anyway to see what’s new and to get some advice, for free.

In the past the definition of a good rice variety was a kind that gave long seeds (6-7 mm) of a clear colour. This is no longer the issue since the pest “plant

hopper” is now such a big problem that resistance to these are what makes a rice variety popular.

The higher quality of his product gives a higher price, of about 200 VND/kg, which according to Mr .V is the reason for his relative wealth. He is also conducting some “private” research on 1000m² to try out some of his own ideas but this land does not give any profit. Another kind of pioneering done by Mr. V is the use of compost, which he tells us is very uncommon. The same thing goes for crop rotation and the ambition to diversify. From his point of view it is a necessity to investigate what can be done to preserve the soil and improve the farming systems in a natural way. He claims to be concerned with yields going down, increasing pest problems and that the prices of all chemicals are going up.

4.5.2 Mr P, Kinh Middle Farmer

Mr P has an average family when it comes to size (5 children) and like many others he has been working hard to send his children to school in order for them to be able to get a good job. This has been successful and his children (4 of them working in HCMC) are now sending him approximately 3 million VND every month, which is about half his total income. This makes Mr P’s economic situation a bit special and he can almost be considered as half-retired.



In size his land is split between high yield rice and fruit trees. The rice is only for the household’s own consumption, whereas the fruit trees are for selling a product, in theory. The reason why there is not enough to sell to any larger extent is that nobody’s really tending the trees. We got the impression that Mr P simply didn’t really think of it as worth-while, he was well-off anyway! The livestock consisted of chickens, which were also for only for the household.

When asked what things in his surroundings where the most important for his household, he answered that the Catholic Church and the cooperative where the two main aspects. Going to church was simply referred to as life quality, socially and spiritually.

The cooperative was important to get cheap irrigation and technical advising. It was also a source of income since Mr P has invested money and gets incomes from his “shares” since business is going well.

4.5.3 Mr R, Kinh Rich Farmer

The most striking thing when first visiting Mr R is the size and look of his house. It is a two-floor high modern looking building with a big entrance, quite an uncommon view in My Long. Mr R has a small family with two older sons working and living off the farm. His wife used to be a tailor but is now retired. Mr R has no off-farm work and is only supervising the work on his farm since he has an unspecified health problem.

Mr R has one cash crop on his farm and that is rice, and with a total of field area of 3,3 ha paddy his farm is quite big for this village. He is also planning to sell mango in the future but the trees are not yet big enough. Since he lives too far away from the main canal he has to pay a private person to get help with water pumping. The seeds necessary for the planting are taken from the previous harvest.

On the backyard 40-50 chickens are kept, only for his own household’s consumption. The chicken eats rice and the feed does not cost much, so the only need is the time set aside for their tending.

Mr R says that the farmer union has the biggest impact on his household, this because it’s the forum to get information on rice growing. Next, the neighbours play a big role both as a social relief but also for practical issues like looking after the house or helping in the work. The market is a big part of life, because everybody goes there at least once a day for basic supplies. Mr R is a stakeholder in the cooperative and he gets some profit from his shares.



4.5.4 Mr T, Kinh Poor Farmer

Mr T has a big family and household with 6 children working in HCMC and 2 staying in the household, each with children of their own. This leaves a total of 4 people engaged in the agricultural activities.

Next to the household there is 700 m² of baby corn which is grown all year round in a three-month cycle and is his only crop. The corn is sold to a company operating at the market that functions as a middle-man. In addition to the benefits of the crop, the residual-products can be used as fodder for the cattle.

The cattle consist of four beef-cows that have been given to the household by the cooperative, through their poverty reduction plan. Mr T is responsible to fatten them from 100 to 300 kg before the slaughter. When the meat is sold the profit will be shared between the cooperative and the household. In addition to the by-products from the baby corn the cows are given water spinach collected from the farm ditches and rice bran. In order to get the bran Mr T buys un-milled rice



for his household's consumption and keeps the bran as fodder. From time to time additional fodder, such as wild grass needs to be sought outside the farm.

In a pond behind the house Elephant Ear Fish are raised for selling. 300 fingerlings are bought for about 500 VND and after a year the fishes weighing about 1 kg per head and can be sold. The fish are fed with rice bran which is very cheap. The price given for the fish is about 2 000 – 2 500 VND/kg.

In addition to these activities Mr T works for the cooperative to dig canals and his son helps with the harvest in other farms. One of his daughters in law is manufacturing baskets in the household, which she sells at the market. This is such a new activity though, that nothing can yet be said about the outcome of the project.

When it comes to factors outside the household affecting his farm Mr T, puts the cooperative in the first place. There are many reasons for this; they helped with the cattle, give him an extra income through jobs, he benefits from his stocks, and if a loan is needed they can help him with that. Second comes the school where his children and grandchildren get their education. The market is important for the household both for getting supplies and for selling their products. Neighbours function as a social support as well as giving him business opportunities. Sometimes he can work a bit for them as well as selling them fish.

In order to get loans the people committee must confirm him as a member of the village, which makes them important for his farming. Other "institutions" impacting the household are the farmer union, the company buying the corn, and the village clinic. These are considered less important though, since the union does not have a big impact, and he can switch companies to sell to, and the pharmacy is usually enough to solve medical problems.

Mr T is functioning as the hamlet leader when it comes to solving conflicts between the farmers. When there is a topic that needs to be discussed the neighbours gather to solve the problem and in this context Mr T is the chairman.

The household is dependent on money being sent by the children working in the city. This money goes to clearing loan debts taken to store the production, for later sale. If possible Mr T would like to invest in more livestock of the same kind he already has, although he admits that feeding them might be a problem. The son is meant to take over the farm and for now there are no plans to change or diversify the production.

4.5.5 Mr L, Landless Kinh

Mr LK is a carpenter and makes traditional artwork. He works twelve hours/day but makes very little profit. It is hard to find work because of big competition in the area. His wife has a little shop in the house where she sells supplies like cigarettes and candy. The couple has six adult children. Some are living in the village and others are working in town. Two of the grandchildren are staying with the couple. The parents of the grandchildren are sending them money for keeping care of their two children.

Mr LK is very active in the Catholic Church and in the Christian Association. He is spending a lot of time in church and that means much for him. The family has a close relationship with the church and is discussing problems together. He has close relationships to his relatives but they live far away.

Mr LK is not planning to do any changes or investments in the future. He is old, around 60 years and doesn't want to work any more. Instead he wants to spend more time in church. The interpreter's opinion was that "he had a pretty boring life"....

5 Khmer Village O Lam

5.1 Group discussion

The group discussion consisted of ten men from poor to richer households and several curious watchers from the village.

The Khmer people are Buddhists and the pagoda is central in the village. They have nine festivals per year that everybody enjoys together. New Years Eve (lunar calendar) means a whole week of celebrating. The rest of the festivals are celebrated one day at the time.

Visiting the pagoda is mostly for the older people. One person per household is visiting the pagoda four times/month, about ½ day each time. The people in the village celebrate parties and weddings together.

The most important farming activity in O Lam is rice production and the second most important is raising cows for meat production. Vegetable production and on farm labour exchange were also important. The farmers raised some pigs and some had smaller businesses. Other important jobs for the village were carpentry, construction, handicrafts, quarry and local sugar production. But none of the farmers in the group had that kind of work. Their main income was from agriculture.

The farmers' major worries were about the unstable market prices for their agricultural products. The price depended on the season, and the middle-men had a big impact. They did try once to start a cooperative, but it was unsuccessful. Low prices on output (mainly rice) and high prices on input (fertilizer, pesticides) didn't give enough money left after selling. The use of pesticides has increased and also pests like the plant hoppers. The high use of chemicals had a bad impact on the farmers' health. They often have to visit the hospital for fever or headache problems after spraying. The work in the quarry also has a bad impact on the health since dust covers the village when people are breaking stones. A lot of money is paid to the clinic for that kind of health care. The clinic is very important though, as the village is located far away from the city.

The strength of the cows for power wasn't enough, so they became replaced by machinery. That means further expenses for the households. The farmers need to pay for support for the new equipment and techniques.

The government supports workshop training one time per month to which all farmers are invited.



Table 2. Seasonal calendar made by farmers of O Lam village

	1	2	3	4	5	6	7	8	9	10	11	12
Trad. Rice-fields	Fallow		Vegetables		Land Prep.	nursery activity	Transport	Tending and harvest				
Intensive Rice-fields	Crop I		Land Prep.	Crop II			Land prep.		Fallow			

A big issue is to get education for the children. After school they hopefully could get a good job and perhaps be able to contribute to economy of the households. To keep social structures and good relationships between the neighbours is essential. Also helping each other with farm work exchange and looking after property was noted as important. They also solve problems together on the farm and in the family together.

The local government helps the farmers to follow the rules and to give loans if needed.

There are two programs in the village concerning infrastructure and house construction going on, which are the focus for the year 2007. Red Cross Union is supporting the village with money.

5.2 Discussion on general production facts

5.2.1 Traditional Rice

Land preparation is done by hired labour and by hired machinery. Cow dung is applied during the plowing. For 1000m² of rice crops, about 70 kg of seed is needed and the sowing takes ½ day. The rooting up takes ½ day for 7 labourers and the seedlings are then spread out over 1 ha. During planting fertilizers (nitrogen and phosphorus) are added to the seedlings at a rate of 21 kg/ha and a cost of 5000 VND/kg. The transplanting is done by 3 labourers/1000 m² at a cost of 50 000 VND/1000 m². The transplanting is done over one month depending on local conditions.

During the first half month of the growing season, fertilizers are applied two times with 5 kg per time for 1000m², at a cost of 5 000 VND/1000m². The fertilizing is done by hired labour and takes about 2 hours each time.

The tending of the rice field consists mainly of checking on the water level. Adjustments take about ½ hour and need to be done twice a day. Pesticides are used if necessary, which generally means twice per season at a cost of 40 000 VND/ha.

The harvest takes place in the middle of December and is done with hired labour and hired machines. The cost for this is 70 000 VND/1000m². The average yield is 550 kg/1000m² and the market price is 3 500 VND/kg

5.2.2 Vegetables



Vegetables are grown in the paddies between the rice crops using the residual moisture still in the soil. The vegetables grown are mungbean, soybean, watermelon and cucumber. To grow legumes before the rice is a well known traditional way of augmenting the soil fertility but this is becoming a more and more abandoned practice.

5.2.3 Two-crop rice

The paddies are sown with 140 kg/ha of seed at a cost of 5 000 VND/kg, one person can sow 1 ha in a day. After the sowing, the water is taken out and three days later herbicides are used at a cost of 20 000 VND/1000m². Water is then pumped in again, and after 7 days fertilizers are used (5 kg/1000m²). After another 10 days 10 kg more of fertilizers are applied.

After 17 – 20 days germination and growth, seedlings are transplanted from thick spots in the paddies to thinner ones.

The last fertilizing (5kg/1000m²) is done close to harvest. After harvest the land is fallowed for a short period and then plowed before the next growing period starts. The second growing period follows the same pattern but more fertilizers are needed.

5.2.4 Livestock

Cows and pigs are common livestock used exclusively for meat production. Chicken are also commonly kept around the house. There is also some pond-based fish farming.

5.2.5 Other farm production

Mango is grown on the hillsides but is not described as a very important part of the farming systems. There is also mango and coconut spread out over the whole area surrounding paddies and in gardens.

5.3 Women's Union of O Lam

We met the leader of the Women's Union of O Lam for an interview. The Women's Union is a top-down run organisation; e.g. local detachments in the villages get policy decisions from the district that gets instructions from the commune. The decision makers are elected by the organisation members and candidates are all found within the organisation. The membership is for anybody as long as you can pay 6 000 VND per year in organisation fee. Although the organisation is completely dependent on the party, the members do not need to be members of the party as well. The members should be over 18 years old, and after the age of 55 the members receive a special status where they don't need to pay but are on the other hand no longer allowed voting in elections or meetings.

The organisation has many functions. One important function is to give micro-credits, mainly to start a business or to buy livestock and to transfer the governmental policy to the local people. Another question of interest is to spread knowledge on healthcare and nutrition for mothers and children. The union can also administer a special support for households to get "basic hygiene", meaning installing a proper toilet. The union also works as a middle-man between the households and the bank to help them get a bigger loan. The organisation will be taking the loan and then transfers the money to the household. When it is time to pay money back, the households pay to the union, which in turn will handle the bank. The members are also given agricultural training, as livestock keeping, rice planting and fertilizing. The purpose is to empower women by giving them equal knowledge on how to farm, which in many cases is the same as saying that they get an understanding of how the household is supported. This in turn will strengthen the women in the social life of the community.

When it comes to social problems the main issue is domestic violence. It is quite rare that a woman who is beaten in her home will speak up about it unless the problem is quite serious. The union can summon a meeting with the man in question and ask him to explain himself and "educate" him on how to behave. This mainly has a social function since everybody in the community will know about the problem if a member is officially called to a meeting. In more extreme cases the police will be contacted. When asking the representative we were speaking to, they admit that this is not a very effective method for several reasons. First, the initiative must completely come from the victim of the violence, which is to ask much from an individual in an already difficult situation. Secondly, there isn't really that much the organisation can do except for the meetings, social pressure and the quite extreme measure of contacting the police.

The office we visited represented a group with 1860 members, from a village that has 6 000 women. This seemed to us as a quite low number but we were told that since many of the women are under 18 the participation rate is actually high. Even so the organisation is aiming on getting more members in the future so the rate could be higher. When asked about the future development of the community, we were told that more job opportunities should be created within the village. Possible fields of work could be incense manufacturing or refining of agricultural products. In this way the women would not have to find work far away from the community and good social patterns could more easily be kept.

5.4 Agricultural Leader, O Lam

We were given the opportunity to speak with the “agricultural leader” of the khmer village O Lam. His position is political, thus he is by definition a party member, although the job is mainly of a practical character.

The job of the agricultural village leader is to:

- help the farmers develop the local infrastructure
- give the farmers knowledge on how to develop their production
- help the farmers when they need to borrow money from the “agribank” (a state owned institute that lends money for agricultural purposes)

When it comes to decision-making on what should be grown in the district, the people’s committee makes a plan for the farmers to follow. The plan to follow is chosen by voting and that is the way in which the individual farmer can be a part of the decision-making.



We were told that the main issue for the Khmer community is the low level of education. In order to reach out to them it is necessary to train Khmer extension workers, since only a fraction of the community members speak Vietnamese. The way farming is done is rapidly changing: ten years ago only traditional rice (one crop/year) was grown and cows were used for land preparation. Today many have shifted to high yield varieties and the process is getting more and more mechanized with tractors and threshers. The aim is to keep the traditional rice on some spots and sell it for its high quality. In order to get a more effective production, a pump station will be built to supply the highland with water all year round. The crops

to combine are a 2 crop/year rice variety and vegetables such as cucumbers, soy/mungbean, peanut and watermelon. The reason not to grow 3 crops of rice per year is to keep the soilquality, and anyway there is not enough water to support such a system.

Fluctuating prices for rice is a problem as well as the price for fertilizers and pesticides going up at a steady rate. To control this problem the farmers are getting training on how to minimize the use of these costly chemicals and the goal is to cut the use to a 50 % level compared to today. There is an extension program for Integrated Pest Management with lessons and fieldwalks twice every month.

Five years ago the community had 20 % landless population, which in a community as dominated by agriculture as O Lam means 20 % poverty. Since then land previously fallowed has been given out and thus the rate of landless is down to 2 % according to official sources.

There is yet no cooperative in the village but there are plans to start one.

5.5 Households, O Lam

5.5.1 Mr PK, Khmer Poor Farmer

Mr PK, his wife and their five children are living together in a traditional khmer house made of palm tree leaves. The daughter is working as a waitress in the city and supports the household with money. The four sons are still in school and are helping their father with the farm work in their spare time.

Mr PK is mainly cultivating rice for market sale and for the household’s consumption. The total area of the property is 0.5 hectare. He has two rice paddies that total 3700 m² which are producing high yield rice with two crops per year. These paddies are connected to the irrigation system. The third field of 1500 m² is not connected to the irrigation system and is rain-fed only. That’s why traditional rice is grown there. Before planting the traditional rice, one crop of soybean is planted for home consumption.

The middle-man plays an important role for the household. He buys the rice products from the farmer and transports them to the market

The market isn't that important for the husband but the wife visits the market every day for buying goods.

The household has two cows that are used for land preparation and for transportation. The cows also give manure to the crops. The farmer is raising cattle for a neighbour and when they give birth, Mr PK can keep one of the calves as his own. Two pigs are producing about thirty piglets per year for sale. Until recently the chickens were an important income to the household, but five of seven died in the flu.

The people's committee affects the household with solving economic problems and telling which rules the household is suppose to follow. The economy of the household is poor and the family has to depend on the neighbours for borrowing money every season. The money is needed for buying pesticides and fertilizer for rice production. Without that support they wouldn't be able to grow anything. The neighbours are helping each other and frequently exchange labour, for example with harvesting. The pagoda is necessary for the family and good relationships are imperative. Traditional festivals are celebrated together with neighbours and people in the village.

If Mr PK had money he would build a new house, buy more property and expand the irrigation system. He would also like to get a motorcycle and a television.



5.5.2 Mr KM, Khmer Middle Income Farmer

In the household of Mr KM eight people are living together. Mr KM and his wife have two children of their own and a younger brother, sister and one nephew are also living with them.

The total cropping area on the farm is 4.85 hectares.

The biggest part of the farm (4.15 hectare) consists of clay soil and high yield rice is grown with two or three crops per year.

The rest (0.7 hectares) consists of clay soil and a mixed cropping system is used. First crops of high yield rice, second a crop of traditional rice, and last a crop of peanuts. The high yield rice is used as first crop because it is fast growing. The traditional rice can grow in the flooded season, has a longer stem and grows more slowly than the high yield rice. Peanut is a good crop to plant before the rice and gives high profit. But peanuts don't grow well in clay soil so that's way the farmer can't grow this crop in the rest of his paddocks. The farmer decides by himself when he wants to go to the market for selling the rice.

Livestock on the farm is four cows, two pigs and four chickens. The four cows together produce calves for sale 2-3/times per year. The fodder collected for the cows i.e. mainly wild grass. Mr KM buys piglets for breeding, and sells them to the market two or three times per year. The pigs are eating by-products of rice and vegetables. The chickens are raised for the household's own consumption.



The commune committee is important for advising and information. The Women's Union gives loans to the family for investment in livestock.

The health centre is necessary if someone in the family gets sick. Mr KM appreciates the social relationships with the neighbours. If he treats them good they are good to him in return. Then he will be invited to weddings and parties. Close relationship is important between the village people and the pagoda. The pagoda is like a mirror of the people.

5.5.3 Mr KR, Khmer Rich Farmer

The first thing to notice is that this is the richest household in the village with a big modern stone house in two floors. During the interview the wife spoke most of the time, and that was the first and only time that happened through our studies in the Mekong delta. Money doesn't always go together with happiness; three of the six children in the family were dead. The wife and husband are now living alone and their three children have left home. The husband is still working at the farm, the wife used to help with field work, but



she has been sick for the last three years. The relationships between neighbours are very important to the family because their relatives live far away. The neighbours help each other with parties and weddings. The farm needs a lot of labour because they have big properties (28 500 m²) and the family isn't large enough to handle by their own. Many of the workers are also neighbours.

Mr KR grows rice on 2.2 hectares of the property. Two paddies (1.65 hectare) have high yield rice with two crops per year. Eight paddies (total 0.55 hectare) have two crops of high yield rice and one crop of traditional rice. One paddy (0.2 hectare) is sown with peanuts. Mr KR also has a fruit garden with 0.45 hectare of mango and with bamboo growing around it. The irrigation system of the fruit garden is connected with the water system of the household. Because the household has the largest production in the village they also affect the market and the farmer shop, because they buy a lot of fertilizer and pesticides.

The household claimed to have a very big impact on the whole village, the inhabitants and the decision makers because of their large size of farm. The farm creates job opportunities and is an important factor for example in the local fertilizer trade when they buy a large amount. Mr KR

has in past been a member of the people's committee and in the parents association of the school. The people committee helps people to behave right and to follow the rules. Good relationships results in "certificates", telling that the household was a good one. Some of the members in the committee are also members of the pagoda. The people committee makes ID-cards available, which are necessary for being able to visit the clinic.

The clinic provides medicine to the people's if needed. Mr KR often has to visit the clinic after he has been using a lot of pesticides. Mr KR is a member of the farmer union, which is helping to develop the agriculture in the village.

Even in the pagoda the family has a big impact. The family celebrates the khmer festivals together with the other people in the village. Everybody used to visit the household at festivals.

6 Economic Aspects in the Mekong Delta

6.1.1 Rice

The average yield of high-yield rice is about 0.5 kg per m². Farmers who sell it to middle men get 2 000 – 2 600 VND/kg, while farmers who sell it in the market get about 4 000 VND/kg. Kinh poor buys rice for consumption half processed for 2 000–2 500 VND/kg.

Traditional rice only gives one crop a year, and the growing season is longer. But on the other hand the market price is higher (3 500 VND/kg), quality is considered much better and it needs less fertilizer.

6.1.2 Fertilizer

Fertilizer is a large cost for many farmers taking 10–20 % of the income of the rice. A big problem for the Vietnamese farmers are that the yields of the high-yield rice are going down, at the same time as prices of fertilizers are going up. Also more and more fertilizer is needed for each crop after the flooding season.

6.1.3 Baby corn

Kinh poor is growing baby corn instead of rice. If he instead were growing high-yield rice on the same field he would get less income and lose an important source of fodder for the cows.

Vegetable cropping is getting more popular in Vietnam. It gives more profit than rice, but processing abilities or contracts with companies are needed since the vegetables can't be stored like rice.



6.1.4 Irrigation

Members of the co-operative which use their irrigation system pay 40 000 VND/1000m²/year. Kinh rich live too far away from irrigation, and have to pay 120 000 VND/1000m²/year if he should connect to the irrigation system. Some farmers in the Khmer village pay the irrigation with rice from their harvest. If the payment should be paid in money, they would have to sell rice worth more than 200 000 VND/0.1ha/year for the irrigation. And for Khmer middle who pay in VND the price is more than the double. The conclusion is that it's a big benefit for the farmers to use the irrigation system of the cooperative.

6.1.5 Livestock

Livestock is an important source of income for the poor farmers. Without any grazing land the collection of fodder takes quite a lot of time, but for farmers with small agricultural land it might be a good deal. Not one of the rich farmers keeps livestock for monetary income. Because of health reasons and age, none of them work much, instead they hire people for a lot of the cropping work. Keeping livestock takes both time and responsibility, which they probably want to avoid.

If looking at the situation of kinh poor the cattle fattening project is of big importance. The income from the livestock makes up for more than the half of his yearly income. Khmer middle is taking care of cows

belonging to a neighbour. Of two born calves he can keep one, which he sells after 7 months for 3 million VND. This also means an important income for the household. The animals are also a benefit because they are used for land preparation, and contribute both manure and milk.

6.1.6 Fish

Kinh poor is the only household breeding fish. The net profit is 2.85 million VND/year. The profit per hour spent on the production is around 8 000 VND. For the household the fishpond is part of an integrated system, where the fish are getting fed what is not needed elsewhere. This also is an “extra leg to stand on”, if something would happen to the livestock or baby corn.

7 Discussion

7.1 Methods

In general we are very satisfied with the projects and the methods we used for the field work. We had a very good overview of the villages and a deeper understanding of Vietnamese agriculture and important factors affecting it. Also it contributed to our personal development by adding responsibility, capacity to solve problems and analyze information. But of course there are things in our methodology that could have been improved.

Because of problems with communication, the staff at the An Giang University was not prepared when we arrived to Long Xuyen. That delayed the whole project which meant less time for reflection and time to process data into the documentation between the field trips. It would have been better to not have such a tight schedule, preferable with one day at the university between each day of field trip. Also it would have been good to have time to check the information well, to be able to clear out mistakes and ask more about unclear facts. The tight schedule also sometimes made us tired and unfocused.

Our plan was to have one translator accompanying to the interviews but, according to the university, for different reasons that was not possible. On each field trip we had between three and five people translating and assisting, which sometimes made the interviews a bit confused. Also it might have contributed to a stressful feeling for the farmers with that many people coming for interviewing.

The arrangement of the field studies, starting with a group discussion, than making interviews with farmers and ending with interviewing authority people, was very good. In each group discussion 10 farmers were participating. Probably it would have been a more dynamic discussion with fewer participants. Also it was obvious that a few people took the leadership of the discussions, while others were not saying anything. In My Luong it didn't really turn out to be much of a discussion at all. We and the translators hadn't discussed enough beforehand how we wanted the discussion to progress. They had another picture than we did about how it should be accomplished and they didn't encourage the farmers to discuss as we would have liked them to. Next day in next village we were better prepared.

The village leaders selected the households for us to interview. The translators told them which kind of households we wanted to visit, but we didn't discuss our aim further with the village leader. Some of the households we were interviewing were not the best representatives of the group of people we wanted to be included in our field study. One example was Kinh middle, which got half of his income from his children. When interviewing a landless farmer we had in mind interviewing someone doing agriculture work for others. But because of not being clear with this we were introduced to one not involved with agriculture at all.



After a few interviews we found out that we wouldn't have time to ask for all the information from all of the households. We had to prioritize and spend less time than planned in some households, and to hurry up at the end of some interviews. This caused some gaps in the total information collected.

The PRA-tools facilitated the interviews a lot and probably made our understanding of the farming systems a lot better than if we wouldn't have used them. The method was creating a closer contact with the farmers, and giving a concrete picture of the systems. The method is interdisciplinary and gave us information that is not apparent at the first sight and which we probably would not have achieved by only asking questions. It's also a good method for making interviews in group since different persons can be responsible for different parts of the interview.

We're satisfied with the results even though some information is missing. Especially in the economy area the information is not complete. Since the understanding of the economic situation demands much time we had to consider how much to invest in this. Because it wasn't our main focus with the field study, we decided to just get information enough to get an overall picture of the economic situation. Also some of the numbers might be wrong because of misunderstandings, unstable prices and numbers estimated by the farmer because of not remembering or knowing at all.

7.2 Economy

7.2.1 Poverty and land

Kinh middle gets 50 % of his income from his children. His net profit is about the same as kinh poor – 18.5 million VND/year. But on the other hand he has a 0.9 ha fruit garden, which he is not using at the moment, but could provide an important income.

After some calculations we realized that the khmer middle probably should be considered rich. They have more than 4.85 ha and sell their rice in the market for about 1.5 million VND per day. They said they are going there every day, but by examining how large their yearly yield is it's obvious it can't be 365 days per year. A calculation on the average yield of high yield rice multiplied by their land area for that rice tells that they should get about 45 000 kg per year. That amount they would sell in 183 days. In that case they would have a net profit of 238 million VND, which is probably not correct, but still indicates they have quite a big income. One explanation could be if they got their 4 ha field recently and still haven't started to get the real income from that land.

What the two poor households have in common is that they have little land. Both have less than one ha. To get out of the poverty they need to find production that does not need a big land area. Vegetables are for example better than rice. Both families have many people to feed, so it's essential to try to find off-farm activities to bring more money to the households. Maybe micro credits could help them to start some kind of non agricultural business at the farm?

7.3 Information and education

Much of the agriculture information in Vietnam reaches the farmers through top down organised institutions. The decisions are made on government level and people from each province get trained by them. In each province representatives from the regions get trained and spread the information further to the rural district, which train smaller local groups. The service is free and is available for everyone. This has helped the development of Vietnam, from being a country with hunger and shortage of food, to being a food exporting country. But consequences are also now recognised with a system where the government decides what the farmer should grow. For example the results of the program encouraging farmers to grow high-yield rice three crops a year have led to soil degradation and problems with pests and diseases. If the government did not have this kind of programs, the agriculture of Vietnam would probably be more diverse. Other disadvantages are that the farmers lose some of the overall picture of how nature works, and with that maybe also lose some motivation.

For many farmers the most important source of information is the contact with neighbours and other farmers. That contact is important also for exchanging labour and borrowing money. The village leaders are aware of the importance of this information exchange. Therefore they see it as a possibility to encourage the farmers to grow more vegetables, if they show how well it's working for other farmers. Probably the farmers are more willing to change their patterns if other farmers give them advice than if the government tells them so.

7.4 The cooperative

The government encourages farmers to start cooperatives. They also organise agriculture training and information in some villages, like My Luong. But this service is only for their members, and it doesn't always seem to be of big importance for the members. Other advantages for the members are the cheap irrigation the cooperative provide and the cattle fattening program for poor people. Besides this, people don't see many reasons to be members. The aim is that the farmers would sell their products through the cooperative. But in that case the farmers have to pay a tax, which they can avoid by selling by middle men or to the market. So in that way the cooperatives are not working very well.

For some people the stocks in the cooperative might be an investment, even though it does not provide a big income from the stock shares. But for poor people the minimum amount of money to join the cooperative must be considered as high. Raising the price of the stocks from 300 000 to 1.2 million VND will give more money for the cooperative to do investments, but leaves poor people outside (who maybe need the cooperative the most to improve their situation).

The cooperative can be an important security for the farmers to unite them and give them profitable trade agreements. One possibility is to encourage farmers to discuss the economy to raise the prices. If the prize of each stock would be lower, but having more stocks in the cooperative would be more profitable, more villagers would join and people would at the same time invest more money in the cooperative.

7.5 Loans and Women's Union

For landless people in rural areas the situation is often very difficult. Without land it's difficult to borrow money, and that makes it impossible to do any kind of investments. Furthermore the competition for land is hard. One possibility for people without or with very little land is the micro credits from the women's union. The union borrows money from the social policy bank to lend it to the farmers. In this way the farmer don't need any security to borrow money. To improve their situation the money is probably best invested in diversifying the farming, or in other business than agriculture.

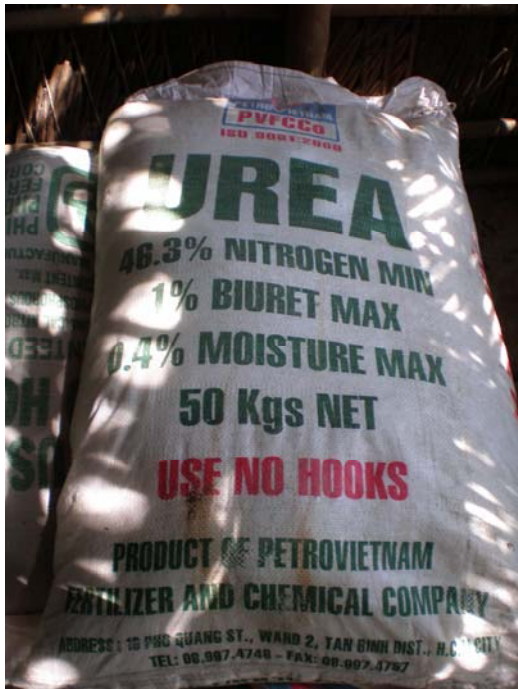
The women's union seems to be more important for social reasons than for agriculture information, even though they have activities like cattle breeding and carpet making activities to help women improve the economic situation of their households.

7.6 The future and WTO

For the future the government wants to develop agriculture by making more contracts between farmers and corporations. This might be essential for the development of increased vegetable production, since yet makes farmers dependent on a fast distribution of their products while they are fresh. They are aware of the risk for small farmers to get pushed out of the market since companies normally don't want to buy small amounts, but this is also the development automatically coming with the membership of WTO. What they maybe don't see is the risk coming with farmers' dependence on corporations. We have seen examples many times all over the world where corporations use farmers' dependence to make as higher profit as possible, without taking any responsibility for the farmers' situation.

7.7 The role and outcomes of farming

The agriculture of Vietnam is changing, no doubt about it, but towards what? Looking back, many radical changes have been made just in the last fifty years. These changes have happened because of many factors and the will of the farmer is only one of them. Traditionally rice has been grown on flooded areas using the flood as an essential part of farming. In between these crops other crops have been grown, primarily legumes such as mungbean using the moisture remaining in the soil. As a complement the farmers have been growing trees in their gardens such as mango, guava, bananas and coconut and other crops such as cassava, sweet potatoes and sugar cane. Livestock has been kept - chicken, pig, cow, duck, fish - feeding on the by-products from the cropping. The system is quite diverse and has been focusing primarily on feeding the household and in some cases to sell a few extra products.



After the end of the war in 1975, focus was put on producing as much food as possible to feed a hungry and war-ravished nation. New modern methods were put into use to maximise the yield resulting in an intensive farming depending on high-yield rice varieties, chemical fertilizers, pesticides, herbicides and fungicides. After feeding its own population Vietnam can now export and has become an active member of a global economy resulting in massive amounts of pepper, coffee and - of course - rice to the world market.

For the individual farmer this meant specialisation to as high a degree as possible; There is no point in growing legumes when you can have three crops a year of export rice. To achieve the goal new chemical methods were embraced as a problem solver and used without restriction. As a natural effect, yields started to go down over time, with systems demanding more fertilizers for which the prices were going up, and an increasing pest problem with

very big impacts on yields). The farmers are now struggling with this unsolvable puzzle, well aware that a system, shift must come sooner or later. From the government, initiatives are taken to introduce crop rotation but the question remains; who will buy the products that are not rice, if diversification is implemented on a larger scale? One must consider that the farmers are very unprotected by the system; if no buyer is found for products coming out of a, system changed by state initiatives, the farmer alone will have to withstand the lost profit.

7.8 Quality versus quantity



An associated problem is that quality has long since been lost in the high yield production. First of all there have been no state incentives to promote quality but many incentives to increase production. A result of the pest problem has been that the genetic qualities of the varieties asked for have been orientated towards resistance to specific pests as opposed to focusing on consumer qualities as smell and taste. In a different system it might not have been possible to compromise quality, but since quantity has been the only real issue that “problem” was easily overcome. Monocultures create diseases that appear in new varieties in monocultures; a “Catch 22”

of quality is one visible result. It is also worth mentioning that the classic varieties of rice, which give a lower yield and a better taste, could well be more resistant to pests if the research focus had been different. For a farmer interested in producing a higher quality of rice the first problem would be reaching the market. The middle-men who usually do the buying and transporting have no interest in selecting and marketing different qualities, of rice –this adds complication for them. These farmers cannot be rewarded for a higher quality product without an improved marketing scheme.

7.9 Farming systems and eco-services

To keep high productivity there is a need for irrigation; the usage of pumps to get water in and out of the paddy depends on the season. The classical way of managing the water is to grow one crop of rice per year rice the time of flooding and thereby use the natural resources of the area. When using pumps to simulate the same process three times a year, the soil is worn down at a much quicker rate which gives visible effects: for each crop after the flooding more fertilizers are needed. Since vegetables have become more popular the opposite has been done; walls have been built to stop the flooding water from reaching the fields. The irrigation is done by hand and through small canals which to a certain extent gives the fields some new sediment soil but not at all the same amounts as through a proper flooding. These two systems are obviously not easily combined, and both have their advantages. They both use ecosystem-services the rice system through letting the water in and the vegetable system through using the advantages of diversification. It could be said that the classical ways could be the natural compromise, but this is complicated by the impact of a market that favours monocultures.

Diversification is not promoted by the system; the small scale of the farms makes it difficult to produce many crops and still sell them in an effective way. Farming for a self-subsistent household, as opposed to selling crops on the market, is not an option since money is needed as a part of society and a means to get supplies. The fact that the cooperative system is heavily promoted is another issue that works along the same principle: to sell your products, they need to be uniform. In many areas the traditional diversified methods are only used on spots that for some reason cannot support high yield production. Since these spots are the less productive in the first place, there is a risk of never seeing the full potential in diversifying, since these methods will only be tested on low quality land.

7.10 Livestock

Many farmers are raising livestock to some extent and have mostly been positive when speaking of this activity. In the best-case scenario the animals are very well integrated into the farming system and provide a valuable source of food, money and manure. There seems to have been quite little change in the way the animals are kept and used, except for cows being used less as power for land preparation and transport. Pigs are preferred by the poor because of their quicker turnover time, but they are more dependant on industrial feed as non-ruminant thus less well integrated into the farming system. It should also be mentioned that most of the land preparation is still done with buffaloes or oxen which gives this kind of livestock an important role not only as meat producers.

7.11 General social aspects

Social systems in Vietnam are very complex and integrated into each other. Everybody has a place and a meaning. Old people are much respected. It is natural that the children take care of their parents when they are old. They are living together, watching the kids and helping around in the family. No one should even think of leaving the old people in a hospital. It is not even an opportunity to make a choice; the social system at higher political levels doesn't exist. The farmers that we interviewed saw the investment in the children's education as an investment in the future. If the kids get a good education, they could get a well-paid work and support their parents. The children are very central in the family and are participating in many activities on the farm, both social life, and in some easy farming work and household tasks. They seem to be everywhere and become a natural part of any given social situation. All Vietnamese seem to be involved in good care of the kids.

7.12 Gender



The gender situation is very unequal. To be respected in the society the girls have to be married. The wife often stays at home and takes care of kids, livestock and garden. The husband is the one who is managing the business outside the household. He has the biggest impact on the economy, decision making and activities in the household. There is a women's union, supported by the government, is supporting the women with advisement about nutrition and health care. It was a big gap from my imagination when we visited the leader of the women's union. She couldn't even understand our questions about gender, power and equality. This is a large difference between Swedish and Vietnamese culture.

7.13 Safety net



The Vietnamese live in a society where they have no safety net at all. No trust in government means investing big capital in social relationships. They borrow money from their neighbours, exchange labour and rent equipment from each other. Instead of putting capital in the bank, the farmers invest the money in the farm for example in livestock. This gives a hint on how weak the social system is, because putting the money in livestock can be a big risk. The cow can get sick, they can be out of fodder, bad weather can kill them, and so on. On the other hand they get something back from the cow during the time they are keeping it. Cows are used for transportation and land preparation, milk, manure, maybe calves, and meat after slaughter. The cow can eat materials that otherwise would be thrown away like by-products from rice or maize. By selling, livestock the farmers can make a good profit. The relationships are also very important in the social life in the village. The inhabitants are celebrating festivals, weddings and parties together. It is natural that you aren't invited if you are not behaving and treating the neighbors in a good way.

7.14 Social Network

In the villages that we were visiting in Vietnam, everybody was connected with everybody else. There was not any clear line between neighbors, family, friends and workers. Everyone is affecting everyone else's life. People are helping each other in the everyday life. In some ways, it appears that the people who are living this kind of life may be happier than people in western countries. It is easy to romanticize the poor people, and we do not mean to do that. We do not say that it is better to live as a poor farmer in the rural areas, when this is not easy at all. Not knowing if they have food for the next day, if the next typhoon will ruin the house, or if the crop will die because of the dry weather is not a secure life.

It is very hard to think of the social differences, for example not being able to make ones own choices in life or feel the power to decide for ourselves or in the community where we are living. Vietnam is ruled by a one-party-government in a closed system. The people have no influence on what is happening with the regime or which political issues are on the agenda. The people can't choose politicians, nor can they change the government. They are not able to have an open discussion, freedom of speech and a media without control doesn't exist.

These aspects have a great impact of development issues. This informal system provides personal benefits when the government doesn't take that role. On the other hand, personal relations can hinder the development to an effective market economy.

The farmers are to a great deal stuck with being told by those in power what to grow and how to sell – an effect of the old totalitarian system. This is probably not beneficial for the development of the farming systems since local solutions cannot be used. This also decrease the resilience for the farmers since they themselves have to accept what is given, even though they might think it unwise. A person that is not allowed to make his own decisions and is thereby living an uncertain life is not likely to develop better and more sustainable farming methods.

7.15 Democracy

The only thing that seems to matter is the economy. In world politics it gives an impression that economic development is more important than democracy, human rights, and social aspects. Some experts even think that democracy prevents economic development. They say that if you ask the poor people, they would choose the economic advantages before democracy. But how could you ask them? The right thing should be to ask the people in a open vote, but that's the thing non-democrat countries don't want to happen. But do they have to choose? I can't see why the human rights and economic growth could not work perfectly together and encourage each other. Together with the people, the government could see what is needed. Until now no one has been able to show that a dictatorship should be better for economic progress than democracy. And how can you be sure that people, are answering the right questions in a non-democrat society? The people are used to have very limited political potentials to tell what they, think and even less to question the government. People are used to doing what they are told, not able to be free to vote, criticise, analyze or protest.

Another argument is that Asian people do like things strict in order, and that democracy is for the "western" countries. Should democracy just be a luxury just for rich people to enjoy? What should be first, solve the poverty or make political freedom and civil rights, something that poor people don't have to have? Of course cultural differences in the world and people have historical roots, and social aspects are dissimilar. To build a democrat civilization on freedom and human rights is not easy. You can't just replace a one-party government with a democrat one. It has to be influenced and supported in the whole system, not just political institutions. It also has to be built on a change in the minds of people, how to act, think and behave. Democracy creates possibilities but how to use these opportunities depends on many different kinds of reasons. The government doesn't only have to have the proof and power to make it work they also need to have a strong opposition. People in a democratic state are used to getting, what they want. If not, in a well working system, the opposition will force the government to change.

Let's go back to the social aspects of Vietnam. What we are trying to say is that it is hard to make a change or even identify the problem if there is no place for an open debate! For example famine has not been seen in any self dependent, democratic state in our time. If the people are active and working together with the government, they can feel the catastrophe coming, and are able to do something before it is too late. Maybe a famine is "easy" to solve, and it is harder with gender, education and agriculture questions. In that case there needs to be a good information system. The good effects in a democratic nation may be shown best in catastrophic situations.

7.16 Government Influences

If you ask the people directly about governmental influences in their every day life, they are answering that they are absolutely free.

If you scratch under the skin another picture shows up. Vietnam is a communist state, but at the same time it is very open and liberal. The market economy is supporting big companies to invest in the country. The government is not chosen by the people and they can't affect the national politics. The system is ruled top-down and the government wants to have a clear view of everything that is happening in the village. In one way, maybe they know the national politics better then in Sweden. For example, the Village leader in Vietnam has grown up in the village, lives there, and buys groceries at the market, and has his kids in school. Because his life is integrated in the village life, he cares about what is happening in the village. The people who are living in the village know the leader, and can run in to him in the streets and discuss things. They also told us that there is an open meeting every Friday for the people to meet the leaders of the village. We don't

know if it works or how open it is and if people are participating. But it is an ambition. And that is more than you can say about community politics in Sweden.

On the other hand, there is a lot of corruption. We have just been seeing the top of an iceberg, for an example, you have to know someone in the government to be able to study abroad.

7.17 Development

Vietnam needs to have a push in the right direction, but also a chance to develop in its own way. Many people said when we discussed this kind of question, that a one-party system is needed to be able to keep the peace. The country has been in too many wars and of course the people don't want it to happen again. Looking at countries in Africa, for example, there has been civil war in many countries after self dependence. In Vietnam there are 54 ethnic groups with different language, culture and history. A country such as Sweden is very different, where there has been peace for over 200 years and a historically homogeneous population. We can't put our system in Vietnam; they have to develop their own way.

We also have a lot to learn from them. We have been losing so much knowledge during the last centuries, for example the feeling of belonging together, to share lives. Also we have lost the ability to be depended on people instead of institutions. Also we are making a long chain instead of direct contact. For example, we send an SMS to say "I am sorry that your father died" instead of picking up the phone and making a call.

Like in China, the government in Vietnam is to reduce to increase the population with punishment for families with more than two children. The woman doesn't have the same rights not in political, social or economic perspectives. Especially in the rural areas, old traditions and behaviours still are very strong. It is hard to change the system, to be different, and to try something new. The first step to reach an equal status and development between women and men is to give the women space to act, both in the structure inside the family and outside. Education gives the women a chance to write and read and get knowledge about the surrounding world. They also need freedom to decide over their lives and get the same rights as men. Because the women often are working in the household, they don't get to know new things or meet people for discussing these large issues. The wife's working hours often don't count as much as the husband because she is working inside the household. The wife's work outside the family that gives her an income of her own is also strengthening her in the decision making of the family. The Women's Union is very important in this development, because they give micro loans to the women. That also gives them an influence on the economic situation. The Women's Union is also working with a training group in agriculture for the women, and with knowledge the women will get more power. Studies show that educated women have fewer kids than those with low education. They are also able to take better care of them in raising and health issues. These questions are also a main issue for the union.

In a view for the future, to work toward the right for an income outside the household, equal economic issues, equal education, and the right to own property and to make desiccation of their own is very important for the women situation, in our opinion.

7.18 Religion



Religion is affecting the people's lives very much. The Khmer people are Buddhist and very active in the pagoda. The religion is a natural part of every day for the people, and the pagoda is bringing people together to celebrate and to share holidays and parties. We think this is very important for the well-being in the village. Another point of view is that the pagoda can slow the development down with old traditions. For example women's right and the behaviour to give money to the pagoda instead of invest in the business. The rich have a very big power in the pagoda and over the rest of the people.

8 Conclusions

We conclude from this study tour in Vietnam that moving out from our own culture in Sweden has been an extremely valuable experience. It was necessary to leave our own comfortable situation as students to explore another culture with differences in political system, level of economy, resource base and community organization, plus the language, tropical climate, food and many norms of society. Women have a different role in Vietnam. People depend much more on each other in the village. There is more poverty. There is less individual control.

We recognize that our analysis of farming systems has been influenced by our own culture, language and systems at home. As a result we see their systems through “Swedish lenses” or “Nordic Eyes”. We were highly dependant on the interpreters. Yet in a very short time we were able to collect a large amount of information and construct a useful vision of farming in these two villages in Vietnam. We were not development workers with a large bag of money but our interest was to learn about people, plus their farming and food systems. We highly recommend this kind of experience and hope other students will be given this opportunity. It is something we will never forget, and it prepares us for the future.



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10 Appendix

		Kinh poor	Kinh Middle	Kinh Rich	Khmer poor	Khmer middle	Khmer rich
Area*crops (m ²)	High yield rice	n/a	24 900	93 000	7 400	91 500	44 000
	Tradition al rice	n/a	n/a	n/a	1 500	7 000	16 500
	Other crops (baby corn)	2 800	n/a	560 (mango)	1 500 (soy bean)	7 000 (peanut)	4 500 (mango) 2 000 (peanut)
Sells price VND/kg	High yield rice	n/a	2 600 (middle men)	x (middle men)	2 000 (middle men)	4 000 (market)	x (middle men)
	Tradition al rice	n/a	n/a	n/a	3 000 (middle men)	5 000 (market)	x (middle men)
	Other crops (baby corn, market)	7500	n/a	x	Self consumption	x	x
Self consumption rice, kg/year/person		82	300	300	x	x	x
Irrigation cost /1000m ² /year		40 000 VND	x	120 000 VND	108 kg rice	450 000 VND	180 kg rice
Income from livestock (million VND/year)		13,5	n/a	n/a	4	26	n/a
Hours spent on livestock /day		6	n/a	n/a	x	x	n/a
Production net profit, million VND/year		18,6	18,5	95,2	9,7	x	55,1
Household cost per person (food, clothes, electricity etc), million VND/year		0,5	2,9	6,4	x	2,7	x

n/a Not active x Numbers not available

The numbers in the table shouldn't be considered precise. They rather should be used to get a rough picture.

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- 1/2007 Miljökommunikation *Ljung, M. (2004),*
Kommunikationsstrategier, ISSN: 2541-12548, ISBN: 978-91-85735-00-6

"This report was prepared by three highly motivated undergraduate students at the Swedish Agricultural University (SLU) after thoughtful study in an experimental course, The Food Chain in the Global World, in autumn semester 2006. These "test pilots" were seeking a way to increase their level of motivation and ownership in the curriculum, to learn first hand in the field about complexity of farming and food systems, and to do an independent project that would develop their professional capabilities to deal with uncertainty and multiple dimensions of challenges in agriculture. In my opinion, this was a highly successful field exercise. The students gained an invaluable experience in the international arena, leaving their comfort zone in the Nordic Region and traveling to the tropics and a completely different culture and series of farming systems. They had to adapt quickly to a new regime of food, language and translations, time change, and culture – typical of southeast Asia and extremely different from Scandinavia. This report should serve a model for other student groups to emulate as they seek innovative ways to pursue an independent education." Quotation from the preface by Professor Charles Francis, University of Nebraska – Lincoln, U.S.A.

Rapporten utgör ett elevarbete av tre studenter i deras tredje termin på sitt agronomprogram. Arbetet ingick som avslutning av en termins "individuella studier", uppdelade på tre kurser: "Analys av jordbrukssystem. Fallstudier av jordbruksföretag i Sverige", "Maten från världen. Del 1: Perspektiv, teori och verktyg", och "Maten från världen. Del 2: Fältkurs". Kurserna kom till efter att några agronomstudenter på sin första termin uttryckte frustration över det gap de upplevde mellan sina förväntningar

Rapporten ges ut vid institutionen för stad och land, SLU - Sveriges lantbruksuniversitet. I serien utges rapporter från avdelningarna för landsbyggsutveckling, landskapsarkitektur, miljökommunikation och MKB-centrum SLU, som alla är en del av institutionen.

Landsbyggsutveckling är ett tvärvetenskapligt ämne och som tar upp frågor om landsbygders specifika förutsättningar och problem. Ämnet omfattar både analyser och beskrivningar av förändringsprocesser och metoder och arbetssätt för att arbeta med lokal och regional utveckling.

av ett agronomprogram (att få lära sig mer om lantbruket som ett samspel mellan människa och natur) och vad de mötte under sin första termin (djupdykning i molekyler, kemisk bindning, och laboratoriefärdigheter). Eller som en av studenterna uttryckte det: "Människans roll i lantbruket får vi ju inte möta förrän tidigast under tredje årets studier – om vi väljer den typen av kurser".

Efter flera samtal med dessa studenter började vi jobba i en studiecirkelliknande planering av "den termin de skulle ha velat haft som första termin på sitt agronomprogram". Som agronom och forskare som undervisat vid olika institutioner vid SLU (kemi, växtodling och landsbyggsutveckling) fungerade jag som samtalspartner, ställde frågor, lyssnade och ställde nya frågor med olika förslag på möten med aktörer, systemnivåer att gå in på, perspektiv på lantbruket osv. När vårterminen närmade sitt slut visade det sig att tre av de studenter som varit med i dessa planeringssamtal nu ville gå denna hypotetiska termin. Sagt och gjort, vi skapade tre individuella kurser av deras gemensamma planering och började höstterminen 2006. Som ansvarig kursledare upplevde jag denna tid som en mycket spännande läranderesor för både studenterna och mig själv. Inte minst var det fantastiskt att få uppleva hur jag på ett helt naturligt sätt fick byta roll som lärare, i början av terminen, till "coach" för deras lärandeprocesser i slutet av terminen.

Denna rapport är deras avslutande arbete på denna spännande termin. Processen som vi gick igenom utvärderades under resans gång av oss och en extern lärare (professor Charles Francis – som också skrivit förordet). Denna utvärdering har vi också bearbetat och reflekterat vidare till en artikel: Salomonsson, L., Nilsson, A., Palmer, S., Roigart, A. and Francis, C. 2008. Farming Systems Education: Case Study of Swedish Test Pilots. *Renewable Agriculture and Food Systems* 23(3):1-12.