

Report on socio-economic survey in Ban Vangmaner (main village)

Guardian village of Hin Nam No National Protected Area



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1 Methodology

This socio-economic survey is based on the Sustainable Livelihood Framework (SLF) (Figure 1).

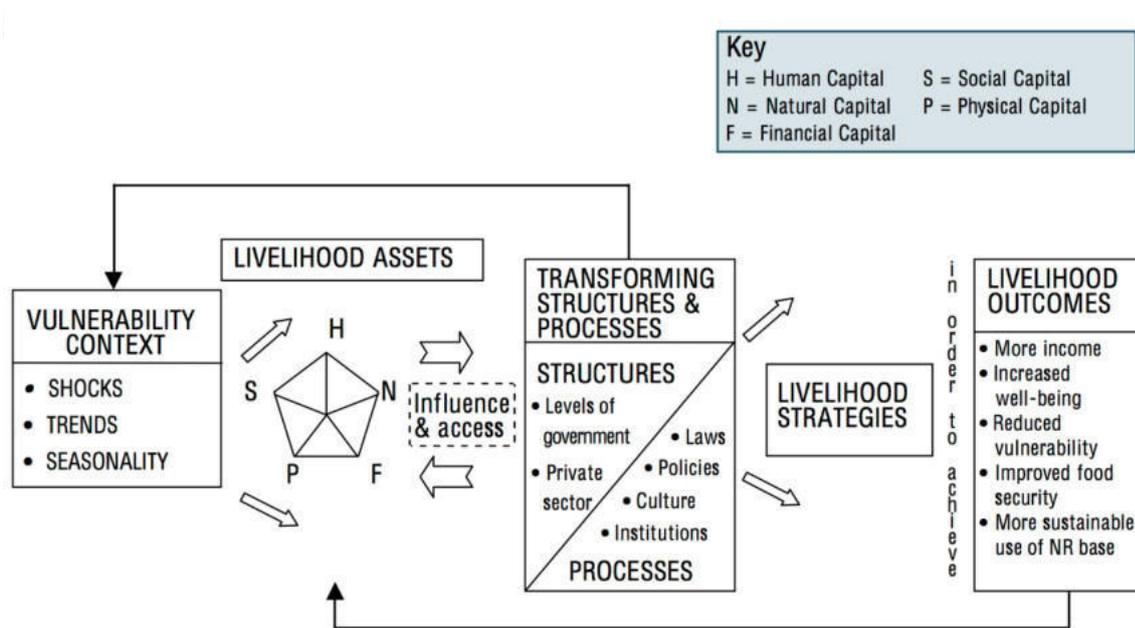


Figure 1: Livelihood Assessment Framework (DFID, 2001)

This framework “presents the main factors that affect people’s livelihoods, and typical relationships between these. It can be used in both planning new development activities and assessing the contribution to livelihood sustainability made by existing activities” (DFID, 2001)

To get all information necessary for SLF, three methods have been used in a complementary way:

1. Transect walk
2. Village meeting
3. Household interviews

1.1 Transect walk

A transect walk is “a tool for describing and showing the location and distribution of resources, features, landscape, and main land uses along a given transect” (FFI, 2013b). The idea is to walk in and around the village to discover the different land types, their current stand and use management. A GPS to record the observations and local peoples as guides and informants are required to carry it out. The transect does not need to be a straight line, since the main goal is to go through the more diverse parts of the landscape (LADA, 2017).

1.2 Village meeting

During a village meeting, the different villagers are invited to join a discussion about the following points:

- Resources in the village: What kind of resources do they have?
 Where are the different resources located?
 Who has access to these resources?
 How do they management them?
- Infrastructure and regulation in the village regarding land and water
- Changes compared to the past

The basis for this village discussion is the community resource mapping define as “a method of showing information regarding the occurrence, distribution, access to and use of resources; topography; human settlements; and activities” (FFI, 2013a). The idea is that small groups (around 3) of villagers draw a map of the village with its surrounding and show us how they perceive their environment (limits of the village, mountains around it, water, forest, crops, village infrastructure, etc.).

1.3 Household interviews

To evaluate the socio-economic situation at the household level, interviews are carried out with different families in the village. There are two versions of the household questionnaire: a long one (annex 4) to get a maximum of information, and a short one (annex 5) to achieve a relevant statistic level regarding specific topics. The total number of interviews is calculated to have a 10% confidence interval with a 95% confident level (this means, for example, if we said that 40% of the villagers have toilets, then the real value lies between 30% and 50% with a probability of 95%). Both questionnaires contain only closed questions in order to minimize the accuracy loss during the translation and facilitate the data analyse. The idea is to determine the following aspects of each interviewed household:

- Household composition and ethnic group
- Household assets
- Farming activities (crops and livestock) and problems
- Income sources
- Structure and amount of expenditure
- Health and food security
- Social connexion with other families

2 Results

The socio-economic survey was conducted from the 13th to the 16th of January 2018 in Ban Vangmaner main village (which means that the Salang part is not included in this report), one of the 19 guardian villages around the Hin Nam No National Protected Area (HNN NPA). This village is located in the Ban Dou Cluster, northern part of the HNN NPA, around 18km from Langkhang.

In total 34 interviews were carried out: 12 long versions and 22 of the short one. With 40 households in the village, the collected data have a 10% confident interval with a 95% confident level, which achieves the statistic goal planned in the methods. 32.3% of women were interviewed against 67.7% of men.

This section presents the different results from the village meeting, transect walk, side discussion, and household questionnaire.

For more detailed results see the following annex:

- Annex 1.1: Results of the village meeting
- Annex 2: Results of the transect walk
- Annex 3: Summary of the side discussion

2.1 General demographic information

There are currently 40 households in Ban Vangmaner main village.

There is only one ethnic group: Phoutai.

The age pyramid of the interviewed family members (Figure 2) shows a certain expansive trend with more young people and few elders, which means that the population is growing. However, this seems to slow down in the last years, and there are surprisingly less kids in the 0-5 age category.

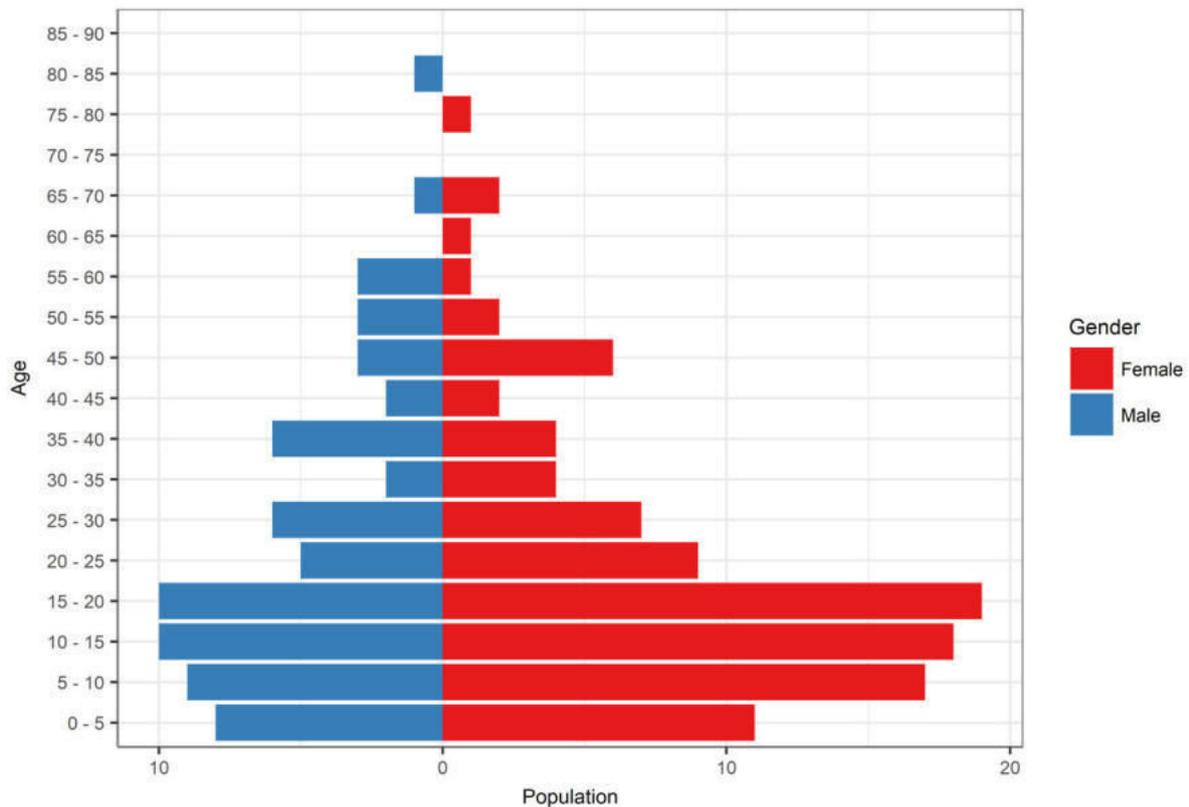


Figure 2: Age pyramid of household members according to the gender

2.2 Education

There is a primary school in the village with two teachers. For the lower secondary, the young have to go to the next village (Ban Dou) and to Langkhang for the upper secondary.

The education level has improved through the generations: there is a net increase of primary school attendance and in the same time a higher proportion of villagers achieves the lower secondary level. However, only few villagers go to the upper secondary school which is in Langkhang (Figure 3).

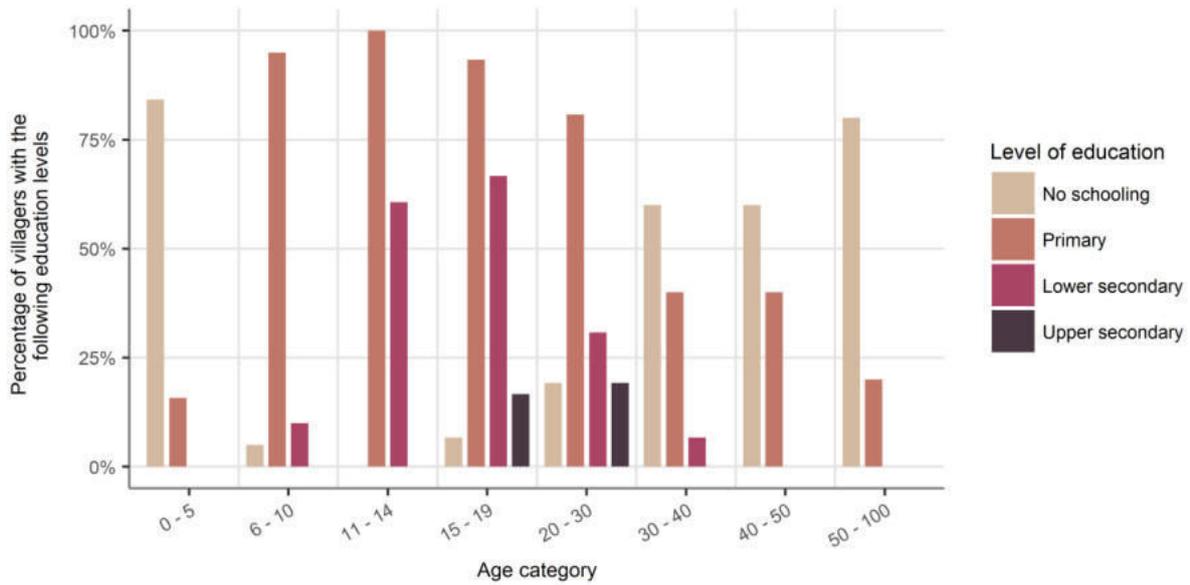


Figure 3: Education level of the respective age category (level achieved or currently enrolled)

2.3 Main activities in the village

The main activity at the village level is farming: during the wet season to produce rice and during the dry to take care of the gardens. The second main activity, which is clearly more a men activity, is fishing. The women are more involved for collecting NTFP's and taking care of the kids and the house (Figure 4).

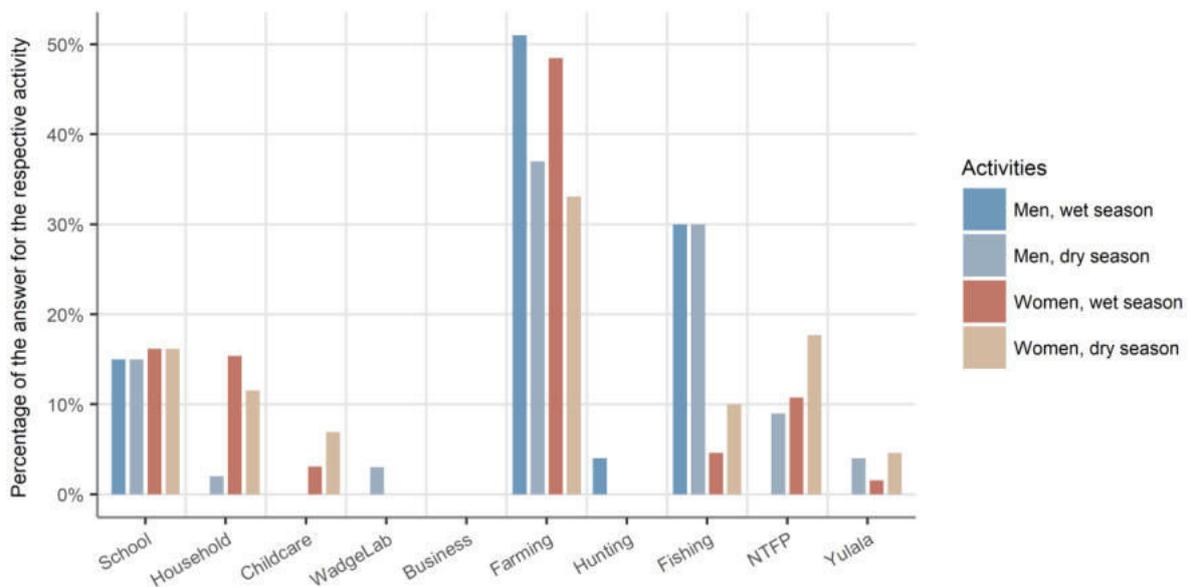


Figure 4: Activities of the women and men (over 12 years old) during the wet resp. dry season (weighted as 1st main activity = factor 0.6 and 2nd main activity = factor 0.4)

2.4 Infrastructure in the village

This village has a road access the whole year.

It used to have a pipe to bring the water from Ban Dou (where a big water tank is) to the village but since 10 years it is broken (they could use it only 2.5 years). So, the villagers take the water from Nam Houk river which is almost inside the village. Some villagers boil it before drinking, other do not.

Ban Vangmaner is connected to electricity.

2.5 Land use and land tenure

2.5.1 Land use

As every village around Hin Nam No Protected Area (HNN NPA), Ban Vangmaner has a forest area and a field area (Figure 5).

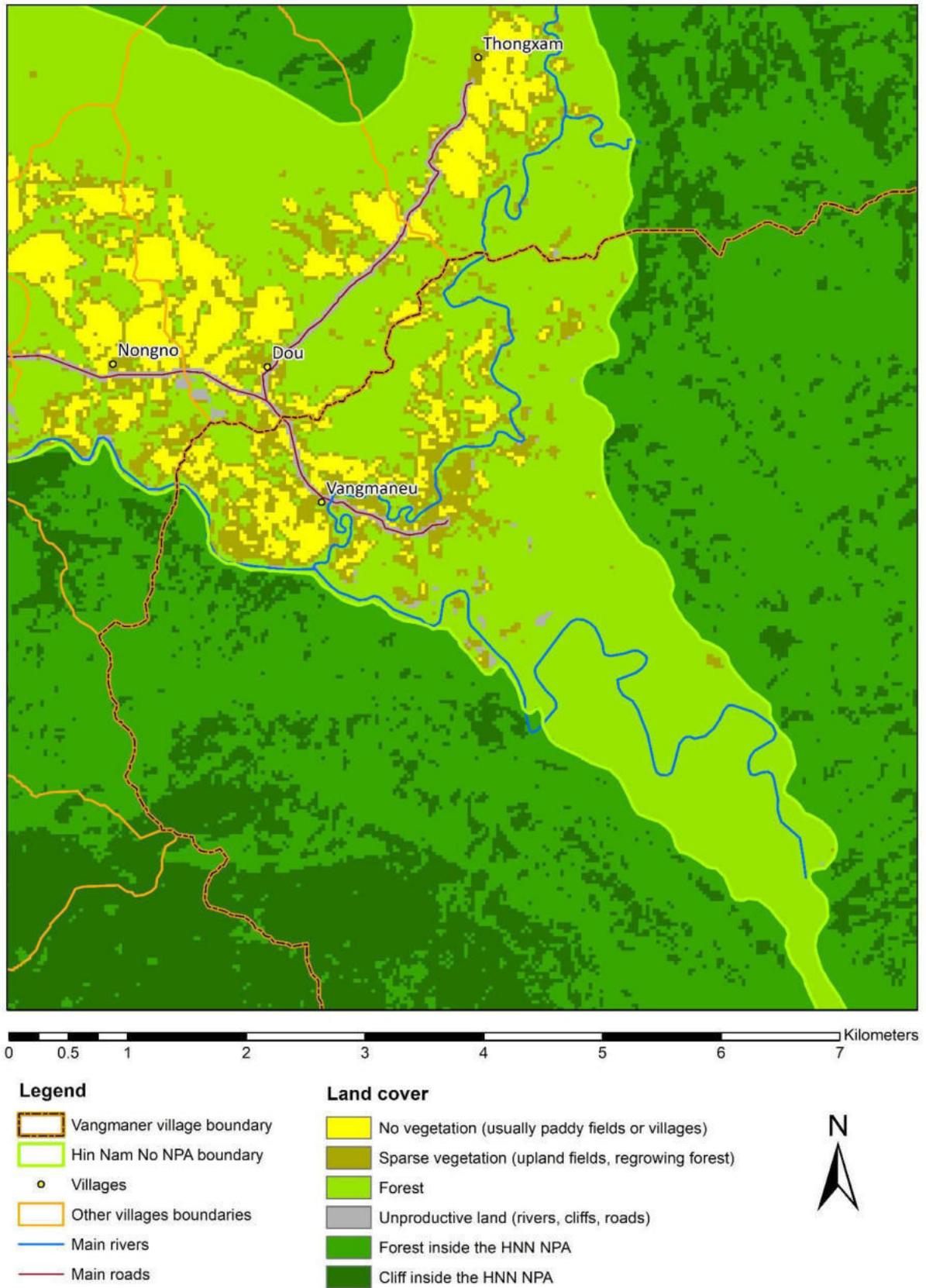


Figure 5 : The different land-use areas in Ban Vangmaner, based on Landsat satellite images, 21 February 2017

2.5.2 Land tenure

The villagers can do what they want on their own parcels. Almost all families have paddy fields and a few also have upland fields (four families with a median at 0.5ha). The paddy fields size varies between the households: from 0.5 to 4ha (Figure 6); the median is at 1ha. Also, four households have cassava fields for selling.

If someone wants to extend his fields, it is only allowed to clear its own land. If the villager does not have more land, he needs to buy a parcel from someone else. A main issue is that the soil is not everywhere suitable to have paddy fields; there are even holes in the forest, where nothing is growing.

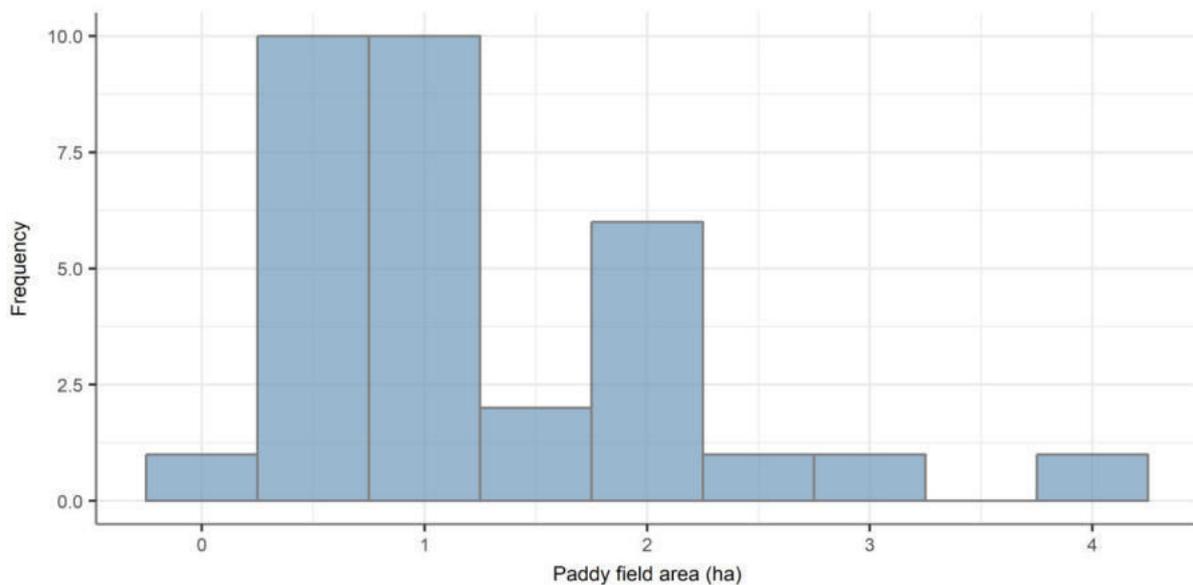


Figure 6: Distribution of the paddy field area (in ha) owned by the households

2.6 Physical assets

All villagers (100%) have electricity at home but only 20.6% also have toilets at home. Almost all of them (97.1%) use mainly wood for cooking and 2.9% charcoal.

The number of assets varies between the households but at the village level the general trend is to possess one mobile phone, one tractor, one motorbike and no car (Figure 7).

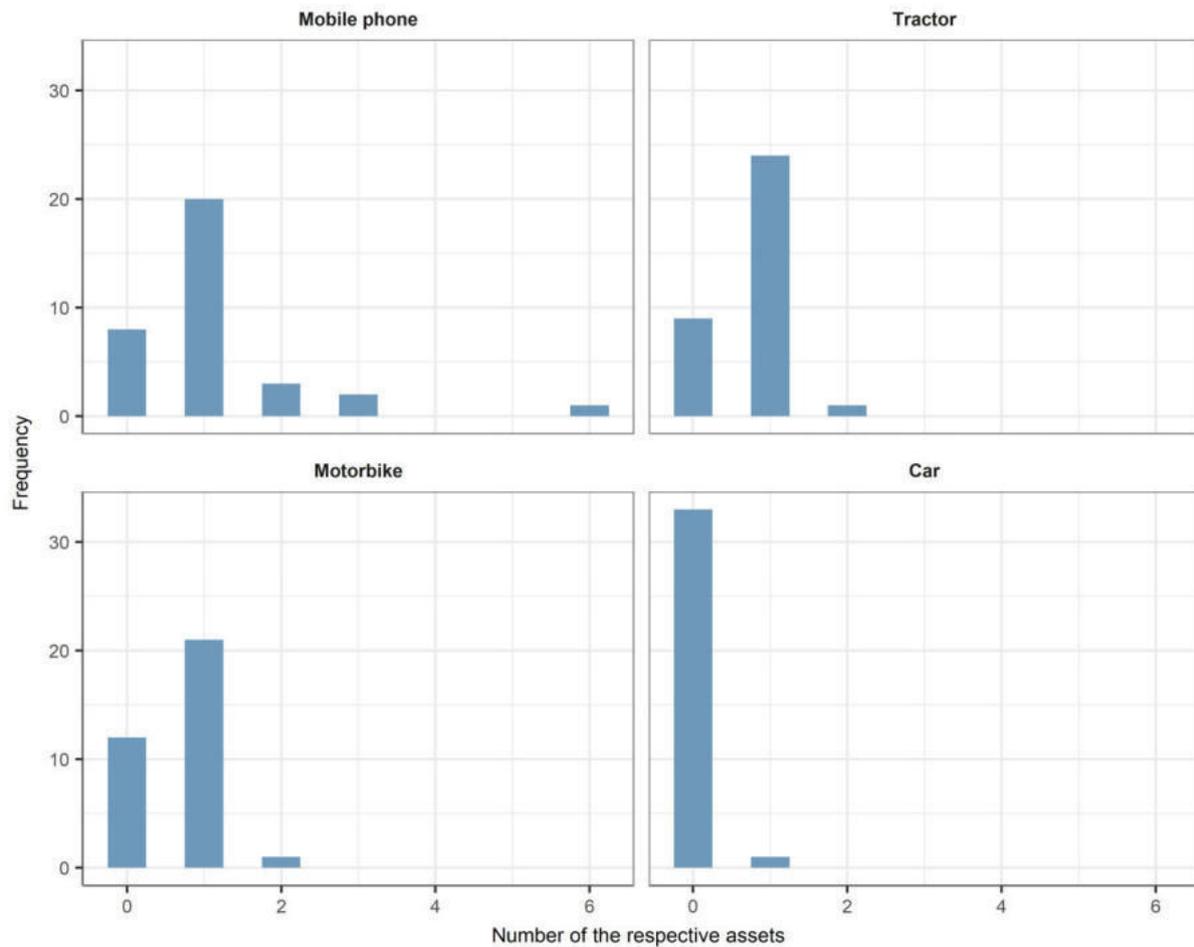


Figure 7: Distribution of the different assets at the village level

2.7 Agriculture

2.7.1 Rice

The median rice productivity was at 1440 kg/ha in 2016 and at 1350 kg/ha in 2017 (Figure 8). The rice harvest in 2016 is judged “usual” by 56.7% of the villagers and the one of 2017 “bad” by 63.3%, while 26.7% found it “good” (Figure 9). The flood is probably the main influencing factor, but as we observed in 2017, it does not affect all fields in the same way.

All villagers (100%) would like to produce more rice.

A relative important part of the villagers sells the rice: 21.2%.

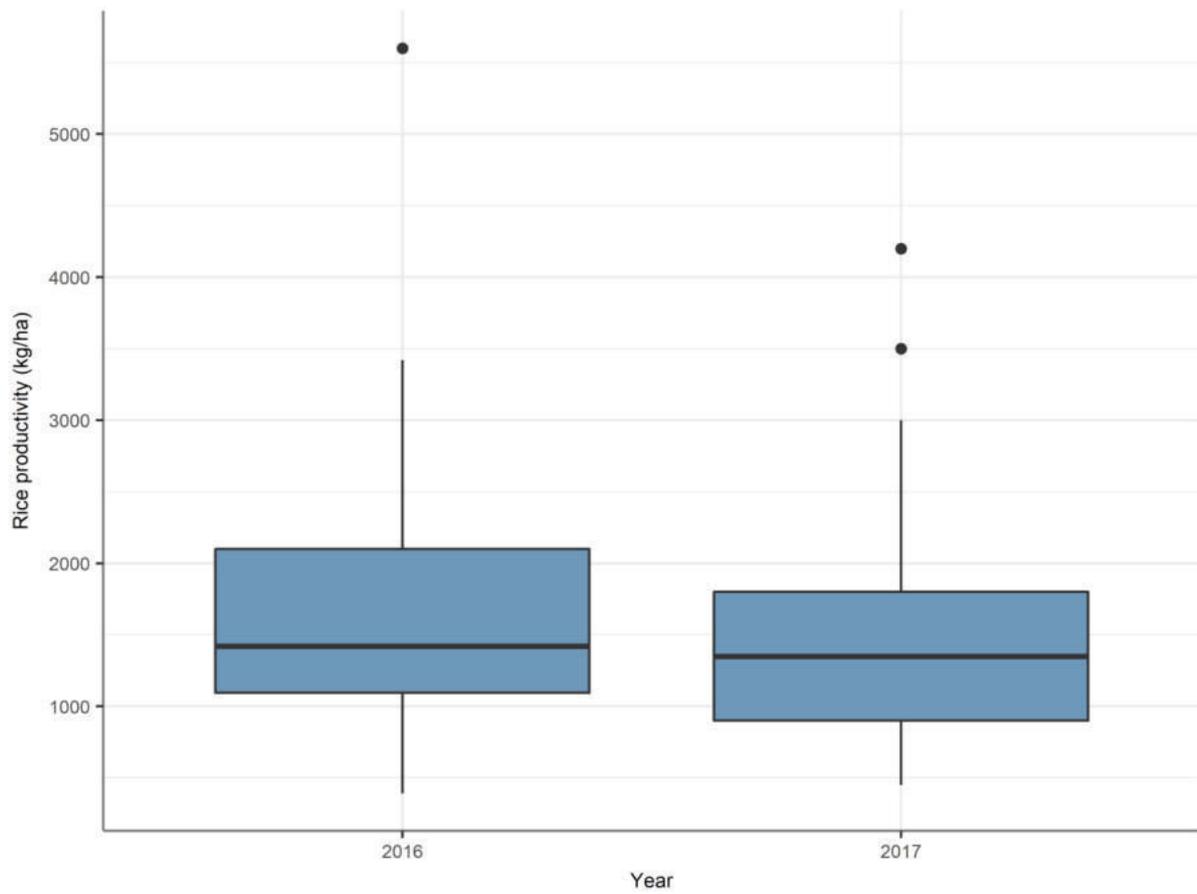


Figure 8: Rice productivity (kg/ha) in 2016 and 2017

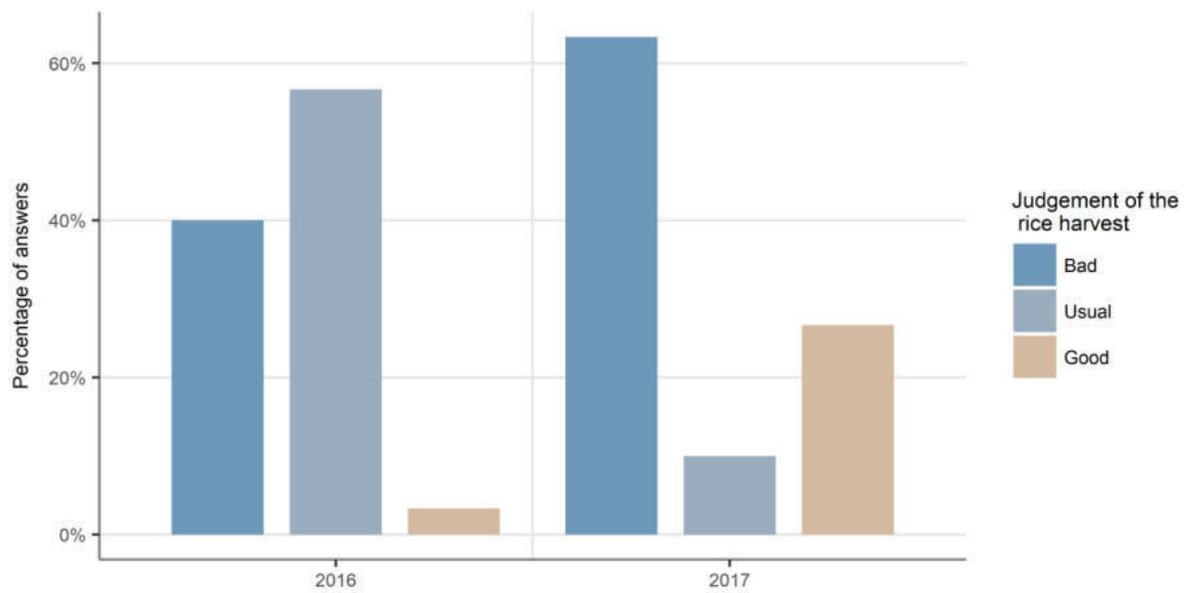


Figure 9: Rice harvest judgement for the year 2016 resp. 2017

2.7.2 Problem with rice

The main limitations to rice production is the lack of water, which dry the rice seedlings, the lack of chemical fertilizers and the lack of land (or would need more money for buying more land) (Figure 10). Another critical issue is the change in the rain period: from June to September there is sometimes no rain and in September-October there is a lot of rain and the fields are flooded. This has changed these last years and some villagers think it is because they cut too many trees. According to the village meeting also the flood and the strong winds have a great influence on the rice production.

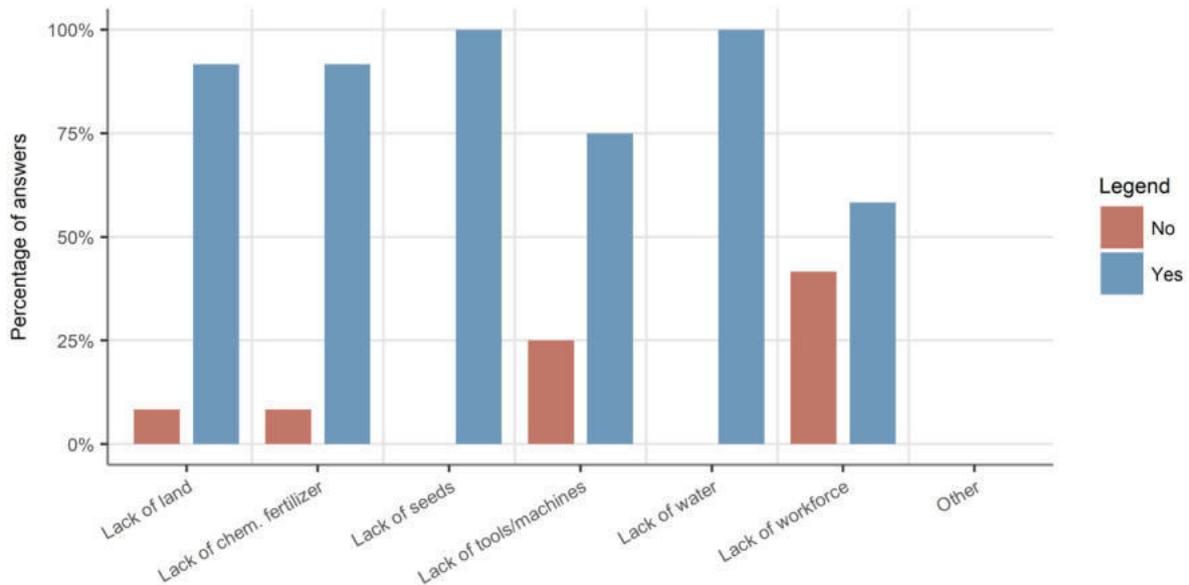


Figure 10: Limitations to produce more rice

2.7.3 Other crops

In Ban Vangmaner, the Naiban has divided the villagers in two groups and each one is responsible to one garden along the river (Nam houk). The concept is to share the garden in order to have vegetables for the whole village, only for their own consumption because they cannot produce a large quantity. Around the individual houses, there are also small gardens (for eating only) (Figure 11). As crops fields, four families grow cassava for selling, around 2.9 Mio LAK/year/households; some also have sugar cane than they can sell for a total of 300,000 LAK/year.

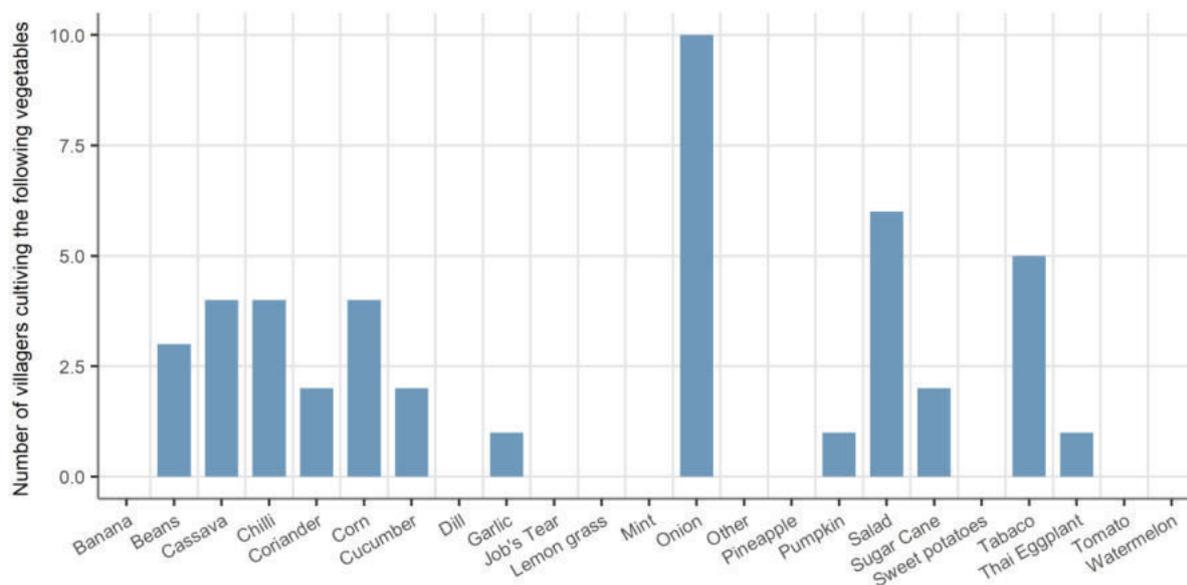


Figure 11: Number of interviewed villagers cultivating the following vegetables in their garden

2.8 Livestock

2.8.1 Livestock assets and management

In Ban Vangmaner, the livestock is composed of buffaloes, cattles, pigs, chicken and ducks (Figure 12). They can go freely everywhere. Nobody is at the village level responsible for the cattle grazing. At night time they keep the animals at home and give them salt two times per day.

They use the vaccination and know how to administrate it: 50% of the villagers vaccinate all of their big animals (livestock expect chicken and ducks), 16.7% some of them and 33.3% do not vaccinate any animals.

All villagers (100%) would like to hold more livestock.

As summarized in the Figure 13, the use ratio is extremely low: 0.29 for the chicken and only 0.09 for the ducks, 0.03-0.02 for cows and buffalos, even zero for the pigs. This means that the villagers make only a little gain with their livestock.

Regarding the manure, 50% of the villagers always collect it, 33.3% sometimes and 16.7% never.

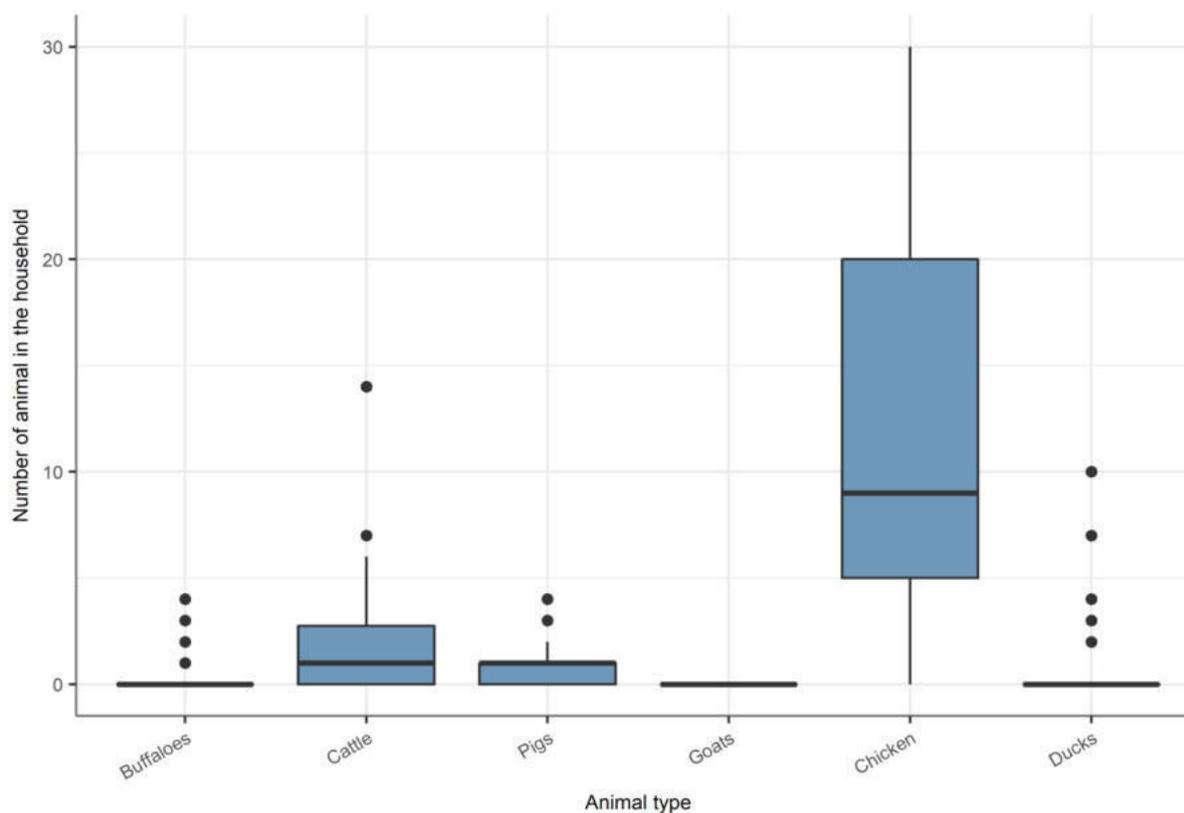


Figure 12: Distribution of the livestock assets per household

	Total	Born	Bought	Sell	Eaten	Died	Fertility rate	Mortality rate	Use ratio
Buffaloes	20	1	0	0.5	0	0.5	0.05	0.02	0.02
Cattle	69.666	9	0	1.496	0.5	5.166	0.13	0.07	0.03
Pigs	30	0	3.33	0	0	9.5	0	0.32	0
Goats	0	0	0	0	0	0	NaN	NaN	NaN
Chicken	365	NA	0	68	38	NA	NA	NA	0.29
Ducks	34	NA	0	0	3	NA	NA	NA	0.09

Figure 13: Summary of livestock breeding

2.8.2 Problem with livestock

The main issues are the disasters (flood, strong winds) and the diseases. There are a lot of buyers but not enough animals to sell. So, the villagers would like to have more money to invest in the livestock by buying more animals. Then, as we see in the previous section (2.8.1), the reproduction rate of the livestock is very low (Figure 14).

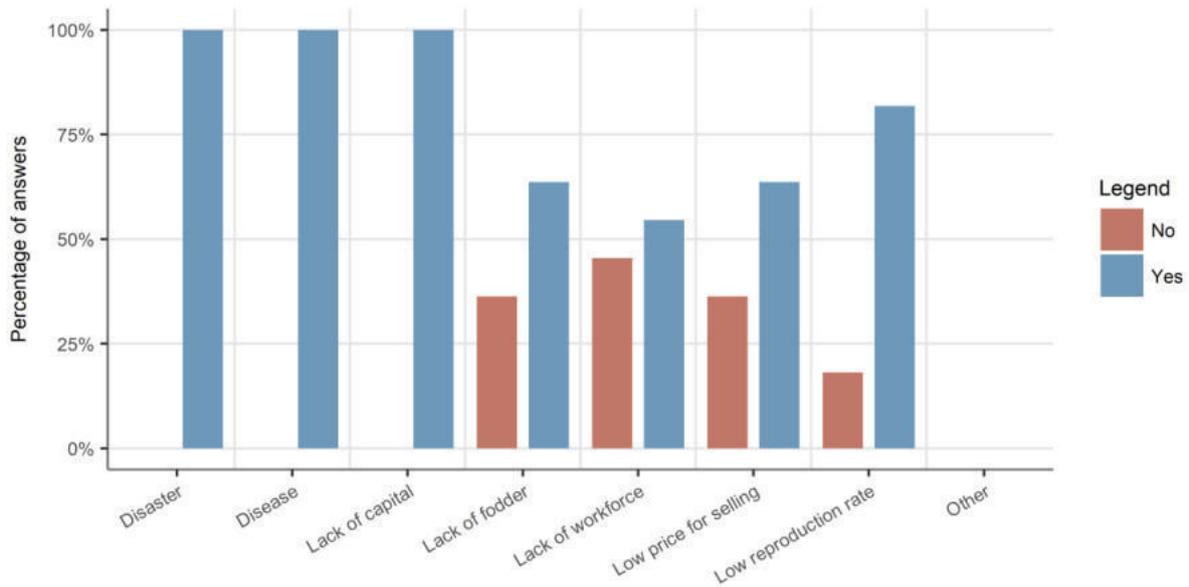


Figure 14: Limitations to breed more livestock

2.9 Forest

All villagers have access to the forest for collecting NTFP’s and harvest trees, expect one who reports not to need it.

2.9.1 NTFP

The villagers collect NTFP’s in the use forest and the conservation forest but this last one does have a lot, especially no rattan and sugar palm. They can also go to the use forest from Ban Dou, next to this one for collecting NTFP’s, and the Ban Dou villagers are allowed to do the same in the Vangmaner use forest. The villagers from Ban Vangmaner report not going to the HNN NPA, even not in the Controlled Use Zone (CUZ) because they do not know that they have one CUZ. There is no regulation, all villagers can collect and sell as much as they want because in any case they are not a lot of NTFP left.

The most important NTFP’s are:

	Plants & Bamboo	Wildlife
For eating	<ol style="list-style-type: none"> Bamboo Lady Palm Mushrooms 	<ol style="list-style-type: none"> Fish Rats Birds
For selling	<ol style="list-style-type: none"> “Boons” Sugar palm None 	<ol style="list-style-type: none"> Fish Frogs Snails

The availability of the NTFP’s is decreasing but for the villagers from Ban Vangmaner main villge it is not an issue because they are not highly dependent on it. 64.7% of the villager report to often find

enough NTFP's to cover their yearly needs, 2.9% always and 14.7% only sometimes. 14.7% find the NTFP's area to small and can never cover their yearly needs in NTFP's.

2.9.2 Timber

The villagers go cutting trees in the use forest. They first have to ask the Naiban who gives his permission to cut trees in the use forest. Since the wood quality is very bad (only Mai Phuää), the Naiban does not fix any limitation as long as the village has enough. Also, people from this village who are now living in another one can harvest trees in the Ban Vangmaner use forest (for building their house in the other village) but have to ask and pay the Naiban. The money goes to the Village Fund, which is mainly used to organise official village ceremonies.

The majority of the villagers (64.7%) find that there are enough timber, but the quality is bad, for 20.6% there is not enough timber and for 14.7% the wood quality as the quantity are fine.

2.10 Fish

There are three fish ponds in Ban Vangmaner: two village ponds and one regional one shared with different villages, such as Ban Dou. All ponds are based on the same rule: in November, the villager go together one day catching all fish. For the rest of the year, there is a fish ban.

There is also a village Fish Conservation Zone (FCZ) since at least 40 years (not a NGO project), shared with Ban Dou and Ban Nongno. It is based on the same concept as the fish ponds: the villagers go together catching all fish one day in April. From June to March there is a fishing ban to support the fish reproduction. There are fines (around 200,000 kip) for the no respect of this rule; the Naiban made signboards to define the FCZ area and the fish ban.

The fish stock is decreasing, especially because some years there is not enough water and the ponds dry, but they are still enough for the villagers from Ban Vangmaner.

2.11 Cash

2.11.1 Source of cash income

The main income source is clearly selling livestock. Then, in a smaller proportion, there is selling rice, followed by selling other or NTFP's and paid labour (Figure 15).

The interviewed villagers cite the following paid labour activities (with annual income in brackets):

- build house (4.5 – 30.4 Mio LAK)
- ranger HNN (6.0 Mio LAK)

As business activities:

- have a shop (7.3 Mio LAK)
- selling cassava (2.9 Mio LAK)
- make charcoal (0.2 Mio LAK)
- collect steel (1.0 Mio LAK)

As income from the government:

- Naiban function (1.5 Mio LAK)
- pension for handicap (14.4 Mio LAK)

Regarding the remittance, only 3.2% of the villagers receive money from someone working outside of the village during the whole year and 3.2% in the dry season.

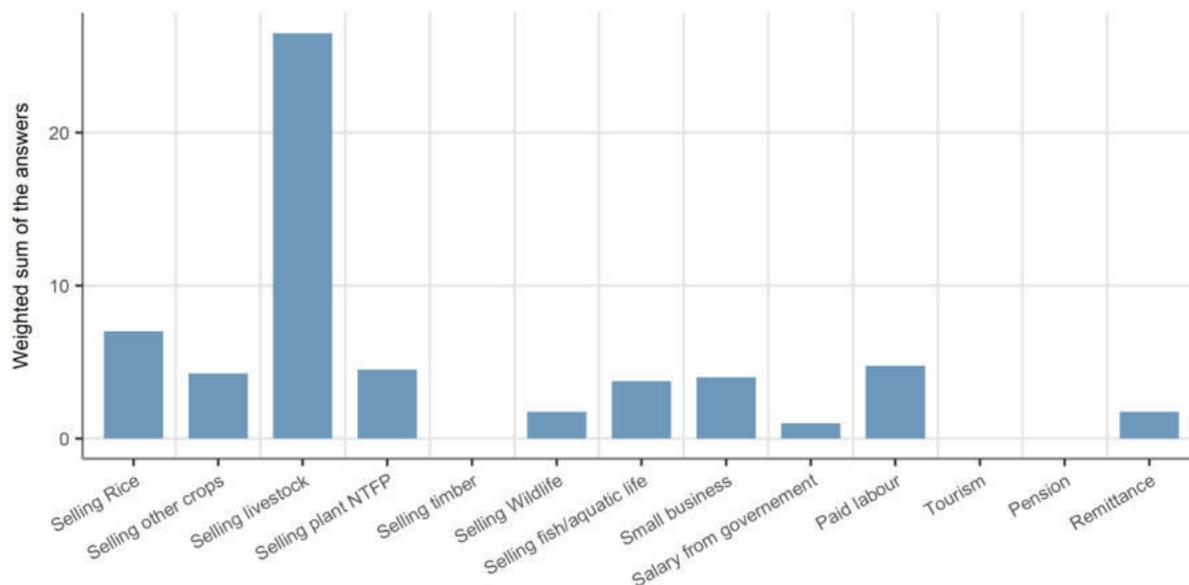


Figure 15: Importance of the different sources of income (weighted as 1st source = 1, 2nd source = 0.75, 3rd source = 0.5, 4th and 5th = 0.25)

2.11.2 Cash expenditure

The daily expenditure average lies around 20,000 LAK (Figure 16).

As the Figure 17 shows, most of the households invest in electronic items, then in buying a vehicle and in the food or the medicine. There are, however, some variations between the households (of 1.5 – 1.0 Mio LAK) in these four categories. Nothing is invested in the agriculture nor the tools, and only a bit in the livestock.

When we take the annual expenditure of the households and divided them in 4 quartils (from the smallest groups of annual expenditure to the largest one), we observe that the expenditure increases for all items at each quartil (Figure 18). So, when the people in Ban Vangamner have more money, they do not invest in a specific item/field but rather buy more of all items. We see that only richest people (4th quartil) start to diversify their expenditure and invest a bit in maintenance and productive assets. The second quartile invests a surprisingly large share of its income in luxury item (electronic and household items).

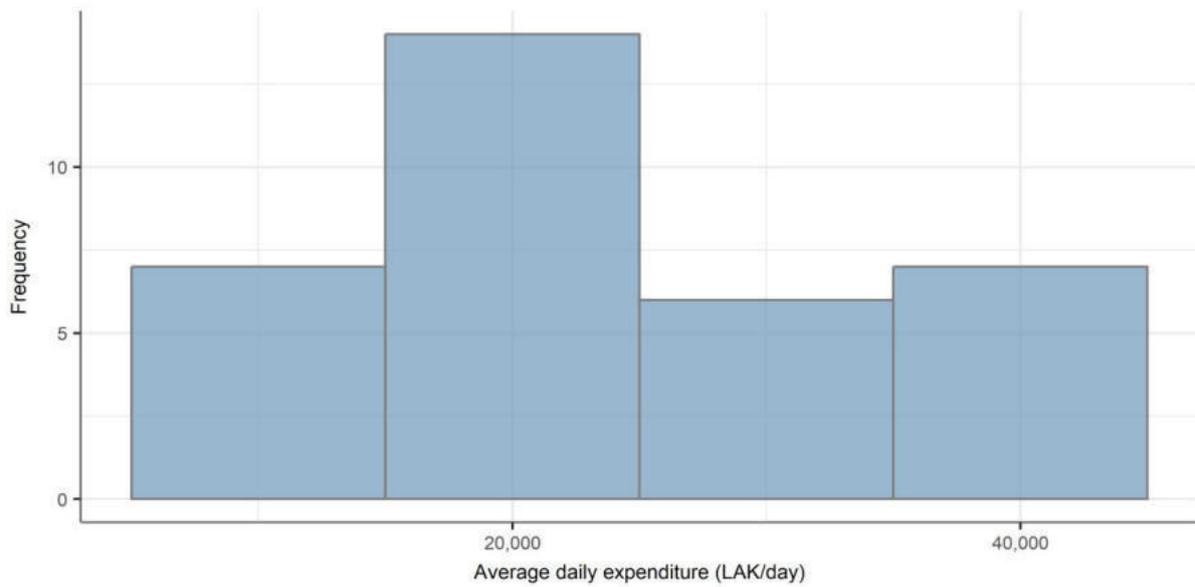


Figure 16: Distribution of the daily expenditure average (LAK/day)

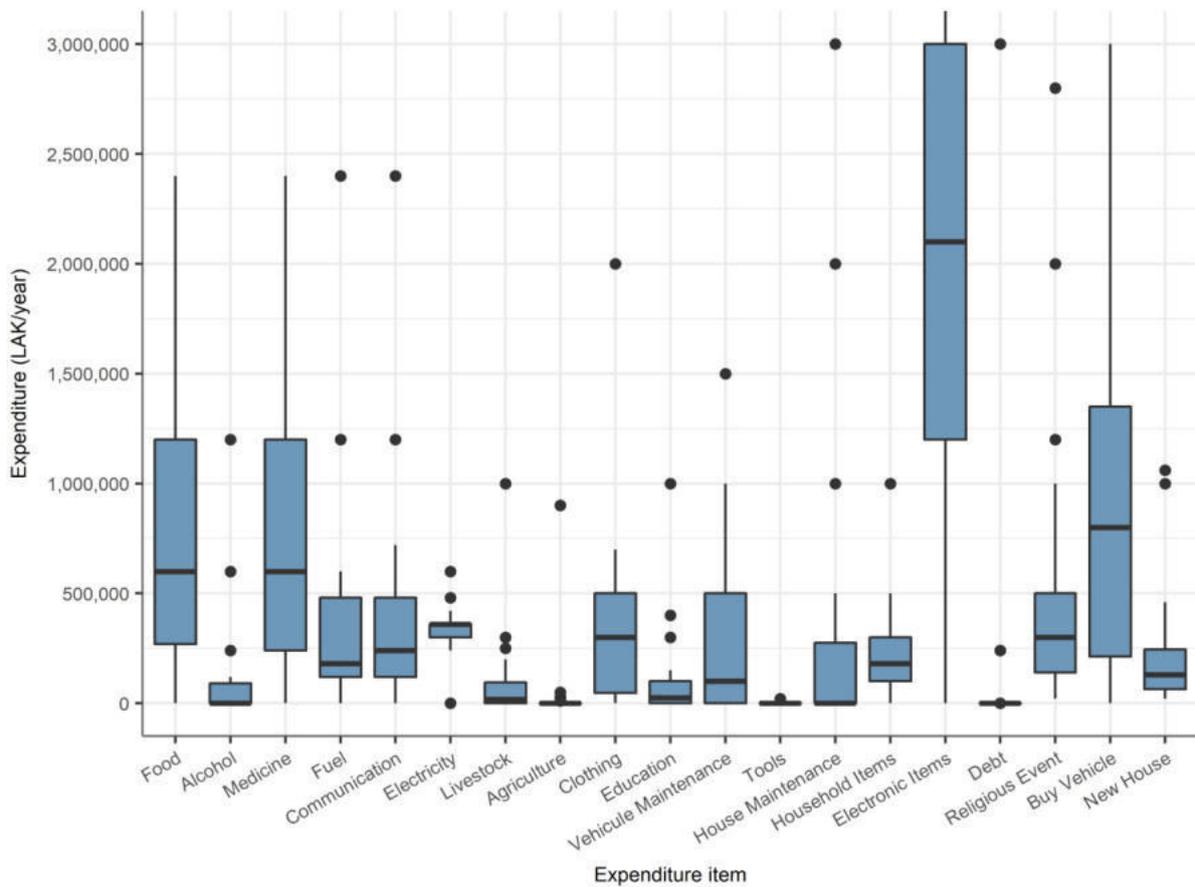


Figure 17: Expenditure (LAK) per items at the village level

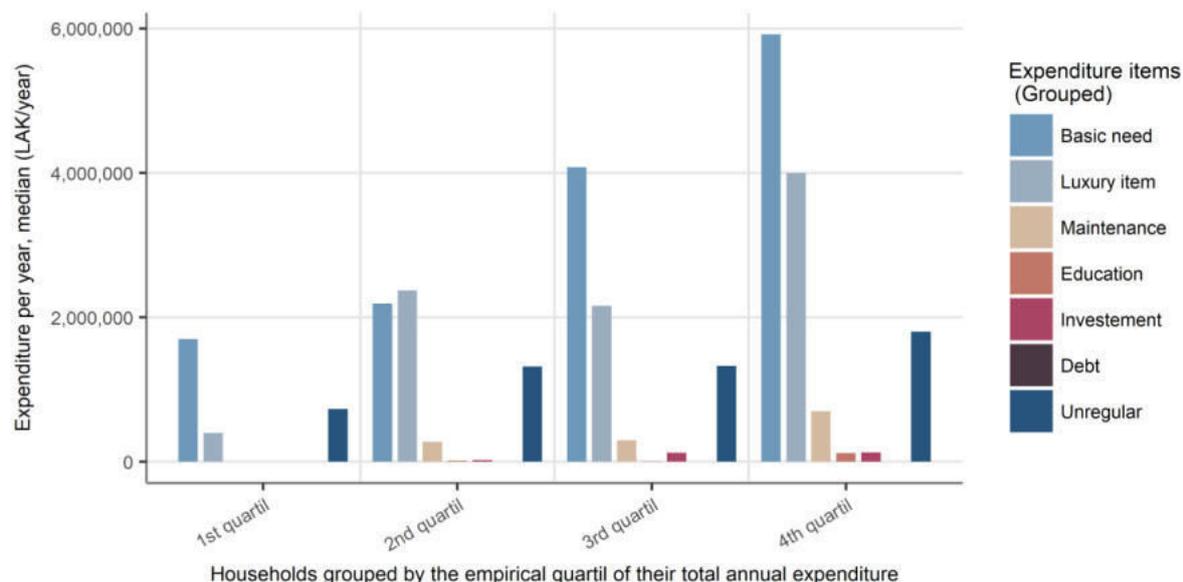


Figure 18: Total yearly expenditure (LAK/year) per items group according to the four quartils, (1st quartil: group with the smallest annual expenditure; 4th quartil: group with largest annual expenditure)

2.11.3 Debt and savings

According to the questionnaire, 29.4% of the villagers do not have any saving and the other (70.6%) just keep all the money at home.

Regarding the debt, 88.2% don't have any, 5.9% have one to the Village Fund, 2.9% have to the relatives and another 2.9% to the shopkeeper.

2.12 Health, food security and drinking water

2.12.1 Health

The closest health centre is located in the neighbour village (Ban Dou) with a very good road access.

All the interviewees say to be happy with the current medical assistance, except one for an unknow reason.

In general, the villagers are using various health suppliers: health centre (97.1%), hospital (29.4%), self-medication (47.1%) and traditional healer (35.3%).

In Ban Vangmaner, most of the people (58.8%) are sick 2-3 times per year and also go to the doctor 2-3 times per year (64.3%); 20.6% of the villagers are sick once a year and 17.6% see a doctor one time per year.

2.12.2 Food security and food shortage

According to the interviews, most of the villagers (76.5%) do never have an issue with rice shortage, 20.6% can sometimes not produce enough rice and 2.9% need often more rice. Most of the villagers

need to buy or borrow rice in September and October (17.6% resp. 35.3%); interesting to note that nobody needs more rice during 6 months of the year (Figure 20 **Erreur ! Source du renvoi introuvable.**). As the Figure 21 shows, the households with rice shortage are able to get the same rice quantity after buying or borrowing than households without shortage. At the village level, 1.055 kg/day/person of rice is produced (median). In 2016 the harvest rice median was of 1800 kg and of 1500kg in 2017 (Figure 19 **Erreur ! Source du renvoi introuvable.**).

After rice, the villagers have a high dependence to fish and their gardens (Figure 22).

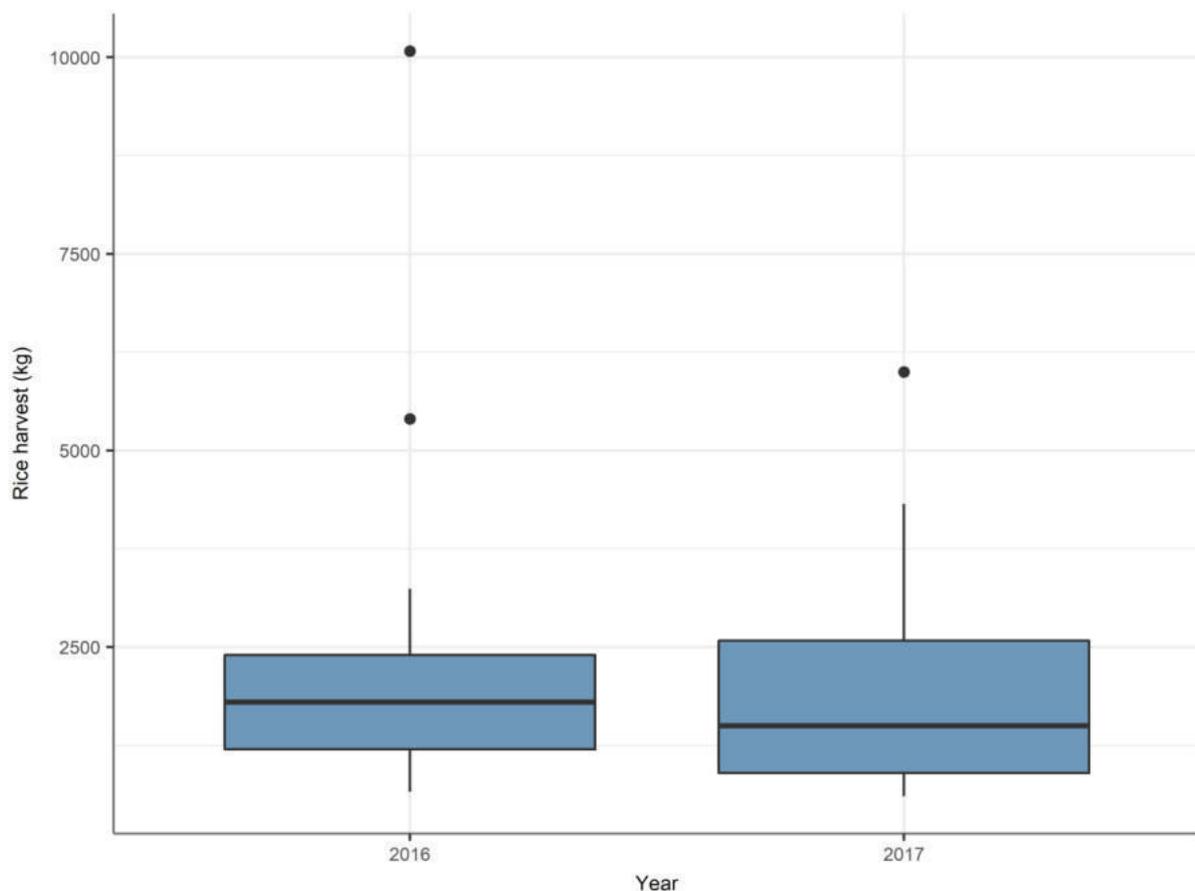


Figure 19: Quantity of rice harvested (kg, unmilled per household) in 2016 and 2017

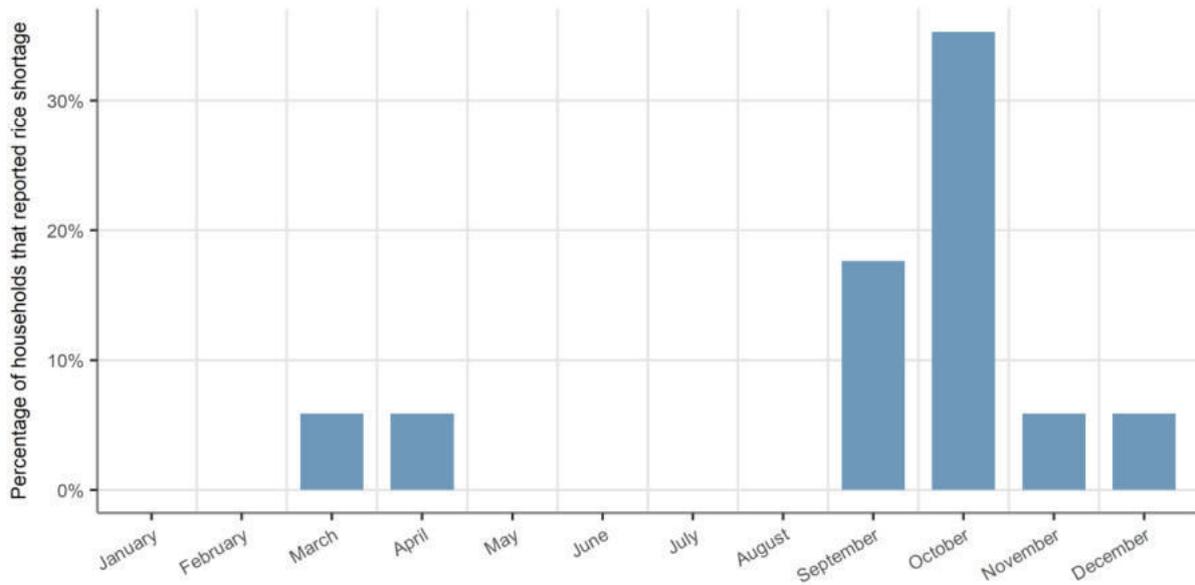


Figure 20: Months when the households have rice shortage

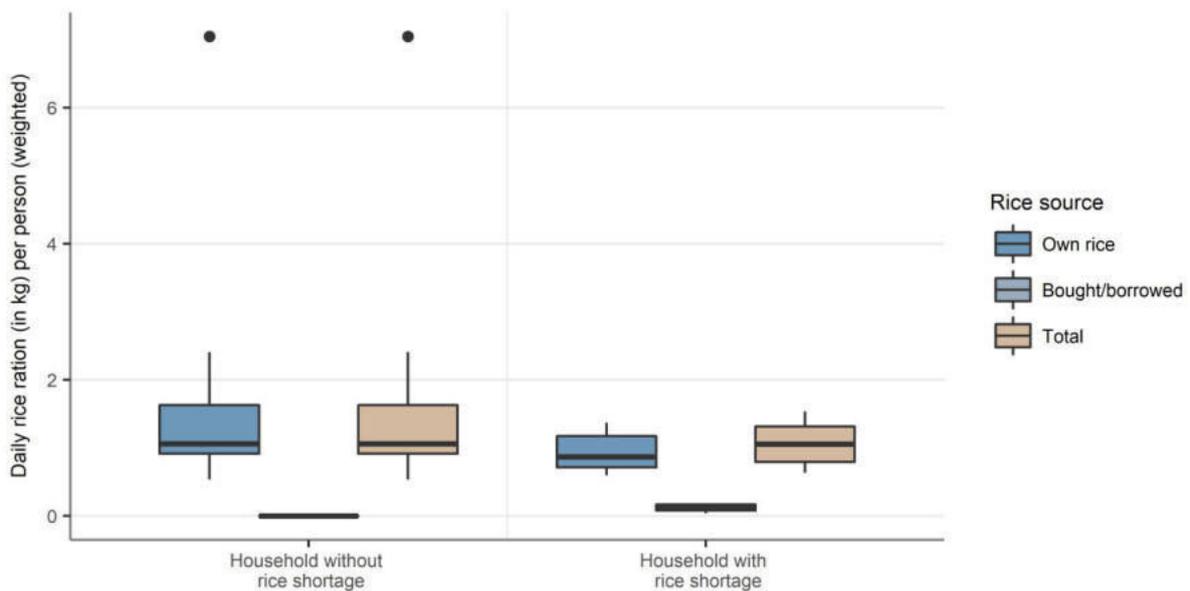


Figure 21: Rice availability (kg unmilled rice per day per person) of households with vs. without rice shortage; weight factors: kids (0 to 6 years old) = 0.4, kids (6 to 12 years old) = 0.7, adults (>12 years old) = 1

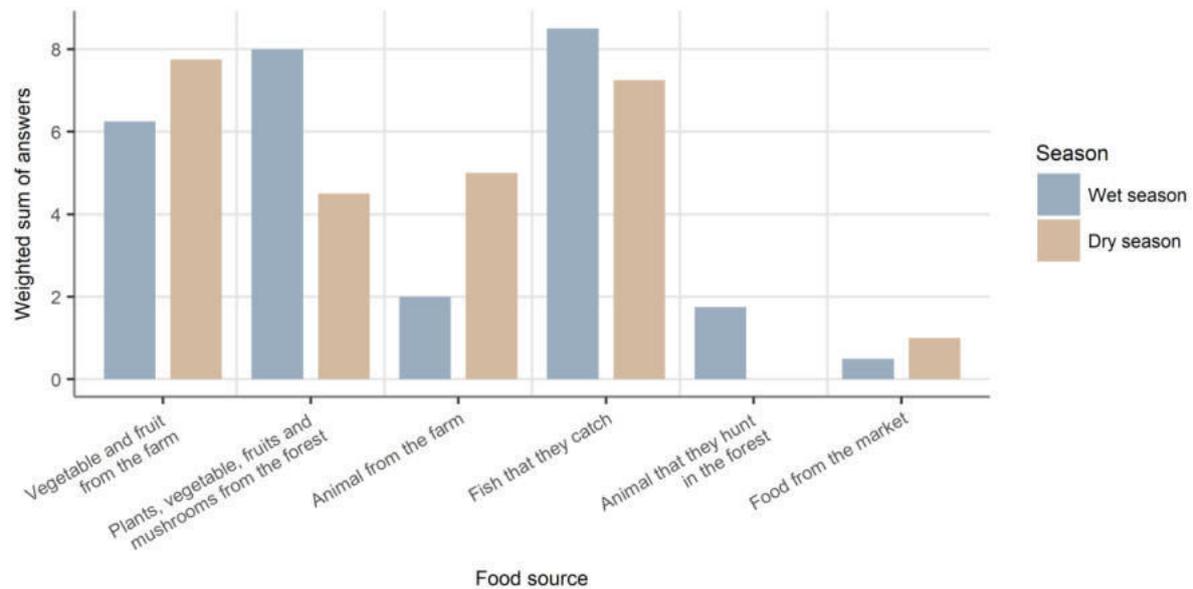


Figure 22: Food source during the wet and dry season

2.12.3 Drinking Water

The village pipe is broken since 10 years. So, the villagers take the water from Nam houk river; some boil it before drinking.

2.13 Social connexion in the village and information channels

The villagers in Ban Vangmaner share mainly tools (58.3%) between families as rice mill and food (both at 50%) (Figure 23).

The main information channel used (by 75% of the villagers) is the television and then the phone without internet (around 60%) (Figure 24).

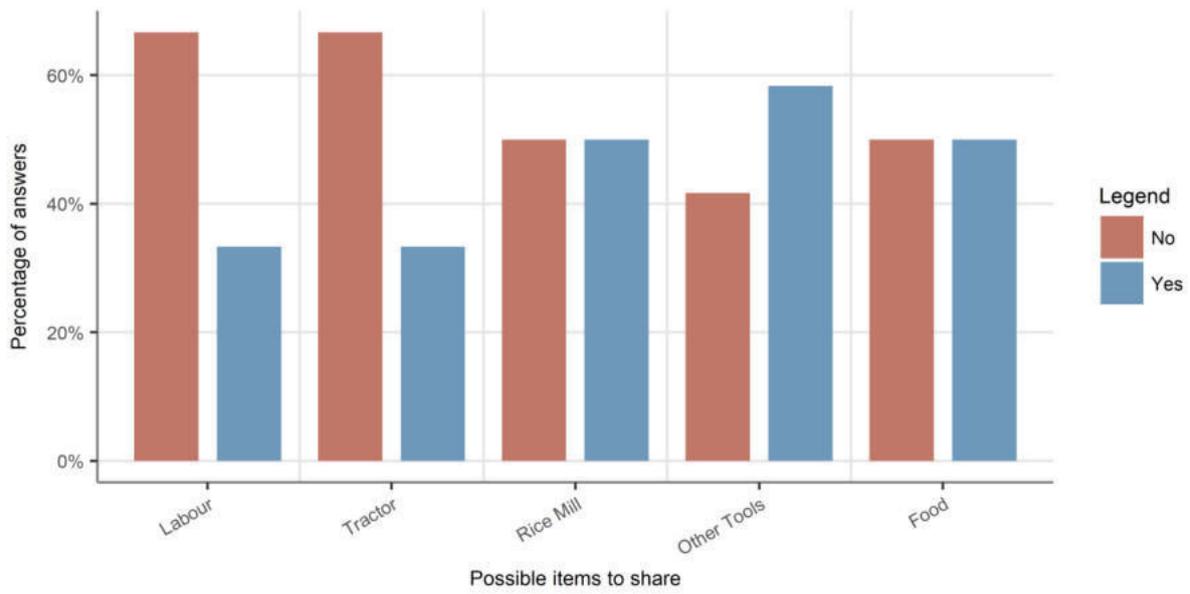


Figure 23: What the households share with other families

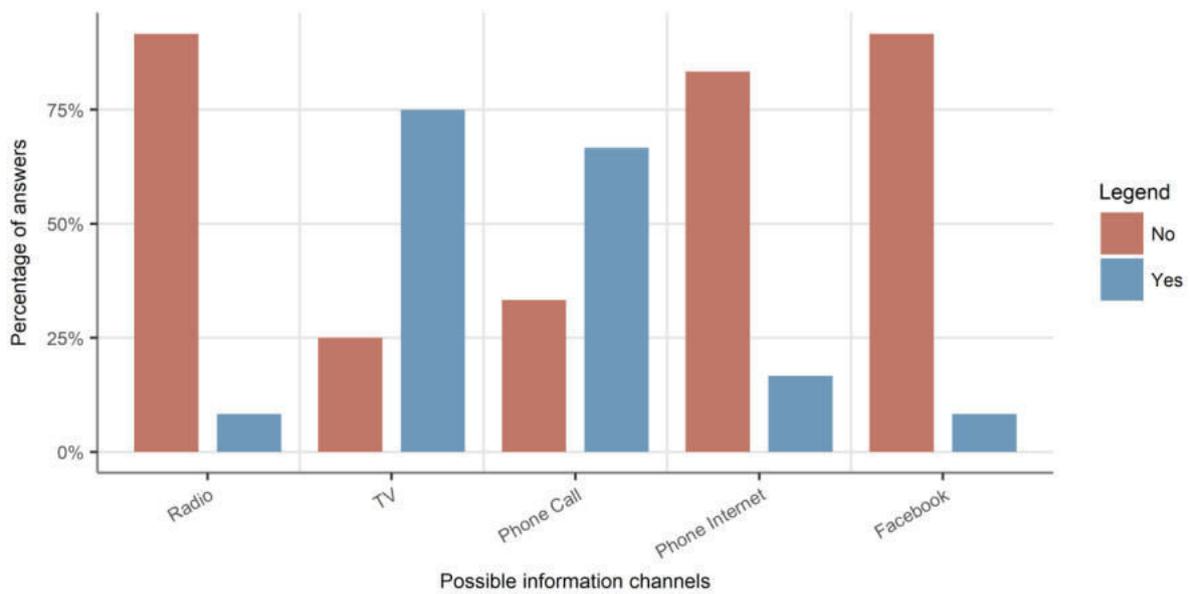


Figure 24: Which information channels the villagers are using

3 Conclusion

Summary

Population	The population is growing but it is not perceived as an issue so far.
Education	Primary school attending: 100% Increase of high-educated people
Health	Good. No health centre (use the one of Ban Dou).
Village dynamic	Good. Some shops and small business. Assets mean: one phone, one motorbike, one tractor. A moderate good sharing between the families.
Infrastructure	Good. Water: need a new pipe. No irrigation system.
Forest - Timber	Enough timber but the quality is bad.
Forest – NTFP's	NTFP's availability: decreases but not an issue so far.
Fish	2 village fish ponds + 1 regional fish pond: well respected. 1 village Fish Conservation Zone: well respected.
Rice production	All have paddy and some also upland rice fields. Selling rice: the 2 nd main income source. Almost no issue with rice shortage. Lack of water: rice seedlings dry and died Issue with flood: destroyed part of the crops; potential maybe for an insurance. Great problem with the change in the rainy season: no rain (lack of water) and then too much (flood).
Other crops production (than rice)	House gardens + 2 sharing gardens to produce vegetables for the whole village (no selling). Some cassava fields for selling. Need more buyers to get a better price for the cassava.

Livestock The first main income source.
Use vaccination.
Provide salt to the cattle.
Issue with diseases and disasters.
Need more knowledge to improve the extremely low use ratio and the low reproduction rate.
A lot of buyers but not a lot of animals to sell: need money to have more livestock.

Other economic activity Paid labour is the third income source; also, some shops and small business.

Issues Flood and strong winds.

Special Ban Vangmaner includes 2 sub-villages: the main village and the Salang village, that share many natural resources. This report focusses only on the main part of Ban Vangmaner. For the Salang village part see: "Report on socio-economic survey in Ban Vangmaner (Salang village)".

Recommendations:

- Check potential for developing the cassava production: by increasing the number of buyers.
- Evaluate the issues with sugar palm (villagers complain that there is already a lot of trees but only few fruits).
- Small crop insurance against floods and other disasters.
- Establish more fish ponds.

Issues with the HNN NPA: none

Village priority: no, quite wealthy and fast developing village.

4 References

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5 Annex

Annex 1.1: Results of the village meeting

Date: 13.01.2018

Village Name: Ban Vangmaner

Naiban Name: Mr. Bounma

Meeting time: 9:30 – 12:00

Number of villagers: 50 included 20 women (at the beginning and at the end)

1. *How many households do you have in the village?*
Vangmaner main village: 40
Salang village : 31
Total : 71 households in Ban Vangmaner
2. *What are the different ethnic groups living in the village?*
Phoutan in the main village; Salang in the Salang village.
Are all of them well integrated in the village?
Salang and Phoutan are living in 2 different villages.
3. *Is the village speaker working well or is it broken?*
The speaker is working.

Community mapping (2-3 maps): make 2-3 groups and give to each of them a prepared map (A1 paper) with important general features, e.g. village meeting house, main road, main river and mountains already drawn on it

4. *Can you draw a map of your village and its surrounding, and show us:*
 - *Where do you have paddy rice field, upland rice fields, other fields like cassava/corn/banana?*
 - *Where do you produce vegetables?*
 - *Where do you have forest?*
 - *Where do you go for fishing?*

The composition of the 2 different groups was the following:

Group 1 = 7 Men + 3 Women

Group 2= 8 Men + 4 Woman

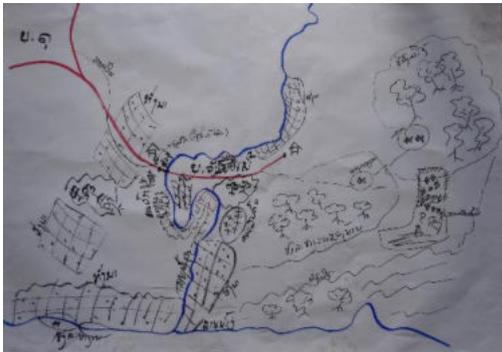


Figure 1: Map of group 1

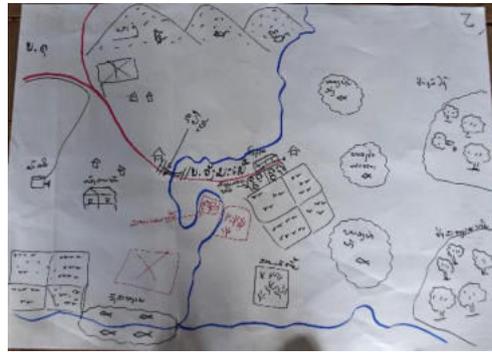


Figure 2: Map of group 2

Put all of the maps on the wall and ask the following questions:

5. *How many wells/ stand-pipes do you have in the village, where people can get water?*
There is one pipe in the village coming from Ban Dou village (which has a big water tank) but it is broken since 6 years. So, they are taking the water from Nam houk river.
Do you have an irrigation system to irrigate your crops or garden?
No.
6. *Where do you go fishing?*
There are 3 fish ponds and a fish conservation zone.
Do you have one or several fish conservation zones?
Yes, one on the Nam ngo river since a long time ago (more than 40 years).
Do you know where does it start and where does it end? Where on the map?
Yes.
What are the rules for the FCZ?
From June to March there is a fishing ban to support the fish reproduction. There are fines (around 200,000 kip) for the no respect of this rule.
Compare to the last 5-10 years has the fish stock increased or decreased?
The fish stock is decreasing because many years there have not enough water and it is dried.
Do you think that it is because of this fish conservation zone?
There is no link between the FCZ and this water issue.
Are outsiders coming for fishing? Is it a big issue for you as villagers?
There are some outsiders but it seems not to be a big issue.
7. *Do you have village forest (forest outside of the NPA)? Use forest and/or Conservation forest?*
Where on the map?
There is a conservation forest and a use forest; along the river they also have some trees.
If you need to build a new house, where do you go in order to get the necessary wood? Who says how much you are allowed to cut?
The villagers have to ask the Naiban who gives his permission to cut trees in the use forest.

There is now only bad quality wood in the forest (Mai Phuää); so, the Naiban does not fix any limitation since the village has enough. However, people from this village who are now living in another one can harvest trees in the Ban Vangmaner use forest (for building their house in the other village) but have to ask and pay the Naiban of Ban Vangmaner

Which wood do you use for building house?

There is no other chose than Mai Phuää.

When you think about the last 10 years, what has changed? Was it easier to find trees?

The wood stock is decreasing.

Are some outsiders coming to the forest and harvest the wood? Is it a big issue for you as villagers?

Not an issue.

8. *Where do you go to collect NTFP's in the forest?*

They collect NTFP's mainly in the use forest as also in the conservation forest (but this one has no ratten and sugar palm).

As villager, can you collect how much do you want? Or is there any limitation (for example regarding selling the NTFP's)?

There is no regulation, the villagers can collect as much as they can because there is not much left in the forest. People from the Salang village are collecting a lot because they used to live in the forest. They were relocated outside of the Hin Nam No National Protected Area (HNN NPA), but do not have any fields, so they come to the main Vangmaner village and try to exchange the NTFP's against rice sacks.

The main Vangmaner village say to not have enough NTFP's but do know how to solve this problem; they think, we should ask the Salang people who are collecting a lot.

On a new paper make a list of 10-20 NTFPs by brainstorming? (NTFP's = plants, trees, wildlife)

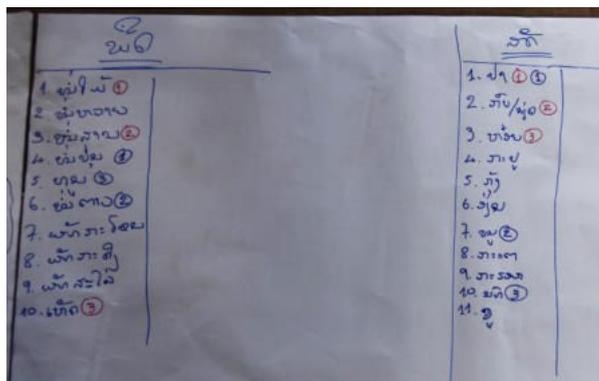


Figure 3: NTFP list

Rank the 5 most important: for eating and for selling:

	Plants and Bamboo	Wildlife
For eating	1. Bamboo	1. Fish
	2. Lady Palm	2. Rats
	3. Mushrooms	3. Birds
For selling	1. "Boons"	1. Fish
	2. Sugar plam	2. Frogs
	3. None	3. Snails

How did the availability of these NTFPs change compared to the last 5-10 years (indicate trends: decrease – stable - increase)?

The NTFP's are decreasing because more people are collecting them.

Which part of the NTFP's that you collect do you sell per year? (in %)

Only a few.

Are some outsiders coming to the forest and collecting NTFP's? Is it a big issue for you as villagers?

Not an issue.

9. *Do all of you have paddy fields? Where on the map?*

All families have paddy fields.

Do you also have upland rice?

Nobody has upland fields.

Do all the families have the same size of paddy fields?

No, there are various size of paddy fields.

How can you have more?

To get more paddy fields, it is only allowed to clear its own land. However, not everywhere it is suitable for paddy fields, there are a lot of holes in the forest, where the soil is not good. If a villager does not have more land, he needs to buy a parcel to someone else.

Do you have enough land for paddy fields in your village?

They do not have enough land for paddy fields, only a little area is suitable.

10. *Do you also have/ grow vegetables? Where on the map?*

Do you have corn, or cassava, or bananas, or sugar cane, or...? Where on the map?

Is it for eating or selling?

2 households have cassava fields. Otherwise, there are 2 villages gardens along the river (one on each side). The Naiban has divided the village in 2 groups and each group is responsible for one garden; there are sharing gardens with fences to protected it. The rule is to produce vegetables and fruits for the whole village but there are some issues because some villagers stole them before the common harvest.

Show the poster with possible issues regarding the crops: vote about the most important problems affecting the crops production

List of crops issues:

- *Strong wind*
- *Flood*
- *Drought*
- *The soil is not good*
- *Lack of water*
- *Rain period change*
- *Lack of workforce/time*
- *Lack of tools/machinery*
- *Lack of land*
- *Lack of fertilizer*
- *Too many weeds*
- *Pests in the crops*
- *Storage pests*
- *No enough buyers*
- *No problem*

Ranking of the crops issues	Men and Women votes
	1. Lack of water (23)
	2. Rain period is changing (22)
	3. Strong wind (19)
	4. Flood (13)
	5. Not enough working force (12)
	6. Too many weeds (10)
	7. Pests in the crops (7)
	8. Lack of machines/tools (4)
	9. Drought (3)
	10. Storage pests (2)
	11. Lack of land (2)
	12.
	13.
	14.
	15.

Summary of the discussion about the different crops issues:

- Lack of water: some years, there is not enough rain water and the rice seeds dry.
- The rain period is changing: sometimes from June to September there is no rain (which is for the rice production very annoying) and in September-October there are a lot of rain, too much and everything is flooded.

This water issue has change these last years. The villagers think that if there is no rain it is because they cut too many trees.

- Lack of working force: do not have enough people for growing vegetables and build the fences around the garden.

11. Is someone in the village responsible for medication of the animals? (for example: for doing the vaccination)

They used to have a vet in the past but now many villagers learn how to administrate the vaccination, so nobody is responsible for this.

Show the poster with possible issues regarding the livestock: vote about the most important problems affecting the livestock

List of possible livestock issues:

- Lack of time
- Lack of fodder
- Not enough babies or many babies die
- Animals die because of diseases
- Animals die because of disasters
- Not enough money to buy animals
- Not enough buyers
- No problem

Ranking of the livestock issues	Men and Women votes
	1. Not enough babies or many babies die (32)
	2. Not enough money to buy more animals (30)
	3. Animals die because of diseases (29)
	4. Animals die because of disasters (15)
	5. Not enough buyers (1)
	6.
	7.
	8.

Summary of the discussion about the different crops issues:

- Not enough babies or many babies die: the villagers provide any specific cares for the pregnant animals and the babies.
- Diseases: if they see an animal sick, they go directly to Langkhang buying vaccination in order to administrate it as soon as possible.

12. *If you think about the past (last 20-10 years), what has changed in your village? (rice harvest, NTFPs,...)*

- The rice harvest has increased
- The NTFP's are decreasing because the population is growing

13. *What would you change or improve in your village so that you are happy in the future? What would you need? (for example, regarding the infrastructure)*

- They need more water and for that would like that some experts check the water potential of the underground
- They need a new pipe and an irrigation system
- Toilets at home
- Repair the suspension bridge between the main and the Salang village
- Repair the school

14. *In which activities would you invest more time or money or is there any new activities that you would like to develop (with our support) in order to increase your income?*

The villagers would like to have:

- More sugar palm fruits (they already have the trees but almost no fruit)
- More buyers to sell more cassava, especially at a better price than now
- More fish ponds

Annex 2: Results of the transect walk observations in and around the village

Date: 16.01.18
Village name: Ban Vangmaner (main and Salang villages)
Name(s) of the villager guide(s): Mr. Kavon and Mr. Nonta
Start point: Salang village (N°1 in Figure 1)
End point: Vangmaner main village (N°17 in Figure 1)

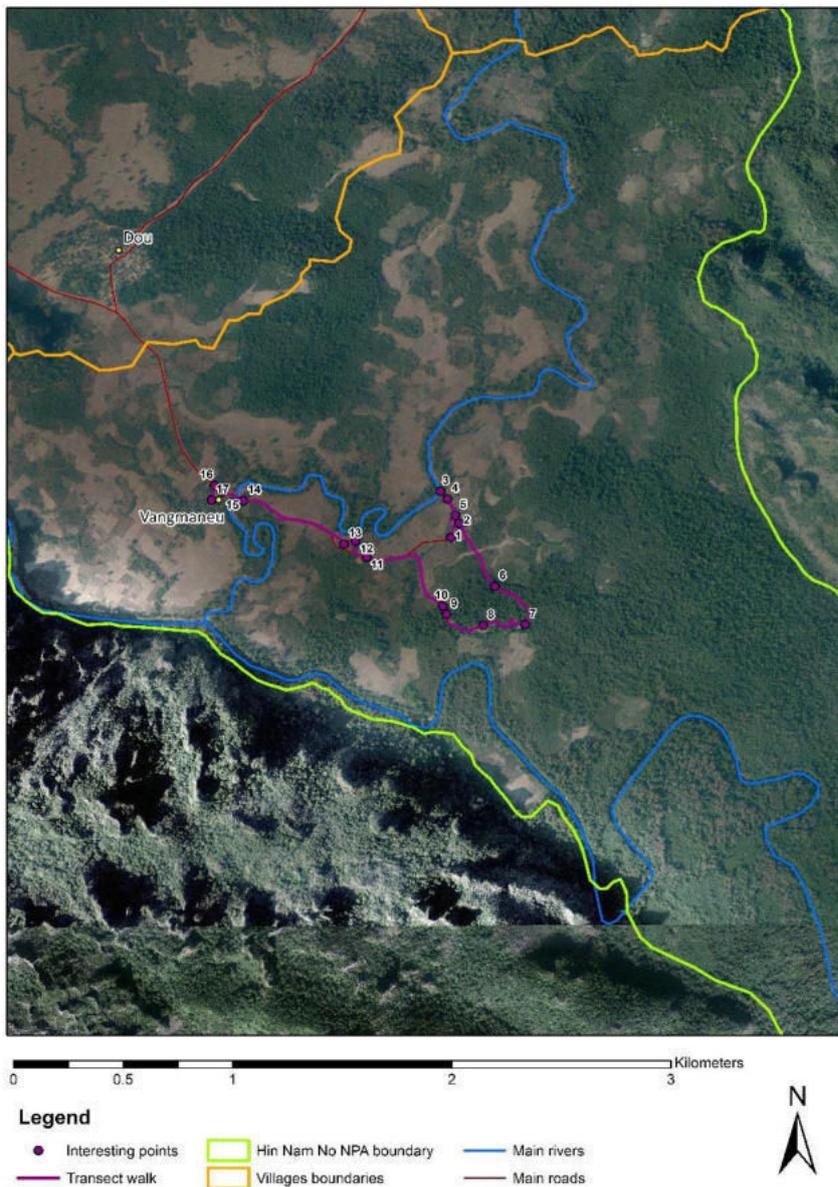


Figure 1: Transect walk with the observation points (see below)

1. Beginning of the Salang village

2. Water tanks in the Salang village:

These 2 water tanks get water from the underground and was built by the government some years ago but since last month the pump is broken. All villagers could use it and get enough water. Now, they take the water from Nam houk river.

3. Nam houk river:

Since the water pump is broken, the villagers take the drinking here, from a small well that they dig in the river. In April and May there is no water anymore. So, they have to dig deeper to find the water. There is no regulation about the water use.

The villagers go also fishing in this river as in Nam ngo river (the whole year). There is no rule regarding the fishing activity. The fish stock is decreasing a lot; they do not have enough fish. People from Ban Dou are allowed to fish in this river too.

Garden along the Nam Nouk river:

The villagers from both part (main village and Salang villages) can have a small garden along this river. The whole area belongs to Ban Dou but Ban Vangmaner can use a part of it for free. Except in April and May, they have enough water to produce vegetables; only for their own consumption because very small plots and no market. There is main concept for the establishment of the garden is based on "first come, first serve"; the villagers just have to build the fence around it and then, this plot belongs to them. All villagers in Ban Vangmaner main village have a garden along the river, only a few by the Salang people because they do not want but all of them can also have a garden.

4. Paddy fields of the Salang people:

The government give them this 20ha area for paddy fields. However, since last year, the Salang people have stopped producing rice on this area because the soil is very bad and they have no pleasure to do it. They prefer collecting NTFP's in the forest and exchange them to get rice than producing rice by themselves.

5. Other paddy fields of the Salang people:

This 10ha area would also be given by the government for paddy fields. 6 families included the Naiban are producing rice on it and share a tractor together. The Naiban has got (from the government) a great part of this area, 29 plots, much more than the other villagers.

UXO's: almost no UXO in this region because less bombed, so not an issue.

6. Use forest:

There is one large use forest shared by Ban Vangmaner main village and Salang village. There they can cut trees after asking for the Naiban's permission (Naiban from the main village) and collect NTFP's. No big trees are observed in this forest.

Villagers from Ban Dou are also allowed to collect NTFP's in this forest and villagers from Ban Vangmaner can do the same in the Ban Dou use forest (the both use forests are next to each other).

Regarding the timber, villagers originally from Ban Vangmaner but who are now living in

another village can also ask the Naiban and pay to cut trees for building their house (in another village). This money goes to the village fund which is used to organise meeting with guests. They could also use this money to repair the broken pipe but currently there is no money in the fund.

If someone is taking wood from the use forest without asking the Naiban's permission, he will be fine and the money will also go to the village fund.

The strange point about this village fund is that only Vangmaner main village is using it and not the Salang people, although the use forests belongs to both village parts.

The NTFP's are decreasing a lot compare to the past: for Vangmaner main village it is not an issue but for the Salang people it is a big problem because they are extremely high dependant to them to get rice. Salang people have various places to collect NTFP's, but the NTFP's are decreasing everywhere.

Neither Vangmaner main village nor Salang villagers said to go to Him Nam No National Protected Area (HNN NPA), even not to the Controlled Use Zone (CUZ). Our two guides (one from the main village, one from the Salang village) reported to not know that there is a CUZ for their village but it seems that they know where are the HNN NPA borders.

7. First fish pond:

There are in total three fish ponds in Ban Vangmaner: two only belong to this village (shared between main village and Salang village), the third one is shared with different villages in the region as Ban Dou. The rule is the same for the three ponds: the villagers come together to catch all fish one time in November; the Naiban decides the day. The caught fish are not redistributed to all villagers; every villager only get his own fish catch. Then, there is a fish ban for the rest of the year.

Ban Vangmaner also has a village Fish Conservation Zone (FCZ) since more than 40 years (not a NGO project) that is shared with Ban Dou and Nong gno. It is based on the same concept as the fish ponds: all villagers go together catch all fish one day in April. There are signboards made by the Naiban to define the FCZ area and the fish ban. The fish stock is decreasing compare to the past but still enough fish.

8. Second fish pond with a herd of cows around it:

There is only one household by the Salang people who has cows (3 in total). They let them go freely everywhere and take them back home during the evening. They do not have vaccination and do not even know how to administrate it to the animals. A project has proposed them to develop this activity (by having goats) but the villagers have refused it because they do not want to have more livestock. They do not like taking care of the animals every day, to have a such responsibility. They are not used to hold livestock.

In the main village, many people have cattle (cows and buffalos). They let them grazing everywhere and take them back home for the night. They give salt two times per day and are used to the vaccination (buy it and can administrate it). The main issue is the disaster (flood). There are enough buyers but do not have enough animals for selling. It is very difficult for them to get more animals (only have few animals and not a lot of babies; so, takes too long time since they can sell one adult animal). Villagers from Ban Vangmaner would like to have more money to invest in livestock and also more land to produce more rice.

9. Conservation forest

Ban Vangmaner has one conservation forest (shared between the two parts). The villagers are

not allowed to cut trees but only to collect firewood. There is no NTFP's in this forest. They decided all together to protect this forest, after the DAFO explained the importance of a such forest. The main and the Salang people are happy with this conservation forest.

10. Upland rice fields of the Salang people:

Around 20 families have some upland fields. They prefer upland fields than paddy fields. However, the soil is bad and the fields are attacked by insects. The Salang villagers can have it only in this area because the land around does not belong to them. In fact, the government give them this area to produce upland rice but currently nobody is using it anymore.

11. Upland fields of Vangmaner main village:

Villagers from Vangmaner main part still cultivate upland rice on these fields.

12. Close to cassava fields:

Cassava is produced for selling by four families from Vangmaner main village. The cassava fields are all on the land own by these four families. So, it is allowed to clear an area to produce, for example, cassava but only on his own land. Flood is a main issue: destroys part of the crops and then, the cassava rots.

13. Primary school:

This school is for the Salang and the main village of Ban Vangmaner and is managed by two teachers (one from Ban Dou and the other from Ban Vangmaner main part). The lower secondary level is in Ban Dou and for the upper secondary it is in Langkhang.

On the last Monday (15th January), we saw the teacher bringing the kids from Salang village to school. It seems that the Salang people are used to forget that is again Monday and send the kids to school. According to our guide, the Salang people do not know the importance of school (since they used to not have one in the past) and do not show a real interest for studying. It is usual that the Salang kids start a level and when the next level starts, they stop going to school. Also, some Salang parents are angry about their kids if they go to school.

Sometimes, the salang families go to the forest for one week, one month or even more (only the poorest families go there for a very long period of time) but do not take the kids with them.

14. Charcoal oven:

Since last year, three families from the main village has developed the charcoal production and sell it in the village. Only some families prefer charcoal, the other are used to wood.

As other activity, three-four families in Ban Vangmaner main village do weaving, but only for themselves, not selling.

There are four shops in the main part of the village and any in the Salang part.

15. Vangmaner main village:

The used to have a pipe but after two years and a half it was broken (the water tank is in Ban Dou). Since the last 10 years, the villagers go to Nam houk river to get the water; some people drink it directly, other boil it before drinking. When there is not enough water in the river, they have to dig.

16. Land-use map + preparation to settle a new signboard because Ban Vangmaner has successfully achieved his development which means that they do not need the help of the government anymore and the village is now considered as a “developed village”. They are very proud of it.

17. Naiban house in the Vangmaner main village.

Annex 3: Side-discussion

summary of informal talks with villagers

Date: 13 – 16 January 2018

Village name: Ban Vangmaner (main and Salang villages)

Ethnic group of the Salang people:

The Salang ethnic group is officially “Salang” but they considered themselves as “Tri/Kri”.

To get rice by the Salang people if no income:

Very poor Salang families can only produce a bit of rice, so they need to buy rice, but they do have any cash income. So, they collect Lady palm from the forest and exchange it against rice in Ban Vangmaner main village (1 bowl Lady palm = 1 salt sack or MSG sack). If these families really need cash, they beg to get money in the Vangmaner main village.

Rice shortage by the Salang people:

Most of the Salang families do not have enough rice and sometimes are not able to buy more rice (because no cash or nobody wants to exchange rice against the collected Lady palm (cf. previous paragraph)). In this case, the Salang people go to the forest and collect a kind of “cassava” or “forest potatoes”, but to get it they have to dig very deep (more than one meter) which takes the whole day. So, they get something to eat.

Health and drinking water by the Salang people:

One household head is sick since 3 months, he went to the health centre but nobody could diagnostic what he got and he has no money to go the hospital.

The Salang people drink the water from the river without boiling it before. We observed a small kid and his parents putting their dirty hands into their small water container (in the house) and then drinking it.

These two observations could maybe reveal a possible lack of knowledge regarding the hygiene and the diseases.

Rice and livestock by the main village:

1 bag of 36kg before mill = 20kg after mill.

One of the richest villager of the main part has cassava fields and livestock. She reported to have sold 3 cattle 6 years ago to build her house.

Drinking water by the main village:

The households can use the well only during the dry season because in the rainy season it is too dirty.