

Rubber institutions in Ban Hat Nyao: Managing trees, markets and producers

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By Nitkham Chanthavong, Khamsing Xayleuxong, Somneuk Chitpanya, Nathan Badenoch and Thongsavanh Keonakhone
NAFReC Socio-Economic Research Team, Luang Prabang

1. Introduction

Ban Hat Nyao in Luang Namtha Province pioneered the push towards small-holder rubber production in the north of Laos. The village has made an almost complete transition to rubber, and economic benefits have been realized. As such, it has been called a model village, and many have visited the village to understand the technical issues behind the transformation of village livelihoods.

These technical issues have drawn the attention of many people, in both the government and other villages. With sophisticated production and harvesting skills, the rubber producers of Ban Hat Nyao have much valuable experience to offer. It may be less-well known that the village has developed a marketing group to provide the services that producers need to make money from their rubber trees. This study explores the institutional side of the Ban Hat Nyao rubber production “success story.” It analyzes the governance mechanisms set up by the village to manage the village’s rubber production. The focus here is on the “software of development”, that is, the organizational structures and processes that are needed to support farming systems undergoing change. The findings also bring the farmers – the managers of the system – into a central position. This shines light on the nature, potential and constraints of local organizations. A crucial message of this study is that the success of the rubber activities in the village is indeed largely a result of the far-sighted and adaptive process of creating institutions to manage the agricultural transition.

While the Ban Hat Nyao case is not a replicable ‘model’ for rubber or any other sort of commercial agriculture, there are however lessons from the experiences that may be useful for others interested in facilitating the shift from subsistence-based farming to market-oriented farming.

1.1 Background

In 2007, members of the socio-economic team at NAFReC made a short visit to Ban Hat Nyao to understand how the village had successfully transitioned to rubber production and how they were participating in and benefitting from the new agricultural orientation of the village. Ban Hat Nyao was chosen because 1) it is considered to be a success story, 2) rubber is the centerpiece and 3) the entire village has

made a concerted and well-planned shift to market-oriented production based on this one crop.

In the course of interviewing community leaders, we learned that many groups and individuals visit the village frequently but they tend to focus on two things: technical details of planting and the potential for cash income. One prominent rubber planter suggested that the role of the marketing group was a crucial aspect of the village’s rubber activities that had never been shared. In fact, the institutional aspects of the rubber transition had received no attention from researchers, villagers or government at all.

1.2 Objectives

The objectives of this study are to understand and analyze the institutional structures and interactions that have supported Ban Hat Nyao’s adoption of rubber as the village’s main economic activity. Within this, the study tried to understand how the village’s underlying social structure and relations influenced the rubber institutions, how the various actors make decisions and solve problems, and what issues they might face in the future. This information will inform plans and decisions about group formation within the rubber sector, and more broadly as communities move out of subsistence and into increasingly market-oriented livelihoods.



Rubber plantations in Ban Hat Nyao

Source: Michael Dougherty



Key documents on rubber in Laos:

Alton, C., D. Bluhm and S. Sannikone (2005) "Para Rubber Study: *Hevea brasiliensis*". Vientiane, Lao -German Program Rural Development in Mountainous Areas of Northern Lao PDR.

Manivong (2007) "Economic Potential for Small-Holder Rubber Development in Laos". Master's thesis.

NAFRI (2007) Key Issues in Smallholder Rubber Planting in Oudomxai and Luang Prabang Provinces, Lao PDR. Upland Research and Capacity Development Program.

Wei Shiyi (2008) "Rubber Boom in Luang Nam Tha: A Trans-national Perspective". GTZ Rural Development in Mountainous Areas of Northern Lao PDR.

1.3 Justification

Rubber is being given attention as a development option in Laos, especially for those living in more marginal lands close to international borders. International investment has been directed towards the sector, and a number of production models have been tested. This and other related technical research has been conducted over the past few years. Several key lessons-learned have been raised by the literature:

- ◆ Rubber development in Ban Hat Nyao was a complex process involving community, government and market actors. The local Hmong social networks were key in accessing and mobilizing resources, particularly linkages with the rubber industry in China (Alton et al, 2005).
- ◆ Although rubber has started to show some economic benefit, the long period before tapping begins means that rubber is not a suitable option for poor farmers. Better off farmers, with higher livelihood security, are able to generate benefits, but it seems that generally there is a danger of rubber creating gaps within communities (Manivong, 2007).
- ◆ Rubber has complicated land management, increasing competition for land. Cases of conflict over rubber land have become more common, and for rubber to be successful as a popular crop, its planting will need to be more firmly situated in land use planning (NAFRI, 2007).
- ◆ Rubber has become a key component of the broader market-driven forces of landscape change. Loss of forest area is widely observed as rubber expands, but the impacts on ecosystems is not well understood.
- ◆ Farmers' limited access to information has meant that technical issues of quality control, marketing and alternative production systems remain problematic (NAFRI, 2007).
- ◆ There are several models for small-holder rubber production with investment from the private sector. In the north, Chinese firms are dominant, but most importantly it is necessary to understand the constraints to rubber planting, rather than clinging to a certain model (Wei, 2008).

Given the importance of the crop in the natural and human landscapes of the north, rubber is one of URDP's 10 priority research topics. A significant thrust in URDP's work is looking at technical issues of rubber planting and tapping, not to mention examination of alternative livelihood systems in which rubber might play a part. The socio-economic research agenda created at NAFReC has identified institutional development in agricultural activities as a research theme. This supports the broad-based interest in forming groups to support production that are pervasive in agricultural development, research and extension strategies. A review of existing literature highlighted a wide gap in understand of how villagers manage rubber as an economic activity at the household and village levels.

1.4 Methods

The data collection for the study was done by a small group of researchers from NAFReC's socio-economic research team. The basic methodology was semi-structured interviews, carried out with key informants, village leaders, elders and district officials. Interviews were done in small groups and as individuals over the course of four days. Interviews were conducted in a mixture of Lao and Hmong, as the team included one native and one non-native Hmong speaker.

Data was analyzed to illustrate structures and processes of institutions (the so-called hardware and software of governance), highlighting cases of real-life management, decision-making and problem solving from the interview narratives. The analysis also made an effort to consider a range of institutions: formal and informal, rubber-specific and generalized. We wanted to understand what was specifically Hmong about the way the institutions were developed, and what were just generally good management principles.

Governance is the management of affairs in society, involving relevant stakeholders. As shown in the framework (See figure 1), governance of institutions consists of two elements: the hardware and the software. On the one hand there is 'hardware' – these are the formal systems, roles and regulations of how resources are managed and governed. On the other, is the 'software' of governance. These areas are less tangible but just as important and include the processes and 'social capital' necessary to achieve effective and equitable outcomes from resource management.

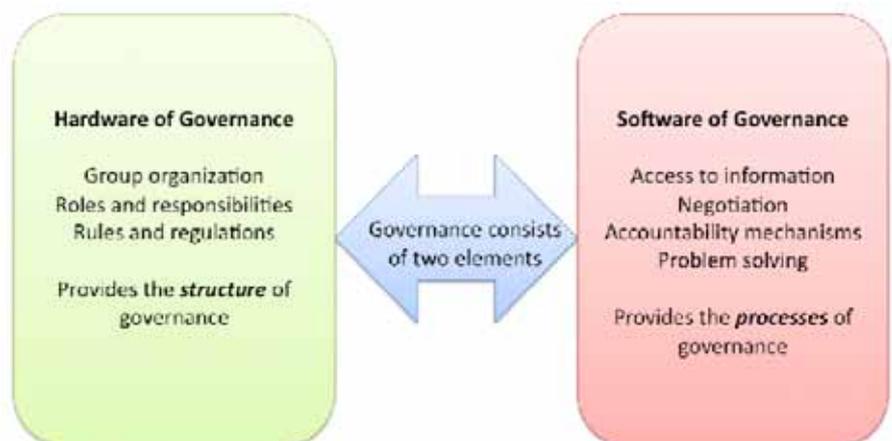


Figure 1: The hardware and software of governance

2. Rubber management institutions structure

The early story of Ban Hat Nyao has been documented in Alton et al. (2005). Support from the provincial governor was critical in getting the village access to development funds for which they otherwise would not have been eligible. One common understanding is that Ban Hat Nyao was 'chosen' to succeed by the province, much as the East Asian governments chose companies to succeed and provide a foundation for national economies. The initial development loans were of course extremely important to the start of the rubber planting but were not the only factor in their success. Discussion with the local leaders reveals a more complex picture.

At first, provincial officials were quite skeptical as to whether the village could technically manage the rubber and break into the Chinese market. After Ban Hat Nyao began planting in 1994, the district extension office provided funds to five other villages to start planting. Rubber planting in all five villages has failed, because of weak leadership and management, according to Ban Hat Nyao observers. The success story that emerges in Ban Hat Nyao is one of clear leadership, strong social capital, innovation and a dynamic mix of new and old institutions.

One central assumption of this research was that the marketing operations of Ban Hat Nyao were key to the success of the village's rubber planting, based on the literature and our own preliminary data gathering. This was confirmed in the course of the research. However, we found that there is a number of robust institutions that support the work of the rubber marketing group. The general institutional structure is shown in Figure 2 and described below.

2.1 Village Rubber Producers Group

This is the umbrella structure under which rubber producing is carried out in the village. The Rubber Producer's Group is led by the village headman and his deputy, who jointly provide guidance on the overall directions for village development. The headman and deputies convene the various subcomponents of the production infrastructure as needed. The convening role is critical on several levels. First, in making important decisions, the leadership believes there is a need to have consultation with, and inputs from, the various sectors of the village: the elders, the marketing group, the leaders of production groups, and the villagers themselves.

As all villagers are engaged in rubber production, the need for a village-level rubber producers group may be unclear. However, as will be discussed in more detail below, the overlap between the general village administration institutions and the rubber specific arrangements are one of the main strengths of the village's approach. When considered in a historical perspective, the Rubber Producers Group provided the enabling environment through which farmers were able to break into rubber-production.

2.2 Rubber marketing group

The marketing group is the key institution managing the day-to-day rubber production operations. The group is responsible for establishing, maintaining and managing linkages to the Chinese market through traders on the other side of the border. The group conducts regular trips to China to gather information and upkeep relationships. There is a broad sense of agreement among farmers that the role of the marketing group has been critical to the success of the rubber operations.

The marketing group is led by a group of officers, and supported by one adviser. The officers were chosen by the rubber producers early on in the establishment of the rubber planting activities with the assistance of the village headman. The criteria are that the individual must have commercial experience, be a trusted member of the community and speak Chinese. The head of the group is from the Lis clan, the dominant clan in the village, as is the adviser. Other three are Lauj and Ham clans. The group was originally three, but one more was added in 2005 because the workload was getting heavy.

The group is commonly known as *nuai kep seu*, the purchasing unit. In addition to providing the necessary link from the village to the buyers, the marketing group provides a range of services to the producers. For example, the marketing group arranges inputs - tools, chemicals to treat disease. The activities of the marketing group are supported by taxes levied upon sales of latex. The officers receive modest compensation for their services, and expenses associated with marketing trips and communications are covered from the marketing group's funds.

2.3 Technical unit

The technical unit is comprised of five village agriculture volunteers (*kasikam baan*). Normally, there is only one agriculture volunteer in a village, but because this village is rather large, there are five. This group of people does the monitoring of technical activities.

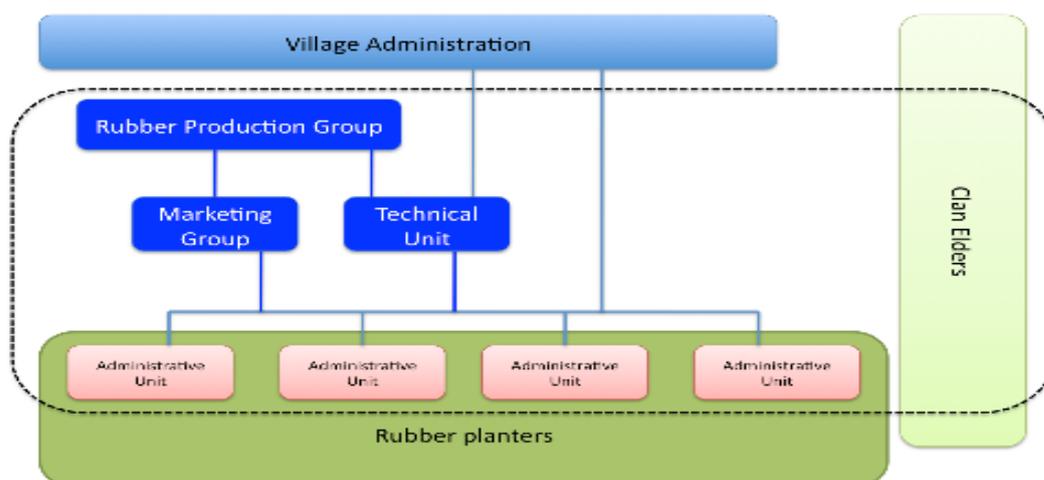


Figure 2: Institutional arrangements in Ban Hat Nyao

They also led the land allocation process. They get no financial support from the village or the group, although the village will provide meals for them if there is a heavy work burden. They are chosen by the village administration for a three-year period.

The technical unit monitors the planting and tapping activities. Their role is somewhat fluid, in that they do not carry out regular, formalized monitoring activities, but rather make constant observations on how the production activities are progressing and respond to problems as they arise. The technical unit is often the first point of contact in raising land management problems, and can require farmers to update their tapping skills through the village training system (described below).

2.4 Production units

The production units involved in rubber production are actually the administrative units (*nuai*) that are present in every village. They are thus not dedicated to rubber production, but because of the scale of rubber planting in the village they are highly relevant to the daily workings. There are four units in the village, each consisting of from 20-40 households.

As a matter of normal village administration, units are formed to facilitate the management of village affairs. Thus the units are a unit of information provision, consultation and labor mobilization. These functions are particularly strong with regards to rubber production, as well. Each group meets monthly to discuss production activities in general. They also report on volumes and trends in tapping, during the tapping season.

Ownership, management and investment in rubber plantations is done by individuals, but there are certain areas of communal action which are carried out through the unit. In the early days, units carried out land clearing and land preparation, in conjunction with the land allocation process. Currently, labor to construct feeder roads into the rubber planting areas is mobilized through the units. Units also have a role in the sale of rubber – in terms of management of cash flows and record-keeping. Thus the unit leader is an important interface between the official institutions and the farmers.

All of the officers in the formal structures are male, highlighting

the Hmong preference for male-dominated decision-making in official village matters. Men are usually the official interface with outsiders, including the government and others on official business such as researchers. Our interviews, with a primary focus on the formal institutions, did not obtain information from a sufficient sample of women. This is a clear weak-point of the present study.

3. Customary social institutions as a foundation for economic transformation

The sophisticated management institutions of Ban Hat Nyao give the impression of a coherent village. Clear structures, regulations and management processes are seen as the fundamental infrastructure of village governance. But trust and leadership, the “software” of governance, within the institutions are strong as well. Taken together, these form the social capital of Ban Hat Nyao – perhaps its long-term strongest resource. One interpretation of this situation is that the creation of robust and inclusive institutions has increased the cooperative spirit and effectiveness of the village. This suggests that there are lessons for institution building that may be relevant for other places.

Another line of inquiry is to explore how much the underlying social system has affected the success of the institutions. In any study of institutions, the social background is a key factor to consider. In this brief study of the rubber institutions, it emerged that underlying the institutions are many aspects of Hmong social organization. Here we may distill some of the more difficult lessons regarding how to build institutions.

3.1 *Kwv tij*: Kinship networks of cooperation

The basic organizing principle of Hmong society is kinship networks. The Hmong term (*kwv tij neej tsa*) implies both direct kinship and extended networks of marriage relationships. The Hmong system of kinship networks has been relatively well studied, and is understood to provide the social resources for cooperation within Hmong villages, in livelihood and other matters. Hmong people belong to clans, and tend to work most closely with close relatives within the clan. The closest tightest bonds of trust generally exist within lineage groups, for example relatives sharing common grandparents. But Hmong people must marry outside of their clan, which means that while the clan encourages tight-knit social units within a village, they are constantly building linkages between clans through marriage.

In Ban Hat Nyao, like in many Lao Hmong villages, multiple clans are represented – 11 clans, which is a high level of social diversity in terms of contemporary Hmong village standards. The village was originally founded by two Lis and one Xyooj household. The Lis were to become the leaders of the village, and they are currently the most numerous clan of the village. Of a total 154 households in the village, the Lis clan comprises 75 (almost 50% of the total). In addition, there are sizable representations of Xyooj, Lauj, Thoj, Hawj, Vwj, and Ham.



Rubber tub lumps ready for shipment to China, Source: Nathan Badenoch

From our rapid fieldwork, it seems that the Lis are still a very influential group in the village. The Headman and one Vice-Headman are Lis, two of the four elders are Lis, as is the head of the marketing group. But this is not to say that the Lis clan exerts complete control of the village. As shown below, the village has many mechanisms to ensure that people have opportunities to voice opinions and participate in village matters.

3.2 Cov laug: Clan elders and decision-making

In Hmong society, elders (*cov laug*, literally “the old people”) play an important role in decision-making. For each clan, the elders preside over daily matters that need input and mediation. Each clan has a local leader, called *tug coj noj coj ua* – “the person who leads livelihood activities”. At the village level, a group of elders from the local clans provide advice to the village administration. These leaders are a pillar of customary Hmong social organization, and have been partially officialized as the *thao kae naew hom* who are meant to provide inputs to the village administration and assist in maintaining communication between the leadership and the villagers. In Ban Hat Nyao, there are four people in the *naew hom*: two from the dominant Lis clan, and one each from the Vwj and Thoj clans.

Villagers recount the central role that the elders had in making the decision to plant rubber. In fact, the elders led a planned and coordinated search for appropriate livelihood options (*aasip khong thi*) for the village. After arriving in the current village location in 1973, it was clear that paddy would not be the road to economic development for them. The lack of land would prohibit this, and the Hmong farmers themselves were happy to search for other crops that could be grown in upland areas, as this was the type of cultivation they were more familiar with. In the 1980s however, after an unsuccessful attempt to establish livestock-based livelihoods, the elders decided to go on their own ‘study tour’ to explore the possibility of cash crops, using their kinship networks. They visited Hmong in Tak province of Thailand producing corn, ginger and oranges. They visited China and found that many of the Hmong were working as laborers, so decided to observe the Lue farmers, who had their own livelihoods. This is where they first came into contact with rubber planting. After returning to Laos, they considered their options: markets, investment needs, labor requirements, and technical skills. The rubber option was recommended to the village leadership and farmers, and it was decided.

Since then, the elders have retained a role in general decision-making in the village. But they have had a particularly important role in the development of rubber, because the village had committed to making rubber the main livelihood component.

3.3 Sab laj: Consultation for consensus

Village consultation (*sab laj*) is a long-held tradition in Hmong society. When major decisions were to be made in the past – such as moving the village, engaging in new economic activities and dealing with the local government representatives – a village assembly would be convened to gather ideas and opinions. Major problems were also solved in this way. The consultation process was open and transparent, but had clear leadership from the elders and often the village headman. The style of these assemblies was for the elders to provide the background for the

discussion and then elicit inputs from the villagers. People have the right to offer their opinions in front of the group, even in the event of problem solving, where all disputing parties were present. In the end, the ideas presented were considered by the leadership and the decision was put back to the assembly for acceptance.

Now, the modern administrative system provides structures for decision-making and problem solving. In Ban Hat Nyao, the official system has found an effective way to make use of the customary Hmong consultation process. As will be shown below, many of the decisions taken regularly in the village are done through consultation and consensus building.

3.4 Pauv zog: Labour exchange in an intensive system

Meeting the labor requirements of different economic activities is a classic challenge for upland farmers. In the past, when the Hmong production system consisted of opium, upland rice, maize and livestock, a system of labor exchange (*pauv zog*) was used to ensure sufficient labor was available to all. In many cases, labor was exchanged among kinship groups, where negotiation of the terms of exchange was easy. In other cases, people made agreements to exchange labor more broadly in the village. At one level, this labor exchange system was a household-level strategy to make sure that crops were planted and harvested on time. At a larger level, the system functioned as a social-safety net, ensuring that the labor available in the village was distributed evenly enough to keep the village economically viable and socially stable.

As the production system changed, so did labor exchange practices. The transformation and often decline of customary labor exchange may occur with the adoption of cash crops, as the basic conditions for production shift from consumption to sale. In the case of rubber, the Ban Hat Nyao villagers preserved much of their labor exchange system, although a labor market has begun to develop in the village as well. Currently, three types of labor exchange are observed: mutual assistance (usually among close relatives), reciprocal labor exchange and wage labor. Villagers report that reciprocal labor exchange is the preferred method, but wage labor has begun to increase and will likely continue to do so in the future as peoples’ time becomes more and more scarce, and thus more and more valuable. The scope of our study did not allow us to explore the important dynamics of labor in rubber, but this could be an interesting area of further investigation to deepen our understanding of how cash crops are adopted and managed.

Customary social institutions are subject to influence from many directions, especially in times of rapid economic development. This section takes a very brief look at the Hmong social institutions related to livelihood, and therefore rubber, activities – how they provide a foundation for the newer administrative and rubber institutions, and how they are influenced by developments in the local economy. The purpose is to highlight the importance of different types of institutions, and particularly how they interact with other institutions to determine the outcomes of development efforts.

4. Institutions in action: Managing the daily operations

In the course of interviews with a range of people involved in rubber production in the village, we came across numerous examples of how the institutions described above work together in daily management.

4.1 Land allocation and problem solving

Various narratives of the Ban Hat Nyao 'success story' refer to the level of detailed planning that went into the early stages. When the decision was made to begin rubber planting, the village leadership began a long-sighted land allocation process. The main criteria for the first wave of land allocation were interest in planting and labor availability. It is reported that anyone who was interested and believed they had the labor resources to give the planting activities the necessary attention could access land. In principle, the village headman and elders believed that keeping the rubber activities equitable was necessary for success. In practice, they adopted a rolling process of annual land use monitoring, allocation and re-allocation. In the following years, farmers who planted and maintained their trees well could request additional land. This land allocation was conducted without any external support, but was presented and endorsed by the District upon completion.

Planters explain that the land allocation was done in a transparent and inclusive way. Each year the headman convened a meeting where farmers had the right to request additional land for rubber planting. For each farmer making a request, the past performance and future capacity of the household were discussed. Arguments were heard and a decision was made for the coming year. In this way, over the course of some 15 years, the village leadership allocated all of the village's agricultural and common land. Decisions about who to allocate land to were made by a show of hands in the village meeting. According to the marketing group, this created some bad feeling with those who were refused requests to expand, but was a necessary downside of a democratic process intending to keep production efficient.

Land conflict was a minor problem at the beginning, mostly stemming from lack of clarity about extent of ownership of land. At first, some common problems about delineation of field boundaries arose. When the fields had expanded and began to come into contact with one another, it was often difficult to tell

where one plot began and another ended. This was because farmers were constructing contour-paths that directly joined each other. A regulation was issued that said that owners of adjacent fields must ensure that their contour-paths are not level with each other. This solution was provided by the Chinese migrants. Once this was done, land problems were greatly reduced.

Thus, allocation of land for rubber planting was a fundamental aspect, and can be seen as an effort on the part of the local leadership to achieve several goals from the outset: 1) quickly bring substantial amounts of land into production, 2) provide relatively equal opportunity for farmers to get access to land, and 3) ensure that land is used productively by allowing farmers with demonstrated capacity to expand planting. This strategy reflects the sophisticated thinking of the village leadership, but foreshadowed the trade-off between efficiency and equity that has begun to emerge. The annual re-allocation discussion is a remarkably transparent accountability mechanism, such as not often seen in the land use planning process in Laos.

4.2 Rice security and emergency credit

A farmer investing in rubber takes a great risk to household food security during the initial seven year period before the rubber comes on-line. Farmers are able to plant upland rice and other crops among newly planted rubber trees, but at year three this option is lost as the trees grow and a canopy begins to form. Food security during years 4-7 is thus a key concern for planters. In Ban Hat Nyao, there have been several approaches to meeting this challenge. In addition to borrowing rice within kinship networks, some households obtained land in neighboring villages to compensate for loss of land to produce rice. Land was either purchased or rented, and it is now estimated that 20 percent of households in the village have land in other villages. It seems now that land outside of the village is not a critical part of the livelihood portfolio for households that have income from rubber, but may still be important for those whose tapping has not begun. Additionally, the village leadership has helped look for wage labor opportunities for families in need of cash income and villagers began to sell rubber seedlings to other villages as the rubber boom spread.

Ban Hat Nyao villagers stress the importance of the village leadership's role in creating funds. A percentage of rubber sales are put into a village development fund (described below), which is still modest in size, but has been sufficient to help compensate for rice shortages. Village funds are used for road construction,

new year's celebrations and emergencies. Money can be borrowed by villagers with no interest. With last year's price drop, more villagers are relying on the village funds. The village headman guaranteed a loan from the Policy Bank for more than 500 million kip to supplement the village fund. This was then distributed through loans to households at approximately 1.2 million kip per household to cover rice and other expenditures. Some farmers are paying the money back in cash themselves, others have payments deducted from their rubber sales at the marketing group.

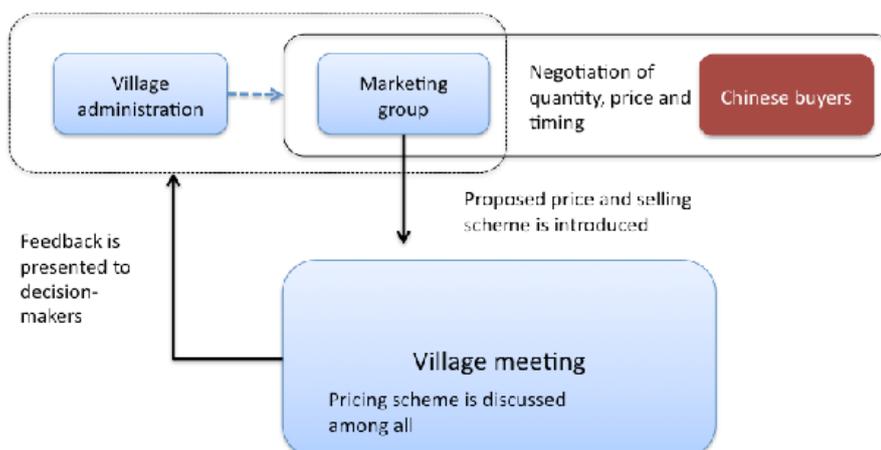


Figure 3: Village institutions

The farmers see these communal funds as important in counterbalancing market fluctuations. One unit head even mentioned that he plans to start a unit-level security fund once enough rubber comes on-line in the unit. It is reported that repayment of debts is not a problem in the village, although detailed data on activity in the village fund account was not collected. One reason for this may be that the village (including the village leadership who managed the funds, and the farmers who accessed the funds) got early experience in using and managing funds that were provided as a loan by the Province.

4.3 Creating and enforcing regulations

Producers consider the rules and regulations that support the various groups to be very important parts of the system. In our interviews farmers repeatedly mentioned, “clearly defined group organization and well-understood regulations”. These regulations have been written down and disseminated among the producers, and general understanding of the regulations – with regards to both technical and marketing aspects – does seem to be high. That said, when the research team started to explore the regulations in our interviews, we found that there was not a consolidated “book” of regulations covering the entire rubber enterprise. We found that there were two types of regulations. One set of broad regulations, covering most of the main aspects of the rubber activities in general terms; these lay out the basic “rules of the game”. The other type of regulation is more focused, dealing with the key issues in implementation deemed to be most problematic.⁸ There are simple, but important regulations for marketing group members, such as the rule that they must keep records of sale in the designated account book and bring their account books to each sale date. Other regulations have been established to deal with activities that have been decided as against private and public interest in the village. For example:

Regulations for fencing to protect newly planted trees from livestock and other damage.

Standards for compensation in case of damage to rubber trees from fire or livestock – according to the age of the trees, agreed upon in negotiation between parties with support from elders and village forestry volunteers.

Prohibition and penalties for theft of rubber, as it is stored in the fields – this was more of a problem at the beginning and disappeared when the regulations were enforced

Prohibition of sale of latex outside of the group (for group members) - people are first fined for the first offense (4-5 people last year) and then kicked out of the group (2-3 people since started). The fines are put into the village development fund.

The villagers report that so far all problems have been solved within the village. Normally problems that cannot be solved by the village leadership are brought to the local government for mediation, but the district has not been asked to intervene so far. We did not explore these conflict resolution mechanisms in detail, but there was a sense that the combination of regulations, the group and village officers, supported by the

elders, create the necessary formula for quickly dealing with problems that arise. More in-depth research on these problem solving approaches would be instructive, but would require researchers to invest much more time in establishing trust with the villagers so information exchange is open.

4.4 Training: Building skills and maintaining standards

Tapping techniques are one of the most important aspects of the rubber enterprise, requiring specific skills and tools. Many villages with rubber that has not yet come on-line express concern about how they will obtain the specialized knowledge for tapping. In Ban Hat Nyao, the leadership has established a training program for farmers who will begin to tap. Informal training was carried out from the beginning of tapping, with the basic knowledge provided by several key individuals who were among the group of 16 households that migrated from China in 1996. These individuals had worked on rubber plantations and were highly skilled in the technical aspects of rubber tapping. These individuals became central to the introduction of knowledge, which was spread further through kinship networks. The migrant technicians continued to serve as informal ‘consultants’ to new tappers.

The training has been formalized as more rubber came on-line. Before the tapping season begins, the village holds a week long training seminar in which the theory and practice of the tapping process are taught. The trainers are several of the villagers who migrated from China. The training is held in the village meeting hall and conducted in Hmong. Farmers practice on trees brought into the village before trying their new skills on productive trees. In 2006, the number of participants had reached 40.

The training has become very important to the village beyond the individual tapping activities of each farmer. Upon completion of the training course, participants are issued with certificates. There is nothing preventing a farmer from tapping his own trees without a certificate, but it is virtually impossible to tap other peoples’ trees without this qualification. Labor demands often exceed the capacity of each household, and there is some need to hire supplemental labor. Because rubber has been planted over a long period of time, there are many people who do not



Rubber tapping requires a high degree of skill *Source: Michael Dougherty*

yet tap large amounts of trees, and these people need to gain income and experience. For the larger-scale farmers, access to this supplementary labor seems to be important. This could be examined further as a mechanism for providing income to farmers before year seven while at the same time providing valuable experience in tapping. According to Ban Hat Nyao villagers, the certification process is a necessary part of this arrangement, because a high level of trust is required to allow others to do the difficult tapping work. The marketing group has also stated that this system is the key to maintaining the quality standards that are necessary for the relationship with the purchasers.

The training is open to farmers from outside the village, but because the majority of surrounding villagers have not yet begun large-scale tapping the number of external participants has been relatively low. Nevertheless, there have been participants from other villages and other ethnic groups, and the Ban Hat Nyao trainers adjust the program to accommodate these people.

It is interesting to note that there is no provincial or district support for the training activities. Organized and spontaneous study groups come to the village frequently, and the Ban Hat Nyao tappers share their technical knowledge with these people. Bokeo province has invited them to provide training in that province as well. There has been no effort on the part of the PAFO or DAFO to cooperate with Ban Hat Nyao to organize trainings. The village itself has plans to expand the scope of the training services, which will be proposed to the province in the future.

4.5 Making the sale

In many ways, the sale of rubber is the most important activity in the village. The role of the marketing group demonstrates how it is the central institution of service provision. After the marketing group returns from marketing trips to China, they report to the village leadership on the proposed purchasing arrangements discussed with the buyers. Once the village has decided upon an acceptable price and quantities (see section 4.6 below), the villagers begin to prepare their latex. When enough latex has been tapped to fulfill the conditions of the agreement, the buyers are called in. The sale happens at the village.

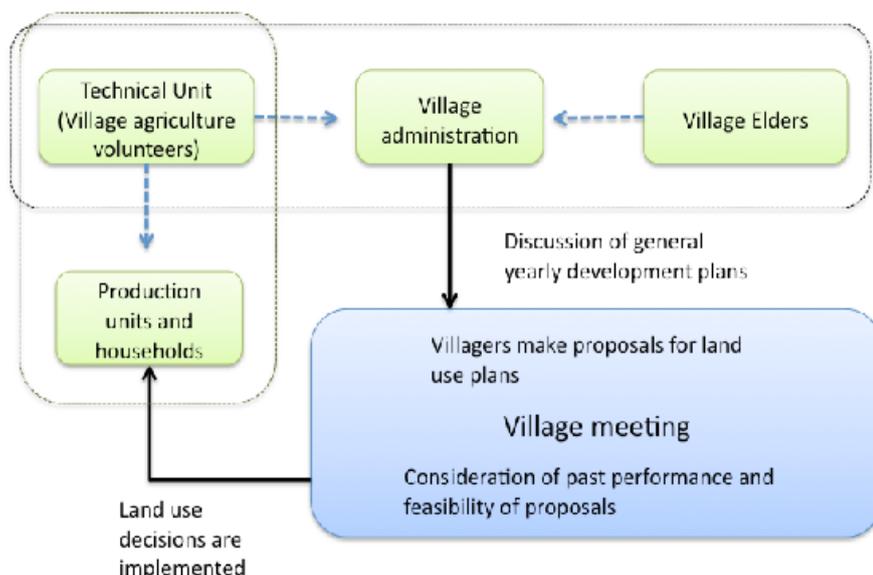


Figure 3: Negotiation process in Ban Hat Nyao

Producers bring their latex to the sale point individually. Each household must bring its account book, and the amount of latex sold is recorded at the time of sale. After all latex has been sold, the marketing group accompanies the purchasers back to the Chinese border, where the money is turned over. The money paid to the marketing group is then distributed back to the farmers according to the amounts recorded in the household account books. Taxes are withheld at this time.

Villagers prefer to have the sale take place in the village. It is possible that producers could sell directly to the buyers in China, but this would require more bureaucratic work to get the necessary paperwork. Furthermore, farmers explained that having the sale in the village means that everyone can monitor the transactions. The marketing group not only secures the market for the producers but also provides a buffer of trust against the uncertainty of the market. They also believe that keeping the latex in the village and making large sales increases their bargaining power.

The marketing group negotiated a standard part of all purchase agreements, whereby the buyers put up half of the money ahead of time to secure the deal. If the company does not come to buy the latex, the villagers keep the money and are free to sell elsewhere.

4.6 Consultation, transparency & sustainability

Large meetings of the group of members are held as necessary - usually before the tapping season starts and half-way through the season. Village consultations are the key mechanism for building consensus among the producers.

One consultation mechanism of interest is the price negotiation and approval process. After the marketing group does the initial negotiation with the buyers, the unit heads are invited to a meeting where the proposal is discussed, where the elders are also in attendance. The unit heads take this information to their members and discuss. If there is objection within the units, a letter is sent to the headman. This mechanism functioned well last year, when the marketing group proposed to make an agreement with the purchasers to set the price for the whole producing year. The producers, wishing to allow for possible price rises, thereby assuming greater risk in an unstable market situation. The initial proposal was based on a more conservative strategy to secure an acceptable price for the village. As a result of the unit members' opinion, the proposal was revised and the negotiations were carried out as usual, on a regular basis.

Another issue that requires full member meetings is delay in payments. Delays in payment result occasionally because the amounts stated in the contracts are just estimates.

4.7 Roads to increased production

A key constraint to the rubber production operations is the difficulty in transporting tub-lumps stored in the fields to the village for sale. The villagers are constructing several roads to improve their own access to the production

areas. They are also discussing the possibility of constructing a bridge that would greatly facilitate transport.

These developments would remove a significant bottleneck to the labor requirements for selling latex, and are therefore given high priority by producers. The response by the village has been to assign the task of road construction to the farmers who are to benefit from them. In many cases this has resulted in organizing communal labor by administrative unit. Meeting the labor requirements has been a burden on farmers, but so far it has been managed effectively by the administrative units and marketing group.

4.8 Investing in value-added

Producers enjoy a relatively stable market demand, even if prices have fluctuated. But they are well aware of the potential for increasing income by adding value. The first step in processing latex is to produce sheets. In 2004, a small group of individuals began to construct a processing facility with funds they had been pooling, and took out a loan. The factory, as it is known in the village, is 70% complete. The factory is lacking electricity and office facilities, but construction seems to have stalled.

The two leaders of the marketing group are leading the push to construct. There has been discussion about getting a loan from the Policy Bank, but the period of repayment will be short and the interest high. With depressed latex prices, interest in this risky option is low. When finished it will be operated as a business, open to anyone but managed by the investors. People will be charged for the processing. The general plan is to turn the facility into an association and run it similarly to the marketing group, with part of the profits deposited in the village development fund.

Latex sheets produced by the village can be sold for 10 yuan/kg. The village latex supply is not sufficient at the moment to fill the capacity of the factory that is under construction, so the plan is to open the factory to rubber producers in other villages as well. There is one processing facility in Luang Nam Tha, a Chinese investment, but the prices are low and people are not interested in processing yet. They prefer to build up their own

marketing network once the local facilities start producing. The general feeling is that although producing sheets may require an adjusted marketing approach, the demand in China is high enough that this market can be accessed without too much additional trouble.

It seems that the majority of the farmers are not able to make contributions to the processing facilities, because they are still making investments in maintaining their trees and bringing them on-line.

4.9 Providing market access beyond the village

Tappers from other villages are allowed to sell in Ban Hat Nyao when the Chinese buyers arrive. Outside sellers can join the marketing group, provided that they are willing to abide by the rules of the group. This decision was taken by the village in 2006, understanding that accessing the Chinese market is rather difficult for small-scale producers. Currently there is around 25 households of different ethnicity (Lue, Thai Dam, Hmong, Lanten and Sida) selling regularly. If an individual decides not to become a member, they are still allowed to sell in the village, but only after all the members' latex has been sold. As mentioned above, the village's processing facilities may also become a service to be provided to other villages.

5. Discussion: Creating, adapting and managing institutions

5.1 Mobilizing resources and providing services

The first critical mobilization of resources was obtaining a loan to support the initial investment push in the late 1980s, after the pioneer planters had demonstrated the feasibility of the rubber option. The bank preferred to conclude loan agreements with individuals, but the village leadership made a counter-proposal to form a committee to manage the funds centrally. Three people were chosen to handle the money – two elders and one village forestry volunteer. A treasurer was assigned to the committee as well. Each household then signed an agreement for the funds, which was actually managed by the committee. The village leadership arranged the purchase of seedlings and other start-up inputs, which were distributed to villagers. The villagers were then responsible for returning the agreed-upon amount of funds to the committee, which made the payment to the bank. This strategic intervention – the birth of the marketing group – was a clever manipulation of the boundaries between group and individual responsibility.



Unprocessed rubber and inefficient processing Source: Yayoi Fujita

Since then, the marketing group has evolved and is rather unique, when compared to other examples in Laos, in that it is not a mechanism for mobilizing collective action. In fact, its role as a service providers is much more highly evolved and the labor mobilization is left to the production units. As we saw above, securing market access

for the village's latex is a core function of the group. But a range of other services – from information, technology, equipment, credit and facilitation – are provided by the group. This ensures that the group has a well-founded understanding of the status of rubber production in the village. It's central position in the village production network also means that many people have access to its services.

This approach represents a strategic division of labor. It is widely believed in the village that farmers are capable of taking care of the production, provided that they have reliable access to certain key inputs. This has enabled the marketing group to focus on the market and the services required to ensure secure access to latest sale outlets. Parallel with this focus was the development of a long-term vision in which the full range of marketing support mechanisms was considered.

5.2 Supporting the group

The common understanding about the Ban Hat Nyao experience is that the marketing group has provided critical support to the village rubber operations. The role of the group is certainly important, as it was created and became a strong village institution in just a few years. However, one lesson from the village is that the marketing group alone cannot create the conditions to enable successful rubber production. As discussed above, there is a range of institutions – formal and informal, generalized and specialized – that interact in the rubber enterprise. The successful functioning of the marketing group depends upon a number of other institutions performing their roles.

Without the work of the village administration, the elders, the monitoring unit and the production units, the comprehensive system that is led by the marketing group would not function. This finding is important in two ways. First, it highlights the importance of strong leadership, management and decision-making at the village level. The Ban Hat Nyao case demonstrates what leadership entails – vision based on sound understanding, supported by clear and timely decision making. Second, it suggests that models of support that focus on creating a group (production, marketing) need to consider how it will interact with other institutions in the village. Here, a concrete approach to the often used but ill-defined concept of 'coordination' shows how the flow of information and resources can enable and influence a decision-making structure.

5.3 Creating consensus, creating institutions

The picture of institutions presented above should be understood in its own time-frame. Complex and integrated institutions developed over the course of 15 years of working together as a community. The village drew primarily on resources within the community, although a few key inputs were obtained from outside. One striking feature of the Ban Hat Nyao institutions is that they have continued to develop in response to the needs of the rubber producers.

The long process of building institutions had the positive side-effect of contributing to the creation of consensus among the villagers as to what institutional support infrastructure is needed. The foundation of the consensus probably lies on two main factors: 1) the village leadership made its plans clear to the village, and continuously stressed the objective of creating long-term development benefits for the entire village, and 2)

the villagers have participated in the ups-and-downs of the rubber transition, solving problems together. The outcome is a shared understanding, which has supported the institutional development. Villagers trust the system, because it has delivered results. The producers and the village leaders both see the value of transparent and inclusive decision-making processes.

6. Looking forward: Challenges to the Ban Hat Nyao rubber institutions

The analysis of institutional arrangements presented here was sparked by comments of the Ban Hat Nyao leaders themselves, asserting that the management of the rubber was the key to their success. Throughout the research, several people commented that they believed other villages will have trouble with rubber because in most cases there has not been a strong vision for managing the whole system. Individuals are encouraged to plant, but the institutional support infrastructure is not built up. District thinking seems to reflect this hands-off approach as well. Even with the sophisticated management system set up in Ban Hat Nyao, there are still many issues facing the village. The challenge to the rubber planters will be to maintain the flexibility to adapt the institutions to the changing situation.

6.1 Institutional efficiency: Improving management of rubber marketing

It was suggested the marketing group should spend more time interacting directly with the buyers in China in order to follow the market trends more closely. The services provided are sophisticated and high-quality. So far, the system has functioned primarily on a system of solidarity and community spirit. But with production and management workloads growing some leaders have expressed some exhaustion. It is possible that the operation is on the edge of another major step to commercialization, in which a local service industry may emerge. This would mean that people are paid for specialized services, which makes good sense in terms of economic efficiency, but may have trade-offs in terms of social acceptability and equity.

6.2 Equity vs effectiveness

The economy of Ban Hat Nyao is highly commercialized, and the integration of local livelihoods into the regional market economy will continue. The village leadership, including the headman and the marketing group, have usually chosen the more conservative, more equitable path with regards to marketing. Specifically, it has always been the preference to move the highest volume of latex as possible, even if this meant a lower price. In choosing buyers, higher prices may be available for smaller volumes, depending upon demand conditions. Thus, the village policy has been to ensure distribution of benefits to the largest number of producers. This effectiveness of this policy has come under some scrutiny by producers recently.

As the production activities have grown in scale and the economics of the operation have gotten more complex, rubber producers are beginning to demand more service from the marketing group. Because there is a contribution from each sale to the operations of the marketing group, farmers want to know what is being done with the funds. One suggestion voiced was that the marketing group should hire people to load the

latex. This is a key point, considering that there is no storage facilities and the farmers have to haul their latex from the fields to the village on sale days. Another related idea was that the common funds should be used to construct a bridge across the river that separates the village area from the fields. Currently only motorcycles can cross the bridge, which makes transport of latex to the village a burden. Furthermore, the funds could be used to set up a dedicated latex sale area, which would increase the efficiency of the sales and would help reduce the bad smell in the village during the sale days.

Beyond production, deeper issues related to gender, benefit sharing and clans were not studied in-depth. We still do not have a good sense of how benefits are distributed within the community. We have seen that there were special measures to prevent the consolidation of rubber land in the hands of a few individuals. One could look at how farmers are faring across clans. Similarly, one could examine differences between established farmers and newer arrivals. Finally, how the rubber economy has affected gender relations in the field and in the household must be an important area of research in the future.

6.3 Group vs individual

The current rubber production practices highlight a tension between communal and individual activities. At the beginning (particularly in 1994-1995) there was a significant amount of communal labor requirement (*sib pab ua*). The main tasks were land clearing and digging holes for planting. Each household had to contribute two laborers for communal tasks on work days. Later in the development process, when large lands had been cleared, the work style became more individualized (*nyag ua nyag*). One recognized benefit of the communal work was that it introduced people to the rubber production tasks and there was a high degree of group learning towards a common cause.

The village policy of maximizing equity in terms of benefit distribution in latex sales is being discussed by some farmers,



Some villagers want to use profits from rubber to improve the bridge to the main rubber fields. Source: Michael Dougherty

as well. The possibility of getting higher prices by manipulating more buyers appears attractive to some producers, especially as the volume of latex sold in the village is growing. This has led to further consideration of whether individual, or at least smaller group, selling would be more profitable. Local criticism of the village policy should not be overstated. In most cases, people agree that the marketing approach taken has been successful and is the cornerstone of the village rubber operations. People understand well that if a reasonable volume of latex cannot be assembled, it village's negotiating stance with the purchasers is weakened. At the same time, villagers' understanding of the market and the micro-economics of rubber encourage them to constantly consider the options. It does not seem likely that any major changes in the marketing structure will occur, but interviews with producers and unit leaders highlights the challenges that the marketing group will have to deal with in the future.

From discussions with the unit leaders, it seems that their workload is growing as the scale and complexity increases. The head of one unit mentioned that it is increasingly difficult to get the unit members to participate in communal work and they get no compensation. Some people reportedly are happy to pay the fines if it means that they can focus on their own individual work. The unit leader as well expressed some displeasure at the fact that only the marketing group heads get compensation for their work. He mentioned that it is very difficult to monitor and enforce the labor contributions. The whole situation puts the unit heads in a difficult position between the village leadership and the farmers.

6.4 Sustainability of market demand

Falling rubber prices last year caused difficulty but are not yet at the crisis level. According to our interviews, producers are confident that this level of shock can be absorbed by the institutions created in the village. If the prices drop further or remain at current levels for an extended period of time, there will be problems. While the village has safely made it through the first step of economic transformation, market uncertainty can translate into livelihood vulnerability. Ban Hat Nyao has taken a tremendous risk in going so completely into rubber. Calculating risk management into the next stage of development in the village will be a key task for the rubber group.

6.5 The future: Production or services?

Ban Hat Nyao has, for all intents and purposes, expanded its rubber production to the limits of village geography. Producers and managers are working together to streamline the system, while keeping an eye on social equity. Yet it could be argued that Ban Hat Nyao is creating another option through the development of its management and marketing institutions. In the future, it is conceivable that Ban Hat Nyao villagers could go into the business of service provision. They have already created an effective marketing system, which can still take on production capacity. Their marketing group has access to technical expertise, equipment and marketing knowledge directly from China. The village has begun to provide training courses, which are open to other villages.

In a market-based model, extension and technical inputs are often provided by private sector actors, who take over from governments that are not well positioned to provide all required services in a cost-effective and timely way.

The Ban Hat Nyao model presents an alternative, perhaps transitional approach, in which villagers themselves become extension and marketing agents, selling their services to fellow farmers. It could be argued that this is a logical extension of the complex institutions and sophisticated expertise that has been created in the village – from planting, to tapping to group formation and marketing. It is unlikely that such a transformation, or diversification, would come about without some support or encouragement from the government. For now, the villagers seem happy to provide services at minimal cost, as part of their civic duty. This may change when the market value of their knowledge, connections and expertise are recognized. The benefits of high quality support services would not be limited to alternative income for Ban Hat Nyao, but would likely raise the quality and efficiency of rubber production in the province.

7. Recommendations

Two sets of recommendations are presented here. The first come directly from the Ban Hat Nyao villagers. Because the management is so sophisticated and the general awareness of their work is so high, we were able to ask people for their recommendations to other villages engaging in rubber planting. The second set of recommendations are from the research team, and focused on further research and development.

7.1 Recommendations from Ban Hat Nyao

The recommendations offered by people in Ban Hat Nyao were fairly consistent, and simple. They should be understood as coming from individuals participating in a village-wide development effort:

- ◆ **Vision and leadership are the foundation:** Without the dedicated support and commitment of a few individuals who have a clear picture of the development trajectory, it is very difficult for the village to mobilize all the resources needed to bring about a major transformation in production.
- ◆ **Establish management from the beginning:** Coordination of many activities, across many households, is a challenging task. Ban Hat Nyao farmers observing rubber activities in surrounding areas predict that most of them will fail because there is very little attention to management. Simply encouraging individual households to plan is not sufficient.
- ◆ **Consider equity:** Even when making decisions about economic efficiency and returns, the public good should be a key criteria for village leaders. It is clear that every decision cannot be optimal for everyone, but continued concern for the entire village can bring credibility and support to the production and management activities.

It is interesting to note there are many elements of the Ban Hat Nyao system and its institutions that have strong Hmong cultural traits. However, the recommendations given by the villagers are widely applicable principles.

7.2 Recommendations of the research team

The research team agreed that there are many interesting lessons to be learned from Ban Hat Nyao. At the same time, it seems clear that the rubber institutions are not a 'ready to extend model' that can be delivered to other villages. Thus,

the key challenge to researchers is to interpret, package and deliver the various messages to the right audiences to stimulate learning and thinking about how the principles of institutional development seen here can be incorporated into efforts to improve farmers access to and management of market opportunities.

- ◆ **Make sure the rubber lessons are learned locally:** Use these findings to establish a dialog between Ban Hat Nyao and district/province authorities in support of rubber production
- ◆ **Apply rubber findings to group formation:** Bring the lessons of institution building to bear on other activities to establish groups
- ◆ **Follow-up with observations:** Continue to monitor how the village institutions evolve to meet challenges

8. Conclusions

This report has explored the institutional set-up and functioning underpinning the transformation of the Ban Hat Nyao economy. The experience of this village cannot serve as a ready-made model for villages wanting to go into rubber. Nor are the institutional structures and processes described perfect. To the contrary, Ban Hat Nyao reminds us that flexible institutions are the key to resilience. Flexibility means the ability to adapt to external forces and learn from internal experiences. One message from the village was that while the rubber group has been successful, it faces several choices for the future.

Participation, consultation, and transparency are found as principles for development in strategies, plans and policies everywhere. It is less rare to see these principles implemented. Perhaps the greatest value of the Ban Hat Nyao case is in understanding how the rubber institutions attempt to translate general concepts of development into action. Yet, the most important lessons may be still to come. The real challenge to the village is to deal with the reality that fixed approaches to implementation will not be sustainable in the market economy. It will take strong but flexible institutions to continue to respond quickly to signals from the market while listening closely to the voices of the villagers.



The head of the marketing group understands the uncertainty of the market economy Source; Michael Dougherty

Field Note Report Series

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For more information contact:

Dr. Vanthong Phengvichit, Research Coordinator
 National Agriculture and Forestry Research Institute
 Upland Research and Capacity Development Programme (URDP)
 PO Box 811
 Vientiane, Lao PDR
 Tel: (021) 770-078 Fax: (021) 770-047
 Email: vanthong.p@nafri.org.la
 Website: www.nafri.org.la