



FOOD SECURITY ASSESSMENT
and
IMPLEMENTATION OF A
SURVEILLANCE SYSTEM

_ Long District _

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Executive summary

Villages of Muang Long District, North-East of Laos, traditionally located in upland areas are inhabited by ethnic minorities who used to rely on swidden cultivation and poppy production. In the past years, four factors have disturbed the traditional equilibrium of activities:

- stop of **poppy cultivation**,
- reduction of ‘the slash and burn’ cultivated surfaces**,
- rice **pests affecting harvests** with an unusual strength, particularly in 2002,
- resettlement of villages from upland areas down to the lowlands

In the whole District in April 2003, about 50 villages were stable, 50 other ones had or planed to move in lowlands. In addition to this, some had been regrouped in mountain and 16 other ones were in negotiation for a future decision.

Resettled villages may face difficulties at least in the first years such as rice shortage, increased morbidity and mortality, decapitalization, drug abuse and socio-cultural breakdowns.

43 villages of the District, old settled as well as displaced ones **have been visited** in order to evaluate the level of food security and propose a surveillance system in order to follow up the situation and formulate recommendations of intervention.

Through that survey, two kinds of problematic were identified and it appeared that people face both structural and contextual difficulties. Main results can be summarized as following:

Traditionally, agriculture and livestock breeding have always been the main activities of those populations. For many years, people managed their living conditions relying on natural resources, with constraints such as lack of access, and episodic epidemics.

Since few years, the natural/political events have modified the activities and income:

-The majority of the population has lost his **main resource of income** with the eradication of opium.

-Most of the villages face a **lack of rice this year and sometimes for some years**, because of rice diseases, decrease of surfaces, lack of water or time (due to the necessity to build new houses with displacement, to start paddy...). Paddy surfaces have increased but not enough to cover the loss of Hai¹. The yields for 2003 should be good for only 1/3 of the villages according to villagers.

-The **capital of animals has decreased** when compared to a normal year and since last year. That has happened because of the recent events (mainly displacement causing: decapitalization, non-adaptation of the animals to the new place) and because of diseases.

-This year, people have **relied more on labor, forest collection** and bought more rice than usual.

The main **vulnerability criterions** appear to be the **lack of rice to eat** and the **low reserves of cash**. The lack of rice is mainly due to diseases, lack of land and/or water, bad yields, no possibility or high constraints to get food on shortage, way to get rice which constraints too much. Low reserves of cash are caused by the lack of animals and the lack of cash it self. Furthermore, people, particularly women, work hard. The availability of manpower (and therefore the health of villagers, their access to fields, market and forest, as well as their stability) constitutes, according to the population, an important welfare criterion.

¹ Hai : Upland rice field, traditionally using slash and burn practices.

Among surveyed **villages**, **4 different categories** were identified according to the main difficulties they encountered:

- Old, mountainous: restricted access, rice/animal diseases, stop of opium, Hai diminution (surfaces, fallows), paddy fields surfaces not being sufficient.
- Displaced this year: decrease to forest access, no assurance for future, lack of time/cultivated surfaces, extra expenditures, risk of higher morbidity/mortality. They might face problems if no paddy land potential.
- Recently displaced (less than 5 years): lack of forest access, instability since the displacement, lack of secure sources for rice production, lack of time, risks of higher morbidity/mortality human diseases.
- Displaced a long time ago (more than 5 years): lack of forest access and lack of potential for rice production, loss of animals.

Among the **population**, **3 categories** could be distinguished according to the causes of their vulnerability and their different reactions to the difficulties they encountered.

Noticeable differences are:

- The shortage of rice has increased much more for medium than for rich families. The difference between medium and poor was the same in normal year when compared with this year.
- Poor have not decreased their Hai as much as medium and rich families. This is probably linked to the access to paddy cultivation. Consequently, their vulnerability might increase due to slash and burn reduction.
- The sell of properties, coping mechanism to face the lack of production and/or income, might bring difficulties mainly for the poor and medium as rich have a bigger capital and do not face a so big shortage. The constraints of labor might affect in particular poor families.

From those results, recommendations can be formulated. During the next 1 year-phase of the program, **different levels of surveillance** should take place:

-checking for emergencies: food security, sanitation

-knowledge and follow up of the situation, awareness of the actors.

For global understanding of the problematic, visits could be implemented in April (for displacement) and during June, July and August 2004 (to study diseases of the rice and displacement).

For the prevention of emergency situations, visits might take place in December 2003 (for a post harvest survey), during the 3 first months of 2004 to check the sustainability of the coping mechanisms developed and to observe the consequences of the stop of opium. That survey should continue in the rainy season to evaluate disasters linked to rice diseases, to keep observing the various coping mechanisms and to check the sanitation conditions.

For each kind of survey, **the choice of villages to visit, people to interview should correspond to the vulnerability criterion** of the different categories and should be linked to the different problematic.

For a maximum efficiency, the surveillance system will require a close collaboration with local actors.

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Introduction

Three factors have disturbed the traditional equilibrium of activities in Muang Long District in the past years:

- the stop of poppy cultivation in the last 2 years,
- the reduction of ‘the slash and burn’ surfaces, which used to constitute one of the main sources of income,
- pests that have destroyed rice with an unusual strength, particularly in 2002.

Added to that, displacement of some villages might have led to difficulties.

By the end of the on-going program and before starting a new phase of intervention, ACF planned to react in the particular context. Consequently, it appeared necessary to implement a new survey in Muang Long District in order to:

-warn in case of any emergency situation in both Food-security and Sanitation matters. Concerning the food security, the time of the survey was particularly critical as it was just before the harvest.

-get a better view of the situation and the risks of disasters in order to determine the needs of surveillance and/or intervention that should be implemented all along the next project. The surveillance will aim at identifying intervention needs that might appear. Indeed, by the understanding and the close follow up of the vulnerability in the District, the surveillance system should alert local international agencies and/or authorities and recommend adapted intervention to act on time.

Further more, as the future remained uncertain for many villages, this new survey should draw the attention on potentialities in mountain villages.

The following document presents the results of the survey implemented.

As a conclusion of the first step, 1 village should be targeted by an emergency intervention before the end of the project.

For the rest of the villages, an analysis of the situation is carried out and shows that a deep and widespread surveillance will be necessary during the next phase of the project.

Context

1-Long District

Long District is located in the Northwestern part of Luang Namtha Province bordered with Burma on the West, China on the North and Vienpukra District and Bokeo Province in South. It is located near the golden triangle. The Mekong River between the 3 countries has been the way to trade opium and other illicit substances.

The road to access to Luang Namtha has been available only since 1996.

The overall population turns around 25 000 people (131 villages). The population is composed of several different ethnic minorities, mainly Akha (more than 70% of the villages), Kui and Thai Leu. The rest of the population is composed with Hmong, Lenten, Mousseu Hupo, Yao and Doi.

The district is in majority mountainous with uplands at 1000- 1400 m (please refer to the IGN map in appendix 5). The highest point is located at 2000m. In the valleys, several rivers are quasi-permanent ones and all of them are Mekong affluent. Most of the surface is covered with a deep forest.

Villages have or are about to have a plan allocation. NCA² or the District implemented the land allocation in some villages. In 2002-2003, the results for 22 NCA villages (in total about 72 000 Ha) can give an idea of the repartition of the lands:

- almost ½ of the surface: agriculture
- 1/4 of the surface: conserved forest or protected forest
- almost 5% of the surface: forest for collect
- 0,2% of the surface: raising animals
- the rest: reforestation, cemetery, construction, other

Traditionally most of the villages are located in the uplands and rely mainly on swidden cultivation. Opium poppy cultivation was before widespread. But the localization of the population has been modified as part of the migration of population and the two previous main activities have been decreasing.

In April 2003, 33 villages were stable in mountain, 21 in plain, and more than 50 ones moved or will move into the valley. Added to that, 4 villages had been grouped in mountain and 16 villages must be surveyed or were in negotiation for a decision to be taken.

2-Displacement of villages

Note: most of the following information in parts 2 and 3 come from –Cottavoz P., Daviau S., Romagny L. in their different reports related to studies and workshops done in Long District.

According to the District authorities, the resettlement is the optimal strategy to enable the achievement of national development objectives set up by the central government. Those objectives include:

- eradicate the poppy cultivation by 2005
- eradicate slash and burn cultivation practice by 2010 (and diminution by 50 % of the surface area cultivated by 2005)
- decrease poverty (minus 50 % by 2005)
- make education available for everybody by 2020

² Norwegian Church Aid

To determine which village should be resettled, criterions have been set up. To be allowed to remain on its original site, a village must reach at least:

- 30 families
- have an access by road or river
- have access to a school
- have paddy potential land and/or potential land for cattle breeding

In application to the policy, villages have to be resettled in locations where they are expected to meet the above-mentioned criteria:

- along roads or river access (Mekong banks) in order to facilitate trading;
- where the number of families will be equal or superior to 50 in order to optimize future infrastructure's constructions (school, health post).
- In areas with potential for agricultural development hence enabling resettled villagers to produce agricultural products.

If such theory might appear as ideal one for rural development.

When people do not want to leave their village, they explain their opposition to displacement by at least 2 to 3 of the following reasons ³:

- They already have paddy lands access or potentialities,
- They already have access to a spring catchment's in or nearby their village,
- They are breeding livestock on the land of their current village,
- They already have access to a road (it is often a logging road),
- They know villagers that have experimented displacement and had a bad experience.

According to the authorities themselves (workshop, 16-17/08/03), the government funding available is not sufficient to help displaced villagers. Resettled populations have to face difficulties at least during the first years: rice shortage, increased deaths and diseases, decapitalization, drug abuse, socio-cultural breakdowns etc.

Following a workshop organized by ACF in April 2003 with the authorities and the local international agencies, the **initial plan of resettlement of 65 mountainous villages** was modified: **among them, 16 were allowed to stay** in their original locations and **16 other needed further survey and/or discussions**.

³ Workshop organised by the MPDLC in Long District the 15 to the 16/08/2002 on the subject of displacements.

3-Contextual difficulties

A-Poppy eradication

In accordance with the strategy of the Government on reducing opium poppy plantation, the Luang Namtha Province started to implement its program at the end of 2002, and by mid-February this year the provincial Drug Suppression and Control Committee had eliminated 80 to 90% of the poppy surfaces. In some cases, this program has been implemented without giving any prior crop or income alternative.

Poppy cultivators are mostly people from ethnic minority groups, inhabiting in the mountains and whose livelihood has so far relied on slash and burn cultivation practices as well as on poppy cultivation.

As the result of the destruction of opium, some farmers are going to face a major lack of resources during the next years. Further more, the addicted people will face difficulties; physical ones if they can not have access to opium any more and/or economical ones if they spend the resources to buy the opium instead of food and basic needs items.

Some activities have been implemented in some villages aiming at offering alternatives for people but most of the villagers, met through the assessment, still face difficulties to manage their new economical system.

B-Reduction of Shifting cultivation rotation periods

As a result of the policy on shifting cultivation, the surface of land available for shifting cultivation has been restricted. The rotation period has hence been diminished. As villagers have little knowledge on how they can improve crop yields, they may carry on to cultivate their fields in the traditional way but inevitably, yields will decrease.

The first problem they already encounter is that the quantity of adventives is much higher as the short rotation period does not allow eliminating them anymore (thanks to shadow due to old trees). Some farmers complain as well from the decrease of fertility of the soil because of the lack of cover vegetation before the burning.

C-Destruction of harvests due to pests

If farmers have always had to fight against diseases and pests, various ones have particularly destroyed the last harvests. Some villages were left with only two weeks to two months of rice self-sufficiency. According to the department of Agriculture of the District, the 2003 harvest will be victim of pests again but from different pathogens than in 2002. Crops will also suffer in 2003 from lack of water.

4-Identification of zones

Natural conditions

The district is mainly mountainous and before the resettlement, most of the villages used to be in high places, between 900 and 1300 m. They traditionally cultivated hill side fields (slash and burn technique for rice cultivation), brought their cattle to some pasture lands and explored the forest for collecting diversified items for both consumption and selling. Those uplands places are in general separated by humid valleys, about 300 to 600 m high in which rivers flow in quasi permanence. Those places can offer potentialities for irrigated rice cultivation. The main valleys are along the Long or Nama rivers, two of them are Mekong affluent. Globally in the District the main zones of low and flat places are along the main road, in the center-west, north of the main river, along a river in the South. Then some small places can be seen near the Mekong at Muang Sa level, and in the South-East of the District at different places.

On the contrary the most sloping areas are localized near the Mekong in the North-West of the District, in the region just above the main road near the limit of the District toward Muang Sing, and in the South, just above the large plain area.

The plain villages used to be very scarce and most of them were localized in the main valley, along the main road of the District.

Today, the repartition of villages has been modified. Many mountainous villages have been displaced (or will be so) into the valleys. Those flat places as well as all the places along the roads, might become the “welcoming” areas for displaced villages.

Consequently, before, 2 main categories of villages could be identified, the vast majority being mountainous ones and the remaining ones in the valleys. The villages in the valleys used to be inhabited only by Thai Leu, Thai Dam, Lenten, Hmongs but almost no Akha or Kui populations. Consequently, the zonage was naturally highly linked to the different ethnies.

Those populations from the plain were very few and they did not have access to services up to 1996. Their culture was really different from mountainous ones and they practiced ancestral techniques for the valorization of local resources (in particular for the paddy cultivation) so that they were adapted to their location. The Kui and the Akha were located in the mountain and they have not been used to copy techniques from other ethnies in general so that when they are displaced, their adaptation can be particularly difficult, as they have to change their subsistence means suddenly.

Today, one can basically classify villages in 3 categories: the mountainous ones, the valleys ones and the displaced ones that have, in most of the cases, arrived from the mountain to the plain.

In term of zonage, the District can be divided in 2 main areas: along the main road and in small valleys / in uplands places.

Trading opportunities

Beside this first zonage, a difference is observed within the categories identified above. Indeed, for the trading opportunities, villages can benefit from Muang Long, Xiengkong, door of the Mekong according to the distance they are from the main road. Trading is developed as well with places outside of the District:

- along the Mekong, main trading destinations are Thailand and Siem Lap (Burma)

- in North of the District, people deal with China directly

- in the East part, people look more towards the neighbour sub district with Muang Sing, which offers lot of market possibilities.

To add to those centers, a Thai Leu zone is a place for trading as well between Muang Long and Muang Sing.

Villagers deal with one or the other center according to their localization. In the past those trading balances have been and will continue to be modified. But some villages are still too isolated and trade generally only with neighbouring villages.

The most isolated places are the South-South East, a group of villages in the North East and the high mountainous villages in the very North West as the only access they have is the Mekong that is already far from the villages.

It has to be noticed that a road along the Mekong is in construction, which might make changes in the accessibility for the concerned villages.

Humanitarian, governmental intervention

As seen above, the villages historically located in the main valley are the richest villages of the District and belong to different ethnic groups than those in the mountain. Then, according to the structural vulnerability and the events (displacement, elimination of opium essentially), government and international local agencies have implemented different kinds of help.

Globally among mountainous villages, NCA has targeted villages of Sobloy and part of Bokbor sub districts (North-North East) as well as Xiengkong area (West and Southwest of the District). 249T of rice in 2002, 300T in 2003 were distributed by NCA. 500T are planned to be distributed in 2004.

An EC project has worked so far with 5 targeted villages.

Those 2 organizations are bilateral projects.

The government it self is used to provide a little bit of rice to each family in case of displacement and some villages (few ones, along the main road and particularly towards Xiengkong area) received complementary help. Further more, a large irrigation system has been constructed along the main road between Muang Long and Xiengkong...but it is apparently far from being sufficient for the need of the displaced villages.

ACF has worked with most of the villages for health education activities, about 60 villages. For water supply, 33 villages have been targeted in the District.

Among the most isolated villages, only the Southern part has never benefited from any kind of help.

Ethnies

Villages have to be differenced regarding to their ethnic group. Indeed, it appeared through the first interview that among population from mountain and population displaced to the valleys, Hmongs villages are often considered as being in advance towards development and more powerful than other minorities. In the contrary Kui people are said to have more difficulties. That minority might however face kind of racism from Lao people as well as from other ethnies, this is not clearly defined but: traditionally it seems for example that Kui people often work for Lao Loum people, Akha people and other ethnies. Akha people usually work for Lao people.

The level of vulnerability is, anyway, not systematically linked to the minority as far as ACF teams could see. For example, at least, Nambo village (Hmong, Jongka sub district) appeared,

through the assessment, as a vulnerable one and Ayseng (Kui, Sobloy sub district) would have, structurally, important resources according to ACF field staff.

Objectives

1-General objectives

The present study should reach 2 main objectives:

-determine if there was any emergency situation in both Food-security and Sanitation matters.

In particular as the period of survey was just before the rice harvest, it was necessary to check the situation of the villages known as the most vulnerable ones of the District.

-analyse the situation and the risks of disasters in order to determine the needs of surveillance and/or intervention that should be implemented all along the next project

2-Specific objectives

Concerning the analysis of the situation and the risks of disasters, the study counted 2 specific objectives:

-In the resettlement context, the survey should draw the attention of the district on potentialities in mountain sites and possibly propose for ACF or other organization working in Long to undertake some activities with those villages.

For this added objective, the survey is still proceeding today. Indeed ACF organized a workshop on October the 17th with authorities and local agencies in the District in order to present the preliminary results of the survey and in order to propose the plan of activities for the next year. At that time, the resettlement plan was discussed and some villages appeared as needing a study in order to possibly benefit from the help of any agency in order to be maintained in their actual location. Among them, some have been visited through the survey and might require complementary surveys (potentialities of paddy cultivation, road construction...) and some will be surveyed in the next few weeks.

-Further more, the survey should be the occasion to consolidate the collaboration between agencies for the collection of information as well as for the results of the study and the proposition of a surveillance system in the next year.

One has to notice that the Sanitation part of the survey was only focused on emergency cases detection (no deep study). As a consequence, basic information concerning the sanitation situation was collected in the different steps of discussions and interviews. The reported analysis only concerns the situation at the time of the study, it should not be considered as a referent document for the understanding of the sanitation problematic in the District.

Methodology

1- Global approach

A-Preliminary remarks

Field visits

The global approach consisted in getting information from the bibliography (in particular recent one as the recent events have modified a lot of data) and from the local actors in order to plan methodologically the visits to implement (choice of the zone, number of villages, field approach, information to collect...).

Given the quantity of information already available concerning the targeted villages of the different international agencies, it was decided to omit them from the survey.

Note: in the future steps, those villages should be visited anyway in order, first, to constitute elements of comparison and, second, to include them to the global surveillance system.

For those reasons, the fields visits have been numerous and quickly implemented in order to obtain a concrete view in villages that were most of the time not known well.

A continuation for the 2 objectives

If the first step of the survey should help to detect any emergency situation, the knowledge of the villages has been included in the second objective as well. This compatibility allowed a similar methodology for the second objective.

The criterions of choice of villages to visit were different for the 2 phases. Further more, after the first visits, the questionnaires were re-orientated, as some questions appeared more or less pertinent through out the survey. But globally all along the survey, the questions aimed at understanding globally the food–security of the population.

B-Global principles

The survey was structured in different steps as following:

General information, zonage, typology of the population

This was organized through bibliography and interviews of resources people from ACF and other local actors: District authorities and service of agriculture and forestry, EU, NCA, ACF field staff.

Please refer to the “Resources Persons Interviews” in Appendix 1.

The information researched was knowledge about the general situation, the different vulnerability criterions and in particular the criterion for determining emergency situation.

That should help to prepare different documents:

⇒Zonage or at least, identification of villages according to their vulnerability (present, chronic, future)

⇒Identification of different categories of population according to their vulnerability (present-near future, chronic, mid term future)

⇒Planning of the field visits, preparation of the questionnaires

⇒Organization of a first simple net information system

⇒Identification of the potential interventions possibilities in case of emergency

The “ first simple net information system” was only proposed and it was asked to the authorities and to the agencies to inform us in case of any important event during the implementation of the survey.

ACF field staff was asked as well to report any information concerning the needs of villages, but only a few elements appeared as at that period most of the villages faced shortages so that technicians could propose an emergency intervention for the entire district!

Furthermore, during the survey, it appeared that many villagers in need came directly to ACF office in order to complain about their situation. In those cases, the responsible expatriate interviewed the villagers.

Lastly, concerning the identification of the “potential interventions possibilities on case of emergency”, the local agencies declared they could not bring any help at that time.

First visits

Visits to the priority villages (as well as to “referent” villages for comparison) during the first weeks. For the specific methodology of the visits, please refer to next paragraph.

That step aimed at checking the zonage and typology done, understand and mainly observe the situation (now and for the next future), confront the criterion of emergency to the reality of the villages.

Those visits should help to:

⇒determine if there was a need of intervention emergently and why:

*because they face the problem of hunger?

or

*because their current coping mechanisms may endanger the well being in the future?

If so, which intervention would be the best adapted.

⇒bring recommendations in case of need of intervention in emergency,

⇒re-orientate, plan the rest of the assessment.

Remark: some villagers (VHV⁴) followed training about sanitation, surveillance team had a short discussion with them in order to get information about their situation. After that, according to the answers and according to the other sources of information, the villages have been visited or not.

Second visits

Visits more complete of other villages during 1 month and a half. For the methodology: see the table following “Exercises in the villages”.

Those visits should permit to understand better the different situations (villages, population, evolution), confirm the vulnerability criterions and identify the different levels of risks for the mid-term future.

The results to obtain were:

⇒Evaluation of the situation

⇒Selection of criterions of vulnerability that should be followed

⇒Recommendations for the frequency of surveillance surveys and for the net system

For that, in each village visited, through the 2 steps, it was sought to answer to the information obtained should help to answer the following questions:

-Might villagers be in emergency situation in the near future?

If yes,

*because they will suffer from hunger?

or

*because they will be constrained to replace their normal activity by a coping mechanism which is not sustainable.

The answer should help to know the frequency and the kind of surveillance that must be implemented in the future.

⁴ VHV : Volunteer Health Villagers. VHV are chosen among the population by the villagers themselves (2 per village), they follow a training session of one week in Muang Long and are charged to re-transmit the information learned to the other villagers.

2 complementary questions should be answered but information and knowledge were not sufficient to be really pertinent for all the villages:

-How is the evolution curve of the village?

That should help to situate the current year in the time and to know the risks for the future so that the corresponding follow-up (how, which frequency) can be planned. That should allow as well, by comparison between villages to suppose the events of the near future by simulating evolution curves.

-Which activities are needed for the village?

This will give information that ACF can communicate to other agencies or to donors in case programs can be planned.

2- Specific methodology

A-Meetings with the people

For the interviews with resources people, please refer to the corresponding questionnaire (appendix 1).

For the villages visits, the approach was as figured in the next table:

In each village:

Objective	Exercise	People involved	Remarks
Get data about the village and check the results of the zonage	Group discussion	Elders comity, head of village, women, open participation to other community members	Prepare some standards data in order to analyze easily the level of emergency of the situation (cook base, standard rice for one family...). About 2-3h.
Know criterion of poverty and proportion of each category. Be able to choose families to visit	Typology of the population	Community members and leaders	People should be asked what characterizes the different categories. For the choice of the families to interview, not to choose the poorest or the richest family of any category but just “normal” families inside the categories.
Complete the knowledge of the district	Ask info about poverty, crisis, sanitation problems in other villages through focus group discussions	Group discussion and any other people all along the visit	
Be able to define which intervention would be necessary for which kind of people. And check the typology of the population.	Families interviews	Families (if possible the woman)	Since the second step, at least 1 family of each category visited. In the first step it depended on the information of the group discussion. About 1h30 each.

Note 1: the women were not met in a particular group as they usually joined the group discussion naturally and participated according to the questions.

Further more, in the families' interviews, the representative of the family was often a woman.

Note 2: The complementary question about the neighbour villages was generally difficult for people to answer.

For the group discussion and the families' interviews questionnaires, please refer to the Appendix: “Group Discussion Questionnaire” and “Families Interview”

Table 1: Exercises in the villages

B-Checking of the information obtained

In order to check the information, 2 methods were used:

-Surveyors were asked to make an observation of the village:

Ex: number of animals, number of big houses, items in the houses etc...

Those observations aimed at detecting any information that would have been aberrant.

-Inside the questionnaires, a lot of questions could help to assure a crosschecking of the information.

Ex: in groups: Surface-production-number of months of self sufficiency-population

In families: Sources of food this year-24 hours consumption-food consumption this year

3-Calendar of meetings and field visits

A-Choice of the villages to visit

Through the first meetings, it appeared that villages could be classified as follows:

- mountainous villages
 - displaced and/or grouped
 - not displaced
- valley villages
 - displaced and/or grouped
 - not displaced

Indeed this classification puts into evidence important differences at several levels:

- natural conditions: mountainous and valleys do not offer the same potentialities for agriculture, in particular for rice production
- social situations: displaced and grouped villages have faced social destructurations or at least they have seen their traditional social organization modified
- economical mechanisms: the living conditions in valley and in plain offer different opportunities and constraints. The displacement it self brings to populations a new economical environment
- political and humanitarian context: an important pressure has existed on mountainous villages for a few years, and displaced villagers have sometimes complained about the lack of assistance.

It is assumed that **the main difficulties can appear for villages displaced** (in valley, in mountain) **and for mountainous villages.**

When they are resettled and/or grouped, the new place is most of the time in the valley (as seen above: near road, river). So, a dynamic zonage can be proposed which globally presents the movement of villages from mountains to valleys. Some particular cases exist: villages that move back to the mountain from the valley or villages that are grouped from a place to another place inside a valley etc... but the majority of movements is oriented as described above.

Villages to visit in priority for the first step of survey were chosen according to

- data about any crisis,
- lack of information (go and check),
- localization in sub districts most affected by rice diseases, close to a village in difficulty in order to make a comparison between the two villages, understand better the crisis and check if the concerned village has not been touched also
- or
- good conditions to constitute a baseline village.

Villages to visit for the second step were chosen according to:

- their localization in unknown sub-districts (the lack of knowledge of some zones clearly appeared through interviews with resources persons)
- their theoretical vulnerability (following the same logic as for the first step)
- their particularities (ex: suffering from important diseases, or near a site affected by malaria)
- their presence in the list of villages that may have to resettle in the near future.

At the end of the assessment, the repartition of visited villages is as follows:

*Among the 43 visited villages:

-19 are old settled villages (only one is in plain but knows movements of population from mountain)

-7 have been displaced this year (among them, 1 was displaced in mountain)

-6 have been displaced recently but before this year

-9 have been displaced “a long time ago” which means for more than 3 years⁵.

Among them, 2 were displaced in mountain

-For 2 of them, the situation is complex: several displacements, different groups of populations.

In proportion, this repartition between old settled villages and resettled villages is representative of the global repartition within the district (if we do not consider old villages from plain: no big problematic⁶) as in April 2003, 33 villages are stable in mountain, 36 have been displaced and since that period, some villages have been displaced again so that today there are even more cases of displaced villages.

*Concerning the geographical repartition (please refer to the map as well), about half of the villages are localized in the mountain and the rest in the plain.

As we do not consider old villages from plain, this repartition corresponds to the repartition in the next future, after many displacements.

The visits were organized in all the sub district of Muang Long except Sobloy. Sub districts mainly visited were Bokbor (mainly touched by diseases on the next harvest), Long (lot of villages, some crisis and some referent villages), Sa (displacement, crisis) and Jongka (lack of knowledge).

Note: ACF team did not visit villagers of Sobloy sub district as NCA could assure the surveillance.

For the surveillance of any emergency situation, the visited villages were well targeted as they appeared as the most vulnerable among all the visited villages.

For the objective of understanding the problematic in the district (except case of old villages from plain), the sample of villages constitutes an interesting database as the samples are at the image of the whole district.

Note: among the visited villages, 9 are from Kui group and 2 are from Hmong group. The rest of the villagers met are Akha.

B-Timetable of the survey

Please see the following table

⁵ According to villagers and according to resettlement studies in 2003, the adaptation period for resettled populations is about 3 years.

⁶ villages based in the plain for many years (21 villages in total) and without particular event occurred have not been visited at all as it was clear from the bibliography and the first interviews that they were not vulnerable.

Month	Date	Village/Organization	Ethny	Sub district	Number of families	Remark
August	04 - 08	ACF field staff		*		
	06	District: agricultural department		*		
	08	EU (MPDLC Project)		*		
	09	Sompan Mai		Xiengkok	47	Good situation, will be used as a baseline
	11	NCA		*		
	11	Meeting VHV: Taphai Kao/Mai, Ban Bor Mai, Chakamtane, Senchoumpou, Chapi, Phapothai, Chomo, Chakamsao		*		Short questions to get an idea of the main criteria for each village
	12	Poungsye Kao	Akha	Xiengkok	35	Among the 6 villages surveyed for agricultural potentialities
	13	Poungsye Mai	Akha	Xiengkok	26	
	16	Chaleunsay	Akha	Xiengkok	67	One village has been displaced to this area several years ago and another one has just arrived this year
	16	Phonesavang	Akha	Xiengkok	58	
	18	Chachoumpou (new: in Koch Muang)	Akha	Long	28	Team alone
	18	Meeting of VHV from: Photham Kao, Photham, HoinamLong, PhonangNoi, Chakamleu Mai, Muang Khan		*		Short questions to get an idea of the main criteria for each village
	19	Phonsampan (Tchakai, Chala)	Kui	Long	185 in total	Group of villages displaced
	20	Phonsampan (...)	Kui	Long	“	Idem. Team alone
	20	Meeting of VHV from: Pioyai, Namma, Houeythou Mai, Chala Kao		*		Short questions to get an idea of the main criteria for each village
	20	Meeting of people coming from Hoyna		*		3 men of the village came in ACF base to ask for rice
	22	Phapothai	Akha	Bokbor	34	Maybe among 6 “agricultural” villages
	23	Chapi	Akha	Bokbor	21	
	23	Senchoumpou	Akha	Bokbor	30	
	27	Chakamleu Mai	Akha	Jongka	53	Team alone
27	Taphai Mai	Akha	Sa	32		
28	Portham	Kui	Long	22		
30	Houeysing Mai	Akha	Sa	23	Team alone	

September	01	Chakamtane	Akha	Long	40	Team alone
	02	Chakamsao	Akha	Long	26	Team alone
	03	Chomo	Akha	Long	12	Team alone
	06	Chala	Akha	Jongka	19	Team alone
	06	Taphai Kao	Akha	Sa	23	Team alone
	10	Pasot	Akha	Bokbor		Team alone
	11	Thongmotham	Akha	Bokbor	46	Team alone
	12	Houeykra	Akha	Sa	26	Team alone
	14	Jakamsenneua	Akha	Bokbor	45	
	16	Phonsampan	Kui	Long	See above	Team alone: complementary questions
	18/	Hoinambak Kao	Akha	Kang	39	Team alone
	19	Hoinambak Mai	Akha	Kang	47	Team alone
	23	Porchane	Kui	Kang	45	Team alone
	25	Chakamtane	Akha	Kang	32	Team alone
October	27	Chakamping	Akha	Kang	50	Team alone
	30	Nambo	Lao soun	Jongka	15	Team alone
	02	Aytong	Kui	Kang	38	Team alone
	03	Pinhor	Lao soun	Jongka	35	Team alone
	04	Chakheun Kao	Akha	Jongka	27	Team alone
	05	Makouay Mai	Akha	Nang	49	Team alone
	09	Houeymo	Akha	Kang	53	Team alone
15	Houeysing kao	Akha	Sa	13	Team alone	
16	Pagnalouang	Akha	Bokbor	52	Team alone	

Table 2 : Calendar of the visits

Please refer to the map of localization of the villages.

Beside these visits, the agricultural team went to visit some of the targeted villages of the next program (agriculture and rural development). Those visits brought some information about the situation of the concerned villages:

Date	Village	Sub district	Minority group	Number of families
12/08/03-13/08/03	Poungsye Kao	Xiengkok	Akha	35
15/08/03-16/08/03	Chakeotai	Xiengkok	Akha	30
16/08/03-17/08/03	Chakeonneua	Xiengkok	Akha	32
20//08/03-21/08/03	Hoyna	*	Akha	57
06/09/03-07/09/03	Phapothai	Bokbor	Akha	34
12/09/03-14/09/03	Jakamsenneua	Sobloy	Akha	45
15/09/03-16/09/03	Senchoumpou	Bokbor	Akha	30

Table 3 : Calendar of visits for the agricultural survey

Complementary visits were implemented through surveys for paddy fields preparation and irrigation, as well as for the preparation of the distribution of October 2003. After each visit, the team was consulted and information could be added for the knowledge of the villages.

In total 43 villages and 72 families were interviewed: 31 poor, 27 medium and 14 rich ones from 30 villages.

All the visited villages are represented on the following map.

Results

All the 43 visited villages are inhabited by ethnic minorities. Agriculture and livestock breeding have always been the main activities of the population. For many years, those people have managed their living conditions relying on nature, with constraints such as lack of access, and episodic epidemics. For a few years, natural and political events have modified the balance of activities and income for people. The following part aims at analyzing the impact of those changes on different villages surveyed as well as on different categories of population. The food security of the people is evaluated and vulnerability criterion identified in order to define the adapted response (way to follow / possible intervention) to be implemented next year.

1- Analysis of the problematic: different situations

A-Main resources and modification of the economical balance

Traditionally, the main activities in the villages are agriculture and livestock breeding but for some years or particularly this year, the balance of activities has changed. Recent events have modified the situation.

Food and cash income: traditionally essentially from local productions

*Food traditionally coming from productions

In the past, people used to rely, **for basic food**⁷, on their **productions** (rice, other crops, animals). That constituted the **main source** for almost all the villages. Labor, gathering forest products humanitarian help and exchanges (handicraft items, productions, forest items) completed the food income.

This year, productions have provided the main sources of food (directly or from exchanges) in only a little more than half of the villages.

Here differences between villages already appear as:

Village typology	Part of villages which still rely mainly on self productions today
Old mountain	Almost 70%
Displaced this year	
Displaced few years ago	Less than 40%
Displaced a long time ago ⁸	

Table 4 : Villages for which agriculture and breeding constitute the main source of food today.

⁷ In all the discussions and interviews in the population, basic food was defined as food necessary for a nutritional balanced intake and which is potentially produced locally. For example, chilli and salt were not counted as basic food.

⁸ More than 3 years

When asking people, they explained **this new equilibrium of food resources as a result of the last events**. With or without any change of localization, the evolution of the environment of living has modified the activities for getting one of the basic needs of people, the food. Indeed, important diseases in the rice, episodic diseases on humans and animals, diminution of the upland rice fields rotation and displacements have brought a context with new characteristics and consequently new ways have been necessary to keep the standards of living conditions.

In most of the 43 villages visited, people declared they **faced a lack of rice production this year**:

Lack of rice compared to a normal year	Villages concerned	Primary causes identified by the population
Mainly this year	39%	Main: diseases on the rice. As well: -Bad soil in upland rice fields (can be linked with the reduction of rotation which decreases the fertility of soils) -Displacement (lack of time) -No water for paddy -Displacement (other): sold rice to pay for the displacement, more people in the village
For 2 years	10%	Main: displacement (lack of surface and then, lack of time) Diseases on the rice
For 3 years	10%	Diseases on the rice
For more	13%	Displacement (lack of surface)
No particular lack of rice	26%	

Note: The reasons are given in order of importance

Table 5 : Lack of main source of food this year

The diseases on the rice and the displacements, when causing a diminution of cultivated surface are the main responsible for lack of rice resource this year.

*Cash income: traditionally from opium and usual productions

For cash resources, selling of opium is, by far, the main traditional source of cash income. People used to get money as well by selling productions (rice and animals). Beside that, people used to sell forest products (main resource for 3 villages), handicraft items and their labor force.

This year, almost all the opium has been eliminated and only 3 villages could sell rice. One of them (mountainous one) has not have any shortage, an other one has sold the rice that was in the old village before displacement in order to pay workers to help for the displacement, and in the last one (mountainous one), some families have had rice all year so that they only sold a little.

The events seen above, added to the elimination of opium have modified the ways for people to make money.

An opening towards new sources of income: more labor and more forest products gathering

To get **food and also to increase the cash flow**, this year, **people put an accent on the labor and the forest resources**. Those sources of income were already used in the past for some villages but for some other ones, it has constituted this year, a totally new source.

*food

In 59% of the cases, villagers declared that to get food, they have work for other people more this year than in a normal year. Even sometimes, people were not used to sell their work power at all in the past but have been constrained this year or for a few years, this depending on the difficulties they face.

In only 2 villages, people said they have made less labor this year. In the first one people actually do not face any lack of rice as it is a mountainous village and no particular event occurred on its rice and animals within the last years. The second one has been displaced this year and people sold almost all the animals. This decapitalisation has procured the main source of income this year.

For consumption, the forest products collection is more important this year for 1/5 of the villages. Among the other ones, 30 % estimate they collect in the same proportion than before. Even when not more than usual, this activity has become the main source of food this year for 7 villages. No one declared they eat less forest products this year than in a normal year.

To get food this year, some people have changed their habits:

-people rely more on **labor than in a normal year**: this was observed in **59% of the villages**
AND/OR
-people **collect more forest products** than in a normal year: this was observed in **20 % of the villages**

*cash

To get cash this year, people have still sold animals but they use as well other resources:

-people **rely more on labor than in a normal year**: this was observed in **30 % of the villages**
AND/OR
-people **collect more forest products** than in a normal year: this was observed in **33 % of the villages**

Note: One can think that people displaced in the plain might have more facilities to find to work and get money in order to manage the possible decrease of productions (rice and/or animals) or even to increase their income. That is true thanks to the access to main activities centers but those facilities are closely depending on the economical situation around and mainly as well on the population around. Indeed, some villagers living now in plain complained about the arrival of more and more people so that the working market gets saturated.

In more than 1/3 of the villages for which information is reliable⁹, the forest products collect has become this year, the main source of cash or food.

In almost 1/5 of the villages, for which information is reliable, the labor has become this year the main source of cash or food.

Note: Villagers, in the survey, could indicate as “main” sources different ones at the same time. As a consequence, among the villages cited above (1/3 and 1/5), some found their main source of cash or food from both forest and labor.

Different expenditures this year

If in the past people used to buy tape recorders, material for the house, clothes, watches etc..., **this year, the number of villages that had to buy rice increased by a factor three.**

It is mainly among villages displaced few years ago that this new expenditure occurs (60% of those villages have had to buy rice this year whereas they did not before).

Opium income

The main destruction of opium occurred in year 2003. Before, some incentive measures were taken to make people decrease their production, in particular in Sobloy and Xiengkok sub districts. Some destruction occurred as well in 2001 and 2002 as far as the villagers declared.

In 2003, according to NCA data, in **98 villages of all the sub districts**, 381 Ha out of the 499 cultivated **were cut, i.e. almost 80% of the surfaces**. Sobloy, Nang and Bokbor areas were the most affected by the cut and today the main cultivators are in order, Sobloy, Bokbor and Nang sub districts.

For some villages it is interesting to quantify the loss made by the elimination of opium of this year:

In Phapothai, a mountainous old village, which suffered a lot from diseases in the rice in the last 3 years, people declared, for the whole village, they used to sell 3 big animals/year in average in the past but they have had to sell 15 buffaloes in the last 2 years because of the elimination of opium in 2001. In 2003, 19 of the 35 families still cultivated opium and 0,17Ha out of the 1,96 Ha were cut. This concerns only the cut of 2003 but the main cut campaign occurred in the past years.

For the main cut, no figure was available but one can see that people used to sell animals for the equivalent, for the village, of about 540\$/year whereas in the past 2 years they sold buffaloes for 1350\$/year. Consequently it appears that this change constitutes a loss of 810\$/year in the village e.g. about 23\$/year/family. Knowing that the village counts today in average 225\$ of animals e.g. per family, 10% of the actual capital was sold to manage the loss of cash from opium. The average costs and income per year per family have not been quantified with precision through the assessment so that those figures and the following ones have to be considered as indicative information.

As a part of opium is usually consumed in the village (about 2/3 of the annual production in the case of Phapothai in 2002 according to ACF agricultural survey in April 2003), it appears that the loss caused by the stop of opium is far from being negligible when it is compared to the other main source of money (animals) of the villages and this loss might cause as well important problems to addicted people who will have to find other sources to get their dose.

⁹ It happened sometimes that no reliable information could be obtained as villagers could not compare resources between years or could not manage to give one answer to evaluate the importance of resources compared to each other.

In Hoynambak (one part of the village has moved long time ago but stayed in mountain), the stop of opium this year has represented a loss of 138 USD per family (*Source: calculated from figures of NCA according to the surface that has been cut and considering the average income per cultivated Ha*) whereas they have in average a reserve of cash from animals of 155 USD per family. Those figures show that **the village has lost in one year, almost the equivalent of potential cash that what is left to them today. One has to notice that according to NCA data, in 2003, that village knew one of the most important cut of the District.**

To conclude: it appeared clearly through the visits of villages that this year is globally different from a “normal year” for the income resources, the expenditures and the activities of people. Those new situations are the results of various recent events.

The following paragraphs aim at analyzing the different situations (structurally and according to their evolution) at different levels, more in details, which should help to evaluate the food security of the populations.

B-Agricultural production: importance of the rice

2 techniques: upland slash and burn and plain irrigated cultivation

For rice production, people rely on upland rainy fields (Hai) and/or flat lands (Na).

The Hai cultivation, most widespread up to now, is based on one season as it depends only on the rain. As seen in the paragraph “context”, this cultivation is linked to the technique of slash and burn. It is specifically this intervention that it was reduced as it is considered as harmful for the environment. As a consequence, most of the villages of the District have had to reduce their rotation period recently. So far, farmers used to cultivate a same field every nine years in general and the new constraint has reduced it to a three-year rotation period.

The paddy can be cultivated in one or two seasons according to the irrigation system available.

Paddy is much more profitable than Hai, with a price of seeds more or less similar, the sowing density is less important (60kg/Ha for 80 kg/Ha for Hai) and the yields are higher (about 3-4 T /Ha¹⁰ for 1-2T /Ha for Hai in general).

The paddy cultivation is developing now through the whole district in both main valleys and small-dispersed humid low lands in mountainous areas. The conversion into paddy cultivation asks an important manpower as well as new investments (tools, seeds, irrigation system implementation) and techniques. As a result, in the first 2 or 3 years of re-conversion, families are in deficit for their production, as they have to stop Hai in order to start properly their paddy cultivation and as the first harvest of paddy are much lower than the average ones.

For self-sufficiency, the surface of paddy necessary is estimated at less than 1 Ha/family. With Hai, the surface should be between 1 and 2 Ha to feed one family.

Both Hai and paddy cultivation require important manpower. Indeed, each operation is made by hand. For the paddy, motorization and animal traction are under development but the mountainous villages and the displaced ones are today mainly still relying on human labor. Indeed, people miss money for the use of tractors and they miss experience (or even they miss the animals themselves in many cases) to use buffaloes.

The paddy cultivation, mainly in the first years demands a very important manpower as the fields have to be well prepared (walls, soil preparation, irrigation system) and the first steps require a high surveillance (level of the water essentially).

Then, the main operations for paddy and Hai are the weeding and the harvest.

All the operations are physically very hard and as the fields, particularly for mountainous villages, are very far, the rice cultivation takes globally a lot of time and energy.

Please refer to the calendar of seasonal activities for more precision.

¹⁰ Those data correspond to general approximation given by both villagers and agronomists. The average yield of paddy fields of 5 interviewed families in the past was 3T/Ha.

Cultivated rice this year: various surfaces

This year, in the visited villages, **families have** in average **0,13 Ha** of cultivated **paddy and 0,70 Ha** of cultivated **Hai**, which means **in theory not enough** to assure the production of food for 12 months. With yields of 3T/Ha for paddy and 1T/Ha for Hai, those surfaces would allow to provide food for 5 people during almost 3 months for paddy and almost 5 months for Hai. About half the villages have both cultivated upland and paddy fields and half of them have only one or the other kind..

Furthermore, the relative importance of Hai or paddy surfaces depends on the localization of the villages (availability of flat lands for paddy, distance of Hai lands after displacement) and on external laws (reduction of Hai surfaces all around the district).

Consequently a distinction can be observed between different kinds of villages:

Kind of village	Hai (Ha)	Paddy (Ha)	Comments
Displaced this year	0,70	0,13	More than half the villages do not cultivate paddy at all. 2 of the 3 other ones are Hmongs and the 3 ones had paddy in their previous place.
Displaced this year in order to get Na	0,70	0	
Displaced	0,53	0,25	3 of the 5 villages have only 100 m ² of paddy per family in average.
Displaced for many years	0,36	0,10	4 villages from Phonsampane have less than 0,2 Ha of Hai and 0,2 Ha of paddy. In an other village, in which part of the village arrived long time ago and a new part arrived this year, families have in average only 0,15 Ha of Hai and the new families do not have any Na ¹¹ .
Old, mountainous	0,92	0,06	3 of the mountainous villages are located near an important zone of paddy fields. Among the other ones, some villages cultivate a little bit of paddy fields and/or said they have some potential area for that cultivation but that last information could not be checked within the time of the survey. 6 villages seem to have no potential area for paddy cultivation.

Table 6 : Surfaces of Hai and paddy cultivation per family for this year in the different kinds of villages.

Those figures must be interpreted with precaution as the difference between villages is very important and most of the time, people explained that the surface of paddy cultivated concerns only a few families in the village.

Anyway, the table shows that among **villages displaced this year**, the ones **that did not have paddy in their former village and that were displaced to find some, have not cultivated this year**. Indeed, either people do not have paddy available at all or they could not cultivate their fields. The lack of time this year and the lack of water are the 2 reasons, given by people, which have made people not being able to cultivate this year.

Among the **displaced villages, 2 villages out of 5 have no or very little cultivated paddy and have reduced their Hai** a lot so that today, they only dispose of 1/3 and 1/5 of Ha of Hai, which is not sufficient at all for a family. Consequently, in both of them, people could produce rice to eat only 3 months in maximum this year. This shortage has endured for

¹¹ Paddy is also referred to as Na

several years. Indeed, since they have moved, they reduced their Hai and missed time to start the paddy.

Among villages displaced for many years, people have reduced a lot their Hai but the cultivated paddy is still insufficient, with only 1/10 Ha per family in average. Further more, this paddy often belongs to a few families only and as the surfaces are very few, the cultivation does not benefit to other families in term of labor demand.

Note:

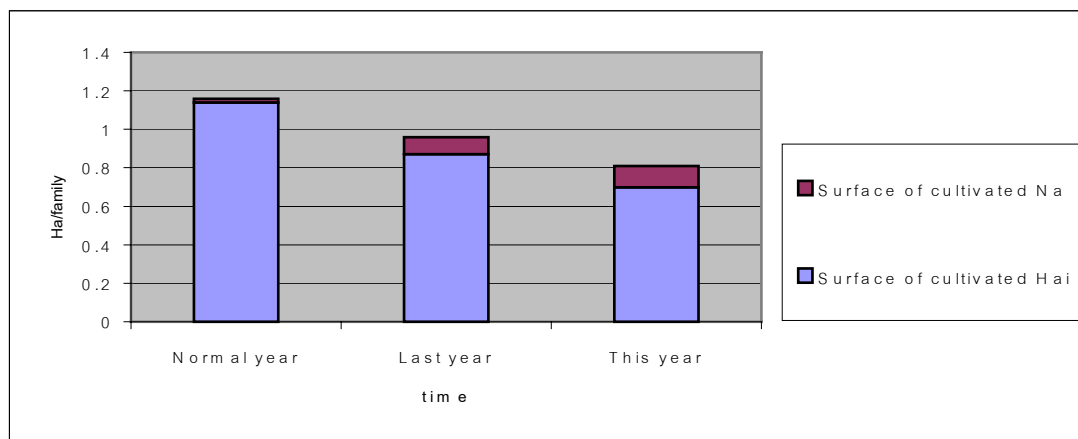
One village displaced a long time ago, has cultivated 100 Ha of upland rice and 10 of paddy in 2002. This year, they could not cultivate much paddy because of lack of water (irrigation system not efficient enough) and they totally stopped their upland rice. They have sowed corn instead of rice in the upland fields. This year, the village is in self-sufficiency (from harvest 2002) but for the next year, the situation will be totally dependant on the market of the corn. That situation concerns only that village but one can suppose that it will be the case for other displaced villages in the future if the government decides to develop that system for example. Following the visits of the villages, ACF team was said by some villagers that the growing of that corn is giving very bad results. That information has not been checked in the field so far but if it is true, people will have high difficulties for the next year.

Evolution: both surfaces and harvests globally decreased

*Surfaces of Hai decreasing and surfaces of paddy increasing

Since last year, half of the villages have decreased the surface of cultivated Hai, only 1/5 village has cultivated more.

70 % of the villages decreased their cultivated Hai this year compared to before.



Note: for the calculation of the averages, only villages for which we could get reliable information for comparison were taken in account (13 villages could not be considered for Hai comparison but almost all of them were taken for the Na part). Consequently, this graph is quite approximate.

Figure 1 : Evolution of the surfaces of Hai and paddy per family in average for the visited villages.

As it appears in the graph, if Hai surfaces have decreased, **the cultivation of paddy has globally increased** for many years as well as since last year.

Nevertheless, considering that 1Ha of Hai is equivalent, for production to about $\frac{1}{2}$ Ha of paddy, the **loss of surface per family from a normal year down to this year** in average in the visited villages is **equivalent to $\frac{1}{4}$ Ha of Hai**¹²

The diminution of Hai cultivated surfaces concern the totality of villages displaced for at least 1 year¹³. But the figures showed that among them, almost half have not replaced it by paddy or have just started this year so that the next harvest should be very low.

The study of the evolution of the surfaces must consider as well the potential fields. Indeed, this year, some villages can dispose of new potential fields for the cultivation of paddy.

Globally, **displaced villages declared they have potential area for paddy** in their new location. But 2 villages do not have any at all and 3 other ones had paddy only in their previous location.

Further more, many potential fields could not be cultivated because of lack of water.

Almost 2/3 of the old mountainous villages seem to have potential paddy as well. Consequently those villages might reach the governmental criterion “access to Na” in their original location.

¹² The surface of paddy per family increased of 0,09Ha but the surface of Hai decreased of 0,44Ha.

¹³ Only the villages for which we could obtain reliable data are considered here.

Note: The quantification of potential surfaces was difficult to obtain as the team could not go and visit all the lands within the time of assessment and people sometimes had only a vague idea of their potential. Further more, it appeared through the field visits that some people thought they had potential paddy available but after checking the fields, the potentiality was actually very weak (sloppy lands, no possibilities for irrigation). This means that the real potentialities of paddy are probably less important than what people said.

To conclude: people have decreased their surfaces of Hai. They have increased their paddy cultivation but not enough globally to cover the loss from diminution of Hai surfaces. Some people dispose of potential paddy for the future but the cultivation of those fields remains uncertain today. The data of cultivated rice surfaces is very variable from a village to another one and within the populations.

*Harvests decreased from both diminution of surface and diminution of yields

In average, people have produced, for this year, half of a normal production. In particular, among mountainous villages, 3 villages of Bokbor and Muang Sa harvested only 7% of a normal production. Beside the decrease of surfaces, that is due to the epidemics that occurred on the rice.

Predators of the rice

Since the first interviews, the big problem of diseases in the rice in the past years was pointed out. ACF studied it through the surveillance assessment as well as through a specific study (samples collection and gathering of information about pathogens and their impact in fields). The study is still under implementation and the data collected from the surveillance visits could hardly provide quantitative data but so far the conclusions are the following:

For a long time, populations have faced problems of diseases in their rice fields. Insects, fungi, bacteria as well as rats destroy regularly parts of the production. Farmers do not find any solution to those problems but usually losses are not that important. Only, episodically, one or the other pathogen develops and destroys important surfaces for a village. In this case, the concerned villagers face their lack of production by dealing with neighbouring villages that are not necessary touched by the disease. *Source: discussions, food security survey.*

In 2001 some harvests were particularly low because of diseases in the rice. The problem did not stop and in the year 2002, some surfaces could even not been harvested. That occurred in particular in Bokbor sub district (it did not affect all the villages of the zone). Those problems concerned upland rice in high proportion (lot of data is available as surveyed villages cultivate more upland than lowland fields) but some paddy fields had problems as well.

The main responsible pathogen was identified according to data of the agricultural Department of the District and according to discussion with people: gall midge disease. It has to be noticed that this disease usually affects mainly paddy fields but the high quantity of water in 2002 might have brought this problem in upland fields as well. The worm of the insect eats the inside of the stem of the plants and one can observe after a while a kind of white flower called locally “onion flower”. Then the plant stops growing and does not give any production or little. According to the data registered, in 2002, “out of 2010 Ha of upland cultivated, only 1890 Ha could be harvested” which means that 5% of the surfaces gave so bad results that people did not even harvest it. Then, among the 1890 Ha, some part gave probably bad yields as well even if people harvested it anyway. Rice was affected as well by other diseases such as brown spots and blast, grass hopper and rats invasion.

For the year 2003, people complained as well from diseases problems but the data of the service of agriculture and the collect of samples showed that the main pathogen in upland rice is not anymore the gall midge but some fungi that cause brown spots on the leaves: brown

spot disease and blast. Rice has also suffered this year from bacterial leaf, grass hopper, steam borer, rice bug, as well as rats. Paddy fields suffered as well from diseases and still gall midge but in lower proportion as the water was much less this year.

One has to notice that the protection against animals also has always been an important constraint for people. Particularly when fields are far away, people are used to spend time in small cabanas for surveying their fields. Some people regularly lose a high part of their production, just because buffaloes enter in their fields and destroy the plants.

Difficulties for conservation

People regularly face problems for the protection of their stocks of rice. Rats often eat those stocks, often situated outside the village in small bamboo houses.

Those problems of **diseases concern particularly uplands**. The harvests in **paddy fields have been weak also** this year but beside diseases (not enough quantitative information is available so far), the main problem pointed out by people is the **lack of water**. Indeed, a lot of fields do not have any irrigation system or it is not sufficient. And in the year 2003, the rain level was particularly low so that many paddy fields could not be harvested at all.

From the production of 2002, **people could harvest for this year about 740kg per family, which provided a self-sufficiency of a little bit more than 5 months in average only**.¹⁴

It is among the villages displaced for a long time that the most important heterogeneity appears. Indeed, among 9 villages, 4 have had only a small shortage, a few months and the 5 other ones could harvest the equivalent of maximum 2 months of food only! This was essentially depending on the water system for cultivation of Na.

For the next harvest (October/November 2003) concerning lack of water and problems of diseases, the yields should be, according to people, as follows:

- in 43 % of the villages: more or less good, which means that some problems are observed but yield will “not be catastrophic” for people
- in 23% of the villages: bad, which means that the village should face a crisis concerning the rice production
- in 33% of the villages: ok, which means similar to the yield of a normal year.

Those information count only 70% of the villages as for the other ones, no reliable data is available.

The reasons for bad next yields will be the lack of water or the diseases (equal number of cases) but in one case, the reason is the lack of time due to displacement.

For more than 70% of the villages that might have bad harvest in 2003, the last harvest(s) were already bad. Those villages might face important difficulties.

To conclude: The harvest 2002 was often weak because of diseases in the rice, decrease of cultivated surfaces, lack of water or lack of time to care about the fields.

Further more this year the cultivated surfaces have decreased compared to last year and normal year.

Villagers said the yields for the next harvest should be good for only 1/3 of the villages.

Consequently, the bad results of the next harvest (2003) might come in addition to already bad harvests from previous year(s) for a lot of villages. In particular 3 displaced villages and 2 old mountainous ones should be closely followed in the next year because of those difficulties.¹⁵

¹⁴ with about 1kg/person per day, figure given by people in almost all the villages. It counts the part given for animals as well. Knowing that a family counts in average about 5 people.

¹⁵ Aytong and Senchoumpou. Chaleunsay, Tchakai (PSP) and Chala (PSP)

Other crops cultivation: diversified panel

Vegetables and other crops are traditionally cultivated **mostly for both consumption** (animal and human) **and selling** depending on trading possibilities. They are cultivated in “swann” (i.e. fields especially prepared for this purpose), **in Hai and paddy fields** and sometimes **in kitchen garden**.

In rice fields: people cultivate most of the time eggplants, chili, cucumber, pumpkins, cassava and sweet potatoes, through 2 seasons. They sow it anywhere in the field and they harvest it at different time for each plant. They consume it locally _ when they have to spend time in their fields _ and they bring some back to the village to conserve for a while or to sell or exchange.

In fields around the village, people cultivate the same kind of crops and sometimes corn alone. That **corn constitutes a basic source of food for pigs and chickens. It is also eaten by humans when they face a lack of rice**. The corn used is a local one that gives low yields with small plants and which can be harvested only once a year. People look for Chinese big specie corn, which can be cultivated twice a year.

The **cultivation of corn is planned to be developed by the authorities of Muang Long** and mainly in valleys villages as some markets are identified. Some people have already changed rice cultivation to corn one in order to find new sources of income, to face the lack of rice due to pests or because of the restriction for Hai. In particular, the government made people from Ponesavang (displaced for many years) to cultivate corn instead of rice in their 100 Ha of upland fields this year.

It seems that a company, dealing with China could constitute the main market for corn for the following years.

This new activity can be a good source of income for villages but for sustainability, the possible evolution of the selling prices, the decrease of fertility of soils if it is kept in monoculture, the dependency of people to a non-food-producing crop etc...should be followed.

The cultivation of corn and other crops in those “swann” has increased after the elimination of opium because people want to valorize their opium fields thanks to this new production.

In kitchen gardens, the cultivation is not so developed so far, but it is becoming more and more frequent. It is appreciated as a mean to get products without important physical efforts thanks to the proximity. The main crops grown are Chinese celery, garlic, onions, chili, pumpkins etc. For the maintenance of those gardens, people face the problem of the protection against animals, so that they sometimes build bamboo fence but the system is not always efficient.

In some villages, people have prepared little garden for aromatic plants that are high over the soil to avoid big animals to come and destroy the production. They are protected from chickens by bamboo fences. This technique is recognized as efficient but some Akha villagers declared the system of growing high to be against cultural rules.

In mountainous villages, people grow as well cotton that they string by hand and use to make clothes. This cotton is cultivated in rice fields or in swan. The work necessary to string by hand, to color (collecting of the plant in the forest, mixture to prepare for the coloration of the tissues) and to weave the clothes, all by hand, is important and women complain often not to have stringing and weaving machines.

To finish, some **fruit trees are cultivated near the village**. The main ones are goyaves, tamarrin and orange. Some of them, as well as banana trees are cultivated in rice fields.

No particular change has been noticed concerning all those productions.

C-Breeding: a source of food and cash and the main capital reserve

Animal breeding: traditional activity, important capital

In 2003 in average in the 43 villages, the cattle and the property of small animals are as following:

- 1 buffalo for 8 people
- 1 cow for 6 people
- 1 pig for 3 people
- 1 chicken per people

Note: for the lecture of the following paragraph, one has to keep in mind that the different kinds of animals represent different goods and different means of production for people. Indeed, each kind has its own value in term of potential cash: about 1 800 000 kips¹⁶ per head. A cow is half of this price, a pig costs about 350 000 kips and a chicken 20 000 kip. Furthermore, each kind does not need the same time and the same care (people feed essentially chicken and pigs) but do not produce in the same way. Obviously, the production of chicken and pigs is available much quicker than for cows and buffaloes: for example a calf will be mature after 2-3 years whereas pigs are after only one year and they are more numerous.

For buffaloes, which represents, by far the most important potential resource only 14 villages are over the average. It means that a few villages show a significant advantage on the rest of the villages.

Villages that have the highest number of buffaloes per people in average do not correspond particularly to a zone of access and do not represent any resettlement profiles. Indeed among the 14 concerned villages: 7 have facilities for access and we can find old villages as well as displaced ones, recently or several years ago.

Nevertheless, one can observe that at least 2 of them (*according to NCA data, from their target villages*) were not opium producers or very small ones and during a few years only.

Animal property is really considered as a reserve of income, food and cash. Indeed, people clearly stated that they have sold some animals recently in order to get the rice they miss. If they have bought some animals, the objective was the assurance of the future.

At assessment time the potential reserve of cash represented by animals is about 218 USD per family in average¹⁷ This represents the equivalent of 1 buffalo and 1 pig or 3 cows and 1 pig or 6 pigs.

Beside the global reserve of cash that livestock can provide, it would be interesting to consider the animals separately as they might not represent the same things for their owners. Indeed, cows and buffaloes constitute the most important reserves of cash, they do not make a big production (limited rhythm of reproduction) and they can be raised without particular feeding from villagers. In the contrary, pigs and chickens constitute lower amounts of potential cash but they can give important reproduction and their breeding depends a lot on the food villagers can provide them. As a consequence, the property of one or the other kind of animals might be linked with the situation and the needs of the people.

Cows would be raised to be sold, buffaloes for the labor (when people know how to use them) and to constitute a cash reserve as well (it appeared in the criterion given by people to

¹⁶ We consider 1 USD is equivalent to about 10,000 kip

¹⁷ This figure counts all the families from 39 villages considering the average price of each kind of animal

determine rich, medium and poor families), and one can see in the following data that only the richest families have big animals). Chickens and pigs seem to be both eaten and sold and no important capital is needed to buy them.

One has to notice that, linked to the importance of the belief in spirits, villagers often kill animals for different reasons.

For example if a year is considered as bad for the harvest, the health or anything else, villagers might sacrifice several animals in order to implore spirits to improve their situation. Consequently, people might lose important reserves at the moment that, with an economical point of view, they would need to keep it more than ever.

People raise their animals in a basic way. All of them are free to walk in the village and in the surrounding forest.

Pigs and chicken are fed everyday with secondary rice products (husk and sometimes flour), corn and diversified vegetables according to local productions.

Cows and buffaloes pasture in the forest around the village, they are occasionally brought to pasture lands.

Cattle and pigs are brought to the upland rice fields when people spend time over there and are fed locally (forest on the way, productions from the fields).

People complained a lot about animals' diseases. In particular for pigs and chickens, diseases occur regularly each year. Some episodic epidemics occur as well. That aspect has not been deeply studied in the present assessment.

Evolution of the livestock: directly linked with the health condition and with the needs of income

On average (*for the whole population of the visited villages for which we could get complete data*) **people had more cows and buffaloes in the past than today**. But **the diminution has occurred recently for the cows** as last year, they were more numerous than in a normal year. People have lost globally almost 20 % of the buffaloes and more than 10 % of their cows compared to a normal year.

For the pigs and chicken, the situation is different as their number has **decreased from a normal year down to last year** (people lose more than 50 % of their pigs and 75% of the chickens).

Then, for the chickens, the total number has kept decreasing down to now.

Only **pigs have increased this year**.

Some villagers declared they sold big animals and bought pigs. The reason might be to get more production from the animals with keeping a cash reserve.

If people used to have 4 times more pigs than cows, today, the number of cows is half of the number of pigs.

When the number of animals has decreased from last year, the reasons given by the villagers were the following ones:

-38% because of **disease on the rice** that engendered bad harvest (consequently: exchanges and selling of animals) and lack of food for animals

-17% from **diseases**

-14% because of **displacement**, directly or indirectly, which means from selling or from deaths due to the displacement.

Note: knowing that displaced villages do not constitute the entire assessed sample of villages, those 14% represent a lot. Indeed, almost all the concerned villages gave the displacement it' self as a reason for the decrease of animals: sold or died.

-3% because of the elimination **of opium**. In those cases, people sold animals in order to replace the previous income generated by the selling of opium or in order to get money to buy opium for the addicted people.

and 28% from other reasons or no particular reason was given

Note: concerning the elimination of opium, it was quite difficult to obtain answers from people so that it is more than possible (in particular concerning matters of debts) that this reason is more responsible but that villagers did not express it clearly.

Globally for all the surveyed villages for which we got reliable information, the evolution of the number of animals per people can be represented as following:

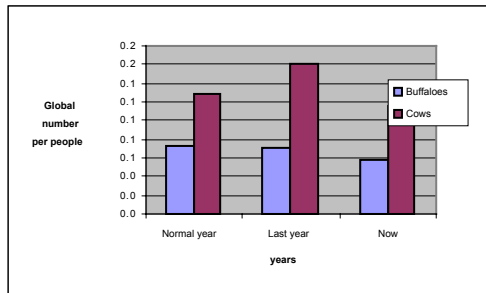


Figure 2 : evolution of the number of buffaloes and cows per people

The cows have increased up to last year but have decreased a lot down to now. The buffaloes decreased.

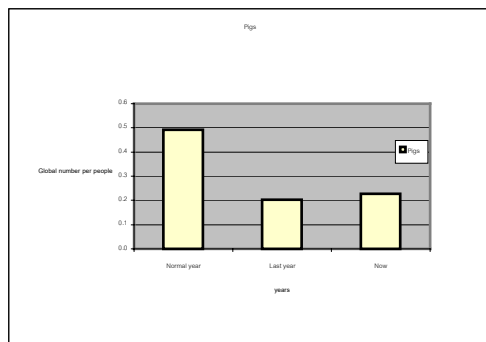


Figure 3 : evolution of the number of pigs per people

The pigs have decreased a lot from “before” but have increased in the last year.

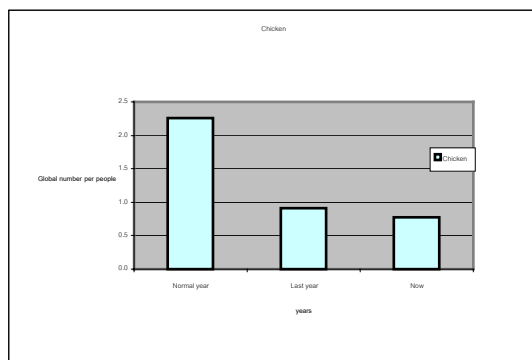


Figure 4 : evolution of the number of chickens per people

The chickens have decreased a lot from normal year and again from last year.

No clear correlation could be identified between the loss of one or the other kind of animal and the elimination of opium or the lack of rice, or even the succession of several “ bad years”. But it would be very interesting that this point would be studied in the next steps of surveillance.

For **11 villages** for which the data could be compared with precision between this year, last year and a normal year (this does not count any village displaced for long time), it can be observed that **families in average have lost 32% of their animal capital, in term of cash reserve since a normal year and about 9% since last year.**

Those global evolutions do no concern all the villages and the actual context does not affect the villages at the same level. Indeed, **more than ¼ of the visited villages have not decreased their number of animals since last year** and even sometimes they have more this year. Among those villages:

- Two of them have been cultivating paddy for a few years so that they can benefit from better harvests, which allow them to buy cattle.
- In another one people have improved a little their living conditions in the past few years as they are becoming used to their new place progressively. They have fewer animals than in the past (lost during the displacement) but the livestock has been stable for a few years.
- 2 villages are located in mountain and have suffered from diseases on the rice for one of them and from instability linked to risks of displacement for the other one. Both of them manage the shortage without particular selling of animals: people go to work, sell forest products and/or handicraft items.
- Five other ones, from the same area, still cultivate opium or they stopped it only this year so that even in case of difficulties linked to rice cultivation, people can manage at the village level with reserves of cash. One can think as well that it is precisely because of the elimination of opium that people have increased their animal property as to assure the next years. That has not been clearly defined with people.
- For one of them, villagers benefit from humanitarian aid.

In average the capital of animals has decreased from a normal year and since last year. That happened because of the recent events (as a coping mechanism or the lack of adaptation of the animals to new environment) as well as from problems of animals' diseases happening like every year. But many different cases were observed.

The cases of the above villages give an idea of criterion that can assure the income, as coping mechanism or as usual activity:

- the cultivation of paddy,
- the stability,
- the possibilities of work: which may be closely linked with the manpower,
- the access to forest products,
- the access to any kind of market: neighbouring wealthy villages, access to Xiengkok, Muang Long, China or Mekong,
- the reserves from opium. This one is not sustainable at all anymore but can explain the current situation of some villages. So far those villages have to be particularly followed as their situation has been deeply modified.

D-Other activities: different opportunities according to the eco-economic environment

Forest products collection

People are used to collect a lot of products in the forest. This year, that activity essentially concerns mountainous villages. Some displaced ones complained about this lack of resource or the difficulties to collect forest products since they have moved.

For both consumption and selling, people collect roots, plants, wood and they hunt various animals: birds, turtles, fish, wild pigs ...

As seen above, this activity has increased globally.

The main problem encountered for this gathering activity is the limitation to collect some specific products whereas people are used to sell and or use it locally.

Note: traditionally, people hunt a lot of birds for own consumption. This practice has been reduced.

Labor work

As seen above the labor work constitutes a source of income for people. This activity did not exist in all the villages in the past and has been developed in the past few years.

The average income for 1 day of work is about 6 kg of unhusked rice, which can provide enough food for 1 family for the day.

The main problem caused by this activity is that it is time consuming. In turn, villagers have less time to assume the traditional tasks.

Further more, in some specific cases when people are constrained to go and work everyday, it constitutes a hard work as job opportunities are located very far (up to 7 hours walk) from the village.

Production and selling of handicraft items

Some people produce handicraft items that they sell to neighbouring villages. The main productions are small chairs, pockets for knives and mats. This activity is not very widespread and does not change particularly in a sense or another one in the last years. Indeed, some villages have increased it to improve their income and some other ones have stopped it because of lack of time essentially.

E-Food intake: the rations have decreased

Only **less than 1/3 of the villages announced they eat the same** this year than in a normal year. Almost all of those villages are old villages or have been displaced this year. Some of those villages have had problems of diseases or decrease of fertility in their rice but without causing big shortage, the other ones have had a good production this year.

In all the villages displaced for several years, except one, villagers declared they eat less rice this year than in a normal year. In those cases, people usually replace rice by fruits/vegetables and corn.

According to families' interviews (about 2/5 of poor, 2/5 of medium and 1/5 of rich), **people eat this year about 730 g of rice/day in average, which represents less than 90% of the normal year consumption.**

Please refer to the analysis of the population for more details about food consumption.

F-Population and manpower: difficulties to perform all the necessary work

Evolution of the population, social problematic

Through all the displacements in the district, some villages have seen their population modified a lot within the last 10 years. Some villages have even moved several times. No precise information is available concerning the demography from the visited villages. But globally it appeared that **the District counts today more people in the plain areas than a few years ago.**

Among old mountainous visited villages, all of them have known movements of population, both arrivals and departures in the past. Further more, among visited displaced villages, about half moved, leaving a part of the population in the old place.

The **social tissue is sometimes modified following the displacement.** Indeed, when only a part of the population has moved, a new chief has been designed for one or the other one of the parts. Further more, when villages are grouped together, one or several chiefs are designed, who may not be the traditional ones. Note: in case of any intervention in those villages, this fact has to be taken in account because the information and the decisions have to be discussed with the right interlocutors.

Manpower: women overloaded with daily work, lack of able bodies

Note : this topic is detailed through the analysis of the familial situation

All along the year, work is hard in the villages of the district for both mountain and lowland villages.

The global working calendar can be represented as following:

Months	1	2	3	4	5	6	7	8	9	10	11	12
Season	DRY				RAINY				DRY			
Upland rice		Slashing	Burning: clearance of the surface	Sowing	Weeding	Preparing kitchen garden	Rice harvesting and bringing to stock					
Other crops in Hai and/or paddy fields	Sowing corn, sweet potatoes, taro, cassava, eggplant, chili, soy bean, peanuts, sesame, cotton			Sowing mint, tobacco, yard long beans		Sowing vegetables, chinese celery, mint, yard long bean and other..						
				Harvest diverse vegetables	Harvest peanuts	Harvest cotton	Harvest sesame, cassava, sweet potatoes					
Paddy		Digging	Nursery	Planting	Weeding	Rice harvesting and bringing to stock						
Garden	Sowing vegetables, banana, papaya, sugar cane, pumpkin, short beans, mints...			Weeding and putting fertilizer	Harvest all vegetables							
NTPF's ¹⁸	Collect of bamboo shoots , cardamom etc...eat less		Collect of other products, eat more. Collect of seeds to transplant		Fencing and preparation of soil							
Labor	Various			Weeding		Harvesting						
Other	Kincheng festival, building the house, and boiling palm seeds										Cutting trees for building houses	

Source: Agro survey in Chakeonneua and in Poungsye Kao, mountainous village.

Table 7 : Calendar of seasonal activities in mountainous villages

¹⁸ NTFP: Non Timber Forest Products

Women are highly concerned by almost all the tasks of the population (*please refer to the part “typology of the population for more details about the repartition of the tasks*). They are in charge or at least participate in the preparation of food for human and animals, they care about the children, they work in the fields, they collect items in the forest, they cut wood for cooking and heating, they sometimes go to sell items, they care about the house and they make clothes for all the family. As far as they are concerned, men participates as well in the work in fields, they can go for hunting or fishing, they go sometimes to work in neighbouring villages or in the market, but no other task is defined as being specifically the task of men. Through the discussion with people, it appeared clearly that women work much more than men, and that they suffer physically from all those activities.

When villagers have difficulties, men assure an important work as well. This depends on the village.

In all the villages, **the manpower of families is considered as a criterion of welfare for the family**. The more families have able bodies, the more they have chance to improve or at least assure their conditions of life.

For that reason, **the sanitation appeared as a particularly important parameter** as a good health is prerequisite for efficient work. If a village has to face epidemics, that may influence very badly the results of the different productions in the following months or years as people will not be able to work as much as they would have done in a normal period.

For the same reason, **distances to fields, market, and forest are also secondary criterions** that might have consequence on the living conditions of the villagers. In particular, as seen through the discussion with villagers, the recent lack of rice has constrained villagers to look for remunerated (sometimes paid in rice). This new activity sometimes did not allow farmers to have enough time to care about their own rice fields. Lastly, **the displacement** caused as well important difficulties in term of lack of manpower as it takes time for people to build new houses, and /or prepare new rice fields in lowlands.

To conclude, people have to work hard in order to assure their living conditions. In particular women are very often over-charged. From that constraint, people expressed clearly that the availability of manpower, and consequently the sanitation, the access to fields, market and forest, as well as the stability constitute welfare criterion.

Sanitation and health: epidemics and opium addiction

*Main important diseases: malaria and water born diseases

As the problematic of the sanitary conditions has been studied in April 2003 in the District, the present survey did not focused on this problem in term of comprehension and analysis but in each visited village, the topic was discussed in order to check if no emergency was met.

The survey did not show any emergent situation but in all the villages, people have met problems any year mainly because of malaria and/or diarrhea epidemics. The “red eyes” symptom was as well noticed. That should be conjunctivitis virus, which does not cause important damage.

Some villages have known epidemics causing the death of an important part of the population. In those cases, people face many difficulties even after the event: moral destructuration as well as lack of manpower during and after the epidemics.

At least 9 of the 43 villages have known an epidemic (more than 10 people dead). Among villages that have moved before this year, almost **1/3 village have faced an important mortality episode when they arrived on the new site.**

*A big problem of addiction

The addiction problem is very widespread throughout the district. Indeed, opium consumption used to be traditionally considered as a medical treatment and a lot of people are used to consume it. When the opium addiction is severe, the addicted can not work as much as a non addicted person. They are weak and spend most of their time smoking. As a result, this has an incidence on the economy of the family. The workload is higher for other members of the family. Generally speaking, before the opium cut off, opium consumers were also opium producers so that the quantity to buy was minimized.

Since the elimination of opium, this addiction has become even more problematic as most of the drug may have to be bought now by the family. It is more complicated to find it as no opium is available locally anymore. **Opium addiction is considered as an important vulnerability criterion by people.**

In the district NCA has been conducting desintoxication programs and plans to continue this activity so that a lot of villages are targeted.

The District provides some medicines for self-cure.

G-Synthesis about the situation and reactions of villages to face difficulties

Problematic and coping mechanisms

In Long district, most of the villages of ethnic minorities, usually located in mountain used to face structural vulnerability linked to the autarchic systems of life, the lack of access, the weak level of education (as well as knowledge about agricultural and raising techniques) and the lack of access to medical care.

In the past few years, different events, as seen above, have changed the traditional equilibrium of the villages and have brought new sources of vulnerability.

To adapt to the new situation, villagers have found coping mechanisms that are more or less sustainable. As a consequence, according to the structural characteristics, the events and their effects on the villages, and according to the coping mechanism developed, villages are, at assessment time in more or less food security situation. They will need to be followed up according to the assumptions for the evolution in the future.

Globally the problematic and the risks for the future can be summarized as follows:

Structural and contextual conditions	Constraints	Kinds of villages particularly concerned	Coping mechanisms developed	Risks for the future
Structural conditions	Lack of access	<i>mountain</i>	Autarchic economical system	Vulnerability to any change which could affect the production of food
	Fragile livestock	<i>all</i>	No one	Looses of capital
	Unstable health	<i>all</i>	No one. In rare cases in the past: displacement near the road	Mortality, lack of manpower
	Over charge of work	<i>all</i>	No one	Physical insufficiency when more work is necessary
Upland rice pests	Bad harvests	<i>without paddy land</i>	Decapitalization, more forest product collect, more labor, decrease of the consumption	Less flexibility due to decapitalization, lack of time, physical weakness
Diminution of rotation period for upland rice cultivation	Decrease of harvests an yields in the future	<i>without paddy land</i>	Similar to the ones for managing the bad harvests but less developed up to now. Starting: conversion to cash crop cultivation.	Decrease of the production of food, dependency of foreign markets.
Elimination of opium	Stop of important cash resource. Health difficulties	<i>opium producers</i>	Finding of other sources of income when necessary.	Lack of reserve to face bad years. Work overload of families of addicts.
Displacements	Unstableness Lack of time Diseases on humans and animals	<i>displaced</i>	Animal decapitalization, finding of new sources of income	Lack of income (food and cash), less flexibility due to initial decapitalisation, dependence on external factors (building of structures by GOL...)

Table 8 : Constraints, adaptation and risks for the future for villages in Long district

Food security evaluation of the visited villages:

When all the information collected from the visits is treated, conclusion has been drawn for each village. Among the 43 villages, 3 situations have been observed:

1/Villages that will need help and/or close monitoring:**9 villages.**

- half are old settled villages: the main reason for difficulties is the diseases on the rice
- half have been displaced a long time ago (and one of them received this year a new village): the main reason for difficulty is lack of irrigated rice

2/Villages that have managed difficulties they encountered so far but that are in a critical situation and might face important difficulties in the near future.**16 villages.**

- more than half have been displaced recently: 6 displaced this year, 3 displaced in the last few years. The reasons for difficulties are lack of rice and/or lack of animals. For the future some of them have only potentialities, nothing is assured.
- the rest are old settled ones. Among them, 1 might be displaced which will change his situation. 3 of them have received and will receive support from NGO.

3/Villages that have an acceptable food situation for now and for the near future.**17 villages.**

More than 2/3 of those villages would not need any following if no event happens but in case of future displacement, movements of people and because of the recent elimination of opium, the food security could decrease.

Among them:

- most of them are old settled villages
- 27% have been displaced recently

Only 5 villages in total are really in a good food security situation. They are from mountain and from plain and were displaced long time ago.

2-Analysis of the problematic: different categories of population

A-Identification and organization of the “family”

Definition of the family entity

Following the numerous interviews with families, some general characteristics appeared:

A typical household is organized in one or several families in the same house. In Akha villages (main ethnic group visited), when several families live together, that means that the youngest one (newly married usually, the woman comes to join her husband's parents) should leave the house soon and get its own one.

Those families share the food intake but have separate goods. Indeed, as soon as the son gets married, the head of family gives him a part of his property. Those goods are added to other ones, given by the father of the new wife so that the couple can start to live independently. It occurs as well that the son gets part of the family property even before that wedding.

Therefore for the study, a **family was taken as the identity made of a married couple with independent goods even though they might share the food with other members of the house.**

Even when goods are separated, people consider that families of a same house are from the same socio-economical category.

Note: when a case of multiple families occurred in the interviews, all the members and all the goods were taken in account so that the answers were easier to give from the interviewed person. Results should hence be more reliable.

Some families counted one husband and several wives but only few families were concerned per village (head of village, rich people). In some of those cases, women were widows that had been reintegrated in a family.

In average in the 43 visited villages, **one family counts about 5 members**¹⁹. The composition is variable from 2 members up to 10 in the interviewed families.

¹⁹ According to the group discussions, villages have in average 4,6 people /family but among the 72 interview families the average is about 5,7. As it is considered that the data from entire villages is more representative, the composition of a family for the analysis is considered to be of 5 members.

Organization of activities in the family

The work in the family is organized as following:

Frequency	All along the year, everyday		All along the year, according to the needs/season			Everyday seasonally			
	Cleaning house, cutting wood for heating, preparation of food, bringing water, caring of children	Feeding animals	Collect of forest products	Fishing, hunting	Going to sell /exchange items	Working in the rice fields	Working in the house garden	Making of cotton string and clothe	Going to work
MEN	<i>For care of children</i>								<i>Depends on the economical situation of the people</i>
WOMEN									
CHILDREN	<i>In particular for bring the water and care of younger children</i>			<i>For small animals</i>					

Key : the darker the shade of the cell, the more people are involved in the fulfillment of the task.

Table 9 : Repartition of the main tasks between members of the families.

As far as rice cultivation is concerned, work in the fields is taken in charge by both men and women. Men prepare the land alone but all the work after the harvest is part of women's daily work. The latter are as such responsible for the drying of rice, the separation of the seeds from the plants...

All year through, every morning, they are also in charge of beating the rice (with the force of their legs) in order to separate the skin from the grain, they prepare the portions to feed animals and they cook the rice for family meals as well.

However, within vulnerable families, the tasks might be organized differently.

- when working outside the village in order to get rice everyday is necessary, men and women alternate working days outside the village and days at home (to take care of children).

-children are not asked to work a lot in general but in poor families or poor villages, they can be employed for more tasks according to the needs.

Inside a village or between several villages, it appears clearly in the interviews that relatives support each other. That can happen in particular in the case of movement of a part of the population. If the displaced people face a diminution of cattle, relatives from the old village can offer them some animals. When families do not have any relative in the village, it seem that they will not benefit from any help from the other villagers except occasionally from the head of village who may give some rice. Actually, the solidarity proceeds depend a lot on the village and in particular on the ethnic group concerned, it is not deeply studied here.

B-Identification of different categories of families**Classification of the population**

When asking to people what they consider as being the characteristics of medium families, and then of families that can be classified in “poorer” and “richer” categories, the answers were very homogenous in the different villages.

Globally the people consider that:

Category of family	% in 40 villages	Factors of vulnerability	Criteria of identification of the families
“Rich”	15,5	Enough rice ²⁰ , at least to eat, every year and this year, Cash, “Good house” ²¹	Lot of animals Lot of Hai/Na <i>Then, equally:</i> Manpower. Cash
“Medium”	45,5	<i>For some of them:</i> Rice to eat all the year or shortage, Little money, “Good house” <i>And then:</i> Material in the house, can buy clothe	Lot of small animals, few big ones Less surface of rice fields <i>For some of them:</i> Little money. Manpower
“Poor”	39	No enough rice to eat <i>In some cases:</i> no money to buy rice	<i>Equally:</i> Very few rice surfaces (often no Na), No animal or very few small ones, Addicted people <i>Then:</i> No manpower, lot of children. Death of members of the family

Note: the characteristics are given in order of importance according to the number of villages where people gave that particular answer.

Note 2: the repartition of each category in each village is very heterogeneous.

Table 10 : Typology of the population

²⁰ The rice to eat and/or sell here is the one coming from the production

²¹ A house is considered “good” when its roof is in tin sheets and when it has more wood (instead of bamboo).

That table points at the fact that, **according to the population, the main factor of wealth fare is the rice availability. The main criterions for vulnerability are the lack of sufficient land surface of rice fields (particularly paddy when existing) and the low capital of animals.**

When people were asked about the link with different forms of crisis (bad harvest, elimination of opium, epidemics, displacement, diseases of animals etc...), no reliable classification could be done with the categories of population. Indeed, it seems that:

- those categories constitute more social groups than real economical ones. So far, families have always belonged to one or the other category. Only a few in some villages were designed as coming from an other category in the last few years
- according to group discussions, the different crisis have affected the 3 categories in an equal way or at least no difference could be identified between the categories following the crisis. Indeed, either the problems touched all the population or they concern only some people but from no particular category.

Anyway, it is obvious that characteristics obtained for each category are sufficient to suppose the effect of any of the identified possible crisis on families.

Even if that could not be pointed out with precision through the assessment, it is obvious that modifications of social level of families can appear, following the recent events. Indeed, through displacements as well as through elimination of opium essentially, some families may become in unstable conditions.

The displacement constrains people to find new economical balance so that the competences and the potentialities are different than when people are in their original place. For example a family who used to have large surfaces of rice in the old village can face difficulties for the reconversion to the new way of life if very few lands are available in the new place. On the contrary, someone who was used to complete his lack of rice with the selling of handcrafts items for example has more facilities, at the beginning at least, to adapt itself to the new system of income by valorizing the new access.

The elimination of opium has made families of addicted people become much more vulnerable suddenly than in the past as all the members have to find solutions to get the opium necessary to the addicted person. People who did not cultivate opium before, do not face directly the consequences of the event as they have already been used to assure their income through other ways. Anyway, in villages where opium was cultivated, it seems that many families could benefit from the activity, even indirectly, through the needs of manpower that it procured locally.

Global economy of the families

Capital and means of production

*Manpower availability

Through the family interviews, the characteristics (or “criteria”) of the different categories were verified.

The level of vulnerability increases as the manpower in the family decreases.

:

Category of population	% of able bodies in the family
“Rich”	54
“Medium”	48
“Poor”	46

Table 11 : Manpower of the different categories of population

It appears that, even if the amount of manpower available is linked with the category of population, the difference is not great, in particular between medium and poor families.

*Animals’ property

The capital of animals is clearly different for each category:

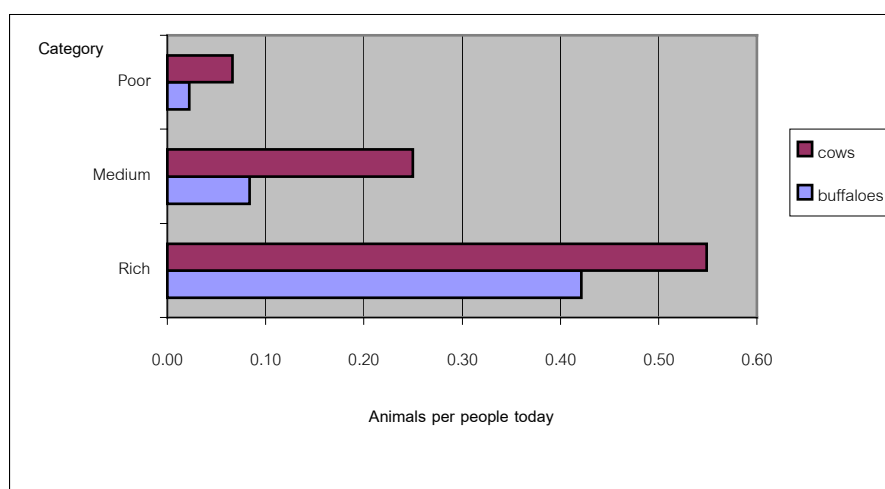


Figure 5 : Property of buffaloes and cows for the different categories of population

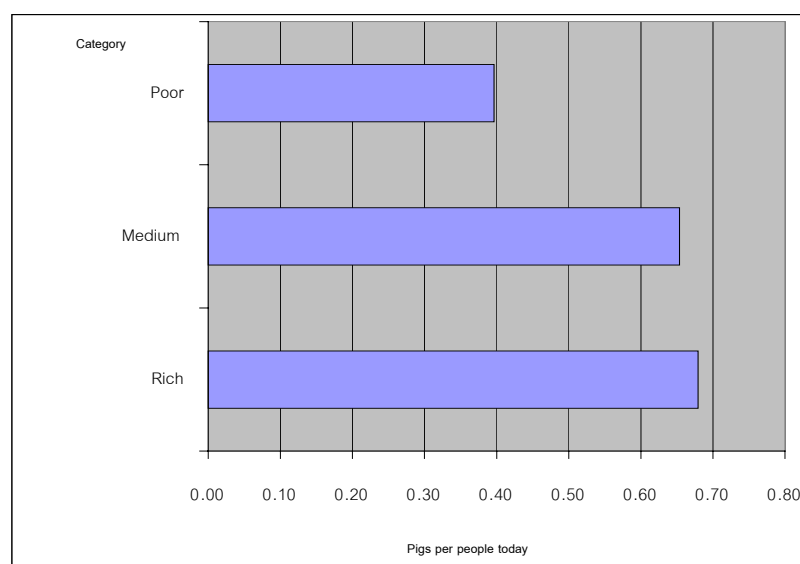


Figure 6 : Property of pigs for the different categories of population

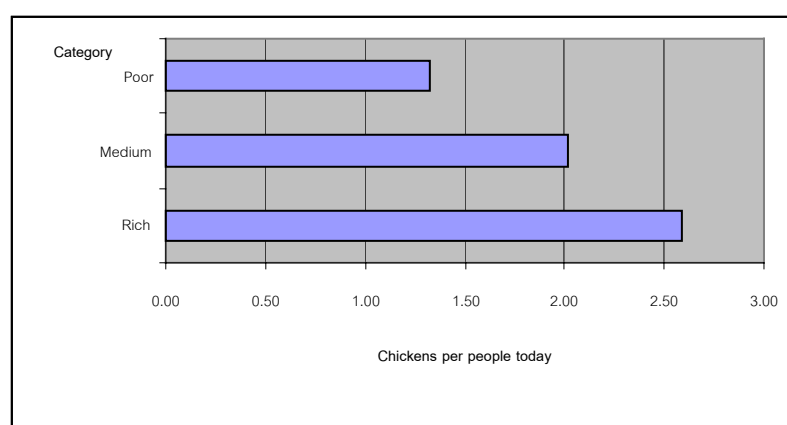


Figure 7 : Property of chickens for the different categories of population

Those graphs confirm the differences of animal capital between the different categories of population. Further more, they show that the difference mainly concerns the big cattle. In particular, for the property of pigs, medium and rich families are almost similar. Only a few **poor families** have 1 cow or 1 buffalo. They **dispose in average of less than 1 cow and/or 1 buffalo for 10 people**. Whereas **rich people have in average several cows and/or buffaloes per family**.

Globally, considering all the animals, the capital available for each category of families, in average for all the visited families is :

Category of population	Capital from animals/family (USD)
Poor	111
Medium	350
Rich	1050

Table 12 : Reserves of cash from animal property per family in average for the different categories, today.

As far as animals are concerned, a poor family **disposes in average of about 10% of the potential cash reserves of a rich family**. Rich families clearly distinguish themselves from medium families as well.

*Surfaces of rice fields

Category of population	Hai (Ha)	Na (Ha)	Hai (Ha)	Na (Ha)
	THIS YEAR		NORMAL YEAR	
Poor	0,91	0,08	1	0,07
Medium	0,89	0,22	1,53	0,10
Rich	1,33	0,35	1,84	0,32

Table 13 : Surfaces of cultivated Hai and paddy per family in average for the different categories, in general and today.

The surfaces of Hai between medium and poor people are very similar, only rich families have much more cultivated upland rice surfaces (almost 50% more). The 3 categories are different for cultivated paddy surfaces. In general and this year, **rich families have in average 5 times more paddy than poor families.**

For the production of **Hai, in normal year**, the average yield for **poor families** is **1,12T/Ha. Medium and Rich** families can get **200 kg and 300 kg more per Ha.** As a consequence, the mean of production constituted with surfaces of fields, and probably tools, seeds is probably more important for rich families than for medium and poor ones.

Reserves of food: mainly rice in stock

People regularly go and pick up rice from their stock house and keep it in the house or in a secondary stock just near the house.

The rice available in stocks at assessment time could come from the last harvest, or from any labor days. Quantities were very heterogeneous between families and no correlation with the level of the family or with the kind of village could be observed. Quantities available can vary from a few kg up to 200 kg of rice for the family, counting the total stock. That rice might come from production or from other sources.

At assessment time, people did not have any fruits and very few “other crops” reserves in their stock. Less than 1/3 family had some meat or fish (0,5 to 3 kg) in the house. Most of the families had 2-3 kg of vegetables (up to 15 kg) in order to be kept for a while or to be cooked in the day.

Concerning the quantities of rice in stock, this data will have to be surveyed more deeply in the future.

Economical system of families

*Sources of income

For the **sources of food**, all categories of families, as seen in the first part, rely on agricultural and animal production, collection of forest products, labor, exchanges, purchases in the market and occasionally humanitarian or relatives help.

No big difference between the 3 categories has been observed **for those sources** in normal year. Only **the amount of food must be different**

For the **cash**, **no noticeable difference appeared between the categories** in term of origin. Within their category, poor families were however more numerous than the other families to get money from labor, in normal year.

The amount of cash was also variable between the categories. For example, for the selling of animals, poor families sold only chicken and pigs whereas the other ones sold big animals as well.

*Expenditures

Traditionally, **rich families used to buy tape recorders, watches, sometimes mills, animals and other various items. Poor families said they essentially bought clothes and rice.** In the past, medium families used to buy some non basic items but this year most of them bought rice.

*C-Effects of the recent difficulties***Rice availability**

According to their categories, families do not have the same rice available from production in average.

Indeed the families' interviews showed the following differences:

Category/months	1	2	3	4	5	6	7	8	9	10	11	12
Poor												
	← Shortage this year →											
Medium												
	← Shortage this year →											
Rich												
	← Shortage this year →											

In clear: rice availability in normal year

In dark: rice availability for this year

Table 14 : Self-sufficiency in rice for the different categories of population

In a normal year, families of the 3 categories used to eat the same quantity of rice per day in average: 0,9kg/day/people. Only this year differences have appeared. If rich people still eat the same quantity, medium and poor families have decreased a little to eat today respectively about 700g and 800 g of rice/people/day.

Note: those figures were calculated from milled rice. Added to that human consumption, a small part of the cooked milled rice is sometimes given to animals (pigs, chickens and dogs) but this quantity was difficult to evaluate with precision as it depends on the kinds of animals and on the availability of rice for the families.

For **this year**, people estimate they eat in average per family **65 kg of fish/meat for rich families, 45 kg for medium ones and only 39 kg for poor families.**

The decrease of production has not affected the 3 categories in the same proportions. Indeed, in a normal year, medium and rich families used to have in average the same period of self-sufficiency but this year, **the shortage has increased much more for medium (4 more months) than for rich families (only 1 more month of shortage).**

The difference between medium and poor families was the same in normal year than this year.

The reasons might be: the cultivation of paddy (maybe an added surface) or the manpower (more time to care about the rice in fields even when the situation changed)

Rice production

The evolution of surfaces between a normal year and this year has been as following:

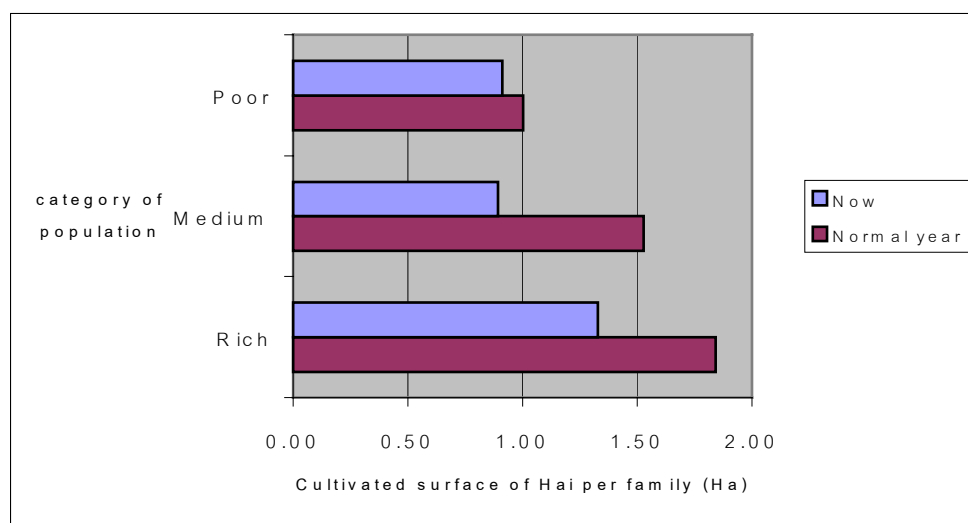


Figure 8 : Evolution of the surfaces of cultivated Hai for the different categories of population

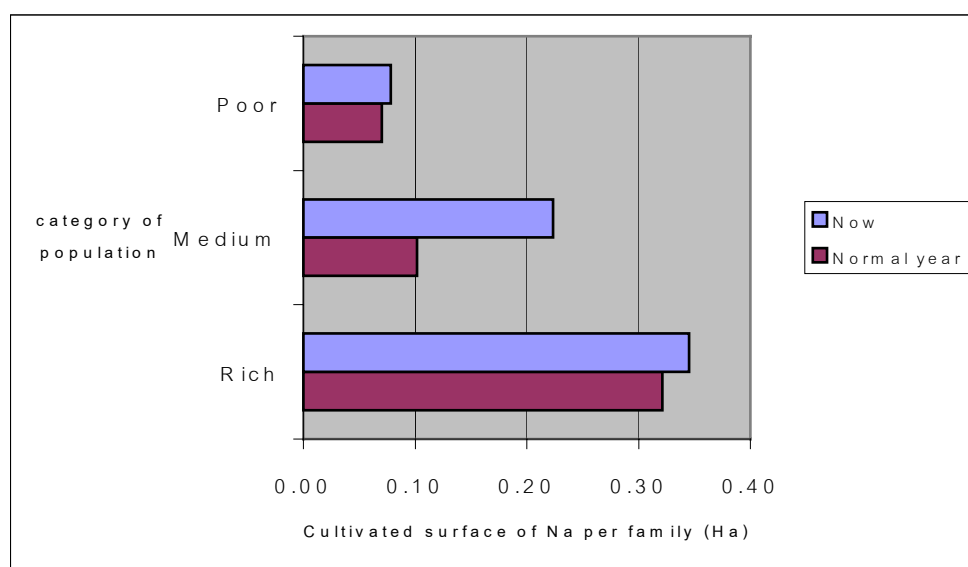


Figure 9 : Evolution of the surfaces of cultivated paddy for the different categories of population

That graph only considers average evolution but a lot of families can not have access to paddy fields at all in the past as well as today. The global increase of the cultivated surfaces for each category is justified by the fact that, in the past few years, everyone has looked for this new production. Consequently, as far as the lands are available and as people have means to produce paddy fields, this new cultivation has been engaged.

The medium families are the ones who have increased the most their surfaces of cultivated paddy. Indeed, **the surface per medium family has doubled when compared to the past.**

Poor families have decreased their Hai only a little bit probably because they could not easily find potential paddy. They might become more and more vulnerable facing the reduction of slash and burn practice.

Animals

For the animals, which constitute the main reserve of cash as seen above, the evolution has been very different between the categories.

Indeed, **medium and poor families have lost in average 30 and 46% of their initial capital**, up to more than 90 %.

Rich families have globally increased their capital of more than 30%. If some families have seen their capital decrease, it has decreased in smaller proportion than other categories (less than 26 % in average).

No particular characteristic could be pointed out to explain those differences among rich population.

Without any distinction between the categories, it appeared that the reasons of the losses are:

- selling (or exchanges)
- deaths from diseases and/or lack of food.

As far as data can be interpreted, it seems that the deaths have concerned as well rich families but globally those ones could manage to buy animals and increase their capital.

The selling, as a coping mechanism developed to face the lack of production and the lack of income, may bring difficulties in the future for the poor and the medium families.

Sources of income

This year, **productions remain the main source of food for more than half of the medium and rich families whereas only 1/3 of the poor families** can count mainly on their productions.

Furthermore, for **this year, labor is a source of food for a lot of poor families** (more than in a normal year) **but not for medium and rich families**.

That means that **the difficulties encountered through the labor (dependence in the labor offer, lack of time, physical difficulties) may touch in particular the poor families**.

Food consumption

People eat in general vegetables every day. Among the families who eat more vegetables this year than in a normal year, half have had good harvests and half bad ones for this year so that **vegetables them selves do not appear here as a way to replace the rice missing.**

For the other crops (such as cassava, corn, sweet potatoes...), fruits and meat/fish, an important heterogeneity appears as some families eat every day and some other ones a few times a year! Indeed, among all the families interviewed, people declared, for both this year and in a normal year:

-Meat and fish: 2/3 of the families eat each month the equivalent of 4-5 kg. The rest of the families are divided in 2 categories: they can eat each week or only a few times a year. **Globally all the families manage to eat meat, even the poor ones.** Only 1 family declared they never eat any in both normal year and this year.

65% of the families ate more meat and fish in the past than this year.

The families' interviews confirmed this tendency **within the 3 categories**, between 56% and 71% of the families who declared they eat less meat and fish this year.

-Other crops: **almost half the families eat only a few times a year but the other main part eat every day! Most of those last people have had a very weak harvest for this year.** About half of those families said they used to eat less other crops in the past, which might mean **they eat those plants furnishing energetic food, in order to replace the rice.**

-Fruits: people answered the most often they eat some during the year but not regularly every month or every week. This was the same in the past.

When people have to eat less rice, either they eat more vegetables, forest products or even meat (rarely) or they eat rice all the year but mixing it with other crops.

This replacement of rice by other food is really not appreciated, even if some families start to get used to this solution as it is for them as the only one in order to eat rice all the year. Indeed, crops such as corn, cassava, pumpkins, sweet potatoes seem not to suffer so much from diseases or from the decrease of fertility of the soil so that they constitute quite a stable source of food.

3-Discussions and conclusions

A-Vulnerability criterion

The 2 parts above provided an analysis of the situation and of the effects of the recent events on different kinds of villages and different categories of population. Through this analysis, vulnerability criterion have been pointed out.,

Consequently the vulnerability in the District can be schematically represented as follow:

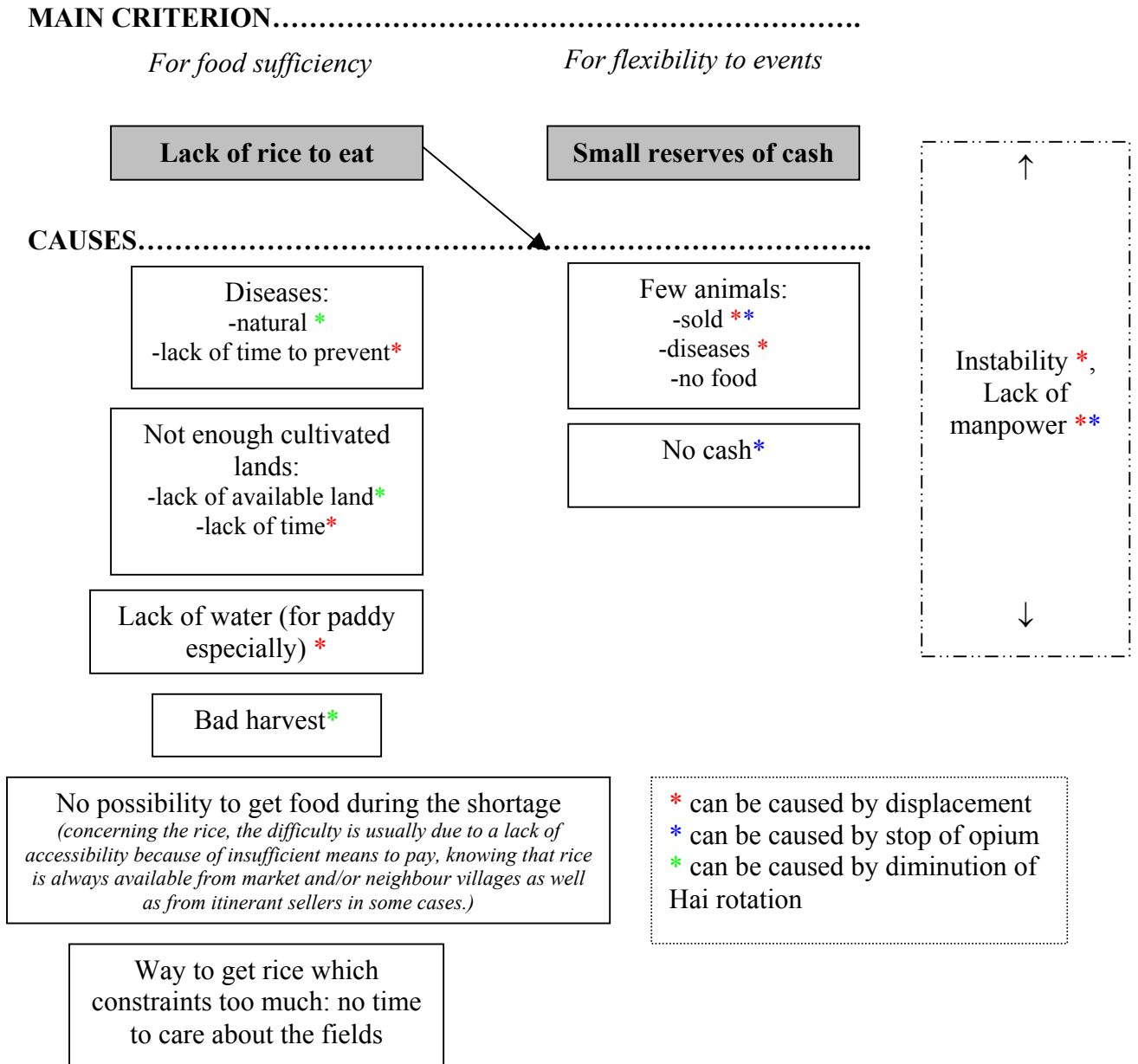


Figure 10 : Representation of the main vulnerability criterion and the causes responsible

B-Synthesis on kinds of villages and typology of the population

According to the kind of village identified through the analysis of the situation (old mountainous, displaced this year, recently, long time ago), the vulnerability is more or less important and for different reasons.

Kind of village	Resources	Main vulnerability	Effects of the crisis
Old mountainous	Stability Access to forest Some have potential Na Epidemics only episodic	Less access Diseases on rice Diseases on animals Diminution of Hai rotation Very little Na Loss of opium production	Decreased rice production, Productions not anymore the main source of food (30% of the cases), Lost 29% of the animals cash reserve since normal year
Displaced this year	Access (medical, school, market, labor) Potential Na* Resources from the old village	Less access to forest No assurance for the future, depend mainly on potentialities. Lack of time this year and for next years Lack of surfaces for next year Extra expenditures during this year High difficulty when no paddy potentialities High risk of human diseases Loss of opium production	Productions not anymore the main source of food (30% of the cases), Decreased rice production, Lost 32% of the animals cash reserve since normal year
Displaced recently	Access (medical, school, market, labor) Cultivated and/or potential Na* Lot of animals today	Less access to forest When there is paddy, it has just started so no assured future. Lack of time in the past years High risk of human diseases Loss of opium production in some cases	Productions not anymore the main source of food (60% of the cases), Lost 32% of the animals cash reserve since normal year
Displaced a long time ago ²²	Access (medical, school, market, labor) Cultivated and/or potential Na* Situation stabilized No opium cultivation recently	Less access to forest Lack of paddy and/ or lack of irrigation system Decreased animals at displacement time Decreased rice production Few animals today	Productions not anymore the main source of food (60% of the cases), Decreased a lot the Hai, Decreased rice production, Most of the villages decreased the animals cash reserve since normal year, Heterogeneity in the cases

**Note: As seen above, it is not the case for all the displaced villages*

Table 15 : Resources and vulnerability of the different kinds of villages

²² Most of them: in plain

Concerning the vulnerability of the different zones identified, let's notice that people do not always refer to their food security or their sanitation status to describe the vulnerability. Indeed, several groups of people declared: "this year our living conditions are better than in the past. Indeed we have access to road, we are closer to medical centers, we are less isolated in general. The only problem is that we do not have rice enough to eat anymore"!

Resettled villages have met, when they moved, some kind of traumatism from the resettlement itself. They usually have sold and/or lost a lot of animals through the movement, they have spent time and money to build new houses and they have lower surfaces of cultivated rice fields during 1 or 2 years. Some of them have access to new Hai and/or paddy fields but the latter are sometimes not prepared or not irrigated so that people cannot cultivate it. Furthermore villagers often face diseases and deaths due to the change of sanitation conditions. After a few years, people have to stabilize themselves through a different economical system with new resources and new expenditures.

Among them, some villages have been targeted by humanitarian aid (agencies, government) that may have helped them to assure their development post-resettlement.

Note: as this first step of surveillance aimed at detecting any emergency needs, the main criterions observed were those of food sufficiency today. As a consequence, some villages were considered as "not in an emergency situation" or "managing well" but one has to know that it may be thanks to the aid they received and not because the villagers succeeded by themselves in the adaptation to their new environment.

In mountainous villages, people face some structural constraints such as the lack of access (and particularly no medical care available in case of epidemics), the self-sufficiency economy. But the main problem today comes from contextual events. Indeed, a lot of those villages have had bad last harvests (diseases on the Hai, imposed diminution of the Hai surfaces, displacement) and/or have faced the elimination of opium that eliminated a source of complementary income and that put opium smokers in difficult physical conditions. One has to notice that those villages might be vulnerable because of their presence itself in the resettlement-planned list, even if other food security indicators might show that its situation in place is all right.

Among the population, different categories have been identified:

Kind of village	Resources	Main vulnerability	Effects of the crisis
Rich	Lot of animals Lot of Hai/Na Important rice harvests in general Manpower a little bit more important,	Used to cultivate opium	Small decrease of rice production, Few increase of Na but important decrease of Hai Productions still main source of income
Medium	Lot of small animals, Almost as many pigs as rich people	Weak potential cash reserve from animals Few big animals Shortage of rice	Shortage increased of 4 months compared to a normal year, Increase of Na and Important decrease of Hai
Poor	No animal or mainly chickens (pigs eat more) ones, Addicted people	Manpower a little bit less important: Few rice surfaces (often no Na), Big shortage of rice <i>Opium addiction</i>	Shortage increased of 4 months compared to a normal year, Few decrease of upland rice surfaces Labor increased

Table 16 : Resources and vulnerability of the different categories of population

C-Cross table for the vulnerability levels

Typology of the population	Food economy zones										
	Old villages					Displaced long time ago		Displaced recently			
	Mountain with disease on rice		Mountain without diseases on rice		Plain	Important surfaces of cultivated Na	Few surfaces of cultivated Na	Some years		This year	
	Opium	No	Opium	No				No	Opium	No	Opium
Rich	Ok	Ok	Ok	Ok	Ok	Ok	Medium	Ok	Ok	Ok	Ok
Medium	Bad	Medium	Ok	Ok	Ok	Ok	Bad	Medium	Bad	Ok	Medium
Poor	Bad	Bad	Bad	Medium	Medium	Medium	Bad	Bad	Bad	Bad	Bad

With:

“Opium”: villages that used to produce opium and that have been targeted by the eradication

Ok/Medium/Bad: Level of food sufficiency now

Colors: the more it is dark the more it is a priority to be followed.

Table 17 : global vulnerability typology and priorities for following

That table puts in evidence the different cases for defining the characteristics of the villages. That aims at pointing out main big categories of villages and population. For example, it is obvious that displaced villages could face diseases on the rice as well as old villages but this event would not take the same importance as those villages already know changes in their production from the displacement event it self.

Further more, villages displaced for a long time could maybe cultivate opium in the past as well as other categories of villages but the characteristic “opium” should concern villages that used to cultivate it recently and which were affected by the cut of the last years. That should be rarely the case of villages displaced for a long time.

Recommendations

The tables of vulnerability above showed globally that:

In mountain, villages are relying on absence of epidemic both for rice and animals. When those conditions are all right, people might have a good food security. Events from outside only such as elimination of opium, diminution of upland rice rotation period, menaces of displacement decrease the food security.

Villages displaced recently manage more or less. They face difficulties, in almost all cases at the beginning but as moving people seem to be usually the richest of the concerned villages, their reserves help them to manage the situation. Their situation is very unstable as they only rely on potentialities. The food situation can be good but the food security in medium and long term is not assured. In particular, villagers who used to cultivate opium recently got cash reserves from this activity but they will have to find new resources in the future.

The villages displaced for a long time have known different evolutions:

-either they manage to get income from the new local resources (essentially if they have irrigated paddy because that constitutes the most sustainable source of income).

Note: Among those cases (4 villages), 2 villages have moved from mountain to another place still in mountain so that the change in the living condition was less important than those displaced to the plain.

-or they can never get over the initial difficulties: that is the case for about half the villages displaced a long time ago, without enough irrigated paddy enough and which lose progressively all their animals.

Note: if one can assume that poor families in any village would need a particular attention, the follow up will target in particular villages that are considered as vulnerable globally, which means for most of the families of the village. Indeed, the system of solidarity is very widespread among the villagers and when families have difficulties, neighbors, head of village or relatives, often help them.

All along the next 1 year-phase of the program, **different levels of surveillance** should be implemented:

-**checking for emergencies**: food security, sanitation

-**knowledge, following of the evolution, awareness** of the actors concerning the different events which occurred and which will potentially keep going in the next future.

Consequently **different criterion** should be considered to choose the villages to visit in priority. Through the visits, **different indicators** should be followed. All those elements will depend on the aim of the survey. Basically: for checking of emergencies situations or for the understanding of the mechanisms of the 2 major evolutionary events in the District: the displacements and the diseases on rice.

So far, the following methodology can be proposed: Please see the *Table 18: Proposed surveillance intervention for next year at different levels*. That table takes in account the main vulnerability criterion appeared through the assessment. It proposes a targeting linked to the results of the visits done and linked to the categories of villages and populations identified. Indeed, to resume, the global organization of the surveillance could be as follow:

Visits	12	1	2	3	4	5	6	7	8	9	10	11
Food secu checking of emergencies	Post harvest	Opium-coping mechanisms					Diseases rice-coping mechanisms					
Sanitation checking of emergencies							Rainy season, as it is the most vulnerable period					
Knowledge						displacement	diseases rice, displacement					

Table 19 : Possible organization of the surveillance visits within the next year

	Surveillance level	Activity	Period	Kind of village	Category of population	Approximate quantification	Aim	Comments
Checking of emergencies	Food Security	Survey post harvest	Dry season (Dec 2003)	Identified as to follow closely through the assessment of August-October 2003	3 categories	the 9 villages the most vulnerable identified 2 families of each category to interview in each village.	evaluate the situation for the next year according to the harvest and plan maybe an other visit for the shortage period	
			Dry season (Dec 2003)	other ones that faced bad harvest already in the past years	Medium and poor families	13 identified as very vulnerable (out of 16 because 3 should be already targeting by ACF project). + any other village if the information comes that they had bad harvest in the last years. 4 poor and 2 medium interviewed	Detecting (according to reactions of the populations) cases of villages to visit an other time in the year because of the addition of several bad harvests.	even if they were not too vulnerable at assessment time, the situation could deteriorate quickly when bad harvests ad to each other
		Survey diseases and coping mechanisms	Rainy season	Villages that already faced "important" problems of diseases in the rice	Medium and poor families	To evaluate. To determine a level of effect considered as important.	Detecting (according to reactions of the populations) cases of villages to visit an other time in the year because of the addition of several years with diseases.	
		Survey opium and coping mechanisms	Dry season	"Big" producers before	3 categories	To determine a level for "big" producers. To decide the importance of the sample to visit.	Following the adaptation of villages to the elimination of opium	
	Sanitation		Rainy season	all displaced villages without water supply or without mosquito net	all population	Key-questions in all the villages		
Comprehension of problematic	Displacement		Before and during the rainy season	random of displaced villages, non already visited	3 categories	To determine	Evaluation of the potentialities (newly arrived) and resources (arrived several years ago)	<i>As far as Phonesampane is concerned, a particular survey should be implemented in this group of village</i>
	Diseases in the rice		Rainy season	Villages that already faced problems of diseases in the rice	*	*	following the evolution of diseases that have occurred for several years	the same visits that for checking emergencies in Food security
				any village in the different parts of the district	3 categories	according to the teams, the time and the results obtained	evaluating the widespread of diseases for the season 2004	
Follow market	Market survey		all the year	Muang Long, Xiengkok, Muang Sa, Muang Sing		to determine	To follow mainly the prices of labor, cash crops and rice as people have to buy it now	Thailand, Birma , China if possible

The table above showed propositions for the implementation of the surveillance system within next year.

One has to notice that within the “checking of emergencies” part of surveillance, ACF teams have already reacted by implementing intervention during that first phase of assessment. Indeed, among all the visited villages, Phonesampane appeared to be the poorest one (important lack of animals and of rice surfaces...) (*please refer to the first report of ACF with the preliminary results of the survey*). It was decided to make a distribution of vegetable seeds and of tools in order to help people increase their access to vegetables. As people miss time to work for production as they have to go for labor most of the time, that distribution was completed with rice to eat (about 25kg/people, e.g. equivalent to almost one month to eat) in order to be sure that they have time enough to prepare and care about their new garden.

Concerning sanitation problems. Aytong people came to Muang Long to inform they faced sudden big problems of diseases. ACF team and staff from the sanitation office of the District went very quickly to the village, could diagnosis the malaria problems. Mosquito impregnated nets from ACF as well as curative medicine from the District were distributed to people in the concerned village as well as in the neighbour ones in order to face the outbreak., treat sick villagers and prevent next malaria. Following that intervention, ACF surveillance team went to the village to check the situation of food security. That did not need any emergency intervention but the village has been classified among the villages to follow in priority for the next year. The malaria was not detected by the surveillance team but globally the coordination between ACF and other actors as well as the fact that ACF is ready to react in case of emergency (stocks available for distribution etc...) could assure a rapid intervention.

Concerning the regular activities of ACF, no important change has been done for the choice of targeted villages and the choice of intervention as the information got from the survey as coherent with the logical approach in water and sanitation as well as in food security.

In case ACF works in Nale District added to Muang Long District. The surveillance system should follow the same principles than the one proposed above. The criterion of vulnerability identified through that survey, would be used in order to select the villages to visit in priority but all the hypothesis should be rigorously checked when visits to the villages. Furthermore, all the different actors of that district should be met before any field visit.

Criterion of vulnerability have been identified, indicators have been pointed out for the follow-up and groups of villages and populations could be separated. Nevertheless, one has to keep in mind that the district is particularly heterogeneous and a lot of villages should be studied case per case.

As a consequence the implementation of the surveillance system will have to be flexible. Teams will have to re-orientate their visits regularly according to the results obtained.

Furthermore, in order to assure the pertinence of the next steps and in particular for the evaluation of the impact of crisis on the food security, the information got from villages should always be as quantified as possible.

Finally, a close collaboration between local actors, which has already started so far, should be consolidated.

ACF could edit summary letters after each phase of the study in order to share the main results with the other actors.

Bibliography

Title	Object	Publication
Report on mortality	Analyse of the results and comments	ACF Document
Survey on mortality	Analyse of the results and comments	ACF Document
Minutes	Minutes of the workshop held 22-23 April 2003 with district authorities and international agencies	ACF Document

Title	Author	Publication
Summary and Output of the workshop on the resettlement in Long District August 2002	ACF	ACF Document
Resettlement & social characteristics of new villages	Goudineau Yves / IRD	UNDP
Partipatory Poverty Assessment Lao PDR 2001	ADB	ADB
Villages profiles Muang Long	Luang Namtha drug supply and demand reduction project	NCA Document

- IGN Map
- Divers ACF Documents about Long
- Divers figures information were obtained from the government and NCA office.

Appendix

- 1-Questionnaires for interviews to resources persons²³
- 2-Questionnaires group discussions
- 3-Questionnaires families interviews
- 4-IGN map of Muang Long District
- 5-Map of the visited villages

²³ The different questionnaires correspond to the last version used

Questionnaire resources persons

To fill before going to the field.

Aim: help to define the zonage and to understand the vulnerability mechanisms and maybe to define the different categories of people inside a zone (ZEA, village...)

Place:

Date:

Name of the person interviewed:

Position:

Organism:

Name of the surveyor:

The following questions should be filled directly on an empty map of the district

(Try to describe as precisely as possible the concerned areas. Ex: names of the concerned sub districts, names of the villages, kind of geological are (along the rivers, mountain...)).

*When the person answers that she does not know, please fill with a * sign. When the persons affirms a negative answer, please write it clearly*

-About which part of the district are you going to give information? Please show with a blue pen the concerned area. For the rest of the interview you will use other colors.

-According to you, which part(s) is the poorest chronically:

Why:

-According to you, which part(s) is the poorest right now:

Why:

-Do you have any information about the resettlements that happened, or that are going to happen or not (place, when, why, what is your source of information). Please refer to the map "typologie de déplacement" and see if we can obtain confirmation, differences or added information, please write the differences here and indicate them clearly on the empty map, helped by the map "typologie de déplacement".

For the following questions, if the person knows that there is no problem in any village, please notice this information.

-Where did villages obtain bad harvest of rice for 2 last seasons in villages of mountain? What is your source of information?

-Where did villages have eliminate of opium recently in villages of mountain? Where? When? What is the source of your information?

-Which villages have/had any sanitation/disease problem?
Which problems? From whom Where? When?

-According to you, what are the main criterions of:

*suffer (hunger, disease) now:
for a village/zone:

for a family:

*suffer (hunger, disease) in general:
for a village/zone:

for a family:

*vulnerability for the future (soon an/or not):
for a village/zone:

for a family:

-Can you separate the district in different zones? Which makes the difference?

-And/or can you separate the different kinds of population concerning the level of their living conditions? Which makes the difference?

-For agencies:

In case of emergency situation, which intervention could you (or do you plan to) do?

Questionnaire Group Discussions

Date:
 Name surveyor:
 Name village:
 Sub district:
 Name of the head of the village:
 Ethnic group:

Which people are present in the group discussion (old, women...). At the end of the discussion please indicate the position of the people who have spoken the most:

Presentation ACF, aim of our visit

*ACF:

Humanitarian Non Governmental Organization, working in more than 30 countries.
 In Laos, ACF has been working for more than 10 years. ACF is now in Sekong and Luang Namtha provinces.

*Surveillance program:

Up to now, ACF has implemented some water and sanitation programs in Luang Namtha.
 Today, we want to make a survey around Muang Long in order to evaluate the situation of the people and their evolution.

We have met other agencies and the district authorities in order to share information and we will communicate our field results with them as well.

*Visit of the village:

Discussion with the key informants of the village which will last about 2h.
 Interviews with a few families of the village individually (½ h each)
 When necessary field observation around the village.

1-General information

Number of houses (full ones):
 Number of families:
 Number of people:

Situation about any resettlement (what happened, what will happen) for 5 years before and after now. + reasons. What is the situation of this year compared to other years, last year and 10 years ago. *Try to let people explain you their situation as clearly as possible.*

What do you want:

Access to the village:

Rk; you can fill it by yourself if it is easy (ex: only 1 big road)

How many ways to access to the village (Dry/rainy season; how long for walk, boat etc...). From the main road, from a big town (ex: Long, Xiengkok), from other villages.

Position of the village

To do by yourself.

Say if the village is close to the forest, the river, in uplands etc...

1-Your village

For any question about “this year” you have to precise if this year is the same than the last 4 years or if it is a particular year. The “normal year” will be what people consider as a normal year, maybe a few years ago, maybe long time ago, whenever.

Expenditures/resources

-Food income: for “basic food” (corn, rice, vegetables, meat...not salt, oil, tea...)

Please notice the sources that are the most important.

Situation	Forest	NGO	Work. Which ones:	Production (agri/ breeding)	Buy or exchange with other farmers. With which villages:	Market	Other:
This year							
Normal year							

-Cash income

Please notice the sources that are the most important.

	Work. Which ones:	Selling of animals	Selling of productions	Sell ing of opi um	Selling handicraft. Which ones:	Selling forest produc ts	Othe r:
This year							
Normal year							

OPIUM

Ask someone separately, about the village

-How many families used to have opium:

-Which surface in total for the village:

-How much money did it bring per year:

-How much money is left today:

What was it useful for (consumption, cover shortage of rice, buy clothes...):

What has been the coping mechanism of people to replace this income since the elimination of opium:

-Which items do you get by exchange/buying:

*normal year:

*this year:

Property

Property for all the village	Now	Last year at the same period	Normal year	Probable evolution up to harvest (if any plan for selling animals, if any frighten about the rice production)	Explanations of changes	What about the future? Consequences (which impact for the future). Particularly for the Hai, will you have to stop it or not.
Nb of buffalos						
Nb of cows						
Nb of pigs						
Nb of chicken						
Surface of cultivated Hai: Nb o cans sowed for each variety						
Surface of cultivated Na: Nb o cans sowed for each variety						How far is it
Which part of the Na is irrigated						
Surface of potential Na: <i>for 1 variety that you choose, how many cans would you sow?</i>						How far is it

Which part of the potential Na is already prepared?						
Surface of other crops: corn, Cassava, sweet potatoes, pumpkins.... In the rice/alone in garden						
Surface of vegetables: green beans, spinach, eggplants... In the rice/alone in garden						
Number of fruit tree						

Rice production

Time	Total production (T)	Number of months to eat	Which months do you mix rice with something else	Remark
Last Harvest				
Normal year				

-If change between different years, try to know the reason: lack of water, insects (different date of sowing...):

-What is the situation of the rice now in the field (which harvest is waited)

-If you started harvesting: how are the first results

Food consumption

Is there any difference in the food you eat this year compared to a normal year (ex: more forest products, less rice, more corn....)

If shortage of rice, how do you manage to buy it:

If you cannot buy it, what do you eat to replace (item, origin):

What about in normal year:

Which consequences can have you coping mechanism on the situation of the following months and next year:

Sanitation

Which are the main diseases that you have in normal year: description, reasons if you know it, consequences (number of deaths..):

-
-
-
-

Are there some diseases that appeared and/or increased this year: description, reasons, consequences:

2-Typology population

Which categories? Which number? Which characteristics? Which coping mechanisms? Which risks/vulnerability?

Caution: sometimes more than 3 categories. Sometimes, more than 1 visit per category.

NORMAL YEAR

Category	Number of families	Characteristics	Coping mechanisms

Any movement from a category to an other one this year or not? Why?

3-Other information about other places

-Food shortage:

-last harvest (good/bad):

-Disease on the rice now:

-Diseases on the animals recently:

-Diseases on people recently:

Interview families

As for the first visits, we may not have time to meet people individually, we can ask individual questions sometimes to people among the group to have different quite precise indications (ex: food consumption). If possible, check the answers with the villagers at the end of the questionnaire

The following information should be filled before or after the interview except the name of the family. In particular, please do not ask the category in front of the interviewed people!

Date:
Name surveyor:
Name village:
Sub district:
Name of the family:
Typology group (poor/medium/rich):

Presentation ACF, aim of our visit

*ACF:

Humanitarian Non Governmental Organization, working in over 30 countries.

In Laos, ACF has been working for more than 10 years. ACF is now in Sekong and Luang Namtha provinces.

*Surveillance program:

Up to now, ACF has implemented some water and sanitation programs in Luang Namtha.

Today, we want to make a survey around Muang Long in order to evaluate the situation of the people and their evolution, and to check if there is any emergency need in term of food and/or diseases.

We have met other agencies and the district authorities in order to share information and we will communicate our field results with them as well.

*Visit of the village:

Discussion with the fey informants of the village which will last about 2h.

Interviews with a few families of the village individually (½ h each)

When necessary field observation around the village.

General information

Number of people:

Among them, how many able bodies:

Who are the other members (old/babies...)

Remark: According to what has been seen in the group discussion, we will compare a normal year with the bad recent year, this year and the following months/years.

Sources of food

Situation	Forest	NGO	Work. Which ones:	Production (agri/ breeding)	Buy or exchange with other farmers. With which villages:	Market	Other:
This year							
Normal year							

Sources of cash

Time/origin	Work. Which ones:	Selling of rice	Selling of animals	Selling of opium	Selling of forest products	Handicraft	Other:	What do you buy
This year (%)								
Normal year (%)								

How much opium did you have before:

How much money did it bring per year:

How much money is left from this activity:

How do you manage to replace this income since the cut:

Food consumption

Time/item	Rice	Meat/Fish	Vegetable. Which ones:	Other crops* Which ones:	Fruits
This year (quantity/frequency)					
Normal year (quantity/frequency)					

*"other crops": sweet potatoes, corn, cassava...

-What did you eat yesterday (items, quantity) for the people only, not animals. **CHECK THE QUANTITIES, write with precision what has been eaten and in Long we will measure the weight. For the rice particularly, check with or without skin, boiled or not...:**
(Please list all possible items for the family not to forget any)

-What did you give to your animals (dogs, pigs, chicken...) (items, quantities):

Check the total consumption and compare with the number of months eaten.

Property

Time/item	Na (irrigated/not irrigated)	Potential Na (prepared/not prepared)	Hai	Other crop:	Buffaloes	Cows	Pigs	Chicken
This year (Surface /Nb)								
Normal year (Surface /Nb)								

Production/stock

Time	Na production (T)	Hai production (T)	How many months available	How many months mix
This year				
Normal year				

What happened, in case of change of harvest:

What about the situation and the assumptions for the next harvest:

What do you have at home today (items, quantity):
(if possible check it by yourself)

How much rice do you have in stock today:

Stock conservation

Have you already had any problem with the conservation of your rice:

When:

Which one:

What about in normal year:

Management of the shortage

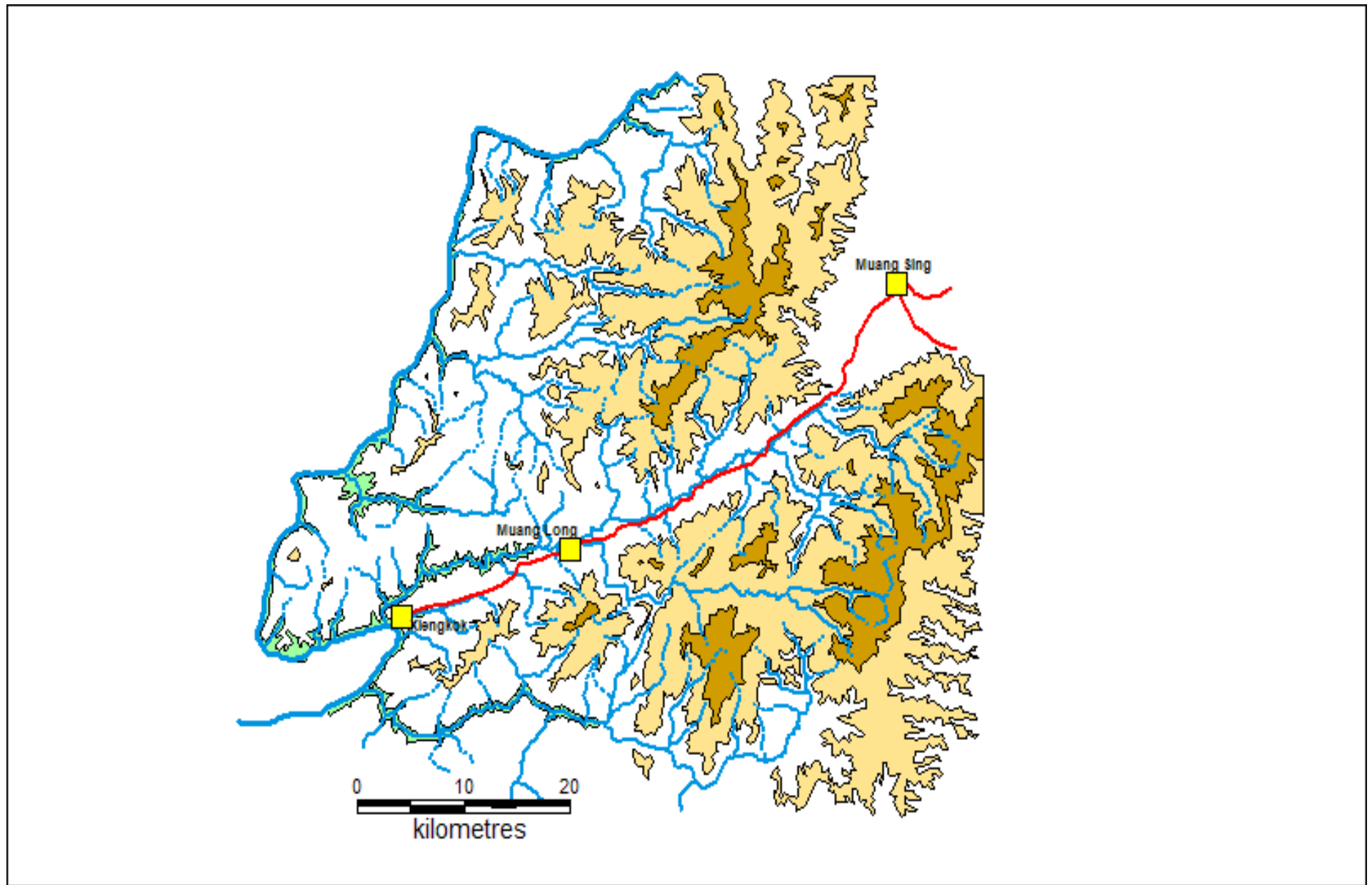
If shortage of rice, how do you manage to buy some:

If you cannot buy it, what do you eat to replace (item, origin):

What about in normal year:

Which consequences can your coping mechanism have on the situation of the following months and next year:

What do you usually do instead of your current activities for getting more rice:



Map of Muang Long – With road, paddy field target villages...

