

SLUSE FIELD COURSE , THAILAND 2011

NAVIGATING IN FOREST POLICIES IN NORTHERN THAILAND

A FIELD STUDY OF FOREST POLICIES' EFFECT ON LIVELIHOOD STRATEGIES IN BAN MAE KA
PIANG



Gustav Aulin, Signe Buhl, René Hauge Mathiassen, Charlotte Filt Mertens,
Nanna Brendholdt Thomsen, and Loa Ryttergaard Winum

01-04-2011

The mountainous forest areas of Northern Thailand have been at the center of conflict for many years. The conflict revolves around who should control and manage the natural resources of the area - the local population in the area or the government of Thailand. The discussion about Community Forest is a clear illustration of this conflict.

“Community Forest means land and/or forestland which is legally permitted for the community together with the forestry officer to participate in continuously managing forestry activities under the relevant laws and regulations. They also can set up their own policies which may be concerned with culture, beliefs, religious and other traditions. This management aims to provide sustainable forest use for the community.” (Wichawutipong, 2007)

Since the 1990s there has been a struggle to integrate Community Forest in the constitution of Thailand. A Community Forest Bill has been in and out of the national decision-making arena, but has always been rejected (Wichawutipong, 2007). This political dispute is the point of departure of this report.

ABSTRACT

Forest policies led by the Thai government have influenced far into the hill tribe communities in the North. This research project focuses on how these policies have affected the livelihood strategies in Ban Mae Ka Piang; a Karen village in Chiang Mai province. Ban Mae Ka Piang is located in a 1A conservation area which put severe restrictions on the villagers land use and their use of the forest. Offhand, these imposed restrictions conflict with the villagers' traditional livelihood. Nevertheless, by navigation and cooperation on many political and social levels, the village has been able to adjust the forest policies to provide independency needed to sustain the villagers' traditional livelihood. However, indicators of change are visible in the village. We have identified several factors that might drive the villagers' livelihood towards an increased degree of de-agrarianization.

PREFACE

This report is the final product of a field work conducted in March 2011 in Mae Lor watershed as a part of the SLUSE program. This report is one of four with de-agrarianization as an overall theme. This topic has been identified as an occurring process in Northern Thailand and within the watershed. We have used this overall theme to put our research into perspective.

We are a group of students with different academic points of departure: Geography, Anthropology, International Development Studies, Landscape Architecture and Environmental Economics. Our main qualifications lie within qualitative methods in political and social science, which this report clearly reflects. Upon arrival in Thailand two additional members were added to the group; our Thai counterparts Pi-Moo (Irrigation Engineer) and Nong-Sit (Political Scientist). The inter-disciplinarity has undoubtedly contributed positively to this report, as this has widened our basis of knowledge. However, it also posed challenges; particularly in relation to our Thai counterparts. Cultural differences and language barriers resulted in some misunderstandings and loss of data.

The inter-cultural cooperation and working in a country where English is rarely spoken presented us with the challenges of using interpreters. One of the interpreters was a former SLUSE student which was both a benefit and a hindrance. She knew a lot of the technical terms, but during interviews we experienced that she did not just provide us with the answers, but passed on her own viewpoints.

As a final statement we will address the fact that it is required of us to indicate a main author on each chapter, to specify each group member's contribution in the making of this report. We cannot emphasize enough that this report is a joint project based on a strong cooperation both in the field and in the writing process. No parts of this project can be traced to individuals' work, why the names featured on each chapter are compulsory additions. This is the product of a group, not of individuals.

TABLE OF CONTENTS

1 Introduction	7
1.1 Ban Mae Ka Piang (Rene, loa, Gustav).....	9
1.2 Problem formulation (gustav, charlotte, signe)	9
1.2.1 Research questions	10
2 Analytical procedure and methodology	10
2.1 Framework for processing our data and analysis (Nanna, signe, loa)	10
2.2 Methods in the field (Rene, signe, charlotte).....	12
2.2.1 Entering the field.....	13
2.2.2 Selecting informants	13
2.2.3 Semi-structured interviews.....	14
2.2.4 Focus groups	14
2.2.5 Participant observation.....	15
2.2.6 Physical surroundings	15
2.3 Validation of data (nanna, loa, gustav).....	16
3 The livelihood of the people in Ban Mae Ka Piang	16
3.1 The Karen people (gustav, charlotte, nanna)	17
3.2 Land use (gustav, loa, signe).....	18
3.3 Wealth (charlotte, nanna, rene).....	19
3.4 The community – welfare and solidarity (rene, loa, gustav)	20
3.5 Validation of data (charlotte, gustav, signe)	22
4 Forest Policies in Ban Mae Ka Piang	22
4.1 Community forest in Ban Mae Ka Piang (nanna, signe, loa)	22
4.1.1 Process	22
4.1.2 Restrictions and control	23
4.2 Network for conserving the forest (Loa, gustav, rene)	24
4.2.1 Process	24

4.2.2 Restrictions and control	25
4.3 The non-legal binding agreements in practice (charlotte, nanna, signe)	26
4.4 Validation of data (loa, charlotte, rene)	27
5 Adjusting the Livelihood	27
5.1 Creating a Space for Navigation (nanna, signe, gustav)	28
5.1.2. Bending the rules and the restrictions	28
5.2 The people's dilemma: forest protection or basic needs (charlotte, rene, nanna)	29
5.2.1 Awareness	29
5.2.2 Signs of use of the forest	30
5.2.3 The actual use of the forests	31
5.2.4 Reasons for inconsistency between words and actions	32
5.2.5 Social relations in the village community	33
5.3 De-agrarianization (loa, signe, gustav)	34
5.4 Validation of data (charlotte, nanna, signe)	36
6 Conclusion	37
list of references	38
Illustration list	39
Acknowledgements	40

1 INTRODUCTION

Traditionally, the mountainous forest areas of Northern Thailand were regarded as a place of wildness and danger. Opposed to this, the cultivated lowland was considered organized and safe. Over the years, these physical traits of the two areas have created the narrative¹ that the hill tribes in the upland are primitive while residents in the lowland are civilized. This dichotomy has influenced the political agenda in the area immensely (Forsyth & Walker, 2008).

The lowland-upland conflict has taken many forms and has been played out in many arenas both in relation to political struggles and ethnic stigmatization. In an international context the conflict between lowland and upland became evident following the end of the Vietnam War. During the 1970's and 1980's the forested mountains of Northern Thailand provided a refuge for communist rebel forces opposing the US-friendly government in Bangkok (Forsyth & Walker, 2008). Many hill tribes supported the rebels, but in line with that era's political discourse everyone in the forest area was labeled rebels; including residing hill tribes with no political agenda (Buch-Hansen, 2001). Thus, again the hill tribes got entangled in the characterization as unruly, problematic and, as a latest addition, politically undesired (Buch-Hansen, 2001). During that same period, the hill tribes fell further into bad standing due to the extensive cultivation of opium poppies in the highlands. At this time, Thailand delivered a large part of the world supply for opium; something that came to a halt after sustained international pressure. Though there is little doubt that Thai military and police played a key role in the trade, the hill tribes were proclaimed as scapegoats (Forsyth & Walker, 2008).

From an environmental perspective the conflict between lowland and upland has taken the shape of a conflict over natural resources. In Thailand there is a prevalent narrative that the forest is essential in maintaining the hydrological health of local and national water catchments. This common understanding identifies forests as the source of the national and local water supply. Following this line of thought, forest soils presumably function as “sponges” that absorb excess water in the rainy season and release it during the dry season, ensuring steady water availability. Thus, when the lowland experiences water scarcity or other water-related problems, the highlands are often referred to as the origin of the problem. This rather simplistic view on cause and effect has prompted yet another narrative articulated as the *hill tribe problem*. Hill tribes are, in large part, regarded as responsible for the environmental degradation and deforestation in the North (Hares, 2009).

According to official statistics² published by the RFD, Thailand lost 50% of its forest cover from 1970 - 1998 (Sato, 2000). The hill tribes' nomadic background has provided the foundation for

¹ A simplified explanation of cause and effect – a “storyline” (Forsyth & Walker, 2008)

² According to J. Sato these figures often prove to be underestimated indicating that the forest loss might be even bigger (Sato 2000)

accusations of disloyalty to the nation, and their traditional agricultural practices of slash-and-burn have been translated into an understanding that the hill tribes are not concerned with forest protection (Hares, 2009).

Finding legitimacy in these narratives, the Royal Forest Department (RFD)³ has adopted a nature-oriented approach to natural resource management and nature protection. In this perspective the fragility of ecosystems is emphasized, and human activities are seen as solely having negative impacts. The RFD has two agendas with their policies. First, management and protection of natural resources, and second, gaining control over the hill tribes. As a part of this political line, the RFD unsuccessfully tried to resettle the upland farmers in the lowland. Instead several regulatory tools and classifications of the forest were launched by the RFD⁴ (Forsyth & Walker, 2008). Since 40% of Thailand is considered forest the RFD possesses immense power. However, the definition of forest does not only include actual forest but also cultivated land and residential areas. Opposed to the nature-oriented approach is the human-oriented approach, where the fundamental idea is that human settlement and use of resources can go hand in hand with nature protection (Ibid., 2008).

Changes in the political landscape towards a more decentralized political system were intensified during the 1990s. This culminated with the Constitution of 1997 that gave Tambon Administrative Organization (TAO)⁵ more responsibility in the management of natural resources. As a consequence of the de-centralization and the human-oriented approach, the Constitution of 1997 gave hill tribes the rights to use natural resources⁶. However, this should not be confused with the right to manage the forests, as they are legally owned by the state. This conflict is the core of the discussion on *community forest*. In the political arena this discussion has revolved around whether *community forest* should be integrated in Thai law as a Community Forest Bill. The first draft of the Community Forest Bill was presented in the Prime Ministry in 1990 and dismissed. The bill has been modified several times but has been rejected every time (Forsyth & Walker, 2008). At a meeting with the RFD in Chiang Mai, the officer emphasized that the Community Forest Bill still is nothing more than a decree which is not legally binding, meaning that a change in the political winds can jeopardize any agreements on *community forest*.

³ Environmental politics in Thailand are managed by several departments. The Royal Forest Department (RFD) is in charge of managing the forest area and the natural resources within the forests.

⁴ The strictest of these classifications is 1A that entails: A ban on the harvesting of forest products, reforestation programs undertaken immediately in areas where there have been shifting cultivation, and that areas that have been converted to permanent settlement before the classification must be strictly supervised (Mingtipol, et al., 2011).

⁵ Thailand is divided in provinces, districts, sub-districts and villages. The sub-districts are called Tambons and their governing organs are called TAO (Sato, J 2003).

⁶ This is also a part of the Constitution of 2007 (see appendix 1)

1.1 BAN MAE KA PIANG (RENE, LOA, GUSTAV)

From 28th of February to 9th of March we carried out fieldwork in Ban Mae Ka Piang; a village inhabited by the hill tribe and ethnic group Karen. The village consists of around 50 households⁷ and is located in the Mae Lor Watershed, Chiang Mai province in a 1A watershed-area (Mingtipol, et al., February, 2011).

The first inhabitants of Ban Mae Ka Piang arrived about 40 years ago. They based their livelihood on subsistence farming and consumption of forest products. In the beginning of 2000 the government classified the area as 1A, which introduced aggravating restrictions on the villagers (history focus group, appendix 6).

To come about these restrictions, some of the villages in the watershed began to cooperate with the RFD to get *community forest* and thereby a possibility to use some parts of the forest. This ensures the villagers some independency and it sustains their livelihoods as they can keep up their traditional use of the forest and agricultural practices. Alongside this, all villages in the Tambon have agreed on yet another forest agreement, letting the villagers use a bigger part of the forest. The village is therefore under supervision through several forest agreements decided on different levels with different rules and regulations.

1.2 PROBLEM FORMULATION (GUSTAV, CHARLOTTE, SIGNE)

We find this composition of forest policies interesting and want to examine how the villagers adjust their livelihood strategies⁸ in relation to the forest policies. To put these changes in livelihood into perspective we will look at the process of de-agrarianization and link it to the restrictions in the forest policies.

Our problem formulation is therefore:

HOW DO FOREST POLICIES IN BAN MAE KA PIANG AFFECT THE LIVELIHOOD STRATEGIES OF THE PEOPLE IN THE VILLAGE?

⁷ "A group of people who eat from a common pot, and share a common stake in perpetuating and improving their socio-economic status from one generation to the next." (Carlioni, 2011). In this case we see e.g. remittances as income, which means that people sending remittances are not included in the household.

⁸ We use Chambers and Conway's (1992) livelihood definition: "A livelihood comprises the capabilities, assets (incl. both material and social resources) and activities required for a means of living" (Chambers & Conway, 1992).

1.2.1 RESEARCH QUESTIONS

To be able to answer our problem formulation we have formulated three research questions. Analyzing and merging the outcomes will give us insight into the correlation between forest policies and livelihood strategies in the village.

1. WHAT CHARACTERIZES THE LIVELIHOOD IN BAN MAE KA PIANG?

With this research question we will look at different components that together form the livelihood of the people in the village. We will examine what characterizes the Karen people as an ethnic group, their agriculture, their use of the forest, wealth, how well the community functions and to what extent it influences the villagers' lives.

2. WHAT ARE THE FOREST POLICIES IN THE VILLAGE?

Forest policies in Thailand can differ in relation to what policy level they are decided on. This means that one forest area can have different rules and regulations depending on whom you ask. With this research question we will attempt to outline the active forest policies in the village of Ban Mae Ka Piang.

3. HOW DO PEOPLE NAVIGATE IN THE FOREST POLICIES?

With this research question we will examine how the villagers navigate⁹ in the forest policies in their everyday life. We use the notion of navigation to examine awareness, support, and bending of the rules. We will also examine the conditions of different parts of the forest to find out to what extent these conditions influence the villagers' navigation in relation to the forest policies.

2 ANALYTICAL PROCEDURE AND METHODOLOGY

2.1 FRAMEWORK FOR PROCESSING OUR DATA AND ANALYSIS (NANNA, SIGNE, LOA)

To maintain an overview of our problem area throughout our research we have constructed our analysis around the *Dynamic Framework for Analyzing the Commons* created by Ronald J. Oakerson (Fejl! Henvisningskilde ikke fundet.). In his words, this conceptual framework

"(...) can be used to collect information about the commons and analyze it across a variety of resources and facilities. Such a framework must be specific enough to offer guidance in the field, yet general enough to permit application to widely variable situations" (Oakerson, R. J. 1992).

⁹ According to anthropologist Henrik Vigh the term navigation is useful when looking at peoples practice. It provides us with a better understanding of the relation between objective structures and subjective agency, which leads to an greater inside in people's social actions (Vigh, 2004).

Forests are one example of such a common. Ban Mae Ka Piang actively participates in managing the forest, and thus, we can use the framework for analyzing the cause and effect in the interaction between the four different attributes.

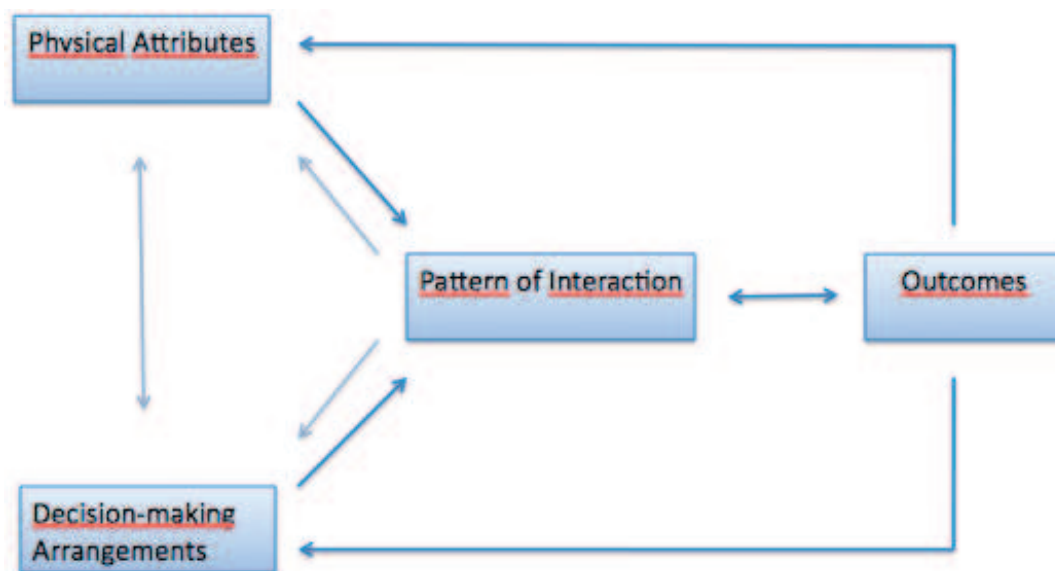


Figure 1: Analytical framework displaying how different inputs are shaped by patterns of interaction leading to different outcomes. The framework is based on the 'Dynamic Framework' by Ronald J Oakerson (1992).

Physical Attributes

These are mainly understood as limiting factors of the yield of the common. It could be the constraints given in nature, but also physical borders and access to the common as a limitation. In our case, it is the relative capacity of the different types of forests, which is the main physical attribute.

Decision-making arrangements

The *decision-making arrangements* consist of the rules which are commonly decided upon and which structure choices and actions of the individual and the community in relation to the common. In this case, the components of the *decision-making arrangements* are related to the forest and therefore forest policies on different levels - governmental, sub-district and local/village. Furthermore, the rules can be divided into three different analytical types of rules: 1) Operational rules; rules that can serve to protect the common and though limit the use of it. In this case the forest policies of the village. 2) Conditions of collective choice; rules that establish conditions of collective choices and institutions to manage the common. In this case the system of authorities within the community, headman, assistant headman, priest and committee. 3) External arrangements; rules that have been made externally from the community. In this case forest policies and the political state of play on national and local level.

Pattern of interaction

The rules of the community do not guarantee the pattern of behavior for every individual within the community. Therefore, in between the rules and the observed behavior lies *the pattern of interaction* which exists of unobserved mental calculations of individuals who navigate, in this case, within the forest policies and the way to use the forest.

Outcomes

The outcomes of the *pattern of interaction* are both biophysical and social. The outcomes are always seen in relation to humans and will therefore necessarily be value laden. Examples of biophysical outcomes in this case will be the consequences of the use of the forests in relation to e.g. aggregate overuse in the different classifications of forest. The social outputs on the other hand can be signs of changes in forest policies in the future and new livelihood strategies if for instance the villagers cannot get enough non-timber forest products (NTFPs).

As it is a dynamic framework, the analysis lies in the relations between the different attributes and how they are connected. We mainly use the framework going from left to right, but we also look on how the impact of the different attributes can happen reversed.

We have modified the original framework to make it more relevant for our research. We have left out *technology*¹⁰ as the village does not use much technology in their use of the forest. Furthermore we also added an arrow head from *outcomes* to the *decision-making arrangements* to emphasize, that different social outcomes will have an impact on future forest policies.

2.2 METHODS IN THE FIELD (RENE, SIGNE, CHARLOTTE)

In the following section we will go through the methodological approaches we have used in our fieldwork. We have created a research schema that provides an overview of the different methods we have used to answer our research questions (see appendix 2). We will describe some of the methodological preparations and challenges we have faced during our fieldwork and how we have tried to come about them.

¹⁰ In the original framework *technology* is together with *physical attributes*.

2.2.1 ENTERING THE FIELD

One of the first things we found important upon arrival was creating awareness of our presence in the village. We soon found out that the headman already had announced our visit through speakers in the village, and we were fortunate that our base camp was placed centrally in the village, which made us highly visible. However, we wanted to introduce ourselves properly and therefore initiated our work by interviewing the headman. We also saw this as an opportunity to gain information about the village and its forest policies. As we thought we should all introduce ourselves, we all went, including our Thai counterparts and our two interpreters. It turned out that not only the headman was present but also his wife, the assistant headman and a member of the committee. We had agreed to divide the roles between us, so that some would observe, some would take notes and primarily one would ask the questions. This did not work out as planned because of the large number of participants. We also experienced that our Thai counterparts made parallel interviews for their own projects at the same time as we were interviewing. This was difficult to avoid because the interviewees often addressed them directly in Thai but it resulted in a rather chaotic interview situation. However, it also gave us some very useful experiences for the following interviews.

As a polite gesture we gave the headman a small liquor glass and a postcard with images from Denmark. One of the pictures represented the statue of the little mermaid. Presented with this, the headman's wife asked: "Do you really have mermaids in Denmark?"

2.2.2 SELECTING INFORMANTS

Another way of creating awareness of our presence and introducing us to the villagers was by commencing on our questionnaires rather quickly (see appendix 5). The questionnaires not only gave us important information on the people in the village but also provided us with a platform for accessing the villagers. We found it easier to approach the villagers when we had a questionnaire in our hands. This turned out to be a useful tool in creating contact between us and the villagers. The anticipated useful informants are not always the authorities, officials or better educated people, but can just as well be ordinary people (Mikkelsen, 2005). Therefore we used the questionnaires actively while we were in the field to create social profiles of the informants, where we wrote down basic information and important characteristics. We aimed at getting a great variation of informants and therefore used the profiles to select the informants we found interesting for further elaborating conversations. In that sense the questionnaires functioned as a springboard for our more qualitative methods.

2.2.3 SEMI-STRUCTURED INTERVIEWS

Based on our experience from the interview with the headman, and since most of our interviews¹¹ took place in peoples' private homes, we decided to work in smaller groups, not to make our visits too overwhelming for the informants. Yet, we found it necessary to be at least two people present during interviews, so that one could concentrate on the interview, while relying on the other to take notes and observe the informants reactions. Working in pairs and dividing the responsibility also had the function of ensuring validity and objectivity, as the interviewers' academic as well as personal background may influence which answers are perceived as significant (Agar, 1996)

In our interviews we used interview guides (appendix 4) prepared beforehand. An interview guide serves to give the interview a direction and thereby provide the needed answers, but without disturbing the natural flow and flexibility of the conversation (DeWalt & DeWalt, 2002). We created open-ended and less leading questions, to focus on the villagers' viewpoints and stories. We generally asked all our informants the same questions. However, as the fieldwork progressed, we gained more knowledge on the people in the village and discovered that some people had insight or interesting viewpoints on particular topics and we therefore specified our interview guides.

Our adjustments in the field also encompassed our interaction with the villagers. We were dealing with some potential sensitive subjects for the villagers and therefore wanted them to feel comfortable with our presence. To create trust between informants and researchers it is important to be conscious of the local understanding of the researcher's role in the field and be considerate of cultural and social norms (Agar, 1996). With this in mind, we had considerations on what clothes to wear for all our encounters with the villagers, just as we learned the very basic phrases in Karen language to be able to greet and thank the villagers.

2.2.4 FOCUS GROUPS

During our stay we had four focus groups; (1) writing a historical timeline, (2) drawing a crop and year calendar, (3) talking about future and dreams with young people, and (4) drawing a community map (see appendix 6). The method was not merely to get accurate and true information on the topics but more to get the local perception of the truth and therefore a more in-depth understanding of the village and the people in the village (Salas & Tillman, 2010). Because of this it was not only important what the informants answered and produced but also in what order and how it was done.

We had some challenges in the focus groups. In the timeline focus group we found it rather difficult to find a balance between controlling the discussion and making room for the natural flow in the discussion. There were also similar problems as with the headman interview where we experienced that one of our Thai counterparts had an interview of his own with one of the informants. With this

¹¹ We have created informant profiles with basic information about the informant and a description of our relation (see appendix 3).

experience we could improve our setting for the next focus group, which was to make a crop and a year calendar. In this focus group everyone sat down except our key speaker and key interpreter. They were clearly in charge and this made our informants address only them. The third focus group about dreams and the future was meant to be a 30 minute long recorded discussion between the informants, but unfortunately it did not run as freely as we had hoped. However, the final focus group was successful since our informants discussed their drawing of the community freely.

2.2.5 PARTICIPANT OBSERVATION

Throughout our time in the field we maintained an open and curious attitude towards the informants, and we sought opportunities to participate in some of their daily activities. Due to our focus on forest use and policies, we were of course eager to follow some of our informants on their daily routes in the forest. This resulted in two participatory walks; one where we collected NTFPs and one where we were out watching buffaloes. The aim of these two walks was to get insight in the way the people use the forest and an understanding of their everyday lives.

We also participated in a church service, a bible meeting and a women's meeting and when getting the opportunity we tried different local traditions and helped the villagers in their chores.

The notion of participant observation can in fact be a great paradox because of difficulties to distinguish the observer from the observed (Cohen, 1987). Therefore, we are conscious that they might have changed their actions to accommodate our curiosity. Yet, due to our limited time in the field, the method proved to be very useful for getting more in-depth understanding of life in the village and it became an essential supplement to our interviews.

2.2.6 PHYSICAL SURROUNDINGS

To understand how the people in the village use the forest and to see what effect it has on the forest, we examined the conditions of different parts of the forest. This was also a way of being able to understand how the villagers' behavior was balanced between the forest policies and the conditions of the forest. This was made through forest assessments in three different parts of the forest.

Furthermore mapping with GPS was a method we used parallel with the other methods. It was a way of knowing which households we had been to. It was also a way of marking interesting locations and tracking our walks and the information allowed us to create maps. It must be emphasized that the borders are vague – particularly the borders in the network forest agreement. There are no descriptions on how exactly to measure the classifications, why our maps represent estimates. The map over community forest is based in the headman's own drawings, while the map of the network forest is based on a policy document that is open for interpretations (TAO, 2006).

2.3 VALIDATION OF DATA (NANNA, LOA, GUSTAV)

We have used triangulation as a way of assessing the validity of our data by using different methods to answer the same question and comparing the outcomes. We found the alternation between participation, observation and interviews very useful to shed light on the relation between formal rules in the forest policies and peoples' actual use of the forest. This also implies that we have used some of the same informants in different settings, e.g. using an informant for both an interview and a focus group. Furthermore we have done follow-up interviews with some of our key informant. Repeating questions for the informant will show if there is consistency in the answers, and can also be a way to limit misunderstandings (DeWalt & DeWalt, 2002). E.g. in the beginning we found the assistant headman to be vague in his answers, but with time he began trusting us, and on the final day in the field he provided us with important policy documents.

We experienced that the aim of the interview guides was difficult to achieve because our interpreters did not only translate words but meanings. In this sense, it is important to note that language is not a neutral medium, and words can have different meanings in different cultures. Therefore interpreters are embedded in a discussion of concepts, not just words (Temple & Edwards, 2002). If we used academic terms or words that did not translate into Thai in a meaningful way, or if the informants used words in Thai that did not translate into English, the interpreters were not left with much other choice than to use words not directly spoken by the research participants. In a project where we are looking at different perceptions and understandings of forest policies, there is a risk that some of these nuances were lost in translation.

3 THE LIVELIHOOD OF THE PEOPLE IN BAN MAE KA PIANG

People's livelihood strategies are put together by diverse and different, but still interdependent components. In this chapter we will look at some of the components of the villagers' livelihood strategies that make out the Pattern of Interaction in our analytical framework. We will do this by characterizing the livelihood of the people in the village.

3.1 THE KAREN PEOPLE (GUSTAV, CHARLOTTE, NANNA)

The village consists of two sub-villages: Ban Mae Ka Piang, where we have conducted our field study and Ban Huay Tao Ru located just 2 km away. The two villages are subject to the same management, rules and policies¹².

The inhabitants of Ban Huay Tao Ru are part of the ethnic group Hmong. In narratives, the two ethnic tribes, Hmong and Karen, embody very different roles; Karen is often portrayed as eco-friendly forest dwellers while Hmong is portrayed as forest destroyers (Forsyth & Walker, 2008). This narrative of the two hill tribes is interesting because the two villages are officially the same village under one headman. In practice, this means that the villages have been required to cooperate when it comes to official matters. With this in mind, we found it interesting to look at the relationship between the two ethnic groups.

In almost all our interviews we asked the villagers to describe the Karen traditions, but it seemed to be quite difficult for them. We then rephrased our question, and asked them about the differences between Karen and Hmong people instead. Opposed to this question the informants could not emphasize enough how different the two ethnic groups are. Nearly all of our informants talked about the relation as being friendly and without conflicts. One villager told us that the two villages cooperate on issues relevant for both villages, and that they engage in social activities together. However, they used the image of Hmong people as a reflection of everything that the Karen people are not. This idea is supported by the theory of anthropologist Fredrik Barth, that the boundaries of an ethnic group are not defined by the *cultural stuff* it encloses, but in the relation to other ethnic groups (Barth, 2001). One informant accentuated the traditions and Karen way of life by describing to us her perception of the Hmong people and how the Hmong live their lives:

We noticed something interesting in one of our focus groups when we asked the participants to draw a community map of the village: One participant drew the road to Ban Huay Tao Ru, which indicated a degree of inclusion of the Hmong people. However, this caused some discussion among the participants and they decided to delete the road from the map.

"Hmong and Karen have very different use of the forest. Hmong people do not conserve the forest. The headman goes more often to observe the Hmong forest, i.e. the source of water in the upper land was examined. They use a lot of pesticides and contaminate the soil. The Hmong people use more quantity of water and make the quality bad because of all the pesticides. They also throw away the empty bottles of pesticide close to the watershed contaminating the water. They have no understanding of how to farm properly. Hmong likes to move to the city, while Karen likes to stay in the village" (Villager 7, appendix 3).

¹² We will refer to the village as two *different* villages and when discussing Ban Mae Ka Piang, we refer to the Karen sub-village of Ban Mae Ka Piang. Since the two villages officially are the same forest policies apply to both sub-villages equally.

With this quotation the informant emphasises that the Karen are what the Hmong are not: They conserve the forest, they do not use pesticides, they protect the source of water and they farm properly. This indicates that it is not lack of mobility or social interaction that defines the ethnic affiliation; it is a social process of inclusion and exclusion (Barth, 2001).

Everyone we talked to in the village is a subsistence farmer producing rice for self-consumption. In addition, most of the villagers also have home gardens. We did a mapping of two gardens; one in the upper part of the village and one in the lower part¹³ to get an overview of how many things the villagers actually grow for own consumption. We saw that they grow lots of different herbs, vegetables, spices, and fruits¹⁴. In the gardens they grew crops both for food, medicine and livestock fodder.

Figure 2: A picture of the uphill home garden and a text overview of both the up and downhill gardens.

As an addition to their subsistence farming and home gardens almost all villagers have fruit orchards with lychees as their main cash crop. Some villagers also grow beans and peanuts and some farmers have specialised in organic farming and grow different vegetables. Following the TAO development plan for the village, the organic farmers are in the process of teaching the other villagers the techniques of organic farming.

Through questionnaires and semi-structured interviews we learned that very few of the villagers have documented land rights¹⁵ and the ones that have only have the STK¹⁶. Furthermore, because the area is a class 1A protection area, the villagers are not allowed to expand their land, which put limitations on their use of land, especially in the future if they need to increase production.

Besides the farming activities their livelihood also very much depend on products they can collect from the forest. Through our interviews and questionnaires with the villagers we learned that most of the villagers go to the forest to collect NTFPs every second or third day. They collect wild vegetables, banana flowers, mushrooms, bamboo shoots, different herbs, roots, etc. (see NTFP calendar in appendix 6). The products they collect are mainly for food on the table, but can also be used as medicine and livestock fodder. Furthermore they collect dry wood for fires and cut trees and bamboo for construction of their houses and other constructions in general in the village.

3.3 WEALTH (CHARLOTTE, NANNA, RENE)

The wealth distribution in Ban Mae Ka Piang is low¹⁷ and there is a large middle class within the community (figure 3). The average income is around 60,000 bath per household/year.

¹⁵ Only seven out of twenty villagers in our questionnaires answer 'yes' to having land documents and another two are not sure whether they have land documents or not.

¹⁶ STK land documents are usufruct certificates issued by the Royal Forest Department since 1981. STK restricts the transfer of holdings except by inheritance and cannot be used for mortgaging. The usufruct rights given in a STK can be revoked (Mingtipol & al., 2011).

¹⁷ Compared with the other villages in the watershed where SLUSE students did fieldwork. E.g. according to the group working in Ban Huay Tao Ru the average income is more than 90,000 bath pr. year in this village.

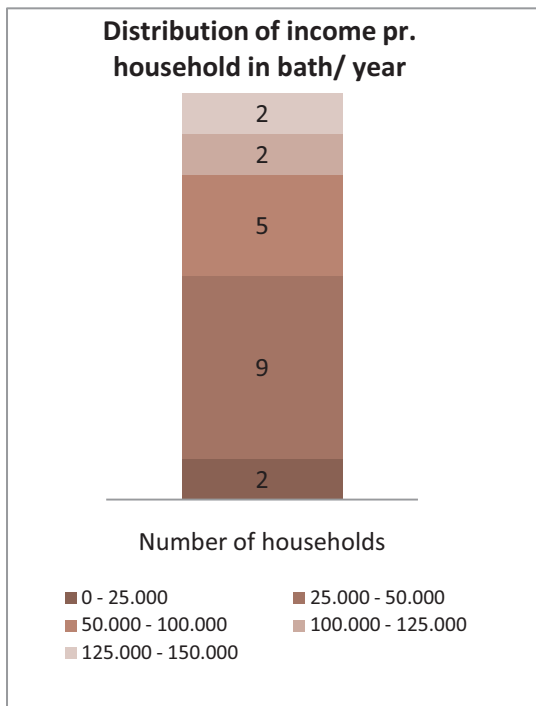


Figure 4 can give us an impression of how the income distribution is in the village. The data is based on our questionnaires.

their everyday life (see appendix 5). Our questionnaires indicated that every household had motorbikes, half had refrigerators and six even had washing machines. This conflicted with the fact that the villagers did not have many liquid assets, which the villagers confirmed. Many of these purchases were considered big expenditures, and several had taken loans to pay these goods.

When we made the year and crop calendar in the focus group we got the understanding the villagers' occupation depends a lot of the time of the year (see appendix 6). At the time we stayed in the village it was dry season and therefore there was less work to do in the fields. Some farmers worked in other villages as daily labourers while others spent time renovating their houses (figure 4). Many villagers told us that this year will bring a bad harvest of lychees due to a late winter. This will have an economic effect on most of the farmers since lychees are their main cash crop. It struck us that the ones we discussed this with, did not seem too worried. As subsistence farmers they had what they needed to sustain their livelihood.

Though the villagers are not wealthy, they do have a substantial amount of material goods to help them in

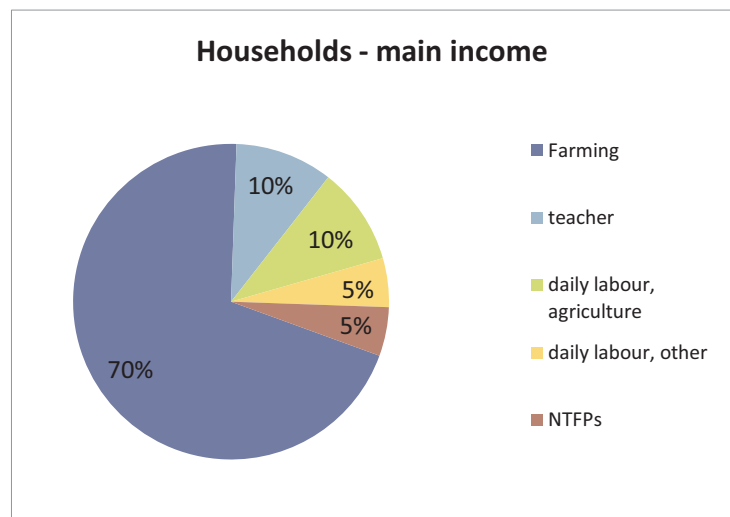


Figure 3: An illustration showing how the households in the village earn their money. The vast majority still works in agriculture. This data is based on our questionnaires.

3.4 THE COMMUNITY – WELFARE AND SOLIDARITY (RENE, LOA, GUSTAV)

Our overall impression of Ban Mae Ka Piang is that it is a village with a very well-functioning community with a strong sense of solidarity and the villagers take care of each other. The village is generally well-organized. The village has a headman, an assistant headman, a village committee, and sub-groups working with different issues in the village. This political and administrative

structure ensures that the politics and issues of the village are recorded in different documents and furthermore it ensures that the community is well-informed about community related issues such as forest rules, farming activities, etc. Another way of seeing that the community is well organised is that the villagers have access to a lot of institutions such as; school, health care centre, village fund, and volunteer groups. This political and administrative structure together with the different institutions provide a safety net for the villagers and a democratic organisation of the community, which makes it safe and inclusive for the villagers to live in Ban Mae Ka Piang¹⁸.

We find that such a system of solidarity is a sign of a strong community feeling within a village and an indicator that people take part in each other's lives. E.g. we noticed that the construction of the houses are open and the children and livestock ran around everywhere indicating a great sense of social trust and responsibility in the community. Another place where we found this solidarity to be strong was in the church. The villagers are all Protestant Christians and the church plays a great role in the village community. It is the centre of many activities, and most of the villagers go to church on Sundays dressed in their traditional Karen attire. We participated in one of these services, and here we experienced a forum where most of the villagers were active participants and could have a say throughout the service. The church appeared to be a positive gathering point for the villagers, and a place where they could celebrate their cohesion. The Christian values have become core values in the community, which are reflected in the parents' wishes for their children and in what they regard as the ideal of human life.

The strong community identity was shown in other ways as well. The majority of the people we talked to, both young and elder, expressed warm feelings of the village and did not find the city life very attractive.

"I feel that the lifestyle in the city was boring. Also, there is more freedom in the village. Life is happier here than in the city and I wanted to go back and take care of my family" (Villager 10, appendix 3).

The perceptions about the city were also confirmed in a focus group we held with young people. They did not have an urge to move to the city as there was no peace in the city; just pollution and expenses. The aspect of money was mentioned by several of the villagers. Rarely in the sense that they were in need of money or wanted to earn more money, but on the contrary, that they were content with being self-sufficient with a small monetary income since they had what they needed for consumption from their farming activities and use of forest.

¹⁸ The Hmong people in Ban Huay Tao Ru might have a different perception, since they are the minority group in Ban Mae Ka Piang.

3.5 VALIDATION OF DATA (CHARLOTTE, GUSTAV, SIGNE)

This chapter is based on a triangulation of our data collected through interviews, focus groups, observations, and questionnaires. We found consistency in many of the answers regarding how the villagers are content with their way of life and want to stay in the village. However, we must take into account that some of the stories we have been told might reflect personal experiences and interests more than general viewpoints. This is especially an important reflection with regards to the villagers' negative perception of the city. First of all, we have not spoken to any of the villagers who have left the village permanently. Second of all, the ones that have returned from the city might be reluctant to talk to us about possible failures in the city.

4 FOREST POLICIES IN BAN MAE KA PIANG

As a result of the ongoing struggle between a human-oriented approach to natural resource management represented by e.g. NGOs and village authorities, and a nature-oriented approach represented by the RFD, *community forest* is still not legally binding (Forsyth & Walker, 2008). The mistrust and lack of mutual understanding between the representatives of the two approaches are well exemplified by the RFD officer located in Chiang Mai. When asked whether he believed the Community Forestry Bill would ever be an integrated part of Thai law he burst out: "*Impossible!*" He did not believe that this complex disagreement over who should manage the forest will ever be solved. As already noted, Ban Mae Ka Piang is located in a 1A area, why it should not be in the process towards *community forest*. However, exceptions are sometimes made which has been the case in Ban Mae Ka Piang.

Even though the village is in the process towards *community forest* it is still not clear for the village community which rules to follow. As the *pattern of interaction* is influenced by the *decision-making arrangements* (the rules that structure individual and collective choices) (Oakerson, 1992), this chapter will clarify the rules in the existing forest policies in the village.

4.1 COMMUNITY FOREST IN BAN MAE KA PIANG (NANNA, SIGNE, LOA)

4.1.1 PROCESS

The process towards *community forest* in Ban Mae Ka Piang is not a simple matter. The village has gained more independency and authority by being in this process, but this might disappear overnight following a change in the national political agenda (Hares, 2009).

The first step in the process was the mobilization of the village as an administrative unit. Through interviews and our history focus group, we found that the government had imposed new regulations in 1987, stating that every village had to elect a headman and a committee. From the governmental

perspective, one of the reasons for the new implementations was to be able to get a better contact to, and a greater control of, the mountain villages and its people (Hares, 2009). Ironically, the new rules helped organize the village, which in turn led to more independence in the village and less control from the government. In connection with this development, Ban Mae Ka Piang entered into cooperation with three other villages in the watershed in order to stop the cultivation of opium and promote forest protection. This resulted in a forest agreement. Thus, the top-down decision that all villagers needed a headman and an administrative core was embraced and used at village level as a tool for empowerment and independence.

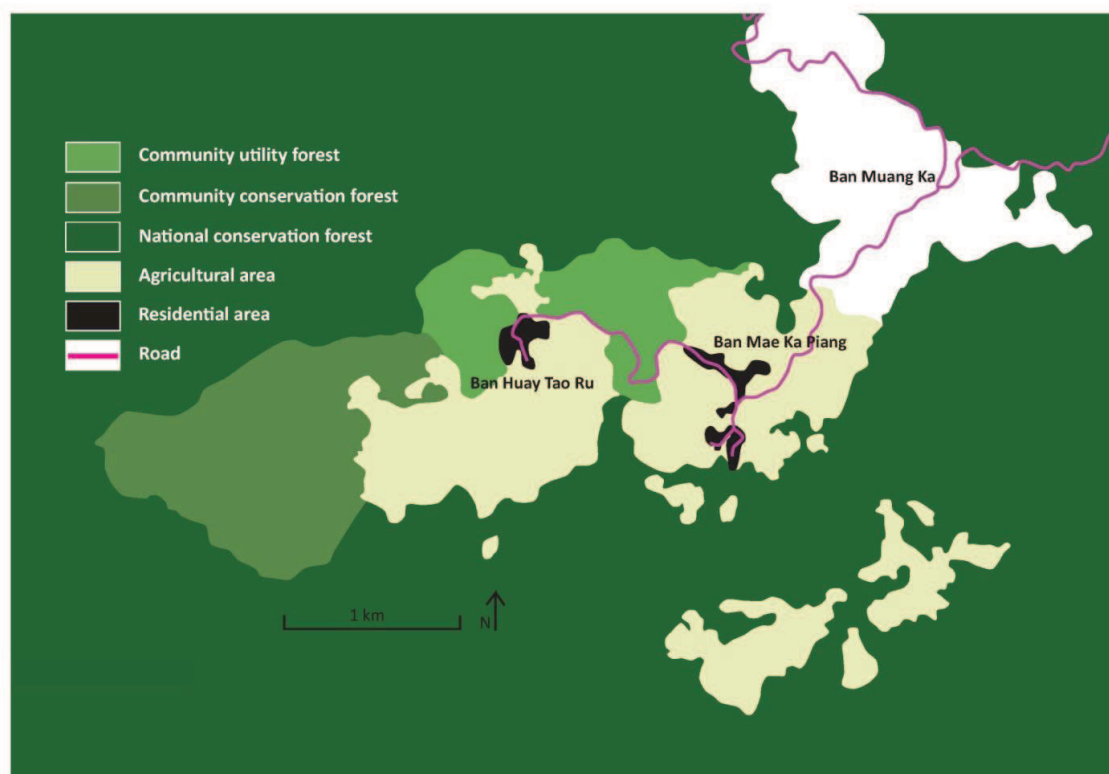
Second step in the process occurred in 2001. Both the headman and the assistant headman (appendix 3) mentioned during interviews that at this time RFD classified the area as 1A watershed. Some of the farmers in the village were arrested for destroying the forest¹⁹ and the RFD threatened to resettle all villagers in the lowland. Facing this threat the village mobilized a defence. According to interviews and the history focus group, selected representatives from Ban Mae Ka Piang travelled to Bangkok along with representatives from two NGOs to demonstrate to the government that their way of life did not endanger nature in any way. Aerial photos that showed the boundaries of the forest, and the agreement showing that forest protection already was on the agenda in the village, were presented. This demonstration successfully resulted in a Community Forest Agreement (CFA). Though the CFA does not have a legal foundation, the government has accepted it under the condition that the forests are managed in accordance with national forest protection policies.

4.1.2 RESTRICTIONS AND CONTROL

Entering into the CFA was followed by significant changes. Interviews with the headman and the assistant headman made it clear to us that the forest had been divided into three zones as a consequence of the CFA: *Community utility forest*, *community conservation forest* and *national forest*.

The different forests have different regulations. From our interviews with the headman and the assistant headman, we understood that the regulations only allow the villagers to log in the utility forest granted they obtain permission from the committee. According to the local RFD officer, NTFPs can be collected in both community forests as long as it is for own use, while NTFPs under no circumstances can be gathered in the national forest. Additionally, restrictions are further put on hunting and fishing.

¹⁹ According to our historical focus group the arrests were probably a misunderstanding because the government thought it was uncultivated protected forest, but it was in fact fallow land, which had grown into secondary forest.



Map 1: The classification of the forest as presented in the CFA.

The two community forests are under the responsibility of the village to control and protect, while the local RFD has jurisdiction over the national conservation forest. Thus, the local RFD officer does limited patrolling in the community forests, as he still has overall responsibility of controlling the entire watershed.

The headman and the assistant headman made it clear that managing forest areas also means preventing expansion of agricultural areas into the forest. To prevent such expansions the headman and the committee have experienced a widening of their authority. They now have the rights to arrest people who violate the regulations of the CFA. They may confiscate the timber for use within the community, and they may hand-over the person to the local RFD officer who will follow the case to court.

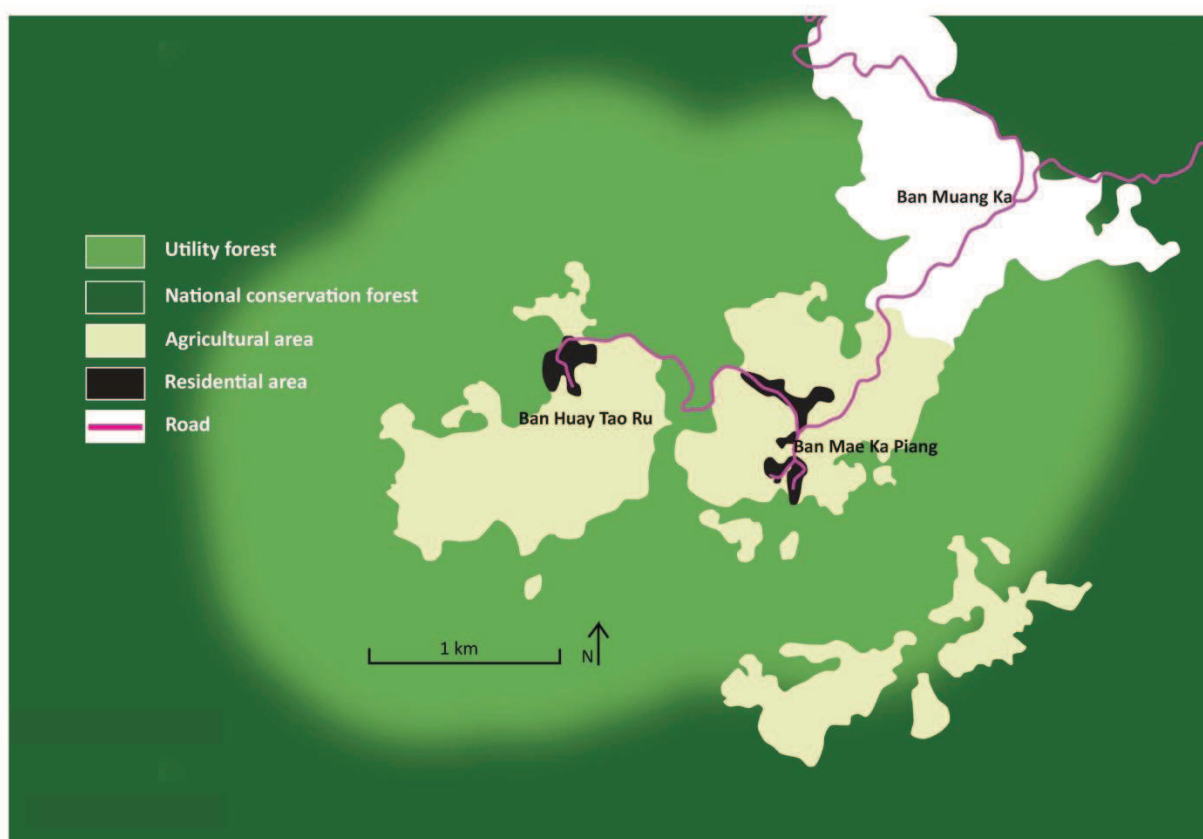
4.2 NETWORK FOR CONSERVING THE FOREST (LOA, GUSTAV, RENE)

4.2.1 PROCESS

In 2006, the village took part in another decision-making arrangement concerning forest policies, that resulted in a new forest agreement; the Network Forest Agreement (NFA). It was constructed at Tambon level but as with the CFA, it is not legally recognized (TAO, 2006). During an interview

the headman told us that after the initiation of the CFA (consisting of just four of the villages in the Tambon), all eight villages in the Tambon along with the local RFD officer started the additional network for conserving the forest. The headman informed us that the network was initially a way for the villages to collaborate on forest conservation. It entails a warning system if illegal activities are discovered and an informative dimension that educate the villagers on the value and importance of the forest. However, according to the assistant headman the network has another important task which is to deal with forest issues inside the community to minimize government intervention.

4.2.2 RESTRICTIONS AND CONTROL



Map 2: The circular sub-division of the community forest as presented in the NFA

The NFA introduced a new division of the forest into three circular zones of one kilometre each. The first zone is permitted as residential and agricultural land. The utility forest is found in the second circular zone starting from the one kilometre mark and another kilometre further out. From the second ring and further out it becomes national conservations forest (TAO, 2006).

Apart from the new division of the forest, the restrictions and control are quite similar to those presented in the CFA. The assistant headman told us that you still need permission from the committee to log in this utility forest, and that those permissions are most often

given in the wet season because the national RFD does not patrol the area at that time. NTFPs for own consumption can be gathered freely in the utility forest, though with a few exceptions. Furthermore, also the NFA entails regulations on hunting and fishing. The national forest should be preserved from all human activity (TAO, 2006).

After interviewing the assistant headman, we understood that the NFA has given the village more responsibility, because the area of utility forest – the area managed and patrolled by the village – has increased significantly.

4.3 THE NON-LEGAL BINDING AGREEMENTS IN PRACTICE (CHARLOTTE, NANNA, SIGNE)

At present, the CFA and the NFA run as parallels, which complicate the matter of the use of the forests. However, to some extent the complication enhances the villagers' individual space for manoeuvring as they navigate within both the CFA as well as the NFA; the villagers are inconsistent in regards to which rules they follow, though we through interviews have seen a tendency that they put more emphasis on the CFA. This might be due to the fact that the CFA possesses a higher degree of legality than the NFA. The recognition of the CFA took place in Bangkok and therefore included officials on both state- and provincial level. Furthermore, the process of CFA in Ban Mae Ka Piang was supported by NGOs that might be mobilized again if controversies between the village and the government arise. The NFA, however, has never been discussed higher than Tambon level with only the local RFD officer present. He may induce some legitimacy to the process but as long as the agreement is verbal nothing is officially binding.

The main problem for both agreements is that they are not legally binding. This creates a domain for continuous interaction between the different authorities in the decision-making arrangements, because when it is not legally binding the *community forest* agreements must rely on personal relations. In this context the influence of the national RFD is limited because of the distance to Bangkok. This puts the local RFD officer in a profitable position, as he is the governmental authority and at the same time he is located close to the village for the villagers to negotiate with. Therefore there are examples of the local RFD officer bending the rules. In an interview the headman gave us such an example. The headman had been contacted when somebody noticed illegal logging in the forest. He then called the local RFD officer who according to the regulations should intervene. Instead he said that if the headman wished to deal with it the village community could keep the wood. In this case his bending of rules prevented possible conflicts and additionally eases him from his designated duties. The personality of the local RFD officer can therefore be essential in

An example of nurturing personal relations:

During an interview with the headman it came about that the local RFD officer keep control of the community forests and make sure no one is expanding into the surrounding forests by stopping by for a drink.

ensuring that local forest policies work and enhance cooperation between decision makers. The importance of nurturing personal relations becomes essential as a way of confirming arrangements and keeping each other at bay.

4.4 VALIDATION OF DATA (LOA, CHARLOTTE, RENE)

This chapter is primarily based on information gained from interviews with officials and village authorities, focus groups and policy documents. We have put this data together in order to create an understanding of the forest policies in Ban Mae Ka Piang. Quite a lot of our knowledge comes from our historical focus group and a following interview with one key informant. In this case, it is necessary to say that some historical details might have been forgotten or misunderstood due to translation. Additionally, some of the policy documents we have been working with were translated from Thai into English, with might also have caused some translation problems.

5 ADJUSTING THE LIVELIHOOD

This complex frame of forest policies and *decision-making arrangements* leaves the village community with a big challenge to navigate within it. With the nature-orientated approach to natural resource management that the RFD puts forward in their conservation policies and communication (See section 4.1), and because the governmental forest protection process have been without any inclusion of the hill tribes, it does not leave much space for the people to navigate within these rules.

In this chapter we discuss the subject on village level and examine how the village community adjusts to and modify different forest policies to suit the needs of the village community. From that we go to an individual plan, where we examine the awareness of the villagers in relation to their actual use of the forest. This is to find out how the villagers navigate in the forest policies and by that how the forest policies affect their livelihood strategies.

In relation to our analytical framework we will therefore focus on the *pattern of Interaction*. In the first two parts it is mainly the *pattern of interactions* in relation to the forest that is analysed. In the third part we will broaden our perspective and analyse what can influence the livelihood strategies when not only focusing on forest policies, but also other factors within the process of de-agrarianization. With this we will examine how these different factors towards de-agrarianization and the restrictions in the forest policies, can affect the livelihood strategies of the villagers.

5.1 CREATING A SPACE FOR NAVIGATION (NANNA, SIGNE, GUSTAV)

In an interview with the assistant headman he said that the village community supports the forest policies in Ban Mae Ka Piang because it wants to protect the forest and the water reservoirs. But as a village community living under the complex frame of the forest policies and decision-making arrangements it requires the creation of a space for navigating in the forest policies. People plan their lives and patterns of interactions in relation to the existing socio-political frame, and try to navigate in the changeable terrain in order to optimize or sustain their livelihood (Vigh, 2004). Therefore, changing political alliances have forced the villagers to evaluate their livelihood strategies in relation to the political and social reality.

5.1.2. BENDING THE RULES AND THE RESTRICTIONS

According to national laws and forest policies, the government controls the area, and the local RFD officer patrols in the area. But as the village is a part of the two different forest agreements the assistant headman made it clear to us that it gives them more independency as they are now the ones patrolling in the community forest and that keeps the RFD officers away. This is confirmed by the headman who in an interview said that the most important thing in the CFA is how it has ended a long conflict between the village and the government about who should manage and control the forest surrounding the village.

That the village has the capacity to be an active part of these two different agreements indicates that there must be some competent key persons in the village who know enough about the political system to navigate within the forest policies on behalf of the village community. During our stay our impression was that the headman and some of the elders were experienced in manoeuvring in the decision-making arrangement and creating space for navigation for the community.

The creation of space for navigation comes into play in different ways and because of different interests in the village community. In an interview with the headman he explained that the village community have created a warning system within the village. As a part of this warning system every month a group of villagers patrol the forest to look for illegal activities before the RFD. Furthermore, if there are signs of anything suspicious, the villagers will always hurry to tell the headman. The headman tries to manage the situation within the village. A villager told us:

"In national conservation forest people cannot do anything. No NTFPs and no hunting. There are three warnings and then the RFD is called. The headman needs to warn people three times, they are all human." (Villager 3, appendix 3)

This warning system ensures that the RFD is only called when it is most necessary and it provides the villagers with a sense of security. In our interpretation this warning system could be based on two interests of the village community: 1) That besides conserving the forest they are concerned with protecting their social community and their ethnic relations which shows the human-oriented approach on natural resource management. 2) That they have created a system that they can benefit from. E.g. the warning system might have the function in relation to illegal logging that the

villagers can cut down trees, get a warning and the timber is then collected by the community for public use in the village. In this way it will benefit the community if it is in need of timber, but on the ‘outside’ appear as if the community is living up to its responsibility and controlling the forest areas themselves.

By bending the rules the village community creates a space for navigation. This gives the villagers more opportunities to sustain their traditional use of the forest. This creation of space of navigation gives the village community more political strength to use in decision-making arrangements with the local and/or national RFD.

5.2 THE PEOPLE’S DILEMMA: FOREST PROTECTION OR BASIC NEEDS (CHARLOTTE, RENE, NANNA)

Even though being part of two forest agreements have given better opportunities for the village community to both protect the forest and use it at the same time, the villagers are still to navigate within this complex frame of forest restrictions in their everyday life. As an example this dilemma was put forward in an interview with a young man where he told us:

“The advantage of the forest policies is that there are limitations/controls regarding cutting down tree and with this protection of the forest. The disadvantage is that the rules have made it more inconvenient for villagers to cut down the trees they need.” (Villager 5, appendix 3)

The informant notes the benefits of protecting the forest, but also the inconvenience for the villagers to use the forest as usual. Thus, the forest policies are influencing the villagers' livelihood strategies.

5.2.1 AWARENESS

To see to what extent the villagers are aware of the forest policies and if they know the restrictions and rules, we asked in all our interviews and conversations about the forest policies. We can conclude that the vast majority of the villagers are aware that there are some restrictions on the use of the forest. Furthermore, almost everyone agreed with the forest policies, as they were all interested in protecting the forest.

In addition, on village level there were several initiatives to involve people in the decision-making arrangements and making the forest policies accessible. For example the headman told us that the village committee has a meeting every

At one point during our NTFP walk a helicopter went by. It was the RFD surveying the forest areas. The two women noticed the helicopter, but did not seem nervous, and it did not stop them from cutting down a banana tree just a few minutes later. Even though they were collecting NTFPs in the national conservation forest, they did not seem afraid to tell us things that they could get into trouble with according to forest policies. This might indicate that the two women did not feel that they were violating the rules.

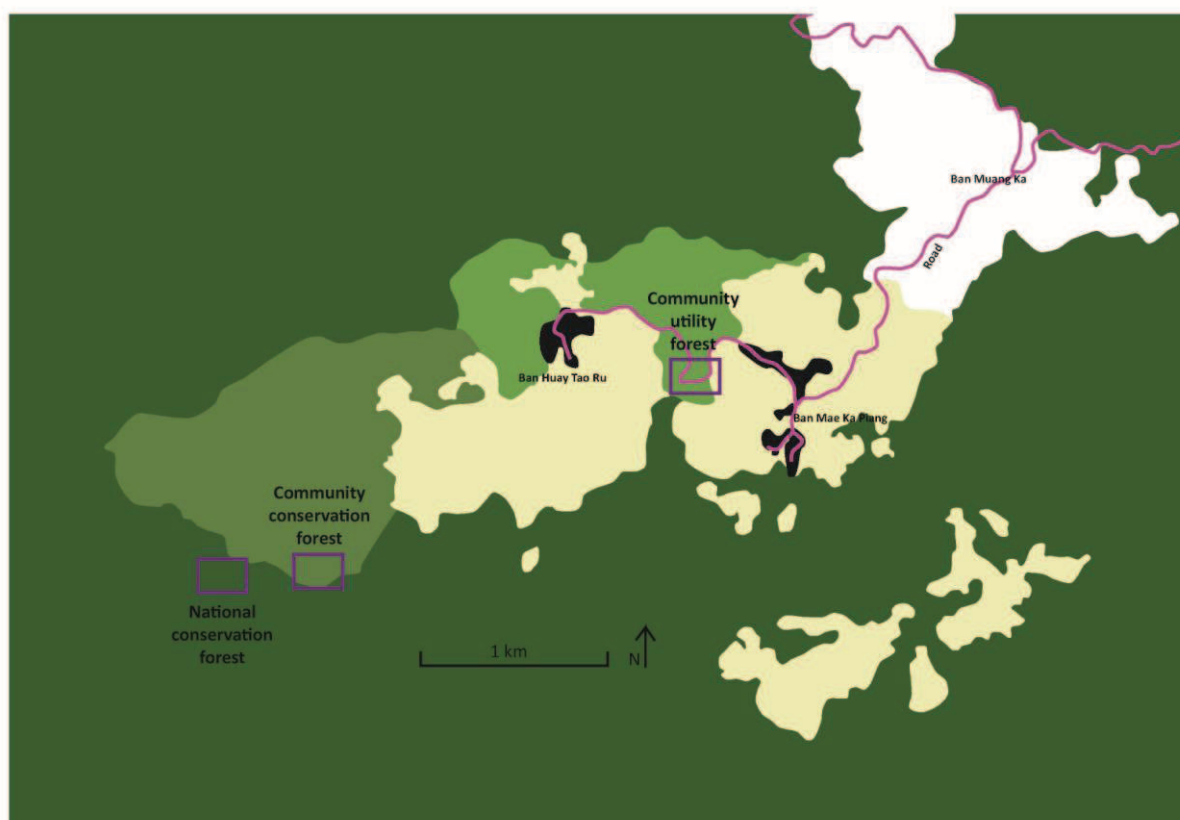
month where they talk about different projects in the village. Hereafter, the projects are discussed on a village meeting where they are subjected to democratic election. Village meetings are held every month and all households are represented. During the meetings information about e.g. new forest regulations is announced.

As mentioned, neither the NFA nor the CFA are legally binding by national law, which makes it difficult to know exactly what rules to follow. It seemed as if the villagers mainly referred to the CFA, but also to some extent the NFA, which put forward that they individually had created their own space for navigation through their perceptions and interpretations.

5.2.2 SIGNS OF USE OF THE FOREST

In theory the villagers are supposed to use the different forests for different purposes. However, if they do not know the rules, where the borders are, or maybe if the community utility forest is incapable of providing for the villagers needs, their actual use of the forests may be different from the rules.

We used the CFA classifications and made assessments in the community utility forest, the community conservation forest, and the national conservation forest, to find out whether we were able to see differences in the forest conditions and uses (appendix 7).



Map 3: The map shows the three locations for where we did our forest assessments.

Our finding was that there were differences between the forests. Both in the community utility and the community conservation forest, there were clear signs of use; newly cut trees, paths, old roads, an abandoned paddy terrace, and plenty undergrowth. This stood in contrast to the conditions in the national conservation forest where the trees were bigger, there was only limited undergrowth, and plenty dry wood on the ground.

We can conclude that the national conservation forest has been much less utilized than the community conservation forest that again has been less utilized than the community utility forest.

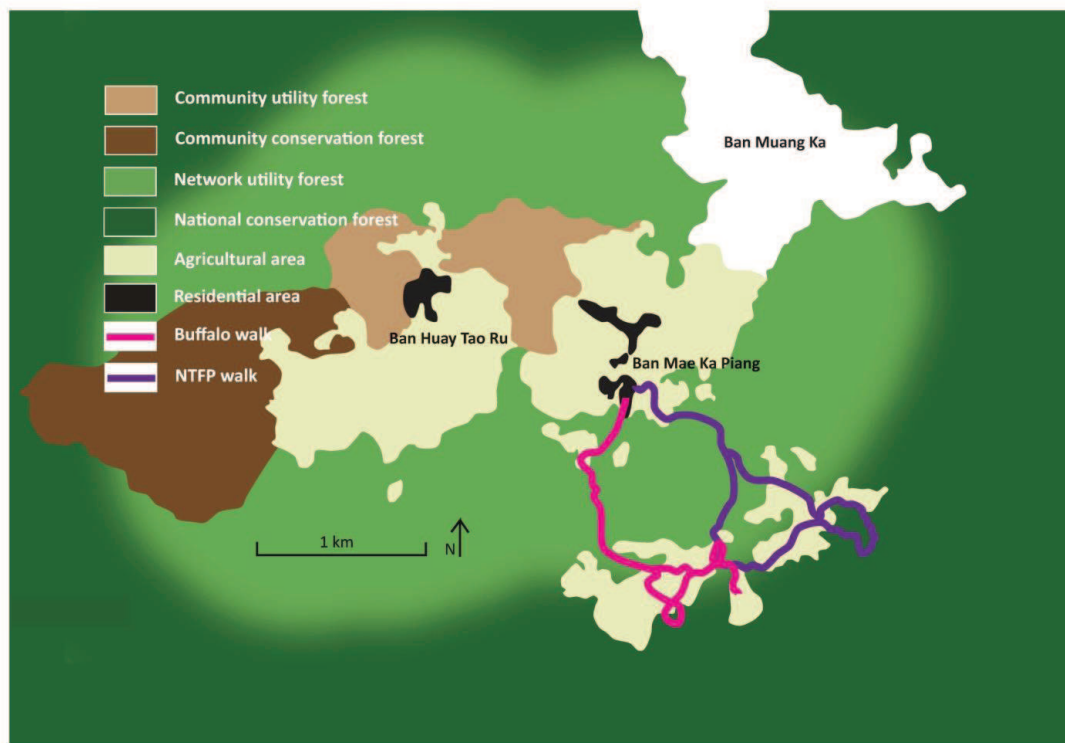
We are not convinced that the villagers' use of the forest were only restricted because of the forest rules, since both our participatory walks indicated that all forests were used for collecting NTFPs. A more probable reason for the differences in forest uses is the distance to the village. It makes sense that the most accessible forests are most utilized, but when the forests get overused, the villagers must seek deeper into the forest areas to gather dry wood, timber, and NTFPs.

"Earlier I collected more NTFPs, but now it is just now and then. It is too time consuming and some species are not there anymore, while others are not in as big quantity as before. When we do collect we go to the national forest south west of the village. The reason why we do not use the utility forest is that there is not much to collect." (villager 4, see appendix 3)

5.2.3 THE ACTUAL USE OF THE FORESTS

The awareness of the forest policies and the restrictions in the different forests are not absolutely confirmed in the use of the forest. In the forest assessment this became clear by observing the conditions of the different forests as they are being used and one even overused in contradiction with the forest policies. Also in the interviews, questionnaires and on participatory walks with the villagers, we found that they did not follow the rules directly, especially not in relation to the CFA, which has been the agreement that most have referred to.

One area where there was obvious confusion and discrepancy in answers was when we asked about the collection of NTFPs. Some villagers claimed that NTFPs can be collected in all forests as long as it is for own consumption, and some say you are allowed to sell what you cannot consume. Others claim that you are not allowed to collect NTFPs in the national conservation forest at all. All answers were off course right according to one agreement or another. According to the local RFD officer, the villagers are free to collect where they want, since there is no specific control on NTFPs. The lack of control also became obvious on our participatory walks in the forests.



Map 4: The map shows the routes of our participatory walks in the forests.

On the two walks the villagers did not stay within the boundaries of the utility forest and NTFPs were collected in forest classified as national conservation forest in both the CFA and the NFA.

5.2.4 REASONS FOR INCONSISTENCY BETWEEN WORDS AND ACTIONS

We heard many different perceptions and interpretations of the regulations, and we found significant inconsistency between the way people talked about the rules and their actual use of the forest. There can be many reasons for this inconsistency.

BIOPHYSICAL REASONS

In an interview with the assistant headman he told us this explanation based on the condition of the forests:

“The village has an area of utility forest, and in theory that should be the place to cut down timber, but in reality they just cut down wherever they want without the RFD seeing them. The reason for this is that there are only small trees left in the utility forest. They cut for both the community and for private use.” (Assistant headman, appendix 3)

This indicates the peoples’ dilemma that the forest policies have restricted the use of the forest to a utility forest. However, as it seems as if the utility forest has been overused, it makes sense for the villagers to go further into the forest to sustain their livelihood.

CONFUSION OF WHICH FOREST POLICIES TO FOLLOW

On the NTFP walk we saw some signs on the trees and we asked the two women what was written on the signs. But they said they could not read them because they were written in Thai. However, we understood that the intention of the signs was to remind people of the rules and the importance of protecting the forest. What was interesting was that the two women did not seem to notice the signs at all, and they did not seem to have an impact on their choice of route.

Talking about rules and acting differently does not necessarily mean doing anything wrong because there are different sets of rules.

“She is afraid that the national RFD will arrest her when she is cutting trees in the forest. She agrees with the forest policies and says there is no need to expand her fields because it would destroy the forest. She says that it is allowed to cut trees in the utility forest, but not around here even though outsiders sometimes come and cut trees here anyway. She does not know the boundaries of the utility forest (...). Her husband goes to the meetings.”

(Villager 10, appendix 3)

The quotation is an extract from an interview conducted on the Buffalo walk in a part of the forest that the CFA classifies as national conservation forest and the NFA as

utility/community zone. She is clearly confused about the different rules and boundaries but refers to the CFA and supports these policies. Meanwhile she acts and uses the forest after the NFA and knows that nothing will happen to her unless the national RFD comes, as the local RFD officer probably will allow her to use this part of the forest with a reference to the Network forest agreement.

Another reason why the villagers are confused about which rules to follow, is that the rules in the forest sometimes are communicated in an inexpedient way. For example, signs in the forests are often in Thai which most villagers cannot read.

5.2.5 SOCIAL RELATIONS IN THE VILLAGE COMMUNITY

The social relations between the villagers have a great impact on how the individual villager behaves. In Oakerson’s *Dynamic Framework for Analyzing the Commons* he puts forward that the individual behaviour is a comparison of costs and benefits of alternative actions, and expectations to how others should behave create obstacles and inducements for each individual (Oakerson, 1992). In this sense we find the economic concept the *Prisoners’ Dilemma* useful. This concept demonstrates why two people might not cooperate even if it is in both their best interests to do so, because of insecurity in their social relation. For the villager it is a balance of whether or not it will pay off to follow the rules on forest protection. If all villagers but one use the utility forest the other forest areas are still conserved. Therefore the one villager that does not follow the rules will benefit as he will get the products from the other forests while the forest is still to a large extent conserved. This is called the “free-rider” strategy. On the other hand, if almost no one follows the rules, then the few that do become so called ‘suckers’ as their action is meaningless in conserving the forest. Therefore the social relations determine if the village community can manage the forest together (Liebreich, 2007). As one villager told us during an interview: *“Some follow the rules and some do not”* (Villager 8, appendix 3). In this case it is obvious that some villagers know how to

play the game and use it strategically to gain from while others are unaware that they are a part of this game of social relations.

Because the village community is characterized by solidarity and a strong community it seems as if they try to cooperate as they believe it is in the best interest for all. Therefore the navigation and the behavior of the individual are depended on the support of the community.

“If this group [a patrolling group of villagers in the forest] finds out that someone has tried to expand their land, the headman gives a warning saying ‘you are not allowed to expand anymore’. If they continue to use it or expand it further, they are not allowed to use their original land. This first warning makes people stop, because they get scared.”
(Villager 1, appendix 3)

This is an example of how the community together support each other by having the warning system instead of going straight to the RFD, as they according to the national law and agreements should do. Another example of this is in relation to illegal logging.

“If someone is being arrested for illegal logging he is brought back to the village and questioned. If it’s a poor person cutting for subsistence he gets a warning, but if it’s a rich person cutting for selling, he is sent to the local RFD office”
(Headman, appendix 3)

Here it is clear that first of all the village have to make sure to protect the people and take social status of the logger up for consideration, before judging and handing the person over to the RFD. This again shows the support and solidarity of the village and also that they are supporting each other in bending the rules. They do not protect the forest just for the sake of the forest, but for the sake of the people.

5.3 DE-AGRARIANIZATION (LOA, SIGNE, GUSTAV)

To not only focus on the forest policies’ more or less direct influence on the livelihood strategies of the villagers we will broaden the perspective and bring in more factors. This will be done by bringing forward different factors in relation to de-agrarianization and linking them to the adjustments in the livelihood strategies because of the restrictions within the forest policies.

The active process of de-agrarianization occurs when livelihoods become increasingly oriented towards non-farm and non-rural activities (Ellis & Allison, 2004). This shift has become gradually more distinct in Northern Thailand (Rigg, 2001). In the other three villages in the Mae Lor watershed that have been visited by SLUSE students in 2011 this is confirmed. In Ban Phrabat Si Roy the newly build temple and “Buddha’s footprint” is facilitating an economy based on tourism. In Ban Huay Som Suk there is also a temple that attracts outsiders and people in Ban Huay Som Suk are selling off their land due to increased land prices. Some land is turned into sites for hotels and resorts, leading to an orientation to the service sector. In Ban Huay Tao Ru there is also clear

diversification of income alongside increasing emigration. The fact that soil fertility seems to be declining due to excessive use of pesticides could additionally pave the road towards de-agrarianization in the village.

To analyse the de-agrarianization process in Ban Mae Ka Piang we have used four processes identified by Deborah Bryceson (1997): Spatial relocation, occupational adjustment, social re-identification and livelihood reorientation to find the main factors in relation to de-agrarianization (Bryceson D. F., 1997).

Today, all households do farming for subsistence and use the forest, but for almost everyone the subsistence farming is supplemented by cash crops. Some of the young boys in the focus group of dreams expressed that they would like to convert the farming to crops with greater revenues such as rose apples or oranges. These changes are not de-agrarianization in themselves, but the fact that the villagers are more dependent on the market could lead to a more trade oriented livelihood strategy. Together with constraints of land this could be a factor. Because of the forest policies villagers are not allowed to expand their land, so if the population in the village increases, there may not be enough land for them to keep up their subsistence and they will have to seek job opportunities elsewhere. The vast majority of children are sent to school outside the village, which is another factor that could lead to occupational adjustment. The children get a higher education and are not around to learn agricultural and forest practices.

As solely subsistence farmers the villagers would not have money to send their children to school or pay for other material goods. Among other things we observed that most houses had a satellite dish and in our questionnaires we learned that almost everyone had a mobile phone, TV and a motorcycle (see 3.3). Other expenditures were materials for maintaining their houses, transportation and education. In order to achieve these things, it is necessary earn money. This might lead to the villagers moving away from doing only subsistence farming and collecting NTFPs in the forest. In the future there might be a need to have a more stable income as a full time wage labourer.

However, we will emphasise the villagers are still mainly working with farming activities. This is supported by our questionnaires where almost every household has subsistent farming activities and just one respondent counted her waged job as her main income. In all other cases eventual wage labour was seen as an additional income to an agricultural based economy. Furthermore, in interviews with the villagers farming has been labelled as a *“good job”*. In addition 10/20 of the households we made a questionnaire with are collecting NTFPs, so they still have other food sources as long as they can navigate in the forest policies.

Their strong connection to the village is also a factor to be considered. Through interviews with the villagers we got the picture that there is a common preference towards village life opposed to city life. The villagers associate city life with a long list of undesirable things such as noise,

pollution, bad weather, alcohol, sexual encounters, and spending too much money opposed to the calm farming life in the village. Many of the children go to the city to go to school, but the vast majority comes back sooner or later. The reluctance against city life imply that the job opportunities in the city are not considered desirable and because the amount of non-farming jobs are limited in the village the young people probably will stay in the agricultural sector.

This connection to the village and farming activities also becomes clear in the villagers being proud and content with their modest way of life.

“We have enough to sustain our lives. We are happy and don’t need to change anything” (Villager 4, appendix 3)

“If there is too much development it will change peoples’ livelihood too much (...) It is enough development for us; we do not need any more, it is better with the natural environment”(Villager 5, appendix 3)

These quotes tell us that the villagers value their life in the village, their farming activities and close relation to nature.

Here we have pointed out some tendencies towards de-agrarianization in Ban Mae Ka Piang. With this analysis we will argue that for the moment the process is not that far ahead as in the other villages in the watershed. However, it seems as if the village community is standing at a tipping point, and in the near future it seems as if the development of the village will follow the tendency in the watershed, in Northern Thailand and globally towards de-agrarianization. With the restrictions from forest policies it might be even more necessary for the villagers to change livelihood strategies in the future.

5.4 VALIDATION OF DATA (CHARLOTTE, NANNA, SIGNE)

Our subject is a complex and sensitive matter to address. When asked about awareness, support and if they follow the forest policies, we must keep in mind that some of our informants might have considered what we would like to hear in the interviews, instead of giving complete honest answers. In an attempt to come about this, we have used triangulation as a way to validate our data. The views in this chapter have been expressed repeatedly by many different informants and in different situations. In relation to how they use the forest, we have supplemented our interviews with participatory walks and a forest assessment. With the forest assessment we got the chance to touch upon the condition of the forests, but we recognise that our main qualification do not lie within natural science methods.

6 CONCLUSION

The forest policies in Ban Mae Ka Piang induce an external frame restricting the villagers' traditional livelihood. Because the village has entered the process toward *community forest* the forest policies are agreed on in two different forest agreements recognised by the local RFD officer. Together with policies dictated from the government this creates a complex system of different restrictions on their land use and use of forest, different boundaries of classifications of the forest and levels of management. Thus, this is challenging for the village to navigate within to uphold their livelihood as subsistence farmers and forest users and therefore it influences the livelihood.

For the village community this navigation exists in assisting the individual villagers' continuous use of the forest. This is done by cleverly navigating within the *decision-making arrangements* of national forest policies using the loopholes in the confusion of the policies within the existing agreement. Furthermore, the management of *community forest* gives them more independency to support the villagers to uphold their livelihood strategies in relation to the use of the forest meanwhile they are protecting the forest.

For the villagers this navigation appears as adjustments in their traditional livelihood strategy as subsistence farmers and forest users. On their agricultural practices the forest policies do not have any significant effect. Furthermore, the forest policies have influenced little on the villagers' actual use of forest. For example they will not only go to the utility forest, but also to the other forests as they are following their needs and traditional practises navigating in the forest policies.

Therefore, the affect of the forest policies on the livelihood strategies of the villagers is mainly apparent in the way they need to navigate within the forest policies. It does not appear that much in their actual agricultural practices and use of forest as they are navigating in a way that ensures their interests in being both forest users and forest protectors. However, forest policies are just one of many factors affecting livelihood strategies in the village. We have identified several factors that point in the direction of de-agrarianization as a possible change in livelihood strategy. Thus, in the future the village might face several big challenges in sustaining their traditional livelihood.

These findings are conducted with methods from both social sciences and natural science making triangulations to ensure the validity of our data. First of all we have ensured validation of our data by triangulating our methods. An example of this is in relation to the boundaries of the forests, where we have supplemented our interviews with the headman by asking him to draw the boundaries on a map of the area and going on a participatory walk in the forest with the assistant headman. We have also triangulated different informants to provide us with information about the same subject. Additionally, we have used the same informants in different settings, to validate their answers. By this methodological approach we have strived for validity in our research of this sensitive subject. The Dynamic Framework developed by Oakerson (Oakerson, 1992) has functioned as a guideline throughout our work. It has helped us maintain focus in a complex reality and facilitated a stringent work process in unraveling the forest policies in Ban Mae Ka Piang and their influence on livelihood strategies.

LIST OF REFERENCES

- Agar, M. (1996). Who are you to do this? In *The Professional Stranger. An Introduction to Ethnography*. San Diego: Academic Press.
- Barth, F. (2001). Introduction. In *Socialantropologiske Grunntekster* (pp. 251-279). Oslo: Gyldendal Akademisk .
- Bryceson, D. F. (1997). De-agrarianization in Sub-Saharan Africa. *Farewell to farms* .
- Bryceson, D. (2002, MAY). The Scramble in Africa: Reoriented Rural Livelihoods. *World Development* , pp. 725-729.
- Buch-Hansen, M. (2001). Is Sustainable Forestry in Thailand Feasible? *Journal of Sustainable Agriculture Vol. 18(2/3)* .
- Carloni, A. S. (2011, February 21). *FAO*. Retrieved April 1, 2011, from www.fao.org/docrep/fao/008/a0273e00.pdf
- Cohen, P. (1987). Participant Observation. In *Ethnographic Research. A Guide to General Conduct*. London: Academic Press.
- Delang, C. (2002, JUL). Deforestation in northern Thailand: The result of Hmong farming practices or Thai development strategies? *Society & Natural Resources* , pp. 483-501 .
- DeWalt, K. M., & DeWalt, B. R. (2002). Informal Interviewing in Participant Observation. In *Participant Observation. A Guide for Fieldworkers*. Lanham: AltaMira Press.
- Ellis, F., & Allison, E. (2004). Livelihood diversification and natural resource access. *FAO - Livelihood Support Program* .
- Forsyth, T., & Walker, A. (2008). Forests and Water. In T. Forsyth, & A. Walker, *Forest Guardians, Forest Destroyers* (pp. 59-116). University of Washington Press.
- Hares, M. (2009, MAR). Forest Conflict in Thailand: Northern Minorities in Focus. *Environmental Management* , pp. 381-395.
- Liebreich, M. (2007, September 11). How to Save the Planet: Be Nice, Retaliatory, Forgiving and Clear. *New Energy Finance* .
- Mikkelsen, B. (2005). Participatory Methods in Use. In *Methods for Development Work and Research: A guide for practitioners* (pp. 87-123). London: Sage Publications.
- Mingtipol, O., Buch-Hansen, M., Sangawong, S., Prabudhanitisarn, S., Sripun, K., Aumtong, S., et al. (February, 2011). *Basic Information, SLUSE Field Course 2011, Mae Lor Watershed, Mae Rim District, Chiang Mai Province, Thailand*.
- Oakerson. (1992). Analyzing the Commons: A Framework .
- Rigg, J. (2001). Embracing the Global in Thailand: Activism and Pragmatism in an Era of Deagrarianization.
- Salas, M. A., & Tillman, H. J. (2010). *Participatory Action Research: Embracing the Knowledge Perspective within Field Research*. Chiang Mai: The Regional Center for Social Science and Sustainable Development, Faculty of Social Science, Chiang Mai University.

- Sato, J. (2000). People in Between: Conversion and Conservation of Forest Lands in Thailand. *Development and Change* 31 , pp. 155-177.
- TAO. (2006). Rules of Network Community Conservation Forest in Sa Liung Tambon. Sa Liung, Chiang Mai, Thailand: TAO.
- Temple, B., & Edwards, R. (2002). *Interpretors/Translators and Cross-Language Research: Reflexivity and Border Crossings*. Alberta: University of Alberta.
- Vigh, H. (2004). Navigation: Unge i et konflikfyldt terræn. In *Viden om verden - En grundbog i antropologisk analyse*. København: Hans Reitzels Forlag.
- Wichawutipong, J. (2007). Community Forest Management in Thailand. Thailand: Royal Forest Department .

ILLUSTRATION LIST

Figure 1: Analytical framework displaying how different inputs are shaped by patterns of interaction leading to different outcomes. The framework is based on the 'Dynamic Framework' by Ronald J Oakerson (1992).	11
Figure 2: A picture of the uphill home garden and a text overview of both the up and downhill gardens.	18
Figure 4: An illustration showing how the households in the village earn their money. The vast majority still works in agriculture. This data is based on our questionnaires.	20
Figure 3 can give us an impression of how the income distribution is in the village. The data is based on our questionnaires.	20
Map 1: The classification of the forest as presented in the CFA.	24
Map 2: The circular sub-division of the community forest as presented in the NFA	25
Map 3: The map shows the three locations for where we did our forest assessments.	30
Map 4: The map shows the routes of our participatory walks in the forests.	32

ACKNOWLEDGEMENTS

We thank the villagers of Ban Mae Ka Piang for their cooperation and willingness to help. We also thank our Thai counterparts for their contributions and wish them the best of luck with their projects. In addition, we would like to express our gratitude to our interpreters. They have been tireless in their work, and without them this study would not have been possible. Finally, we would also like to thank the staff within the SLUSE program.

Appendices

1. Constitution

2. Research/Method Scheme

3. Informant profiles

4. Interview guides:

- Interview guide with villagers
- Interview guide with Headman 1
- Interview guide with Headman 2
- Interview guide with Assistant Headman 1
- Interview guide with Assistant Headman 2
- Interview guide with RFD Watershed
- Interview guide with RFD Chiang Mai
- Interview guide with Lands Department Chiang Mai
- Interview guide with Tambon/Upperdor
- Interview guide with Forest key informant (timeline follow up)

5. Questionnaires Results

6. Focus Group Results

7. Forest Assessment Results

8. Home garden appendix

9. Synopsis

CONSTITUTION OF THE KINGDOM OF THAILAND 2540 (1997)

CHAPTER 3

Rights and Liberties of the Thai People

Section 46.

Persons so assembling as to be a traditional community shall have the right to conserve or restore their customs, local knowledge, arts or good culture of their community and of the nation and participate in the management, maintenance, preservation and exploitation of natural resources and the environment in a balanced fashion and persistently as provided by law.

Appendix 2: Research/Method Schema

This table is meant to provide an overview of our questions and how we have tried to answer them by using different methods. Also we have included a “Samples” list, showing what we have produced.

Problem formulation	Research Questions	Methods	Samples
How do forest policies in Ban Mae ka Piang affect the livelihood strategies of the people in the village?	What characterizes the livelihood in Ban Mae Ka Piang?	Semi-structured Interviews with <ul style="list-style-type: none"> Villagers Headman Assistant Headman Priest 	Semi-structured Interviews with <ul style="list-style-type: none"> Villagers – 10 Headman – 2 Assistant Headman – 5 Priest - 1
		Focus groups (PRA) <ul style="list-style-type: none"> Timeline Community map Year Calendar Crop Calendar NTFP Calendar Young people 	Focus groups (PRA) <ul style="list-style-type: none"> Timeline - 1 Community map - 1 Year Calendar - 1 Crop Calendar – 1 NTFP Calendar – 1 Young people – 1
		Survey - Questionnaires	Survey - Questionnaires 20
		Participant observations <ul style="list-style-type: none"> In church on Sunday NTFP walk Buffalo walk Weaving Dancing 	
		Informal conversations	
		Observations in the village	
		Forest Assessments <ul style="list-style-type: none"> Forest inventory Transect walks Soil samples Water samples 	Forest Assessments <ul style="list-style-type: none"> Forest inventory - 2 Transect walks - 5 Soil samples Water samples

	What are the forest policies in the village?	Reading of official documents and scientific articles	
		Semi-structured Interviews with <ul style="list-style-type: none"> • Official at the Royal Forest Department in Chiang Mai • Official at the Lands Department in Chiang Mai • Official at the Royal Forest Department in TAO • Headman • Assistant Headman • Key informants 	Semi-structured Interviews with <ul style="list-style-type: none"> • Official at the Royal Forest Department in Chiang Mai - 1 • Official at the Lands Department in Chiang Mai - 1 • Official at the Royal Forest Department in TAO - 1 • Headman - 2 • Assistant Headman - 5 • Key informants - 3
	How do people interpret and navigate in the forest policies?	Semi-structured Interviews with <ul style="list-style-type: none"> • Villagers • Headman • Assistant Headman • Priest 	Semi-structured Interviews with <ul style="list-style-type: none"> • Villagers – 10 • Headman – 2 • Assistant Headman – 5 • Priest - 1
		Survey - Questionnaires	Survey - Questionnaires 20
		Participant observations <ul style="list-style-type: none"> • NTFP walk 	

Appendix 3: Informant profiles

Villager 1

The interviewee came by when Loa and Gustav was making a questionnaire with an elder woman. We asked if we could talk to her as well and she was very friendly and welcoming, which made us decide to do our pilot interview with her. We sat down in her house next to her weaving equipment and begun. The interview took about one and a half hours. Only a few adjustments had to be done to the interview guide. Some questions added, some erased and some reformulated.

She is 51 and has been a farmer since she was 16 years old. She arrived to the village when she was 6 years old from Mea Sa Liang. Her land is very important to her, since her main occupation is farming. She has one field with fruit orchards, but without any land rights. Her house is connected to community water supply, but her farming fields are not connected, so she is depending on rain to be able to use her land. The watershed is not sufficient. This affects her income a lot. While she waits for the rain she works as daily labour, wherever she can get work. She often walks around the village to see where she can get a job, rarely she is employed in other villages.

She goes to the forest once a week to get dry wood for fire. Sometimes she collects vegetables as well. She always goes to the utility forest. She has been to the community conservation forest but it is to far away. Because she does not cut any trees, but just collect the dry wood, she does not ask for permission

Villager 2

We actually initiated the first contact to him by just walking up to his house with a note written in Thai, saying we would like to do an interview later that evening. We had some hours in the base camp without an interpreter, so we tried out a new approach. Luckily this worked, and we had a great interview with him. He was a very warm and smiley man, and we developed a very friendly relation with him. We invited him to participate in the focus group of community mapping and he showed up on his own initiative in the year/crop calendar focus group. Furthermore, it was through our contact with him that we got the chance to go on an NTFP walk with his wife.

He is 51 years old. Born in Amphour Mae Sa Liang and came to Ban Mae Ka Piang when he was 5 years old from. He started as a farmer when he was 15 years old. Now he grows paddy rice for consumption and lychees for sail. He works as a daily labour in the village, where he slashes and prepares the ground for rice. Hmong people do not grow paddy rice, therefore he does not work with them. He has no documented land rights, only for his residential area. Three years ago the government came to the village to give him document for land rights – but they left. He told us that in Thailand the government often changes and that changes the policies, therefore the villagers are still waiting for their land deeds.

He uses the forest to collect NTFP's for consumption – bamboo, mushrooms and banana. He usually goes to the forest every second our third day, but right now he is busy with building his house.

He told us that before the community between the 4 villages was established, the RFD would always come and disturb the villagers. Back then, villagers still did shifting cultivation, but that stopped with the community. They already grew lychees but did not take care of them, but due to the land restrictions, they intensified their lychee production. He agrees with the community initiatives and says that it feels good that the RFD no longer comes and disturb as often. Before the restrictions in the community, the villagers shifting cultivation would destroy the forest. Now they can protect the forest, while have a utility forest. The villagers want to protect the forest.

Villager 3

We invited him to join a first focus group with writing a historical timeline. During this meeting we realised that he was one of the very first Karen to move to the village, and he had great insight in the history

and especially the forest policies in the village. Furthermore he was assistant headman under the first headman. Therefore we decided to visit him the following day so he could help us finish the timeline and elaborate on the themes we did not have enough time to go into during the focus group.

The interview was not as personal as the others, as we were more focused on his knowledge about the forest policies. The interview went very well. We talked to him for two and a half hours. After the interview he played a few songs for us both on a traditional Karen instrument. He had rewritten the lyrics in one of the songs making it about us and how he would never forget us. We developed a very good relation with him, and we it seemed as though the feelings were mutual. He was particularly very happy for Gustav, who he described as family and hugged several times after the interview.

With his participation in the focus group as well as the interviews he provided us with essential information on the forest policies.

Villagers 4

Nanna and Gustav went to their house to look at and maybe buy some clothes. We thought we didn't need an interpreter and went by ourselves. However, one of the interpreters from the other group came with us on her own initiative. That proved to be very good because they were very interesting to talk to. Her husband was at home watching Thai boxing on TV when we came. It started out as an informal conversation but developed into an unstructured interview about de-agrarianization and forest policies. The husband had been a representative for TAO and knew a lot. After an hour or so the interpreter got a bit uncomfortable not being with her own group, so we went back. It was probably good because we had not brought any notebooks and probably could not remember a lot more.

They are farmers and mostly grow rice and vegetables for own consumption. They try to use as little pesticides as possible, and have a compost to try to get away from chemical fertilizers. The rice is sold if they get more than they need for consumption. They do not wish to expand their lands. The husband also works with driving kids to and from school. They said that they are happy and do not need to change anything, because they have enough to sustain their lives.

They used to collect more NTFPs, but now just every now and then. They told us that it was too time consuming and some species are not there anymore, while others are not in as big quantity as before. When they do collect they go to the national forest south west of the village. The reason why they do not use the utility forest is that there is not much to collect. According to them everyone who collects NTFPs does it for their own consumption, since Karen people are not interested in trading.

They wish for their children (8 and 13 years old sons) to get good education and work and earn money in the city, but only if they are good in school. If they are not, they want them to stay in the village. About 15 years ago the young generation started to get higher education in the city because their teachers told them that it would improve their and their families' life situations. About 20 years ago some people started leaving the village to work in the city. The common pattern of life is that the kids work in the city until they are 40-50 years old and then come back to take care of their parents and the land. Also when you get married it will be to a Karen woman. When she gets kids she will not be interested in living in the city which will make the man come back to the village. When asked if they were afraid their children would not come back, they replied that 9 out of 10 come back, so they were not afraid. The paradox is that the living costs in the city are much higher in relation to salary than in the village, which makes it hard to earn any money. It evens out and living in the village is happier.

Villagers 5

Three young men were sitting outside their house playing guitar, when we asked if they had time for an interview. They were all brothers who had left the village and were now back on vacation visiting their parents. In that sense the interview actually turned out to be a sort of focus group, since the questions naturally revolved around de-agrarianization. They were 19 (A), 22 (B) and 26 (C) years old. It was

interesting talking to these young men, and listen to their incitement for leaving the village, and also their future perspectives.

B left the village three months ago to go to Chiang Mai, while A left one year ago to go to Chiang Mai. C lives in Amphur Mae Rim, and he comes home every weekend to visit and help their parents. The parents are farmers. All of A's friends only come back to the village for harvesting and helping their parents.

B studies and has a part time job to finance his studies, while A dropped out of his studies and now only work. B does not have any wishes to come back to the village to live. Either does A, but he plans on helping his parents for the next 2-3 months with their rice production. A wants to focus on his study, gaining knowledge and earn money.

Before A was born there were no concrete roads in the village. Now it is much easier to get around. But he thinks that if the transportation is too easy and convenient, it is not good for the village. If there is too much development it will change peoples' livelihood too much. He explains that it was the same when electricity came to the village. It is enough development for them; they do not need any more. It is better with their natural environment.

A knows that this area is in conservation forest. RFD often comes to check the forest, sometimes in a helicopter to observe the area and see if any illegal activity is happening. It is especially in the hot season that the RFD comes. According to A these forest rules have been here for a long time. He does not think of the forest policies that much, and they have no effect on his life or his decision to move away. However, he thinks it is a problem that people can not expand their land, because the population is increasing, and that can cause problems in the future when there are limitations.

Villager 6

After talking to the young boys (villager 5) their mother was interviewed. She was 47 years old and farmer (paddy rice and lychee). Now she does not work, because the water supply is not enough. So she stays in the house and weaves Karen costumes, when she does not have back pains. She only weaves for family members, and not for selling. She came to the village with her parents when she was 3 years old.

She never wanted to go to the city herself, because she does not know how to work there. She learned farming from her parents, and they did not let her study. She wishes that her sons will get good jobs, and she works hard to sent her boys to school. But she does not have enough money to provide for their studies, and she does not have more energy to work, so they must earn money themselves.

She collects NTFPs in the forest such as; wild vegetables, banana flowers and mushrooms. She says that there are some signs in the forest, but she cannot read them. There were no rules regarding the use of the forest when she first came to the village. The rules are about 10-20 years old. Furthermore she grow pumpkins, chilli, eggplants and cucumber. All of it is just for consumption.

Villager 7

The informant was the owner of the house we lived in which made her one of our first contacts in the village. From the very start she was interesting in talking to us and even spoke a few English words. Since she had a long history in the village and was enthusiastic about talking about the village we asked her to be part of our history focus group. We realized that she was very dominant and eager to present the Karen narratives as the actual truth. She was also quite prejudice about Hmong people, but very well informed about the village and very easy to access. Therefore we decided to interview her. This was made by René and Gustav outside one of the houses in her garden. According to other villagers, she is the richest person in the village because she owns most land but she is not very much richer than the other. She likes showing off her wealth by jewellery and makeup unlike most other villagers where we didn't see this. Unlike the other villagers she didn't see herself as farmer either. She's got many occupations e.g. lending land, key

informant and merchant. Overall she was very different from all other informants and not very representative for the village.

She is 63 years old and moved to Ban Mea Ka Piang with her older sister when she was a teenager. After 2 years she moved to Chiang Mai and works as a DJ on a Christian radio station, where she got married and had a family. A few years later she moved back to Ban Mea Ka Piang with her family where she sold traditional Karen clothes to tourists and took them on forest tours in the area.

She wants to build a learning center in the village where people can learn about the Karen life style. She thinks that it is a way to improve the villagers' livelihood, but she doesn't get the money. She says that Karen only think in the present and not about the future. She says that her way of thinking is not Karen.

Villager 8

Signe and Gustav went together with Som-o to look for an interview in the village. In the upper part of the village we saw a man cutting big bamboos. Earlier we had seen him drive past our camp several times with these bamboos hanging back of his motorbike. Since his use of the forest was so obvious we saw him as a relevant informer. He was building a house and after a few questions his wife came home with one of their two children, 4 and 7 years old).

The husband was 39 years old and had lived in the village for 8 years. He moved here because of marriage. His occupation is farmer but in the dry season he works with different daily labour. The wife is 40 years old and born in the village. She works 2 weeks in a Christian group away from the village, then she is free 2 weeks and so on. They wish for their children to learn about the bible and get good jobs (e.g. farmer, teacher, Christian teacher or nurse). They can stay in the village if they want to.

They are very clear on the different forest zones in the CFA and know the rules. They think the forest policies are good but think that it would be good if farmers with small lands could be able to expand. Once or twice a month they go to the utility forest to collect NTFPs depending on the season (bamboo shoots in rainy season, vegetables and banana flowers in hot season).

Villager 9

The interview was an extension of a questionnaire made by Signe and Gustav. The questionnaire started with the wife who is 29 years old but after her 31 year old husband came home it developed into an interview.

The household also includes his parents and their two children (3-5 years old). The husband has previously been working as a soldier near the border to Burma where he also met his wife. He was stationed in a city but felt that the lifestyle in the city was boring for him. He felt that he had more freedom in the village and he wanted to take care of his parents. He said that this village was better to live in than many other villages because RFD didn't come by very often. The wife had studied in the city, but preferred as well village life. We asked them about the future of their children: They didn't have many aspirations. Just wanted them to grow up and be good people.

One of their main expenditures was different products, such as lotion, shampoo and conditioner. They had all their product on a shelf and there were very few.

Villager 10

The interview was conducted during one of our participatory observations, walking in the forest and watching buffalos. René, Signe and Gustav were present with Som-o as interpreter. The interview was made just after she had untied the buffalos and we sat down in the shade of her field house.

She is 54 years old and works as a farmer. This time of year there is no work on the fields. Instead she looks after the buffaloes every day together with her 55 year old cousin. Meanwhile she collects NTFPs for the household consumption.

She is afraid that the government forest officer will arrest her when she is cutting trees in the forest, but she is not afraid about getting arrested for using her fields. She bought those a long time ago for 5000 b. At that time there were no good roads and the government forest officer couldn't come here. She prepared the fields herself by burning the forest and making terraces for paddy rice. Except for this land, she has also got a field close to Ban Huoy Tao Ru and a lichee field close to their home. The fields will be divided between her 3 children and they can do what they want with them.

Headman

Both interviews with the headman were conducted outside of his house. Our first interview was a bit problematic due to the interview setting and the amount of participants. The second was just by Signe and Gustav and a lot more controlled. He seemed very busy and his wife had cancer and got operated during our stay.

Mr Ritu is 45 years old and has been a headman for 6 years. He is elected by the villagers and every period is 4 years. He has got authority to arrest people violating forest regulations. He is often referred to by the villagers when it comes to forest policies.

Assistant headman

Mr. Rudthichai Ritu (Karen name: Mon Su) was more available for us than the headman, and therefore we used him in several interviews. At first he seemed a bit 'closed' in his approach to us, for instance on the first walk we had in the surrounding forest area. But as our fieldwork progressed he seemed to have gained more trust in us and our project. Except for all interviews, he also took us for a walk around the village. He was happy to assist us and presented us for his family.

He is 45 years and has lived in the village for 26 years. He's got two sons, one working as a farmer in the village and one who goes to school in Chiang Rai. He is a farmer but gets 36000 bath/year for his assignment as assistant headman.

Appendix 4: Interview guides

Interview guide with Villagers

GPS Position / House number _____
Interview number _____
Date of interview _____
Names of interviewers _____
Name of interpreter _____

Can you tell us about yourself?

- Sex F ☐ M ☐
- Age _____
- What is your occupation?
- How many years have you worked as that?
- How long have you lived in the village?
- Can you describe your family?
- How often do you leave the village? For what reason?

Land Use

- What kind of land use do you have? Which is the most important? (e.g. cash crops, subsistence crops, livestock, forestry)
- What kind of crops do you grow?
- Which possibilities do you have to get access to land?
- How is the access to water? (private and agriculture)

Economy

- Do you get an income from anything else than farming? What?
- Do you sell your products to the market? (All or a part?)
- Does your household receive remittances: From whom? Where are they geographically? How do they earn the money?
- Do you have any land tenure? Do you rent some land? Rai _____ (remember to ask whether they have paper on their land and what kind of paper).

De-agrarianization

- What are your experiences with people (young ones?) leaving?
- What are your dreams and wishes for your children?
- Do you think the forest policies (no expansion of land) has had influence on peoples decision to move?

Forest

- How often do you go to the **forest**? Specify which part of the forest they are referring to. Ask about utility, community conservation and national conservation.
- What do you use the forest for? / What do you collect from the forest?
- How are the **forest** policies in your village? (illegal logging)
- How do they affect you?
- What do you think of the policies?
- How are they announced? (your involvement?)
- Can you explain how the different forests are controlled?
- Who is the forest representative in this household?

External Influences

- How do governmental rules and laws influence your daily life?
- How do communal rules and laws influence your daily life?
- Have NGOs influenced your work?

Ethnic relations/Culture/Tradition

- Do you work together with people from Ban Huay Tao Ru?
- What are the differences between Hmong and Karen?

- Do Hmong and Karen use the forest differently?
- Can you describe the Karen traditions?
- Do you go to church?

History

- How has the village changed over time?

Interview guide, Headman

Interview guide for Headman

GPS Position _____

Date of interview _____

Names of interviewers _____

Name of interpreter _____

Sex of informant F ☐ M ☐

Information about him

- Basic information (age, family, ethnicity, etc.)? How long have you been the headman? How does one become headman? (Election, inheritance, etc?)

The history of the village (Before 1981, 1981-1992 and after 1992)

- Timeline: Can you tell us about the history of land use? Have there been any major historical events? What effect did they have on natural resources? What effect did they have on people?
- Are there less people involved in farming than in the past?
- Have you experienced that a lot of people have moved to the cities? Are there any general motives?

Economy (forest, water, land use)

- How many people/households live in the village?
- How many people/households are involved in agriculture?
- Are there differences between different households/areas (lowland/highland)?
- What types of farming activities are there in the village?
- How important in terms of income are the farming activities, compared to other occupations?
- Do the village need to expand farming areas to fulfil basic needs?
- What are the limitations in farming? (when do they occur, how often, possible solution)
 1. Is there enough labour force?
 2. Fertilizers?
 3. Etc.

Forest policy

- Where are the boundaries for the forest (utility, conservation)?
- Have the boundaries changed over time?
- Can you explain a bit about the forest policy (Village committee, NTFPs)?
- How are national laws and rules implemented in the village policies?
- Is there a joint forest agreement (why is there utility forest and conservation forest)?
- How much is the villagers aware of the forest agreement (utility/conservation)?
- How does it work?
- How was the forest agreement initiated (what's in it for you)?
- What kind of changes has the forest agreement caused?
- How do you handle illegal logging?
- Differences between outsiders and villagers?
- How does the cooperation with RFD work?
- How is the forest used (NTFPs)?

Tenure rights

- Can you tell us about the land rights in the village?
- How is the organization of the village? How are the people distributed in the village? (by occupation, level of income?)

Water management

- Where is the water supply for villagers' consumption?
- How does the water management system work?
- Where is the water supply for agriculture?
- Is the quantity of water enough for agriculture?

Culture/traditions (ethnic conflicts?)

- Can you tell us a bit about the relation between Hmong and Karen?
- Can you explain a bit about your local customs/traditions/religions?

External influences

- What influence does the government have on the village?
- Have there been any NGOs active in the village?

Key Informants

- Is there anyone you would recommend us to talk to? (focus group – history)

In our second interview with the headman, we got a chance to ask him to elaborate on the JFA and on the sanctions for breaking the rules.

Interview guide, Assistant headman

The assistant headman became one of our most important key informants who could tell us something about the community and forest policies.

Forest

- What are the forest policies?
- Can you explain the different forest zones?
- Why protect the forest?
- Is the JFA part of the community forest bill plans?

Farming

- What about the use of pesticides in the village?
- Do you learn organic farming? How?

Deagrarianization

- How many live in the city?
- Why the 10% citypeople?

The administration of the village

- Do you have documents from the committee meeting?
- How does it work with the administration?

In a follow-up interview we prepared following questions, we would like for him to answer:

- Can you go through the resume from the last committee meeting?
- How is the process by making the TAO community development plan?
- How about the forest walks? And documentation?
-

Interview guide with RFD, Chiang Mai, 10.03.11

The Royal Forest Department in Chiang Mai functions on a provincial level.

At the midterm evaluation on the 05.03.11, one group with Nanna and Signe discussed some questions that would be interesting for us to ask the RFD in Chiang Mai.

The preliminary questions we ended up with were:

- How do you feel about how local authorities in reality accept utility forests in a 1A watershed?
- How far along is the community forest act?
- Why do you regard cities as forests?
- We don't understand how there was cossession rights in the forests near Ban Mae Ka Piang, when the forests were classified as conserved 50 years ago?
- Are the local officers rewarded when they catch illegal loggers?
- Do you know anything about the sanctions?
- The new forest law: How will they arrange the issue with communities who own the forests?

Everything about this interview is essential since the forest policies and relationships between different administrative levels are fundamental for our study field.

Interview guide with RFD, Mae Lor office, 28.02.11

We got a meeting with the head of office in the RFDs local office. His main responsibility was to implement RFD laws while being a link between the RFD and the local villagers.

Our questions for him:

- How is the relationship between the locals and the RFD in Mae Lor Watershed?
- What was your role in the JFA?
- If he catches some locals doing something illegal – what is the sanctions?
- How do you implement the laws?
- Do the RFD patrol the forests?
- Do you have records of the borders between the different forest zones?
- To what degree are the villagers allowed to manage the forests themselves?

This interview is also very essential, again because the forest policies and relationships between different administrative levels are fundamental for our study field.

Interview guide with Tambon (uppador), 09.03.11

With the new constitution in 1997, some power was decentralized from Bangkok to the local communities and TAO¹, the uppador – a local governmental unit, became the “middleman”. Some call it “democracy from above”.

TAOs main task is to look after natural resource management in their tambon.

¹ Tambon Administrative Organization

At the midterm evaluation on the 05.03.11, one group with Nanna and Signe discussed some questions that would be interesting for us to ask the TAO representative.

The preliminary questions we ended up with were:

- What's your role/responsibility/decision making?
Who do you report to? Who do you cooperate with?
- How would you recommend this area to be managed?
- Are there different ideas of natural resource management in the villages?
- How do they operate when the rules in all the cities aren't the same?
- How do you see your role in relation to the 1997 constitution?
- How do you spread the knowledge of sustainable agriculture (e.g. Biopesticides, manure, etc.)?
And what do you do to facilitate it?

Our group is interested in knowing how the relations and power structures are between TAO and the local villagers.

Interview guide with Lands Department Chiang Mai, 10.03.11

The land department is the only department who can issue a chanood. The chanood is a land deed with matriculation (Other departments can only approve the use and inheritance of land.)

The land department functions on a district level and is responsible for the measurement of lands and solving disputes.

At the midterm evaluation on the 05.03.11, one group with Nanna and Signe discussed some questions that would be interesting for us to ask the Lands Department in Chiang Mai.

The preliminary questions we ended up with were:

- How far have they come with the adjudication?
- What are they doing?
- What kind of institution is it? Background? Interests?
- How do they view the proposition of community title deeds?
- How do they think it will change the villages?
- How is the practical approach?
- What do they think of the selling of land without documents?
- Who do they want to sell to?

Our group is mostly interested in knowing what they think about the community title deed project because it looks a surprisingly lot like the community forest program and because it is the Royal Forest Department that issues the community chanood.

Appendix 5: Questionnaire

House number / GPS Position _____

Number of questionnaire _____

Date _____

Names of group members _____

Name of interpreter _____

1. Sex M ☐ F ☐

2. Age _____

3. Place of birth _____

4. Ethnic group _____

5. Do you have Thai citizenship? _____

6. Occupation _____

7. What kind of education do you have? _____

8. Family structure / Household members

How many people live together?	Number
How many children	
How many elder?	
How many adults?	
How many children live at home?	
How many children go to school? What level?	

9. Wealth

• Amount of land? Agriculture _____ Residential _____

• Do you have documented land rights? _____

Belongings	Amount
Car	
TV	
Cell phone	
Radio	
Truck	
Motorbike	
Mini tractor	
Machine for cultivation	
Refrigerator	
Electric fan	
Washing machine	

Type of livestock	Amount
Cow	
Buffalo	
Chicken	
Duck	
Pig	
Fish	

10. Household economy (Rank the source of income and expenditures in prioritised order 1-5 or C for consumption).

How much does the household receive _____ per day/week/month/year?

Remittances: _____

Source of Income		Expenditures		Savings/investments	Debt
Farming		Food		How much:	Reason why? Food Education Materials-occupation Materials Maintenance of house Health Transport Pension Others
Fishing		Education			
Livestock		Materials for occupation			
Daily labour, agriculture		Materials			
Daily labour, other		Health			
NTFPs		Transport		For what reason: Food Education Materials-occupation Materials Health Transport Children's future Insurance Pension Others	How much? To Whom? Bank Relative Friend Neighbour Businessman NGO Village fund Other
Fruit orchards		Maintenance of house			
Remittances		Debt			
Merchant		Other			
Other					

Results of Questionnaires

	Peop le in household	child ren in household	elder in household	Agricul tural land (rai)	Reside ntial area (rai)	main source of income	Inco me/ yearl y - monetary		Expend itures	R emit- t ances	land document
	9	1	2	8	2	fruit orchards	51.0 00		materi als for occupation	0	yes
	5	2	1	15	1	teacher	104. 550	25.0 00	food	0	yes
	6	1	2	2	2	teacher	105. 600	0	food	2 4.000	not sure
	5	1	2	20	2	fruit orchards	33.7 50	0	mainte nance of house	0	no
	6	3	1	6	1	daily labour, agriculture	9.75 0	0	mainte nance of house	0	no
	8	3	2	15	1	fruit orchards	150. 000	7.00 0	food	0	no
	4	2	0	20	2	fruit orchards	30.0 00	30.0 00	debt	1. 200	no
	6	1	2	16	1	fruit orchards	52.0 00	5.00 0	educati on	1. 200	yes
	4	2	0	25	2	NTPF	60.0 00	0	food	0	yes
0	4	2	0	8	2	fruit orchards	30.0 00	0	food	1. 200	not sure
1	6	1	2	9	1	farming	134. 000	Ved det ikke. De har gæld fordi de har købt land	transp ort	0	no
2	5	3	0	7	1	fruit orchards	33.0 00	40.0 00	educati on	0	no
3	4	2	0	13	1	fruit orchards, paddy rice	30.0 00	0	food	0	no
4	5	0	1	5	1	fruit orchards	45.0 00	0	food	0	no
5	7	2	2	10	1	fruit orchards	96.0 00	27.0 00	food	0	no
6	5	3	0	2	1	daily labour, agriculture	30.0 00	15.0 00	elderly club and saving	0	no
7	5	2	1	1	1	daily labour, other	69.0 00	0	educati on	1 5.000	yes
8	4	2	0	10	1	fruit orchards	40.0 00	40.0 00	food	0	yes
9	2	0	0	15	1	fruit orchards	45.0 00	10.0 00	food	0	no
0	6	2	2	4	1	fruit orchard	15.0 00	0	Food	0	yes

There are great uncertainties about village's economy and we have estimated the questionnaires, after other statements from the villagers, as we remember. The red numbers is estimated by more different incomes and not have regular incomes. The green numbers is the money from the Christian group. About calculate day payment to year incomes with daily labour, we must estimate incomes after then the works do. Daily labour in agriculture is a very most a season work, so we estimate with that they get 150 bath/day, works 3 days a week and about 2 months/year. Daily labours in other occupation are different, how most they work, depending on type of job but between 7-11 months/year.

Assets: What do the households posses?

Number	TV	Cell phone	Truck	Motorbike	Mini Tractor	Machine for cultivation	Refrigerator	Electric fan	Washing machine	Car	Radio
1	1	4		2	1		1	2		1	
2	1	2	1	2	1	1	1	2			
3	1	3		2						1	1
4	1	2		2	1	1	1				1
5	1	1		1							
6	2	4		3	1	1	2	1		1	
7	2	1		1		2		1		1	1
8	1	1		1	1	1	1	1			
9	1			1	1	1		1			
10	1	1		1	1	1	1	1	1		1
11	2	5		4	1	2	1	2	1		1
12	1	1		2	1	2					
13	1	2		2		1	1	1			1
14	2	3		3	1		1	1	1		1
15	1	2		2			1	1	1		2
16		2		2							
17	1	4	1	2					1		1
18	1	2		3	1	2	1	1	1	1	1
19		1	1	1	1	1					
20	1	2		1	1	2	1				1
Total	22	43	3	39	13	18	13	15	6	5	12
How many households have the good?	18	19	3	20	13	13	12	12	6	5	11

Appendix 6: Focus groups

History Timeline, Crop and Year Calendar, Dreams for the Future – Young Villagers, and Community Mapping

History Timeline, 02.03.11

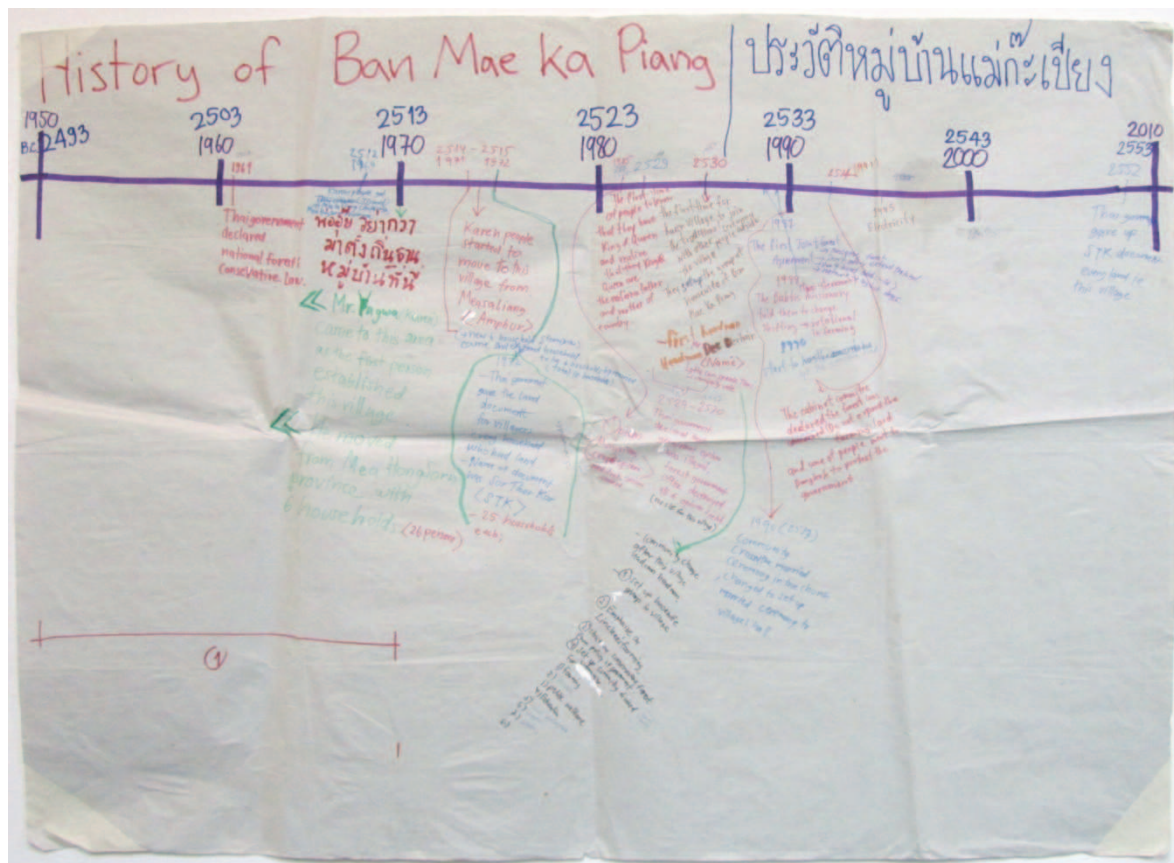


Figure 1: The history timeline drawn by the villagers and elaborated by "Mr. B".

Before the focus group, we had made some considerations on who we wanted to invite to and how we wanted to do the history timeline.

It seemed most natural to invite some elders, since they have the most firsthand knowledge on what has happened in the village. We used our questionnaires to identify one contender, Mr. A, and through an informal conversation with Pa Porn (Who we were living at) we discovered that she herself was very suitable for the focus group since she had been in Ban Mae Ka Piang since the founding of the village. The last contender, Mr. B, we found through other villagers recommendations. He was an old man, who couldn't walk very well, so the focus group was held at his house in the evening at 7 PM.

Our preparation consisted of drawing a timeline on a big piece of paper going from 1950 to 2010. Our interpreters translated the headline and years into Thai so it matched the Buddhist timeline. We discussed which themes that would be interesting to discuss in this specific group (local politics, natural disasters, roads, forest policies, migration, tourism, neighboring villages, religion NGOs). However, we decided that these themes should be supportive guidelines if the informants ran out of subjects to discuss.

We were 2 Danes, 1 Thai, and two interpreters at the focus group together with our three contenders. One of the Danish students (Gustav) was given the role of main speaker while the other (Loa) should be the observant and take notes together with our Thai counterpart (Sit).

The paper with the timeline was laid on the floor and the discussion began. Right from the start it was clear that Pa Porn was ‘in charge’ of the discussion, A sometimes said something, and B didn’t say anything, probably because he didn’t speak Thai very well. During the focus group Sit had long conversations with Pa Porn. This made it very hard for us to control the process. Gustav tried to give some keywords to the discussion. At a few points this approach really worked well, and they gave us the exact information we were looking for. Gustav asked the two men directly in an attempt to include them more in the discussion. This did not succeed, since Pa Porn was very dominant, but when she spoke on the phone twice during the focus group this actually made more room for A to talk.

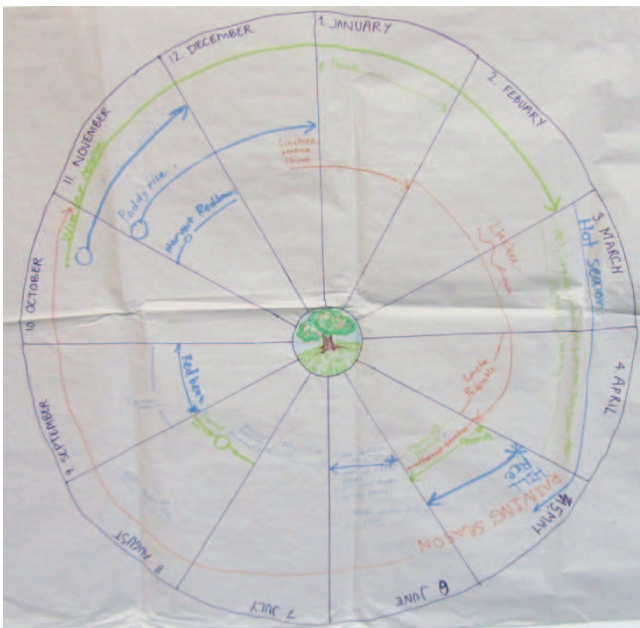
Due to time constraints we had to end the interview before we had received all the information we were looking for. We decided to do an elaborating interview with B who was pointed out to be one of the key persons in the forest agreement.

From the experience we learned that it is important to take control, and to be very clear about the roles within the student group. It was hard to get the villagers to focus without going into too many details, but as Tang said:

“They love to talk a lot, but does not hear well”.

Both of the interpreters really made an effort and a great job.

Crop and Year Calendar, 04.03.11



We had originally invited three, but more people came. Some had brought their spouses, others just dropped by.

As preparation we drew a big circle on a big piece of paper and divided it into 12 parts representing the months of the year for the crop calendar and the same for the year calendar. We discussed what kind of big happenings that could occur if they would forget some (harvest ceremonies, Christian holidays, sporting events, New Year, etc.). However, we decided that these themes should be supportive guidelines if the informants ran out of subjects to discuss. Charlotte was meant to be the main speaker, Signe and Sit taking notes and René observing. Unfortunately Charlotte didn’t feel good that day and Signe took the position as main speaker and Gustav took notes. Som-O was the main interpreter and translated to Signe and drew on the calendars. Tang was also feeling ill and Tawee became our substitute interpreter sitting next to Gustav and interpreting to him. We had agreed that all questions should go through Signe to avoid confusion.

Overall, things went very well. There was no frustration and very little confusion. Signe and Som-O was clearly in charge and people talked only to them. A few times Tawee noticed that Som-O and Signe had misunderstood something that couldn't be corrected with an easy question. Those times he stood up and cleared the misunderstandings.

Tawee was very fast in translating and told Gustav everything really quick and quiet. This gave Gustav time to hear how Som-O translated as well and they both had the same interpretation almost all the time. That was very good to know.

It ended with a talk about the forest management: Twice a month a person from each household (mainly men, but can be women) go to survey the forest. In dry period it's more often, in wet period it's less. There is a village meeting once a month in the conference hall, but if there is nothing important news are just broadcasted in the village speakers.

NTFPs collecting calendar

NTFPs	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Tung flower	←	→		→								
Huad vegetable	←	→		→								
Honey			←	→								
Bamboo shoot					←	→		→				
Toy of Saba					←	→		→				
Mountain Kud					←	→		→				
mushroom						←	→		→			
herb	←										→	
flower of banana	←										→	
bamboo	←										→	

- ❖ The villagers do not cut the flower of banana in rice cultivation period for protection rice from rat.
- ❖ The villagers cut bamboo since November – January. They believe that insect does not attack the bamboo.

All of the participants were born in and still live in Ban Mae Ka Piang. They are also relatives.

Our idea about the focus group was to get the youngster to converse with each other about their dreams and plans for the future. In order to make them talk, we gave them a time restraint of 30 min. René was the main interviewer with Som-O by his side, Signe and Tang sat behind René and observed and took notes, and Charlotte recorded the session on video.

We said to the group that they had 30 min. to discuss their dreams and future plans. We also told them that we were interested in knowing why they have these dreams and how they plan to make them come true. We also let them know, that we wished to disturb their discussion as little as possible with questions from our side.

The way things were presented did however not work, so the 30 min. discussion was quickly replaced by us asking questions to the group.

What we found out was that Por wanted to be a teacher and preferred to stay in the village. She wanted to be a nurse and also preferred to stay in the village and work at a community hospital. Lex, the oldest in the group was currently working as a farmer but used to work in the city. He didn't like the city because of the pollution and high expenditures. He said that it was easier to save money in the village, and in the village there are activities every weekend for young people in the church. The last boy, O, said "I want to be the headman!" (joke). No, he also wanted to be a farmer in the village.

René: Do some young people move to bigger cities and what are their motives?

Lex answered that most of the young people work in the city for a period in order to earn money. Some also move to the cities to study so that they can become missionaries.

Young people who study in the city return to the village in holidays and after ended studies. "Karen people will generally stay in the villages".

René (to Lex and O): How do you see the future as farmers in the village?

Lex answered that his family cultivates organic vegetables and every Wednesday they sell the vegetables on an organic market in Chiang Mai. His future strategy is organic farming and cultivating rose apples. He is conscious of demand and supply – there is a large demand after rose apples.

O answered that his family cultivates lychees and vegetables but that he in the future wants to cultivate oranges. This is partly due to the restrictions on land expansion and that oranges give larger revenue.

René: Can you tell us what you like about the village and whether there are some things you miss from the city?

Lex mentioned the harmony and the atmosphere as good qualities in the village. Also the weather is good. However, he would like a new church and it could be nice with internet; the church is a center of the social life in the village.

René: Do you have friend from outside the village, maybe in Chiang Mai?

O answered "Yes, we have friends outside. There is a Christianity/church camp where they meet other young people. Also, we have friends in school. In Chiang Mai there are two clubs for Karen teenagers and also they meet up at night market in Wu Lai – street. In Chiang Mai there is a zone with many Karen people."

In the end we asked about boy- and girlfriends and there was lot of giggle. We asked to find out whether this was a pull-factor to other places, but it did not seem so. If it was, they didn't tell us.

It is worth noticing how some of the answers we got about the city were contradicting: Lex didn't like the city because of high expenses and then states that the reason young people move there is to earn money. Maybe it is only those who can administrate their expenses who earn by living in the city.

Methodology

This focus group/interview was fairly chaotic, and we didn't get all the information we could have gotten. However, it did cast light on our basic question – do young people prefer the village life or the city?

Our main problem was that our frame for the focus group was not presented clearly enough. This made the villagers hesitant and René was forced to ask direct questions instead. The questions that were asked were not formulated open enough, so a discussion never happened. The group-dynamic didn't work too well either. Lex was by far the dominant one and the two younger girls seemed kind of shy.

All the participants were active users of the church (e.g. playing in the band) this can be a reason for why the church was so often their base for answering questions.

It worked badly with the interpreters – Tang sat next to Signe and translated to her while she was taking notes, but René who was in control of the focus group didn't have an interpreter with him. This was partly because the original idea was for the interview to flow freely without us interrupting the discussion.

The participants were not introduced properly to what we wanted/ they did not understand it. As an alternative we could have asked them to make some kind of product – like a Venn diagram (paper of associations). This may have improved the outcome of the focus group.

We at least got some views of city life and future perspectives, and that was our overall objective.

Community Mapping, 07.03.11



Figure 2: The community map drawn by the villagers. Notice the piece of tape covering the original drawing of the road to Ban Haiy Tao Ru; this road was quickly removed, and a smaller road was drawn in its place.

After the drawing has been completed we want the villagers to describe it to us, so that we can ask eventual follow-up questions

Before the focus group Charlotte briefed Som-O about the ideas behind the focus group and how we wanted it to go. Charlotte was did the talking with Som-O by her side, while Nanna and Loa observed and took notes with Tawee as their interpreter.

There was some confusion starting the focus group as people were running late and we had to go find some other villagers to help us do the drawing, but, finally, we could begin our focus group.

A misunderstanding between Charlotte and Som-O resulted in a sudden start to the focus group, but the villagers seemed eager and started drawing. Luckily they were not hesitant to draw. The teacher took the leader-role when she started to draw the roads: right to left.

The first things on the map were roads, households and the church. The first discussion occurred when they had to draw the road to Ban Mae Huay Tao Ru. Mr. Jirasak had drawn the road too big, and a piece of tape was needed to make the picture right☺. After his corrections, Mr. Jirasak sat down and didn't add more to the drawing.

After approx. 15 -20 min., the villagers said they were done with the drawing. At this point, roads, households, the church, school-bus stop, the school, and the football field were in the map.

They were given 15 min to make the last additions. At first they did not know what to add, but drew red lines around the church and school-buildings. Then they wanted to know if we wanted them to add the farmland? We told them; if you think it should be added, you should add it. Then they started to add the lychee-fields and paddy rice-fields.

When they next time said they were done, they were given another chance to make last-minute changes. Now they added the waterfall.

With the drawing done, we asked them to describe to us what was on the paper. The teacher couldn't leave the pen alone, so she made further adjustments in black while she explained the drawing: They had drawn the road and bus stop, the upper part of Ban Mae Ka Piang, fields and farms. They had drawn the church (plus a shortcut to the church), the village meeting hall and preschool, and the teacher added the Christian centre of compassion. They had drawn the road to Ban Huay Tao Ru and the football field. When we asked about what was out that way, they answered "nothing". They had drawn the lower part of Ban Mae Ka Piang, Pat Porn's house and O.TOP (one Tambon one product). They had drawn the headman's house, the supermarket, and the teachers' (Aske and Mogens) house. Last, they had drawn the waterfall, the graveyard and the road out of the village.

They told us, that the church and the football field were central for social activities.

Now we asked them: "Why haven't you drawn the forest?"

They looked confused and answered; that the forest was outside of Ban Mae Ka Piang -outside of the paper was forest.

We asked about why they hadn't drawn livestock and home gardens? They laughed at us and answered, that livestock and home gardens were everywhere, and that it had been pointless to put it on the map.

Every household had pigs, chickens, and buffalo. No Karen had cows.

We asked about the cabbage we had seen; they said that Hmong grew cabbage - the only cabbage in Ban Mae Ka Piang was organically grown for own consumption and selling of surpluses.

Another time, we should have formulated the task so the villagers would have a more subjective approach to the drawing, instead of only drawing what they thought would be helpful for us.

Appendix 7: Forest Assessments and Inventory

Surrounding the village of Ban Mae Ka Piang is three different types of forest: utility forest, community conservation forest, and national conservation forest.

In theory the forests have different regulations, and the villages should therefore use the forests for different purposes. The main objective for our forest assessments is to evaluate the three types of forest, see if we can tell a difference, and relate it to the villagers' use of the forest.

None of the Danish students are especially qualified in natural science methods and forest assessments, but we embraced the forest assessments as an important learning process. Our Thai counterparts both seemed as if they had had some routine with these types of methods, so we to some extent drew on their experience when doing the forest inventory.

We have used our modest experience, observations, and the cooperation with the Thai counterparts to make a perfunctory evaluation of the forest and also examine how the forest is used.

We set out to do forest assessments in all three types of forests, but because there was some insecurity about the exact boundaries of the different forest zones, we cannot say with 100 % accuracy in which forests we have made the assessments. We have tried to compensate from this fact by calculating the distances to the village, and by checking with the headman once again. On this basis, it seems correct that we have done a forest assessment and inventory in the utility forest, a forest assessment in the community conservation forest, and a forest assessment and inventory in the national conservation forest.

The methods in general

Observation

We have used our eyes everywhere we go; looking for signs of use, forest characteristics, and changes in the forest landscapes. Comparing our observations from the three different forests, will help us determine whether there is a difference in use in the three forest types.

Forest Inventory

We use our forest inventories to compare the BAI (basal area index) of the utility and national conservation forests. This can give us an impression of how large the trees are pr. ha. in the respective forest types, and differences in tree sizes can indicate different use of forest.

We made a 20 * 20 m plot, in which we made notations of the trees heights and circumference. The circumference we measured at 1,3m and the height were best estimations of our Thai students. Later we have processed our data to get the BAI and used the trees height to see the forests' different strata.

Forest Transect Walks

Our purpose with the transect walks was to examine, whether we could see a difference in diversity between the different forest types. Additionally, we could also use the method to see whether there was a dominant species, and if the species were different from forest to forest. In the 2 forests where we have made 2 forest walks, we can use the samples to compare how big the diversity is within the forest.

Our approach was to measure out a distance on the forest floor, and for every 2 meters make a plot within 15 cm of the measuring tape where we collected leaf samples of all the species. The leaves from each plot were put in separate plastic bags.

When we the first time returned to base camp, we had to accept the fact that it was not possible for us to key the species, so instead we mixed all the leaves from each transect walk, and divided the

plants into categories; bamboo, trees, grasses, seedlings, i.e.. The division of these plants were solely based on our best estimates.

After having tried out these natural science methods, we feel that we have a much better understanding of the difficulties of making forest assessments accurate and stringent, and of the difficulty finding out what exact species we are working with, especially when working in foreign places with unfamiliar vegetation.

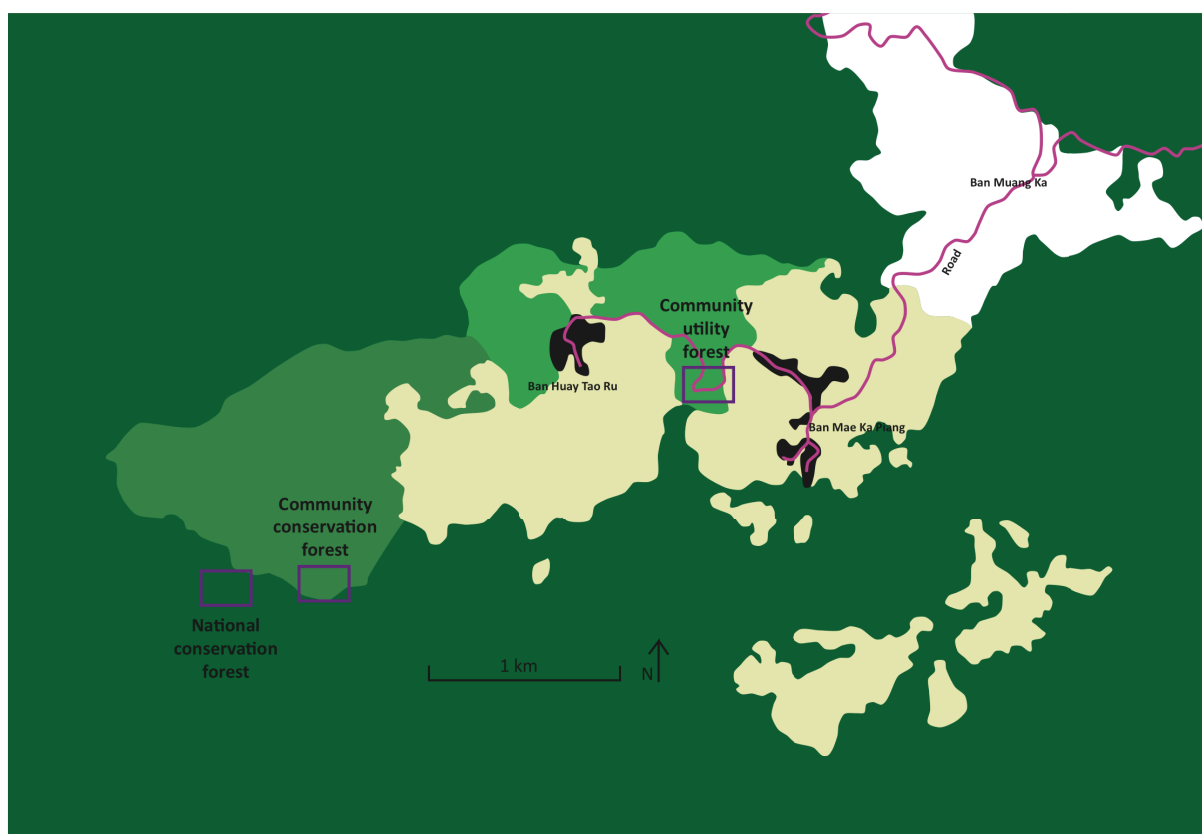


Figure: The maps show the different locations of the forest assessments in relation to the village and the three places, there we made forest assessment.

Community Utility Forest (approx. 820 MASL)

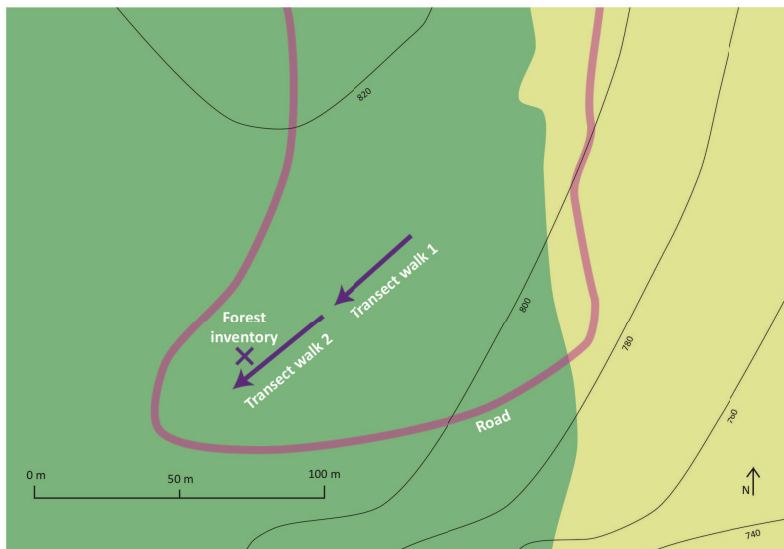
Students: Nanna, Signe, Charlotte, Rene, Pi-Moo, and Sit

Interpreters: Tang

Others: Aske, Tawee, and a local guide

Following studies were conducted:

- Observations (All)
- Forest inventory (0.04 ha. with small plot on one square meter) (Charlotte, René, Sit, Pi-Moo, local guy, and Tang and Tawee)
- 2 * 30 meters transect walk (Signe and Nanna)



Observations, Utility Forest

Characteristics of the forest

The forest is situated next to the road to Ban Huay Tao Ru so the villagers have easy access to the forest. An old logging road and electricity wires were running through the forest. The soil on the old logging road was so compact, that the plants did not grow there, even though shrubs and bushes had started growing into the area (without rooting there). The road and wires were two factors that contributed to the poor crown coverage in the forest that was estimated to 60 % by the Thai students.

There were not many larger trees and not a big diversity in tree species, as they have been cut for construction and other use. Furthermore, the inflow of sunlight created perfect living conditions for a lot of bamboo and different undergrowth, which was difficult to walk through. There were not many flying insects but some sign of spiders and insects on the ground.

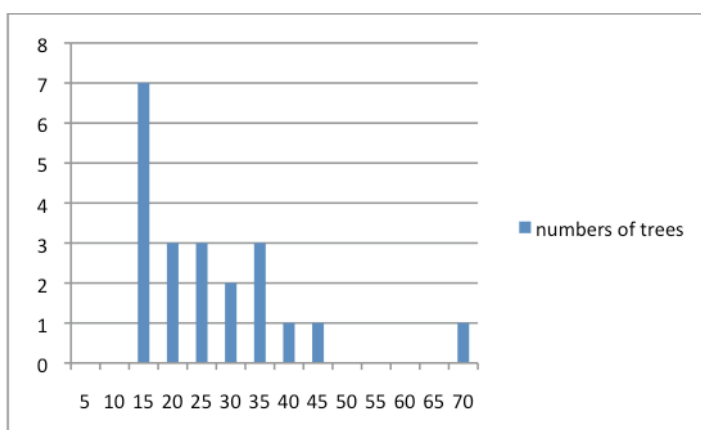
Use of the forest today

Our observation of the place showed clear signs that the forest was being used frequently as there were clear walking paths, not much firewood were lying on the ground, and there were newly felled trees. The amount of bamboo and undergrowth indicated that the forest is used to an extent, where light is still entering the forest soils. This also fits with our estimate of the crown coverage.

Forest Inventory, Utility Forest

We measured the circumference of all trees that were more than 6 meters high and 5 centimeters in diameter at 1.3 meters height.

We calculated the basal area index in the utility forest to 33.54 m²/ha. In the table we have converted the girth to diameter in centimeter. The data can be seen in Tabel 1.



The trees that we measured in the plot were between 11 and 22 meters high. In the bar diagram below, you can see how the trees are distributed by size. As we can see in the diagram there were not many really big trees.

Our Thai counterparts seemed very experienced in the area. Everything was made by estimate; slope and tree heights. Even the plot was measured without double checking with the diagonal. Pi-moo made notes while Sit was “runner”.

The local guide helped classify the species of trees, but Aske later noted, that also the specification was made quickly as “estimates”, as their classification didn’t match his.

Transect walk, Utility Forest

We also made 2 transect walks in the utility forest in an attempt to try to get an overview of the forest’s diversity.

We made random selections of starting points and walked 2 * 30 meters along a measuring tape.

We discovered that it was difficult to hold the measuring tape all tight, because of all of the vegetation, so our measuring was not as precise as it could have been. If there was no vegetation in the plot, this was noted in our field notes.

Transect walk, utility forest 1

We examined 16 plots in total: 10 plots with vegetation, 6 plots without vegetation

Different species	Number of leaves
Tree 1	1
Tree 2	1
Tree 3	2
Tree 4	1
Tree 5	2
Grass 1	2
Bamboo 1	3
Bamboo 2	4
Bamboo 3	1
Bamboo 4	3
3 Unidentified seedlings	3 different species

Transect walk, utility forest 2

16 plots, 15 with vegetation, 1 without vegetation

Different species	Number of leaves
Tree 1	4
Tree 2	2
Tree 3	1
Tree 4	3
Tree 5	1
Tree 6	7
Tree 7	1
Tree 8	1
Tree 9	1
Tree 10	1
Tree 11	2
Tree 12	2
Tree 13	1
Tree 14	1
Tree 15	1
Tree 16	1
Tree 17	1
Grass 1	1
Bamboo 1	6

We can from our two utility forest transect-walks see that there is a big variation within the forest. In the first plot there was significantly more bamboo and lesser trees.

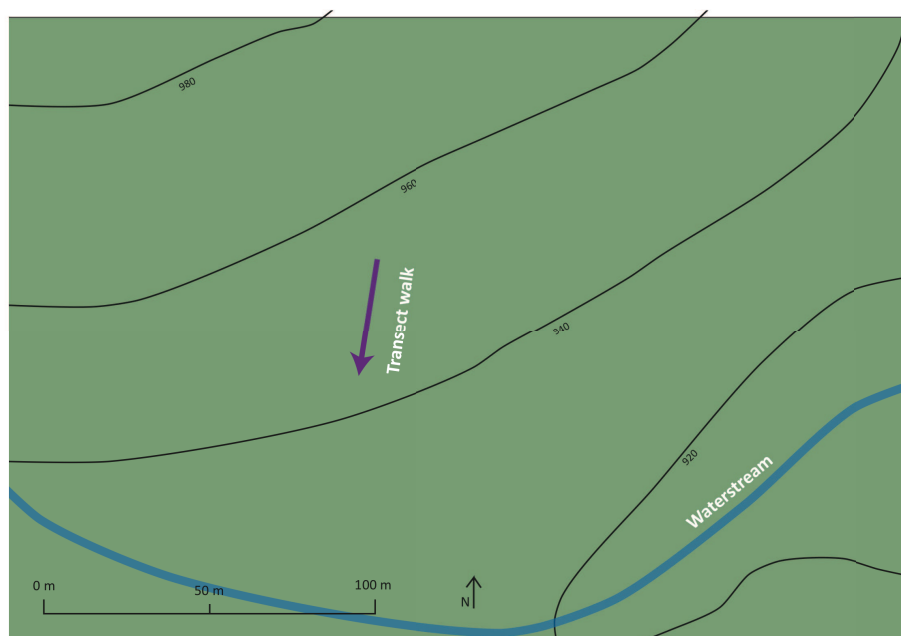
The Community Conservation Forest (Approx. 950 MASL)

Students: Nanna, Signe, and Charlotte

Others: Aske

Following studies were conducted:

- Observations (All)
- 1 * 30 meters transect walk (Signe, Charlotte and Nanna ,with supervision from Aske)
- We were a larger group going to do soil and water samples with a local guide, Mr. In. Wesplit up when we reached the water reservoir.



Observations, Community Conservation Forest

Characteristics of the forest

We went with a local guide to the community conservation forest near a primary water source. Walking to the primary water source, we passed a field that looked as though it had been cleared (somewhat recently) and was now filled with weeds of hill rice and banana trees. The forest near the water reservoir was quite different from the utility forest as it had more large trees, but all was still secondary forest. There were also more insects than in the utility forest, especially flying insects. There was quite a lot of bamboo and undergrowth, but not as much as in the utility forest. The larger trees allowed less light to enter the forest floor. There were black marks on the tree stems indicating that there have been forest fires. Our local guide (Mr. In) told us that forest fires were common on yearly basis in the area. This could explain why there was so much young undergrowth – the undergrowth could have been more substantial without forest fires.

We also found other signs of activities in the forest: Just next to the dam we went uphill to do our first transect walk. Doing the transect walk, we saw clear evidence, that the land had been used for farming before. The area has probably been completely cleared and burned, as there was much undergrowth. Furthermore there had once been a paddy field, which was obvious from the terraced shape of the mountainside. How long ago and why the farm was abandoned, we do not know, but our local guide estimated it to be about 20 years ago, when the area was made a conservation zone. Aske had also estimated the trees in the area to be about 20 years old.

Use of the forest today

There were quite a lot of signs of human activities in the forest. Just next to the water reservoir a newer workstation was build. There was also a fireplace, and we also found a sim-card lying on the ground, indicating that there have been recently activities. Clear signs of paths and felled trees, with new cuts, also confirmed this.

All in all this forest seemed as if it was used for some tree cutting, but it was also used a lot because of the water reservoir.

Transect walk, Community Conservation Forest

This was our first transect walk. We didn't actually plan for it, but found ourselves in a situation with some time on our hands, along with measuring tape, plastic bags and a pen.

As in the utility forest, we used a (almost) random selection of starting point. I write almost, because we chose the starting point going into the forest from where we were standing on the path. Unfortunately we only had time to do one transect walk, so we have less information from this forest than we do the others. We didn't make a forest inventory at this forest either.

Different species	Number of leaves
Tree 1	1
Tree 2	4
Tree 3	4
Tree 4	2
Tree 5	1
Tree 6	1
Tree 7	1
Tree 8	6
Tree 9	2
Tree 10	2
Tree 11	2
Tree 12	4
Tree 13	1
Tree 14	1
Tree 15	1
Tree 16	1
Tree 17	1
Bush 1	2
Grass 1	2
Bamboo 1	1
Bamboo 2	7
Bamboo 3	3
Bamboo 4	5
Bamboo 5	6
Bamboo 6	5
Herbs 1	1
Herbs 2	2
Unidentified	4 different species /6 leaves

National Conservation Forest (Approx. 1095 MASL)

Students: Nanna, Signe, René, Charlotte, Pi-Moo, and Sit

Others: Tawee

Following studies were conducted:

- Observations (All)
- 2 * 30 meters transect walk (Signe and Nanna)
- Forest inventory (René, Charlotte, Pi-Moo, Sit, and Tawee)



Observations, National Conservation Forest

Characteristics of the forest

We went into the forest going through the community conservation forest where we had done a previous forest inventory. Aske had told us to make an effort going into the forest, so we walked uphill about 25 min.

As we were walking up the hill, we went through several zones:

- 1) Dense thicket, bamboo, very few large trees (first 50 m)
- 2) Taller trees, not so much thicket
- 3) More thicket, smaller trees, and grass - this could be due to steep slopes on either side of the pathway
- 4) Large and tall trees, no bamboo, no thicket, some sub undergrowth consisting of seedlings and some few small bushes and grass.

In zone 4 there were logs (old, rotting) lying on the forest floor and we found a log covered with moss, which all indicates a humid forest, and moss is a rare sight in these forests (or so we were told ☺).

The diversity of tree species was much higher here than in the utility zone, and there was not as much undergrowth here because the trees crown coverage was more dense. We estimated that the

crown coverage to 70 %. There were bird singing and noise from different insects. We got the feeling that there was generally a much higher biodiversity in this forest compared to the others.

Use of the forest today

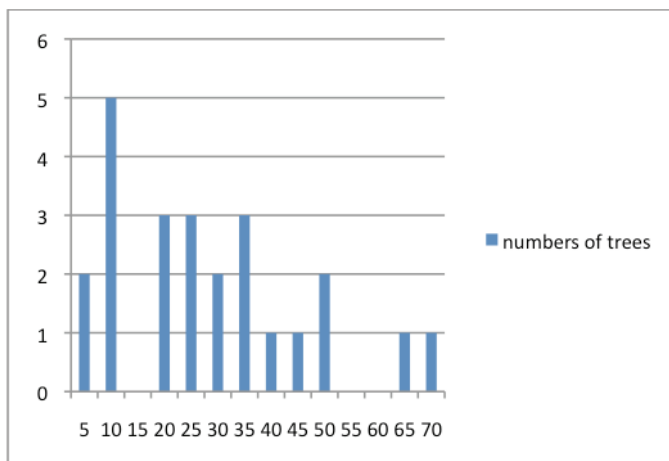
There were some signs of activity in the forest, and even though we walked for 25 min. we still followed a small path on our way uphill. There was a lot of dead wood on the ground so maybe the villagers did not go here to collect firewood. Maybe the forest was too far away for the villagers to collect NTFP. There were no general signs of logging, but one big tree had been felled a short while ago. The tree still lay on the ground and very early decomposition had started. It might have been illegal logging.

A few individual trees showed heavy burning marks, but only in a very small area. The burning was probably naturally caused from lightning.

Forest Inventory, National Conservation Forest

We made a plot of 20 × 2 and then estimated the tree heights and measured the trees diameters at 1.3 m.

We calculated the BAI to be 70.47 m²/ha and the tree heights in the plot lay between 3 and 28 meters. In the table we have converted the girth to diameter in centimeter. The data can be seen in **Table?** In the bar diagram below you can see how the trees are distributed by size. Compare with the utility forest inventory there are more different size of trees, more trees and a bigger total basal area.



From the small plot we collect again eight different species and no of the species were similar with the first plot.

This time we did the forest inventory, René participated actively. This was nice to experience cooperation wise. Again, the tree heights and the slope were based on estimations.

This time we did not have a local guide with us to tell us the species, so we had to do without. Later we decided to discard the species, and look only at the BAI.

Transect Walk, National Conservation Forest

In the national conservation forest, we did the two forest transect walks at two different altitudes. We unfortunately do not have the coordinates of these walks, but could see that the further downhill we got, the more humid it got.

Transect walk, national conservation forest 1

On the first transect walk, we walked through different forest characteristics:

From: 0 - 11 meters there was shadow from big trees, and therefore not much undergrowth.

- 11 - 18 meters: there was a clearing, and more undergrowth.*
- 18 – 22: Borderline between clearing and shadow – more grass.*

- 22 – 27: *Shadow, without much undergrowth*
- 27 – 30: *Clearing, undergrowth and grass.*

Different species	Number of leaves
Gras 1	4
Gras 2	1
Tree 1	1
Tree 2	1
Tree 3	3
Tree 4	1
Tree 5	3
Tree 6	1
Tree 7	1
Tree 8	4
Tree 9	1
Tree 10	2
Tree 11	2
Tree 12	1
Tree 13	17

As before, we marked 30 meters with the measuring tape, and collected leaves from plots with 2 meters distance.

At first glance, it seems as though there are more trees and less undergrowth in the national conservation forest compared to the other two types of forest.

Transect walk, national conservation forest 2

On the second transect walk further downhill, the forest characteristics were different. There was a lot more vegetation, because a big standing but dead tree made a clearing. The characteristics were:

0 - 8 meters: Clearing. We saw a walking stick.

10 - 22 meters: Not much undergrowth due to shadow and a path.

24 – 30: Clearing, more vegetation, more grass.

Different species	Number of leaves
Tree 1	1
Tree 2	2
Tree 3	1
Tree 4	2
Tree 5	1
Tree 6	1
Tree 7	2
Tree 8	7
Tree 9	2
Tree 10	2
Tree 11	1
Tree 12	2
Tree 13	1
Bush 1	1
Herb 1	1
Gras 1	A lot around the spots
Gras 2	A lot around the spots

Also in this forest transect walk, it seems as if there are more trees and less undergrowth than in the utility and community conservation forest.

Methodological considerations

Our main objective was to evaluate the conditions of the three types of forest in Ban Mae Ka Piang, and see if there was a significant difference between the types. We feel that we have achieved our goal, to the extent where we can see that there are differences at least between some of the forests. The greatest outcome of the forest assessments was however our learning processes, because we were relatively new to the methods.

We are of course aware that our assessments are too few, to really say something about the overall forest conditions, and that we are making general assumptions based on poor scientific data.

Most of our natural science was done in collaboration with our Thai counterparts and much of the data we collected was based on estimates (tree heights, slope, and crown cover) – this seemed the Thai way of doing it. There wasn't time for us to do the few practical things we had learned back in Denmark – we never measured the diagonal when marking the 20 * 20 meter plot, and Sit did all the girth measurements.

Our Thai counterparts were practiced in the subject and eager to help us, but the cooperation was not easy at all times. Because they had other projects to do, we experienced that they were eager to finish the assessments quickly. This had the consequence that the process and decision making sometimes happened over our heads.

Our counterparts' individual assignments required that we collected a lot of soil and water samples. We hoped to integrate it in our report, by comparing soil samples from different forest plots and maybe relating it to some of the water data. In the field we however lost overview of the situation, and it wasn't until we returned back home, that we realized that we only had one soil sample from a single forest plot and therefore couldn't use it for comparison purposes. Our conclusion is that it was hard cooperating with the Thai on their domain, in a field where we were obviously less experienced.

Tabel 1: In the community utility forest we did our first forest inventory, where we measured the trees circumferences and estimated their heights. In table 1 below, we have converted the trees girths to diameter and measured the Basal Area

Index
.

Estimated crown coverage in % for the plot:				60 %
Tree		Basal area	Basal area	Tree height
Number	Dbh _{mean} (cm)	of tree (m ²)	(m ² /ha)	Height (m)
1	24,84	0,048461077	1,211526933	11
2	27,39	0,058921521	1,473038014	18
3	24,84	0,048461077	1,211526933	18
4	30,89	0,074942072	1,873551807	19,5
5	20,38	0,032621073	0,815526822	16
6	11,47	0,010332769	0,258319223	12
7	33,12	0,086153026	2,153825658	20
8	42,99	0,145152584	3,628814601	25
9	12,42	0,012115269	0,302881733	15
10	26,75	0,056200147	1,405003683	20
11	31,85	0,079672557	1,991813921	21
12	38,22	0,114728482	2,868212046	22
13	11,78	0,010898845	0,272471116	15
14	17,83	0,024968507	0,624212665	16
15	12,3	0,011882289	0,29705722	14
16	66,88	0,351303446	8,782586157	13
17	21,9	0,037668481	0,941712033	20
18	10,51	0,008675516	0,216887899	12
19	27,07	0,057552791	1,438819787	18
20	10,51	0,008675516	0,216887899	12
21	19,11	0,02868212	0,717053012	15
22	16,88	0,022378695	0,559467386	17
23	11,78	0,010898845	0,272471116	15
SUM			33,53366766	

Tabel 2: In the national conservation forest we measured the trees circumferences and estimated their heights. In table 2 below, we have converted the trees girths to diameter and measured the Basal Area Index.

Estimated crown coverage in % for the plot:				70%
Tree		Basal area	Basal area	Tree height
Number	Dbh _{mean} (cm)	of tree (m ²)	(m ² /ha)	Height (m)
1	33,12	0,086153026	2,153825658	14
2	21,66	0,036847395	0,921184866	11
3	21,34	0,035766687	0,89416717	16
4	41,4	0,134614104	3,36535259	20
5	32,8	0,084496276	2,1124069	15
6	66,24	0,344612105	8,615302631	28
7	48,41	0,184060267	4,601506664	20
8	9,87	0,007651105	0,191277636	9
9	73,25	0,421410293	10,53525733	30
10	60,51	0,287570404	7,189260095	22
11	28,03	0,061707234	1,54268084	22
12	9,55	0,007163028	0,17907569	12
13	16,88	0,022378695	0,559467386	9
14	6,37	0,003186902	0,079672557	5
15	16,24	0,020713903	0,517847567	13
16	22,93	0,041295049	1,032376237	15
17	7,96	0,004976408	0,124410211	10
18	17,83	0,024968507	0,624212665	9
19	28,03	0,061707234	1,54268084	18
20	6,69	0,003515136	0,087878397	8
21	6,05	0,002874754	0,071868841	6
22	39,81	0,124472736	3,111818406	20
23	90,76	0,646962124	16,1740531	28
24	5,1	0,002042821	0,051070516	6
25	46,18	0,167493415	4,187335386	25
SUM			70,46599018	

Appendix 8: Home gardens

Home gardens			
Species	Highland	Lowland	
Bai Sab Seu	X		
Baiplu	X		
Ban (pig food)		X	
Banana	X	X	
Basil	X		
Chili	X	X	
Chinese lettuce	X	X	In highland only in wet season
Coconut	X	X	
Coffee		X	
Dorfa		X	
Durian	X		
Eggplant	X	X	
Garlic	X		
Ginger	X		
Guava	X		
Hamin root	X		
Hibiscus	X		
Hou Buk Bush	X		
Jackfruit	X		
Jasmine	X		
Krajeup	X		
Kratin	X		
Kratorn	X		
La		X	
Lamjai	X		
Lemongrass	X		
Lime	X		
Lychee	X	X	
Mag		X	
Mango	X	X	
Mansampalong	X		
Morning glory		X	
Nowai	X		
Papaya	X	X	
Parsley		X	
Pineapple	X	X	
Poh (root of small tree)	X		
Pomelo	X		
Potato	X		
Prai	X		
Pumpkin	X		Only in wet season
Rambutan		X	
Rose apple		X	
Roselle	X		
Sna-om root	X		
Star fruit	X		
Sugar cane	X	X	
Taro	X	X	
Tomato		X	
Yams	X		
Total number of species	42	21	



Figure 4, above: Our map over the lowland home garden. The garden was next to the river, and very well kept.

Figure 3, below: Our sketch over the highland home garden. As you can see, it was a complex matter getting everything on the map.



Appendix 9: Synopsis

ILUNRM, THAILAND

THE EFFECT OF A JOINT FOREST AGREEMENT ON LIVELIHOOD AND DE-AGRARIANIZATION IN BAN MAE KA PIANG

Final Synopsis

Gustav Aulin, Nanna Brendholdt Thomsen, Signe Buhl, René Hauge Mathiassen, Charlotte Filt Mertens, &
Loa Ryttergaard Winum

22-02-2011

(2.587 words)

INDEX

Background/context.....	2
Ban Mae Ka Piang.....	4
Problem formulation	6
Methods	7
Analytical Framework	7
Access to the field.....	8
Methods to be used in the field	8
Next step	12
Referencelist.....	12
Appendix 1: Time schedule	14
Appendix 2: Definitions	16
Appendix 3: Questionnaire.....	17
Appendix 4: Interview guide (head man).....	21
Appendix 5: Interview guide (farmers).....	22
Appendix 6: Interview guide (non-farmers)	24
Appendix 7: Research design	26

BACKGROUND/CONTEXT

With this research we want to examine the management of forest resources in a community in Northern Thailand in relation to de-agrarianization. To understand the broad picture we will start with a short introduction to central Thai forest policies and their influence in a village called Ban Mae Ka Piang.

The Thai government is a strong central power, not least with regards to forest policy. In Thailand the management of forests lies within the jurisdiction of the Royal Forestry

Department (RFD) that was established in 1897, with the initial aim of maintaining and controlling revenue from the teak forests. However, by 1936 the department was given full jurisdiction over all of Thailand's forests, and no logging was allowed unless the government received economic compensation (Delang, 2002).

In the early 60's thoughts on forest conservation and wildlife protection emerged, and the first forest conservation areas were identified. Meanwhile, deforestation increased as a result of increased agriculture and increased illegal logging. Furthermore, there were examples of forests being cleared by the military to suppress rebel forces that had settled in the forests. To prevent Thailand's forests from disappearing, the government set a target that 40 % of Thailand should be covered by forests and in 1989 a country-wide ban on logging was introduced. The ban was a direct result of devastating floods and mudslides that had ravaged Thailand just months earlier (Delang, 2002).

As a result of the forest protection policy and an increase in population, land became scarcer and thus more valuable (Buch-Hansen, 2003). This led to an agricultural intensification which meant less people working in agriculture; a process also known as de-agrarianization (Bryceson, 2002).

With the constitution of 1997 came a change in the political framework towards a more decentralized distribution of power. However, hill tribes in Northern Thailand are generally not included in the decision-making processes. Due to their nomadic background



Ban Mae Ka Piang

Official language
Thai

Location
Located in Chiang Mai province in the middle zone of Mae Lor Watershed at an altitude of 700 masl.

Ethnicity
The village is divided in two parts; one inhabited by the Karen tribe and one inhabited by the Hmong tribe.

Population
440 people in 82 households. 78 households are employed in agriculture.

Average income
Agriculture household: 15000 BHT per year.
Off-agriculture 5000 BHT per year

Religion
(Wannasai & Shresha, 2008)
Christianity
(Mingtipol et al. 2011)

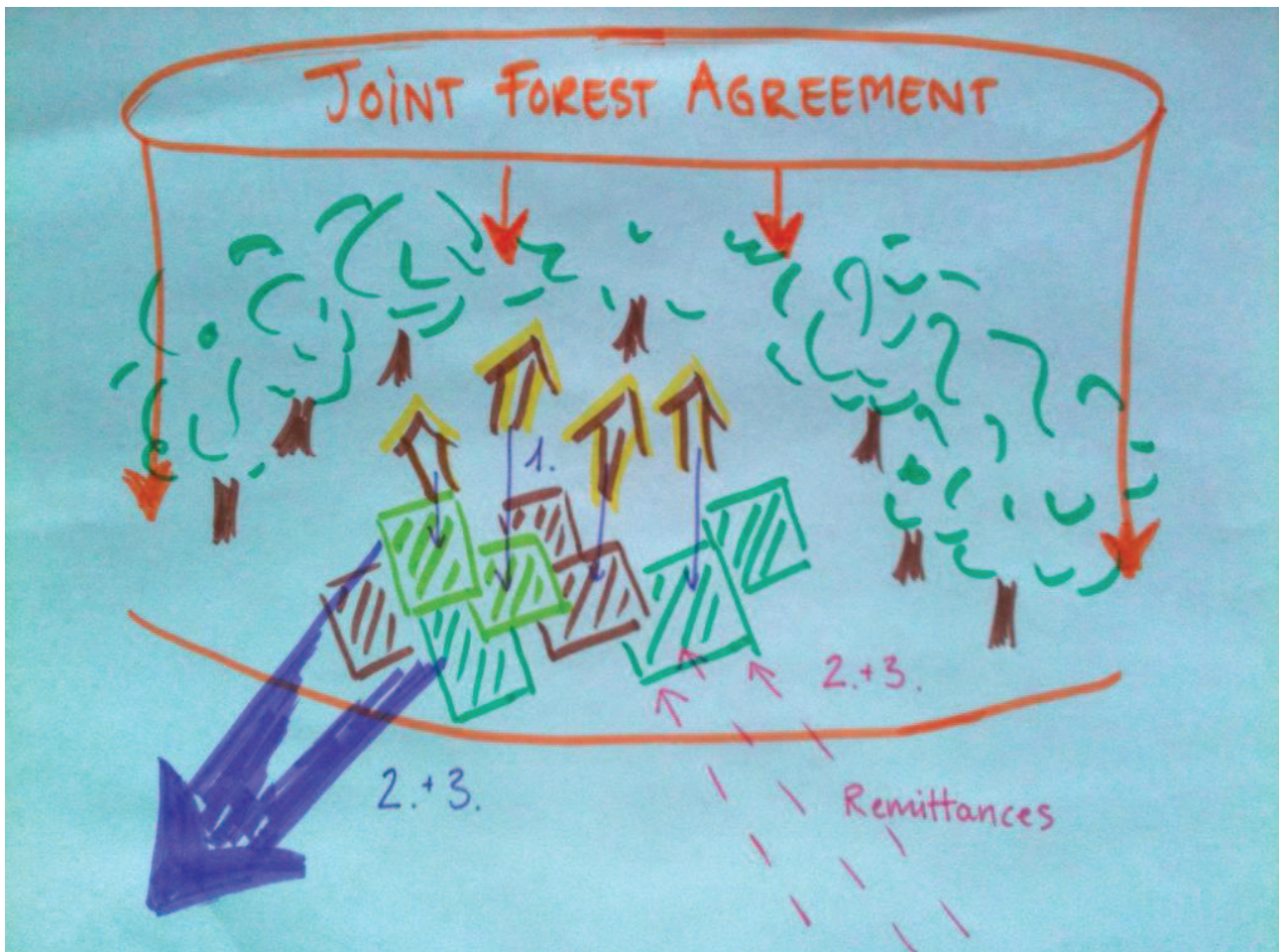
they are regarded as disloyal to the government, which is one of the reasons why many hill tribes have not been granted full Thai citizenship. This can cause problems because Thai citizenship is a necessity for obtaining land rights (Hares, 2009). Furthermore, land rights in Thailand are regulated under a number of different laws with many different government agencies involved in the process (e.g. Ministry of Natural resources and Environment, including RFD, and Ministry of Agriculture and Co-operation). This results in a variety of policy interpretations and political grey zones that benefits hill tribes to manage land and natural resources (Wannasai & Shresha, 2008).

BAN MAE KA PIANG

One hill tribe village in Northern Thailand is Ban Mae Ka Piang, where we will conduct our fieldwork. The main occupation is agriculture, including paddy rice, field crops, fruit orchards, beans and vegetables along with livestock and fishponds (Mingtipol & al., 2011).

Ban Mae Ka Piang is part of a joint forest agreement (JFA) along with several other villages. The objective is to protect the forest through restrictions on extending agricultural areas (Mingtipol & al., 2011).

Our hypothesis is that the JFA has created a new governance framework with restriction on land use that the villagers must adapt. Thus, a question of cause or effect arises.



1. Has the JFA given positive aspirations about the future in the form of better, more fertile land and therefore reducing de-agrarianization?
2. Has the JFA affected de-agrarianization by necessitating new survival strategies and therefore increasing de-agrarianization?
3. There is also the question whether de-agrarianization is the cause of the JFA. Has the diversification of income sources (e.g. increase in remittances) liberated forces in the community to successfully implement the agreement?
4. Has the JFA caused no remarkable changes to the livelihood in the village (e.g. because of lack of awareness)?

PROBLEM FORMULATION

We find this joint forest agreement and the structures behind it particularly interesting, and wish to raise the following question:

How does the joint forest agreement in Ban Mae Ka Piang influence the livelihood in the village in relation to de-agrarianization?

To answer this question we have identified three research questions:

1. What characterizes the livelihood in the village of Ban Mae Ka Piang?

We will examine tenure rights, income sources, and the general well being in the village. We will also study the village history in order to get a better understanding of the context.

2. How do different factors determine the land use in and around the village?

*We want to understand both **how** the land is used, and **why** it is used the way it is. The factors we mainly focus on are needs and interests of the villagers, but also geographical differences in the landscape.*

3. How do different power relations in the joint forest agreement influence the livelihood of the people in the village?

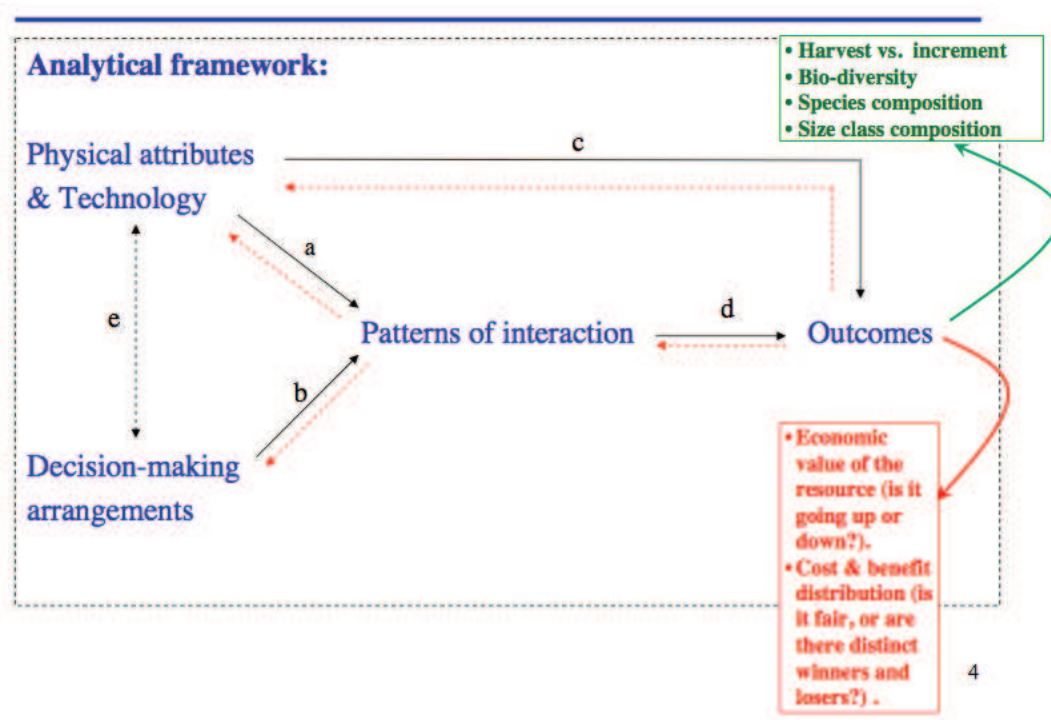
We want to analyze the foundation and legitimacy and impact of the joint forest agreement. By power relations we mean the many underlying structures that influence and shape relationships between people and decision-making procedures (see appendix 3 for in-depth explanation).

METHODS

In order to answer the research questions listed above we will apply different social and natural science methods in the field. Our group represents students with backgrounds in Geography, International Development Studies, Anthropology, Landscape Architecture and Natural Resources/Environmental Economy. Our main qualifications lie within qualitative methods, mapping and natural resource management. Furthermore, our Thai counterparts will broaden our academic point of departure.

ANALYTICAL FRAMEWORK

We will use the analytical framework as a guide in the research process and to keep focus while integrating the data in the analysis. This will help us put together all the data from the different methods we have been using during the fieldwork.



Figur 1: The framework is based on the 'Dynamic Framework' by Oakerson, Ronald J, 1999, with modifications by assistant professor in Department of Forest and Landscape, Thorsten Treue 2011.

In research question 1 and 2 we will mainly define the *Physical attributes and Technology* and to some extent *Decision-making arrangements*, such as formal and informal rules. In research question 3 we will to a larger extent dig into the *Decision-making arrangements* according to the JFA, and therefore the *Pattern of Interaction* will be examined with the perspective of the JFA. The purpose is therefore to examine the relationships between these bundles of variables and see how the *Outcomes* of this *Pattern of interaction/JFA* influence the livelihood in the village.

ACCESS TO THE FIELD

When we arrive to Ban Mae Ka Piang it is first and foremost important that we make ourselves visible in the village, and gain accept of the headman by visiting him as soon as possible. As for the questionnaires and the interview guide we plan to do pilot interviews to ensure that they are not too time consuming, that our interpreters understand the aim of the questions, and to make last minute adjustments. Our interpreters and/or our counterparts may also be helpful in determining whether the local people could perceive our questions as offensive. Because of the short duration of our stay (see time schedule, Appendix 1), we may have to accept that we cannot fully gain trust and confidentiality of the people and that this might affect our results as some of the research questions deal with sensitive subjects. Furthermore, we want to obtain as much information as possible without taking too much of the villagers' time, which can be a challenge because of the time limitation.

METHODS TO BE USED IN THE FIELD

We will triangulate the following methods to ensure validity.

SEMI-STRUCTURED INTERVIEWS

As we are dealing with data concerning the villagers' livelihood and viewpoints, the loose structure of the interview has potential of creating an intimate setting where the interviewee and his stories are in focus. Semi-structured interviews are generally better for getting

narratives and more in-depth information than structured interviews and questionnaires (Rubow, 2003).

The interviews will be conducted with help from a question guide and recorded with a Dictaphone and by notes. The question guide serves to give the interview a direction but without disturbing the natural flow and flexibility of the conversation. We wish to do semi-structured interviews with the headman, representatives of the village, and local authorities.

FOCUS GROUPS

A focus group is a method to provide us with many viewpoints at once, while it gives us a unique opportunity to experience the social dynamics. Focus group discussions might reveal power relations within the group that people often are reluctant to talk about. We plan to do two focus groups with selected villagers. The aim of the groups will be to do community mapping, a yearly calendar, a historical timeline, and to discuss the forest agreement.

YEARLY CALENDAR

By creating a calendar in cooperation with the villagers, we will get a continuous picture of the life in the village. In the calendar they can plot in different activities that characterize life in the village, such as sow/harvest periods, festivals, dry/wet season etc. The drawing of the calendar will be participatory, as this will reflect the villagers' values and perceptions. By doing calendars with both of the focus groups and the headman, we can compare the outcomes to see if there are significant differences.

HISTORICAL TIMELINES

The aim of this method is to gain insight in historical events that the local villagers find significant. We plan to make a timeline in which the villagers can plot in what they find to be the most important historical events. We will mainly be looking for three levels of change; the

drivers of change, natural resource management and changes, and accumulative change. We aspire to draw historical timelines in the focus groups. As with the calendars, the historical timeline will probably represent the preferences and interpretations of the people who have drawn it. Consideration must be made on who the focus groups involve; age, gender, profession.

COMMUNITY MAPPING

The purpose of the community mapping is somewhat similar to the calendar and timeline. By letting the headman and the focus groups draw an overview of the area, we can get a better understanding of how the villagers perceive the different areas and borders in the village, as well as give us an overview of the land use and the different households in the village. This method is particularly interesting regarding research question 2. The mapping by the villagers will help us identify factors that villagers value and find important in the distribution of the land use.

QUESTIONNAIRE

Questionnaires are useful to collect quantitative data to get an overview of the village, such as income, family structure, etc. We can also use the data from the questionnaires to compare it with the information we gain from some of the more qualitative methods. The villagers are to fill out a daily time schedule that is incorporated in the questionnaire to get an understanding of their routines and time consumption. The questionnaires must be distributed to as many households as possible in order to use it for statistics.

INFORMAL CONVERSATIONS

Through informal conversations we will try to gain knowledge of the livelihood in the village. These conversations can occur spontaneously. We are prepared that it will be difficult for us to use this method, since we are dependant on interpreters, and the presence of a third

person might disturb the informal atmosphere. However, we find the informal interviews useful in creating trustful relations and awareness of our presence and purpose (Dewalt & Dewalt, 2002).

MAPPING

Mapping with GPS

We will use GPS to create maps of particular parts of the village and the surroundings. The GPS will be used to mark areas and waypoints referring to changes in vegetation, borders, shift in land use, different activities, etc. We will mark points of interest for the villagers; e.g. religious and cultural spots of importance. Furthermore it is a practical tool in terms of navigation and sampling strategies.

Transect walk

In addition to GPS mapping we will use transect walk to identify land use in the village. The aim is to get an overview of the physical surroundings. We will do the transect walks together with some of the villagers in order to facilitate informal conversations and get an understanding of their preferences and values.

EVALUATION OF THE FOREST

We will make a forest evaluation of the forest within the JFA and compare it with the forest that is not included in the agreement. The comparison of the protected area with the unprotected area can reveal if there are any significant differences between the two forest areas and help uncover whether the JFA has a noticeable impact on forest conditions. Furthermore, we might measure biomass to get estimates on the condition of the forests.

OBSERVATION

Observation is fundamental in gaining insight in a village society, and it is the foundation for other methods to build on. Keeping our eyes and ears open will help us when using other methods and give us a deeper understanding of the people and surroundings.

Participant observation

Participant observation is a unique way of giving us an in-depth understanding of the reality and everyday life in the village from the perspective of the villagers. Participant observation can be practiced with or without an interpreter and allows us to interact with the villagers. E.g. we can work with villagers on equal footing to understand their everyday routines (Cohen, 1987).

NEXT STEP

At this stage we are looking forward to commence the fieldwork in Ban Mae Ka Piang, and to start our collaboration with our Thai counterparts. We have had some email correspondence with them to introduce ourselves, and to start the process of integrating our synopses. Our counterparts have backgrounds in Political Science and Irrigation Engineering, and have expressed a wish to do some water assessments. Currently, we are not sure how to integrate the two different research areas, but we are confident that the first couple of days in Chiang Mai will give us possibility to find an agreeable solution.

REFERENCES

Bryceson, D. (2002, MAY). The Scramble in Africa: Reoriented Rural Livelihoods. *World Development* , pp. 725-729.

Buch-Hansen, M. (2003). The Territorialisation of Rural Thailand: Between Localism, Nationalism and Globalism. *Tijdschrift voor Economische en Sociale Geografie*, 94(3) pp. 322-334.

Carloni, A. S. (2005). *Rapid guide for missions: Analysing locale institutions and livelihood*. Retrieved february 21, 2011, from [www.fao.org: www.fao.org/docrep/fao/008/a0273e/a0273e00.pdf](http://www.fao.org/docrep/fao/008/a0273e/a0273e00.pdf)

- Cohen, P. (1987). Participant observation. In *Ethnographic Research. A Guide to General Conduct* (pp. 216-229). London: Academic Press.
- Delang, C. (2002, JUL). Deforestation in northern Thailand: The result of Hmong farming practices or Thai development strategies? *Society & Natural Resources* , pp. 483-501 .
- Dewalt, K. M., & Dewalt, B. R. (2002). Informal Interviewing in Participatory Observation. In *Participant Observation. A Guide for Fieldworkers* (pp. 120-140). Lanham: AltaMira Press.
- Foucault, M. (1978). *The History of Sexuality*. New York: Pantheon.
- Hares, M. (2009, MAR). Forest Conflict in Thailand: Northern Minorities in Focus. *Environmental Management* , pp. 381-395.
- Mingtipol, O., & al., e. (2011). Basic Information SLUSE Field Course 2011. Thailand.
- Rubow, C. (2003). Samtalen: Interviewet som deltagerobservation. In K. Hastrup, *Ind i verden* (pp. 227-245). København: Hans Reitzels Forlag.
- Wannasai, N., & Shresha, R. P. (2008, vol. 25). Role of land tenure security and farm household characteristics on land use change in the Prasae Watershed, Thailand. *Land Use Policy* , pp. 214-224.

APPENDIX 1: TIME SCHEDULE

Date/Time	Activity	Who?
25th of Feb		
09.00-10.00	Welcome	
10.00-12.00	Orientation and introduction	
13.00-17.00	Method vs. research	
17.00-20	Ice breaking activity	
26th of Feb		
09.00-16.00	Identification of research	
27th of Feb		
09.00-12.00	Identification of research	
13.00-15.00	Preparation of research	
15.00-17.00	Presentation of research	
28th of Feb		
08.00-11.00	Transportation to the field	
Afternoon	Overview walk Talk with headman and schedule time for a later interview Identify people with knowledge on the JFA GPS	
Evening	practicalities, daily log	
1st of March		
Morning	Pilot interviews: questionnaire + semi structured interview (SSI)	
Afternoon	SSI with head man walk with informant in forest (GPS)	All
Evening	Evening work - field notes, data collected, etc...	
2nd of March		
All day	Questionnaire - info + relations in the village	2 groups of 3 + interpreters
Evening	Identify key informants/ people we can follow in their daily routines. Daily log	
3rd of March		
All day	Transect walk with informants we identified the night before Questionnaire - info + relations in the village	2 + interpreter 3 pax

Evening	Follow up	1 pax
	Focus groups (2) Follow up, daily log	All
4th of March		
Morning	2 SSI (transect walk)	2 pax pr interview + interpreter
Afternoon	2 SSI (transect walk)	2 pax pr interview + interpreter
Evening	Follow up on the focus groups	
5th of March - day in the forest		
Morning	Forest assessment, GPS	All
15-18	Mid-term evaluation	
Evening	Evening work	
6th of March		
Morning	Follow-up forest assessment (if we did not finish the night before)	
Afternoon		
7th of March		
Morning		
Afternoon		
Evening		
8th of March		
Morning	Possible presentation of our project to the village	
Afternoon		
Evening		
9th of March		
Morning		
15.30-18	Transport back to Chiang Mai	
10th of March		
09.00-16.00	Preparation of de-briefing	
11th of March		
09.00-12.00	Preparation of de-briefing	
13.00-16.00	Final presentation	
18.00-22.00	Farewell party	

APPENDIX 2: DEFINITIONS

DE-AGRARIANIZATION

De-agrarianization is a process where dwellers' livelihood changes from agricultural to non-agricultural-based modes (Bryceson, 2002).

LIVELIHOOD

"A livelihood comprises the capabilities, assets (incl. both material and social resources) and activities required for a means of living" (Carloni, 2005).

HOUSEHOLD

"A group of people who eat from a common pot, and share a common stake in perpetuating and improving their socio-economic status from one generation to the next." (Carloni, 2005). In this case we see e.g. remittances as income, which means that people sending remittances are not included in the household.

POWER RELATIONS

"Power must be understood in the first instance as the multiplicity of force relations immanent in the sphere in which they operate and which constitute their own organization: as the process which, through ceaseless struggle and confrontations, transforms, strengthens, or even reverses them; as the support which these force relations find in one another, thus forming a chain or a system, or on the contrary, the disjunctions and contradictions which isolate them from one another; and lastly, as the strategies in which they take effect, whose general design or institutional crystallization is embodied in the state apparatus, in the formulation of the law, in the various social hegemonies" (Foucault, 1978).

These definitions are guidelines and needs to be adjusted to local circumstances, and will be redefined as we arrive to the village.

APPENDIX 3: QUESTIONNAIRE

We have created this questionnaire to give us information on the people in the village. We are focusing the questions on households and incomes. We do not ask thorough questions on the different occupations, since we wish to elaborate further on that in the semi-structured interviews. The questionnaires are therefore to be seen as a way to gain overview of the different groups in the village, and also as a 'springboard/jumping-off point' for the semi-structured interviews. The questionnaires will give us information on what people are engaged with in the village, and by using that information we can select informants we wish to get deeper conversations with. The questionnaires are also there to gain quick access to people, with some overall questions. Hopefully this approach can help us create awareness of our presence and be a tool to create relations between us and the villagers, which can be further developed during our stay.

Furthermore the questionnaire is an analytical tool, since we plan on using the data we collect to create statistics for background information and comparisons.

Questionnaire for villagers

Number of questionnaire_____

Date_____

Names of group members_____

Name of interpreter_____

1. Name_____

2. Sex M ☐ F ☐

3. Age_____

4. Place of birth_____

5. Status

- a. Married
- b. Relationship
- c. Divorced
- d. Widow/widower
- e. Single

6. Ethnic group_____

7. Amount of land (hvis de kan svare på det)

8. The household members

Household member	Number
How many children	
How many live at home?	
How many go to school?	
Working adults	
Elder	

9. What are your household's sources of income? You can choose more than one.

Rank the occupations in prioritised order (economic).

- a. Farming
- b. Fishing
- c. Livestock
- d. Fruit orchards
- e. Remittances
- f. Merchant
- g. Daily labour, in agriculture
- h. Daily labour, other
- i. Other_____

If remittances are a source of income: How much does the household receive per week/month/year??

Det samme spørgsmål i forhold til waged jobs...Hvor meget tjener de (så vi kan lave en sammenligning af hvad der egentlig tjener dem bedst)

10. The Joint Forest Agreement.

11. Education:

How many of the children in the household attend school?

If any – to what level?

Do the parents have education?

Daily calendar

Start med bare at give dem skemaet... og tjek igennem til sidst om de har været inde på følgende:
Hvornår står du op? Hvor mange timer arbejder du? Arbejder du med forskellige ting på forskellige tidspunkter? Det her med om de går i skoven?

Note to self: Vi kommer til at lave en komparativ analyse mellem mænd/kvinder unge/ældre eller hvad der måtte virke pointless.

TIME	ACTIVITIES
00	
01	
02	
03	
04	
05	
06	
07	
08	
09	
10	
11	
12	
13	
14	
15	
16	
17	
18	
19	
20	
21	
22	
23	
24	

APPENDIX 4: INTERVIEW GUIDE (HEAD MAN)

The interview with the headman is planned to be carried out in one of the very first days in the village. We assume that the headman is a key figure in getting more in depth information on the forest agreement. We also find the meeting with the headman and the subsequent interview as a polite way of introducing ourselves in the village and to letting him know we appreciate their cooperation.

Interview guide for Headman

Date of interview _____

Names of interviewers _____

Name of interpreter _____

Sex of informant F ☐ M ☐

- How long have you been the headman? How does one become headman? (Election, inheritance, etc?)
- What is this about Hmong and Karen? (Is he prejudice? Is he a diplomat? Is he Karen and Hmong)
- How many people/households live in the village?
- How many people/households are involved in agriculture?
- What types of farming activities are there in the village?
- How important in terms of income are the farming activities, compared to other occupations?
- What are the limitations in farming? (when do they occur, how often, possible solution)
 1. Do you have enough workers?
 2. Fertilizers?
 3. Land?
 4. Etc.
- Have you experienced that a lot of people have moved to the cities? Are there any general motives?
- Are there less people involved in farming than in the past?
- Can you tell us about the history of land use (crops, livestock) (Drivers of change, natural resource management and changes, accumulative change).
- How is the organization of the village? How are the people distributed in the village? (by occupation, level of income?)
- How is the forest used?
- Can you explain a bit about the forest policy?
- Is there a joint forest agreement?
- How much is the villagers aware of the forest agreement?
- How does it work
- How was the forest agreement initiated?
- What kind of changes has the forest agreement caused?

APPENDIX 5: INTERVIEW GUIDE (FARMERS)

The interview guide is divided into five categories that represent five different capitals. These are social, human, financial, natural and physical (DFID 1999). The five capitals can be thought of as livelihood building blocks, and we therefore find them essential to touch upon in our interviews with the farmers.

Interview guide for farmers

Date of interview_____

Names of interviewers_____

Name of interpreter_____

Name of informant_____

Sex of informant F ☐ M ☐

Natural capital

- How many years have you worked as a farmer?
- What kind of land use do you have? (e.g. cash crops, subsistence crops, livestock, forestry)
- What kind of crops do you grow?
- What natural causes can affect the outcome of the harvest? And how often does it happen?
- How often do you go to the **forest**? Specify which part of the forest we are referring to.
- Who can use the **forest**?
- What do you use the forest for? / What do you collect from the forest?
- Are there any **forest** policies in your village?
- (Were you involved/a part of/ had something to say in the formation of the JFA)
- (Is the agreement generally respected? Formulate properly).
- Could you please try and describe how a working day looks, from the morning when you wake up, till you finish your work and go home to bed.

Financial capital

- Which type of land use will you characterise as the most important for your family?
- Do you get an income from anything else than farming? What?
- Do you sell your products to the market? (All or a part?)
- Does your household receive remittances: From whom? Where are they geographically? How do they earn the money?
- Are there any seasons where you cannot use your fields optimal? (Wet, dry, monsoon?)
- Which possibilities do you have to get access to land?

- Do you have any land tenure? Do you rent some land? Rai_____ (remember to ask whether they have paper on their land and what kind of paper).

Social capital

- Do you know all the other farmers in the village?
- Who do you work with during the day?
- Is there any cooperation between the farmers? (Are they organized??)
- How do you help each other with the work?
- What do you do when you are not working?

Human capital

- Skills and education

- How many in your family are farmers? Work as farmers...
- How have you learned to be a farmer?

- Health

- What do you do if you get ill?
- Have you visited a health clinic?
- Do you feel healthy? Rank from 1-5

Physical capital

- How old is your house and who built it?
- How do you get to work?
- How often do you leave the village? (Specify!)
- Access to water, information, energy supply?

There is something missing about the forest agreement (awareness, restrictions, possibilities, decision-making etc.), but how do we ask, and under which 'capitals'?

APPENDIX 6: INTERVIEW GUIDE (NON-FARMERS)

Interview guide for non-farmers

Date of interview_____

Names of interviewers_____

Name of interpreter_____

Name of informant_____

Sex of informant F ☐ M ☐

Financial capital

- What is your job?
- Have you always been working as?
- Why did you change profession/job?
- How do you think you contribute to the household?

Natural capital / the forest

- How often do you go to the **forest**? Specify which part of the forest we are referring to.
- Who can use the **forest**?
- What do you use the forest for? / What do you collect from the forest?
- Are there any **forest** policies in your village?
- (Were you involved in/ had something to say in the formation of the JFA)
- (Is the agreement generally respected? Formulate properly).
- Could you please try and describe how a working day looks, from the morning when you wake up, till you finish your work and go home to bed.

Social capital

- Who do you work with during the day?
- What do you do when you are not working?
- How do you help each other with the work?

Human capital

- What do you do if you get ill?
- Have you visited a health clinic?
- Do you feel healthy?
- What does the future look like for you?

Physical capital

- How old is your house and who build it?
- How do you get to work?
- How often do you leave the village?
- Access to water, information, energy supply?

APPENDIX 7: RESEARCH DESIGN

Project formulation	Research Questions	Operational Questions	Data Required	Methods
How do the joint forest agreement in Ban Mae Ka Piang influence the livelihood in the village in relation to de-agrarianization?	What characterizes the livelihood in the village of Ban Mae Ka Piang?	When did they settle and why did they settle? What has happened since?	Facts, stories, their point of view	Semi structured Interview/Focus group with head/others of the elder/others + put in a timeline + Evaluation of forest + Transect walk + GPS mapping + Community mapping
		How has the demography changed over time? + Present		
		Have there been any changes in the land use? What? What is the composition of the land use today?		
		How do the people in the village depend on the different land uses? Are they self-sufficient?		Semi structured Interview/Focus group + Yearly calendar
		Have there been any changes in income sources? What are the sources of income today?		Questionnaire + Semi structured Interview/Focus group
		Are some jobs considered more attractive than others?		Semi structured Interview/Focus group + Participant observations
		How are the tenure rights in the village (incl Hmong village)?	Facts, description	Semi structured Interview/Focus group with head/elder/other
		How has the power structures changed over time?	Stories, their point of view	Semi structured Interview/focus group + Participant observations
		How is the general wellbeing in the village? (Health, education, social aspects)	Facts, description	Questionnaire + Semi structured interviews
		How do the people see their future? How will society change?	Dreams of the people	Semi structured Interviews
	How do different factors determine the land use in and around the village?	How are the boundaries defined?	Facts, stories, their point of view	Semi structured interviews + GPS Mapping + Transect walks
		In their perspective, what are the valuable places/sites?		
		In their perspective, how is the land classified?		

	How do different power relations in the joint forest agreement influence the livelihood of the people in the village?	What is the content of the agreement?	Facts, descriptions – if the agreement is not written down	Semi structured interviews/Focus groups
		How was the agreement reached?		
		Why is there a forest agreement? Who formulated the problem?	Facts, Stories, their point of view	Semi structured Interview/Focus group with head/elder/others
		How is the agreement implemented? [Awareness in the village?]		
		Is it a source of conflict or unanimity and why?		
		Are the advantages and disadvantages equally distributed between different social groups?		
		What is their affiliation to different social groups?		