WOMEN IN SHIFTING CULTIVATION
Luang Prabang Province Lao P.D.R

By Agneta Håkangård

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Acknowledgements
We are very grateful to all villagers who received us so friendly in their homes. Several baci ceremonies were arranged for us and we appreciated very much this custom with prayers and good wishes.

Women generously shared their experiences and views with us and answered all our questions very patiently.

William Leacock, adviser to the Shifting Cultivation Project, accompanied us on long walks and helped us in carrying out the study in the villages surrounding Ban Thong Khang.
1 WOMEN IN SHIFTING CULTIVATION

INRODUCTION

In 1989 one portion of the study "Women in Forestry" was completed, which included a study of women in Swedish-assisted forestry enterprises. (C. Ireson: The Role of Women in Forestry).

This report is the remaining portion of the study and concerns dissimilar villages based on shifting cultivation.

The overall objective of this initial, general study of Women in Forestry is to describe and analyse socio-economic conditions in forested areas of Laos, particularly in relation to women. The purpose is also to provide a basis for further improvements in the living conditions of women in these areas.

This report is based upon fieldvisits in eight villages in Luang Prabang Province.

The study was completed within a six week period in May-June 1990.

The purpose of the present study on women in villages based on shifting cultivation is:

- to collect information on living conditions, employment and productive activities of women in the case study units.
- to investigate women's uses of the forest and forest products and to identify how the forest contributes to women's family, economic and social life.
- to make some recommendations for future courses of action to improve women's living and working conditions.

LOCATION

The survey has been conducted in 8 villages of different ethnicity and physiographic location. They are untouched by organised forestry activities.

68 women and 20 key persons have been interviewed in the following villages:

Two Lao Lum villages - Xieng Muak, Kok Wan

Three Lao Theung villages - Hai Luang, Pha Tung Lom, Lon Lao

One Lao Lum/Lao Theung village - Nam Phak

Two Lao Sung villages - Lon Lao, Tou Ho

SAMPLE

68 women ages 15-60 years and 20 keypersons were interviewed.

An intentional selection process, interviewing people of different age, ethnicity and resource base was combined with random sampling.

Use of key informants who had good village-wide knowledge was one check on the representativeness of individual interviews carried out.

METHODOLOGY

Both formal survey and rapid rural appraisal (RRA) have been used to gather information.

The following topics have been covered in a formal survey:

- Demographic structure: gender and age distribution, household size, fertility, mortality, mobility, literacy.
- Agricultural statistics: estimated land holding, livestock raised, crops cultivated.
- Gender and generation division of labour in agricultural and forest work, food production, domestic work, child care and work for additional income.

- Income from sale of goods produced; producer, estimated income wage income; source, earner, duration barter income; what exchanged, producer, what goods in return who keeps money, who decides what to buy.

Rapid rural appraisal have been used to generate information on the following points of interest:

- shifting cultivation: how does the system work and what is women's role.

- women's uses of the forest and natural resources.

- food supply and subsistence resources, food grown, quality of food, self-subsistence in food production, which family members produce food.

- major health problems and means of solving them, family planning, mother and child health care.

Techniques used in RRA are:

- **Semistructured interviews** with discussions and remarks interspersed with the questioning.

- **Direct observations** of housing conditions, village work, hai activities.

- **Secondary Data Review** acquired by provincial and local officials and key informants - village leaders, teachers, health officers, traditional doctors.

- **Portraits and stories** of people and situations in the villages.

Situations governed the open-ended interviews. One answer often gave rise to new questions. Open-mindedness was the most important principle.
### Table 1. VILLAGES VISITED

<table>
<thead>
<tr>
<th>Village</th>
<th>District</th>
<th>Ethnic group</th>
<th>Tribe</th>
<th>Age</th>
<th>No of inhabit. 1990</th>
<th>No of households</th>
<th>Age distribution of women interviewed</th>
<th>No of families cultivating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Xieng Muak</td>
<td>LP</td>
<td>Lao</td>
<td></td>
<td>30</td>
<td>520</td>
<td>86</td>
<td>4 2</td>
<td>3 3</td>
</tr>
<tr>
<td>Kok Wan</td>
<td>LP</td>
<td>Lao</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nam Phak</td>
<td>Nan</td>
<td>Lao</td>
<td></td>
<td>16</td>
<td>373</td>
<td>42</td>
<td>1 3 3</td>
<td>5 2</td>
</tr>
<tr>
<td>Nam Phak</td>
<td>Nan</td>
<td>Khamou</td>
<td></td>
<td>16</td>
<td>373</td>
<td>22</td>
<td>1 3 1</td>
<td>4 1</td>
</tr>
<tr>
<td>Hai Luang</td>
<td>LP</td>
<td>Khamou</td>
<td></td>
<td>4</td>
<td>n.a.</td>
<td>23</td>
<td>1 2 2</td>
<td>1 6 3</td>
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<tr>
<td>Pha Tung Lom</td>
<td>Nan</td>
<td>Khamou</td>
<td></td>
<td>4</td>
<td>291</td>
<td>42</td>
<td>2 4 2</td>
<td>1 6 3</td>
</tr>
<tr>
<td>Lon Lao I</td>
<td>LP</td>
<td>Khamou</td>
<td></td>
<td>4</td>
<td>201</td>
<td>36</td>
<td>2 2 3</td>
<td>4</td>
</tr>
<tr>
<td>Lon Lao II</td>
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<td>Lao</td>
<td></td>
<td>10</td>
<td>285</td>
<td>41</td>
<td>3 2 2</td>
<td>1 8</td>
</tr>
<tr>
<td>Tou Ho</td>
<td>Nan</td>
<td>Soung</td>
<td></td>
<td>11</td>
<td>106</td>
<td>20</td>
<td>2 3 2</td>
<td>1 8</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td></td>
<td>16</td>
<td>19</td>
<td>25</td>
<td>8 49 18 1</td>
<td></td>
</tr>
</tbody>
</table>

### Table 2. MARRYING AGE AND LITERACY

<table>
<thead>
<tr>
<th>Village</th>
<th>Average Marrying age among women interviewed</th>
<th>Percentage Of literacy among women interviewed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Xieng Muak</td>
<td>17.5</td>
<td>66</td>
</tr>
<tr>
<td>Kok Wan</td>
<td>17</td>
<td>60</td>
</tr>
<tr>
<td>Nam Phak</td>
<td>16</td>
<td>25</td>
</tr>
<tr>
<td>Hai Luang</td>
<td>18</td>
<td>16</td>
</tr>
<tr>
<td>Pha Tung Lom</td>
<td>15.5</td>
<td>25</td>
</tr>
<tr>
<td>Lon Lao I</td>
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<td>0</td>
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<tr>
<td>Lon Lao II</td>
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<td>0</td>
</tr>
<tr>
<td>Tou Ho</td>
<td>17.5</td>
<td>14</td>
</tr>
</tbody>
</table>
2 SHIFTING CULTIVATION

"I cannot stop growing rice because I want to eat as my neighbours."
N. Khemma, 51
Nam Phak

2.1 Background

Of the total Lao population of some 4 million, about 85 % are living in the rural area with agriculture as main occupation. 72 % of the farmers are involved in shifting cultivation.

Luang Prabang Province has about 50 000 ha of land used for shifting cultivation and some 8 200 ha of paddyland.

Only about 7 % of the forest area is still dense forest.

Hai cultivation has a very low productivity, specially if measured per unit of labour. It is estimated that 25-30 % of staple food production comes from hai (shifting cultivation).

Documents on shifting cultivation in Laos conclude that shifting cultivation is harmful and should be stopped. In several forestry reports it is identified as being the main threat to the forests at the same time as it must be almost impossible to tell people to stop shifting cultivation as long as there are no options.

Shifting cultivation is complex and a variety of systems exist. Documentation indicates three major groups of shifting cultivation practices established on different altitudes.

The Lao Sung are said to occupy the hill slopes above approximately 1 000 meters. They exhaust their swiddens completely before abandoning them and the fields will never recuperate and can not be used for future cultivation.

The Lao Theung cultivate on somewhat lower altitudes and practise an ecologically much more stable system. A large number of fields are cropped one after the other in a rotation cycle. Each swidden is usually cultivated once and then left fallow for 10-15 years. This system is fairly stable and without serious degrading effects.

The Lao Lum cultivate the fields in the lowland fashion with one single rice crop a year on a completely cleared plot. Restoration of soil fertility during the fallow periods of 3-4 years is destroyed by clearing the plot of fallow tree species.

It is often claimed that shifting cultivation is a major cause of hardship for women who by tradition carry out most of the work.

Hai cultivation activities in villages visited are not entirely applicable to these generalizations.

2.2 Land tenure

The pattern of land tenure is often unclear and women are of different opinions.

- Hai belongs to the family.
- I don't sell, because I am afraid that neighbours will criticize us for selling land that is not ours.
- I started hai in this place last year. When we moved here I asked the villagers where I could do hai and they selected this spot.
- It is my hai. I can sell it if I want to.
- I cannot sell because hai runs in the family.
- I don't know if I can sell hai or not.
The system presupposes that swidden fields are held familywise with usufruct rights. Once a family have cultivated a field it remains in their possession as long as they make periodic use of it. Rights of cultivation can be handed over to children but fields cannot be sold.

2.3 Cultivated land

Few women know how many ha of hai they cultivate. They use the buckets of seeds they need as measuring instruments.

Women interviewed use 2-10 buckets (20-100 kilo) for planting their fields. For one ha of swidden field they need 4-6 buckets of seeds, for a paddy field 4 buckets /ha. The average family cultivate one ha in all.

2.4 Hai activities

Women walk to their hai in the early morning and usually come back in the evening.

Distance to swidden fields varies between 5 minutes' walk and 2 hour's walk.

Sometimes women must climb a couple of mountains to reach their hai.

Opium hai can be 3 hours' walk away.

Usually women take sticky rice with them and collect vegetables in the hai or in the forest.

Children often stay at home and elder children take care of the young ones or grandparents look after them.

Children might also accompany their parents to the hai.

Some Lao Theung and Lao Sung families sleep in the hai during intensive weeks of work.

Work in the hai begins in January - February and briefly this is the way of working:

Clear the land. Leave some tree stumps. (Lao Theung)

Leave it for a month.

Set fire to it.

Rake into pile and reburn.

Weed.

Make fence.

Plant the rice.

Weed three times.

Harvest. Pull the rice grain from the stalk with fingers.

"Doing opium hai is more difficult than anything. It is far away and when we are weeding we have to spend the nights there. The opium hai must be done in secret otherwise we are afraid that the opium will be stolen. Sometimes grandmother joins us while grandfather stays at home looking after the children."

2.5 Fallow

78 per cent of families interviewed move every year and come back after 3-4 years (allow the field to lie fallow for 2-3 years).

They all agree that they have shortened fallow because there are so many people nowadays so land must be reduced. Earlier they allow to lie fallow for at least 5 years.

10 per cent turn back every 4-5 years (fallow 3-4 years).
12 per cent, mainly the Lao Sung, cultivate the same land as long as soil fertility is acceptable and then leave for about 5-6 years.
- I observe the rice. As long as rice is good I don't move.'
15 years ago they were back after 10-15 years.
Almost all families leave the land after harvest and plant nothing else. Only in exceptional cases, families try a second crop after harvest e. g. sesame, peanut, onion, and garlic.

2.6 Weeding
All women are in agreement that weeding is the most difficult and toilsome work. Most families are weeding almost every day for four months until the rice has flowers.
- I wish I had a weeding-machine.
- Weeding is so hard.
- When we have finished weeding the field once, we have to start it all over again.
- I have no time to relax because of the weeding.
- I am sick and tired of weeding.
They all say that 15 years ago they cleared the jungle and weeding was not that big a problem.
In most cases it is not access of land that limits the size of field but the amount of weeding work a family can cope with.
Lao Sung women say that weeding the opium hai is even harder than the rice hai.

2.7 Mixed cropping
A number of crops are combined with rice and corn in the hai.
Most common:
Cucumber, chili pepper, eggplant, pumpkin, and squash.
Not uncommon:
Peanut, taro, louffa sponge, cassava, beans, and water melon.
Also mentioned:
Soya bean, sugarcane, tubers, tobacco, and coffee.
There are only slight differences between the different groups.

2.8 Methods and rice varieties
No family have ever tried new methods, except hai khud\(^1\) which government officials more or less forced upon the cultivators.

\(^1\) The FAO/82/006 Watershed Management Project in Luang Prabang has build up an extension organization and a system of land use, aiming at addressing the problem of shifting cultivation in watershed areas. The land use system has been based upon terracing and cultivation of beans, maize and rice in the terraces. The project has failed to provide an alternative land use which can support the population. A major reason for this appears to be a very inflexible approach where only one model has been regarded as appropriate. (Bo Ohlsson: Discussion Paper on Socio Economic Aspects of Forestry and Forest Land Use in Lao PDR, 1990)
- Nothing has changed. We do hai the same way as 15 years ago.
Some families have tried new varieties of rice, in particular the Lao Theung in Lon Lao village.
All women have learnt from parents what to grow and how to plant.
It is difficult to induce farmers to change their old cultivation system.
Most of them at least try different varieties of rice. Women seem familiar with the different types and name some 15 different varieties. They are well aware of the reason for growing them.
- If we plant only one variety all rice will ripen at the same time and we won't have time to harvest.
- The longest variety, khao ngen, is very soft to eat.
- We plant several varieties to be on the safe side if one fails.
- Khau daw yields better than khau bee.
- The project told us to plant ordinary rice instead of sticky rice, because it gives better result. I agreed to their suggestions this year.
11 families grow only one variety. The other 57 plant two or more different kinds.
2.9 **Hai alternative**

Women were asked if they wanted to quit shifting cultivation.

- Yes, it is too hard, too difficult, too far away.
- Yes, because I have to weed every day till the rice has flowers.
- Yes, I'm tired of doing hai. There are big risks with hai and it yields poorly and irregularly.
- Yes, I want a paddy, because I must take care of the hai the whole year instead of one month with a paddy.
- Yes, a paddy gives more and requires less work.
- Yes, I want a paddy for ever.

Five of the women interviewed do not want to stop doing hai. The remaining 63 want to quit the swidden fields and cultivate wet rice.

2.10 **SUMMARY**

- On an average families cultivate one hectare of land.
- Each family has usufruct rights to a number of fields, which remain in possession of the family as long as they make use of it.
- Doing hai is a family affair where husband and wife share the work.
- The fallow periods are extremely low, generally 2-3 years.
- The fields are in most cases cultivated with one single crop a year without a secondary crop or additional input.
- Weeding is a major problem. Fallow periods are too short to suppress weeds and weeding is the most labour demanding and time consuming activity in the entire cultivation cycle.
- Soil fertility is quickly decreasing but most people are not aware of that. They do not use chemicals or fertilizer to improve soil conditions. Return from shifting cultivation is very low, on an average 500 - 1000 kilo/ha.
- Many different crops are mixed with rice and corn in or round the hai.
- Most families grow different varieties of rice for safety's sake.
- 72 % of farmers interviewed are pure shifting cultivators. 26 % combine shifting cultivation and wet rice cultivation.
- Swidden cultivators follow their old agricultural systems and traditions. It is not an easy task to make farmers change their practices.
- 93 % of women interviewed want to quit shifting cultivation and have wet rice field.
- Swidden fields require much more labour input than wet rice field.
- In 71 % of the households husbands decide agricultural questions.
- In 23 % women decide and in 6 % of the families wife and husband decide together.
- Decisionmaking is about the same in the three ethnic groups.
### Table 3. DISTRIBUTION OF WORK IN SHIFTING CULTIVATION

<table>
<thead>
<tr>
<th>Activity</th>
<th>Lao Lum</th>
<th>Lao Theung</th>
<th>Lao Sung</th>
<th>When?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Wife</td>
<td>Husband</td>
<td>Wife</td>
<td>Husband</td>
</tr>
<tr>
<td></td>
<td>○</td>
<td>●</td>
<td>○</td>
<td>●</td>
</tr>
<tr>
<td>Slashing</td>
<td>●</td>
<td>●</td>
<td>○</td>
<td>●</td>
</tr>
<tr>
<td>Burning</td>
<td>●</td>
<td>○</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Piling and reburning</td>
<td>○</td>
<td>●</td>
<td>○</td>
<td>●</td>
</tr>
<tr>
<td>Dibbling</td>
<td>○</td>
<td>●</td>
<td>○</td>
<td>●</td>
</tr>
<tr>
<td>Planting</td>
<td>○</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Fencing</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>●</td>
</tr>
<tr>
<td>Guarding</td>
<td>●</td>
<td>●</td>
<td>○</td>
<td>●</td>
</tr>
<tr>
<td>Weeding</td>
<td>○</td>
<td>●</td>
<td>○</td>
<td>●</td>
</tr>
<tr>
<td>Harvesting</td>
<td>○</td>
<td>●</td>
<td>○</td>
<td>●</td>
</tr>
<tr>
<td>Threshing</td>
<td>○</td>
<td>●</td>
<td>○</td>
<td>●</td>
</tr>
<tr>
<td>Transport</td>
<td>○</td>
<td>●</td>
<td>○</td>
<td>●</td>
</tr>
</tbody>
</table>

● = Mainly responsible  ○ = Helper

Many families make use of exchange labour for slashing, dibbling-planting, weeding, harvesting and transport.
3 WOMEN'S USES OF FOREST AND NATURAL RESOURCES

"It has become harder to find forest food, especially wild animals, because more and more people look for food in the same forest."

Nang Lod, 20
Hai Luang

3.1 Availability and importance of forest products

Forest products play an important role in the household food security and provide critical support to agricultural production. Although there have been reductions in the forest resource base, forest foods provide an available and accessible source of a diverse range of food.

All families in villages visited gather food from the forest area near the village and the hai, from secondary forest, jungle, stream and riverbank. Only three women said that they do not usually eat forest food. The others eat forest products every day and as good as every meal includes food from the forest.

Women rarely go to the deep forest. They collect food in secondary forest 0.5 - 2 hours' walk from the village. Husbands and sometimes sons go to the jungle for hunting and for collecting wood. They also go fishing.

Among the Lao Sung only about half of the women collect forest food. Usually husbands are responsible for collecting forest products. Nor do they gather much during the rainy season as they are too busy in the hai.

Often family members help each other to carry fuelwood on their way back from the hai.

3.2 Forest products

There seems to be no relation between rice supply and use of forest food. Also a family with a surplus of rice collects forest products several times a week.

Common items gathered and hunted are:

<table>
<thead>
<tr>
<th>FOOD PRODUCTS</th>
<th>FOREST ANIMALS</th>
<th>USE PRODUCTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>bamboo shoot</td>
<td>birds</td>
<td>fuelwood</td>
</tr>
<tr>
<td>mushroom</td>
<td>frogs</td>
<td>grass</td>
</tr>
<tr>
<td>leave</td>
<td>mice/rats</td>
<td>bamboo wood</td>
</tr>
<tr>
<td>fruit</td>
<td>squirrels</td>
<td>bamboo for weaving</td>
</tr>
<tr>
<td>fern</td>
<td>grasshoppers</td>
<td>flower for selling</td>
</tr>
<tr>
<td>green mustard</td>
<td>lizards</td>
<td>rattan</td>
</tr>
<tr>
<td>calamus shoot</td>
<td>wild pigs</td>
<td></td>
</tr>
<tr>
<td>rattan shoot</td>
<td>wild cats</td>
<td></td>
</tr>
<tr>
<td>wild spinach</td>
<td>wild chickens</td>
<td></td>
</tr>
<tr>
<td>wild cassava</td>
<td>hedgehogs</td>
<td></td>
</tr>
<tr>
<td>edible flower</td>
<td>snails</td>
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</tr>
<tr>
<td>fiddle-head</td>
<td>fish</td>
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</tr>
<tr>
<td>water cress</td>
<td>shell fish</td>
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</tr>
<tr>
<td>wild root</td>
<td>crabs</td>
<td></td>
</tr>
<tr>
<td>wild coconut</td>
<td>shrimps</td>
<td></td>
</tr>
</tbody>
</table>
Some families in each village collect medical plants and herbal medicine which they use themselves and even sell to other villagers.

### 3.3 Chang of availability

Forest products availability has changed over the years. In the past finding food was easier.

- Forest food decreases every day.
- In the past there was everything.
- To-day there is a shortage of forest food.
- Collecting forest products is more and more difficult.
- There is very little food nowadays compared to past years.

Most women say that there are too many people collecting food and that is the reason why forest products have decreased.

Other women have another explanation:

- Earlier we had a jungle with big trees where we collected food.
- The government have forbidden hunting of big animals.
- Soldiers caught fish with dynamite so fish almost disappeared and they also hunted big animals such as deers.

### 3.4 SUMMARY

- People depend on forest gathering activities to a great extent. Especially important are forest vegetables, mushrooms, fruit, fish, small wild animals, fuelwood and building materials.
- Forest food gathering is not restricted to poor women.
- Forests provide snack foods during the planting season when there is little time for cooking.
- Forest food provides a buffer food source during droughts and other emergency periods.
- Women dominate forest gathering activities.
- Women say that their food base has become less varied mentioning in particular the decline in wild animal meat consumption.
- The habitat for many game and plant species has been destroyed by increased forest clearing.
- The lack of raw material for both wood and non-wood products is likely to become an increasing problem.
- Over-exploitation and deforestation is leading to diminished supplies and an everexpanding rural population must rely on decreasing forest resources.
- There will probably be increased burdens on households and particularly on women in their efforts to meet basic needs.
4 FOOD SUPPLY AND SUBSISTANCE RESOURCES

"If I had rice enough and the road reached the village I would like to plant other crops with good price at the market."

Song Mi, 22

Tou Ho

"Rice is the most important for our lives."

Ey May, 35

Tou Ho

The villages are all subsistance-oriented and self-sufficiency in rice and food is the main strategy. Women play an essential role in agricultural productivity. Their contribution is significant and vital.

Table 4. RICE SUPPLY

<table>
<thead>
<tr>
<th>Tribe</th>
<th>No of families</th>
<th>Self-sufficient in rice</th>
<th>Shortage 1 - 4 months</th>
<th>Shortage 5 - 9 months</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lao Lum</td>
<td>25</td>
<td>6</td>
<td>7</td>
<td>12</td>
</tr>
<tr>
<td>Lao Theung</td>
<td>27</td>
<td>5</td>
<td>8</td>
<td>14</td>
</tr>
<tr>
<td>Lao Sung</td>
<td>16</td>
<td>11</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>68</td>
<td>22</td>
<td>19</td>
<td>27</td>
</tr>
</tbody>
</table>

Only 32 % of the families interviewed can grow all the rice they consume.

Procedures to meet the family's need of rice:

Lao Lum: selling of vegetable - watercress, spring onion, soyabean, hired labour - husbands weeding, planting, harvesting, digging paddies loan

Lao Theung: selling of sesame, maize, spring onion, cassava, peanuts, soyabean, selling of animals hired labour - whole family weeding and harvesting, husbands sawing

Lao Sung: selling of animals adding of maize and cassava to rice help from neighbours loan

adding of cassava to rice
4.1 Eating habits

Most families eat three meals a day. Every meal includes rice, most often sticky rice. Besides rice common dishes for breakfast, lunch and supper consist of:

- soup of fern, mushroom, snail, fish, bamboo shoot, squash, pumpkin vegetables as bamboo-shoot, fern, squash, eggplant, fiddlehead, spring onion fish - stewed, roasted, cooked, fermented mushroom - stewed, steamed, fried sauce of pepper, chili, eggplant meat of chicken, pig, buffalo skin of pig and buffalo small animals - frog, snail, rat.

The Lao Sung often use porc oil when frying meat and vegetables.

They also eat a lot of beans.

"Beans, beans, beans, every day and the whole year there were only beans".

Nan Son, Tou Ho

People rarely buy food. When somebody has killed an animal in the village they might buy porc and buffalo meat or skin. Sometimes husbands buy food-stuffs when they have sold a crop at the market or at neighbouring villages. People also come from other villages to sell agricultural and forest produce.

4.2 Garden

Most families have a vegetable garden with a mixture of species grown in association or sesame garden, soyabeen garden, peanut garden, tobacco garden, pineapple garden, banana garden. In orchards some people also grow mango, jackfruit, papaya, coffee tree and a few families even have a small teak plantation.

Table 5. POSSESSIONS OF GARDENS ETC.

<table>
<thead>
<tr>
<th>Village</th>
<th>No of families interviewed</th>
<th>Vegetable garden</th>
<th>Fruit trees</th>
<th>Fishpond</th>
<th>Livestock</th>
<th>Poultry</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kok Wan</td>
<td>12</td>
<td>6</td>
<td>9</td>
<td>0</td>
<td>7</td>
<td>9</td>
</tr>
<tr>
<td>Nam Phak</td>
<td>12</td>
<td>3</td>
<td>8</td>
<td>2</td>
<td>7</td>
<td>9</td>
</tr>
<tr>
<td>Hai Luang</td>
<td>6</td>
<td>5</td>
<td>1</td>
<td>0</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Pha Tung Lom</td>
<td>9</td>
<td>7</td>
<td>3</td>
<td>3</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>Lon Lao I</td>
<td>7</td>
<td>7</td>
<td>2</td>
<td>3</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Lon Lao II</td>
<td>8</td>
<td>6</td>
<td>3</td>
<td>0</td>
<td>6</td>
<td>5</td>
</tr>
<tr>
<td>Tou Ho</td>
<td>8</td>
<td>8</td>
<td>7</td>
<td>0</td>
<td>6</td>
<td>4</td>
</tr>
<tr>
<td>Total</td>
<td>62</td>
<td>42</td>
<td>33</td>
<td>8</td>
<td>43</td>
<td>44</td>
</tr>
</tbody>
</table>
4.3 Livestock

Livestock is sometimes kept as a source of security. Animals could always be used as a payment for rice.

The three villages (Lao Linn, Lao Theung, Lao Sung) in Nane’s district are used as an example of livestock and poultry-keeping.

Table 6. NUMBER OF LIVESTOCK AND POULTRY IN THE VILLAGES

<table>
<thead>
<tr>
<th>Village</th>
<th>No of families</th>
<th>Horse</th>
<th>Buffalo</th>
<th>Cattle</th>
<th>Goats</th>
<th>Pigs</th>
<th>Poultry</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nam Phak</td>
<td>64</td>
<td>8</td>
<td>57</td>
<td>27</td>
<td>31</td>
<td>66</td>
<td>852</td>
</tr>
<tr>
<td>Pha Ton Lom</td>
<td>43</td>
<td>8</td>
<td>50</td>
<td>42</td>
<td>31</td>
<td>106</td>
<td>348</td>
</tr>
<tr>
<td>Tou Ho</td>
<td>20</td>
<td>0</td>
<td>0</td>
<td>24</td>
<td>26</td>
<td>112</td>
<td>593</td>
</tr>
</tbody>
</table>

4.4 Maize

Many families have a separate maize hai or maize garden. They eat, feed animals, sell (300-450 kip per kilo) and exchange for rice. (1 US $ ≈ 600 kip).

A few Lao Sung families planted maize in the opium hai after harvest.

In the maize hai villagers also plant cucumber, squash, tubers, casterbeans, pepper, pumpkin, eggplant, sesame, and watermelon.

The Lao Sung and sometimes the Lao Theung dry maize cobs, grind, mix the maize flour with rice and steam when there is a shortage of rice.

They also make maize cakes by adding salt and sugar to the flour and then wrap in banana leaves and steam.

4.5 Damages

The crop and harvest are often damaged in the hai. People complain about:

Drought - We have had drought for five years!
Insects - Last year insects destroyed almost all our rice!
Caterpillars - I don't know how to prevent caterpillar damage!
Grasshoppers - Grasshoppers are eating my rice!
Rats - When the rice is up there are the rats!
Ants - Ants take the seeds in the hole so there is irregular distance between the plants!

The cultivators always run the risk of decreased harvests. They are not willing to take another risk. Safety in satisfying the subsistance needs takes priority. When this has been achieved farmers can take risks and try new crops.

4.6 Selfsuffiency - cash crops

56 % of the women say that first of all they want to be self-sufficient in rice. If they have rice enough they would like to grow other crops with a good price at the market, for example
FOOD SUPPLY AND SUBSISTANCE RESOURCES

sesame, peanuts, soyabean, maize, and coffee.

9 % of the women want to stop growing rice and try cash crops to sell or trade for rice.

6 % of the women think they are too old to try new crops and they are not interested in commerce.

3 % of the women do not know what they want to do.

“I want to sign a contract with a company for exchanging rice. Then the company must buy my produce.”

Mrs Ly, 26
Tou Ho

4.7 SUMMARY

• The majority of the farmers have a subsistence orientated economy which seems rational as lack of infrastructure and rice deficit make trade difficult.

• Rice is only available in sufficient amounts in 1/3 of the households.

Self-sufficient in rice:
24 % of the Lao Lum
18 % of the Lao Theung
69 % of the Lao Sung

• To be able to buy or trade rice family members mostly:
  sell agricultural products
  go for hired labour, most often at the Lao Sung and
  borrow rice or money from relatives and neighbours

When the Lao Sung are short of rice they often mix maize or cassava with the rice.

• Besides rice, meals mainly consist of vegetables from garden or hai and forest food.

• Sporadic barter and selling occurs between villages.

• Vegetable gardens are used to supplement other outputs and to spread farmwork and output more evenly throughout the year. The produce from gardens is also sold and bartered.

• The Lao Theung and the Lao Sung raise more animals than the Lao Lum.

• The Lao Lum grow more fruit trees than the other groups.

• During the last five years farmers have had constant worries and troubles with drought and insect pests.

• The subsistence mentality is very strong among the villagers. Only when the immediate subsistence needs are achieved can people imagine an alternative way of earning a living.
5 SOURCES OF INCOME

"If my husband or I buy anything that is not useful to the family we get angry with each other. We have to ask one another before spending money."

Mrs Ly, 26
Tou Ho

5.1 Selling and barter

Selfsufficiency in food is most important and market activities are marginal and irregular. As most families cannot grow all the rice they consume it is necessary to fill the gap between the subsistence production and the needs. They depend on income sources to buy or exchange rice and also to buy other necessities for the family.

- I exchanged sesame for 90 kilo of rice, clothes for the children and 5 liter of diesel.
- I worked for the FAO programme and was paid 34 800 kip.
- I exchanged corn, pigs and chili for rice.
- My husband and daughter were weeding for 15 days and were paid 15 buckets of rice.
- My husband went to saw wood for the Lao Sung and got 24 buckets of rice.
- I sell banana flowers and leaves and I am paid about 500 kip each time.
- 2-3 times a year we get 200 dollars from relatives in the USA.
- We took a loan of 15 000 kip from my brother. We did not have to pay interest.
- The opium price is 50 000 kip a kilo. My husband keeps 2 pounds for smoking.
- The Lao Lum usually come to the village to exchange articles. I exchanged soyabeans and animals for clothes. Then I sold the clothes.

5.2 Income

It was difficult to get reliable information about sources and amount of income. Some of the women were reluctant to discuss about their household affairs with an outsider.

Distribution of last year's income among villagers interviewed:

<table>
<thead>
<tr>
<th>Village</th>
<th>Income Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Xieng Mouk</td>
<td>3 000 - 200 000 kip</td>
</tr>
<tr>
<td>Kok Wan</td>
<td>25 000 - 130 000 kip</td>
</tr>
<tr>
<td>Nam Phak</td>
<td>6 000 - 200 000 kip</td>
</tr>
<tr>
<td>Hai Luang</td>
<td>5 000 - 142 000 kip</td>
</tr>
<tr>
<td>Lon Lao I</td>
<td>7 000 - 230 000 kip</td>
</tr>
<tr>
<td>Pha Tung Lom</td>
<td>6 000 - 200 000 kip</td>
</tr>
<tr>
<td>Lon Lao II</td>
<td>-360 000 kip</td>
</tr>
<tr>
<td>Tou Ho</td>
<td>30 000 - 160 000 kip</td>
</tr>
</tbody>
</table>

Sources of income: Selling of vegetables, wage labour, selling of animals, selling of forest products, selling of handicraft, and selling of opium.

Women spend the small amounts of income on immediate needs as rice, daily food, medicine, clothes and small household needs as soap, salt, and oil.
Financial responsibilities among the different groups vary a little. It seems that the wife in most cases keeps the money among the Lao Lum and the Lao Theung. The wife decides most often how to spend the money among the Lao Lum. It is more common that the husband decides or that wife and husband decide together among the Lao Theung. Some Lao Sung families thought that questions about income and expenses are private affairs and refused to answer. Scanty information from the Lao Sung hints that both husband and wife are keeping the money and both are also deciding how to spend it.

5.3 Improved living conditions

When asked why some families are better-off and more successful than others most women answered that rich people inherited their wealth. Owing to their inheritance they have money to buy animals, paddy field and whatever they want. Only a few women give other reasons as:
- They have a lot of labour to do hai.
- They have lived in the village for a long time.
- They have got paddies.
- They have commercial ideas.
- They have a good education.

One women said that most people are equal. They all live the same way. The Lao Sung women hold the view that rich people have a good life because they are industrious and hardworking.
- They do not bother about rain or sun. They work all the time.

Women were also asked what they could do to get a better life. Several cannot envisage alternatives and do not know what to do to improve living conditions. Others suggest:
- selling thing
- raising animals for selling
- giving children a good education
- weaving clothes
- planting peanut - extending hai

5.4 SUMMARY

- Main sources of income are: Selling of agricultural products Wage labour
- Income is usually spent on:
  Rice
  Clothes
  Medicine and medical treatment
- Selling forest products provides a much smaller and secondary source of income than agricultural products.
- Only few families have a small income from selling handicraft.
- Money sent from relatives in America is a common source of income among the Lao Sung.
• A few families take small loans from relatives.

• There are only slight differences concerning financial responsibilities among the ethnic groups. Husbands seem to decide more about the family's economy than women among the Lao Sung.

• A general opinion is that some people are better-off because they inherited their wealth. Lao Sung women mean that rich people are industrious and hard-working.

• Many of the women could not indicate how their living condition could be improved. Marketing and good education were suggested.
6 HEALTH

"I have given birth 14 times. 10 of my children have died of malaria and diarrhoea."
Nang Vene, 55
Nam Phak

Even though women and children should be one of the most obvious target groups within the health sector, women's particular needs are not at all satisfied.

6.1 Health problems

Fever, stomach pain and malaria are the most common diseases according to women interviewed. They also mention diarrhoea, colic, cough, flu, measles and skin diseases as health problems. Some women complained about rheumatism, bronchitis, backache and women's diseases.

6.2 Health care

Twenty women said that they have visited the province or district hospital when a family member has been seriously ill.

Each village has one or several traditional doctors. Many families go to see him or to the health worker who has some medical education. The villages in Nan's district are sometimes visited by the official nurse.

There are also private doctors coming now and then to the villages to give injections and sell medicine.

About 12 families use only modern medicine, 14 only herbal medicine and the remaining 42 families use both modern and herbal medicine when they are ill. If medicine does not help a few families said that they worship the spirit.

It seems that there are few accidents in the forest and hai. Some ten women say that they, children or husbands have been bitten by snakes, scorpions, insects or centipedes. They treated the bites with MSG (monosodium glutamate), herbal medicine or opium.

6.3 Giving birth

All women have given birth at home with assistance from husband, relatives or neighbours. Some women have helped themselves.

None of the women knows anything about family planning but most of them want information about birth control.
### Table 7. VACCINATIONS OF CHILDREN AND THE HABIT OF DRINKING BOILED WATER

<table>
<thead>
<tr>
<th>Village</th>
<th>No of children</th>
<th>No of children vaccinated</th>
<th>Percentage of children vaccinated</th>
<th>No of families interviewed</th>
<th>No of families water drinking boiled water</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Always</td>
</tr>
<tr>
<td>Xieng Muak</td>
<td>12</td>
<td>0</td>
<td>0</td>
<td>6</td>
<td>4</td>
</tr>
<tr>
<td>Kok Wan</td>
<td>52</td>
<td>24</td>
<td>46</td>
<td>12</td>
<td>2</td>
</tr>
<tr>
<td>Nam Phak</td>
<td>38</td>
<td>24</td>
<td>63</td>
<td>12</td>
<td>1</td>
</tr>
<tr>
<td>Hai Luang</td>
<td>22</td>
<td>0</td>
<td>0</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>Pha Tung Lom</td>
<td>32</td>
<td>26</td>
<td>81</td>
<td>9</td>
<td>4</td>
</tr>
<tr>
<td>Lon Lao I</td>
<td>28</td>
<td>9</td>
<td>32</td>
<td>7</td>
<td>2</td>
</tr>
<tr>
<td>Lon Lao II</td>
<td>30</td>
<td>0</td>
<td>0</td>
<td>8</td>
<td>1</td>
</tr>
<tr>
<td>Tou Ho</td>
<td>15</td>
<td>10</td>
<td>67</td>
<td>8</td>
<td>5</td>
</tr>
<tr>
<td>Total</td>
<td>229</td>
<td>93</td>
<td>41</td>
<td>68</td>
<td>21</td>
</tr>
</tbody>
</table>

### Table 8. CHILD MORTALITY

<table>
<thead>
<tr>
<th>Village</th>
<th>No of births by women interviewed</th>
<th>No of children dead</th>
<th>Percentage of children dead</th>
<th>Stated cause of death:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Malaria</td>
</tr>
<tr>
<td>Xieng Muak</td>
<td>16</td>
<td>6</td>
<td>38</td>
<td></td>
</tr>
<tr>
<td>Kok Wan</td>
<td>82</td>
<td>22</td>
<td>27</td>
<td>5</td>
</tr>
<tr>
<td>Nam Phak</td>
<td>71</td>
<td>32</td>
<td>45</td>
<td>25</td>
</tr>
<tr>
<td>Hai Luang</td>
<td>38</td>
<td>13</td>
<td>34</td>
<td>6</td>
</tr>
<tr>
<td>Pha Tung Lom</td>
<td>41</td>
<td>9</td>
<td>22</td>
<td>4</td>
</tr>
<tr>
<td>Lon Lao I</td>
<td>49</td>
<td>20</td>
<td>41</td>
<td>16</td>
</tr>
<tr>
<td>Lon Lao II</td>
<td>23</td>
<td>7</td>
<td>30</td>
<td>5</td>
</tr>
<tr>
<td>Tou Ho</td>
<td>31</td>
<td>6</td>
<td>19</td>
<td>6</td>
</tr>
<tr>
<td>Total</td>
<td>351</td>
<td>115</td>
<td>33</td>
<td>56</td>
</tr>
</tbody>
</table>
6.4 SUMMARY

- These are the most common diseases according to doctors at the province hospital in Luang Prabang.
  Rainy season: malaria
  Dry season: diarrhoea
  Cold season: pneumonia.

- Most village women seek help from unqualified private doctors, health workers and traditional doctors. They also buy medicine from these 'doctors'. As in many developing countries there is blind faith in modern medicine and too much money is spent on ineffective drugs.

- There are no latrines in any of the villages. Any available open spaces are used. It is most likely that there is a connection between latrine conditions and the frequent cases of diarrhoea.
  Few women know that a mixture of sugar, salt and water can stop diarrhoea and prevent dehydration.

- About 40% of the children are vaccinated.
  About 30% of the women always boil drinking water.
  One could suspect a relation between vaccinations of children, the habit of drinking boiled water and child mortality but there is no evident connection.

- Almost all village women have received assistance at birth, most often from a member of the family or a neighbour. It is uncertain what these assistants know about clean and sterile equipment and about the use of boiled instruments as for example the cutting of the umbilical cord.

- Child mortality is unacceptably high (33%).

- Women know nothing about birth control but they are perceptive and willing to learn about family planning methods.

- Women do not get the medical attention they need.
7 DIVISION OF LABOUR

"I wish I had some leisure time to relax!"

N. Sy, 45
Pha Tung Lom

7.1 Group interviews

Group interviews were used to get an idea of the distribution of work.

Groups of 10-15 women were asked about the different responsibilities in the households.

There were some difficulties in involving all the participants. Some women were always more talkative and openminded than others and it was not always easy to prevent a few individuals from dominating the interview.

It was also difficult to avoid asking leading questions. Sometimes they were asked quite unintentionally and tended to back up previously held hypotheses that women have a heavier burden of work.

In Lon Lao, the two villages with the Lao Theung and the Lao Sung groups, women were shy and uncommunicative and the interviewers had some problems in getting contact with the women.

In the other villages the group interviews were held in a good-humoured, light-hearted atmosphere.
7.2 Least-liked and favourite tasks

Women were also asked about their least-liked and favourite tasks. There were slight differences between the groups.

**Lao Lum**

Least-liked task: Milling rice
Milling rice
Fetching water
Doing hai far away

Favourite tasks: Marketing
Weaving
Doing housework

**Lao Theung**

Least-liked task: Fetching water
Collecting fuelwood

Favourite tasks: Doing paddy
Raising animal forselling
Gardening

**Lao Sung**

Least-liked task: Weeding
Doing paddy

Favourite tasks: Marketing
Doing paddy
Relaxing

---

**Table 9. DIVISION OF LABOUR**

<table>
<thead>
<tr>
<th></th>
<th>Who is mainly responsible for this?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Lao Lum</td>
</tr>
<tr>
<td>House cleaning</td>
<td>○</td>
</tr>
<tr>
<td>Cooking</td>
<td>○</td>
</tr>
<tr>
<td>Laundry</td>
<td>○</td>
</tr>
<tr>
<td>Washing dishes</td>
<td>○</td>
</tr>
<tr>
<td>Child care</td>
<td>○</td>
</tr>
<tr>
<td>House building and repair</td>
<td>●</td>
</tr>
<tr>
<td>Thatch making</td>
<td></td>
</tr>
<tr>
<td>Forest products</td>
<td>○</td>
</tr>
<tr>
<td>Livestock</td>
<td>-</td>
</tr>
<tr>
<td>Pigs</td>
<td>○</td>
</tr>
<tr>
<td>cattle</td>
<td>○</td>
</tr>
<tr>
<td>buffalo</td>
<td>○</td>
</tr>
</tbody>
</table>
### 7.3 SUMMARY

Fact was a bit difficult to sort out in the group discussions and data in the table is not quite reliable even if information on division of labour on the whole corresponds with observations made.

It is true that sometimes the most vocal woman talked for the group and others okayed what she said or two or three people came in at the same time with different comments so that many points were lost. Still the group meetings proved valuable.

They showed that the village women are able to discuss together, express their points of view and bring up valuable points when given the opportunity, even among strangers.

This knowledge should be exploited.
8 WOMEN'S REQUESTS

“I am tired of getting up so early in the morning to hull the rice!”

During the interviews women have suggested a number of improvements to make life easier.

8.1 Agricultural improvements

1. Agricultural implements
   machete, hoe, dibblestick, axe, short handle weeding, shovel, spade, plough
2. Weed-killer
3. Insecticide
4. Fertilizer
5. Seeds (peanut, corn)
6. The technique of planting a good variety of rice
7. Land near the village
8. Help to transport rice from the hai
9. 90 per cent of the women want to quit hai and have paddies.
   They want a water reservoir, irrigation and buffalo for ploughing.

8.2 Improvements to facilitate daily work and change living conditions:

1. Rice mill
2. Drinking water system
3. Household commodities: kettle for boiling water, bowl, pot, jar, plate, spoon
4. Orchard
5. Road (to facilitate selling)
6. Agreement with a company to buy soyabean and sesame
7. Information on weaving
8. Handicraft training
9. Clinic
10. Mosquito net, blanket

Individual women also asked for iron sheet for roof, fishing net, gun, electricity, store, sewing-machine, cotton, clothes.
CONCLUSIONS AND RECOMMENDATIONS

9 CONCLUSIONS AND RECOMMENDATIONS

When knowing the role of women in the production and land management it will be possible to proceed and succeed with land based development activities. Maybe women are the most development orientated actors and the power base for changes.

- It is necessary to learn from the women by listening to them and by observing them, to be able to understand and analyse their situation.
- Women's needs, functions, responsibilities and constraints should adequately be taken into account.
- Women must be allowed to speak for themselves and indicate problems and possible solutions by themselves.
- Women should be involved in decisionmaking and planning. They should be consulted during programme design and preparation.
- Concrete programs should be carried through that center on easing women's workload and improving their quality of life in the interest of their health and welfare.
- All interventions should be aimed at increasing women's power in different ways: through awareness, group strength, training and education and acquiring income.

9.1 Shifting cultivation

Shifting cultivators depend on the forest for gathering foods as well as maintaining the productivity of their land.

The yearly upland rice yields are decreasing considerably because of declining soil fertility and weed emergence. Harvest result is extremely low.

All women interviewed would gladly abandon upland farming if wet rice fields would yield sufficiently.

- As shifting cultivation is a family affair it is a matter of course that women participate in agricultural training and decisionmaking.
- Both men and women are reluctant to change old traditions and old systems and it seems important to develop ideas that are already established among the villagers. A tangible example is the water reservoir in Hai Luang where people have started the construction but do not have the economic resources to complete the dam.
- Most villagers showed an interest in growing new crops. If a neighbour had some success it aroused people's curiosity. This indicates that if the information is introduced to small groups there is a greater chance of success with regard to intake and absorption of material.
- A few families have already planted another crop after the rice harvest. A crop of legumes could be encouraged after harvesting rice to bring back soil fertility.
- Mixed cropping is practised by most families and could be designed with the aim of improving soil fertility.
- Weeding is considered the most laborious agricultural work and the ground is prepared for introducing crops which suppress weed-emergence.
- Most families want to quit shifting cultivation and establishment of smallscale irrigation for wet rice cultivation in the uplands should be encouraged and facilitated.
9.2 Women's uses of forest and natural resources
As throughout the developing world, forest resources are rapidly being over exploited. Primary forest has almost completely disappeared in the Luang Prabang area. Deforestation has brought with it negative consequences for food security. Women are the primary collectors of fuel and food for home consumption. Because of their traditional reliance on forestry resources women are often major repositories of essential knowledge concerning the range of forest products available in their area, the seasonality of product availability and the uses of such products.

- When convinced of the utility and practicality of a forestry improvement scheme, women can be a powerful lobby to persuade their entire household or community to invest resources to make the scheme work.
- Women's knowledge of forest resources should be utilized.
- Research to generate recommendations about alternative species, planting and management practices that would suit women's needs and constraints should be undertaken.
- Private tree planting could be promoted.
- Women should also be responsible for nursery work, tree planting and tending.

9.3 Food supply and subsistence resources
Selfsufficiency in rice and food is the main strategy applied by the farmers. The subsistence mentality is very strong.

- Any development programme should aim at safe-guarding the needs of the peasants. Innovations must take their immediate survival needs as first priority.
- Fertilizer in small amounts, tentatively once every three years, could increase rice production.
- Information about new rice varieties is desirable.
- The present production of fruit is not enough and fruit-growing should be introduced and increased.

9.4 Sources of income
Marketing is one of women's favourite tasks. More attention should be paid to income generating opportunities.

The constraints of time may be one of the factors limiting women's further involvement in income generation. Development project geared to ease women's workload could also facilitate women becoming involved in income earning enterprises. Earning income will encourage women's self-reliance.

- Experiments with growing sesame, soyabeans, red beans and peanuts have been successful. Growing these cash crops should be encouraged.
- A road would give villagers possibilities for additional income because of easier access to markets.
- Women could be provided with credit for processing and marketing, given training in processing and helped to enter markets.
- Opportunities should be created for women's vocational training.

9.5 Health
Women's general health status is low and they go through many childbirths. There is a great need for mother and child health care and also birth control and birth spacing.
CONCLUSIONS AND RECOMMENDATIONS

Information is also needed about the relationship between hygiene and diseases.

- Certain preconditions and actions are needed to initiate an improvement and regularity in women's and children's health care.
  Family planning and health care should always go together.
- Vaccination of children is vital.
- More information on sanitation and habits of constructing temporary latrines should be accomplished.
- Tubewells should be installed in villages which are without a fresh water spring.
- Particular emphasis should be put on people's own attitudes to and interpretation of their health problems.

9.6 Division of labour

Women's working tasks are manifold and their working-days are long.

Most women do not think about to-morrow and have difficulties in seeing what to do to change their living conditions.

- By providing villages with a ricemill and clean water system women's working-day will be shortened and the burden of work reduced.
- Women's wishes for handicraft training and information about weaving should be met in the best possible way.
- Women's literacy should be increased and improved through adult education.

To strengthen and support Women's Union also means to improve women's situation and to consolidate their position.

"After harvest I have 2 months' holiday before doing hai again.
Thats a good opportunity to collect fuelwood, weave mattresses, clothes.......
"

M. Somay, 47
Nam Phak

"A woman's work is never done". This phrase was aimed at rural women but probably also applies to urban women in western countries. The difference is that most of us have a choice. Having alternatives and liberty of choice always makes life easier. These women interviewed cannot choose. Their activities revolve only around the subsistence needs of the household, most particularly food production. They are said to think in terms of rice and live from one day to another. They might see alternatives but they do not have time and resources to pursue them. It is likely that they are even more realistic and interested in a change than the men who do not suffer the same hardship.

Let us hope that careful studies will be undertaken regarding women's needs and economic and social functions within the society so that they will be included in all development programmes. Their involvement in all kinds of activities in social and economic spheres of life is crucial for any real development to take place.
CONCLUSIONS AND RECOMMENDATIONS

LAO PEOPLES DEMOCRATIC REPUBLIC

The boundaries and names shown on this map do not imply official endorsement or acceptance by the United Nations.
CONCLUSIONS AND RECOMMENDATIONS

Districts in Luang Prabang Province

Scale: 1: 1,000,000
CONCLUSIONS AND RECOMMENDATIONS

Annual rainfall in Luang Prabang 1969 -89

Month

Rainfall

No of hours/day with sunshine in LP 69-89

Month

No of hours per day
WOMEN IN SHIFTING CULTIVATION

Appendix A: Additional Province, District and Village Information
Appendix A: Additional Province, District and Villages Information

LUANG PRABANG PROVINCE

The administrative units in the province are:

Districts: 10
Tassings: 72
Villages: 1,236

Inhabitants: 321,000
Female: 164,670
Children 0-15: 161,785
Female: 81,498

**Education 1989 – 90**

Luang Prabang Province

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<tr>
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<th>No of teachers</th>
<th>No of students</th>
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<td></td>
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<td>2489</td>
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**HEALTH**

The Province hospital has three different sectors:

1. Malaria sector
2. Health sector
3. Mother and child sector

There are 200 beds in the hospital.

Medical staff:

High level: 12 (9 female)
Middle level: 40 (34 female)
Low level: 128 (128 female)

**Luang Prabang:**

**Food-grain Production**

Extracts from *Laos 1 - 1989 No 2*

“Surrounded by mountains, Luang Prabang Province is well known beyond the Lao border. This is due to the fact that this centuries-old city is enlivened mostly by its richness of cultural and architectural masterpieces. However, its people’s heritage of assiduity to agricultural work is also worth mentioning. Despite the fact that its land is mostly dominated by mountains, Luang Prabang has paid much attention to the development of agricultural potentiality. Efforts were exerted to turn the valley into rice-fields. As a result, the total rice-field hectarage in the province has upped, this year, to more than 8 100, with an increase of nearly 2 000 ha comparing to last years’s figure.”

“Though the province's topographical features are usually considered a justification by local inhabitants for their practice of a method of slash-and-burn cultivation, the provincial authority has issued restrictive measures and publicized its adverse consequences in order to wake up the inhabitants' consciousness on the effects from this walk of life.”

“The provincial rice output, last year, stood at 56 485 tons - merely sufficient for 53.08 per cent of its 304 043 population. This year, it is expected to increase by ten percent.”
APPENDICES

LUANG PRABANG DISTRICT
The administrative units are:

Tassings: 11
Villages: 129

Inhabitants: 50,023
Female: 25,433
Children 0-15: 22,996
Female: 11,552

Education 1989 - 90

**Luang Prabang district**

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<th>No of teachers</th>
<th>No of students</th>
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<td>92</td>
<td>432</td>
<td>533</td>
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NANE DISTRICT
The administrative units in the district are:

Tassings: 6
Villages: 89

Inhabitants: 25,507
Female: 12,569
Children 0-15: 11,849
Female: 6,431
## Education 1989 - 90

### Nane district

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<th>No of classrooms</th>
<th>No of teachers</th>
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<tr>
<td>Total</td>
<td>74</td>
<td>232</td>
<td>233</td>
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XIENG MUAK

Xieng Muak, located about half an hour’s drive from Luang Prabang has for several years been the main village in the EEC project with a nursery providing seedlings to be planted in watershed areas. A new project has been undertaken to reduce slash and burn cultivation and thereby improve soil conservation, irrigation, roads, family industries and health.

Testing methods and questionnaires were tried in Xieng Muak but village leader or members of the village committee were never interviewed and a village description was not done.

The village has got electricity thanks to the nearness to the hydropower station. It was an anticlimax to listen to women’s problems concerning fetching drinking-water, watching animals, bicycles and clothes being washed in the same pond and to discover families gather in the evening in front of the village video.
HAI LUANG

Hai Luang is a small Lao Theung village with only 23 households. It is located about 40 km to the east of Luang Prabang. The access road is passable during the dry season but transportation is practically impossible in the rainy season. Close proximity to a stream, a road and flat land made people choose this area four years ago and here they will stay for good.

All villagers are shifting cultivators and have altogether 20 ha of swidden fields. To prevent them from moving around government officials have requested them to do hai khud. In theory they are supposed to use land years after years but problems with weeds were so difficult that they have all moved after two years. These villagers would like to stop the hard work with swidden fields and change to wet rice fields. They have flat land suitable for paddies but no water reservoir. The men have started to build a dam and to dig canals but they need cement to be able to go on.

Rice is sufficient for few families. Shortage of labour for weeding prevent them from increasing land. The Lao Sung often hire them for sawing and pay them in rice. They also exchange sesame for rice. A company comes to the village to trade sesame. Buffaloes can always be sold if necessary.

There is a primary school up to grade three. A teacher from another village stays in Hai Luang six months a year to teach and the villagers provide him food. Next year some pupils will be sent to school in Luang Prabang.

Only two or three of the adults can read and write.

Many children suffer from eye infections and diarrhoea. They usually treat diarrhoea with herbal medicine and warm clothes.

Private 'doctors' visit the village occasionally giving injections and selling medicine.

The general impression is that the village is poor and children do not look healthy. Nevertheless the villagers seem to have the strength of will to improve living conditions.

The plans were to go to Tha Kam further away but the car got stuck near Hai Luang and it was not possible to go on. After a discussion with the village leader he welcomed the team to make the study in his village instead.
KOK WAN

Kok Wan is the biggest village in the Tasseng with 93 households split up into 8 Theung and 87 Lao Lum families. Half of the inhabitants are less than 14 years old. The village is located 25 km to the east of Luang Prabang and has a daily truck service with town all year.

The village was established more than a hundred years ago. Heavy bombing during the war forced people to leave the area and live in Luang Prabang. When coming back they had to build houses, plant trees and create new necessities of life as everything was burnt and destroyed.

The village leader was elected by ballots a year ago and his responsibilities concern security, business and education. He is also one of three members of the village committee who decides on village affairs after having consulted the villagers.

Ten families have only paddy, some 40 families have both paddy and hai and the others have only hai. Provided it is rain enough families with paddies have rice enough for the whole year.

There are big differences in people's living conditions. It is true that there are no rich people but owners of paddy fields are better off. Some other families are very poor.

Most families grow fruit-trees so there is no market for fruit in the village and there is no point in selling in Luang Prabang. "Even if we loaded a truck full of fruit it wouldn't pay the cost for transportation." Soyabean, sesame and peanuts would be possible cash crops and people are interested in growing and selling.

The river-bank is steep and difficult to climb with water buckets and the two wells are not enough to meet the villagers need of drinking-water.

A primary and a secondary school is also serving several nearby villages. Many village children go on to secondary school.

About half of the adults can read and write.

The old man admits that there are problems and difficulties to overcome but there is the road, the school, the possibility of going to Luang Prabang when you are ill. "Life is better to-day than in the past."
LON LAO

Lon Lao is in reality made up of two villages, a Lao Theung village with 32 households and 500 m further away a Lao Sung village with 41 households.

It is located within the EEC project area, 10 minutes' drive or 2 hours' walk from Xieng Muak.

Project involvement has recently started with five test families planting trees to prevent erosion. As encouragement they received red bean and peanut seeds and barbed wire.

In the Lao Theung village 14 families have got 11 ha of paddy field. Last year only 4 families could make use of the rice field as they did not have enough water. Flat land for paddies is available but there is no water reservoir. On their own initiative villagers are clearing for a road. Provided they finish the work they will be able to transport sand and cement for construction of a dam.

Altogether the Lao Theung families cultivate 25 ha of swidden fields, 0.4 - 1.5 ha each. Only four families have more than one hectare.

Lack of land precludes increase of fields. Reserved forest and a village border limit the cultivated area.

In the headman's opinion two thirds of the families are very poor. Only a couple of families are better-off since they have more labour and are very industrious and hardworking.

The village leader inspired confidence and fully realized his duties to improve villagers' life, seen to the subsistance and looked over the whole situation in the village. He was anxious for the villagers to have a clinic, a well, a rice-mill and mosquito-nets.
The Lao Sung were given this place after the war since their old village was bombed. Now they have abandoned their nomadic lifestyle and settled for good. The Lao Theung leader shares responsibilities with a headman in this village. He says that there would be no problems if they were not short of rice. Only three families are self-sufficient in rice. Husbands go to do waged labour in the Low lands to be able to buy rice.

Raising more animals is no solution because they have disease problems and have no medicine.

The officials have asked them to try hai khud and stop shifting cultivation. They gave no arguments but provided them with food stuff as compensation for their co-operation. After two years they stopped because of weeding problems.

The EEC project has encouraged them to plant fruit-trees which they will do. They rotate their fields and come back after three years.

Every family has an opium field high up and they both sell and smoke opium. Spring onions are also grown by all families and people come to buy or they sell at the market in Luang Prabang to which they walk.

"The village doctor hasn't got medicine, only pictures."

Doctors from the health department sometimes come to check the health of the villagers.

The school is shared with the Lao Theung and there are four teachers in grades 1-5.

They only live in the village during the school year and villagers support them with rice, vegetables and meat.

The building is in bad condition and needs repair and iron sheeting.

Richly coloured dresses and blouses are worn by some young women. They are sent to them from relatives in America.

Wild animals have almost disappeared and forest products have decreased. Clearing and weeding hai is more and more difficult. Despite these problems the old man thinks life has changed for the better. In the past they lived high up far away from town and they had no school.
Life could be even better with wet rice fields and he feels sure that they could all imagine moving if they were promised paddies.

**NAM PHAK**

Pha Tung Lom, Tou Ho and Nam Phak are three of the 14 villages in the recently started IUCN project.

Nam Phak is located at a distance of about 45 kilometers SW of Luang Prabang at an altitude of about 800 m above sea level. It is connected to the main road by a small road with limited accessibility for cars during the rainy season.

The villagers lived in the area before 1968 but war forced them to move and 17 families created the present site in 1974. To-day there are 64 households, split up into two parts with 42 Lao Lum and 22 Lao Theung families living on each side of the road.

A stream, road and flat land within easy reach made them choose this place but soil yields poorly, weeding is more difficult than ever and forest products are decreasing. Fallow period is only 2 years compared to 6-10 years in the past.

Rice supply is not sufficient and lack of land makes it difficult to raise production. Most families have to resort to waged labour at a Lao Sung village.

Last year a couple of families started to grow soyabean after the rice harvest. This first experiment with growing cash crop has encouraged several other families to try the same next year.

Drinking-water is a problem. Near the stream there is a small well which is flooded when it is raining hard and the villagers are in need of a well.

A health officer with six months training as an assistant nurse and a traditional doctor live in the village and treat the villagers by available means.

At the time of the study team visit typhoid had affected some fifty people and two children had died. A UNICEF health worker was in the village to give injections and information about hygiene. It was never said who made the typhoid diagnosis.

There are two school buildings in the village. One is in bad condition and the bamboo walls have almost fallen down. 147 children in grades 1-5 are taught by five teachers. Among the pupils there are also children from some neighbouring villages which have only grades 1-2. Some of them stay in the village during the weeks.

The old man said that they are all poor in this village. He wishes they could have agricultural improvements so that everybody has enough to eat and he advises young people to get a good education which is a prerequisite for improving living conditions.
The village, created last year, has 42 families of Lao Tung origin. They came to this area as refugees 1972 and have lived in the neighborhood since then. Last year the government urged them to move to a place below the source of water. Their tree-cutting would have dried up the soil and the water would have been polluted. The older villagers chose this place because the area was free from conflicts. The old village was larger but people split up and 20 families moved here. District boundaries prevent them from increasing hai which will be a problem in the future.

The village leader was elected two years ago and he will remain headman as long as the villagers are satisfied with him. There are also three village groups, each representing twelve families which meet and discuss when there are problems and difficulties are arising. They decide about sanctions when village rules are not followed. If for example a buffalo goes into a person’s hai the owner has to pay in kip or rice.

The total area of cultivated land runs up to 58 ha including 20 ha of paddy fields and 38 ha of swidden fields. All families are short of rice. As most they are self-supporting for nine months. One family has rice for one month only. Nobody goes for waged labour. First they will try additional food. Growing cash crops could be an alternative provided they find a crop suitable for the area. Experiment with soyabeans was not successful but castor-beans gave better result. A fresh waterspring originates close to the village providing it with a constant supply of drinking water.

There is a health officer in the village but he has hardly ever medicines at hand. Lower primary school, grades 1-3, needs improvements and a regular teacher. This is the first village where men in a group discussion do not only answer questions politely but also are anxious to hear the visitors opinion. They discuss the system of taxes and causes for poverty. What could be done to improve circumstances for poor people and are interested in the situation for women. Even if the IUCN project has not yet involved tangible changes it has affected the thinking and raised expectations. People are well conscious of their wishes and set great hopes on the near future.
TOU HO

This Lao Sung village is located three hours' walk from Pha Tung Lom. The village was created in 1979. Some years ago 60 families lived here. Half of them were refugees who moved back to their old area when the situation had stabilized after the war.

Last year another ten families moved to join relatives in a village near the Burmese border and access to land and forest resources have increased for the remaining 20 families.

Postcards of skyscrapers and avenues in America remind them of the emigration and several families receive money periodically from relatives in the USA.

All families are shifting cultivators with semi-permanent hai. Fields are cultivated as long as soil is fertile and then lie fallow for some years. Opium and corn are grown in separate fields.

Only two families have not got rice enough for the whole year and they are helped by other villagers.

For the last two years there is no school in the village as they cannot find a teacher who wants to live here. Two persons have had some training to teach but they are too busy with agricultural work to devote themselves to education. People have more or less accepted a village without a school.

Water is diverted from a spring in the mountains.

A waterpipe from a spring in the mountains, a watertank with natural pressure and taps supply villagers with running water of good quality. The villagers carried two tons of sand and cement on their backs from Pha Tung Lom and the cost was paid by the Americans.

The village looks clean and tidy and a fence round the village keeps the animals outside the enclosure.

There are few very poor people. The villagers themselves think their living conditions are fairly good.
Appendix B: Portraits of Villagers Impressions from a Walk to the Hai

PORTRAIT

Mr Tang, 58, Hai I 2inng

"Life was better before. Nowadays there are no birds in the forest, no fish in the stream."

His eye disappears in the distance when letting his thoughts go back to the old times.

In the early morning we have accompanied Mr Tang to his hai and sit in the shelter talking to him about his life and his way of living.

He talks slowly and every answer is well thought-out.

Yes, he remembers the war. In 1968 their village was bombed and two people were killed. They had to break up and move around to different places and they were all starving during those years when they could not grow rice but had to live on wild cassava and other forest food. After the war they moved together again and started empty-handed as they had lost everything - silver, cattle, houses....... Now there are only three or four people left whom he remembers from his childhood.

Brothers and sisters are dead and he has also lost eight of his twelve children. Illnesses have affected all families and they have met with misfortunes and adversities during the years. The disasters have made them establish new villages and for his whole life he has moved in this area from place to place. Now he is satisfied that they have found a place where they will stay for good.

He and his wife are still strong and healthy enough to work in the hai. They leave in the early morning and work in the field for the whole day. Sometimes he even sleeps out in the hai. In the rainy season he has to swim across the stream to get there and he laughs when thinking about the rushing water.

The rain also washes the soil away and he is aware of the problems and difficulties with shifting cultivation. As the younger families he wants to stop doing hai. He encourages the building of a
water reservoir and canals to make it possible to use the flat land for paddies. The young men are too optimistic and think rocks are enough for the construction of the dam. He is shaking his head and means that they need cement to make it strong and solid.

His own house is well-built and withstands bad weather. When there is a storm and thunder the villagers often come to seek shelter in his house, where also his son lives with his family.

His observations and reflections mirror an experience of life and his future prospects for the village seem to be realistic.

We liked this low-voiced man with his pondering smile and enjoyed the chat with him out in his hai.

PORTRAIT

Mrs Dia, 70, Tou Ho

"I will miss him to my dying day."

Full of sadness she talks about her second husband who died last year.

Her state of mind rapidly changes and she laughingly runs up and down among the houses to collect all the articles of clothing needed to dress us up in the traditional costumes.

Her life has implied hardship, worries and sorrow. The first husband's relatives kept her children when she got married again and she lost contact with them.

Her second husband served in the war and she had to work hard to provide for the family. Once or twice he came home to visit them and to help her.

She could not do hai peacefully during the war and rice was not enough.
One day the village was attacked by Lao people who were their enemies as they supported the Americans. They managed to hide in the forest but the village was burnt and the cattle killed.

After the war her husband became the village leader. He was also a traditional doctor and she helped him to treat the patients and to ask for help from the village spirit.

To-day she lives with a son and his family.

The hai is far away but she is strong enough to go there every day. She explains to us that she did not plant maize in the rice hai because it could shadow the rice so it would not be good.

When she gets older and cannot work in the fields any longer she will have to stay at home taking care of the grand-children.

It is a bit difficult to know about all her duties. We have the feeling that she cannot quite keep the ideas apart but muddle things up a little.

She says very firmly that the women need a ricemill. Early in the morning and late in the evening they are milling and never is there time to relax.

She is a little stooping but quick and vital and shares the work and join village occurences even if joy of life has declined.
IMPRESSIONS FROM A WALK TO THE HAI

Dressed in their traditional costumes with baskets on their back the young La Sung women walk in front of us. They are taking us to their hai. To check if they walk to fast they turn towards us now and then and slacken their pace when we have dropped behind. They also look around for forest products to collect but animals and plants are not in abundance in this area. Some leaves and fruit are all they have got in the baskets.

After having made a detour the women come back with wild peaches. They are small and green but taste good.

The thick forest we walked through the other day was darkish, cool and wet with dampness. Mysterious sound was heard that we could not identify. Rare insects crossed the path and leeches got into our shoes and boots. We had that exiting feeling of eager expectations that a jungle presents, so very different from the secondary forest we have just passed. We have not seen even a spider or a squirrel. There is no exotic fauna or flora, only trees with thin trunks, bushes and grass.

We climb higher and higher on narrow paths and can see the village far away in the valley. The feet slip and it is sometimes difficult to get a foothold. We catch hold of branches to pull ourselves up. Over and over again we ask ourselves how it is possible to grow and work on these steep mountain slopes.

Some twenty people are working in a hai we pass. The men walk in a row dibbling with sticks and the women go behind putting seeds into the holes. They are chatting and giggling and the atmosphere is full of laughter and joy.

When sitting in their spring onion hai at last, we admire the magnificent view. White clouds over the top of the mountains, dark soil in newly-sown fields, fresh greenery and bare rocks in a varied scenery!

To reach the opium hai we have to climb another mountain. We decide not to do that. The opium is harvested and there is not much to be seen in the hai.

On the way back we go on ahead. The women finish gathering the onions. After a while we can hear them singing behind us. They sing in parts and we enjoy listening to them.

When we approach the village we can still hear their sweet voices between the mountain slopes.
Appendix C Questionnaire on Women in Shifting cultivation

1. How many hectares hai do you have?
   How many separate fields?
   Where is your hai?
2. Tenure:
   Who owns the hai fields-- the household or the village?
   Can hai be sold?
   How is land redistributed when a new couple sets up a separate household or if someone moves into the village from somewhere else?
3. Please describe how you do hai. (When, how, what tools, etc.)
4. How long do you allow a field to lie fallow?
   Is this longer, shorter, or about the same as you did 15 years ago?
5. Do you encourage regrowth in the fallow and/or do you plant in the fallow? Do you leave some trees behind?
6. Is weeding more of a problem, less of a problem, or about the same as it was 15 years ago?
7. Is soil less fertile, more fertile, or about the same as it was 15 years ago in the hai?
   How do you improve the soil?
   Do you use fertilizer?
8. What do you plant with the rice and/or corn in the hai?
   Are these crops planted in a special place within the hai?
9. Do you plant anything in the fallow after you harvest the rice and/or corn? What?
10. What varieties of rice do you plant?
   Why do you plant more than one variety?
   Do you have any rice paddies?
11. During the last five years have you and your family experimented with new varieties, crops, or methods? What?
   Where do you learn about new methods?
12. If there was a project to help you with the hai what problem or activity would you want help with?
13. Would you like to quit shifting cultivation?
   What would you like to do instead?
14. Who decides these agricultural questions ie what to plant?
**TOPIC: SHIFT INTO CULTIVATION**

Number: ___________  Interviewee’s name: ___________  Village: ___________

16.

<table>
<thead>
<tr>
<th>ACTIVITY</th>
<th>WHO DOES IT?</th>
<th>Mainly responsible</th>
<th>Exchanged labour</th>
<th>When</th>
<th>Total No. of days</th>
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<tr>
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<td>male child</td>
<td>adult female</td>
<td>adult male</td>
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<td>OTHER</td>
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TOPIC II: WOMEN'S USE OF THE FOREST AND NATURAL RESOURCES

1. How far is the nearest forest?
   How often do you go there?
2. What kind of forest do you collect things in? (virgin, secondary growth, fallow fields, paddy)
3. What kind of things do you collect in the forests and other wild areas to use at home? (food, medicine, firewood, for houses, roofing material, insects, frogs, snails, animals)
4. What foods do you collect from these areas?
   What foods do you collect in each season?
5. How many meals per week include forest or "wild" foods?
6. How has forest products availability changed over the years?

TOPIC III: FOOD SUPPLY AND SUBSISTENCE

1. How much rice did you harvest last year?
   Was it enough to meet your family's needs?
   If not, what did you do in order to meet your family's needs?
   How long were you short of rice?
2. During the last five years how many years did you produce enough rice to meet your family's needs?
3. What did you eat yesterday? Breakfast, lunch, supper?
4. Do you ever buy food? What, where, when?
5. Do you have a vegetable garden, fruit trees, fish ponds, livestock?
6. How much corn did you produce last year?
7. Do you ever have droughts, floods, insect disease? Often?
8. If you were given the choice of selecting between an agricultural innovation that increased rice yields versus an innovation promoting a cash crop, which would you choose?
TOPIC IV: INCOME

<table>
<thead>
<tr>
<th>SOURCES OF INCOME</th>
<th>How much</th>
<th>What</th>
<th>Where</th>
<th>For what wage</th>
<th>How Long</th>
<th>Interest</th>
<th>From whom</th>
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Total income

1. Who keeps the money? ______________________
2. Who decides how to spend it? _______________
3. What is usually spent on? _________________
4. How much did you spend last year? _________
1. What are the major health problems of your family?
2. What are common diseases?
3. What do you do when you are sick? Where do you go?
4. What kind of medicine do you use? Herbal? Modern?
5. Do you ever have accident in the forest or hai? What?
6. Are your children regularly vaccinated?
7. Is there a village clinic? Traditional doctor?
8. Do you boil drinking water at home and in the hai?
9. Where did you give birth? Who helped?
10. How many times have you given birth?
    How many children have died?
    What was the cause of death?
11. Do you and your husband use any form of birth control
    (including natural methods)? What?
12. Would you like to use a dependable birth control method?
    What?
## TOPIC VI: DIVISION OF LABOUR

<table>
<thead>
<tr>
<th>Number</th>
<th>Interviewee's name:</th>
<th>Village:</th>
<th>Who is mainly responsible for this?</th>
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### Additional questions:
- Which is the most difficult, least liked task? 
- Which is the favorite task?