



CHƯƠNG TRÌNH NƯỚC & VỆ SINH TẠI CÁC THỊ TRẤN Ở VIỆT NAM

Water and Sanitation Programme for Small Towns in Vietnam

Water and Sanitation in Three Small Northern Vietnamese Towns  
Socio-Cultural Study on Thanh Nhat, An Thi, Mu Cang Chai, 2009



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Aino Efrainsson  
Mika Hyötyläinen

## List of Abbreviations

|       |  |
|-------|--|
| ADB   | Asian Development Bank                                 |
| FAO   | Food and Agriculture Organisation                      |
| FHH   | Female Headed Household                                |
| IFI   | International Financial Institution                    |
| IO    | International Organisation                             |
| MFA   | Ministry for Foreign Affairs, Finland                  |
| MHH   | Male Headed Household                                  |
| NER   | Net Enrolment Rate                                     |
| NGO   | Non-Governmental Organisation                          |
| PTA   | Provincial Technical Assistance                        |
| RMB   | Renminbi   |
| TPC   | Town People's Committee                                |
| UNDP  | United National Development Programme                  |
| VND   | Vietnamese Dong  |
| WSPST | Water Supply and Sanitation for Small Towns in Vietnam |
| WUQ   | Women's Union Questionnaire                            |

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## Introduction

Water and Sanitation Programme for Small Towns in Vietnam (WSPST) is an official development assistance programme between the Governments of Finland and Vietnam. The overall objective of the programme is to support The Poverty Reduction and Growth Strategy of the Government of Vietnam. The purpose is to provide safe potable water supply and hygienic environments to satisfy the needs of urban population and economic activities in the programme towns.

In order to gain a deeper understanding of local, water and sanitation related expectations, habits and attitudes a socio-cultural study was carried out in a number of small towns to be included in the second phase of the programme. This paper is the final report on findings made in programme towns Thanh Nhat in Cao Bang Province, An Thi in Hung Yen Province and Mu Cang Chai in Yen Bai Province. Opinions and proposals for future actions are our own and do not necessarily represent those of the programme. Conclusions drawn from our findings will hopefully spark discussions and will thus be useful for the planning and implementation of the programme.

For clarity and fluidity the paper is divided into 6 main chapters where findings are grouped under different themes. Towns are introduced and considered in the order that we visited them. The first chapter provides a very brief and concise introduction to the towns and some of their characteristics and considers aspects such as where and how people live and do commerce. These sections are considerably more detailed for Thanh Nhat and Mu Cang Chai. This is largely due to the fact that we did not live in An Thi and thus were not able to get as familiar with the town. Also for Thanh Nhat and Mu Cang Chai the market place is central not only in its location but to the commercial and social life of the towns and describing this makes the town descriptions for these two towns slightly longer.

This is followed by a chapter on ethnicity, how it relates to Vietnamese society at large and more specifically to the studied towns. This chapter provides valuable insight into how ethnicity is understood by interviewees who participated in this study and information on how ethnicity plays itself out on a national level. The third chapter is a discussion on the reasons behind poverty in Thanh Nhat, An Thi and Mu Cang Chai. Strong emphasis is placed on the conversations had with interviewees, as the main aim here is to allow the participants living their daily lives in poverty to present their views and experiences on this complex issue. In the fourth chapter issues concerning water sources, consumption and practices as well as expectations and needs for future investments in the three towns are discussed. This chapter is more descriptive than analytical and the aim is to provide valuable local level information, which can hopefully help in the planning and implementation stages of the programme. Nevertheless, some analysis is of

course included here and some issues covered in earlier chapters will be considered in a new light as they relate to water and sanitation. The fifth chapter considers similar issues with regards to sanitation, with the main emphasis on current toilet and latrine facilities in households participating in the study. A stand is taken in favour of onsite sanitation solutions and dry toilets as optimal for these towns. In the sixth and final chapter we briefly look at issues related to grey wastewater management and interviewees' willingness to pay for and interest in connecting to a centralised sewage system.

## **Methodology**

This research project utilises four methods of data collection. The primary research method is semi-structured, in depth interviewing. The main volume of data is acquired through interviews with men and women living in poor households in three project towns in northern Vietnam. All in all we conducted interviews in 60 households and usually spent about two hours in each home. The aim of this study is to gain knowledge of people's personal experiences of poverty and receive insight into the habits and expectations of people in relation to water and sanitation issues. A qualitative approach is essential when gathering this type of information and semi-structured interviews allow flexibility and fluidity while carrying out research. They simultaneously make it possible to gather easily comparable data.

The secondary research method is spot check inspections in households and general observations in the towns. Observations are analysed in conjunction with other data to gain as true a depiction as possible about the towns' characteristics and people's daily lives.

Thirdly back up data on household water use, habits and expectations is also gathered through questionnaires handed out at monthly Women's Union meetings in both Thanh Nhat and An Thi. The information gained from these questionnaires (WUQ) is used in conjunction with the gathered qualitative data.

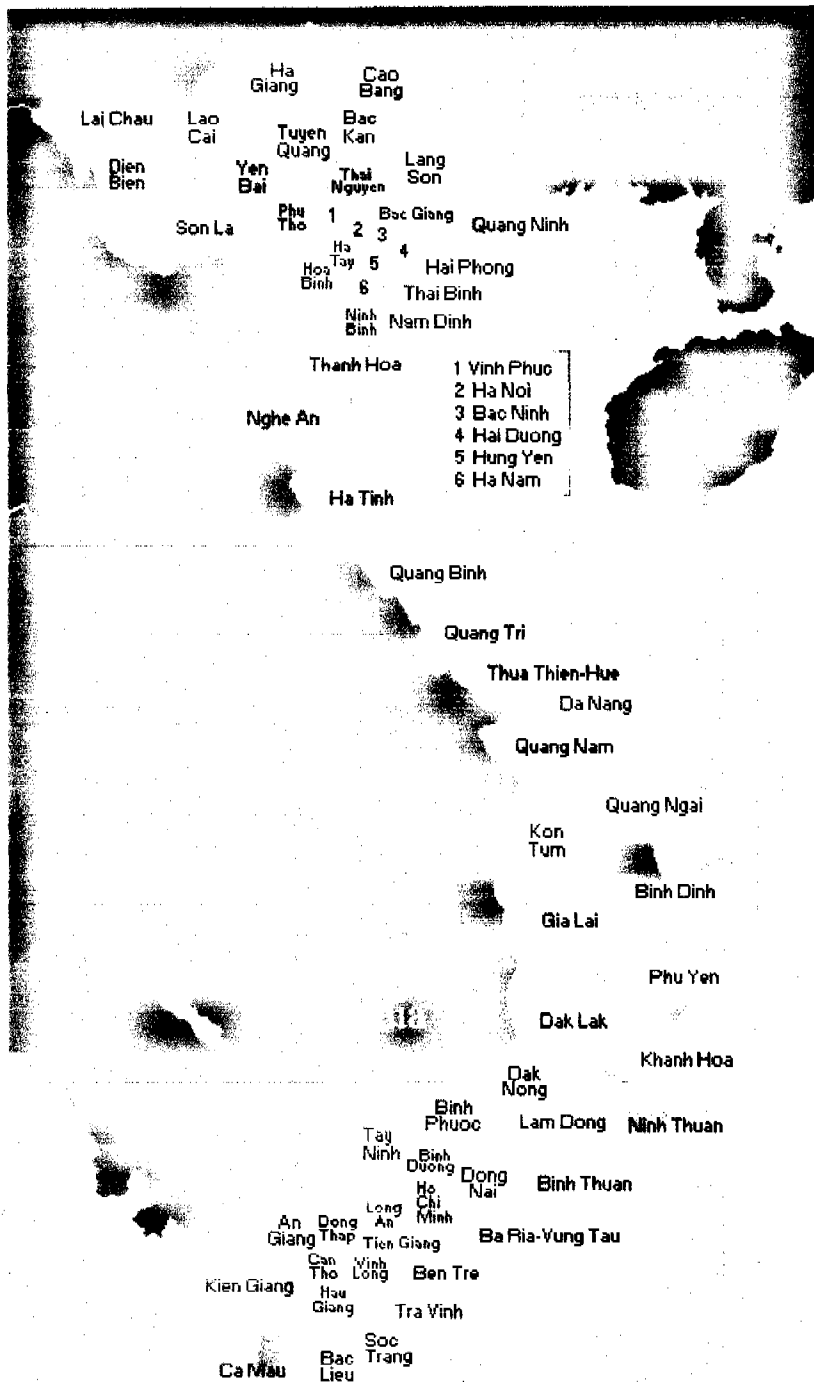
The fourth research method utilized is collection of secondary data from previous work produced by academics, governmental and non-governmental organisations (NGO's), international organisations (IO's) and international financial institutions (IFI's). This data is mainly used when describing general characteristics of Vietnam and its population and to compare prior findings on our topics of interest with the data produced here.

### **Accessing the field**

Interviews were mostly conducted within the homes of respondents. We were nearly always accompanied by a representative of the Town People's Committee (TPC) or Women's Union (WU). At times this was frustrating to say the least, as we felt obstructed in gaining as much information as possible. Interviewees sometimes seemed intimidated by their presence and perhaps did not answer as directly as they would have otherwise. Occasionally during interviews our 'escorts' appeared to guide the conversation and our interpreter did not always translate discussions between the TPC/WU representative and the interviewee. Then again, our being there could have been just as intimidating. As researchers we did our utmost to build good rapport with our interviewees and do believe that we were able to gain valuable and valid insight into and information about peoples daily lives.

## Provincial Map of Vietnam

Fig. 1 Map of Vietnam

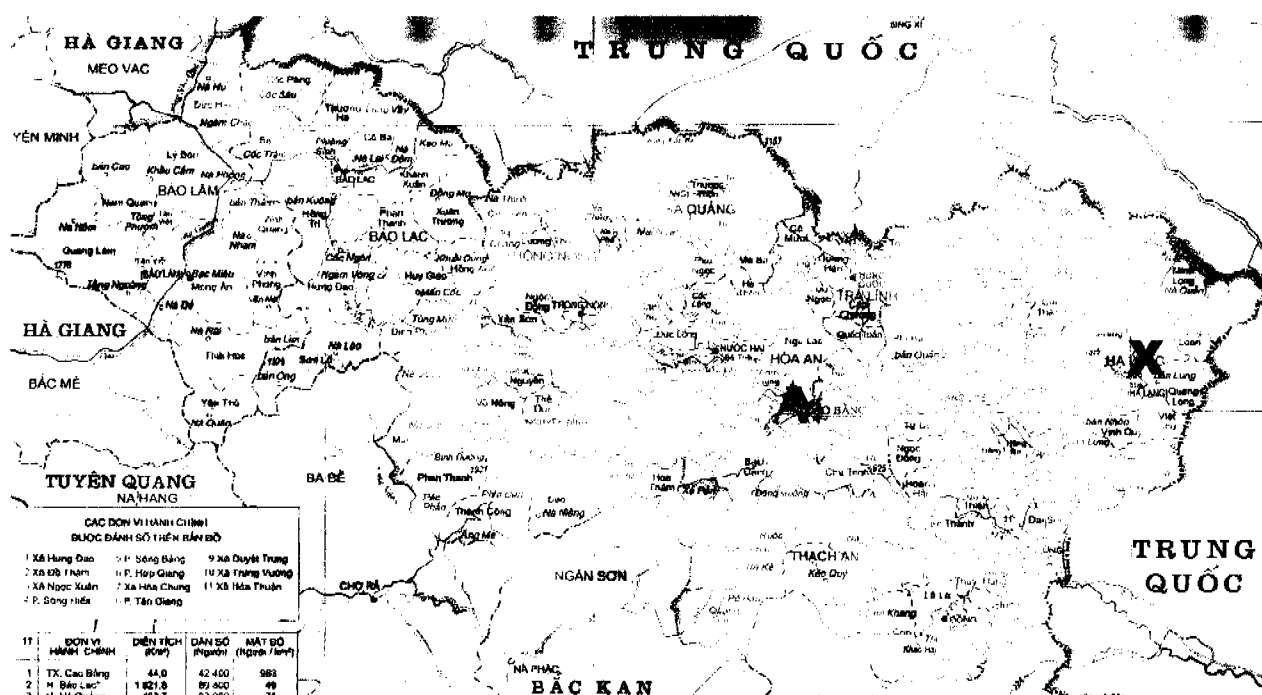


### Studies carried out in:

- **Thanh Nhat, Ha Lang district, Cao Bang Province (22.9-8.10.2008)**
- **An Thi town, An Thi district, Hung Yen Province (17.11-28.11.2008)**
- **Mu Cang Chai town, Mu Cang Chai district, Yen Bai Province (02.12-12.12.2008)**

## Factsheet 1: Thanh Nhat

Fig. 2 Map of Cao Bang Province



(X: Thanh Nhat)

Table 1 General Facts, Thanh Nhat

|   |   |
|---|---|
|   | Cao Bang  |
| District  | Ha Lang   |
| Town status received                                  | June 2007   |
| Total land area                                       | 1508 ha   |
| Population  | 2840  |
| No. of residential areas                              | 12  |
| No. of households                                     | 703   |
| Sources of income (% of population working in sector) | Agriculture 59%<br>Government salary 25%<br>Business and services 10%<br>Other 6% |
| Ethnic Groups (% of population)                       | Tay 59%<br>Nung 30%<br>Kinh 11%   |
| % Of poor households out of population                | 30%   |
| Poverty line  | 260,000 VND/person/month  |

## Factsheet 2: An Thi

Fig. 3 Map of Hung Yen Province

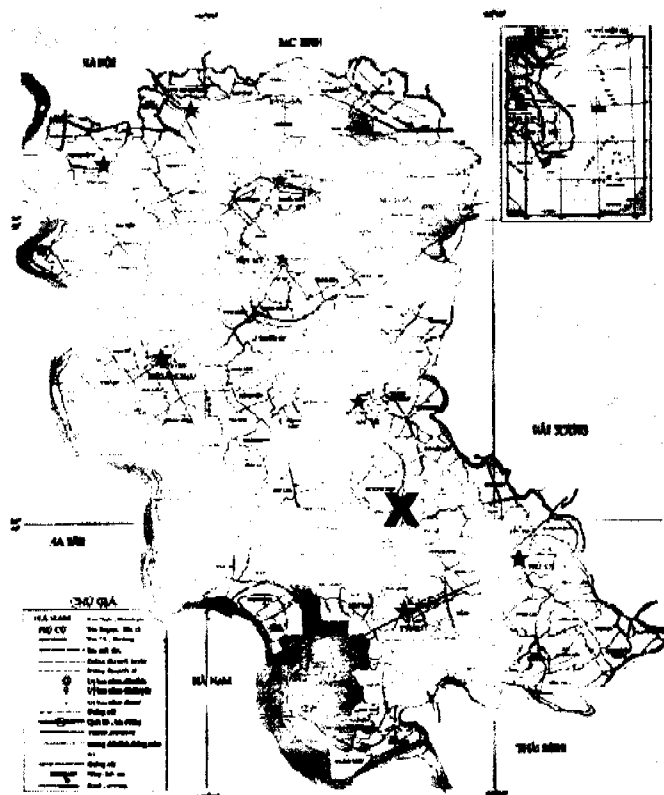


Table 2 General Facts, An Thi

(X: An Thi)

|   |  |
|---|--|
| Province  | Hung Yen   |
| District  | An Thi   |
| Town status received                                  | 1993   |
| Total land area                                       | 770 ha   |
| Population  | 8870   |
| No. of residential areas                              | 11   |
| No. of households                                     | 2345   |
| Sources of income (% of population working in sector) | Agriculture 68%<br>Business and services 14%<br>Working outside An Thi 10%<br>Industry and construction 8% |
| Ethnic Groups (% of population)                       | Kinh 100%  |
| % Of poor households out of population                | 6%   |
| Poverty line  | 260,000 VND/person/month   |

### Factsheet 3: Mu Cang Chai

Fig. 4 Map of Yen Bai Province

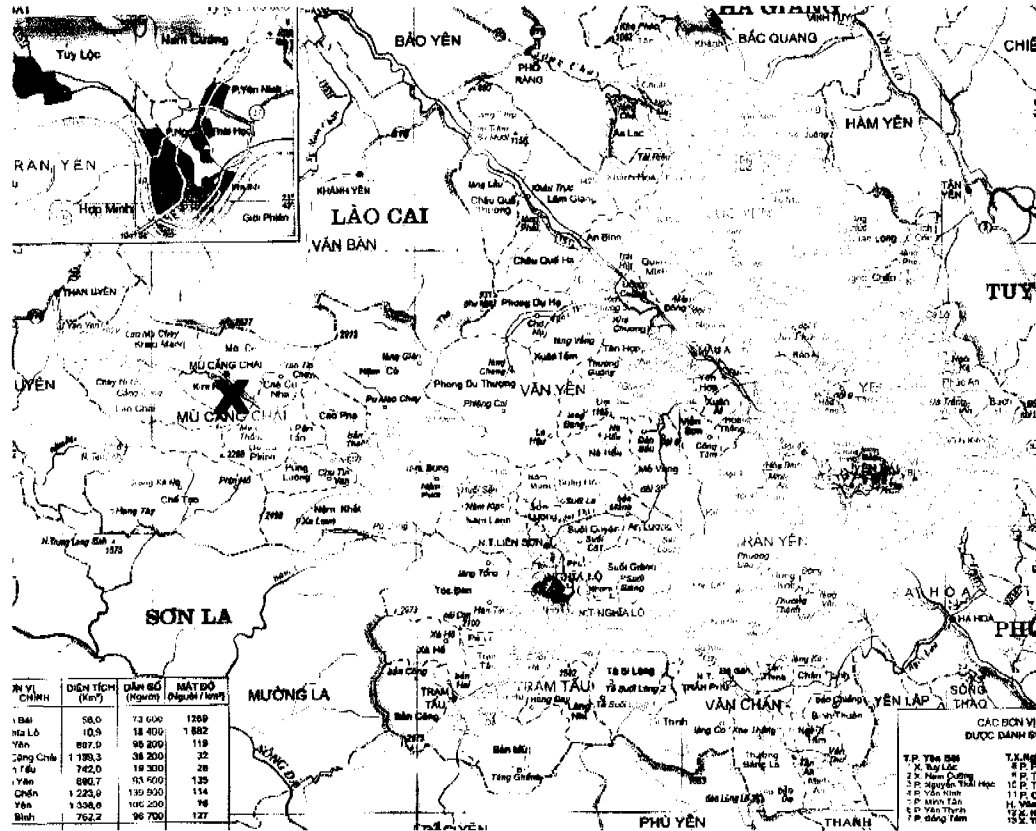


Table 3 General Facts, Mu Cang Chai

(X: Mu Cang Chai Town)

|   |   |
|---|---|
| Province  | Yen Bai   |
| District  | Mu Cang Chai  |
| Town status received                                  |   |
| Total land area                                       | 709 ha  |
| Population  | 2450  |
| No. of residential areas                              | 10  |
| No. of households                                     | 500   |
| Sources of income (% of population working in sector) | Handicraft, commerce, service 40%<br>Government salary 40%<br>Agriculture 20% |
| Ethnic Groups (% of population)                       | Kinh 60%<br>Thai 20%<br>Hmong 20%   |
| % Of poor households out of population                | 25%   |
| Poverty line  | 350,000 VND/person/month  |

## **1. The Towns**

The aim of this first chapter is to provide general information on the three towns and describe some of their characteristics. It is by no means our purpose here to present an exhaustive overview, but rather give the reader a first glance at the towns. A more detailed picture will be painted as the paper progresses through an explanation and analysis of our observations and the conversations had with interviewees.

### **1.1 Thanh Nhat**

Thanh Nhat is the political and economic capital of Ha Lang district located in the province of Cao Bang. According to the 'Report of Socio-Economic Survey' (VIWASE, 2008) carried out earlier for WSPST its total land area is 1508ha of which approximately 23% is dedicated to agricultural activities (p.14). When the majority of households, 59% that is, get their income from agriculture, the land area used for this activity might appear surprisingly small. This can be explained, to an extent, by the fact that nearly 65% of total natural land area in Thanh Nhat is mountainous or hill land. These areas are used only for small scale activities such as gathering firewood and taking buffaloes to graze. The steep limestone mountains, covered by dense forests are not used for major agricultural pursuits. The statistics of the People's Committee of Thanh Nhat town state the population to be 2840, which is divided between 703 households (TPC, 22/09/08). 25% of households have a government salary as their main source of income (VIWASE, 2008:15). As Thanh Nhat is the district capital, a relatively large section of the population is working in public institutions. Only 10% of households receive their income from business or the service industry. According to our observations businesses and services are mainly concentrated around the town centre on Ha Lang street, around which there are a few restaurants, several small shops, a guesthouse and a market place that is extremely busy every five days. Businesses found outside this area are usually small scale - road side kiosks and small cafes with pool tables are scattered around the different hamlets. Many residents also sell moonshine from their homes to generate extra income.

#### **1.1.1 The Market Place**

Every five days the town centre of Thanh Nhat is transformed as crowds of people from the surrounding hamlets and elsewhere in the district gather to trade in and around the central market place located on Ha Lang Street. There are



hundreds of products on sale and one can purchase nearly anything from a screwdriver to a live piglet here. Local fruit and vegetable, fresh noodles, tools and toys, clothing and accessories, moonshine and tobacco by the kilo. A central roofed area is reserved for the meat market and the tens of vendors seem only to be dealing in pork.



Picture 1: Meat salesman taking a relaxed approach to business, Thanh Nhat

Outside one can also purchase live piglets, which are hauled in by the dozen in small, single piglet baskets on



Picture 2: Moonshine saleswoman hard at work, Thanh Nhat

motorbikes. These are apparently favoured by Chinese customers who travel to the market from across the border to buy healthy, non-chemical-fed mountain pigs. As is customary in Vietnam, food products are bought as fresh as possible and hence also chicken, duck, fish and dog are bought and sold alive here. Vegetables grown on the hillsides without pesticides and brought to the market by villagers are popular among both local and Chinese customers. Many mentioned that trade with the Chinese is an important source of income for people coming to sell on market day. As one interviewee stated,

*"After the war with China the Chinese weren't allowed here, people came to the market and sat all day without selling anything. Now business is better - the Chinese buy everything from the market and what we take to the border"*

This particular interviewee had a business of selling agricultural produce such as maize, rice and manioc bought from local farmers to the Chinese. Produce was taken to the border and sold there, however the interviewee did admit to sometimes crossing the border without paying duty. A man stopped by to buy

some grain while we were conducting the interview and said that just that morning some Chinese traders had come to buy bones and other slaughter waste from the local butchers in the area. He confirmed that business is better now than it used to be due to Chinese customers. Moreover, as we were interviewing a woman who has a business on Ha Lang street selling an interesting combination of mosquito nets, blankets and animal feed, we noticed that she was also exchanging Chinese RMB to Vietnam Dong. The fact that this type of service is required in a town the size of Thanh Nhat reveals, to some extent, that doing business with the Chinese has become stable part of economic life in the town.

Market day is an important lifeline for many of the people in Thanh Nhat. Restaurant keepers have better business than usual as buyers and sellers stop by for a bowl of breakfast soup or some lunchtime noodles. Two poor householders interviewed mentioned that one source of "extra" income was selling fresh noodles they make for market day and a third how there was a greater need for people to work on hire in the local shops as they were busy with customers from out of town. For individuals and the community at large, market day is important both economically and socially. It is a vital opportunity to generate income and to construct and maintain a sense of community in the area.

### **1.1.2 Hamlets and Households**

The town of Thanh Nhat is divided into twelve residential regions, here called hamlets. Although we could only visit ten of these, some made up of no more than 25 houses, it became very clear to us during our research that most hamlets have very distinct characteristics. Moving from one hamlet to another, we often felt like we were no longer in the same town. Interestingly, we learnt after our return from Thanh Nhat, that some of the more rural hamlets have, in fact, been "artificially" annexed in order to receive a particular town classification. Not surprisingly, the local inhabitants spoke of different villages instead of hamlets or residential areas. The location of the hamlet, the environment and landscape in which it is set and the type of buildings found there alter the general ambience of the area. Within the town limits, one can find hamlets consisting entirely of traditional Tay and Nung stilt houses, some of which have been in the same location for nearly two centuries. Walking through the more rural hamlets, such as Soc Quan, Keo Sy and Lung Don where stilt houses stand amidst rice fields, navigating through rocky pathways and hopping over streams is a very different business altogether than strolling around the streets of more central hamlets like Ha Lang and Dong Hoan made up of recently built and colourfully painted concrete buildings.



Picture 3(left): Ha Lang Street, Thanh Nhat  
Picture 4 (above): Keo Sy, Thanh Nhat

The twelve hamlets of Thanh Nhat are scattered around and access to hamlets may differ greatly. Some have proper roads leading to them, which make future infrastructural developments far easier to plan than in others, such as Keo Sy and Soc Quan where there are only fairly narrow paths for motorbikes and cattle. Here planners would have to consider very different aspects than in centrally located hamlets. Environmental and infrastructural differences not only alter the atmosphere and appearance of hamlets, but of course have significant effects on peoples' lives, livelihoods and living standards.

Central hamlets are included in a waste collection scheme which according to the 'Socio-Economic Survey Report' covers 38% of households (VIWASE, 2008:6). In public areas such as the market place and along the main road there are garbage containers for common use. Collected garbage is taken to a landfill site about 1km from the town. In the more rural hamlets residents mostly burn their solid waste. Although we observed piled up garbage in some areas, especially on the sides of pathways and on the banks of the river the overall appearance is clean.

In Thanh Nhat we conducted interviews in 21 homes. Nine poor households inhabit a ground level, grey brick or combined brick and wood house. These houses are usually relatively small, with one to three rooms. Some poor families had received around 3 million VND government support for building these types of houses. Eight out of seventeen poor households inhabit a traditional wooden house either on stilts or with wooden poles inside the house. Stilt houses had an area below the house that was predominantly used for keeping livestock or as a

storage area. Nearly all the houses visited had some type of storage area at roof level, where tools and agricultural produce were kept. Living quarters had different arrangements from house to house but consisted of similar elements: traditional floor level kitchen, usually at the back of the house or in front of the entrance, two to four sleeping areas often divided by curtains, and an altar for ancestors placed in the central room where the family socialises and guests are received. Water is stored in the kitchen in plastic buckets or pots as poor households can seldom afford a concrete tank.



**Picture 5: Traditional floor level kitchen  
in stilt house, Thanh Nhat**

the kitchen and around the house. Pig farming is common in Thanh Nhat and 18/21 interviewees raise pigs. In general, pig sties are located behind the house and in central hamlets often right outside the kitchen entrance. For example in one Dong Hoan household the open tank for storing pig and human excrements is less than one metre away from the kitchen. In another household in Soc Quan hamlet the pig sty is literally inside the house - there are a few steps leading down from the kitchen level to where the pigs are kept. Latrines are either in conjunction with the pig sty fairly close to the house or some distance away from the house, often with difficult access.



**Picture 6: Solid waste is often found next  
to water sources, Thanh Nhat**

## 1.2 An Thi

An Thi Town is located in An Thi District, Hung Yen Province. The total land area of the town is 770ha of which 526ha is agricultural land and only 61ha and 81ha of land are dedicated to housing and industry respectively (Vinaconsult 2008:12). This is in stark contrast with the other two study towns which have a fairly small proportion of agricultural land. Unlike Mu Cang Chai and Thanh Nhat which are located in the northern mountainous regions, An Thi lies in the flatlands of the Red River Delta, allowing for larger areas of cultivatable land. Of the total population of 8871, about three thousand are within the labour force and of these the majority, some 68%, are working in the agricultural sector (An Thi TPC, 17/11/2008). Around 14% of people are working in trading and services, 8% in industry and construction and 10% are working outside of An Thi Town (Vinaconsult, 2008:14).

### 1.2.1 Hamlets, Streets and Households



Picture 7: Road 32 crosses An Thi town

Of the three towns studied for this report, An Thi is by far the largest in population and the most urban in its physical characteristics. The town is divided into 11 residential areas (6) and streets (5) (An Thi TPC, 17/11/2008). National Road No. 38 crosses the town and along it there is a vast variety of housing and business. Smaller streets leading to the residential areas further away intersect the main road.

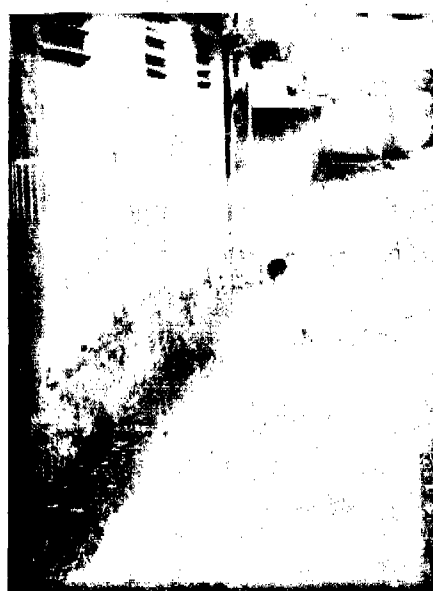
Along these one can find small scale business activities here and there, but they are predominantly residential. From the main road and the residential streets narrow concrete pathways take one into all the different residential areas. Unlike in the other two towns, in An Thi differences in the characteristics of these areas are far fewer and making distinctions between them is difficult. In all areas visited there are a variety of house types and it is difficult to distinguish whether one residential area is significantly wealthier or poorer than another. In all these areas

one can find buildings ranging from a single room on ground level to brightly coloured multi-storey houses. However on the main residential and business streets large houses are more common, whilst in the residential areas further away, ground level concrete houses with paved gardens dominate.

An Thi town has a solid waste collection scheme with households paying 5000 VND/month for collection and all our interviewees reported to paying this fee. Although all solid waste is supposed to be taken to a landfill site in Hoang Hoa Tham commune (Vinaconsult, 2008:23), in several places around the town we saw piled up garbage. Sometimes it had been partially burned or was being eaten by animals. The efficiency of waste collection teams seems to vary between residential areas. Overall, of the three towns studied here An Thi is clearly the most unclean, with solid wastes strewn about the streets and drainage canals. Animal excrements is also a common sight on the streets and pathways, with drains serving as open sewers and causing an unpleasant smell in many places.



Picture 8: Pile of solid waste in central An Thi



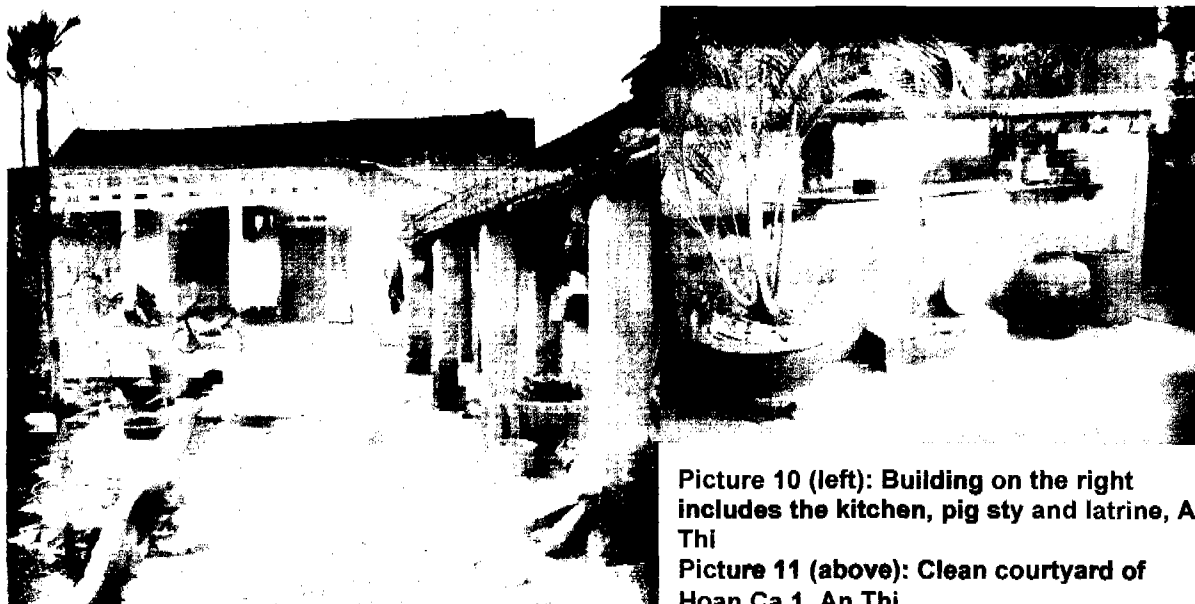
Picture 9: Blocked drains, An Thi

An exception to this is found in residential area Hoan Ca 1, which is unusually clean. Both pathways and peoples' gardens here are very well maintained and clean. Although houses look fairly old they still seem to be well kept. The reason for this is, as we were explained, that Hoan Ca 1 has received a "cultural certificate". Among one of the criteria for receiving this certificate is that the area is kept clean and tidy, other criteria include low levels of crime and that families have no more than two children. People living in this area are all responsible for

the continuation of this special 'status' and thus seem to live accordingly. In this area unlike in others domestic animals are not allowed to run freely and solid waste collection seems to work extremely efficiently.

Interviews were conducted in 19 homes in 7 residential areas around the town. All interviewees lived in ground level concrete houses with 1-3 rooms and all but two had a paved garden. All houses but one had a concrete tank in the garden for water storage. These usually had some type of sand filtration system within them and a connected bathing area. Living arrangements within the home differed from house to house, but usually as one walks in there is an ancestral altar, in front of which there is a table and some chairs. This is where guests are received, the family dines and spends their free time. In the same room there are 1-3 beds depending on the size of the household. Unlike in Than Nhat the kitchen is often located outside the living space in a separate building next to where animals are kept. People usually have chickens and ducks, but rarely any pigs. Chickens and other domestic animals are generally allowed to run freely in and around the house.

Some households have a long narrow building divided into three sections: kitchen, pig sty/hen house, and latrine. Houses in An Thi are usually built fairly close to one another and the garden areas are small, hence latrines are located close to the house and access is relatively easy.



Picture 10 (left): Building on the right includes the kitchen, pig sty and latrine, An Thi

Picture 11 (above): Clean courtyard of Hoan Ca 1, An Thi

### 1.3 Mu Cang Chai

Picture 12: Road 32, Mu Cang Chai town centre



Mu Cang Chai Town of Mu Cang Chai District in western Yen Bai Province is one of the remotest towns in the province, some 180km from the province capital. It is however the district's social and economic centre and hence the district level public institutions and services are located here. The town is located in a rather narrow valley and stretches 5km along the National Road No. 32. The total land area of the town is 709ha, of which 112ha is dedicated to agriculture and 117ha to forestry (LAVIC, 2008:7). As flatland in the valley is very limited, many are forced to cultivate on the hillsides. This is non-irrigated land where people only get one crop annually, whereas in the valley there are two crops per year. The percentage of households

who have agriculture as their main source of income is fairly small at 20%. As their primary source of income the majority of households have either small handicraft, commerce, service industry (40%) or a government salary (40%) where one or more family members are working in public institutions as civil servants, officers, etc. (LAVIC; 2008:6). However, this does not mean that these households do not receive any of their income from agricultural activities, but rather that farming is only a supplementary income source. The total population of the Town is 2450 which is divided between 500 households. 1500 people out of the total are under working age and there are five schools in the town - primary, secondary, high school and boarding and vocational schools. Three main ethnic groups living in the area are Kinh at 60% and both H'mong and Thai at around 20%. Representatives of other ethnic minorities are also found here (Tay and Muong) but not in significant numbers. The great variety of ethnic groups in Mu Cang Chai influences the towns social, economic and cultural characteristics in many ways, some of which we will return to in a number of sections of this paper.



### 1.3.1 The Market Place

The Mu Cang Chai Market Place located in the town centre in Group 4 is the district's biggest - and according to the TPC the only - market. It is clearly the heart of daily commercial activity here. Market sellers pay 2000-5000 VND/day for the right to do business - money which goes to the town budget (Vice chairman, TPC, 5/12/2008). There is a roofed, permanent market place where mostly local shopkeepers sell clothing, accessories and handicrafts. Items include, amongst other things, locally handmade, traditional Thai linen, handmade tools and a variety of Chinese goods. A number of stalls selling dry and fresh food stuffs are also found under the same roof, while a tailor, a blacksmith and a few restaurants are at the back of the market. Outside of the permanent market, on the pavements along the road, out-of-towners sell clothing and fruits. The H'mong new year celebration was approaching and some had travelled from as far as Sapa and Lao Cai to sell H'mong clothing. Although items include traditional H'mong handicrafts made in Vietnam there are also a number of Chinese copies sold here.



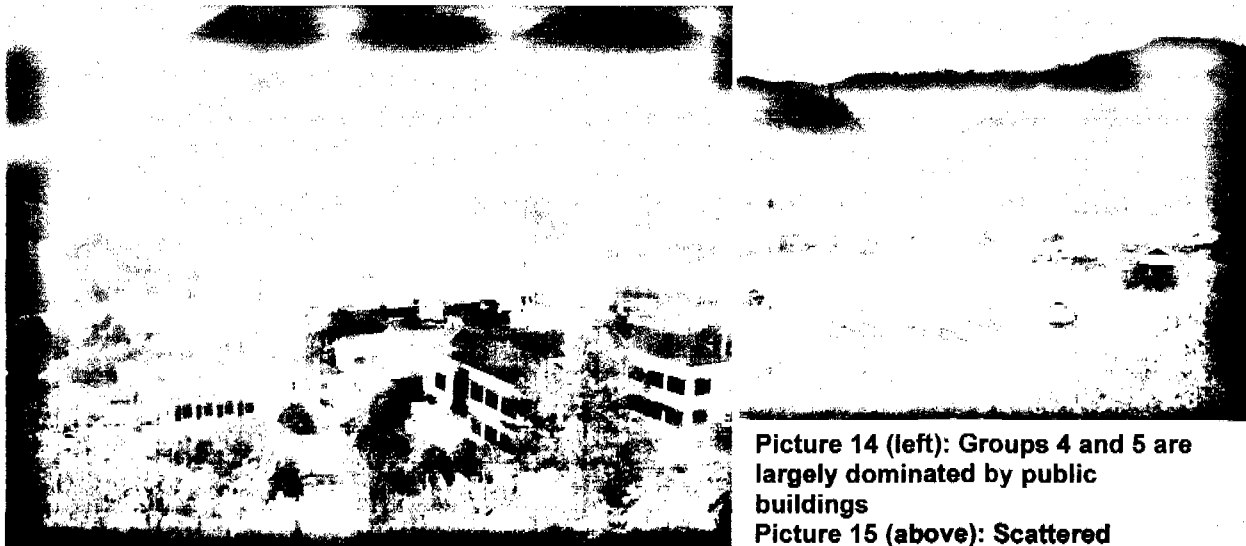
Picture 13: Flower H'mong saleswoman from Sapa at Mu Cang Chai market place

Two young H'mong men interviewed who were selling ribbons used to decorate women's clothing said they bought the products straight from Chinese traders that came to their hometown. These were traveling salesmen who only return home in order to stock up on items to sell. On the opposite side of the street a group of Kinh men were selling clothing and watches. One of them talked in similar vein and said that they move town once a month and had travelled some 250km from their hometown to get to Mu Cang Chai. When asked why he had come so far to do business he answered, laughing:

*"This is my life, I don't know how else to make a living. Also the products I sell are suitable for people here!"*

### 1.3.2 Residential Groups and households

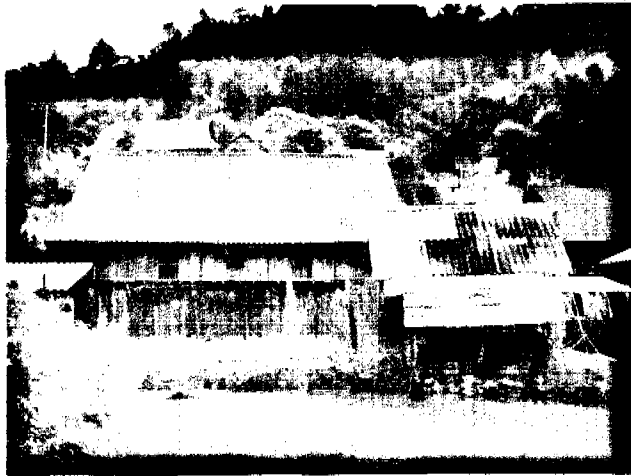
Mu Cang Chai town is divided into ten residential areas which are simply named Groups 1-10. As in the first project town studied, Thanh Nhat, some residential Groups of Mu Cang Chai have very specific characteristics. Groups one to seven are all located along Road 32. The central Groups 4 and 5 have clearly the most urban feel with large administrative buildings, concrete housing, restaurants, shops and the market place. These are mostly inhabited by officers working in the various public administrative institutions and are thus the wealthiest groups in the Town. According to the TPC there is only one poor household in group 5, a H'mong man, whom we interviewed on the very first day, living with his three children in a small wooden shack. Groups 1 and 2 and 6 and 7 are located on the eastern and western ends of the town respectively. They share similar characteristics, with a mixture of newly built concrete housing, wooden houses often in fairly bad condition and a variety of small businesses located along the road. Housing becomes sparse at both ends of the town, with some of the houses being higher up on the hillside often with difficult access.



Picture 14 (left): Groups 4 and 5 are largely dominated by public buildings  
Picture 15 (above): Scattered housing of Group 1, Mu Cang Chai

Groups 8 to 10 are situated on the southern bank of the Nam Ki river. One school and a kindergarten are located in group 8. A number of wooden houses are scattered along the hillside and access to many of the houses in group 8 is rather difficult with only a muddy path leading up the hill. The area is in its appearance far poorer than other groups in the town.

**Picture 16: Traditional stilt house with corrugated asbestos roof, Group 10 Mu Cang Chai**



The groups furthest away from Road No. 32, Groups 9 and 10 are on the outskirts, some 2km away from the town centre. These groups are comparable to Lung Don and Bo Rac hamlets of Thanh Nhat. Firstly, they are entirely populated by one ethnic minority group, the Thai and the Nung in Mu Cang Chai and Thanh Nhat respectively. Secondly, like in Lung Don hamlet nearly all the buildings in Groups 9 and 10 are traditional

stilt houses built on the hillside. Thirdly, and very importantly, these residential areas have the highest proportion of poor households in both towns. These areas in fact used to be totally separate villages in the past and have only become "residential groups" at a later point when town status was required. As in Thanh Nhat, some people in Mu Cang Chai still talk of villages instead of groups.

In groups 9 and 10 small and steep concrete pathways lead one around the area. Most houses have a very well kept vegetable patch and the area is in its appearance extremely clean and tidy. The stilt houses here have rather recently built corrugated asbestos cement roofs and concrete flooring on the ground level. We were told that these improvements were funded by the Vietnamese government. Also in many houses blue, plastic water tanks could be found in the yard, which we were told were also a part of a government funded programme. These improvements, the clean appearance of houses and gardens and the natural beauty of the surroundings create an extremely idyllic picture of these groups. It is when one learns that the small streams leading down from the mountain and flowing between the houses are used as sewers to take waste from the flush toilets in the area straight into the Nam Ki river that this idyll is somewhat broken.

Houses located along Road No.32 are included in the service area of a centralised solid waste collection scheme. Interviewees living along this road were satisfied with the scheme and said it had made their living surrounding significantly cleaner. Several households are outside the scheme including all households in Groups 8-10. Here solid waste is often thrown in to the Nam Ki river or streams leading to it. Plastic garbage bags litter the river banks in several places. Several interviewees living in these areas stated that they simply throw their garbage to the "foot of the bamboo" where it is conveniently out of view. The

general appearance of the town is clean, with the waste collection team keeping the central streets relatively free of garbage. Also elsewhere, in the more rural residential areas streets and pathways are kept clean. However, it is more the fact that garbage is only moved out of sight rather than properly disposed of which creates this appearance here.

Interviews were conducted in 20 homes in all residential groups except Group 4. Houses visited can roughly be divided into three types. With regards to our interviewees these three types also largely follow economic and ethnic divisions. The most visible house type in Mu Cang Chai is a single or double storey concrete house. These are located usually along Road 32 and are inhabited mostly by middle and higher income families. These houses have at least two rooms, with kitchens inside the house or in a separate building. Nine out of twenty interviewees lived in concrete houses, seven of whom owned a tea table set and six a TV. All five of our Kinh interviewees lived in this type of house. The second house type, the one most common in groups 9 and 10 and also found on the hillsides surrounding the town is a traditional Thai stilt house. Five interviews were carried out in stilt houses and these were all organised in a similar fashion with a large main room divided into a living area and sleeping quarters separated by a curtain. The kitchen is usually in a different room with a floor level fireplace. The amount of furnishing varies greatly and interviews were conducted both in a stilt house with barely any furniture and one in which we were seated around a tea table with the TV and stereo blaring out in the background. All interviewees inhabiting a stilt house were Thai. The third house type is a simple, wooden ground level house found in almost all residential groups and on the hillsides, often with difficult access. These are clearly lived in by the very poorest in Mu Cang Chai, have next to no furnishing, a mud floor, no windows and the general atmosphere inside is dark and unorganised. All poor H'mong households interviewed lived in this type of house and furthermore, based on our general observations it seems that houses such as these are most commonly inhabited by the H'mong.



Picture 17 (left): Grey wastewater pipes over a littered river bank in central Mu Cang Chai  
Picture 18 (above): Wooden house of H'mong family, Mu Cang Chai

## 2. Ethnic minorities

Two of the towns included in this study - Thanh Nhat and Mu Cang Chai - are home to a number of different ethnic groups. As one of our aims is to create as truthful a depiction of life in the three towns as possible, it is essential that we dedicate some pages to describing the colourful variety of peoples living in the towns and making them what they are. Although this is surely not the place to delve too deeply into an examination of the contested concept of ethnicity, we feel that at least a simple definition of the term is required before we can explain differences between ethnic groups.

At the request of the Government of Vietnam, ethnologists based at the Institute of Ethnology in Hanoi carried out a 'National Program for Ethnic Classification'. As a result ethnic group (dan toc) was defined as "a stable or relatively stable group of people formed over a historical period with common territorial ties...involving relationships of identity in regard to language, habitat, socioeconomic activities and cultural characteristics and was also conscious of a shared ethnic identity" (ADB, 2002:5). This consciousness is strengthened to those within the ethnic group through a collective name "by which they distinguish themselves and summarise their 'essence' to themselves - as if in a name lay the magic of their existence and guarantee of their survival" (Smith, A.D. 1988: 23). The separation of ethnic groups with names also strengthens a consciousness of difference to those outside the group. As Smith has it, "the name summons up images of the distinctive traits and characteristics of a community in the minds and imaginations of its participants and outsiders... though these images may differ widely" (1988: 24). One must bear in mind that no matter how strong the consciousness of belonging and difference, ethnicity is always in a flux. Ethnicity is not a given and ones ethnic group does not derive naturally. Ethnic groups are socially, politically and culturally constructed and hence never static.

There are 54 ethnic groups in Vietnam, the Kinh being the largest group. 'The Vietnam Living Standards Survey' groups the Kinh together with the Chinese minority Hoa, talking of a Kinh-Hoa group. The reason for this could be, that both Kinh and Hoa groups inhabit the southern, lowland urban areas of Vietnam and their lifestyles and broad socio-economic situation is similar (Baulch, B. et. al. 2002:1.). In addition to the Kinh ethnic group, in Thanh Nhat and Mu Cang Chai there are representatives from at least the following groups H'mong, Nung, Muong, Tay and Thai. Below is a summary of the ethnic composition of the towns and a brief introduction to the different ethnic groups present there.

## 2.1 Ethnic groups in Thanh Nhat

According to the 'Report on The Socio-Economic Survey' the majority of the population in Thanh Nhat is Tay (59%), the Nung make up 30% of the total population and the Kinh 11% (VIWASE, 2008:21). The People's Committee of Thanh Nhat town stated that the majority of Kinh people were involved in business while the main source of income in the Tay and Nung groups was agriculture. For this study 10 Tay and 10 Nung people were interviewed as well as one person belonging to the Kinh group. The sampling was unintentional. Clear distinctions between whether a household was Nung or Tay seem arbitrary since seven of the interviewees were married with a member of another group. Furthermore Tay and Nung belong to the same language family, both traditionally inhabit stilt houses and wear similar types of weaved traditional clothing. According to a World Bank study intermarriage is common for both the Tay and Nung, with one in four Nung and one in five Tay heads of household being married to a member from a different ethnic group (Baulch, B. et. al. 2002: 8).

*"I am Nung and married a Tay man, there were never any problems regarding our marriage because of this. Tay and Nung relationships are very common."*  
-A mother of two from Na En Hamlet

In Thanh Nhat Tay and Nung interviewees seldom made distinctions between the two groups and often spoke of "we the minority people". To an outsider, on an average weekday there are only few clues of the existence of minority groups in Thanh Nhat.

Tay and Nung stilt houses are a rather obvious give away, but only seldom does

Fig. 5 General Fact on the Tay and Nung

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| <p><b>Tay</b></p> <p>There are currently 1.5 million Tay who are divided into four regional sub-groups (Ngan in Cao Bang). The Tay have long been in contact with the Kinh and have adopted many of their practices. Tay are agriculturalist and are often seen as being skilled wet rice cultivators. Tay people usually live in valley areas and lower slopes of mountains.</p>  |
| <p><b>Nung</b></p> <p>The approximately 800,000 strong population of Nung people usually live alongside the Tay in the northern provinces of Vietnam. They are the seventh largest ethnic group in Vietnam. Like the Tay, Nung people mainly cultivate wet rice. The Nung have a patrilineal system and religious life is influenced by Taoism. The traditional clothing of the Nung people for both sexes comprises a plain indigo vest and trousers often decorated with a coloured belt and worn with a black turban covered by a white or coloured scarf.</p>  |
| <p><b>Tay / Nung Architecture</b></p> <p>Stilt houses are prevalent in Tay and Nung areas, however sometimes houses are built on ground level. Houses are built with column-and-beam construction with 4-7 rows of columns. Columns are set into the ground or on top of a flat stone. The roof is usually two or four sided made of thatch, palm leaves or curved roof tiles. Walls are made of woven bamboo, wooden planks, mud, wattle or unfired bricks. Facing the entrance is an altar for venerating ancestors. Eaves are used for storing food and utensils, while tools and animals are kept under the house.</p> |

one see people wearing the traditional clothing and this is usually when wandering through the more rural hamlets outside the town centre. Only on market day this changes somewhat, as locals and out-of-towners congregate in the town centre. Here one can see women wearing the customary clothing and men selling a variety of traditional tools such as hand held rice harvesters.

**Picture 19: Tay woman in traditional dress at Thanh Nhat market**



## 2.2 Ethnic groups in Mu Cang Chai

Mu Cang Chai town's population consists of 60% Kinh, 20% H'mong and 20% Thai. Eight Thai, seven H'mong, four Kinh and one Tay were interviewed for this study. Like in Thanh Nhat sampling was unintentional, but we did however place a special emphasis on the minorities in the town. All of our Thai interviewees belonged to the White Thai group and lived in Groups 9 and 10 which are solely inhabited by Thai residents. Most H'mong in Mu Cang Chai belong to a branch of the Flower H'mong. The town center is somewhat dominated

by the Kinh residents since they are the main business people here. Otherwise we found members of the different ethnic groups living town wide. The ethnic composition of the area has changed drastically in the last three decades. All of our Kinh interviewees had arrived sometime in the late 1970's as 'party officers' in order to work as nurses or teachers in the region. They described how at their arrival the majority of residents had been H'mong, living in sparse settlements mostly on the mountainsides. Since the early 1980's the government has with its policies largely encouraged Kinh migration to the northern mountainous regions of Vietnam. The increase in the Kinh populations in these regions is to a large extent the result of movements from the overpopulated deltas into uplands. In the mountainous provinces of the north the Kinh population grew from 640,000 in 1964 to 2.5 million in 1989. A similar process is likely to have taken place in Mu Cang Chai (Brown et.al., 2003: 233-234).

Despite the drastic increases in Kinh population and the spreading of the Kinh 'mainstream' culture, traits of the traditional lifestyle of ethnic minority groups still remain. Many still inhabit traditional Thai stilt houses, especially in Groups 9 and 10 where this is the only house style. Traditional H'mong clothing is widely worn

Fig. 6 General facts on the Thai and H'mong

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|--|
| <p><b>Thai</b></p> <p>The Thai belong to the Tay/Thai language group and have a total population of 1 million. They are said to have originated from southern China. The Thai minority are usually categorised by colour, including the Red, Black and White Thai. Black Thai women wear vibrantly coloured blouses and headgear, while the White Thai tend to dress in contemporary clothing. Theories vary on the relationship with the Thais of Thailand. The Thai, using a script developed in the 5th century, have produced literature ranging from poetry and love songs to folk tales.</p>   |
| <p><b>H'mong</b></p> <p>With a population of around 600,000 the H'mong are the eighth largest ethnic minority in Vietnam. The H'mong belong to the Sino-Dao language group and have settled widely over northern Vietnam but most densely along the Lao and Chinese borders. There are several groups within the H'mong, including Black, White, Red, Green and Flower. Houses are built on the ground rather than on stilts. The H'mong are famous for their embroidery and batik. Each H'mong branch has certain characteristics but at the same time there is huge variety in the clothing of for example the White H'mong in one district compared to another. Many H'mong women wear large silver necklaces, earrings and clusters of silver bracelets.</p> |



and accessories used. Traditional Thai clothing has somewhat been replaced by modern clothing and is now used by the elderly and for special occasions. Thai women do however wear customary brightly coloured woven scarves. The Thai are known for their weaving and in Groups 9 and 10 looms often stand under the stilt houses. The H'mong are also known for their handicrafts and especially their batik and embroidery. H'mong girls in Mu Cang Chai are taught from early on how to make the intricate decorations on their dresses.

Pictures 20-23 (Clockwise from top left): Flower H'mong women gather, White Thai lady in traditional dress, Modernised version of Thai stilt house, Flower H'mong girl works on a dress



### 2.3 Ethnic minorities and poverty

Ethnic minorities constitute only 14% of the total population, however they make up 29% of the poor in Vietnam. Let us briefly look at how poverty and ethnicity interlink before moving onto more general issues with regards to poverty in the next chapter.

Low living standards are repeatedly explained by geography since ethnic minorities often inhabit remote, hard to reach mountainous areas, where cultivation is difficult. In Mu Cang Chai many the H'mong residents inhabit and cultivate the mountainsides surrounding the town. Many interviewees explained the H'mongs' poverty with this.

*"Because the H'mong live in the mountains it is difficult for them to access services in the town"* -Thai man, Group 9, Mu Cang Chai

*"Thai people are in a better economic situation than the H'mong. Thai people live in the valleys, but H'mong live in the mountains"* -Thai man, Group 10, Mu Cang Chai

According to one economic explanation the poverty levels of minority groups in Vietnam are due to a lack of a number of endowments, which include land, but also physical capital and human capital. Households which have relatively low levels of these 'factors of production' are likely to be poor. These households also have a lack of access to credit and receive fewer remittances than Kinh households, similarly the low levels of physical capital are evident in rural areas where tools owned by Kinh households are double the value of tools owned by minority households. A World Bank study states that although minority households often have large land holdings this land is frequently of poorer quality and non-irrigated (Baulch et. al. 2002:11). Interviewees in Mu Cang Chai talked in similar vein. The Thai were seen to have sufficient knowledge of cultivation and good quality land in the valley, but even though they often produce two crops annually the land areas are too small. The H'mong too suffer from lack of land, but even if they do hold larger areas these are on the mountainside where farming is difficult. H'mong were also reported not to have the required knowledge or capacity for efficient cultivation.

*"People are poor because there is no land. But H'mong life is more difficult than Thai life, our knowledge is limited, we don't know about science and fertilizers"*  
-H'mong man, Group 8, Mu Cang Chai

In Mu Cang Chai this kind of stereotyping was fairly common among both the

Kinh and the ethnic minorities and they are often used to explain poverty among other things. The H'mong always seem to bare the brunt of these "racial" stereotypes.

*"The Kinh are the most intelligent, Thai are average and I think the H'mong are the least intelligent...My mind is not as good as the Kinh people"* -Thai woman, Group 9, Mu Cang Chai

*"The Kinh are the richest and most intelligent"* -Thai man, Group 9, Mu Cang Chai

*"The Kinh are the richest because they know how to do business. The Thai are in the middle. The H'mong are the poorest because a lot of them used drugs in the past"*  
-Kinh woman, Group 2, Mu Cang Chai

In Thanh Nhat this type of categorization was not present to the same extent. According to interviewees distinctions between minority groups are rather unimportant. Instead people would often talk of "us the minority people", minorities as a single, more unified group as opposed to a similarly homogeneous majority group. This was often revealed through a discourse of separation between "lowland" (majority) and "highland" (minority) people. This is most likely due to the fact that in Thanh Nhat the ethnic minorities constitute the majority of town population. Furthermore, the Tay and Nung cultures and languages have many similarities, intermarriage is common and as mentioned earlier, they are the most "assimilated" to the Vietnamese mainstream culture. Here a very frequent comment made by interviewees when talking about issues related to ethnic minorities was, that even if some differences existed between them, the government treats everyone as equals so there is nothing to be concerned about. A man from Soc Quan explained the following:

*"Income levels may differ between ethnic groups but we don't discriminate. Some groups may have better tools and knowledge of farming. But there are no big differences, government campaigns reach all equally."*

### **2.3.1 Language and education of ethnic minorities**

The Tay and Nung belong to those minority groups rapidly assimilating to the Kinh-Hoa majority in both lifestyle and standard of living. The fact that Tay at 95% and Nung at 89% have similar primary school net enrolment rates (NER) to the Kinh majority (93%) is seen as one reason for and consequence of this.

Similarly children of the Thai minority have relatively high primary school NERs (84%). The children of these minority groups learn the majority language, Vietnamese, and acquire more opportunities to reach higher education and better occupations. This is in stark contrast with the primary NER of H'mong children which is only 42%. This can most likely be explained by higher levels of poverty – a never ending cycle of 'lack of education due to poverty and poverty due to lack of education' – and the fact that the H'mong often live in very remote communes far from public services. Although NERs are likely to be higher in Mu Cang Chai town, it was mostly our H'mong interviewees who spoke of the difficulties they face in affording even the primary education of their children. Furthermore, it is interesting to note that in Mu Cang Chai all Thai interviewees and in Thanh Nhat all interviewees but one elderly Tay lady, spoke Vietnamese. In H'mong households, on the other hand, we were often limited to speaking to just one family member as others did not speak Vietnamese. Intriguingly all those H'mong interviewees who did speak Vietnamese were men. Perhaps this can be explained by the fact that, although the primary NERs for both H'mong boys (52%) and girls (32%) are low, those of the girls are substantially lower lagging behind almost 20%. Even more worrying are the lower secondary NERs for the H'mong which are less than 5%. It seems that the vast majority of H'mong children drop out of education before their 11<sup>th</sup> birthday (Baulch, B. et. al. 2002: 6-7).

One key discouraging factor for ethnic minority children is said to be the lack of instruction in their mother tongue, especially in the early years of education. As is common throughout Vietnam, in Thanh Nhat and Mu Cang Chai education is conducted only in Vietnamese. In the 'Vietnam Living Standard Survey' of 1998, of the 334 primary schools that were included only 10 carried out any teaching in ethnic minority languages (Baulch, B. et. al. 2002:6). Although the government has introduced a number of interventions in support of ethnic minorities, education tends to promote and emphasise Kinh culture and history. The official line is to maintain and develop cultural diversity, however the educational system bringing up the children of ethnic minorities does not seem to be doing this. As is stated by Baulch et. al. (2002): "[t]here is a growing tension between the willingness to accept differences (cong nhan) and cultural assimilation or Vietnamization (dong hoa)" (p.11). Nevertheless our interviewees did not view language as a barrier to starting education. When enquired about their feelings toward the monolingual education received by their children, our interviewees seemed surprisingly indifferent. All reported, that their children can still speak the minority language at home with their parents and the fact that they are taught in Vietnamese at school was not an issue.

*"The child speaks both Vietnamese and Nung, it is not a problem" - A male household head from Bo Rac Hamlet, Thanh Nhat*

*"We speak H'mong at home with the children. I'm not worried that the language would disappear. It will never die, we keep the culture strong"* –H'mong man, Group 8, Mu Cang Chai

*"I will keep my mother tongue, I'm not worried about its disappearance"* –Thai man, Group 9, Mu Cang Chai

However, some admitted that their children might speak Vietnamese better than their mother tongue and that there is a possibility the minority languages could be disappearing.

*"We have to follow how society changes and maybe in the future there will only be one language. But currently people still speak local languages"*

- Nung father of three from Ha Lang Hamlet

*"I don't speak Vietnamese at home, because I want my grandchildren to learn their mother tongue"* – Thai grandmother of two, Group 2, Mu Cang Chai

*"I would like to teach H'mong to my grandchildren...I think my children speak better Vietnamese than H'mong"* – H'mong father of two, Group 5, Mu Cang Chai

Even those few who admitted being worried about the future of their language appeared to argue that this was a natural course of societal change which needs not be fought against. Most importantly to our interviewees the fact that their children were learning Vietnamese would be instrumental in ensuring a better future for them. This type of explanation was especially evident in the discussions with interviewees in Mu Cang Chai, where the knowledge of Vietnamese is seen to be one key factor determining the standard of living of a person. The quote below expresses this type of thinking perfectly.

*"Some households are richer, some are poorer. The ones that are richer are so because they read, write and speak Kinh"* –Thai man, Group 10

### **3. Poverty in the towns**

In this section of the paper we turn to explore the characteristics of and some reasons behind poverty in Thanh Nhat, An Thi and Mu Cang Chai. Instead of providing broad statistical evidence or overarching historical perspectives on poverty, we place a special emphasis on how the interviewees themselves experience and explain poverty in the towns. Although large quantitative studies are essential in understanding society-wide phenomena, such as poverty, since the late 1980's there has been a growing consensus within development thinking that we must also find ways to include the people who live in poverty and allow them to explain their own experiences, needs and expectations. We feel that a grassroots level inquiry is a vital part of development cooperation and that it can give important insight into the daily lives of those people that are to be the beneficiaries of projects and programmes being carried out.

**Table 4 Percentage of poor households and the poverty line in each town**

|  | Thanh Nhat | An Thi  | Mu Cang Chai |
|--|------------|---------|--------------|
| % Of poor households out of population | 30         | 6       | 25           |
| Poverty line VND/person/month          | 260,000    | 260,000 | 350,000      |

#### **3.1 Experiences of Poverty**

The purpose of this section is to describe how poverty manifests itself in a variety of different ways in people's lives. The notion of the poor as a homogenous group is misleading since there is great diversity in, for example, why and how people are poor. It should also be noted that income definitions say very little about the actual experience of poverty. Although the categorisation of households into broad income groups such as "poor", "middle" and "high income" is necessary and in many respects helpful, it habitually conceals both the existing intra-group differences and inter-group similarities. During this study it has become evident to us that there is huge diversity in the living standards of poor households. For example in all three towns we came across poor households that suffer from food shortages for several months each year and others who fortunately have enough land to be able to meet at least the nutritional needs of their family. In Mu Cang Chai we visited some poor households that owned a TV and DVD set, but also others that did not even have electricity. Durable goods

can, to a certain extent, be seen as indicators of disparities in living standards. If the majority of the population living in poverty has durable goods, such as a certain number of pots and pans and a television, then the existence of households lacking these goods is revealing of the heterogeneity of those classified as poor. It is interesting to note that who lives in and provides for the household can have huge effects on its living standards and as became evident to us family structures are often important in explaining poverty.

Illness or the absence of one or more family members was often used to explain why people are poor and also to characterise the experience of poverty itself. In An Thi for example one interviewee described how illness was not only the reason for his current poverty, but was in effect impinging on the opportunities of his children to escape poverty.

*"We are poor because my wife and I are often sick. We had to take the children out of school early on because we needed them to help us with the farming and get more income for the family. I think we are more disadvantaged than other poor households in the area"* -An Thi Man

In this family the 17 year old son was responsible for assisting his father with farming activities, while the 19 year old daughter brought vital income into the household by working at a nearby garment factory. She works from 7.00-22.00, seven days a week with two days off every month, receiving a monthly salary of 1 million VND.

In Mu Cang Chai one of the men interviewed spoke of how his family's poverty was partly the result of his opium addiction. Although he had stopped smoking opium ten years ago, he was still in bad shape physically and had difficulty walking. Thus he had been unable to provide for his family over the years.

*"I think one of the reasons we are poor is because I used to be addicted to drugs. I received treatment in Yen Bai city in 1998 and stopped using opium. Now I try to talk to people about the effects so maybe they too will give up using it"* -Man from Group 10, Mu Cang Chai

Similar stories of missing labour force in the family were told by our interviewees in Thanh Nhat

*"We're poor like everyone around here. The exception is that in our neighbours' households there are two people working!"* - Woman, Ha Lang hamlet, Thanh Nhat

*"My son is mentally disabled because of Agent Orange.*

*We are poor because we don't have land and our household is missing a labourer. I have to take care of my son, who is 28 and my daughter who is still in school with nothing but my pension" -Woman from Doong Deng hamlet, Thanh Nhat*

The first of the above quotes from Thanh Nhat is from a woman whose husband suffers from what she described as "mental illness" and respiratory problems and is thus incapable of working, making her solely responsible for all income generating activity in the household. In addition to productive labour, she carries out all reproductive labour within the household - activities such as cooking, cleaning and washing all take time away from income production, let alone any much needed rest or leisure. The second quote is from a woman who used to be an accountant working for an export company. Her family did not belong to the poor household group in the past. However, now that she and her husband are retired, with one son having moved away from home, another one disabled and a daughter still in school and no income but her pension and what little she gets from selling moonshine, they have fallen into this category.

What is common for both of the above women from Thanh Nhat is that they are in effect the heads of household. According to a FAO/UNDP report (2002) on gender differences in Vietnam, 71% of households in Vietnam are nuclear - they are made up of a man, his wife and their children. In the vast majority of cases, the male is considered the head of the household (MHH). However, some 26% of households in Vietnam can be defined as female-headed households (FHH). While the majority of male household heads are married with the spouse living under the same roof the same can be said for only 33% of FHHs - widowed women make up the majority of female household heads (FAO/UNDP, 2002: 3). The absence of additional labour power and income render the FHHs far more vulnerable to income shocks that lead to long term declines in living standards (FAO/UNDP, 2002: 5).

*"I only know why our family is poor, I haven't been to all the houses here to know about other people! We are poor because I had to borrow money from the government and friends to treat my husband's illness when he was still alive. I was the only one working and with three children. I had a very hard time paying back the loans and we almost lost the house." -Woman from Doong Deng, Thanh Nhat*

*"I'm poorer than my neighbours, my husband died at a very young age and I was left on my own to take care of four children" -Woman from Hoan Ca 2, An Thi*



**Picture 24: Female headed poor household**



In both An Thi and Thanh Nhat we visited households in which women were the head of the household. In An Thi all of these women were widows while in Thanh Nhat one was a widow, one had an ill spouse and in two cases the husbands had been sent to an opium rehabilitation camp several years prior. Whatever the reason may be for them becoming female household heads, these women had effectively become sole income earners for the family. According to our observations, these women seemed to live in far poorer conditions than most other poor households we visited.

Family structure may have great effects on the living standards of a household, whether it is a missing or ill spouse or an adult son/daughter who needs to be provided for. As argued by Narayan et. al. "illness removes individuals from the labour pool and can push a household into poverty. Where formal distributions provide inadequate safety nets, the illness of one person within the family can affect the economic stability of the entire household" (2000:42)

The poor are not a homogenous group. People who happen to fall under a certain income level can live in plethora circumstances and experience poverty in a multitude of ways. Although categorisations are necessary in implementation and planning of projects and programmes it must be bared in mind that within one category people may still have very different needs and capabilities.

*"We are all poor, but might still live in different conditions"*  
-Woman, Ha Lang hamlet, Thanh Nhat

### 3.2 Lack of land

As mentioned above, one of the key reasons for poverty, one mentioned by the majority of our interviewees, is the lack of arable land. Let us now turn to expand on the interviewees' opinions and perspectives on the relationship between lack of land and poverty.

One of the reasons given by interviewees in all three towns for why people have decreasing areas of land for cultivation is due to land division within the family. In Thanh Nhat we were told how according to traditional customs the land acquired by a family will be divided amongst the male children. So if a family has even two sons, they will inherit substantially decreased areas of land. Some reported that in their childhood their families were not considered poor, but as the land had now been divided to the sons, their situation had worsened and in fact, they were now living in poverty.

*"I was not considered poor in my childhood, but now my parents have had to divide their land to three brothers and it is not enough for us anymore. Some people are poor simply because they're too lazy to do the field work. Others, like us, do not have enough land."*

- Hamlet head, Na En

*"We are not poor because we are Nung but because we don't have land. The land is divided between the sons and things are getting worse as the areas of land get smaller."*

- War veteran, Bo Rac

Similarly in Mu Cang Chai and An Thi land acquired by a family is divided to the children and often is too small for them to provide for their own families. Due to land division, more people will have to be sustained with a smaller area of land. Not only is it difficult to grow enough for the household, but with smaller areas of arable land people will get less income from cultivation as they have decreasing amounts of or no product to sell.

*"Ten years ago the leader of the village divided the land for each household. The land was given to our parents who then divided it for me and my brother. Now there is not enough land and we are poorer than others in this group"*

-Woman, Group 9, Mu Cang Chai

*"The family did not get any inheritance, so we were very poor from the beginning. Neither of our parents gave us*

*any land, so we had to buy land. But there isn't enough of it and now we are in debt and can't pay back" –Mai Xuyen woman, An Thi*

What also needs to be taken into consideration is the quality of land, even if a household has sufficient areas of land, if this land is of poor quality or is not irrigated they will struggle to produce sufficient quantities. Intriguingly, according to Baulch, B. et. al. (2002) while ethnic minority households often own relatively large areas of land in comparison to the Kinh households, this land is usually of poorer quality. In fact the poorest hamlets of Thanh Nhat, Bo Rac and Lung Don are those which are lacking suitable land for rice cultivation. Similarly in Mu Cang Chai H'mong households were described as the poorest due to the bad quality of their mountainside land plots.

*"We don't have enough water to grow vegetables and not enough land to grow rice... We have to buy the rice and suffer from food shortages now and again... The land will become poorer as more and more things are grown on it" –Bo Rac man 2, Thanh Nhat*

*"Most people don't have land and the land on the mountainside is not good quality" –Woman, Group 2, Mu Cang Chai*

Rice is the main staple of households in Vietnam (Molini, V. 2006:3) and many of the poorest interviewees in all three towns defined their poverty in relation to being forced to buy rice since they were not able to grow sufficient amounts with the land area they had.

*"[Our income comes from] farming but we get no salary from it. We have land for rice cultivation, 12 cans of seed but it isn't enough to feed the family. We have had up to 6 months of rice shortage and each year it lasts at least 3-4 months. Then we have to buy rice." –Woman from Na En hamlet, Thanh Nhat*

According to Molini (2006) products such as cassava or corn are only in demand as food stuffs in the very poorest households (p.3). Of those interviewed for this study only in one household in Thanh Nhat were we told that maize was used for both human consumption and pig feed. Rice is an essential part of daily household consumption in Vietnam and those who are not able to produce what they need are forced to spend a considerable part of their income purchasing it.

All in all, the opinions of our interviewees reflect those of scholars such as Wiens,

who states that “the limited amount of farm land available to rural households is the main cause of rural poverty in Vietnam” (Wiens, T. 1998:66). One further cause and characteristic of poverty that appeared repeatedly in our interviews and needs to be briefly introduced here, is the lack of opportunities.

### 3.3 Lack of opportunities

Not captured by income measurements, but yet an explanation for poverty frequenting the conversations with poor in all three towns is the lack of opportunities. Insufficient amounts of work keep people tied to their socio-economic situation and do not allow them or their children to rise out of poverty. Many of those having agriculture as their main source of income felt they were stuck in this least lucrative of professions with no way out. In An Thi, for example, interviewees felt that there is nothing else for people to do than agriculture and since the returns are minute they are trapped in poverty.

*“Life in An Thi is very difficult. We only get income from farming, there are no opportunities in that” –An Thi man from Hoang Ca*

*“Most people are poor because they only do farming. They don’t have the skills or the money to start businesses. Then again, there’s no demand for business here anyway...” –An Thi girl, 16yrs*

Many interviewees in An Thi also voiced their frustration with the fleeing of young educated labour force. As there are very little professional opportunities for those who manage to get educated they move out of town. Due to this ‘brain drain’ the town’s development is likely to eventually decrease in many sectors.

*“There are very few opportunities in An Thi. People have to move to other provinces to find work. Now mostly elderly people stay here” –Mai Xuyen man, An Thi*

*“We are getting older and don’t have the strength to carry out farming work or do business. The children have all moved away” –Mai Xuyen woman, An Thi*

A very similar atmosphere was found in Thanh Nhat. When asked how interviewees felt about their children’s future, all answered that although paying for education is sometimes difficult, they were doing their utmost to send their children to school to provide them with better chances. In spite of this most remained skeptical and felt that Thanh Nhat did not provide enough work

opportunities for their children.

*"Education is key, but I'm pessimistic whether my daughter can overcome poverty"*

-Mother of one, Ha Lang hamlet

*"Schooling is one thing, the hard part is getting a job."*

-Mother of two from Doong Hoan hamlet

*"It is very difficult to find a job even with an education. We don't have enough money to pay bribes for our daughter to get a job."*

-Mother of three from Doong Deng hamlet

Although some in Mu Cang Chai also complained of the lack of opportunities as a common problem for everyone in the town, most felt that the reasons for poverty lie deeper since people cannot even afford to get qualified for paid occupations. Those belonging to the H'mong ethnic minority saw themselves as in the worst situation.

*"Nobody has opportunities to get out of poverty here!"* -

Group 9, Thai man

*"Different people have different opportunities, but the H'mong people are living in the most difficult circumstances. The H'mong only have the apple\*!"* -

H'mong man, Group 8

*"Most people who graduate from secondary school just stay at home. They can't find a job or afford further education"* -Thai man, Group 10

*"The H'mong have the least opportunities for getting away from poverty. Our knowledge is limited, we don't know how to make money"* -H'mong man, Group 8

Some interviewees in An Thi and Thanh Nhat talked of their hopes for big businesses or government investments in the area to bring a solution to the bleak employment situation.

*"We hope the government to help us because there are no new jobs created and the situation is getting worse. I think the government should support in starting a quarry. We need machines and training, then our children could work there. Unless new jobs are created we are stuck in this*

\*Táo mèo is a small apple grown on the hillsides by the H'mong. H'mong apple, as it is sometimes referred to, is a special delicacy in Vietnam

*situation” -Bo Rac man, Thanh Nhat*

*“They should start an industrial park in An Thi to bring in more jobs. But it's up to the bosses to keep working times reasonable. Not like the garment company where my relatives work 15 hours every day for 1 million VND per month” -An Thi girl, 16yrs*

In the World Bank report ‘Voices of the Poor; Can Anyone Hear Us?’ for which some 40 000 poor people from around the world were interviewed, people often describe poverty as hopelessness, despair and being trapped in ones fate (Narayan et. al. 2000). We encountered very similar narratives in Thanh Nhat.

*“Fate has ruled us to be poor, others have better fate and don't have to work such hard jobs. We are old now maybe we will never get out of poverty.”*

*- Keo Sy woman, Thanh Nhat*

*“For the poor the society has stayed the same. For those with better incomes it has changed a lot, for the better. The gap between the two is growing bigger”*

*-Postman from Huyen Du, Thanh Nhat*

*“We are trying to get all our children educated. Education is very important and I want my kids to escape poverty and Thanh Nhat. But I don't know how to accomplish this, life is getting harder here. I'm pessimistic about the future of Thanh Nhat since the youth don't have any choices but to work in the fields and for hire.”*

*-Father of six from Bo Rac hamlet*

Vietnam is seen as, and as many indicators show, is a country that is rapidly ‘developing’, it is a country in transition. What we encountered in Thanh Nhat, An Thi and Mu Cang Chai were mixed views of the current situation and what the future holds for the children of our interviewees. Elderly people often described how things have changed for the better from their youth. It is now less common for people to go hungry and many have access to goods and services that were not there in the past. Others expressed their frustration with the lack of opportunities in small towns and the ensuing flee of educated labour force. In Mu Cang Chai the parents of young children complained of the high price of education and said that when the time came they might not be able to afford their children's schooling. In Thanh Nhat, on the other hand, parents explained that they would always try and secure their children's education since they saw it as the key solution to escaping poverty.

We encountered both pessimism and disappointment with the current situation and genuine hope for and belief in a better future for the children of our interviewees. It has not been within the scope of this study to provide overarching explanations of or solutions to poverty, but rather to bring forth the views and opinions of the interviewees themselves and to highlight the multidimensional nature of poverty. Nevertheless, through these views and opinions we have been able to create a picture of some of the reasons for and realities of poverty in three small northern Vietnamese towns.

## 4. Water in the towns

In this chapter we will firstly describe how and where interviewees get water to meet their daily needs. Secondly, we explore what water is used for and how water consuming activities are divided within households between family members. Finally we will bring forth interviewees' attitudes towards a possible water supply system, willingness and need to connect and capacity to pay a water tariff.

Unlike on the chapters on poverty and ethnicity here we have decided to divide the chapter into different sections for each town. This is done due to the fact that in relation to water sources and how they are used, there are clear differences between the three towns and thus division ensures clarity for the reader. This chapter will be far more descriptive than the previous as we illustrate rather than analyse our findings. It is based not only on observations made and interviews conducted, but also on the results of questionnaires handed out at a local Women's Union monthly meeting in Thanh Nhat and An Thi.

### 4.1 Thanh Nhat

#### 4.1.1 Drilled and dug wells



Picture 25: Electric pumps at shared well in Huyen Du hamlet, Thanh Nhat

Most households interviewed (14/21) use either a drilled well (7) or dug well (7) as their main source of water. Similarly the majority of those who answered the WUQ (10/17) reported using a drilled (3) or dug (7) well as their primary water source. The remaining interviewees and respondents use spring water, the existing water supply system or rainwater, however most reported to using multiple sources for different tasks. Of those using a well, only four have their own private well (two of these belonged to higher income groups), three were using their neighbour's well and most share a well with 2-5 households. This is in contrast with An Thi, where the overwhelming majority of households had a private drilled well.



*"We have a drilled well that was made in 2004. It cost around 5-7m VND and we share it with 5 other households. The water quality is good since it's used often. It's 25m deep and has always had water in it. We all use the same pump, but connect it to our own electricity source" - Man from Na En hamlet*

Electric pumps are used by most households to pump the water from the well. Only a few households who use their neighbour's well, pump the water by hand since it is inconvenient to use their neighbour's electricity. Those who share a well with a number of households either use their own pump or their own electricity source. Power cuts are commonplace in Thanh Nhat with the electricity being cut off for 12-14 hours every Saturday. For many this means difficult or no access to water, for example the man from Na En quoted above said that when there is no electricity they have to carry water from the spring nearby. Others stated that during power cuts, they have to pump the water by hand, which is far more time consuming than using the electric pump. Sometimes accessing the well can be arduous to say the least and pumping the water to the house is essential. When taken to see the well in a household in Soc Quan we had to walk up a steep, rocky path, climb over a fence and cross a soy field to access it. This household does not have a tank, but water is pumped when required and hence there is no back up storage of water during power cuts.

As mentioned above, wells are often shared with neighbours. There may be a variety of reasons for this. One could assume that rather than people sharing a well due to the abundance of water as stated by Leppänen, S. (2006:28), it was done for example in order to divide the costs. One interviewee stated that using the well is too expensive since he has had to buy three pumps during the last eight years costing around 1m VND per pump. These types of large purchases may be far easier to make if the cost is divided between three to four households. Building and maintaining a well may be too expensive for a poor household and thus sharing is seen as an optimal solution. Another reason may be that there exist only a limited number of ideal spots for the well. Although most of our interviewees reported that there were sufficient quantities of water throughout the year, the fact that a well is shared should not be seen as proof of this. Furthermore as we found out in Thanh Nhat people are used to sharing even in times of scarcity. This is also true when it comes to water, as two interviewees stated:

*"In this season we have enough water, but in the dry season we don't and we have to go around asking for water. We don't have to pay for it, we help each other around here." -Man from Huyen Du hamlet*

*"Sometimes the children from the boarding school come*

*for drinking water...we don't ask for any money from them"*  
-Woman from Na En hamlet

Despite the fact that most stated that no tests have ever been run, the well water has not caused any notable problems and is seen by many as of fairly good quality. As two women from Ha Lang hamlet expressed:

*"I have no idea about the quality, but the water has caused no problems so far."* -Ha Lang woman 1

*"There is always water in the well so I'm satisfied. The water is clean but we haven't tested it. Even when it's raining the water stays clear."* -Ha Lang woman 2

However four WUQ respondents using either drilled or dug wells described their water quality as "bad". Some of the interviewees also complained about the low quality of the water. This was usually expressed by saying that water was hard due to its high lime content and by describing the water as unclear or cloudy. The majority (13/14) of well users -even those satisfied with water quality- said they wanted to connect to the forthcoming water supply system in order to have regular and reliable access and to feel assured that the water really is safe.

*"I still have to pay for pumping water, so why not pay for quality and cleanliness instead!"* -Man from Na En hamlet

#### **4.1.2 Other water sources**

Those interviewees not using a well as their primary water source are either connected to the existing ADB water supply system that has been in operation since 2005 or use a nearby spring. Only one of our interviewees spoke of using rainwater as a supplementary water source, whereas three women who answered the WUQ named rainwater as their primary source of water. All those using the existing water supply system (4/21 interviewees, 3/16 WUQ respondents), without exception are more or less unhappy and unsatisfied with the system. The water was described as "smelly", "cloudy" and "hard" and they complained about the unreliability of service.

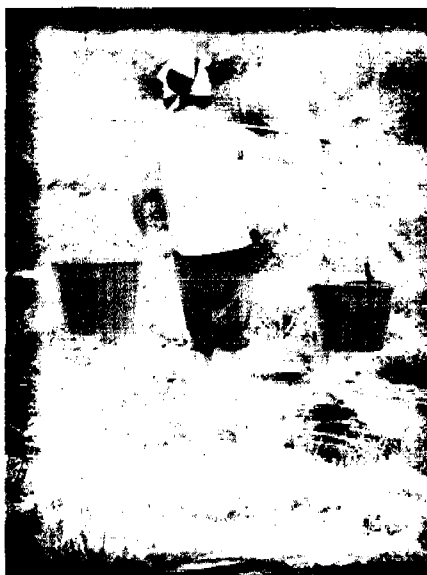
*"The supply is irregular and water quality poor. We have to store the water in a tank for a long time for it to become clear."* -Doong Deng woman 1

*"The water is not good, it smells. It's also not reliable, sometimes we have to ask from neighbours if we can have*

*some of their water.*” -Doong Deng woman 2

*“I’m afraid that when it rains all the dirty water will flow to the source and there is also a public toilet next to it. I don’t want to complain though because we might get cut off.”* -  
Middle income woman from Ha Lang hamlet

In the two southernmost hamlets of Bo Rac and Lung Don people use a spring for their water supply. According to conversations had and observations made, these two areas require connection to the supply system most urgently. Not only are these hamlets the most poverty stricken in Thanh Nhat, but people here have extreme difficulties in accessing water. Both the local Women’s Union chairwoman and the TPC chairman admitted that these two areas have enormous problems in relation to water access and that households often suffered from water shortages. These were the only hamlets where interviewees described having to carry water for longer distances, some spending several hours daily on the task walking a steep and muddy path to the spring.



**Picture 26: Woman fetching water from spring in Bo Rac, Thanh Nhat**



**Picture 27: Spring in Bo Rac, Thanh Nhat**

*“We spend about three hours a day fetching water. The person who comes home first or notices that there is not enough water in the house goes to the spring to get some.”*  
-Bo Rac man 1

*"It takes about an hour a day to get water. But some houses can be even two kilometres away so it takes even longer for them. They often use horses to carry the buckets."* -Bo Rac man 2

Although throughout Thanh Nhat people were eagerly awaiting connection to the water supply system, nowhere were interviewees as anxious as in Bo Rac. People showed genuine concern of whether the supply system would ever reach them and expressed their impatience with the studies being carried out.

*"We're afraid that you are only doing surveys and won't construct the system."* -Bo Rac man 3

Unfortunately these peoples' concern is warranted, at least to some extent, since the 'Option Report for Thanh Nhat' suggests leaving the connection of these poorest hamlets to a later phase. As found in the report, "The consultant suggests: the service area of project within first phase (until 2015) only include the town central area, sub-zone Keo Sy and Soc Quan. Sub-zones Bo Rac and Lung Don will be reviewed to invest in the next phase (phase 2020)" (VIWASE, 2008:57). Firstly, as was expressed by the PTA at the Thanh Nhat option workshop (8/10/2008), "phase 2020" is "quite imaginary" and is not mentioned in any project documents except those provided by the consultant. And secondly, leaving two of the poorest hamlets to a later, unspecified phase is clearly contradictory with the programme's overall objective of poverty reduction in Vietnam and neglectful of the aim to provide poor households with "access to clean and safe drinking water" (MFA Finland, 2004: 27). Furthermore, both hamlets have suitable ground water sources which could be utilized for the provision of water supply service to households and this option should be thoroughly investigated. Despite the remoteness of these areas, it is of utmost importance they are connected as soon as possible to a water supply system and thus have the opportunity to "access clean and safe drinking water".

#### **4.1.3 Water use**

As mentioned above, many households (9/21) currently use multiple water sources for their daily needs. These interviewees use either a stream, spring or rainwater for bathing and washing (dishes/laundry). When asked who uses the most water in the household, all interviewees reported that women of the family used more water since they bathe at home, whereas men can bathe at the stream or spring. It does seem, however, that women are in all responsible for most household tasks that may in general require more water.



**Picture 28: Doing the laundry and washing dishes at spring built for public use, Thanh Nhat**

*"Mainly women use water, men use a lot less. Women do the gardening and they take care of the pigs. Women also bathe at the house while men go to the stream...Cooking and cleaning is done by both, whoever comes home first."*  
- Man from Bo Rac hamlet

Although most interviewees did not admit to a gender division within the household when it came to water use, according to our observations it was rare to see men doing the washing or laundry at the groundwater sources around town. Furthermore 13 out of 17 respondents to the WUQ named themselves the main user of water in the household.

Concerning different uses of water, it needs also to be mentioned that 16/21 interviewees reported that they would continue using other water sources if they were connected to the water supply system. Some interviewees who were currently only using well water said they would keep on using this water for tasks such as animal raising and cleaning and others reported that they would continue

doing the washing at the stream or spring. The water supply system would mainly be prioritised for drinking and cooking, tasks which take relatively small quantities of water. What is more, highly water consuming tasks such as animal raising would continue to be carried out using water from sources other than the supply system. All poor households that had pigs stated that raising takes the largest quantities of water. It is not surprising then that many interviewees may continue to use cheaper water sources for this task.

*“Raising animals takes the most water since we have to clean the pig sty daily, sometimes we even bathe the pigs twice a day. We’ll use the system economically, for drinking and cooking and continue to use the well for animal raising.” -Woman from Huyeng Du hamlet*

Although people said they would continue using other sources they expressed hopes and expectations in relation to the future water supply system and most were eagerly waiting to be connected. In Bo Rac and Lung Don hamlets the time saved by not having to carry water daily was also seen as invaluable. In other hamlets as well interviewees felt that connection to the supply system would allow them to widen the scope of their income generating activities whether it was increasing their gardening area and yields, raising the number of livestock reared or making more moonshine. Nonetheless and as one would expect all interviewees prioritised clean and safe drinking water and saw this as the most significant change the project could possibly bring them.

*“Clean water would be the most important thing. We would use it for other purposes as well, with enough water we could have a garden and increase pig raising. But water for human consumption would be the priority. Also we could have more time for other things, now we spend two hours a day just for getting the water.” -Lung Don Grandfather*

#### **4.1.4 Water Tariff and Affordability**

None of our interviewees were able to estimate how much they were paying for electricity to pump water from their well, but nearly all reported their monthly electricity bill to be around 30,000 VND/month. If the water tariff will be set at around six to seven thousand as was discussed in the option workshop (08/10/2008) the minimum payment for the household per month would amount to 24-28,000 VND/month for the water alone. It is not in our knowledge how well the people of Thanh Nhat have been informed about the water tariffs, but when we told interviewees that the price would likely be around 4000-6000 VND/m<sup>3</sup>, all

expressed their “willingness” to pay for clean water.

*“It depends on people higher up whether we get the supply system or not, but of course we will try and find enough money to be able to afford it.”*

-Man from Lung Don hamlet

*“We prefer to have a water supply system even if it is expensive since it would be more reliable.”*

-Man from Soc Quan hamlet

At times participants did however appear hesitant but concluded that they would “pay like everyone else”. All interviewees except one said they preferred a monthly billing system since the amounts of money involved would be smaller and thus they would not be required to save large amounts of money. One man did say that a quarterly billing system would be more suitable for their household and perhaps there could be a few billing options for these future customers. The fact that people said they were “willing” rather than “could afford” or “wanted” to connect could be seen as a sign of people’s commitment to town authorities and their future plans for the area instead of a true depiction their personal views. Then again we should not give too much weight to assumptions such as these, but give credit to our interviewees and listen to what they are saying. Questions of affordability are difficult to answer with such a small scale study as this and it would require more detailed information on household income levels and monthly expenditures. The views expressed to us by the interviewees were predominantly positive and gave us the view that people found clean water to be a service they were willing to pay for and prioritised it above sanitation and waste water management.

## **4.2 An Thi**

### **4.2.1 Water sources**

All interviewee households in An Thi use well water for most daily activities. The clear majority of interviewees (16/19) have a private drilled well as their main water source. Two interviewees use a dug well while the last one is dependent on his neighbours for water. Also the majority of WUQ respondents (17/20) use a drilled well. Unlike in Thanh Nhat, where wells are often shared with others and located away from the household area, in An Thi they are private and next to the house. This means that daily water needs are met fairly easily and people do not need to sacrifice much of their time on getting water. Simultaneously all interviewees in An Thi owned a concrete storage tank for well water and did not

have to go without water in case of power cuts. Here, water is pumped into a storage tank rather than directly into the house. Ten interviewees and fourteen WUQ respondents reported to filtering their water. According to our observations, the storage tank usually has a sand filter above it through which water is pumped.



*"We have had a drilled well for four years. We used to have to get water from our neighbour. The water is not good and it smells, but I don't have enough money to build a filtering system."* - Binh Tri woman

*"We have a drilled well that we use to get water for washing and bathing. Compared to the past the current situation is better but if I compare it to what other people in the area or in other districts have it doesn't meet modern standards"* - Woman, Nguyen Thi Thuoc woman

Picture 29: Drilled well, concrete tank and filtration system, An Thi

Despite filtration and/or boiling water 14 of our interviewees reported that they were not satisfied with the quality of their water, their main complaints being yellow colour and bad smell due to high iron content. Also 18/20 WUQ respondents are not satisfied with their current water supply. On the other hand water shortage was not reported and all said they have enough water for the whole year.

*"The water is yellow and smells because it has a lot of iron in it, but we don't have a choice so we use it."* -Middle income man, Binh Tri



**Picture 30: In front hand operated water pump, in the background water tank and filter, An Thi**



*"I have enough water for the whole year. I pump about 1m<sup>3</sup> twice a week and it takes me a bit over an hour to do this...A month ago my pump was stolen so now I have to keep it indoors." -Elderly widow, Hoan Quanh area*

Although electric pumps have become commonplace in An Thi, we were told that in Hoan Quanh, the poorest area of the town, hand pumps are still widely used. Pumping water by hand is an arduous task especially for elderly people living in the area. Furthermore the head of the residential area explained to us that pump theft was a common crime in the area, causing people undue costs and hardship.

Five interviewees collect rainwater in large concrete tanks as supplementary water sources. Also 12/20 of the WUQ respondents said they use rainwater either as their primary or secondary water source. Three interviewees used one of the many ponds scattered around the residential areas of An Thi for washing clothes and one stated that many of the people in the neighbourhood use pond water for washing farming equipment. However most people saw pond water as being extremely dirty and not suitable for daily use.

#### **4.2.2 Water use**

Household tasks which take the largest quantities of water are similar in all three towns, namely bathing and washing clothes and dishes (although Thanh Nhat is the only exception with regards to this as pig raising is clearly the number one water consuming activity). In An Thi 18 WUQ respondents reported that washing clothes and 10 that bathing is one of the three most water consuming tasks in their household. As mentioned earlier, well water is commonly used for all household tasks. Nevertheless rainwater was seen by many as cleaner than well water and was hence used for cooking and drinking. Many of those not collecting rainwater would have liked to do so, but stated that they were unable to afford building a tank for its collection. Without exception those 12 WUQ respondents

who reported using rainwater only use it for cooking and drinking.

*“We have a drilled well, but we also collect rainwater because the quality is much better. We use well water for washing and cooking food for the pigs but rainwater for drinking and cooking.” -Hoang Ca 1 Grandmother*

*“We have had a private drilled well for more than ten years already. The quality is very good, but when making tea it turns dark so we don't want to use it for drinking and cooking. We use rainwater instead.” -Mai Xuyen man*



**Picture 31: Most An Thi homes have an area next to the tank where all water related activities are conducted**

Although there are numerous public and private ponds around An Thi, since the water is extremely polluted they are rarely used as water sources for domestic needs. During our study period in the town, we only saw two women doing their laundry at a pond and only three of our interviewees reported to using pond water. In one household water from a pond behind the house was pumped to be used in the family's motorcycle washing business and in the others it was only used for washing mats and similar larger items. In An Thi, in the clear majority of households visited, all water related tasks are carried out within the household

area. Most commonly there is a space next to the water storage tank where these tasks are conducted. Bathing, washing clothes and dishes all happen here.

With regards to who is responsible for these activities, there is a very clear division of labour according to gender in An Thi homes and people talked about it very openly. In the majority of households interviewed (15/19), all water related household tasks were carried out by the women. Similarly 15/20 WUQ respondents reported that women were the main users of water in their homes. With regards to our interviewees the only exceptions to this were found in homes inhabited either by a single man or where illness had determined the division of labour. Women are not only seen as responsible for those activities that consume the most water, but are generally also associated with cleanliness. When asked about hygiene practices in households and specifically washing hands all interviewees and respondents said that all family members wash their hands before meals and after using the toilet. Most interviewees found the question amusing and the answer self evident. 16/19 interviewees did however state that it is the mother who usually teaches these practices to children. Women are seen as the cleaner gender and the assumption is that they maintain both personal hygiene and the cleanliness of home and family more actively than men.

*“Men are very simple so they use less water. Also, women are cleaner since they bathe every day and men only every three days” -War veteran from Hoang Ca 2*

*“Women use more water because they are responsible for housework. They do the washing, they bathe the children, clean and cook. Men do physical labour and children play. Because there is no man in this house, nobody knows how to repair the TV.” -Hoang Ca 1 Grandmother*

*“Women bathe daily, maybe even twice a day, but men only every two to three days so my wife uses a lot more water than me. She also does everything around the house!” -Man from Hoang Van Thu Street*

*“There is no main user of water in the house... but women use more!” -Mai Xuyen woman*

#### **4.2.3 Tariff and affordability**

All interviewees in An Thi had an interest in connecting to the water supply system. However only 12/19 said that they would be willing to connect to and

able to pay for it. Interviewees were informed the price of water to be between 5000 and 7000 VND/m<sup>3</sup>. Most (7/12) expressed that this price is rather high but that they could afford it by continuing the use of a supplementary water source such as their drilled well or rainwater. Interviewees emphasised the health benefits they and their families would receive and felt that although their water needs were currently being met it would be valuable to have clean water for cooking and drinking.

*"I use about 10m<sup>3</sup> per month, so I think the price of water will be very expensive for me. I will need to combine two water sources to reduce the costs, maybe I will get water from the pond for washing and cleaning." -Man from Hoang Van Thu Street*

*"I think people in this area will be able to connect and pay for it. When I have enough income I will only use the water supply system, but when not I will also use well or rainwater" -Middle income man from Mai Xuyen*

*"Yes, I would like to connect so I don't have to depend on my neighbours for water anymore. But I will have to save on other things like food and clothing to be able to afford it." -Hoang Quanh man*

Seven out of twelve poor householders interviewed in An Thi stated that they would be unable to pay the monthly water tariff.

*"I just don't have enough money to pay the fee. I think poor people here in general might not be able to pay for it" -Mai Xuyen woman*

*"I don't think I can afford to pay the tariff, but maybe if I ask my son he can pay it for me" -Woman, Hoang Quanh*

It should be brought up here, that when discussing affordability with our interpreter on the second week of our study, an unfortunate issue surfaced. We were told that, in fact, all poor interviewees had originally stated that the tariff was too high for them to pay and it was only after the interpreter had convinced them of "the benefits" of the water supply system that some of them had agreed to try and pay. The interpreter clearly had certain assumptions about the capabilities of our interviewees to speak for themselves and expressed that since they were "poor and uneducated" they could not always understand what was for their own best. Considering that our study aims at gaining an understanding of people's own views this was an unfortunate setback and obviously renders the above information somewhat questionable. Luckily this issue came up and we now

know that poor households in An Thi may have difficulties in paying for water.

### 4.3 Mu Cang Chai

#### 4.3.1 Current water sources

In comparison with the other two towns of our study, Mu Cang Chai differs greatly in that people there get their water from altogether different sources. The vast majority of interviewees (18/20) get their water from a mountain spring through a gravity line. In the case of our interviewees springs that were used as water sources were anything from 50m to 2km away from the house. Water is commonly stored in a tank built close to the spring on the hillside. As wells in Thanh Nhat, these tanks are shared between two to seven households. Here too it is most likely that tanks are shared in order to divide the costs between households. From these tanks gravity lines then lead to each house.



Picture 32: Bamboo gravity lines in Group 10, Mu Cang Chai

Picture 33: Plastic gravity lines on the mountainside, Mu Cang Chai

Gravity lines are a common sight in and around the town and especially when walking up the hillsides one can see plastic lines attached to the hillside leading down into the town. Some in the more rural hamlets have more traditional lines made from split bamboo, which forms a semicircular open pipe on top of poles.

Next to the house many also had a plastic or concrete storage tank, which they filled through the gravity line. A poverty reduction programme carried out in 2007 had handed out blue plastic water tanks to several households in Groups 9 and 10.



**Picture 34: Blue plastic water tanks are a common sight in Groups 9 and 10, Mu Cang Chai**

*"There is a tank on the hillside 700 metres away that we share with five other households" -Woman from Group 6*

*"We have a water pipe that comes to the house from the hillside. It would be nice to also have a tank near the house and treat the water" -Man from Group 9*

*"We have a tank on the mountainside that is shared by three households...we do not need a pump since the water comes downhill from the collection tank to our house" -Man from Group 10*

The only two interviewees not using a gravity line said that they have to carry water from a nearby stream. Neither of them has a tank for storing water and

have to fetch water daily.

*"I have to carry water from a stream that is about 15m up the hill from my house. I go there two to three times a day and carry three buckets at a time" -Woman from Group 9*

In clear contrast with Thanh Nhat and An Thi when asked about the quality of water in Mu Cang Chai 16/20 interviewees said that their water is clean, with some even describing their water as "too clean". The remaining four did not complain about dirty water per se, but rather said that they did not know what the quality is. Also most interviewees said that they do not suffer from water shortages, however 4/20 complained about shortages that occur during the dry season sometimes lasting up to 5 months. Most likely this has to do with the sustainability of the source and whether households own tanks of an adequate size or at all since interestingly these interviewees all lived in different groups.

*"Yes the water is clean because it's clear and doesn't smell...We have enough for the whole year and it's clear even during the rainy season" -Group 3 woman*

*"The water is clean but there isn't enough of it. In the dry season there is a lack of water for three months. We try to save water and use less during this time" -Group 7 man*

*"It's too clean!" -Man from Group 7*

#### 4.3.2 Water Use

Washing, bathing and watering the garden are the three main activities that people consume water for in Mu Cang Chai. Those with a gravity line coming to the house carry out all water related activities within the household area. These people do not use nearby streams or the river as supplementary water sources and often described river and stream water as too polluted for consumption. The fact that the majority of interviewees do not need to use multiple water sources shows, to an extent, that mountain springs provide sufficient quantities of water for household needs. Furthermore, as mentioned above, spring water was described as extremely clean and none of our interviewees treated or filtered their water in any way, but only

Picture 35: Water use in Mu Cang Chai, Group 8



boiled their drinking water. In one of the households without a gravity line, the interviewee told us that washing and bathing are done at the stream rather than carrying water up to the house. In the other, mountain spring water carried to the house is used for cooking and drinking, whereas washing and bathing are done at the stream.

Slightly over half of our interviewees (12/20) reported a similar division of labour within the household that was present in the other two study towns. In these households women are responsible for most water related activities. A similar discourse of women's cleanliness is present in these Mu Cang Chai households that was found in An Thi. Intriguingly there appeared to be slight differences in the household division of labour between different ethnic groups. As was described earlier, interviews were conducted in seven H'mong households, five of which were poor and two middle income. In all of these women were identified as the principal users of water in the home. As one H'mong man described it:

*"Women use a lot more water. They are more hardworking and clean. Of course they use more!" -H'mong man from Group 5*

In contrast, only three out of eight Thai interviewees described women as the main users of water in the households. The other five Thai interviewees said that household tasks are divided between men and women and water use is equal between the two. One of them, however, mentioned that his husband is responsible for carrying water to and around the house as he is the strongest!

*"Everyone uses water. I don't think there is a difference between how much men and women use." - Thai man from Group 9*

All interviewees said that hygiene is practiced in the home and they too found the questions regarding washing hands slightly amusing. However unlike in An Thi, here the majority of those who said that hygiene is taught in the family said that it is done by both parents rather just the mother. Merely four interviewees stated that only the mother teaches hygiene in the family.

#### **4.3.3 Tariff and affordability**

The clear majority of interviewees (15/20) had an interest in connecting to the water supply system. Although interviewees did not have any complaints about the quality of the water they are currently using, many felt that connecting would guarantee a more convenient and reliable water source. Some also said that they preferred connection since they would no longer need to share a tank with



several other households. Two interviewees said that all they required was a larger tank in order to have sufficient quantities of water in storage to meet their needs.

*"I want to connect because if our line gets damaged it will be very difficult for me to get water from the hill" - Woman from Group 2*

*"It would be better for my family to connect to the supply system, so we can get water straight to the house. Now I have to carry water from up the hill" -Woman, Group 9*

However many of those interested in connecting seemed to have mixed feelings about the reliability and quality of the future service. In great part this seemed to be due to the short lifespan and bad service of the previous water supply system. Some seemed genuinely irritated about its poor maintenance and directly stated that they needed to be assured that the future system will work properly before they connect.

*"I want to connect, but not if it is like the previous system...I still think the water from the mountain is cleaner than supply system water, but I will pay" -Man from Group 7*

*"If others connect then I will follow them, but the water supply system must work properly. It has to be modern and the water clean and the system must work for a long time" -Woman from Group 2*

Although fifteen interviewees said they were interested in the connection, when they were informed of the water tariff only nine expressed further interest and said they were capable of paying. Similarly to the other two towns, the majority of those interested in and capable of connecting (7/9) said they would combine their current water source and the water supply system in order to cut costs. Like elsewhere major water consuming activities would be carried out using the current water source and supply system water would be reserved for drinking and cooking.

*"Water and electricity are the most important things in life...we will pay!" -Man from Group 1*

*"I hope there is a new system I can connect to, but it would be difficult for me to pay because I'm a farmer. I don't think I can afford it" -Man from Group 10*

*"If I can continue using other water sources for washing and bathing, I will connect"* -Man from Group 10

We left Mu Cang Chai with **mixed feelings** about the willingness and ability of our interviewees to connect to a new water supply system. On the one hand most communicated their interest towards the system, while simultaneously having doubts about their capability to pay for the service. It needs to be mentioned here that since our sample is small and concentrated on poor households it is dangerous to make disproportionate generalisations from the reservations of our interviewees. As explained above most interviewees had an interest in connecting and there is no doubt that a large section of the Mu Cang Chai population would not only be interested but be capable of paying a water tariff.

#### 4.4 Conclusions

In both An Thi and Thanh Nhat the majority of interviewees are currently using either drilled or dug wells as their primary water sources. Interestingly however in An Thi these are mostly private wells within the household area, whereas in Thanh Nhat people share wells with a number of other households. In Mu Cang Chai people get water from mountainside springs. Concrete tanks are built next to the water source for water collection and from here gravity lines lead water to households.

Interviewees in Mu Cang Chai are by far the most satisfied with water quality. Water from mountain springs is described as extremely clean and with the failure of the previous water supply system many are sceptical that one would be successful in the future. Many are of the opinion that "mountain water is cleaner than supply system water". Most interviewees in Thanh Nhat were fairly satisfied with their water quality, however if complaints were made they were usually in relation to high lime content and hardness of the water. Although in Thanh Nhat people were not satisfied with the quality or the service of the current water supply system, the scepticism present in Mu Cang Chai was not found here and people were keen to connect to the future system. In An Thi interviewees and respondents on the whole were not satisfied with their water quality. Bad smell and yellow colour due to high iron levels were the main complaints here.

In An Thi and Mu Cang Chai water use occurs within the household area. Only some An Thi residents use pond water for washing larger household items and farming equipment. In Thanh Nhat however, several of our interviewees use multiple water sources and it is common to do the washing at a nearby groundwater source or stream. Water related household tasks are generally carried out by women. Women are responsible for tasks such as cleaning, raising animals, washing clothes and bathing the children. Thus as one woman in Thanh

Nhat put it women are “always in touch with water”. Furthermore, what was evident in all three towns women are seen as the cleaner gender. According to reports from both sexes, women take better care of their personal hygiene than men and are also responsible for teaching hygiene practices to children in the home.

In all, 42/60 interviewees said they were interested in connecting to a water supply system and capable of paying the water tariff. For many however this requires the combining of two or more sources. Supply system water will be used for drinking and cooking, whereas water for activities that consume larger quantities will be drawn from elsewhere. In all towns interviewees were first hesitant to admit that they would continue using other sources and seemed to think that connection meant shifting all water use to the supply system. In order to ensure that poor households are able to use water economically and have access to clean water, they should be informed of the right to use multiple water sources.

Of the developments offered by this programme access to clean water was clearly the priority to our interviewees. Piped water was seen as an important step forward and one which will bring significant changes to people’s daily lives. Interviewees talked of the importance of protecting their families’ health, of improvements in income generating activities, and the value of knowing that access to clean water was ensured throughout the year.

## 5. Latrines and toilet facilities

In the following we shall describe the types of toilets and latrines present in poor and middle income interviewee households. We will explore some of the attitudes and opinions of interviewees in relation to toilets and latrines, illustrated by highlighting their own comments. Additionally we will describe interviewees' hopes and capacities to change or improve their current toilet facilities.

Our questions on latrines and toilets were left to the end of the interview so that we had time to establish rapport with our interviewees, for we wanted to minimise any embarrassment and ensure that people could talk to us openly about rather personal issues. In general we found that men talked more frankly whereas some women seemed slightly uncomfortable when asked about latrines and sanitation. In An Thi and Thanh Nhat, however, most interviewees were willing to share their opinions and talk about the realities of this aspect of their living conditions. We found that in Mu Cang Chai people were far more reserved when talking about sanitation and especially toilets and were often reluctant to show us their current facilities. This is why there is far less photographic material of toilets in Mu Cang Chai.

### 5.1 Toilets and latrines Thanh Nhat

A bit over half of poor households (9/17) collect human faeces in the same tank as pig manure. In two of these cases there is a single pit latrine with brick walls and a roof next to the pig sty. This latrine is connected by pipe to a tank in which pig manure is collected. Mostly however, people simply have wooden planks or split bamboo trunks over the tank or pit with the two middle pieces slightly ajar over which one would squat to defecate. All those with a combined tank use the collected manure as fertiliser in the fields. Four of these households empty the tank twice a year to the paddy and maize fields. We were told that fertilisation is usually done during the planting season in January-May. Two empty the tank once a year, one household several times a month, one once a week and one interviewee could not specify. Most people described that they would stir the mixture with a stick and then take it out of the tank or pit. Manure can indeed be used safely as fertiliser, assuming that it is stored for several months before use. Here two collection tanks would be needed in order to ensure the safe use of the material. Unfortunately we found this in only one household.

**Picture 36: Pig sty and latrine in one, Thanh Nhat**



**Picture 37: Squat latrine behind a pig sty, Thanh Nhat**



Three interviewees reported that they have a simple pit latrine or as they called it "a hole in the ground". Here a deep pit is dug and when full covered and replaced. One interviewee stated, that:

*"The pit for human waste becomes full every 4-5 years, then we cover it and make a new hole. We don't know how to compost, but we grow banana over the old pit."*

-Soc Quan man

This type of arrangement poses an environmental threat as it can pollute groundwater. One household reported to also having a simple pit latrine, but that it is emptied weekly to the field. This requires handling and transport of fresh excreta and is thus potentially hazardous. Although a single vault latrine with a concrete tank may somewhat reduce environmental hazards, if waste is handled before it has had time to compost the same health threats remain. Such is the case in one Doong Deng household. Furthermore, as the vault is not covered it can easily overflow during heavy rain and since it is located on top of a hill excrements flow into the neighbour's yard and pollute the surrounding environment. Only one of our interviewees had a biogas tank in use and she belonged to the higher income group. She said that in her hamlet there were more than 10 biogas tanks in use in households. Some of our interviewees did

express their interest in investing in biogas, but for many it was too large an investment to make.

Two interviewees and three WUQ respondents do not have a latrine whatsoever. As one Keo Sy gentleman explained:

*"We don't have a latrine, there is no tank and we don't use it for fertiliser. I understand the positive aspects of using excrements as fertiliser but don't do it. It is common for us minority people who are used to living in the woods to go anywhere"*

Intriguingly one of the most frequent comment made was "we go anywhere", even if some type of latrine was in place. Urinating does in fact happen 'anywhere' although in four households urine is collected separately to be used as fertiliser. It is stored in a bucket filled to the rim with ash and this is used especially in gardens and to fertilize fruit trees and sugar cane. It is interesting to note that the man from Keo Sy quoted above does not use faeces as fertiliser, but does however collect urine to be used in his garden.

In general people were not satisfied with their current facilities. This was the case for everyone except those interviewees (2) and WUQ respondents (3) with a flush toilet and septic tank. Although people usually let us see their latrines, in two households in Soc Quan we were told that it was not convenient or that the latrine was under construction. In both these cases the latrine was some distance from the house and the interviewees refused to show us the location. Often people appeared embarrassed or ashamed of their latrines and were not too enthusiastic about letting us see them.

*"It's just a simple latrine, it's not clean enough and we're not satisfied with it. It's not very hygienic and there is a lot of insects and maybe the chickens fall into it and might get sick."*

-Woman from Na En

*"We only have a simple pit latrine. How could I think it's convenient or suitable!"*

-Middle income man from Ha Lang hamlet

Although people expressed their frustration with their current situation and inadequate facilities all interviewees said that they could not currently afford to improve their latrines. In general it was not seen as a priority and people often described how they would rather use any provided loans or grants for income generation.

*"I'm interested in a loan but I would use it to invest in a bigger pig sty and buy more pigs. Maybe then I could get more money and use some of it for building a better latrine. I can build it myself, I just need more income first"* -  
Man from Doong Hoan

*"We would rather take the micro loan to improve our income possibilities, that's the main thing"*  
-Woman from Doong Deng hamlet

Four people expressed an interest in taking out a micro loan to invest in a latrine, but in general people were hesitant since they felt that they would be unable to pay it back. Although seen as in need of improvement latrines were not a priority for our interviewees in Thanh Nhat.

In a predominantly agricultural society such as Thanh Nhat it is sensible to utilise human and animal faeces for fertiliser and in our view it is vital that this practice is supported. People are clearly aware of the benefits of the procedure, but what they are lacking in are the means to carry out this procedure comfortably and without risking their health. An important step yet to be taken by the programme is informing people of dry toilet alternatives where waste collection for fertilizer can be done safely and hygienically.

## 5.2 Toilets and latrines in An Thi

Eight of our interviewees in An Thi have a single vault latrine and another eight a pit latrine. Most commonly latrines are fairly close to the house with easy access. Latrines either stand on their own, out of view in a corner of the garden or behind the house. In some households they are a part of a building separate from the main dwelling and which is divided into three small rooms for the kitchen, pig sty/hen house and the latrine. Latrines are constructed of brick and concrete, with the exception of one which is built of mud and straw. Latrines do not have doors, but usually a piece of cloth or plastic as a curtain. In the pit latrines we saw the user squats over wooden planks laid over the pit. In two of these there is an opening in the bottom of the back wall from where excrements are spread onto a composting area. Observed single vault latrines have concrete floors which also function as the vaults' covers. Here the user squats with their feet on two bricks placed in front of a hole in the concrete floor. Fifteen of these interviewees reported to using human excrements as fertiliser in the rice fields and in these cases retention times ranged from one to twelve months, mostly however the time is six months or less. None of our interviewees practice sizeable animal farming and are thus missing this source of fertilizer, furthermore we did not notice anyone to have a combined human and animal waste collection

tank. The majority reported to having to purchase chemical fertilizers to meet their needs. Seven interviewees also separate urine from faeces, most commonly urine is collected in a bucket on its own or mixed with ash and used as fertilizer for gardens and fruit trees around the household area. The majority however did not either see the advantages of this practice, thought it was too much of an inconvenience or that there wasn't enough of it to make any difference.



Picture 38: Extremely tidy single vault latrine, An Thi



Picture 39: Overhung latrine with pipe leading to pond behind the house, An Thi

Two interviewee households had no toilet, but household members defecated directly into a pond or into the field. The last household had an overhung latrine, with a pipe leading into a public pond. This is apparently a common practice especially in the poorest households of An Thi. One interviewee explained that the pond behind her house is used by at least five families to dispose of their toilet waste and said she would not imagine using the pond water for anything. Some households do, however, depend on pond water for washing household items and farming equipment. Others keep fish or ducks meant for human consumption in the ponds.

Four An Thi WUQ respondents have a single vault latrine, five a pit latrine and one a double vault latrine. Of these respondents all but one use waste from toilet



as fertiliser with retention times ranging from two to six months. Ten out of twenty WUQ respondents have a septic tank toilet. It is likely that this number is so high since all but one respondent come from a middle income household and many have been able to afford to build a septic tank. The majority of interviewees were from poor households, but also had a very deep-seated understanding of septic tank toilets as the only truly hygienic option. Many of those who do not own a septic tank at the moment are hoping to build one in the future. In all eight of our interviewees expressed their wishes to have a septic tank and four of them were interested taking a loan of five to ten million VND for this pursuit. Associations of septic tank toilets with cleanliness become evident not only through people's hopes of having one in the future but also through the ways in which current toilets are described.

*"We try to keep our toilet clean, but I still think it's dirty. Compared to a septic tank toilet it does not meet our requirements. We are planning on improving to a septic tank next year."* -Middle income woman from

*"I don't think our toilet is hygienic, because it's not a septic tank toilet"* -Hoang Ca 2 woman

Ten interviewees in all described their toilet as dirty or unhygienic. Although people said they try their best to keep toilets clean many explained it to be a very difficult task. Most of the pit and single vault latrines we saw were, however, fairly tidy and well kept. It seems that the way the toilet is constructed and the technology present determine the cleanliness of the toilet. People appear to hold three main criteria for a clean and hygienic toilet. Firstly, and perhaps most importantly, people do not want to see where toilet waste goes. Secondly, toilets must look clean, a hygienic appearance is created with ceramic tiling, painted walls and a white ceramic seat or squatting pan. And thirdly there is water. With water, waste can be easily flushed 'out of sight and out of mind'. Only septic tank toilets are understood as fulfilling these criteria. When asked whether they need to build a new toilet most interviewees answered positively, but continued by saying that they could not afford it. This is partly because new toilets are directly associated with septic tanks which can cost up to 15 million VND to construct. When we discussed other options with our interviewees and explained that one can have a hygienic and clean toilet even if the waste does not go into a septic tank people seemed interested but slightly sceptical. There are a variety of dry toilets available which would be suitable and more affordable for the residents of all three towns of this study and in our opinion, it would be worthwhile to either build prototype toilets in towns or provide pamphlets with explanations and pictures of other options.

### 5.3 Toilets, latrines and streams in Mu Cang Chai

In Mu Cang Chai interviewees were reluctant to let us see their toilets and hence we cannot provide very detailed descriptions of their facilities, but are largely dependent on the information given by interviewees. Although the lack of personal observation is regrettable, we believe to have been presented with realistic depictions.

Seven interviewees have no toilet, but either use the stream, river or a secluded place on the hillside. One of them also said he usually uses a public toilet some 100 meters from his house. This public toilet was but a few wooden planks on the side of a pond with a plastic sheet suspended on poles for cover. Excrements fall directly into the duckweed pond. Four interviewees have a pit latrine which two of them empty every six months to fertilize pig feed or the garden. The other two only cover the pit when full and dig a new one. Another four interviewees own a septic tank toilet; two use a flush toilet with a pipe leading directly into a stream, one with a pipe leading to the field behind his house and one has a temporary toilet above a stream.

**Picture 40: Latrine over stream, Mu Cang Chai**



**Picture 41: Flush toilet with pipe leading to stream**



*"We don't have a toilet, we just use a small stream next to the house. We really want a toilet but don't have enough money to build one" -Man from Group 6*

*"We have no toilet, we just go down to the stream. That's what most people here do. I would be grateful if someone built me a new toilet, but I don't think I can take out a loan for this" -Woman from Group 9*

*"We have a pipe leading directly from the latrine to the field...I think it's more hygienic than having a pit to collect the waste" -Man from Group 10*

Considering that all of our interviewees get all or a part of their income from agriculture, it is extremely surprising that only two of them utilized human excrements as fertilizer. Also with almost every household having at least a small garden patch, it is interesting to note that only two interviewees reported to separating urine and faeces and using urine as fertiliser. In one of these cases the interviewee in fact had a septic tank toilet, but still continued to collect urine separately in a bucket in order to "water the garden". Similarly to An Thi we did not come across any sizeable animal farming, however seven interviewees did own one to two pigs. Pig waste along with buffalo manure is used as fertiliser in the garden or fields.

We were left with the impression that in Mu Cang Chai people did not want to keep toilet waste in the household area. The existence of several streams and the Nam Kin River enable people to dispose of their waste through 'mother nature's flush toilets'. The very common line of thinking 'out of sight, out of mind' is once again found here. The sanitation situation in Mu Cang Chai is alarming to say the least not only because of a lack of adequate facilities, but also due to this kind of attitude which is illustrated by the comments below.

*"Yes, I think our toilet is hygienic. It's easy to keep clean since the stream takes the waste away" -Man, Group 9*

*"We have a flush toilet, where the pipe leads straight into the stream. I don't think there are any problems with this, it works fine" -Man, Group 7*

*"Yes, I am interested in taking out a loan for a new toilet. I want the toilet to be clean, the pipe must lead the waste to the stream!" -Man, Group 8*

In Mu Cang Chai eleven of our interviewees were interested in taking out a loan in order to build a new toilet. However most of them did not know what size of loan or period of repayment they would require. Furthermore for many of those who expressed an interest in taking out a loan, it seemed unrealistic that they would be able to pay it back.

*"I would like to borrow money to build a toilet and bathroom. I don't know how*

*much it would cost, surely over ten million. In all my life I haven't even dreamed of ten million Vietnam Dong" -Man from Group 10*

Similarly to An Thi, those wanting to take a loan were predominantly interested in building a septic tank toilet rather than a dry toilet. Human waste on its own is not seen as producing enough fertiliser to reason building a toilet which is not perceived as 'modern'. This line of thinking is regrettable, as many hold gardens and small plots of land within the household area where this resource could be used. Furthermore many complained of having to purchase chemical fertilizers, a cost, which could surely be somewhat reduced by taking advantage of toilet waste.

#### **5.4 Conclusion: Calling for alternatives**

The above is an account of the types of latrines and toilets in use in poor and middle income households interviewed in An Thi, Mu Cang Chai and Thanh Nhat. Let us now draw some overall conclusions and make suggestions for the implementation of the programme.

With the exception of interviewees in Mu Cang Chai, poor householders interviewed for this study in general use either a single vault or pit latrine. In Thanh Nhat the vault is commonly connected to a tank in which animal, mostly pig, waste is collected to be used as fertilizer. Pit latrines in both An Thi and Thanh Nhat, on the other hand, are either covered when full and the latrine moved to a new location, or simply emptied into the field by hand. In Mu Cang Chai the majority of poor interviewees do not have a toilet, but either defecate into a nearby stream or in the woods on the hillside. Middle income householders interviewed in all towns mainly have septic tank toilets.

Most interviewees wish to make improvements to their facilities or to construct a toilet if they do not currently have one. In An Thi and Thanh Nhat however the majority of interviewees felt that they could not currently afford to take a loan for improving their toilets. In Mu Cang Chai slightly over half expressed their interest in taking out a loan, but many said they would need extremely long repayment periods. In all three towns when asked what type of toilet people wished to build the most common answer was a septic tank toilet. It is thus not surprising that people remain doubtful of their capacity to pay back a loan since constructing a septic tank toilet is largely beyond the means of a poor household.

In our opinion a vital step yet to be taken by the programme is to inform people of dry toilet alternatives. Dry toilets would be the most financially realistic and environmentally sustainable toilet solutions for the three towns of this study. Firstly for those who do not currently own a toilet - most likely due to a lack of

funds - constructing a dry toilet is a far more practical and affordable choice than a septic tank toilet or a toilet connected to a centralised sewerage system. Secondly, septic tanks are not the ideal solution for towns such as An Thi, Mu Cang Chai and Thanh Nhat. Here people live in predominantly rural surroundings and a large section of the population has agriculture as a primary or supplementary source of income and thus could use toilet waste as fertiliser in the field or garden. Views such as the ones taken by the consultant in the 'Report of Socio-Economic Survey' for Thanh Nhat (2008:51) where it is stated that the "use of excrement for farming...is uncivilised and unacceptable" and 'Report of Socio-Economic Survey' for Mu Cang Chai (2008) where on page eight it is stated that "the majority of household toilets [are] unhygienic due to...needs of compost for agricultural production" are regrettable to say the least. It is fundamentally important to support people in continuing or starting the use of this resource, while simultaneously taking steps forward in ensuring that appropriate and safe technology is in place and that people are aware of how to carry out procedures without risking their health. For example, in all three towns current retention times for human excrements are more often than not too short. The Nha Trang Pasteur Institute recommends a retention time of at least six months for human faeces (ECOSAN, 2004:24). The ideal solution here could be a double vault latrine where, when one vault is full it is left to compost, meanwhile the other is in use. The version of this which is widely in use in Vietnam however, has vaults which are too small and thus retention times are not sufficient. People need to be informed of dry toilet alternatives which avoid these types of problems while concurrently meet some of the earlier described and mostly aesthetic criteria for a clean and up to date toilet.

## 6. Grey Wastewater

The disposal of grey wastewater is handled in similar ways in all three towns and hence they are considered together in this chapter. Overall grey wastewater management appears to be one of the least of people's worries. Although some complained about the bad state of their living surroundings due to spreading of wastewater and solid waste, most thought of their towns as clean and current wastewater disposal methods as sufficient and hence were not keen on having to pay for wastewater management. Only in An Thi did we find considerable interest towards centralised wastewater management.

In poor households the quantities of grey wastewater produced are rather small. In Thanh Nhat, as described earlier, activities such as doing the laundry, washing dishes and bathing are often done at a stream or spring. Therefore grey waste water is produced away from the household area. In all three towns some interviewees noted that household wastewater discharges are minimised as water from cooking, cleaning and bathing is reused as drinking water for livestock or watering the garden. In rural residential areas grey wastewater usually flows directly into the garden or the surrounding environment or as in one case "into the neighbour's yard".

In more urban areas of all three towns household wastewater usually flows directly into a roadside drains leading to a field, pond or stream. In Thanh Nhat and Mu Cang Chai this did not cause any notable inconveniences for residents, but in many areas of An Thi the open drains caused bad smells due to blockages or inefficient flow caused by animal manure and solid waste swept from the street.

*"We pour it out. It goes down to the drain on the street. It goes to the stream or river. It is just the washing water other water goes to the garden." - Bo Rac man, Thanh Nhat*

*"There is very little wastewater so it just flows into the yard"*  
-Group 5 man, Mu Cang Chai

*"A drain leads it to the pond. That's what all the neighbours do...it's making the area polluted and the drains often smell"* -Hoang Ca 1 woman, An Thi

**Picture 42: Blocked drains such as this are a common sight in An Thi**



Overall interviewees were aware of the environmental and hygienic issues surrounding wastewater management and wished that they could live in cleaner conditions. However only 2-3 interviewees in Thanh Nhat and Mu Cang Chai were ready to pay for the treatment of their wastewater. This is not surprising since people prioritise access to clean water and yet often express that they will have difficulty even paying for this. Interestingly in An Thi 12 interviewees not only expressed an interest in connecting but also said they were willing to pay for the service. They were however not ready to pay similar tariffs for wastewater collection as for clean water, but nevertheless it seems that in An Thi it will be easier to gain residents' support for the construction of a centralised sewage

system. Perhaps the reason for this lies in the fact that An Thi is the most urban and largest in population of the three towns studied. Here, amount of wastewater produced in residential areas is larger and thus disposal causes more problems. As mentioned earlier in An Thi roadside drains were often blocked and interviewees even reported them to occasionally flood into their garden.

*"We throw the water anywhere and it goes into the ground. It would be a good idea to connect to the sewage system but we don't have enough money."*  
- Keo Sy woman, Thanh Nhat

*"People are very poor here so I don't think they can pay for wastewater treatment. It would only be possible if the government makes a law forcing people to pay"* -Man from Group 7, Mu Cang Chai

*"In the rainy season the drain floods onto the street. I think everyone in this area would like there to be a sewage system here. It would make the town cleaner"* -Mai Xyen woman, An Thi

As is clearly portrayed in the above quotes, for the poor inhabitants of Thanh Nhat and Mu Cang Chai, although wastewater management is expressed as important and many understand its positive aspects on their living surroundings, it is broadly seen as an extra expense that many will not be able to afford. For interviewees here clean water is the priority and their expectations and hopes from the programme were always in connection to this. Furthermore it should be stated here, that in our opinion the planning of a central wastewater management system in all three towns is somewhat questionable. This type of arrangement is surely suitable for large urban areas, but for mainly rural areas onsite sanitation solutions should be investigated further as they are far more realistic and appropriate. According to our observations a possible hindrance to the successful implementation of a centralised wastewater collection system is the fact that in all three towns household water handling areas are often located below road level. This is not the case for those residential areas located on the hillsides in Thanh Nhat and Mu Cang Chai, but then again these areas are often the most rural and thus it is unlikely that the service area would reach them.



### **Concluding remarks**

The people of Thanh Nhat, An Thi and Mu Cang Chai live in diverse circumstances and it has been our aim to bring forth some characteristics of this diversity. We have also however made an effort to depict and reveal the commonalities in people's opinions, accounts and interpretations of issues related to water, sanitation, poverty and ethnicity.

The paper began with descriptions of three small Vietnamese towns to be included in the second phase of WSPST. Regrettably not as detailed a picture could be recreated of An Thi as we have done for Thanh Nhat and Mu Cang Chai due to before mentioned reasons. Nevertheless important background information was provided for all towns, which may be valuable for those unable to spend time in the towns.

Programme towns Thanh Nhat and Mu Cang Chai are home to a number of ethnic groups. Chapter 2 provided some general information on the Tay, Nung, Thai and H'mong. Tay and Nung populations who are the majority in Thanh Nhat town largely live in similar conditions and rarely make distinctions based on ethnicity. Here a discourse of difference was found to be based on highland vs. lowland people or the majority vs. the minorities. In Mu Cang Chai ethnicity plays a far more prominent role in the town. Here distinctions are commonly made between the three ethnic groups. Differences in people's socio-economic situations are often described as linked to ethnicity. Some went as far as to explain differences as 'natural' or 'given'. It also became evident that amongst the H'mong of Mu Cang Chai it is common for people not to speak Vietnamese fluently or at all. In our opinion if the programme has the means it would be valuable to provide information for possible future H'mong customers in their mother tongue.

In the third chapter we explored the multifaceted nature of poverty and argued that the poor are not a homogeneous group. Categorisations of people into income groups do not always provide a true depiction of living standards. Furthermore within one income group one can find people living in a variety of circumstances, with different amounts of physical and human capital and varied numbers of household members included in the labour force. The main reasons for poverty according to interviewees are lack of land, lack of opportunities, family structure and lack of education.

In the fourth chapter we looked at water use in the towns. In Thanh Nhat and An Thi interviewees use drilled/dug wells with electric or hand pumps. Water sources are relatively close to the house or are pumped to the household area. In the two poorest hamlets of Thanh Nhat, Bo Rac and Lung Don, access to water is the most difficult as people have to carry water from a spring in Bo Rac to their houses. Here people may spend up to three hours daily on the task. In these

hamlets the option of using a local water source for the future supply system should be explored by the programme, since these hamlets are located relatively far from the town centre. In Mu Cang Chai interviewees use mountain spring water brought to the house through gravity lines. Generally water supply is sufficient and people did not complain of shortages. In Thanh Nhat interviewees were not always sure of how to describe the quality of well water but seemed fairly satisfied. Complaints on water quality were far more common in An Thi, where people often said that the water smells and is yellow due to high iron content. People were by far the most satisfied with the quality of water in Mu Cang Chai, where nearly all interviewees described their water as of good or excellent quality.

In all towns water is used for similar activities, which are commonly carried out by the women of the household. Women are described as cleaner and not only seen to take better care of their personal hygiene, but also to be responsible for the maintenance of hygiene and cleanliness in the home. In Thanh Nhat poor interviewees found clean water to be a service they were willing to and able to pay for. Poor households in An Thi may have difficulties in paying for water. In Mu Cang Chai interviewees were interested in connection but doubted their capabilities to pay for the service. In all three towns the majority of those who said they could afford to pay, did state that they would use supply system water for drinking and cooking, whereas the major water consuming activities such as raising animals and gardening would be carried out using their current source. With this combining of sources in mind, all in all 42/60 interviewees were interested and capable of paying for water. It should also be remembered that most of our interviewees come from poor households, which constitute the minority in the towns and there is surely a large section of the population from other income groups that are in need of the service and able to pay.

Previous water supply systems in all towns have largely failed people's needs and expectations. Due to bad maintenance supply has been irregular and quality of water poor. This has led to many expressing their doubts to whether the WSPST can bring a notable change to this.

The fifth chapter looks at the types of latrines and toilets in use in interviewee households in the towns and explores the views of interviewees in relation to their current facilities. Although most interviewees expressed their hopes for improvements in their latrines these were placed below clean water on their list of priorities. Septic tank toilets are commonly seen as the only hygienic option and some interviewees were interested in taking out a loan for building one. However in our opinion in towns such as these dry toilets would be a more economically sound and environmentally sustainable option. These financially more realistic solutions should be introduced to possible future customers, many of whom get income from agriculture and could use toilet waste for fertiliser safely and conveniently if the right technology is in place.

In the sixth chapter we briefly looked at grey wastewater management. Some interviewees, particularly in An Thi were dissatisfied with how wastewater is currently managed. In An Thi the interest towards a centralised sewage system was the most prominent, where 12 of our interviewees not only expressed an interest to connect but said they were willing to pay for the service. However for Thanh Nhat and Mu Cang Chai these numbers were only two and three respectively. Once again people prioritise clean water and as many could even have trouble paying for this, wastewater management was not seen as financially realistic for them.

It has been our aim to provide the reader with in depth information on the above issues. We have placed great emphasis on interviewee opinions so as to bring forth the needs, hopes and expectations of possible future customers of WSPST. We have depicted some of the differences that exist between these three small northern Vietnamese towns, while simultaneously showing the common themes that surfaced during conversations with our interviewees. We sincerely hope this report brings valuable information to all those participating in WSPST and anyone with an interest in these three fascinating towns and their people.

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