



Universiteit Utrecht

The practice of sharing sanitation facilities

A case study on shared sanitation facilities
as sustainable form of access to sanitation in
the West Nile Region, Uganda

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Abstract

This paper discusses the prevalent practice of sharing sanitation facilities in rural communities of the West Nile Region in Uganda. Little is known about the details of the practice of sharing, such as the economic and socio-cultural circumstances under which sharing occur. This research provides an in-depth understanding about shared sanitation practices, as well as a discussion on how this practice could possibly fit into sustainable access to improved sanitation in the light of the post-2015 sustainable development goals. Furthermore the research is designed to provide insight for local LCBs and NGOs in designing future interventions related to the practice of sharing sanitation. A combination of a qualitative and quantitative survey, conducted among 78 households in Arua district, and six focus group discussions in Arua and Moyo district are used to explore the practice of sharing sanitation facilities. Results show that people share sanitation facilities because they don't want to be affected by open defecation of households who do not own a toilet. The collapse of latrines is another common phenomenon which causes sharing of latrines. Furthermore people share because of socio-cultural reasons like the settlement pattern of extended families and the principle of reciprocity to help others, especially when these others are vulnerable and not able to construct latrines themselves. Issues identified with sharing are the responsibilities of construction, cleaning and maintaining a latrine, as well as the distance of the latrine, waiting in case of occupation, and fast filling pits. People indicate that they prefer to use a private latrine over a shared latrine, although they rather share a latrine than practicing open defecation. This indicates that sharing a latrine facility could be a proper choice for sanitation when a private latrine is not feasible, and is a first step on the sanitation ladder. Especially when the issues of sharing are addressed by constructing qualitative latrine facilities with deeper pits and several stances representing the amount of households who feel responsible for cleaning and maintaining their own stance, a shared sanitation facility could offer sustainable access to an improved form of sanitation. The emphasis in access to improved sanitation should first be the hygienic standard of the latrine, which then can be either a private or shared facility.

Acknowledgement

With a sense of delight I present you my master thesis on shared sanitation facilities as sustainable form of access to sanitation in rural Uganda. This thesis is a result of four months fieldwork in Arua, Uganda and two months of analysis in Utrecht, the Netherlands as part of the graduation assignment of the Master International Development Studies at Utrecht University in the Netherlands. The research is hosted by SNV Uganda, West Nile portfolio. With this thesis I hope to add to the general understanding of the practice of sharing sanitation and to offer insights in how this practice can fit into sustainable and improved access to sanitation, as is recently under discussion in the light of the post-2015 sustainable development goals. I hope that this thesis will add to the achievement of a better health and quality of life for millions of people worldwide who still suffer from diseases which could be prevented by proper sanitation. I would like to use this page to express my sincere gratitude to the people who made this research possible.

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Awadifo, Thank you,

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List of Abbreviations

CABs	Community Ablution Blocks
CARITAS	Congregations Around Richmond Involved To Assure Shelter
CEGED	Centre for Governance and Economic Development
CLTS	Community Led total sanitation
CSO	Civil Society Organization
DHO	District Health Organization / District Health Official
DWD	Directorate of Water Development
EHD	Environmental Health Division
FG	Focus Group
FGD	Focus Group Discussion
FOSID	Former Seminarians Initiative for Development
GDP	Gross Domestic Product
GoU	Government of Uganda
HA	Health Assistant
HSD	Health Sub-district
HSSP	Health Sector Strategic Plan
IRC	International Resource Centre
JMP	Joint Monitoring Program
LC	Local Council
LCB	Local Capacity Builder
MDG	Millennium Development Goal
MoES	Ministry of Education and Sport
MoH	Ministry of Health
MoU	Memorandum of Understanding
MWE	Ministry of Water and Environment
NDP	National Development Plan
NGO	Non-Governmental Organization
OD	Open Defecation
PEAP	Poverty Eradication Action Plan
PHAST	Participatory Hygiene and Sanitation Transformation
Rice-WN	Rural initiative for Community Empowerment-West Nile
SNV	Netherlands Development Organization
SSA	Sub-Saharan Africa
SSH4A	Sustainable Sanitation and Hygiene for All
SWG	Sanitation working group
UBOS	Uganda Bureau of Statistics
UNICEF	United Nations Children's Fund
UWASNET	Uganda Water and Sanitation NGO Network
VHT	Village Health Team

WASH Water, Sanitation and Hygiene
WHO World Health Organization
WNR West Nile Region
WSP Water and Sanitation program
WUCs Water User Committees

Introduction

With 2,5 billion people having no access to improved sanitation, including one billion people still practicing open defecation, the world is not on track to meet the United Nations' millennium development goal (MDG) to 'Halve, by 2015, the proportion of the population without sustainable access to safe drinking water and basic sanitation' (WHO/UNICEF, 2014). Annually 2,4 million people, mostly children under five, die from diseases like diarrhea and other diseases attributable to malnutrition, which can be prevented by the presence of reliable and proper drinking water, sanitation and hygiene practice (Bartram & Cairncross, 2010, p. 1). According to Pruss-Ustun et al. (2008) unsafe hygiene practices and inadequate water and sanitation facilities are accountable for 10 percent of the total burden of diseases worldwide, claiming up to 3.6 million deaths a year. High urgency exists on putting more effort in improving sustainable access to safe water and basic sanitation worldwide. This might not only lead to meeting the previous mentioned MDG, but also offers a foundation for healthy communities, which results in social, economic and health related gains, leading to achievement of other MDGs as well (Montgomery et al., 2009, p. 1018).

Although the MDGs invoked global attention and support for the importance of proper sanitation and safe water facilities, critique has raised about the sustainability of these goals. Montgomery et al. (2009, p. 1018) point out that rapid construction and expansion of services and infrastructure in order to meet the MDGs, undermine the more sustainable and long-term investments in maintenance and operation of these services and infrastructure. Bartram & Cairncross (2010, p. 4) add that the MDGs ignore the diverse levels of quality and access to services, and it reduces the complex reality into simple classification of people who 'have' and who 'have not'. When this complex reality is being ignored, health benefits are neglected, since health benefits vary between different levels of quality and access of a service and not only upon presence. Safe disposal of feces, in which contact between humans and their excreta is prevented, is the most important condition in preventing diseases and gaining other health related benefits. It depends on the quality of the facility if this condition is met. Operation and maintenance of a facility is an important part of sustainable access and therefore not only quantity of a facility matters (Mara et al, 2010, p. 1).

Data from UNICEF's and WHO's Joint Monitoring Program (JMP) (2014) shows that Sub-Saharan Africa (SSA) lags behind the rest of the world when it comes to access to sanitation services. With only 30 percent of the people in SSA having access to any form of improved sanitation, a big gap emerges with the other developing regions which have an average access to improved sanitation of 57 percent. Several reasons are identified for why Sub-Saharan African stagnates in increasing improvements of sanitation facilities. One of them is the poor quality of latrines and the lack of maintenance and operation, which leads to breaking facilities and people returning to open defecation (SNV, 2014a). Another reason for people to return to open defecation is related to user dissatisfaction, like smell or dirtiness (Banda et al, 2007). Furthermore various studies show that health concerns do not always play a role in behavior of the end-user. Sometimes it are the socio-

cultural and economic factors who play a more important role than health, motivating people to go back or continue with open defecation (Whitby et al, 2007; Almedom, 1997; Banda et al, 2007).

Other data of JMP shows that sharing sanitation facilities is a very common practice in SSA, compared with other regions worldwide. The growing trend from 14 percent to 19 percent of people sharing sanitation facilities over the last 20 years is partly a reason for the slow improvement in access to improved sanitation facilities, since JMP does not classify sharing as an improved form of sanitation so far. With the deadline of the Millennium Development Goals coming up this year, discussions about the formulation of the post-2015 Sustainable Development Goals are in full swing. As part of this discussion UNICEF and WHO published a future framework of the Joint Monitoring Program, in which new options like the acceptance of sharing toilet facilities as an acceptable form of sanitation are being discussed. The new framework identifies sharing as acceptable as long as the number of people sharing a toilet does not exceed 5 households or 30 persons, whichever is fewer.

Research of Jenkins et al. (2014) state the need for redefining MDG's indicator of access to improved sanitation in light of the sustainable development goals in urban settings. They proposed eight new indicators to measure the sustained functioning and hygienic safety of sanitation facilities, including facility design, waste management and the functional condition of the latrine. Jenkins et al. (2014) discovered a positive association between a shared sanitation facility and safe and sustainable sanitation access and facility functionality in Dar es Salaam, opposing JMP's assumption that a shared facility decreases the safety of public health and therefore classifies it as unimproved. According to Jenkins et al. (2014) sanitation facilities which are shared, have sustainable, safe and functional systems in 40 percent more of the cases than private latrines, shedding a new light on the definition and approach to shared facilities in the post-2015 sustainable development goals.

However, not much is known about motivations of people in rural settings why they share a toilet facility and what the future implications are. Questions like 'Is sharing done out of necessity or out of socio-economic or cultural reasons' and 'under which conditions is sharing acceptable or not' raise. In order to address these questions, this research will explore the reasons, issues and meaning of sharing sanitation facilities in the West Nile Region in Uganda. Uganda is a country with low sanitation coverage, and as in most of SSA, stagnating in its sanitation coverage due to reasons such as a decline of effective sanitation promotion and high population increase. Issues which make it hard to stay on track with service provision. These issues in combination with a poor developed private sector, and people constructing their own latrines with little knowledge, results in a vicious circle of poorly constructed latrines and collapse of latrines, resulting in people returning to or continuing with open defecation (SNV, 2014a). According to the Water and Environment Sector Performance Report 2014, the West Nile Region is with varying sanitation coverage of 50 percent till 88 percent in different districts on track to meet the national target of rural sanitation coverage (77%) by 2015. However, according to a baseline study conducted by the NGO SNV, the levels of sanitation coverage in the West Nile Region vary between 37 percent and 60 percent among

different districts, showing a picture far below the national average of 74,6 percent and far from reaching the national target of 77 percent. Open defecation rates are high among these districts varying from 15 percent till 42 percent. Another prevalent characteristic of the region is the high rate of shared sanitation facilities, varying from 19 percent till 48 percent.

Although the future framework of UNICEF's and WHO's JMP identifies sharing of toilet facilities as a possible acceptable option of sanitation coverage, the Government of Uganda (GoU) classifies shared sanitation as having no access to sanitation. The GoU has different reasons for this. First of all the distance of a shared toilet is seen as a barrier to actual use of a toilet, moving people partly back into open defecation. Second, issues around maintenance and responsibility for cleanliness of the toilet among sharing households might raise, creating problems for the hygiene. Third, sharing toilets is a practice not easily measured and verified, therefore hiding possible open defecation cases. When using GoU's definition for no access to sanitation, which includes both OD and shared sanitation, the districts in West Nile Region range between 40 percent and 63 percent of having no access to sanitation, which is far from the national target of 77 percent rural sanitation coverage in 2015.

For implementation of project interventions it is highly relevant to distinguish between OD and shared sanitation facilities, since both need to be addressed in a different way when implementing projects in sanitation supply and consumer demand. Where Community Led Total Sanitation (CLTS) approaches can be used for demand creation to trigger villages out of OD, the practice of sharing latrine facilities requires a focus on sustainable construction of facilities, suitable for more intense use. A recently conducted study by SNV to get insight in consumer behaviour and the sanitation supply chain in the West Nile Region (SNV, 2014a), analyzed the relationship between supply and demand and its operational context in order to design targets and interventions. This study however, was not designed to address the issue of sharing latrines and did not explore the local context and meaning of sharing toilets. To find out to which extent sharing leads to dissatisfaction and possible return to open defecation or to which extent it is a possible acceptable form of sanitation, this research will focus in depth on the local context and means of shared sanitation facilities. Where Local Capacity builders (LCBs) and NGOs bump into issues of sharing latrines, they don't know how to address this issue. The practical aim of this research is to provide in-depth knowledge and advice for local NGOs and LCBs, which can be used for project implementations in a harmonizing way with the local people and their behavior. The academic aim of this research is to add understanding to the current debate of the post-2015 Sustainable Development Goals about how shared sanitation facilities could possibly be part of sustainable and improved access to sanitation.

The main research question is:

How does the issue of sharing sanitation facilities (latrines) fit into sustainable access to sanitation in the rural West Nile Region in Uganda?

In order to answer this question, six sub questions are identified.

1. *What are the circumstances under which sharing of toilets occur?*
2. *What does sharing toilets mean in local context?*
3. *Which issues occur when sharing toilets?*
4. *Which benefits occur when sharing toilets?*
5. *How can differences in sharing toilets among different districts be explained?*
6. *How can the issue of sharing latrines best be addressed by local NGOs and LCBs?*

The next chapters provide a theoretical background on economic, socio-cultural and health factors involved in sanitation provision , including major theories and an analysis of the academic debate. Furthermore a country and organizational background is provided, followed by the methodology and the discussion of results, ending with a conclusion on how sharing could possibly be addressed in the debate around the post-2015 development goals.

1. Theoretical framework

1.1 Health benefits of improved access to sanitation

As mentioned in the introduction, health is a main drive for improving sanitation. Every day too many people and especially children die from diseases like diarrhoea, which can be prevented by universal access to safe drinking water, good reliable sanitation and appropriate hygiene practices (Bartram & Cairncross, 2010). Furthermore a healthy community does not only produce significant health, but also promotes economic and social gain and quality of life (Montgomery et al., 2009). Mara et al. (2010) identified a couple of health benefits which could be gained when improving sanitation.

First of all diarrhea reduces by 32-37 percent when sanitation improves. With diarrhea as leading cause of death for children under five, the importance of improvement of sanitation facilities seems to be obvious. Almedom (1996, p. 172) furthermore points out the additional benefit of hand washing at 'critical times', for example after defecating or handling children's faeces, identified by the World Health Organization (WHO) as relevant to control diarrhea.

The second health benefit concerns the reduction of neglected tropical diseases. However not causing many deaths, these neglected tropical diseases, transmitted via the oral-faecal route, cause many losses in years of life expectancy. Tropical diseases like trachoma, soil transmitted helminthiasis and schistosomiasis could be easily reduced by improved sanitation. The current situation is that these kind of diseases are mostly treated with repeated medication. This however is in the long term more expensive than investment in improved sanitation, which proves long term economic gain. Montgomery et al. (2010) found no difference in risk to trachoma between households sharing or using a private latrine. Neither was a trend identified between the amount of household sharing a latrine and increased risk of trachoma. These findings are supported by another research conducted in The Gambia in which neither one of these relations were found (Harding-Esch, 2008). Based on these findings can be assumed that sharing latrines, as is common in many African countries, provides the same health benefits in terms of transition of trachoma as private latrines do compared to open defecation.

Furthermore there are indirect health related benefits to improved sanitation. Acute respiratory infections are another leading cause of death in developing countries. Research has shown that malnourished children in rural Ghana have in 26 percent of the cases these infections due to recent diarrhea (Schmith et al., 2009), a percentage which could be prevented by access to improved sanitation. Another indirect health benefit according to Mara et al. (2010) is tackling the synergy between malnutrition and diarrhea in which exposure to one of them increases vulnerability to the other, which means that part of malnutrition can be prevented by improved sanitation.

Mara et al. (2009) suggest that the health sector should play a significant role in addressing sanitation, as part of a disease-control program for example. Behavioral change plays an important

role in addressing sanitation, since demand needs to be created and especially sustained use should be motivated. The largest gain in health benefits is when people move out of open defecation and start using the simplest type of pit-latrines. After that, people can be triggered to move up the sanitation ladder to higher-cost toilets, bringing health benefits on a smaller scale.

When talking about the health benefits of latrines, cleanliness and hygiene of the facility plays an important role. According to Nelson et al. (2014) JMP is concerned about this cleanliness and maintenance when a facility is shared, among other concerns like distance between the facility and the house and long queues. Whereas the concern of JMP is clear, not much research is done about how the users of latrines perceive the concern of cleanliness. Nelson et al (2014) found out that the perception of cleanliness among users of shared latrines and private latrine does not significantly differ, meaning a shared latrine could be a feasible alternative for users when private latrines on household level are not realizable. However Nelson et al (2014) also found out that in rural East Java households are in general more satisfied with a private latrine than with a shared latrine, sharing a facility is much more appreciated among households than practicing open defecation, implying that sharing a facility is an important intermediate step on the sanitation ladder.

1.2 Economic factors involved with improved sanitation

Whereby health benefits of the improvement of sanitation are already motivating, also wider benefits play an important role. As already mentioned above, economic benefits are an important long-term benefit of improved sanitation, lowering medical cost of people and reducing lost days at work, which mostly won't be disbursed by the employee (Mara et al., 2010). However as Mara et al. (2010) point out, economic benefits arrive not necessarily at the household level, whereby investments in improved sanitation mostly do. Especially considering all other economical demands a household has, people are often unable to invest, and economic incentives remain out. Especially when involving the private sector and in demand creation, it is very important to listen to what households themselves really want and are able to invest. This role is not always acknowledged by government, who has certain types of technologies and interventions in mind. Often when people themselves invest in their facilities, they prefer cheaper, local available and more simple technologies to build a latrine and maintain it. In order to sustain access to sanitation, preventing people to return to open defecation after break down of facilities, feasibility and affordability of the construction are very important and therefore ask for consumer insight studies when interventions are designed (Cairncross et al., 2010). According to Baldwin and Huber (2010) also the government has to play a sensitive role in public goods provision like sanitation, paying attention to between-group economic differences among its citizens. Their study revealed evidence for unequal division of public services among groups which are economically weaker than others among the countries citizens.

1.3 Socio-cultural factors in sanitation provision and use

The role of social benefits and personal motivations to adapt sanitation, build latrines and change hygiene behavior, becomes more and more acknowledged in the academic debate. Whereas former research and interventions were largely designed around the health benefits of improved sanitation, many recent studies show the importance and leading role of socio-cultural incentives (Mara et al., 2010; Whitby et al., 2006; Curtis, 2001; Almehom, 1996; Jenkins & Curtis, 2005; Banda et al., 2007; Montgomery et al., 2010; Baldwin & Huber, 2010). According to Mara et al. (2010) households rarely use and adopt toilets for health benefits, even though leading agencies often implement sanitation programs in order to improve health. Households have other motivations to construct a toilet, like to avoid embarrassment, get privacy, avoid dangers of the bush (animals, weather), the desire to be modern, or to gain social acceptance and status. Jenkins & Curtis (2005) distinguish between drives of people to adopt latrines, categorized in three clusters. The first category of drives identified are *prestige-related*, like identification with urban elite, achieving the good life, leaving lasting legacy and aspiring a royal class status. The second category covers *well-being* drives, like family health and safety, convenience and comfort, personal protection from supernatural threats, cleanliness and visual, social and informational privacy. The third category concerns *situational* drives, like restricted mobility and rental income. In agreement with Mara et al. (2010), Jenkins and Curtis (2005) confirm the perception that consumer motivations go beyond health and focus more on prestige-related drives. Furthermore Jenkins & Curtis (2005) point out the importance of understanding the cultural meanings of latrine ownership, since this plays an important role in the process of adoption of latrines in a new culture or community. The style of housing, the possessions of the household, and type of consumer goods represent the unspoken social rules in a culture. Together with this, differences in demographics like gender and social status play an important role in studying latrine adoption.

The role of culture in latrine adoption becomes clear from Almehom's (1996) study which identified that in Western Kenya it was not desirable to use latrines, because of socio-cultural taboos, excluding particular groups of persons to use a latrine. In-laws were not allowed to use the toilet on the compound of the household head, since using this latrine is equivalent to undressing in front of in-laws. Similar cultural issues are found in Arua, Uganda, where pregnant women should not share toilets with other household members and father-in-laws should not share the same toilet with daughter-in-laws (SNV, 2014a). Insight in the cultural aspects of consumer behavior concerning sanitation are important to understand why people refuse to stop with or return to open defecation, in order to design sustainable and fitting interventions.

Part of these cultural aspects are community networks and local social ties. In order to implement interventions in an effective and sustainable matter, these aspects need attention as well (Montgomery et al., 2009, p.1021). In Uganda for example, personal channels of communication are of greater value than impersonal channels like newspaper and radio. Green et al. (2006) identified a couple of approaches used in Uganda, which are not found in neighbouring countries.

These are the promotion of fear arousal in a deliberate way, the conduction of comprehensive surveillance, gaining the support from and collaborating with national and local leaders and religious and traditional healers and last the face-to-face raising of community awareness. Also Montgomery (2010, pp. 694) highlights the importance of communal networks and ties in the maintenance of shared toilets. In areas where sharing is common, and communal ties are strong, people feel collectively accountable for maintaining and keeping a shared latrine construction clean. In contrast Roma et al. (2010) found out that in Durban, South Africa all users of community ablution blocks (CABs), a form of shared sanitation, are dissatisfied with the facility based on lack of affordability (when maintained) or lack of cleanliness (when for free, but not maintained), leading to undermined use and no acceptance of the CABs. Communal ties however, were not present among users of this facility, which might be related to the urban context. This highlights the importance of having insight in the socio-cultural background of the locality where interventions are implemented, in order to provide sustainable solutions. In the latter case investments might have been better addressed by focusing on facilities per household, however in the former case, facilitating shared latrine use and maintenance in communities with stronger ties might be a very effective way of using limited sanitation funds.

According to Rheinlander et al (2015) it is important to redefine shared sanitation and distinguish between sub-categories of sharing like public toilets, institutional shared toilets and households sharing, in which sharing among household does not always seem to be unhygienic and could be a feasible and cultural acceptable choice for many households, since the social ties among these households are often stronger than in the case of public toilets. Especially in areas where the settlement pattern consist of multiple houses on one compound, sharing is a very common practice, which needs to be addressed differently from public toilets. In these situations sharing can be a feasible option since families can combine costs, resources and efforts to construct one latrine, whereas without this cooperation they could not have been able to construct a latrine, limiting their access to a latrine in general.

Whitby et al. (2006) explored the building blocks behind hand hygiene behavior in health care institutions. Part of this theory can also be applicable for hygiene behavior in the context of toilet use. Whitby et al. (2006) divided health related human behavior into three levels of influence. The first one is the individual level, including individual characteristics of the person. The second level concerns interpersonal interaction, in which primary groups like family and friends provide role definition, social identity and support. The third level is the community level, which functions as a cognitive framework shaping and understanding social systems. Whitby et al (2006) claim that health-related behavior is a consequence of several interdependent influences from the environment, the culture, education and biology. Besides this they found the two most important influences in human health-related behavior. The first one is that patterns of hygiene behavior are established on young age, whereby the hygiene practice of the person is a reflection from their community. The second is self-protection, which means that the actual level of microbiologic risk is not an incentive for acting or changing behavior, but that emotional sensations like feelings of

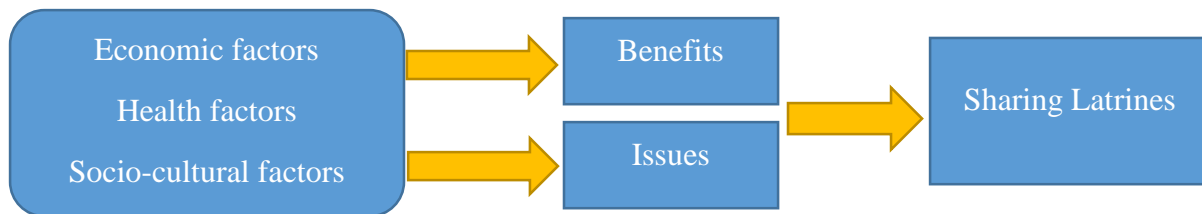
disgust, discomfort, and visible aspects of dirt invoke people for action or behavioral change. These are important matters to take into consideration when designing interventions.

Banda et al. (2007) confirm Whitby's pattern of self-protection, as they found out that people in Rural India practice open defecation since they do not want to make their house dirty by adopting latrines (in the house). They also found out that people do not link diseases like diarrhea with unsafe water use and unimproved or no sanitation use, but with factors like heat and spicy food. This confirms that people's motives to adopt latrines are not necessarily guided by health issues, but also by feelings, visibilities and discomfort. This is furthermore confirmed by Curtis (2001) who distinguishes hygiene behavior in *etic*, which is the perspective of the outsider, the health official or the researcher, and in *emic*, which is the view from the insider, the motivations of the practitioner influenced by the environment, current behavior and lifestyle. It is the *emic* view which provides clues of how to effectively implement interventions and stimulate behavioral change. As Whitby et al. (2006) also mention, Curtis (2001) points out two key moments in human life that behavioral habits and patterns can be broken and behavioral change can emerge. This is on a very young age, when behaviors are learned for the first time, and second when a new baby arrives, since this is a big emotional and chemical incentive to change hygiene practices. These moments are identified as key moments where hygiene promotion is worthwhile.

When looking at motives for people to share latrines it can be assumed that the same health, economic and socio-cultural factors play a role in adaptation and sharing of latrines. As mentioned before by Montgomery (2010), socio-cultural values like strong communal ties can explain why sharing happens in a successful way. Since sharing is the first step to move people out of open defecation, and improve communal health and quality of life, it is important to understand people's incentives to share or not. However it is also important to look at the issues sharing can bring, like bad maintenance, lack of cleaning, and the implications this can have on health and quality of life. As mentioned in the introduction, sharing is a common practice in SSA with 19 percent of the people sharing latrines (JMP, 2014). Uganda with an average of 17 percent of the people sharing latrines fits in this image. However when you look at district level, there is some variation. A special case is Arua district in which 48 percent of the people share latrines, which deserves special attention. Questions remain about why this district differs so much from national average and what the implications of sharing are for this district. According to SNV's (2014) consumer insight study cultural settlement patterns and extended families can be reasons for the high sharing rate. However they also think that cultural and social constrains can make sharing not always the best option, and questions remain about how to address the issue of sharing in this district. Since no hard evidence exist yet about explanations and implications of sharing in the Arua district, this research aims to explore the factors which might play a role in sharing behavior and its implications. Based on assumptions in the consumer insight study of SNV (2014) it are mostly socio-cultural factors which play a role to both share or not share a latrine. However as mentioned above, health and economic factors might be similar important.

Based on the literature, the conceptual framework below (figure 1) highlights the factors which play a role in sharing latrines. Economic, health and socio-cultural factors all create equally benefits or issues which could influence people’s decision to share a latrine. The sub questions in this research are designed to address the different concepts who play a role in the behavior of sharing latrines. The first sub questions will explore the possible factors (economic, health and socio-cultural) which play a role in latrine sharing in the West Nile region, followed by the exploration of the issues and benefits people find in sharing latrines connected to these different factors. This exploration will form a complete image about what sharing latrines means in the local context of the West Nile region, on which practical solutions can be based to answer the last sub question. These answers together can form an answer on the main question *How does the issue of sharing sanitation facilities (latrines) fit into sustainable access to sanitation in the rural West Nile Region in Uganda* and in the broader academic debate.

Figure 1. Conceptual framework sharing behavior of toilets



2. Regional background

This chapter provides background information on Uganda's geographical context and political structure. Furthermore relevant processes concerning the sanitation sector on national, regional and local level will be presented.

2.1 Uganda

Uganda is a landlocked country in East Africa, surrounded by South-Sudan in the North, Kenya in the East, Tanzania and Rwanda in the South and Congo in the West. Uganda is a multi-party democracy, with Museveni as its incumbent President. Uganda has known a stable average GDP growth of 7 percent in the 1990s and even 8 percent in the period from 2001 till 2008. However when considering its high population growth, the adjusted average GDP per capita rebounds upon 4 percent in the mentioned periods (World bank, 2010a). The GDP per capita in Uganda in 2014 is 677 current US dollars, making Uganda a low-income country (World bank, 2014).

The high GDP growth have led to decreased poverty rates from 56 percent in 1992 to an estimated 24,5 percent in 2014/2015, which means the MDG target of poverty alleviation below 28 percent is met. Furthermore Uganda is making progress to reach the MDG target of gender inequity before the target date of 2015. (Republic of Uganda, 2010). Uganda knows a high population growth of 3.2 percent per year, reaching a population of 30,7 million people in 2009 and an estimated 37,9 million people by 2015.

2.1.1 Political structure

Uganda has a decentralized political system, consisting of a five-layer hierarchy from village to district, which is called the Local Council (LC). Before the local council was put into place, the country had almost no institutional structures because of the civil war. This gave the National Resistance Movement of Museveni space to construct the Resistance Councils, in the first place to gain support for their movement to overthrow the previous regime. In 1995 this was changed into the Local Council which connects as forum at different administrative levels citizens with local authorities (Saito, 2001, p.4).

The LC1 is the lowest level of administration and operates on village level. The LC2 is responsible for parish level, which comprises several villages. The LC3 is the local council on sub county level, whereas the LC4 deals with a few sub counties together. The highest level is the LC5 which operates on district level. Geographically several districts belong to a region, but the next political level is the central government.

2.2 National, regional and local context of the water and sanitation sector

Uganda's national Poverty Eradication Action Plan (PEAP) is the government's main document for fighting poverty and directing development initiatives (PEAP, 2004). This document has first been prepared in 1997 in order to provide a framework for identifying and addressing key challenges in poverty alleviation. In 2000 and 2004 the document had been revised in order to address challenges which arose during implementation.

A follow up of the Poverty Eradication Action Plan (PEAP) is the National Development Plan (NDP) 2010 – 2015, with the long term vision to change the Ugandan society from a peasant to a modern and prosperous country in 30 years. In the NDP the development approach intertwines poverty eradication and economic growth in which the private sector will play the role of the engine of growth. In line with this intertwine the government will stimulate public private partnerships by the provision of conducive policy, and a regulatory and institutional framework.

One of the main investment priorities of the NDP is water and sanitation. Belonging to the social sector, this sector among health, education and social development and gender, provides services to maintain a healthy population and human resource necessary for effective economic activities. Water and sanitation is therefore one of the four key intervention area's under the investment priority of human resource development.

Whereas sanitation and water supply is an inter-sectorial issue dealt with by three different ministries, there was a recognizing need for coordination of its activities. It are the Ministry of Water and Environment (MWE), Ministry of Health (MoH) and the Ministry of Education and Sport (MoES) who all play a different core role in the development of the water and sanitation sector. In order to coordinate their water, sanitation and hygiene policies, the three ministries signed a tripartite Memorandum of Understanding (MoU) (WSSCC, 2010). Part of this MoU is the establishment of an inter-sectorial Sanitation Working Group (SWG) in 2003, which provides the national co-ordination of all stakeholders in sanitation and hygiene promotion.

The NDP identifies two objectives with corresponding strategies concerning sanitation facilities which are presented in table 1 on the next page.

The ministry of Water and Environment (MWE) is the leading agency for formulating, coordinating and regulating national water and sanitation policies (MWE, 2012). Furthermore it is the responsibility of the MWE to monitor and evaluate development programs in the water and sanitation sector. Concerning the sanitation part of the sector, the MWE is only responsible for the promotion of good hygienic practices and development of sanitary facilities in small towns and rural growth centers. Responsibilities concerning sanitation are shared with the MoH and MoES. Whereas the MWE is responsible for policies and legal framework, the Directorate of Water Development (DWD) is in charge of technical support. On local level, Water User Committees (WUCs) are responsible for implementing activities, like planning, demanding, financing, maintaining and operating rural facilities.

Table 1. Sanitation Objectives and strategies identified by the NDP

Objectives	Strategies
1. Increase access to improved sanitation from 69 percent to 80 percent in for rural areas and 77 percent to 100 percent for urban areas	1. Promote good sanitation and hygiene practices in households, communities and rural growth centers
	2. Promote good sanitation and increase sewerage systems to cover urban areas
2. Improve efficiency and effectiveness in water and sanitation service delivery	1. Improve the policy and legal framework
	2. Strengthen the institutional structures and systems and coordination of water and sanitation activities
	3. Enhance the involvement of private sector players in water infrastructure financing, development and provision of water services
	4. Enhance sector coordination and management

The Ministry of Health’s (MoH) main responsibility concerning the water and sanitation sector is sanitation and hygiene promotion at household level (WSSCC, 2010). In line with the Public health Act of 2000 the Environmental Health Division (EHD) within the MoH is responsible for development of the environmental health policies, standards, approaches, strategies and guidelines.

Under the Health Sector Strategic Plan (HSSP) III 2010-2015 are improved water supply and sanitation one of the key priorities. According to the HSSP III the environmental health factors like poor hygiene are often linked to poverty and disease, causing ill health. Important determinants of health include safe human excreta, the promotion of health behavioral change and practices to improve hygiene and sanitation, and safe water among a few others. For implementation of the HSSP III, the private sector will be mobilized to be involved in the provision of adequate resources for environmental health programs. As becomes clear from the HSSP III, special attention will be given to scale households up the sanitation ladder, to move away from slum practices, and move towards the provision of facilities which can be cleaned, have hand washing facilities and have water quality surveillance.

The main objective of the Environmental Health Division is ‘To contribute to the attainment of a significant reduction of morbidity and mortality due to environmental health and unhygienic practices and other environmental health related conditions.’ (HSSP III, 2010-2015) This is followed by the next strategies:

- Advocate and promote improved sanitation and hygiene as detailed in the Kampala Declaration on Sanitation.
- Support and encourage Local Governments to formulate ordinances and bye-laws on environmental health and ensure that they are enforced.
- Strengthen the capacity of public and private health care providers in health care waste management

- Support and advocate for food hygiene and safety, safe water chain, and hand washing with soap and mass hand washing campaigns
- Streamline climate change and improve adaptation within the health sector

Responsibilities concerning these strategies are divided among the Environmental Health Division (EHD) on national level, who are responsible for policies, technical support and monitoring. The District Health Organizations (DHO) is responsible at district level (LC5) for coordinating the activities in the whole district. The Health Sub-District (HSD) and the Health Assistant at sub-county level (LC3/4) are also responsible for coordinating activities, but their area of coordination is smaller than on district level. The Village Health Team (VHT) at community level (LC1) is responsible for creating awareness of activities and programs. The ministry of Education and Sports (MoES) is responsible for sanitation and hygiene promotion in schools (WSSCC, 2010).

One of the main multi-donor partnership programs part of the World Bank Group's Water Global Practice is the Water and Sanitation Program (WSP), active in 25 countries, including Uganda. WSP places a strong focus on the formation of partnerships with governments, donors, media, private sector, civil society organizations and academia in order to build capacity, which enables broad sanitation and water sector reforms where necessary (WSP, 2014).

Another important national umbrella organization for bringing together Civil Society Organisations (CSOs) in the Water and Environment sector is the Uganda Water and Sanitation NGO Network (UWASNET). The organization aims to co-ordinate, strengthen and promote collaboration among different Ugandan Water and Sanitation Sector NGOs and CBOs and other stakeholders, like development partners and the private sector, in order to help to achieve government's target of poverty alleviation and to achieve different MDG's through universal access to improved sanitation and sustainable and safe water (UWASNET, 2014). Water, Sanitation and Hygiene (WASH) activities are implemented by UWASNET's members in different regions and districts in the country. On annual base UWASNET measures NGOs progress towards the governments golden indicators. The next paragraph will focus specifically on the processes and activities in the West Nile Region, the region where this research is conducted.

2.3 Context of the West Nile Region in the water and sanitation sector

The West Nile Region is one of the nine regions in Uganda, including the districts of Koboko, Yumbe, Moyo, Adjumani, Maracha, Arua, Nebbi and Zombo. It is located in the North-West of Uganda, Surrounded by the border of Congo in the West and South-Sudan in the North. Figure 2 on the next page presents the geographical location of the several districts in the West Nile Region and its position in Uganda. As additional information to this map: Region 1 is the West Nile region.

The regional coordinator of UWASNET in the West Nile Region is the Rural Initiative for Community Empowerment-West Nile (Rice-WN). This independent community-based

organization aims to empower, mobilize and educate communities for healthy living and peaceful co-existence.

Figure 2. Regions and districts in Uganda



Source: UWASNET

As mentioned in the introduction, sanitation coverage in the West Nile Region (WNR) is for most districts below the national average of 74,6 percent, however this also depends on the source. Table 2 below presents key data concerning sanitation coverage in the different districts of the WNR derived from both the Sector Performance report 2014 and SSH4A baseline study (SNV,2014a).

Table 2. Key data sanitation coverage districts West Nile Region

District	Rural Population	San. Coverage SPR 2014	SSH4A baseline
Arua	737,300	63.0 %	37.0 %
Yumbe	532,600	50.0 %	36.0 %
Koboko	190,900	73.0 %	48.0 %
Maracha	172,000	70.0 %	50.0 %
Nebbi	305,000	77.6 %	47.0 %
Zombo	201,000	71.0%	54.0 %
Moyo	401,900	88.0%	60.0 %

Furthermore the Uganda Bureau of Statistics (UBOS) offers insight in distribution of toilet types in the North of Uganda (including West Nile Region) compared with the rest of Uganda (table 3). This data also shows that the North lags behind the rest of the country when it comes to improved sanitation. Furthermore it shows that highest rates of open defecation are also found in the North.

Table 3: Distribution of Households by Type of Toilet Facilities, Residence and Region (%)

Residence	2009/10				
	Pit Latrine	V.I.P	Flush	Bush/ no toilet	Total
Rural	86.8	2.5	0.3	10.3	100
Urban	80.0	8.6	10.2	1.3	100
Region					
Kampala	87.4	7.6	3.2	1.8	100
Central	75.9	10	14.1	0.0	100
Eastern	86.1	1.9	0.6	11.4	100
Northern	72.9	1.9	0.3	24.9	100
Western	95.7	1.2	0.8	2.3	100
Uganda	85.5	3.7	2.2	8.7	100

Source: UBOS

As recognized on national level, there is need for better coordination of WASH activities. Whereas the Memorandum of understanding forms part of the solution, this does not always function, because the decentralization policy of the Government of Uganda brings power and implementation to district levels. In order to address this issue, the LeaPP-WASH initiative emerged in 2010-2011. This is a learning alliance in four districts in the West Nile Region (Arua, Koboko, Adjumani and Yumbe) bringing all kind of stakeholders from the public and private WASH sector together in order to coordinate activities, exchange ideas and document best practices (SNV,2011). LeaPP-WASH initiated from a cooperation of SNV, NETWAS UGANDA and the International Resource Centre (IRC) Netherlands. Stakeholders include political and technical officers in districts and sub counties, officers from local implementing CBOs and staff from NGOs. The objective of this initiative is to create effective sanitation, hygiene and water programs, including sustainable behavior change and facilities. A few important lessons derive from this initiative, which should be taken into consideration when designing new interventions. These lessons include:

- Locally generated solutions are much easier to scale up than imported solutions. After Vurra piloted community-level structures for hygiene and sanitation, two more sub counties adopted the initiative.
- Promote learning at the sub county level gave quicker results than at the district level because implementation primarily takes place at that level.

- Structuring the learning alliance sessions around themes gave time for participants to learn in-depth about each topic, implement action points and follow up before moving on to another thematic area.
- Facilitators must move at the pace of the participants, accommodate the different learning styles of their audience and quickly modify approaches that are not working.
- For innovations to be adopted, stakeholders must take into account the local context and daily lives of community members.

3. Host organization

SNV is an international NGO founded in the Netherlands. Their aim is to make a lasting difference in the lives of millions of people living in poverty, focusing on agriculture, renewable energy and water sanitation & hygiene (WASH), in the poorest countries of Africa, Latin America and Asia. The focus is on the freedom of people to pursue their own sustainable development (SNV, 2014b), whereby SNV contributes to strengthen the capacity of local organizations (LCB).

SNV Uganda is in partnership with five district local governments (Lira, Kyenjojo, Bundibugyo, Arua and Kasese), the Embassy of the Kingdom of the Netherlands and UNICEF, with who they implement a community empowerment program in order to improve the livelihood and health of 36,400 households and 268 schools, including 172,000 primary school going children. The focus in this program is on increasing access to improved sanitation, sustainable behavior change in hygiene and improved access to reliable, safe and sufficient drinking water supply. So far 364,700 people are reached and have access to improved sanitation and hygiene and safe drinking water.

Concerning the sanitation in Uganda, SNV works with the Sustainable Sanitation and Hygiene for All (SSH4A) agenda, which combines hygiene behavioral change communication, demand creation, sanitation supply chains and governance, as summarized in figure 3 (SNV, 2013).

Figure 3. Summary of the four components that make up the SSH4A Approach



Source: SNV

The approach identifies outcome indicators and sustainable indicators in order to measure if implementations in sanitation and hygiene are:

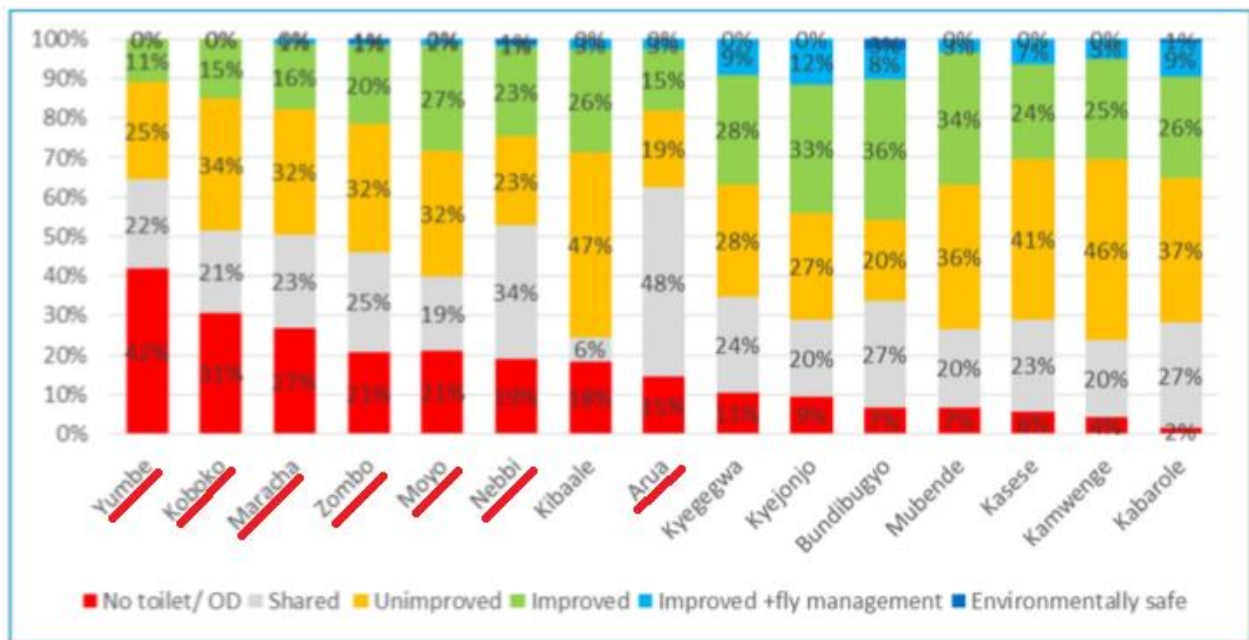
- Functional sustainable: long-term facilities remain operational.
- Institutional sustainable: local organizations and structures can sustain facilities and behaviors
- Financially sustainable: Funds are available to meet initial and ongoing cost
- Environmental sustainable: building climate resilience into technological design and reduce impacts on water resources.

- Socially equitable: vulnerable groups are inclusive in interventions in terms of benefits.

The list of indicators can be found in appendix one.

The West Nile Region is one of the three regions where the SSH4A approach in Uganda is implemented. In the WNR, seven districts are selected (see table 2), including a limited number of sub counties. The project forms a strong collaboration with the Ministry of Health’s Uganda Sanitation Fund. In order to identify targets, a joint baseline is conducted including data on sanitation coverage, type of sanitation, functionality of latrines among others. Figure 4 shows the distribution of access to sanitation facilities among the fifteen identified districts. Seven of them located in the West Nile region are highlighted.

Figure 4. Access to sanitation facilities by district



Source: SNV, SSH4A baseline

The project is designed to reduce open defecation and support households to scale up the sanitation ladder (SNV, 2014a). As mentioned in the introduction and showed in table 2 and 3, sanitation coverage in Uganda and in particular the West Nile region is low. SNV attributes the stagnation in sanitation coverage to reasons as decline of effective sanitation promotion and high population increase. This makes it hard to stay on track with service provision. These reasons in combination with a poorly developed private sector and people constructing their own facilities with little knowledge, results in a vicious circle of poorly constructed latrines, collapse and return to or continuation of open defecation (SNV, 2014a).

In order to break the vicious circle and increase health related benefits, SNV aims for two important conditions. First, suitable technologies and products should be used in construction, asking for private sector development and better supply chains. Second, latrine construction should be based

on increased awareness, through behavioral change. In order to address these conditions, SNV conducted a consumer insight and supply chain study to identify problems and design relevant messages, market options, and the improved availability of market interventions. This study forms the practical research rationale, which is mentioned in the introduction and supported by the theoretical framework.

In Aura SNV WASH works together with three LCBs, FOSID, CEGED and CERITAS, to reach the outcome and sustainable indicators mentioned above. The LCBs work in selected sub counties in the field using CLTS and PHAST methods to trigger villages out of open defecation, with as goal to declare villages or in some cases sub counties open defecation free by the DHO. The LCBs work together with the health assistant on sub-county level and with the VHT on village level.

4. Methodology

4.1 Operationalization

In this paragraph the concepts of the research questions are defined and operationalized into measurable variables in order to provide a robust research design. Methods are chosen according to this operationalization.

How does the issue of sharing sanitation facilities (latrines) fit into sustainable access to sanitation in the rural West Nile Region in Uganda?

Sharing is defined as two or more households sharing the same toilet.

A **household** is defined as everyone who eats together from the same pot (as defined by SNV). In this research, households are identified within extended families, by asking their relationship and if they eat together. In unclear situations the local translator used the relationship between extended family members to establish the individual households. Married grown up children are a different household than the parents. Not married grown up children belong to the household of the parent. Brothers and sisters are split up into different households when married. When one man has several wives, each wife with her children is counted as an individual household.

A **sanitation facility** is defined as any type of improved or unimproved sanitation facility. In the local context of the research this is mostly a traditional pit latrine.

An **improved sanitation facility** is defined as any type of facility which hygienically separates human excreta from human contact (WHO & UNICEF, 2015). This includes flush/pour flush to: piped sewer system, pit latrine, septic tank; Ventilated improved pit (VIP) latrine; Pit latrine with slab; Composting toilet.

An **Unimproved sanitation facility** is defined as all other types of facility, including open pits, facilities dropping faeces into water bodies, streets and yards, buckets and the use of the bush (including covering faeces with sand) (WHO & UNICEF, 2015).

Sustainable access is defined as access to an improved facility, which in terms of construction of the latrine should have walls and a roof, making a toilet less vulnerable for collapse, and have a pit with a depth accommodating the amount of people using a latrine for at least one year.

1. *What are the circumstances under which the sharing of latrines occur?*

Circumstances concern facts and conditions under which sharing occurs. This is measured in terms of household and respondents characteristics of sharing and non-sharing households and characteristics of the facility including the type, cleanliness, quality, distance between the house and the latrine, and presence of a hand washing facility. Furthermore environmental circumstances as season, prevalence of interventions and political context are used to measure the circumstances.

2. *What does sharing toilets mean in local context?*

The local context is measured in terms of number of people and households sharing a latrine in Arua, the relationship between people sharing, the reasons why people share a latrine, the practices and responsibilities around shared latrines, and last the overall opinion of individuals and the community about sharing a latrine.

3. *Which issues occur when sharing toilets?*

Issues are measured in terms of socio-cultural factors, including social relations and responsibility. Furthermore in economic factors including the cost, and the health factors including spread of diseases. Last it is measured in terms of sustainability, in which the quality and lasting of a latrine play a role.

4. *Which benefits occur when sharing toilets?*

Benefits are measured in terms of socio-cultural factors, including social relations and responsibility. Furthermore in economic factors including the cost and the health factors. Last it is measured in terms of sustainability, in which the quality and lasting of a latrine play a role.

5. *How can differences in the rate of sharing toilets among different regions be explained?*

For this question the characteristics of Arua derived from question one till four are compared with a neighbouring district in the West Nile region. This will be Moyo with a sharing rate of 19 percent.

6. *How can the issue of sharing latrines best be addressed by local NGOs and LCBs?*

The current practices of project implementation for improving sanitation by local LCBs are examined. The focus is on how sharing is currently dealt with by the CLTS and PHAST approach. Based on the indicators mentioned in sub questions one till four, an advise is established on how these local LCBs can address and include sharing as form of sustainable access to sanitation in the implantation of their interventions.

4.2 Methodological Framework

The issue of sharing latrine facilities is a topic underrepresented in academic literature. Whereas some health studies have been published about sharing, not much is known about the socio-cultural and economic dimensions of sharing. Therefore this research is mostly an exploratory study. The research uses a mixed method approach in order to overcome the challenges associated with conducting research in the developing world. Whereas surveys are known for providing

quantitative, reliable, comparable and valid data, the complexness of social and cultural reality is often neglected in this method.

For answering the first four sub questions, a combination of structured interviews and focus group discussions is used. The structured interviews are a combination of quantitative survey to identify demographics and sanitation assets and qualitative survey in the form of open questions to find out the meaning and practices of sharing. The structured format of the survey makes each respondent being exposed to the same set of questions, making comparison between respondents possible. The open questions will be coded afterwards into categories in order to find patterns and relations between variables and can be used in descriptive statistics. In order to provide better insight in the social and cultural aspect of sharing, the survey is combined with focus group discussions (FGDs). This mix of methods enables elaboration and expansion in which the focus group discussions are used in an intergrading way during data analysis of the survey to enrich findings from the survey. Furthermore semi-structured interviews are conducted with district and sub county health officials in order to find out their current approach towards sanitation and sharing of facilities and cooperation with ongoing interventions by local NGOs and LCBs in sanitation.

For answering the fifth sub question, focus group discussions in a nearby district, namely Moyo with a low sharing rate of 19 percent, are conducted and these data is compared with the survey and focus group data from Arua district in order to find explanations for the big differences in sharing rates. Furthermore also in Moyo semi-structured interviews are conducted with district and sub county health officials in order to find out the history and rate of ongoing interventions by local NGOs and LCBs in sanitation. This data is compared with the data derived from the semi-structured interviews held with health officials from Arua district.

For answering the sixth sub question semi-structured interviews are held with local LCBs working in sanitation in Arua district. These interviews focus on the current practice of the LCBs and their current approach towards sharing within their interventions. Below the different methods will be discussed in more details.

4.2.1 Survey

As mentioned above a survey is conducted in which both closed and open questions are included. The survey is designed into eight sections based on topic. The sections included are:

1. Information Panel (A)
2. Demographic Profile (B)
3. Wealth index (C)
4. Group identification (D)
5. Sanitation (E)
6. Use of sanitation (F)
7. Hand washing (G)
8. Sharing sanitation (H)

The information panel informs about the location, the date and the translator of the conducted survey. Demographic profile contains household information as gender, household head, education and composition of the household. The complete survey can be found in appendix two. The wealth index section measures household wealth based on the material of the walls, roof and floor of the household's main building. Group identification is a section with questions dividing people into four groups based on sanitation practices, namely open defecation, owner of latrine which is not shared, owner of latrine which is shared, and non-owner of a latrine but sharing with others. This makes it possible to do quick analysis on different variables. The sanitation section is about the type and characteristic of the latrine. Use of sanitation is about the functioning of the latrine, cleanliness and any defects. The hand washing section is about the presence of hand washing facilities including soap and water. The last section about sharing is the open ended part of the survey including 33 open questions to get insight in the issue of sharing latrines. The survey includes instructions for the translator who conducts the interview. Section one till seven are based on the baseline survey from SNV in order to make data comparable. The survey can be found in appendix 2.

The data from the survey is collected face-to-face by two translators. The questionnaire is in English, whereby questions are directly translated into local language during the interview and answers are written down in English by the translator. For the pre-test, four households are interviewed, in order to identify sensitive questions and to find a logical sequence of questions for interviewing. This is included in the final design of the survey. Both translators are trained in the instructions on the questionnaire in order to minimize different interpretation and translation of questions.

Sample selection survey

Since the research is exploratory and special cases of sharing need to be identified, the research uses purposive non-probability sampling till no new data is found. Within the district Arua, four sub counties are selected. Two sub counties with LCB interventions and two sub counties without interventions as control group. Within these four sub counties nine villages are selected, either by LCBs based on baseline data on sharing rates or by sub county officials based on sharing rates. In order to find in-depth information about sharing, villages with high sharing rates are chosen. Since the sample is based on purposive selection, results cannot be generalized to the population. However by comparing key-characteristics of the survey demographics with demographics from the SNV baseline study, something can be said about representativeness of the sample. Furthermore a geographical diverse sample is demanded. Therefore one sub county with LCB interventions close to the urban center of Arua and one far from the urban center is selected, as is done for the two sub counties without LCB interventions, in order to control the interfering variable of distance to urban center. See table four on the next page for the sample list of sub counties and villages and the number of surveys conducted.

Table 4. Sub counties, parishes and villages survey sample

Sub county	Parish	Village	# Surveys conducted
Oluko (LCB interventions)	Yabiavoko	Rabala	9
	Turu	Drimu	9
Uriama (LCB interventions)	Akinio	Perea	9
	Ejomi	Erepea	8
	Otumbari	Otumbari	3
Manibe	Olufe	Okupaliri	10
	Eleku	Agorovu	10
Ajia	Ajia	Ombamba	10
	Ombokoro	Oyeku	10
Total			78

Data analysis

For analysis of the survey data two different methods are used. For the closed questions a coding scheme is made before conduction of the research. For the open questions, manual qualitative analysis is used. Open questions are coded into categories. After the categorization, categories are coded into numeric data, processed in the coding scheme and added in a single database together with the closed questions, which can be used for creating descriptive statistics and presenting the data in graphs (coding scheme can be found in appendix 3).

4.2.2 Focus group discussions

For the focus group discussions a topic list is created, which is based on the open questions of the survey to gather more in-depth information on sharing. The topic list for the focus group discussions can be found in appendix four. In each sub county where the survey is conducted a focus group discussion is held, only including people who did not participated in the survey. Mostly this was realized by selecting another village for the focus group discussions. Two mixed-gender FGDs were held and two female only FGD. This enables women to speak more freely, since men tend to take the lead in the discussion when mixed groups participate. Focus groups varied from five people participating up to 25 people, in order to let group size not interfere as variable. The focus group discussions in neighbouring districts will make use of the same topic list in order to expose participants to the same questions to make data comparable. The focus group discussions are held in local language by two translators, from which one is the facilitator and the other makes notes. The table (table 5) on the next page shows an overview of the villages where the focus groups are conducted.

Table 5. District, sub counties and villages focus group discussions

District	FG#	Subcounty	Village
Arua	1	Oluku	Adravu
	2	Uriama	Otumbari (different participants than survey)
	3	Manibe	Omundabiliku
	4	Ajia	Olevu
Moyo	5	Dufeke	Kocia
	6	Laufori	Laufori

Data analysis

The focus group discussions are recorded and transcribed by local translators into English. These transcriptions underwent a manual coding process in order to find relationships and patterns. These results help to understand the survey data more in depth and function to reject or confirm certain patterns found in the survey data. The topic list of the focus group discussion can be found in appendix 4.

4.2.3 Semi-structured interviews

Semi structured interviews will be conducted with sub county health officials in order to gather data on their approach and current practices concerning the sanitation sector, the by-laws in place and the cooperation with LCB and NGO interventions. Furthermore informal and semi-structured interviews with LCBs are held in order to gather data on current practices on interventions concerning the issue of sharing.

4.3 Quality criteria

Sumner and Tribe (2008) talk about four alternative quality criteria for mixed method research, which will be discussed below in the context of this research. The first criteria Becker talks about is credibility. For this research credibility of the findings is achieved by using a mixed methods of data collection as mentioned above. The focus group discussion is used in combination with the survey data in order to confirm or reject the findings of the survey, which makes findings more credible.

The second criteria Sumner and Tribe (2008) talk about is transferability, which means findings are relevant to other settings than the ones from which the data is derived. This is achieved by gathering a sample in which diverse settings are included. This includes the presence or absence of interventions, the distance to Arua urban center and others. By making the sample diverse, results can be measured against different settings which can say something about emerging or general patterns. By conducting focus group discussions in different villages than the ones used for the survey, also this data can say something about the transferability of the findings.

The third quality criteria mentioned by Sumner and Tribe (2008) is dependability, which means to which extent results can be transferred to a different period of time. In the context of this research season is an important factor to take into account. Therefore specific questions about the season are included to control the variable. The survey is conducted in dry season, because this is the time respondents are at home, villages are accessible and people have time to talk with you, since in the rain season people work in agriculture in the fields. People include different seasons in their answers which makes it assumable that results would be the same when research would be conducted in rain season. Another issue in terms of time is the presence of interventions. Over time interventions can take place which can influence people's perception and response. To validate this, intervention and not-intervention areas are included in the sample to control the variable.

The last quality criteria Sumner and Tribe (2008) talk about is conformability which means the extent to which the researcher allows personal values intruding to an excessive degree into the research. By letting the translators examine and pre-test the survey, the survey is made suitable for local context in which personal values of the researcher are not to an excessive degree intruding the research. The translator has been briefed about neutrality when conducting the survey which makes it assumable that personal values of the translator are not intruding to a large extent as well.

4.4 Limitations and risks

There are a couple of limitations and risk which might interfere with the results. Since sanitation is not a very attractive and often private issue for people, it might be hard to convince people to participate in the research and talk openly about different issues.

Furthermore a bias can be introduced by the research process. There is no availability of an accurate sample frame. The sample is selected based on purposive non-probability sampling, which means in this particular research that LCBs and local council administrators direct us to villages and village health team members (VHTs) lead us to households. These LCBs, local council administrators and VHTs might lead us to certain villages and household they want us to see, which might not always represent the reality in the sub county. However without a village health team member it is impossible to move to households, since you need to be introduced by these VHTs to the household first before the household wants to talk with you.

Another type of bias can be introduced by the researched. When moving in LCB intervention area's people might connect us with a certain intervention and therefore tell us things they think we want to hear.

As told before it is necessary when conducting research to be guided in the village by a village health worker. This means that other people are listening to the answers of the respondents and the respondent might respond on behalf of others, because they don't feel open to tell their real ideas in front of people in the community. Besides the VHT often other family members and neighbours gather around the interview, often out of curiosity, which means that more ears are listening which

even further influences the reaction of the respondent, especially on questions like ‘with who don’t you like to share your latrine’. People might not feel free to tell the truth if these category of people or people who know these category of people hang around when the interview is conducted.

Then there is interviewer influence. People might have certain ideas about seeing a white woman. This presence can influence the answers of a respondent on survey questions. People might want to be seen in a certain way, and respond according to that. The interview is conducted by a local translator. Since the researcher doesn’t speak the local language it is never sure if the translator probes certain answers, which could influence the respondent.

The last limitation is the language. Whereas the surveys are in local language, certain concepts and meanings might get lost in translation. Furthermore sometimes the local translator uses Ugandan-English concepts which are not familiar to the researcher and hard to interpret. To avoid any misanalysis, every survey is checked with the particular translator after the interview to clarify and explain all concepts used in the translation.

5. Results and discussion

5.1 The circumstances under which people share latrines

As the baseline study of SNV (2014c) shows, Arua district has a peculiarly high percentage of 48 percent of the people sharing latrine facilities. It is unclear why so many people share latrines and under what circumstances people share their latrines. This chapter looks at the different circumstances, more specific at the facts and conditions under which the practice of sharing occurs in order to give an answer to the first sub question: *What are the circumstances under which the sharing of latrines occurs?*

First of all this concerns the characteristics of the respondents and the households who share and not share their facility. Furthermore characteristics of the facility itself, like the type, cleanliness, quality and distance between the latrine and the house will be explored. Last, environmental circumstances as season, prevalence of interventions and political context will be explained.

5.1.1 Characteristics of the respondents and households

From the 78 respondents who participated in the survey, 75 percent of the people owns a toilet, from which 30 percent shares their toilet. The other 25 percent does not own a toilet, from which 24 percent shares a toilet with another household, which makes a total of 54 percent of the people in the survey sharing a sanitation facility (see figure 5). Since the sample is purposive, the data does not represent actual percentages of the population sharing. Graphs and results only represent the research sample. This is confirmed by comparing key characteristics from the survey, with data from the baseline study of SNV (2014c). According to the survey on average seven people live in one household. In the baseline study the average amount of people living in one household in Arua is eleven. In this sample only 5 percent of the households have disabled household members compared to 23 percent of the households in the baseline study.

Figure 5. Group division households sharing latrines

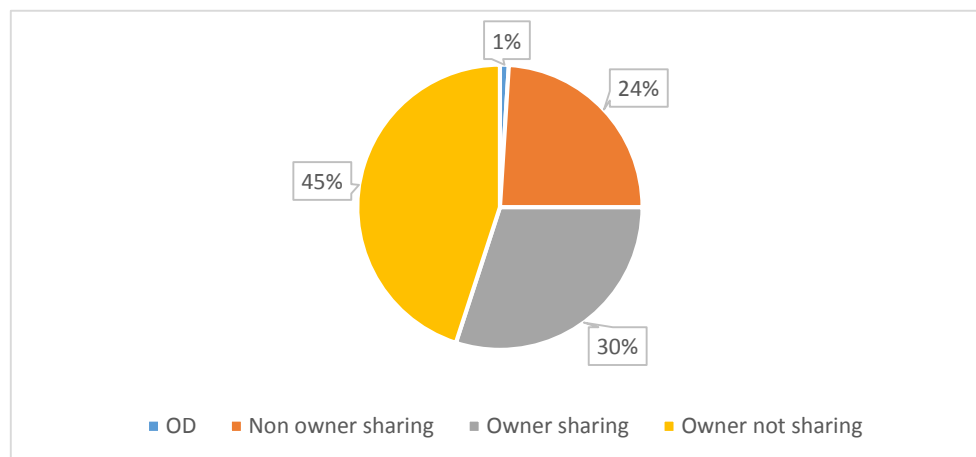


Figure 6 shows that 60 percent of the respondents is female and 40 percent male. In most of the cases the male respondent is also household head. In the case of female respondents this is only a third. In total about half of the respondents who participated in the survey are household head. When combining the gender of the household head with sharing behavior, 52 percent of the male headed households share a facility compared to 58 percent of the female headed households, only a small difference (see figure 7). Another interesting outcome is that 79 percent of the female headed households owns a latrine, compared to 73 percent of the male headed households.

Figure 6. Gender and household head respondents

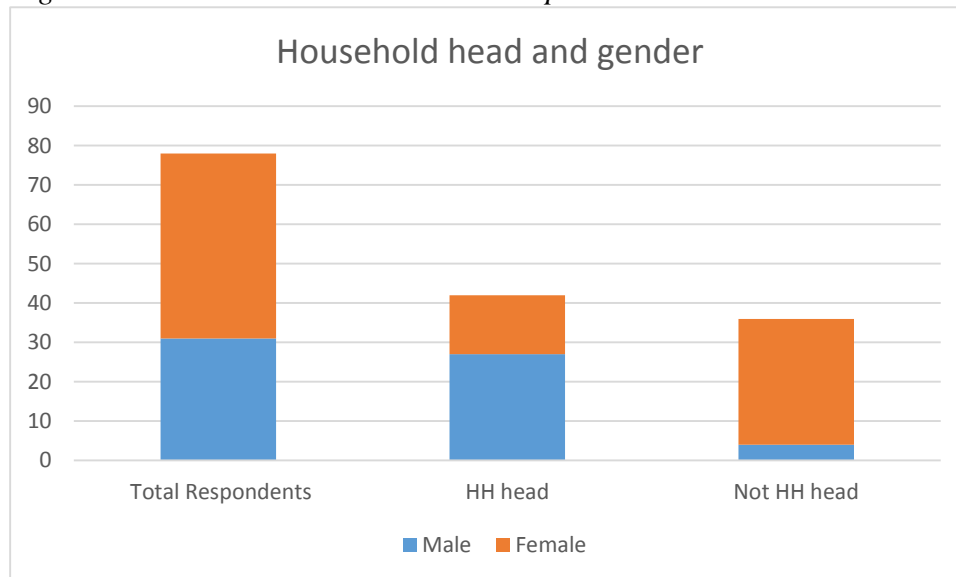
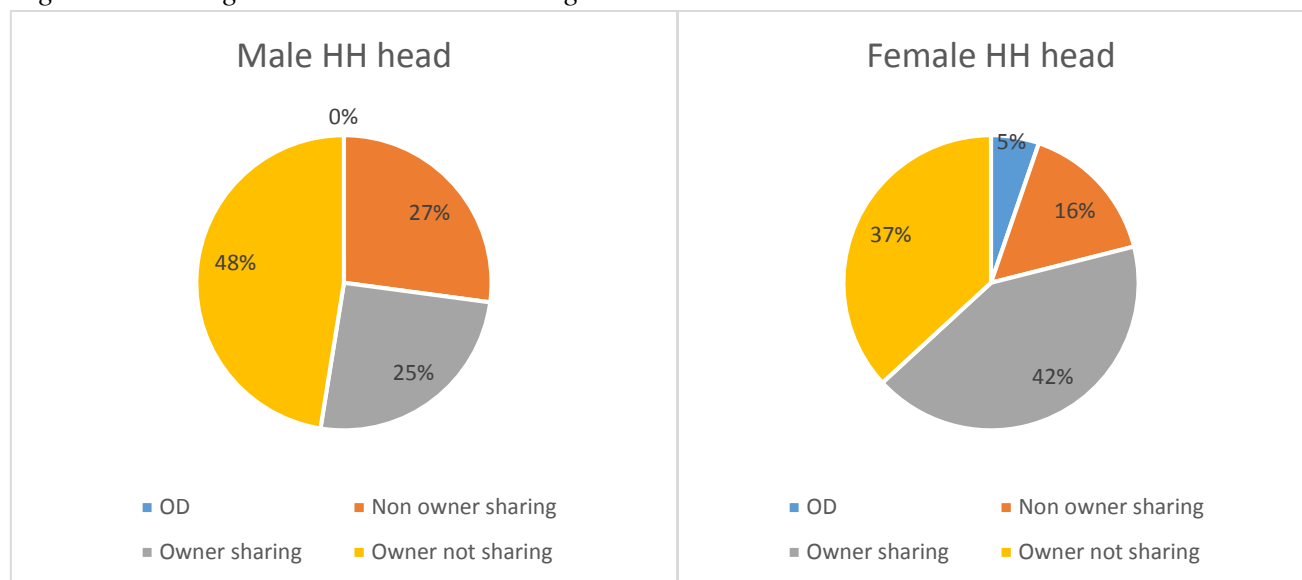


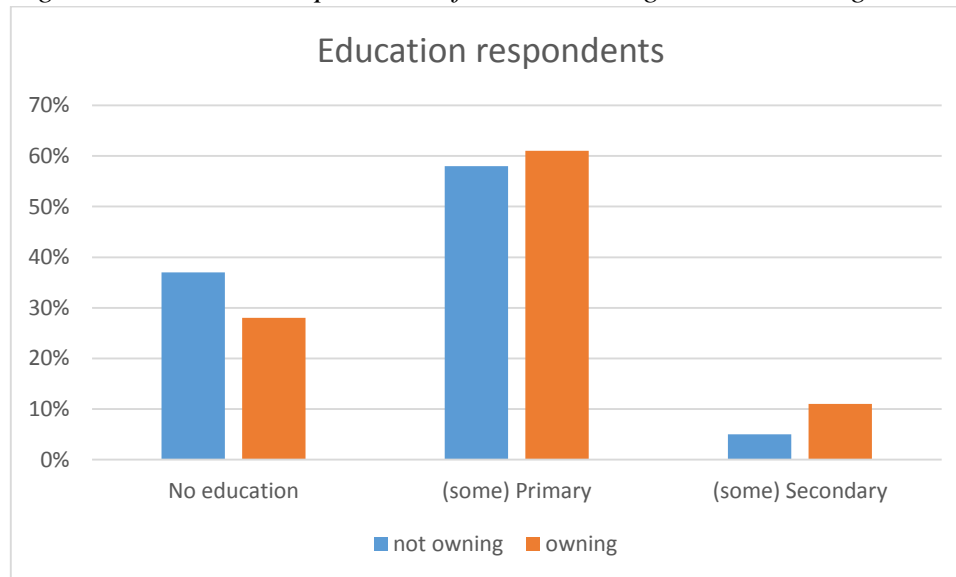
Figure 7. Sharing behavior combined with gender household head



To provide a background about the respondents of the sample, almost 70 percent of the respondents is farmer, 31 percent of the respondents has no education and only 9 percent of the respondents has

secondary education. When the education of respondents is compared between households with or without a latrine, as can be seen in figure 8, the most interesting finding is that when a household has no latrine, in 37 percent of the cases the respondent had no education at all. This is 28 percent of the households who own a latrine. Furthermore 90 percent of the respondents is catholic. When looking at the wealth of the household which is measured by the material used for roofing the house, iron sheet or grass , 78 percent out of the nine household with iron sheet roofing owns a latrine, which is no real difference from the 75 percent of the households with a grass thatched roof owning a latrine.

Figure 8. Education respondents of latrine owning and not owning households



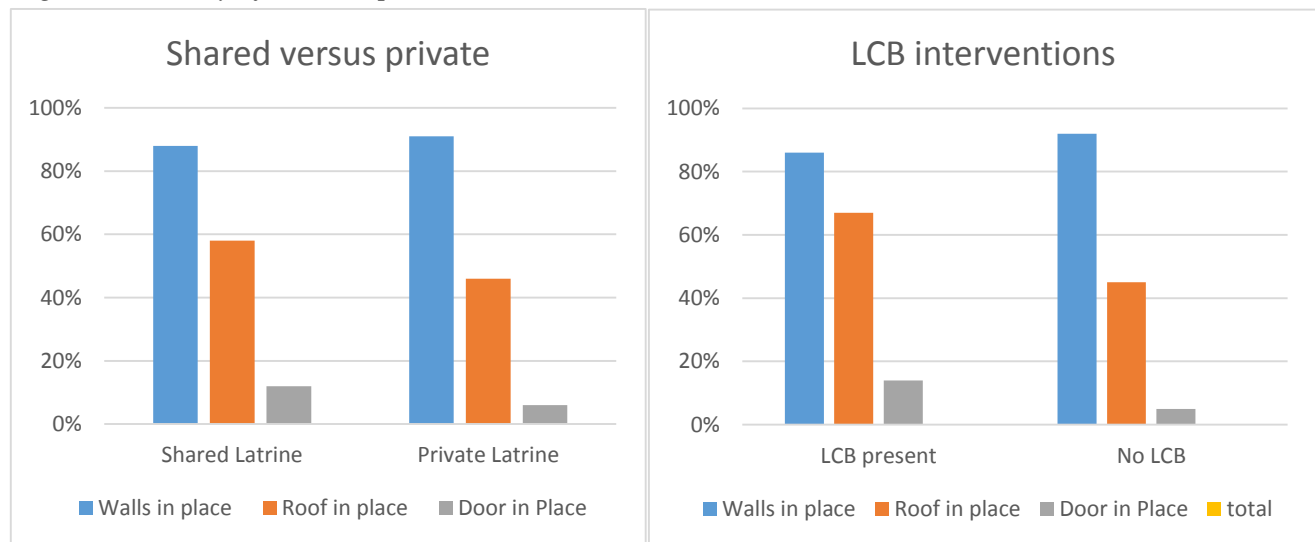
5.1.2 Characteristics of the sanitation facility

In most of the cases (94%) people use a pit latrine without concrete slab, which means the pit latrine has a slab made out of local materials such as mud, wood and bricks. Also in the focus group discussions it becomes clear that local materials are mostly used for the construction of latrines. This is not only used for the slab of the latrine, but also for the superstructure, like the walls and the door. Construction is in most of the cases done by the household itself. When a latrine is constructed by hired labour, the total costs including materials are about 120000 Ugandan Shillings (32 Euros), while a meal costs about 2500 shillings (0,67 Euro). In Arua and Moyo it is not common to empty the pit of the latrine after it is filled up. This means after the pit is filled, the latrine is closed with mud or earth, a new pit need to be dug and a new superstructure need to be build.

In the survey the quality of a latrine is measured by the presence of walls, a door and a roof, as can be seen in figure 9. When comparing the quality of shared latrines with private latrines, shared latrines have in 12 percent more cases a roof than private latrines and in 6 percent more cases a door, only in 3 percent of the cases the latrines have less often the walls in place. This confirms earlier research done by Jenkins et al. (2014) on shared latrine facilities in Dar es Salaam, whereby

shared facilities more often met functional conditions like the presence of a roof, walls and a door. This indicates that the construction of shared latrines might be often of better quality. When the quality of latrines is combined with the variable ‘LCB interventions are present’, a big difference appears between sub counties with LCB interventions, where in 22 percent more cases the latrine has a roof and in 9 percent more cases a door than in places without interventions. However in 6 percent less cases the wall is in place when LCB interventions are present. The roof is an important part of the superstructure. This has to do with the high amount of rains the people have to deal with in the rainy season. Without a roof the latrine is vulnerable to collapse during heavy rains.

Figure 9. Quality of latrines private or shared and with or without LCB interventions



Another interesting outcome of the survey is that in places with LCB interventions 17 percent of the latrines has a hand washing facility. In areas with no LCB interventions no single latrine was found with a hand washing facility.

When looking at the cleanliness of private latrines compared to shared latrines, respectively 91 percent and 82 percent of the latrines is found clean. This is only a difference of 9 percent, in which the private latrine is more clean (see figure 10). A rather small difference considering JMP’s concern that shared latrines are less clean and hygienic than private latrines. In rural areas of Arua district it is uncommon to have a latrine in the house. In all the cases of the survey and focus group discussions, the latrine is a superstructure placed several meters from the hut where people sleep. The distance from the house to the latrine is in the case of an owned facility about 22,7 meters and when not owned and shared with others about 32,6 meters from the house. This means that people who do not own a latrine have to walk on average 10 meters further to access a toilet. The extra distance members of a non-owning household need to walk to a latrine is rather small, making sharing an easy accessible option in terms of distance. The rather small difference in distance to a latrine between owning and not owning households could be a possible explanation for the high sharing rate in Arua district.

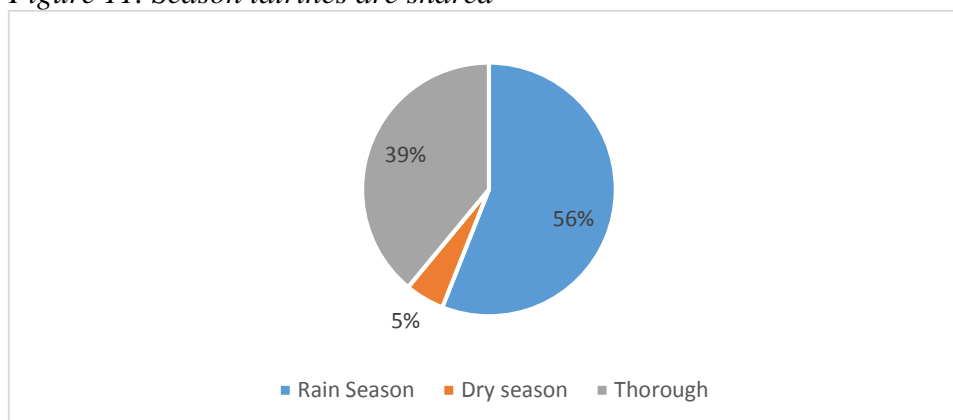
Figure 10. cleanliness latrine



5.1.3 Environmental circumstances

When asking the respondents about the season in which sharing occurs mostly, more than half of the respondents claim to share more often a latrine in the rainy season (see figure 11). When asking for reasons why, most people tell that in rainy season more food is available and this leads to more consumption and therefore more toilet use. When people use a latrine more often while they don't have their own latrine, it means automatically that they share more often other people's latrines in that season. Another common reason people give is that fruits are more available and overconsumption of fruits leads to a running stomach, increasing latrine visits and therefore sharing. Other reasons given are that pits cannot be sunk for the construction of an own latrine during the rains, since they can easily collapse, so they share more often in this season with people who own a latrine till they can construct their own latrine in dry season. Furthermore people sometimes shelter in the latrine during heavy rains, which makes someone who needs to release himself move to another latrine. These last two reasons define sharing as something temporary. One respondent said that in rainy season people's movements are restricted and more people are at home to use the latrine, which increases the sharing of latrines. This however indicates that sharing just happens with more persons at these particular moments instead of more households.

Figure 11. Season latrines are shared



An interesting reason given by one respondent who claims to share more in dry season, is that in dry season there is no vegetation to hide in and practice open defecation, therefore stimulating people who not own a latrine to use the latrine of their neighbours or relatives, which increases sharing. This is confirmed in one of the focus group discussions, where one respondent mentioned to have seen many people moving to other people's latrines in the dry season, because in this season the vegetation is burned down for agriculture, giving people no chance to hide in the bushes to practice open defecation.

5.1.4 Political circumstances

In order to find out the political circumstances under which sharing occurs in Arua and Moyo, seven semi-structured interviews are held. In Moyo the district health officer is interviewed in order to find out which strategy and approach is used regarding sanitation on district level. Furthermore the political chairman of Dufele sub county is interviewed, in order to see how sanitation activities on LC 3 level are coordinated. As last, one health assistant from Lifori sub county in Moyo district is interviewed in order to see how the sanitation approach is implemented.

In Arua also the district health officer is interviewed to get insight into the strategy regarding sanitation in the district of Arua. Second the assistant district health officer on district level is interviewed to see how the sanitation approach is technically coordinated. Furthermore two health assistants from Oluku sub county and Manibe sub county are interviewed to see how sanitation activities are implemented locally in Arua district.

Moyo district

According to the DHO in Moyo, there is an ordinance in place concerning sanitation. This ordinance is a by-law on district level, which guides lower level councils for making by-laws on sanitation on village level. The sanitation committees have local council heads, political heads of the village, who enforce the sanitation by-laws on village level. The ordinance in sanitation sets that every household should have a latrine. On village level the implementation of by-laws sometimes differs. There are different procedures of enforcing, leading to different results in different villages. The appearance and attitude of the local leader and the committee around him play an important role in the success of implementation. Enforcement for example can take place by gardening people. This means that when households don't have a latrine, a team will dig a latrine for this household and this household has to pay the team for the work. When the household doesn't has money to pay, the team will take a chicken or a goat from them, sell this on the local market and divide the money as salary for their work.

The by-laws cater for households and not for homesteads, which means that even within extended families, individual households are identified as unit to enforce the sanitation by-law. Every household should have a latrine, not the homestead.

Political support is an important key issue in making the enforcement of by-laws successful. According to the DHO, the district local council has a very supportive chairman. It is a straightforward person who does not fear for the votes of the people. He supports the sanitation by-laws and openly promotes this. Furthermore the chairman moves around a lot for monitoring visits. During these project and community meetings he is able to trigger and motivate the technical people in health, education and community based services, and makes them see the importance of good sanitation by-laws and the implementation of these.

According to the sub county chairman of Dufeke, the sub county has different sanitation committees which are led by the health assistant. As chairman he is responsible for monitoring the process and enforcement of by-laws, which he does together with the health inspector, secretary for health and the vice-chairman. If they find bad results in the sub county, they submit this at district level to get support. Also in Dufeke sub county the by-law does not allow sharing. Each household should have a latrine.

The health assistant in Lifori sub county shows a slightly different image concerning enforcement of by-laws. According to her the by-law that every household should own a latrine is in place, but is not implemented. Sharing within the extended family is according to her a very common practice, in which one man constructs a latrine, which he shares with his brother and mother who have their own households. The by law is in place to enforce construction on household level, but there is no support from the sub county. When the health assistant moves to the villages to monitor the enforcement, there is no backup from sub county level. There are no funds for the transport of the health assistant, which makes it hard for her to move around and monitor if enforcement takes place. The problem with the LC1 and the VHTs is that they do not always get respect from the community. People don't take the by-laws serious. Only with help of the police or when sub county officials move together with the HA, they can enforce the law on these people. The sub county however, does not always has time for these activities, there is no facilitation for transportation, and overall the politicians don't want to lose the votes for the elections running in 2016, so they don't want to enforce laws on the people.

Arua district

According to the DHO in Arua, there is no ordinance in place regarding sanitation on district level. This ordinance is in the process of constructing. Sub counties do have by-laws on sanitation. This however can differ from sub-county to sub county. In some sub-counties there is a by-law that every household should have a latrine, followed by penalties for the household who do not have one, but by-laws are not common in every sub county. Sub counties can form their own by-laws. There are no guidelines for this on district level and sub counties do not have to discuss a new by-law with the district. They only need to inform the district about a new by-law in place. The district sometimes advices the sub counties on things like latrine standards. This however is not regular. In the villages it is the VHT who does the monitoring if by-laws are enforced.

According to the health assistant of Oluku sub county there are no by-laws on sanitation in place in the sub county. The reason for this is that it collides with the Community Led Total Sanitation program which is implemented by LCBs. In CLTS the community is supposed to lead their own initiatives regarding sanitation, and according to the health assistant a by-law interferes with and disturbs people's own initiatives. However, when people don't meet the deadlines made with the LCBs for latrine construction, the HA uses the public health act and engages the police to enforce the household to construct a latrine. This is sometimes done with a team who dig a pit for the households and take a goat away to pay themselves.

The responsibility of the HA is to move around the villages with the VHT to monitor the process of latrine construction and other hygienic practices like a rubbish pit. Also here the problem is facilitation. The HA does not receive any funds from the sub county or district for transportation to move around between the villages. This means that after the LCB CEGED moved out of the sub county after the project was completed, there is currently no monitoring by the HA, because lack of funds.

According to the health assistant in Manibe, there are only by-laws in place in trading centers, where buildings are supposed to have a latrine. Monitoring and sensitization of people to have a latrine is a shared responsibility between the HA, the VHTs and the LCB who recently moved in with interventions. The HA is convinced that every household should have its own latrine and sharing should not be allowed. It is not clear though, if there is a specific by-law on this in the sub-county.

ODF celebration

In Uganda the common practice exists that the local government verifies villages or sub counties where no open defecation takes place anymore. After verification, the village gets certificated as open defecation free (ODF), which is celebrated with a ceremony.

To declare a village open defecation free, the sub county first will verify a village by taking a sample of households in the village and inspect these on feaces. After this is done and no feaces are found, the district will receive a request for verification. The same process happens, in which a team of district officers will select a sample and inspect the village on feaces and latrine coverage. Once the verification is completed, the village will get certified as ODF and this is celebrated with an event. This is to make people feel proud with their achievement.

In Moyo the ODF status is achieved when every household has a latrine. The by-laws and ordinance accommodates for this. It means that all cases of people sharing latrines have to evanish before ODF declaration takes place. According to the DHO in Moyo, monitoring is a very important part of the declaration. He thinks the time between the request and the declaration is too short to promise sustainable results. He thinks that in between the request and the certification should be a few

months period of monitoring in which is guaranteed that no feaces are found. In this way after a villages get certified, you can assure a sustainable result and no relapse. According to him a certificate should mean that you can guarantee that a village is ODF, any moment you return to monitor the situation.

In Arua the focus with ODF declaration is not on latrine coverage. According to the assistant district health officer it is good to have a latrine, but the importance lies in behavioral change in the mind of the people. When people have a latrine, but they don't use it, there is still open defecation, while maybe people who do not own a latrine do use the latrine of the neighbours. The focus with verification is therefore on feaces found on the ground, together with conversations with children and different groups to find out the practices in the village. Number of latrines are taken into account but do not predominate the verification. The period between the request and the verification is mostly about three weeks.

5.2 The meaning of sharing in local context

This chapter will focus more in depth on what sharing is and what it means for the local people in the context of the West Nile region. This includes the average number of people and households sharing a latrine in Arua, the reasons why people share a latrine, the practices and responsibilities around shared latrines, the issues which occur when sharing a latrine, the benefits of sharing a latrine and last the overall opinion of people about sharing a latrine. This will answer sub question two, three and four:

2. *What does sharing toilets mean in local context?*
3. *Which issues occur when sharing toilets?*
4. *Which benefits occur when sharing toilets?*

5.2.1 The practices

Based on the survey people share on average a latrine with 2,6 households and with 16 people. The maximum number of households in the survey who share a latrine is five households or 40 people. When the latrine is not shared with other households, on average seven people use the latrine. The number of people using a latrine has implications for the sustainability of a latrine. When the latrine is shared, the average depth of the pit is 4,1 meters. As mentioned in the previous chapter it is not common to empty the pit of a latrine after it is filled up. This means that the last 50 centimeter of a pit cannot be filled with faeces and is used to cover and close the pit with mud or sand. Therefore the average usable depth of a shared pit is 3,6 meters. With a minimum use of 40 liters per person a year and a maximum use of 90 liters, the average shared pit latrine is supposed to last about 5,5 respectively 2,5 years when used by 16 persons. This however is mostly not the case, as many latrines are made from local materials and are badly constructed without walls or roof as mentioned before. The bad construction or missing roofs increase the chance that the latrine will collapse before the pit is filled. This is emphasized by one respondent from Laufori village in Moyo:

‘The nature of how you construct your latrine, some other people may not construct theirs well enough that it collapses during rainy season, so at least the person who has constructed a better structure will end up rescuing those whose latrine collapses’. (*Laufori village, Moyo*)

Beside that the respondent illustrates the common phenomena of latrines collapsing, the respondent also gives a reason why people possibly share more in rainy season. As mentioned in the previous chapter, people cannot construct new pit latrines in rainy season. This means that when a latrine collapses in the rainy season, the whole household is forced to share somebody else’s latrine or to practice open defecation. More reasons for people to share a latrine will be discussed in the corresponding paragraph. This paragraph will first focus on responsibilities of a shared latrine and the relationship between people sharing.

Construction

The first step when talking about responsibilities, is the responsibility of constructing a latrine. In the focus group discussions people were asked to explain who decides to build a latrine. The first reaction in most cases was that the man is responsible for the construction of a latrine. When a woman is household head, she is the one who is responsible for construction and often constructs the latrine with hired labour. One respondent from Olevu village in Arua illustrates that the person who is responsible for the construction of the house, is the person who is also responsible for the construction of the latrine:

‘Actually when you want to establish a home, the first thing you should do is to dig a latrine. It means you, the man planning to construct a house, ensures that there is a latrine. Even if it’s a woman planning a home, it all applies.’ (*Olevu village, Arua*)

The quote shows that it is the household head who has the responsibility of construction, whether male or female. In some focus group discussions they said that a husband and wife plan together to have a latrine, although the next quote shows that the first initiative should be taken by the husband, who is household head in this case.

‘In actual sense a man and his wife plan together, as the man you should come up with the initiative first, then your wife will support you.’ (*Olevu village, Arua*)

When the construction takes place though, both male and female family members are engaged. Women fetch the water for the construction of the walls and they cut the grass for thatching the roof, while the man do the pit digging and construction of the walls.

Respondents were asked when they construct a latrine, whether they construct it for accommodating several households or if it was planned for their own household only. In all focus group discussions people said they dug the depth of the pit of their latrine to accommodate for their own family only, but that they could not stop other households from using their latrine. In some focus group discussion it happened though, that sometimes people came together to construct a latrine with several stances and a deeper pit. Digging a deeper pit especially happens when a new latrine is constructed after the first latrine fills up. When people realize that other households use the latrine as well, they increase the depth of the next latrine.

‘When you use to dig 8 feet, you then increase it to 10, and if you usually did 10, you increase to 12 feet. The next latrine to cater for neighbours, because you have your children and then add on the neighbours, so you need to increase.’ (*Omundabiliku village, Arua*)

Adjusting the depth of the pit to the number of households sharing however is not always possible. The soil structure sometimes prevents people from digging a deeper pit. Big stones, rocks and a high water level can all prevent a pit from being dug very deep.

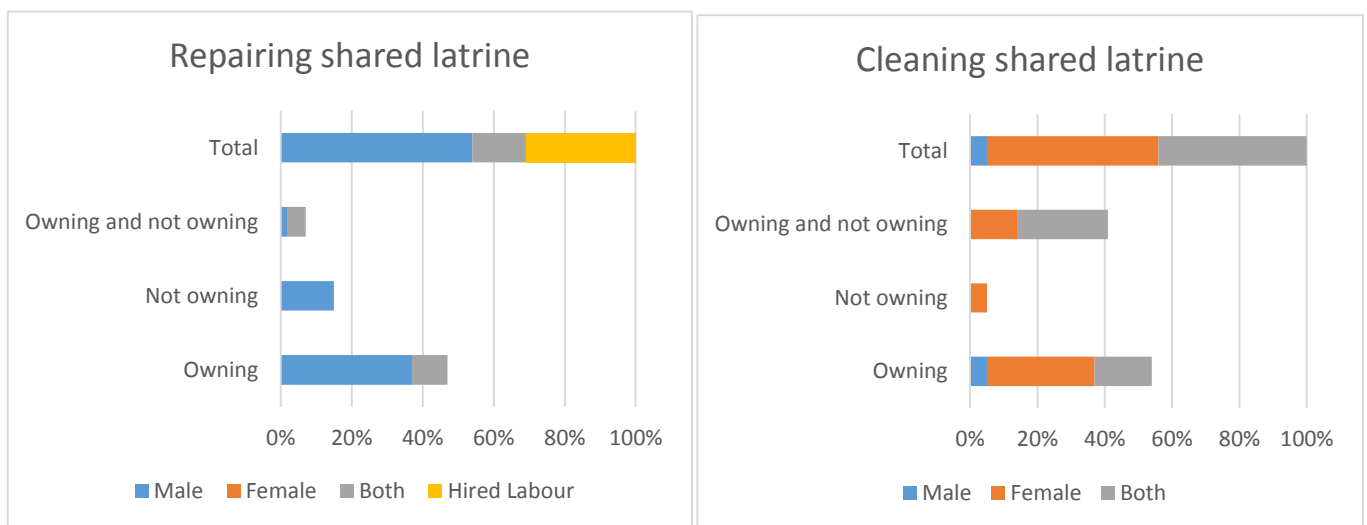
‘We dig depending on soil structure. If good, dig up to 20 feet, but when there is a big stone or water, you cannot dig further.’ (*Otumbari village, Arua*)

When a new latrine is built after the first latrine filled up or collapsed, it is the household head, in most cases a man, who decides to plan a new latrine. Repairing is also mostly done by men, and it is the person who constructs the latrine who is also responsible for the repair. This corresponds with the results of the survey (figure 12), which show that in most cases the owner of the latrine is responsible for the repairs. In 31 percent of the cases, labour is hired for the repairs of a latrine. Unfortunately this is not further specified in terms of which household is responsible for the cost of hired labour. Obvious is that it is not common for female members to be responsible for repairs of the latrine.

Responsibilities cleaning

Another responsibility which emerges when a latrine is shared, is the responsibility of cleaning the latrine. As can be seen in figure 12 it is often the household who owns the latrine, who is supposed to clean the latrine. This are in most cases the female members or both genders of the household. It are rarely the men alone who are responsible for cleaning, countering the responsibility of repairing. A traditional division of tasks seems to appear, in which the women are responsible for cleaning and the men for constructing the latrine.

Figure 12. Responsibilities repairing and cleaning shared latrines



The focus group discussions sketch a slightly different image about cleaning responsibilities. In four out of six focus group discussions it appears to be both men and women cleaning the latrine. According to some respondents, it is the person who enters the latrine first who can do the cleaning. Especially when the wife is not around the man is responsible for cleaning as well.

‘whoever finds it dirty can actually clean.’ (*Adravu village, Arua*)

‘Whoever enters first cleans, male and female.’ (*Otumbari village, Arua*)

‘Man do clean, especially when wife is not around.’ (*Omundabiliku village, Arua*)

‘Both people man and his wife should be responsible for cleaning so that when one person is not around the other can still clean.’ (*Otumbari village, Arua*)

As the survey shows, cleaning is also in 41 percent of the cases a shared responsibility between owning and not owning households, which sometimes runs very organized as highlighted by this respondent from Olevu village in Arua:

‘I own a latrine and we are three women sharing this very latrine. So if I have cleaned like today, then the following day another person cleans, and the day after the third one cleans. This happens in my home. This also involves men [...] I have neighbours who are not related to me, others are Kenyans so we include them in the duty roster for cleaning too.’ (*Olevu village, Arua*)

In this example the responsibility of cleaning a shared latrine is well managed. This although is not always the case as illustrated by another respondent from the same village.

‘What I see happens commonly, is that cleanliness is mainly handled by the owner of the latrine and as a result you find others who do not own and are simply sharing do not care about maintaining cleanliness.’ (*Olevu village, Arua*)

This quote shows that responsibilities concerning cleanliness can form an issue when the latrine is shared. From other focus group discussions it becomes clear that cleaning schedules are rare. The unwritten rule of the owner being responsible for the cleaning seems to be commonly accepted. Even when children of other households dirty your latrine, it is not common to ask the parents to clean their children’s dirt. If not owning households take the duty of cleaning the shared latrine, it is mostly voluntary as illustrated by a respondent from Adravu village in Arua.

‘The adults clean. It is bad to make children clean. You don’t go to their parents to make them clean, that causes quarrels and spoils relation. But whoever finds it dirty can actually clean’ (*Adravu village, Arua*)

One respondent though said that bigger children are involved in cleaning the latrine. These children learn about hygiene at school and can put this in practice at home by helping to clean the latrine.

Decision sharing

As mentioned before, construction, cleaning and repairing are often the burden of the household who owns a shared latrine. This raises questions about who then decides to share a latrine. The survey shows that in most cases (60%) it is indeed the owner of the latrine or a member from the owning household, who gives other households permission to use and share their latrine. Interesting though is that a high percentage of 40 percent of the people just uses somebody else’s latrine without permission. In 15 percent of the cases members of a household without latrine just decide themselves to use someone else’s latrine, and in 25 percent of the cases permission and decisions are never thought of and the latrine is just commonly used from the start on without any constrains. This 40 percent of people using shared latrines without explicit permission of the owner, might indicate that people see latrines as a common good instead of a private property. When people were asked in the focus group discussions if they saw their latrine as something private or as a

community good, most people responded that a latrine is in actual sense a private good which every household should have.

‘For me the reason as why every household should have its own latrine, is you sink the latrine for yourself, you are supposed to maintain it, fix a door with lock and lock it and keep it well for yourself.’ (*Kocia village, Moyo*)

‘For my case I will chase somebody out because that latrine is for me and my family.’ (*Laufori village, Moyo*)

‘A latrine is for the family that constructs.’ (*Laufori village, Moyo*)

‘The neighbour should construct their own latrine.’ (*Otumbari village, Arua*)

‘There should be a bi-law that requires every household to construct and own a latrine, people should not share latrine.’ (*Olevu village, Arua*)

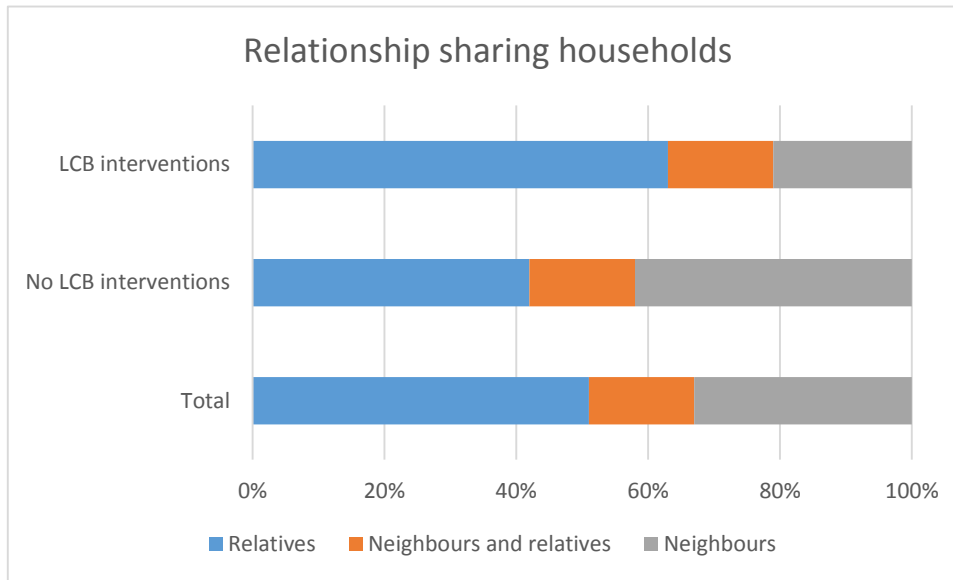
The nature of the latrine though makes it hard to keep the latrine private, since the latrine is often at some distance from the house and mostly not locked. This makes a latrine accessible for everyone who wants to enter it. Locking a latrine is not always a feasible option, since children often do not manage to deal with a padlock and as result they will defecate in the bush. Whereas people mostly see a latrine as a private good, this does not mean that they will not share. People often feel like they have no choice but sharing, which will be discussed in the paragraph about reasons to share a latrine.

Relationship people sharing

As far as people share a latrine with other households, it is interesting to look more in-depth into the different relations these sharing households have with each other. The survey shows that 51 percent of the households only shares with relatives (see figure 10). When including the households who share with both relatives and neighbours, 67 percent shares with relatives. For many households this is not always seen as sharing. Families in Arua are big and extended and often include parents, married brothers and sisters with children, and in some cases co-wives. Polygamy is common in Uganda, which means one man can be married to several wives. Extended families often live on the same homestead or compound and see themselves as one family or household. They often construct one latrine per homestead, which means that several households within the same family share a latrine. The other 33 percent of the people shares only with neighbours. As can be seen in figure 13, in areas where no LCB interventions are going on, people share more often with neighbours who are no relatives. In areas with interventions it is more common to share with relatives. This might be caused by the approach of LCB interventions in which each household is aimed to have its own latrine. As explained above, sometimes several households within a homestead see themselves as one big household, which declares a lower sharing rate with

neighbours, but not with relatives, as they think they have constructed one latrine for their household.

Figure 13. relationship of sharing households



Also from the focus group discussions it becomes clear that people feel natural with sharing within the extended family. Who belongs to this extended family and who not differs from situation to situation.

‘In my home there’s one latrine. I have three sons who have married and we all use the same latrine.’ (Omundabiliku village, Arua)

‘In my home we have my brother in-law who is currently away, my children, we all use the same latrine including the catechist.’ (Omundabiliku village, Arua)

‘The people I wish to share my latrine with are the ones with whom we stay together on the same compound. If my husband has two wives, we can share with the other wife, not my brother in law. If my father in law is weak and is not able to construct one we can also share with him.’ (Omundabiliku village, Arua)

As can be seen in the quotes above, for some people a brother-in-law can be part of the extended family with who it is okay to share a latrine, for others not. The respondents quoted above all live in the same village, which shows that even within one village this perception can differ from person to person.

In most of the focus group discussions people feel fine to share also with immediate neighbours, passers-by, and in some cases just anyone. When people were asked with who they did not want to share a latrine, the ideas were more explicit. Most people do not like to share with drunkards. These people often dirty the latrine easily and leave a terrible smell of alcohol mixed with faeces. This is not only unhygienic, but also has social implications as illustrated by a respondent from Adravu village in Arua:

‘Those I feel you should not allow access to your latrine are the drunkards. When a drunkard enters your latrine, you end up inhaling the alcohol and faeces. The smell of the alcohol fills the whole latrine and this is terrible. You end up smelling like alcohol itself.’ (*Adravu village, Arua*)

What this respondent means, is that when you as owner share your latrine with a drunkard, other people who share with you the latrine as well, might think you are the alcoholic, which is embarrassing.

People who live close to the trading center do not like to share their latrine with the people who dwell around the trading center. These people often dirty the latrine easily and make the pit fill up fast. Other people do not like to share with people in the village who are physically able to construct a latrine, but lazy to do so. Furthermore people don’t like to share a latrine with people who are infected with transmittable diseases. In the survey almost 40 percent of the respondents doesn’t wish to share with this last group.

People do have their ideas about with who they preferably share and with who not. However in practice you find people sharing even with people they would rather not share with. Why is this? The next paragraph will focus on the reasons for people to share their latrine.

5.2.2 The reasons

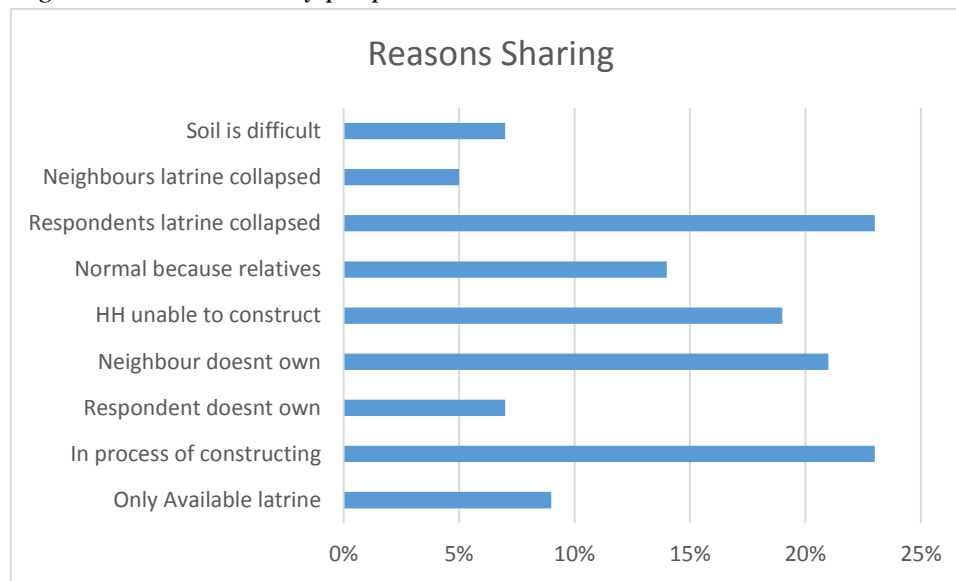
People who own a latrine share a latrine for different reasons than people who do not have a latrine. Furthermore people also share with a different timeframe in mind. For some people sharing is only something temporary while they are in the process of constructing their own latrine for example. Others share permanent, because they see it as natural to share with their relatives, even though they might not be part of the same household. This paragraph focuses more in depth on the different incentives and reasons people can have to share their latrine.

When looking at the survey data which is presented in figure 14, it is obvious that the collapse of a latrine, and in the process of constructing a latrine are the most common reasons for people to share a facility with another household. When this data is combined with the timespan people share a latrine, it becomes clear that most of the people who share because of these reasons, are temporary sharing a latrine. People who share a latrine temporary, share the facility for less than a year, which is 28 percent of the people in the survey. Eight of the ten respondents who share because their or somebody else’s latrine collapsed are people who share temporary. Equally seven of the ten respondents who say they share because they are in the process of constructing a latrine, are also sharing temporary. When asking people about this in the focus group discussions they indeed confirm that temporary sharing is common as people are constructing a latrine for their own household, so that they have access to a latrine in the meantime.

‘To sink a latrine and construct completely takes time, so as you are in the process of construction you can share with your neighbour so that there is no open defecation.’ (*Kocia village, Moyo*)

Note that the percentages in figure 14 can exceed 100 percent, since respondents could give multiple reasons.

Figure 14. Reasons why people share a latrine



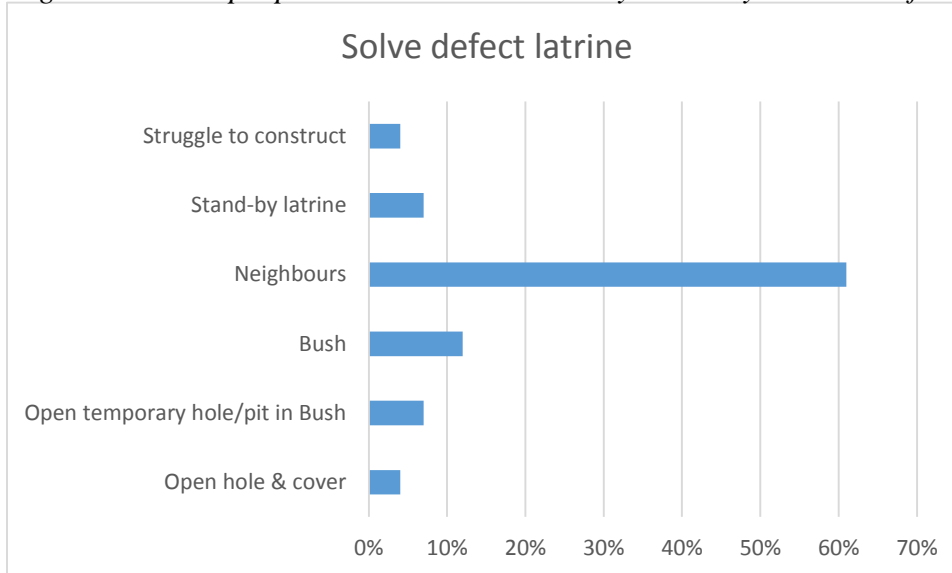
Also other data from the survey confirms the temporary character of sharing in case of a collapsed latrine. People were asked where they go when their own latrine collapses or fills up. As can be seen in figure 15 more than 60 percent of the people go to their neighbours latrine, which implicates that collapse or a filled pit leads to temporary sharing. Some people say they already constructed a new latrine before the old latrine fills up, which declares the 7 percent of the people who have a stand-by latrine, which is also confirmed in the focus group discussions:

‘When you see that your existing latrine is getting full, like 2 feet left to fill up, you start digging another pit.’ (*Kocia village, Moyo*)

More interesting is that almost one in five respondents goes to the bush in case of collapse, in which only four percent covers its feaces afterwards. When looking at the difference between latrine owners who share and people who do not own a latrine and share a latrine, it is interesting to see that three quarter of the people who move to the bush in case of colapse are persons who own a latrine now. This means that not owning a latrine not necessarily leads to open defecation when a shared latrine is out of order. This could be declared by the fact that these people are already used to share a latrine with different households and therefore feel no concern when moving to another available latrine from another neighbour or relative. Another explanation could be that when the latrine of an owner collapses and the neighbours are dependent from this latrine, there is no nearby latrine available for the owner and this person is forced to use the bush, while he might be constructing a new latirne in the meantime as this respondent from Otumbari village in Arua claims:

‘Feaces is like a president, when it wants to come out, there’s nothing much you can do about it, you simply go to the bush and defecate. Once you feel relieved you then come and work on the latrine.’ (Otumbari village, Arua)

Figure 15. What people do when the latrine they currently use is out of order



As mentioned before people are often not able to construct a latrine and dig a pit in rainy season, which declares why most of the people claim to share more in rainy season. This also gives more insight in the character of sharing in the rainy season. The trend of increased sharing in rainy season can probably be related to the collapse of latrines, the difficulties of constructing new latrine in that particular season and therefore an increase in temporary sharing. The people who claim to share throughout the year are probably sharing more on permanent base. When looking at the survey data indeed 10 of the 14 people who claim to share throughout the year are people who share longer than a year. In the previous paragraph it became clear that people don’t like to share with lazy households who are able to construct their own latrine but just refuse to do it. Since this is frustrating for the owner, the owner of a latrine sometimes gives conditions to this person who wants to share, as this respondent from Otumbari village in Arua did.

‘For me I use my latrine with my neighbour, but while they are using it, I give them some time like one month to share with me, after which they should start using their own. While they are sharing with me they can construct their own. It’s good to teach them a lesson to avoid shouldering the burden alone.’ (Otumbari village, Arua)

An underlying reason for people to share their latrine both temporary and permanent is that people don’t want to be affected by the open defecation of neighbouring households and therefore allow the neighbours to use their latrine.

‘Some people do not have a latrine, so ending up using the neighbour’s latrine. As a mature person and mother you cannot send them to the bush. When they defecate in the bushes, it’s dangerous. For example we plant our vegetables in the garden, flies can easily transfer germs from the feaces to the vegetables and

when it rains such faeces can be dragged into the main water source causing disease spread.’ (*Omundabiliku village, Arua*)

‘People should never say this is my family latrine no one should use. Someone may be having a disease that he is carrying in his faeces and when he defecates outside, everyone will get infection including you who has a latrine.’ (*Laufori village, Moyo*)

The quotes show that people often feel like they don’t have choice but letting other household using their latrine. People are aware of the health implications, want to stay healthy, and therefore construct and use a latrine. However when your neighbour does not has a latrine and you as owner refuse them to use your latrine, they will defecate in the bush and you as a neighbour will be affected by that as well. A tragedy of the common. Although this reason is not explicitly mentioned in the survey data, more than 20 percent of the people do mention that they share a latrine because their neighbour does not own one. On itself this answer does not really say anything, but combined with information from the focus group discussions, it might be filled in as the neighbour does not own a latrine, but they don’t want them to defecate in the bush, so allow them to use their latrine. This is in the advantage of people who are stubborn and lazy to construct. They know that their neighbour does not want to get infected by their open defecation, so they make use of this situation by using their latrine, without putting any effort in constructing themselves. This leads in many cases to frustrations as highlighted by this respondent from Olevu village in Arua:

‘To add on that you find some people just don’t want to construct their own latrine, they totally depend on others and this is discouraging to the owner because you struggle to construct alone.’ (*Olevu village, Arua*)

Whereas it can be frustrating for owners to share their latrine with stubborn and lazy households, it is a different story when a household is unable to construct a latrine. This can be for reasons like old age, illness or female headed households who have no men to support them. As mentioned before, it is common in Arua and Moyo to construct your own latrine. To keep the cost low people use local materials and do the labour themselves. For vulnerable households this is often not possible and especially when the household is poor and has no money to hire labour for the construction of a latrine, there is no other option then to share with your neighbour or defecate in the bush. In this case often the neighbour helps out by letting these people use their latrine, often more on permanent base.

Another common reason to share a latrine is because of the nature of extended families. People often don’t even see themselves as sharing with different households, since they feel like one big family as one of the respondents from Kocia village in Moyo explains:

‘We use to have extended families like one man has so many sons and then so many households is one homestead, so we would combine efforts to construct one latrine and share.’ (*Kocia village, Moyo*)

This also declares the high percentage of people sharing with relatives, especially in the areas with LCB interventions. As you can see from the quote above, the respondent is already sensitized by

an LCB that even sharing within extended family should not be done. In this particular village therefore sharing is not common anymore, although traditionally it is natural for people to do so.

The structure of the soil is another reason why people share a latrine on permanent base. Sometimes the surface is not suitable for digging a pit, because of rocks or very weak and sandy soils. In this case people identify some spots in the village where the soil is suitable for digging a pit and different households share that latrine. This was especially common in the villages in Moyo district. The respondents were asked if they constructed these latrine in such a way that they could accommodate several households, with for example several stances and a deeper pit. Although in some cases this indeed was done, the latrines mostly had a single stance and not necessarily a deeper pit. The reason for this was that because the soil is so sandy, latrines mostly collapse within one year and people need to dig several latrines, so it's not worth to make the pit deeper and put effort in constructing several stances, since it will collapse before the pit fills up anyway.

In Arua one respondent explains that scarcity of land can be another reason to share.

‘when you actually take a look around here you will see that land is very scarce. The kind of gardens we would use for growing vegetables are not there anymore, so when you construct a latrine and grow vegetables near it, you will not wish to eat such vegetables. Because of the limited space, latrines cannot be planted everywhere. Each household is capable of having its own latrine but the space is not enough to dig pits everywhere, people would rather share the few available ones.’ (*Adravu village, Arua*)

According to this respondent people don't want to sacrifice their scarce land for a latrine, and rather grow vegetables there for feeding their family. Having a private latrine is not the priority of the people, so they share the latrines which are available. But also here, these latrines are often not constructed to accommodate many households.

Sharing a latrine is not always the choice of the owner. As mentioned before almost 40 percent of the people use a latrine without seeking any form of permission for using the latrine. This has several reasons. First of all the latrine almost never has a door. This makes it possible for everyone who want to enter the latrine to just access it. As mentioned before, locking is neither really an option, since this makes it hard for children to access the latrine. When the owner of a latrine sees somebody entering a latrine, they mostly don't stop them. As one respondent from Adravu village in Arua mentioned:

‘When they come to enter your latrine you can't stop them from entering as it can be embarrassing’. (*Adravu village, Arua*)

It is embarrassing for the person who wants to enter, because they feel trapped. And you don't want to embarrass others, because the people want to stay in good relations. Furthermore it is also the principle of reciprocity. I help you and you help me.

‘Sharing brings unity because today I may be sick and unable to construct and will use yours, then tomorrow it may be you falling sick and unable to construct your own and you come share mine.’ (*Laufori village, Moyo*)

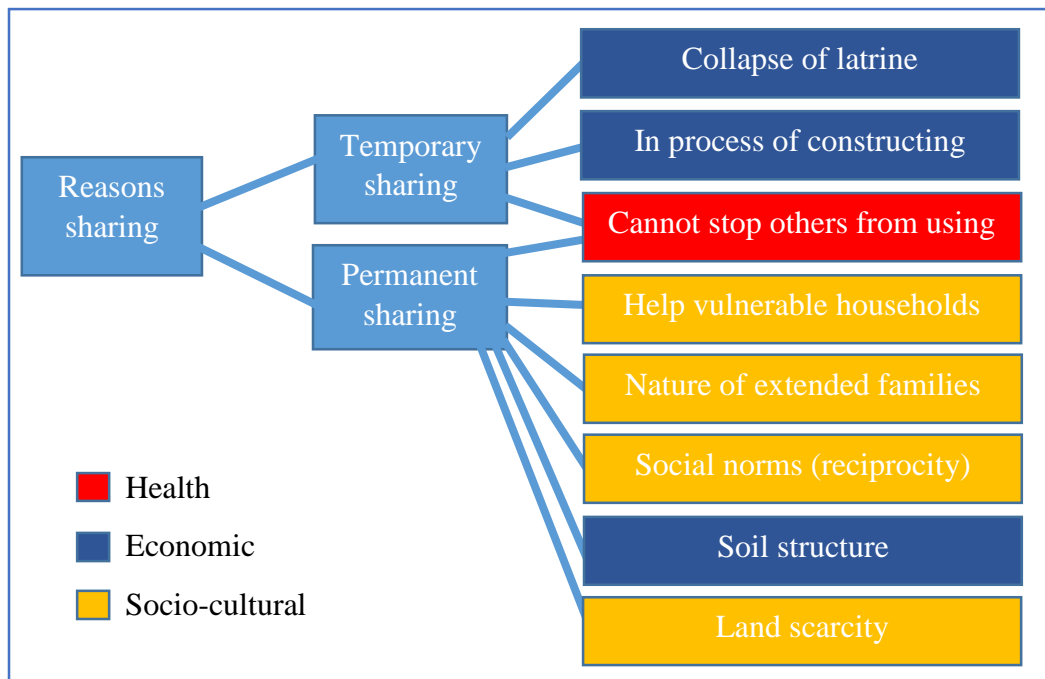
In one focus group in Laufori village in Moyo a nice comparison was made between sharing a latrine and sharing food, which illustrates the mentality of people concerning sharing.

‘Sharing a toilet is like food. When you cook food any one passing can be welcomed. Of course earlier on like I said it is the issue of culture and tradition. Traditionally when you eat alone you are called a sadist so we are following that rule.’ (*Laufori village, Moyo*)

So even though people are not always happy to share a latrine, people want to keep good relations and want to be seen as a social person, therefore allowing others to use and share their latrine.

This chapter explored the several reasons for people in Arua and Moyo to share latrines, which could be on more temporary or permanent base. The following tree chart (figure 16) shows a schematic overview of the different reasons for sharing found in the focus group discussions. This figure includes the reasons for sharing mentioned in the survey (figure 14), but is more extensive and disaggregated based on detailed descriptions of the focus group discussions. The reasons are divided in the three main clusters of health, socio-cultural and economic, in which health is presented red, socio-cultural yellow and economic blue. The collapse of latrines is attributable to economic constrains to use better materials for construction, as is the process of constructing in which people often take long to gather the resources to construct a latrine for their own. Also the soil structure is an economic reason to share a latrine, since people often don’t have the resources to construct latrines in difficult soil types, which makes them combine resources to construct a shared latrine.

Figure 16. Schematic overview of reasons why people share a latrine



The reason that people share because they cannot stop other people from using their latrine, since they don't want to be affected by other people defecating in the open, is obviously a reason concerning health. Furthermore the nature of extended families, the social norm of reciprocity and the social aspect of helping vulnerable households to have access to a latrine are all socio-cultural reasons for people to share a latrine. Last land scarcity is another socio-cultural reason for people to share a latrine, since people culturally prefer a garden which provides food over a private latrine, when land is scarce. It is interesting to see that permanent sharing mostly happens out of socio-cultural reasons, which implicates that permanent patterns of latrine sharing is socio-cultural rooted.

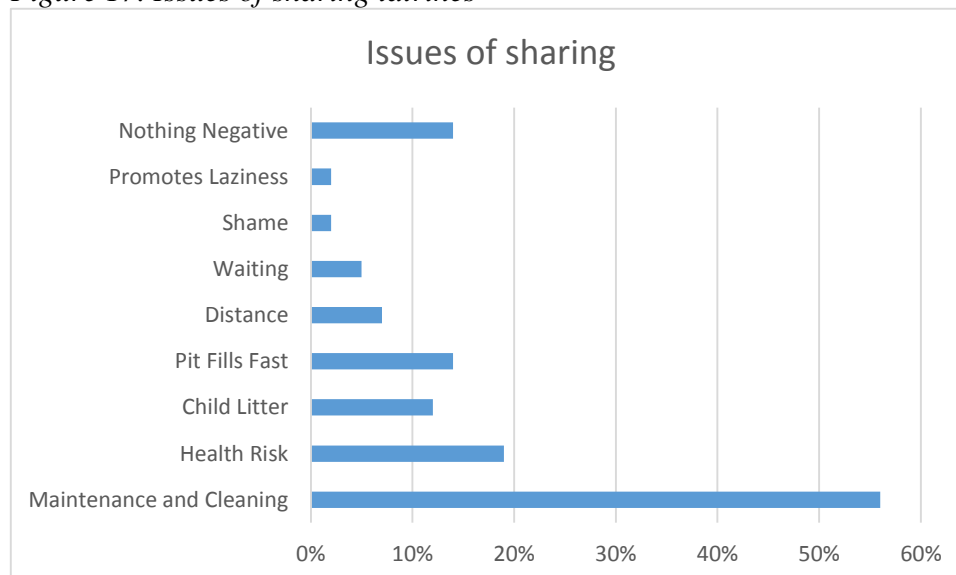
As already briefly mentioned in this paragraph, people are not always happy to share a latrine. The next paragraph will focus on the issues which appear when a latrine is shared.

5.2.3 The issues of sharing a latrine

As mentioned in the previous chapters and paragraphs, sharing a toilet can bring several issues which make it an uncomfortable practice. Before sharing could be part of sustainable access to improved sanitation it is important to explore what these issues are, what they mean to people and how they could be overcome.

One issue which is already mentioned, is the responsibility for the construction, maintenance and cleanliness of a shared latrine. From the survey it becomes clear that this is by far the most prevalent issue for people. Figure 17 shows that more than half of the people who share a latrine, deal with this problem, from which 65 percent is the owner of the shared latrine. This means that also people who do not own the latrine, do see cleaning and maintenance as a problem sometimes.

Figure 17. Issues of sharing latrines



The complexity of this issue becomes clear from the respondents in the focus group discussion. It was remarkable that in all focus group discussions this issue seems to bring the most frustrations. As one respondent from Omundabiliku village in Arua expressed:

‘You have constructed your latrine well and even cleaned it properly, but you find someone comes and enters it and defecates outside the pit. Instead of cleaning that mess they just leave it there and walk away and then you the owner wants to use the latrine and you enter only to find feaces outside the pit and you are forced to clean it yourself, this is really bad.’ (*Omundabiliku village, Arua*)

Asking other people to clean their own mess is not very common, as it seems to be as mentioned before, the responsibility of the owner to keep the latrine clean. This principle seems to be ruling in most villages.

‘But the issue is that some people who come to use your latrine decide to defecate outside the pit and you the owner is forced to clean that yourself.’ (*Adravu village, Arua*)

‘You find for example the neighbour’s child has come to use your latrine and defecates outside the pit. Then you go tell your neighbour about it and ask them to come and clean, they refuse to do so, this makes me angry.’ (*Omundabiliku village, Arua*)

‘You find as the latrine owner when your latrine is not properly used, it creates too much work for you when many people are sharing your latrine.’ (*Olevu village, Arua*)

‘There are neighbours who know that the latrine belongs to their neighbour so the responsibility of cleaning is not theirs, so when the person goes inside, he or she can misuse the pit the way they want, they can make feaces on the squat hole or urine outside, they don’t mind.’ (*Laufori village, Moyo*)

The issue of cleaning the toilet has bad implications for the hygiene of the latrine and eventually communal health. As can be seen in figure 17 people are concerned about the health risk when sharing a toilet. As also mentioned in the different focus groups people are afraid to contract transmittable diseases due to bad hygiene of the latrine. When the latrine is not well maintained people get exposed to feaces on the floor or they don’t even want to enter anymore and move to the bush, which has health implications as well. Especially the person who cleans the latrine gets badly exposed to the feaces, as becomes clear from one respondent from Kocia village in Moyo:

‘While sharing, nobody takes the responsibility of smearing. The nature of the floors of our latrine is in such a way that to make it look neat you have to mix clay and smear it using your hands. If you are sharing with the neighbour and their children are the ones defecating and your husband tells you to smear you pick quarrel with him because you cannot hold someone’s else’ feaces, so the latrine remains dirty. You have a misunderstanding with your husband and here you are exposed to disease and infection.’ (*Kocia village, Moyo*)

As the quote already illustrates, not only the health risk is affected by problems of cleanliness. Cleaning issues also have effects on the social relations people have. Many respondents gave

examples of fights they got with neighbours or family members over cleaning the latrine. Where they might have had good relations before, sharing a latrine can spoil this relation.

Furthermore one respondent from Adravu village in Arua said it is very embarrassing when you receive a visitor who wants to use the latrine, this person finds the latrine dirty, while you thought you left it clean.

‘The visitor will end up saying that outside you look smart, when actually you are very dirty in your home’
(*Adravu village, Arua*)

Looking smart in the Ugandan context means you look nice and neat. The responsibility of cleaning however is not the only big issue. Other responsibilities as construction and repair were also mentioned as highly frustrating in all the focus group discussions. Although in the survey only two percent of the people mentioned laziness of non-owning households as a problem, the focus groups show the scope of frustration about laziness and dependency syndrome of non-latrines owners.

‘This issue really touched me so deep, when my husband was constructing a latrine it was very difficult. He had to hire labor and neighbours were there just watching, none of them said this man is constructing let me go and support him, but when it was finally constructed they all came to start using it and this really annoyed me’ (*Omundabiliku village, Arua*)

The side effect of this issue mentioned by the respondent is that it really discourages the owner to construct a new latrine after the current one fills up. When nobody helps with constructing and cleaning, they wait for another person to construct the next latrine, since nobody wants to be an owner who is responsible for all the work. In this way the sharing rate remains high and eventually a community can end up with having no latrines, when nobody wants to take the burden of construction and cleaning anymore.

Another issue highlighted by some respondents in the survey is waiting. The more people share a latrine, or the less latrines are available in a particular area, the more people need to wait on each other before they can use the latrine. In the survey only five percent of the people mentioned waiting as a serious issue. Although when asking all the participants in the survey who share a latrine if they ever had to wait because the latrine was occupied, it became clear that most of the people (84%) have to wait a couple of times a week, mostly in morning rush hours. It are especially the owners of a latrine who are annoyed by waiting to use their own latrine.

‘Time wastage for you the owner, whereby you wake up in the morning and go straight to the latrine. Instead you find there’s an occupant and you have to wait, yet you’re going on a journey, this is very bad.’
(*Olevu village, Arua*)

Furthermore waiting is embarrassing when you are badly off. People start to dance and jump around the toilet to hold the pressure, which looks bad and is shameful.

It is interesting to explore what people do when they need to wait. Figure 18 shows that the vast majority of people patiently wait till the occupier comes out. However, also a small part of the respondents moves to the next available latrine which can be at the neighbour’s compound or in

some cases they move to the bush to practise open defecation. The latter though happens mostly in case of high need, which is likely to occur when people have diarrhea.

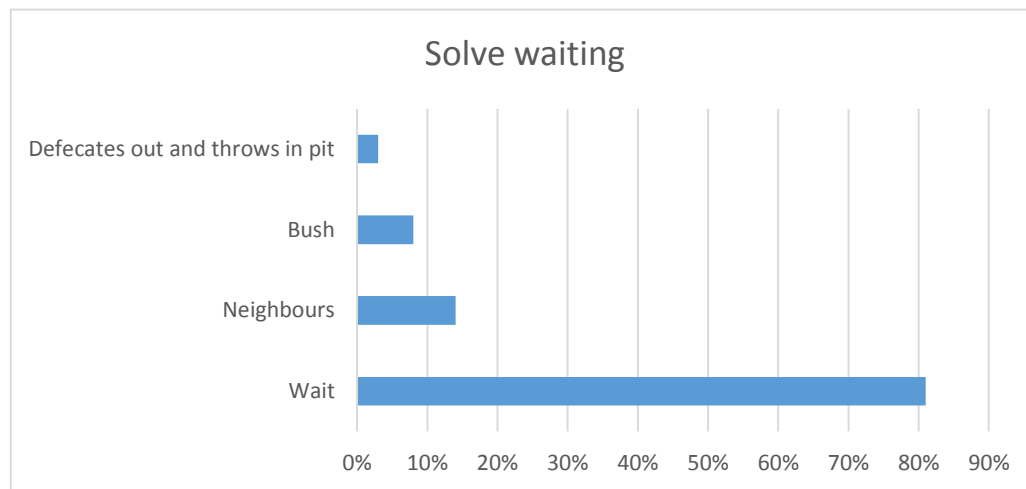
‘When you feel like defecating the pressure is usually too much so I can’t wait. For me I jump strait to the bush’ (*Otumbari village, Arua*)

When people say they move to the neighbours latrine when they need to wait, it is questionable to which extent these latrines are available as well, and the less latrines are available in a particular area, the longer the queus and therefore higher changes of open defecation during the morning rush hours.

Another issue which is mostly highlighted by the owner of the latrine is that the pit of the latrine fills up very fast when it is shared with other households. As mentioned before, a pit is mostly dug to accommodate one’s own household only. This means when two or three households are sharing the latrine, it last two or three times shorter than it was planned for. This is frustrating because as owner you mostly labour alone, so when the lifespan of your latrine decreases, it even means you are the one constructing a new latrine soon, while the people you share with just wait to come and use it again. Especially when land is scarce, it can be a problem to dig a pit over and over again on your land, as highlighted by one respondent from Kocia village in Moyo:

‘We should not encourage sharing due to limited land. When you share, it means the latrine fills up very fast and you are forced to dig another one on a different plot, hence limiting the space available.’ (*Kocia village, Moyo*)

Figure 18. What people do when latrine is occupied



From the focus group discussions it became clear that it are especially the people who live close to trading centers who are very annoyed by the issue of the pit filling up fast. As mentioned before, the latrines are often easily accessible, since they have no doors, which makes it possible for everyone to use the latrine. This means that the people who dwell at the trading centers, move to the nearby houses to use their latrines, making these latrines fill up fast.

The tragedy of the common becomes clear from one respondent from Adravu village in Arua who explains that locking your latrine is no option.

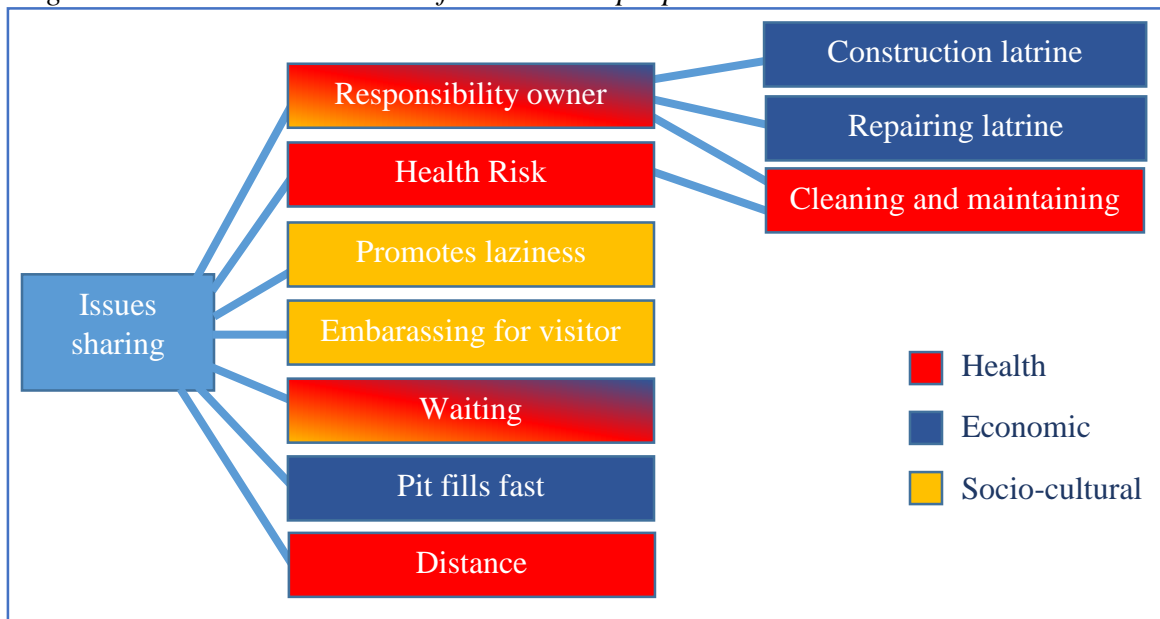
‘You find after people have eaten at the trading center, there’s a long queue at my latrine. This one enters, comes out and another one enters [...] It is not good to lock your latrine. Sometimes they just break in and if they can’t they defecate outside the latrine.’ (Adravu village, Arua)

When the nearby households don’t let the people at the trading center enter their latrine, it means that all these people will defecate outside, which affects all the nearby households. The buildings in trading centers are often rented, and have no latrine construction which means there is no other alternative for the trading center dwellers to use the latrine of a nearby household or defecate in the bush.

The last prevalent issue mentioned in both the survey and the focus group discussions is the issue of distance, mostly mentioned by households who do not own a latrine. The neighbouring household who owns a latrine can be far, which makes it especially for children sometimes hard to reach the latrine in time. Children cannot always contain their pressure and in cases when the latrine is far, they might defecate in the bush. When looking at the survey data though, non-latrine owners only need to walk on average ten meter further to access a latrine than people who own a latrine. This might declare why distance for most people is not so much of a problem.

As several issues have been identified by both the survey and the focus group discussions, figure 19 gives an schematic overview of all the issues in which the data from the focus group discussions is extensive integrated in a figure together with the issues mentioned in the survey. The issues are divided in the three main factors of health, socio-cultural and economic, in which health is presented red, socio-cultural yellow and economic blue.

Figure 19. Schematic overview of issues when people share a latrine



Responsibility issues are mostly economic, since the costs for construction and repairing are mostly for the owning household. However also health is effected, since the owning household as being responsible for the cleaning, will be highly exposed to dirt when the facility is not well maintained, due to the nature of cleaning as explained before. Furthermore the responsibility has a socio-cultural dimension, in which the unwritten rule of the owner being responsible seems to be culturally accepted in the West Nile region. Issues around cleanliness and maintenance furthermore also cause a lot of quarrels, harming the social relations in the community. Besides the responsibility, also a fast filling pit is an economic issue. When the pit fills fast, the latrine will last less long, which means the owner needs to construct a new latrine sooner as he has aimed for, which will bring economic implications. Socio-cultural issues are that it is embarrassing to bring visitors to a shared latrine, especially when this latrine is dirty, and the promotion of laziness among not owning households, which causes quarrels and spoils relationships among people in the villages. Distance of the latrine is an issue related to health, since children will easier defecate in the bush when they cannot hold their pressure over a long distance. This open defecation affects communal health. Last is the issue of waiting, which has economic implications since people lose time they could have spent working. Furthermore waiting has health implications, since long queues force people to defecate in the bush. Waiting has also a socio-cultural dimension in which people feel ashamed when they are badly off and dance around the toilet till they can release themselves. When distinguishing between owning and not owning households, it becomes clear that it are mostly the owning households who deal with the economic issues, while it are more the socio-cultural issues which affect the non-latrine owning households.

Although sharing brings many issues, sharing also brings benefits for the people from which some of them are already briefly mentioned. The next paragraph will explore these benefits in more details.

5.2.4 The benefits

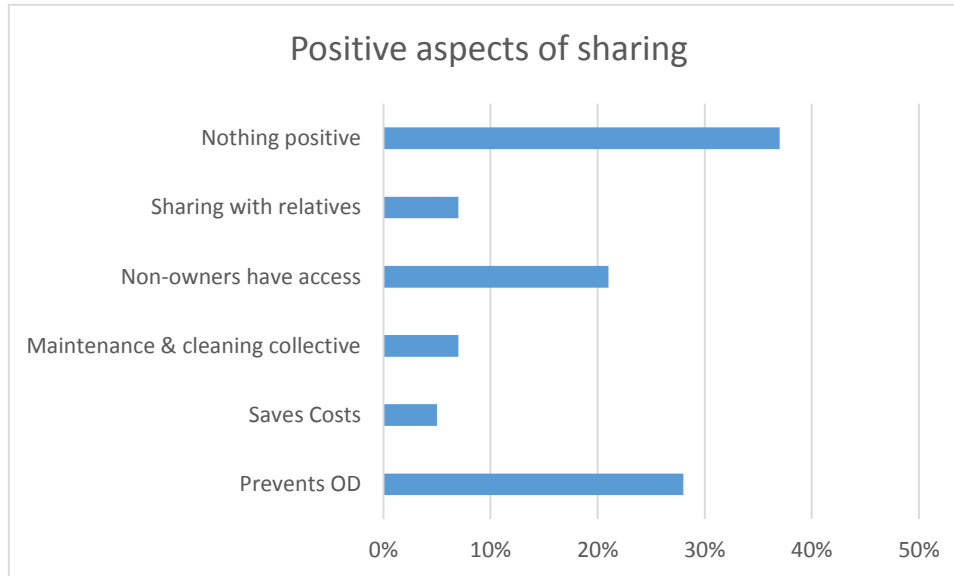
Sharing a latrine with other households is not for everyone a problem. Although a big group of people think there is no positive aspects about sharing, as can be seen in figure 20 on the next page, sixty percent of the respondents from the survey do see benefits in sharing. The most common benefit is that by sharing a latrine, more people have access to a latrine and this prevent open defecation. This opinion is not only shared among people in the survey but also in the focus group discussions. People are aware that when other people defecate outside, diseases can easily spread and in these cases also households with a latrine are affected.

‘Sharing is okey because it reduces the rate of disease spread. If you don’t encourage sharing, somebody defecates outside, and disease can spread, so sharing eliminates or reduces the outbreak of diseases.’ (*Kocia village, Moyo*)

Whereas it is not sure if sharing a latrine leads to less spread of diseases it is clear that sharing can prevent people from defecating outside and it is open defecation which brings the highest risk of

disease spread. People in the survey were asked to which extent someone in their household experienced diarrhea in the last month and interestingly households who have a private latrine had only 5 percent less cases of diarrhea than households who share a latrine. Since the occurrence rate of diarrhea was about equal for private latrines as for shared latrines, it could be assumed that a shared latrine could offer a suitable healthy alternative for sanitation provision in terms of diarrhea, when at least it is ensured that people who not own a latrine indeed use the shared latrine and do not practice open defecation.

Figure 20. Positive aspects of sharing latrines



Furthermore sharing also has a social dimension. As some households are vulnerable and unable to construct a latrine themselves, these people can still have access to a latrine. In some cases these people just use their neighbours latrine, but in other cases these vulnerable households contribute to the neighbours latrine. Both households who own a latrine and households who do not own a latrine see sharing as positive when this helps a vulnerable household.

‘It reduces the burden, because I am alone. I cannot be able to sink a latrine and construct, but I can ask for a helping hand from my neighbour and share the cost.’ (non-owning household, *Kocia village, Moyo*)

‘What I see is good with sharing is that vulnerable people are catered for, but if you don’t share yet they cannot construct for themselves, it’s not good. When you encourage them to share with you, their needs are catered for in terms of latrines.’ (owning household, *Kocia village, Moyo*)

As mentioned in the first quote, sharing also reduces the burden. This can be the burden of constructing, but also the burden of cleaning and maintaining a latrine. When the cooperation between different households who share a latrine is good, there is less work for the owner alone, since everyone takes the responsibility to maintain the latrine. Especially when households plan together to construct a latrine, sharing can be something positive as mentioned by one respondent in Omundabiliku village in Arua.

‘Well, you need to dig a pit and while constructing, ensure there are at least two doors that you keep locked. While sharing with neighbours you can buy a pad lock and give a copy of the keys to the neighbour. This is after you have contributed with the neighbour to construct one. The good thing is that you both will be using the latrine with respect.’ (*Omundabiliku village, Arua*)

As becomes clear from this quote, it is the sense of ownership which make people use a latrine with respect. In this context it means that both households will maintain the latrine and feel responsible for cleaning it. Sharing therefore can be positive when households cooperate well, as it reduces the costs and burden of constructing and cleaning for one household. When all households involved are sharing the cost, ownership of a latrine is also shared and with the unwritten rule of the owner being responsible for the latrine, issues of responsibility are eliminated.

So far people expressed both the issues they have with sharing a latrine, but also the positive aspects about it. One question remains open which is how people in the end evaluate sharing in general. The next paragraph will focus on this.

5.2.5 The overall opinion about sharing latrines

When people in the survey were asked straight away if they would prefer to have their own latrine or to share a latrine, almost every respondent (99%) prefers to have a latrine for their household only. From all the respondents in the survey 91 percent has a negative imagine about sharing, mostly because of the problems with cleaning and maintenance and the perceived risk of increased disease spread when sharing. When looking at the focus group discussions people are aware that open defecation brings the biggest risk of disease spread, which can be avoided by sharing. However also in all the focus group discussions the majority of the people are convinced that every household should have their own latrine. It seems that people share a latrine because the conditions like being a vulnerable households, collapsing latrines or preventing open defecation from lazy households, force people to share. Although some respondents have claimed that sharing commodities like food and latrines used to be culture and tradition, the overall opinion seems to be shifted towards a preference of a private latrine and that every household should own a latrine. This could be partly explained by both the LCBs who have interventions in different sub counties in the West Nile region in which one latrine per household is promoted, as well as the by-laws in place about latrine ownership in some villages.

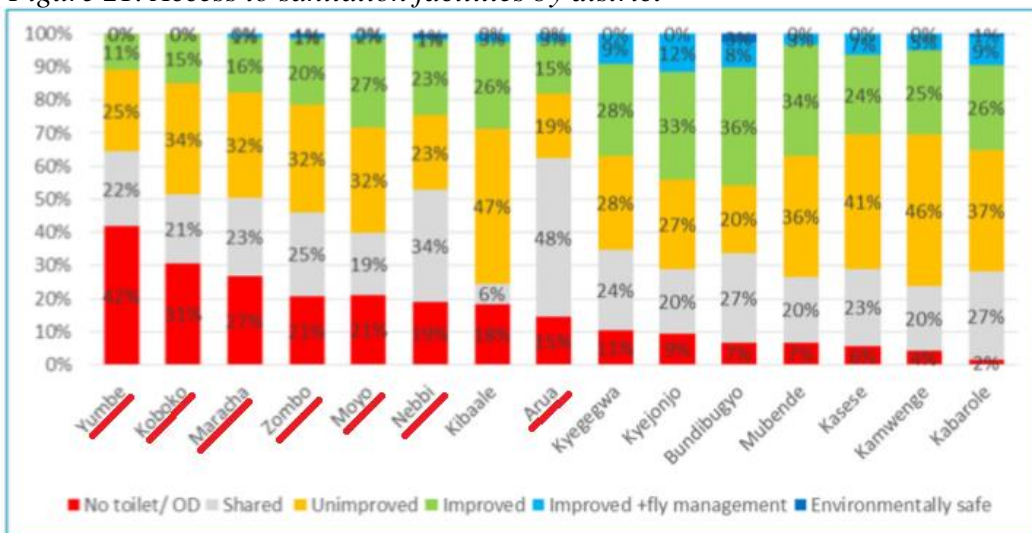
5.3 The differences between Arua and Moyo

Although the survey data is only based on Arua, focus group discussions are held in both Arua district and in Moyo district in order to find out why the sharing rate in Arua is much more higher (48%) compared to the nearby district Moyo, where only 19 percent of the people share latrines. Furthermore interviews have been done with different health officers in both Arua and Moyo, as described in the paragraph about political circumstances. These data can be used to answer the sub-question: *How can differences in sharing toilets among different districts be explained?*

As becomes clear from the chapter about political circumstances, Arua and Moyo have a different approach in addressing sanitation. On district level, Moyo has a clear ordinance which guides every sub county in having by-laws on one latrine per household. Although the enforcement of these by-laws is not everywhere equally strong, the rules in place seem to be universal throughout the hole district. This is also reflected in the ODF verification, in which 100 percent latrine coverage is an important estimate. Arua on the other hand has no specific guidelines concerning sanitation laws for the different sub counties. This means that not everywhere by-laws on one latrine per household are in place, which might cause a lower latrine coverage than Moyo has. Furthermore latrine coverage does not predominate ODF verification in Arua.

With less focus on latrine coverage in the policies and strategies of Arua district, it is presumable that Arua has lower sanitation coverage than Moyo. Indeed as figure 21 on the next page shows, Moyo has a latrine coverage of 59 percent without shared latrines, while Arua only has 24 percent latrine coverage without shared latrines. That people share less often a latrine in Moyo, is probably because the consistency in by-laws gives people less chance to share a latrine. Interesting though is that Moyo has a higher percentage of people who practice open defecation. This could be because sharing is so much discouraged on all local council levels in Moyo, because they want every household to have a latrine, that sharing does not really exist on the sanitation ladder in Moyo. In Arua for example people have more freedom to share a latrine, which is often for people the first step on the sanitation ladder. First people move from open defecation to start using a latrine. The next step is the construction of a latrine on household level.

Figure 21. Access to sanitation facilities by district



In contrast with the SNV consumer insight study (SNV,2014a) the pattern of extended families seems to be similar in Moyo and Arua. According to the consumer insight study, Arua was expected to have a more prevalent pattern of sons building houses after marriage within the compound of their parents, which causes sharing of the same latrine. However when looking at the results of the focus group discussions in both Arua and Moyo, also Moyo shows a strong pattern of sons living on the same compound as their parents and all sharing the same latrine.

Another expectation was that Arua could have a higher sharing rate because land is more scarce in Arua district. Indeed when looking at the distance people need to walk to the latrine, non-owners only walk about 10 meters further to access a shared latrine than owners. The limited distance reduces the barrier of sharing a latrine. Unfortunately there is no quantitative data available on the distance between the latrine and the house of latrine owners and non-owners in Moyo. However when looking at the household density, presented in table 6, it becomes clear that in Arua way more household live on one square kilometer (46 households) than in Moyo (14 households). Because the average household size is the same in both Moyo and Arua, figures can be easily compared. Simply concluded it means that in Moyo more land is available and the settlement pattern in Moyo might be in such a way that household are farther located from each other. This could mean that people in Moyo have to walk further to access a shared toilet than in Arua, which makes sharing a less comfortable option and therefore less people share in Moyo.

Table 6. households and surface area Arua and Moyo

District	Households		Surface Area ¹	Household density per km ²
	Number	Average HH size		
Arua	147,483	5,3	3,236.4 km ²	46
Moyo	25,894	5,3	1,800.8 km ²	14

Source: UBOS / Wikipedia

The differences in household density however do not necessarily mean that in Moyo household are further located from each other. Other interfering variables, like the type of soil, water bodies and other circumstances can force people to not settle down in certain areas and cluster together in other areas. This could be a possibility according to one respondent from Kocia village in Moyo who claims land is also limited in their area:

‘Secondly we should not encourage sharing due to limited land, when you share it means the latrine fills up very fast and you are forced to dig another one on a different plot, hence limiting the space available’. (*Kocia village, Moyo*)

Although it becomes clear that sharing a latrine is probably more common in Arua because there are less by-laws in place and the settlement pattern is more dense, the latter cannot be confirmed with certainty and more research into the different settlement patterns of Arua and Moyo is advisable before any firm conclusions can be made.

¹ The surface area of both districts varies strongly depending on the source. In this table both figures are withdrawn from the same source to make data comparable.

5.4 Overcoming the issues: practical solutions

The previous chapters tried to sketch an image about what sharing of a latrine exactly means to people in the West Nile Region. Based on the interviews with district officials, the household survey and the six different focus group discussions, it became clear why people share latrines, the issues when people share latrines, the benefits when sharing latrines and last the general opinion of people about sharing. One practical question which remains unanswered is the last sub question: *How can the issue of sharing latrines best be addressed by local NGOs and LCBs?*

Sharing a latrine is very prevalent in Arua and currently LCBs are moving from sub county to sub county to trigger people out of open defecation with different approaches like CLTS and PHAST in order to help villages getting the ODF status. However, when these LCBs bump into the practice of sharing, they all address this in a different way. During a workshop the three different LCBs who operate in Arua, namely CEGED, FOSID and CARITAS, have been asked to explain their working method when they find cases of people sharing and were asked to brainstorm about possible ideas to address the issue of sharing.

The most common way how LCBs trigger a village to stop practicing open defecation is the CLTS approach. In this approach communities take the lead by analyzing their own sanitation situation and they come with their own ideas how to improve this (Kar & Chambers, 2008). The LCB goes to the village and triggers the community with fear, disgust and embarrassment, with as goal to evoke collective action among the community. After triggering the village, the LCB and the community set deadlines together about when they want to achieve the ODF status, mostly between three weeks and three months. In the first week after the triggering the LCB is supposed to visit the village once, and in the period left until the deadline, visits take place with wider and wider intervals. These visits are to support the people when they have questions or bump into problems while constructing latrines. The visits are by purpose not so often that people feel themselves strongly monitored. The initiative stays with the community.

Since the practice of sharing a latrine does not affect if a village is declared ODF in Arua, the LCBs do not have clear strategies and guidelines to tackle the issue. In most cases they advise people that it is better to construct a latrine for their own household, or when people do want to share that a latrine has to meet certain conditions, like more stances and a deeper pit. However when CLTS is used to trigger the villages, the people come with their own initiatives. It is mostly during the phase after triggering, when people already start constructing, that LCBs support the household with advice on techniques. The issue is that when a household decides to share the latrine and the construction is already ongoing, the latrine can often not be adapted anymore to characteristics which make latrine more sustainable for being shared. Instead of waiting till latrines are in the process of construction, LCBs could mention the possibility of sharing already in the beginning of the intervention. So far this has mostly not been done since sharing is not considered as an improved form of sanitation according to JMP, which guides the current practices of LCBs and NGOs. However, as this and previous research shows, sharing is a common practice especially within the

extended family and sharing could be a feasible option within these families and for vulnerable households as long as the issues of cleaning, maintenance and occupancy are tackled.

It is important for LCBs to integrate the lessons learned from the LEAPP-WASH initiative when working in the field. The most important lesson was that locally generated solutions are more easy to scale up than imported solutions. Therefore during the first visits to a certain community, it is important that the LCB listens to the needs of a community and when proposing and advising people on shared latrines, it is important that the community can generate their own ideas about this. It is important to understand what the community is able to in terms of available materials and techniques and in which areas they need support. This can differ from village to village and although good ideas can be exported to other villages, the regarding community has to take the initiative, whereas the LCB can advise on practices and techniques.

Since sharing does neither affect a village of gaining ODF status, it could be a good initiative to tell people about how to construct a proper shared latrine, from the start of a project or initiative. The proper standards for a shared latrine is something which deserves more research, however based on this research some suggestions could be made. What might be important is that people feel a sense of ownership when a latrine is shared.

This research shows that when people have a sense of ownership about the latrine, there will be less issues in terms of maintenance and cleaning, since they will feel responsible for the facility. Individual households could have this sense of ownership by having their own stance in the superstructure of a shared sanitation facility. When constructing a shared latrine, important standards could be a deeper pit, number of stances representing the amount of households sharing the very latrine and structure conditions like a roof, walls, a door and a lined slab. This could work when people have to deal with bad soil types, identifying a suitable piece of land and combining resources for constructing a shared facility, but also in cases of sharing with vulnerable households, in which elderly households, widows or households with ill members could have access to a shared latrine.

In Moyo the situation is slightly different, since political leaders do not accept sharing in the declaration of ODF status for villages. In these cases political leaders and LCBs might cooperate and discuss to find the right standard for a shared latrine. When a latrine for example has a stance for every household involved in sharing, it could be questioned then if this structure is seen as a private latrine for each household (only sharing the pit) or if this is still classified as a shared latrine. However either in Moyo or in Arua, the focus of the latrine should be on the improved hygienic standard of the facility, whether private or shared.

6. Conclusion

After exploring the several aspects of shared latrines, the context in which sharing happens and the local perception about sharing latrines in the rural West Nile region in Uganda, one question remains unanswered: *How does the issue of sharing sanitation facilities (latrines) fit into sustainable access to sanitation in the rural West Nile Region in Uganda?*

As mentioned before sharing is a very prevalent practice in Arua (48%) and even in Moyo (19%). This research shows that people mostly share out of health concerns, because people don't want to be affected by the open defecation of their neighbours. This opposes the claim of Mara et al. (2010) that households rarely use and adopt toilets for health benefits. A possible explanation could be that the high amount of interventions and by-laws in the West Nile region made people aware of the health implications of open defecation. However when moving beyond the interventions, it is notable that especially when people share a latrine on permanent base, socio-cultural values play an important role in people's reasons to share a latrine.

People in the West Nile region live in extended families, who see themselves as one big household. Sharing within extended families therefore stays a very prevalent practice, even when LCB interventions take place. Furthermore people follow the social principle of reciprocity, especially when another household is vulnerable and help each other when necessary by providing vulnerable households access to their latrine.

Sharing with neighbours decreases when LCB interventions take place and this is mostly a good progress, keeping in mind that the people in the West Nile region prefer to have and use a private latrine and in general think that every household should have its own latrine, a finding which corresponds with Nelson et al. (2014) who found out that also in rural East Java people are more satisfied with a private latrine than with a shared latrine. Exceptions however are existing as in extended families or in the case of vulnerable households, in which a shared facility could offer a good alternative option of access to sanitation if a private latrine is not feasible or wished for. Especially since people prefer sharing a toilet over open defecation, therefore positioning shared toilet facilities as a first step on the sanitation ladder. Before a shared latrine could be an acceptable option however, it is important to address the main issues which are identified in this research.

One of these issues was the distance of a shared latrine, as being a concern for both the GoU and UNICEFs and WHO's Joint Monitoring Program. When sharing happens within the extended family as is common in the West Nile region, distance is often not of a big concern, since these people live on the same compound. With only an average extra walking distance of 10 meters between the house and the shared sanitation facility, the barrier to use the toilet is very small. Another big concern by both parties is the cleanliness of a shared facility. As this research shows, private latrines are only in a very few cases less clean than shared latrines, while the quality of a shared latrine structure is even of much better quality than a private latrine, confirming Jenkins et al.

(2014), who found out that shared latrine facilities in Dar es Salaam more often met functional conditions like the presence of a roof, walls and a door.

The responsibility around cleanliness and maintenance however, is perceived as a huge problem by the people in the West Nile Region. This however can be tackled as mentioned in the previous chapter by giving people who share a latrine a sense of ownership. This can be done by providing a latrine with several stances for which each household is responsible for cleaning and maintaining one of these. When a shared latrine contains several stances, also JMPs last concern is tackled, which is waiting and occupancy. This research shows the importance of reducing the issue of waiting for an occupied latrine, as it leads in some cases to people defecating in the bush. This research also shows that when a latrine is shared, waiting is a very common phenomenon. When a shared latrine is provided with several stances, it means that more people can access the latrine at the same time, which will reduce the chance that people need to wait.

Another important condition is that a shared latrine with several stances should have a deeper pit, which makes the latrine last longer. This overcomes the perceived issue of the people that the pit fills up fast when sharing, especially because currently pits are not dug to accommodate several households. When taking the conditions or proposed standards for a shared latrine into account, sharing could offer a sustainable solution for access to sanitation when the situation asks for it.

In the case of people sharing a latrine because of bad soil, the community can identify a suitable spot for the construction of a latrine which also has several stances and a bigger pit to accommodate the involved households. When households contribute together to construct the latrine and each household has their own have stance, it gives them a sense of ownership which make them more willing to clean and maintain the latrine. It depends however on the settlement pattern of an area if this options is always feasible, since distance could in this cases be a serious obstacle. This is however an issue which remains partly unanswered and could be addressed in future research. It is recommended that future research focuses more on the different settlement patterns in which a shared facility could possibly fit. Furthermore in-depth research on a possible qualitative standard of how a shared latrine should be designed is recommended, which can help NGOs and LCBs in the field to advice communities on construction issues.

Although this research explored the different dimensions and user perceptions of shared sanitation facilities in rural West Nile, also new issues became visible. The lack of sanitation in trading centers forces trading center dwellers to use private latrines of households, which entails new problems. Future research therefore could possible focus on the sanitation situation of renting plots and properties in trading centers and the responsibilities around sanitation provision in these areas.

After reviewing the situation in rural Uganda, it becomes clear that sharing sanitation facilities can offer a sustainable solution in access to improved sanitation. The emphasis in access to improved sanitation should first be the hygienic standard of the latrine, which then can be either a private or shared facility. When people share a sanitation facility for which they feel responsible to maintain, it can be a good choice for sanitation and offers a first step on the sanitation ladder.

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Appendices

Appendix 1. Indicators SNV

OUTCOME INDICATORS
Outcome indicator 1. Progress in access to sanitation facilities
Outcome indicator 2. Progress in hygienic use and maintenance of sanitation facilities The first two indicators measure the existence and quality of toilet facilities at the premise. This first indicator looks at the quality of the structure, whereas Indicator 2 looks at the operation& maintenance of the toilet.
Outcome indicator 3. Progress in access to Hand Washing Wash soap at 5 critical times
Outcome indicator 4. Number of people reached through hygiene promotion
SUSTAINABILITY INDICTAORS
The SSH4A performance monitoring framework has 10 sustainability indicators, linking to the objectives of the different components. Most of the indicators are measured against QIS score cards.
Strengthening capacity for steering and implementation of sanitation demand creation with the objective that local organisations are capable of implementing and steering sanitation demand creation at scale
<ul style="list-style-type: none"> • Sustainability indicator 1. Capacity of local governments or line agencies to steer sanitation demand creation at scale in their area • Sustainability indicator 2. Capacity of local organisations implement sanitation demand creation (CLTS) with quality
Strengthening capacity for sanitation supply chains and finance with the objective that affordable market-based solutions for a variety of sanitation
<ul style="list-style-type: none"> • Sustainability indicator 3. Progress on private sector engaging in sales of sanitation hardware and services to Bottom of the Pyramid • Sustainability indicator 4. Availability of affordable sanitation options for the poorest wealth quintile This indicator will compare the cost of sanitation options with the income in the lowest wealth quintile. Affordability should not exceed 5% of annual cash income. Income data are collected in a household survey or from secondary sources, if existing. The cost of sanitation options will be based on the inventory with private sector.
Strengthening capacity for behavioural change communication for hygiene promotion with the objective to anchor effective hygiene behavioural change communication in local practice
<ul style="list-style-type: none"> • Sustainability indicator 5. Progress on institutionalising hygiene behavioural change communication Measuring the existence and quality of a BCC strategy related to hand washing with soap.

Strengthening capacity for WASH governance with objective of Improving local WASH governance terms of alignment of stakeholders, sector planning and monitoring, transparency and social inclusion

Indicators are:

- **Sustainability Indicator 6:** Improved sector alignment at local level
- **Sustainability indicator 7:** Progress on the influence of women in rural sanitation and hygiene programmes
- **Sustainability indicator 8:** progress on the influence of poor households and minority groups in rural sanitation and hygiene programmes
- **Sustainability indicator 9:** progress on the influence of disabled people and elderly in rural sanitation and hygiene programmes

Improving environmental management through improved faecal sludge management

- **Sustainability indicator 10: Progress with faecal sludge management**

Appendix 2. Survey sharing sanitation

To tell the participant before start: This research is an independent research, trying to find out what people think about the use of sanitation facilities in their community and what are their practises. It is not part of a project, not monitoring results.

Questions shaded in blue require the interviewer to both ask the question, and observe

Sequence of modules in this questionnaire:

1. Information Panel (A) (8 data fields)
2. Demographic Profile (B) (18 data fields)
3. Wealth index (C) (3 data fields)
4. Group identification (D) (4 data fields)
5. Sanitation (E) (9 data fields)
6. Use of sanitation (F) (6 data fields)
7. Hand washing (G) (3 data fields)
8. Sharing sanitation (H) (33 data field)

Information Panel (A)	
A1. Household ID: #	A2. Date:
A3. Interviewer:	A4. Research observer:
A5. Name district:	A6. Name sub county:
A7. Name parish:	A8. Name village:

Information Panel can be filled in without respondent

Demographic profile (B)													
B1. Gender respondent:	B2. Is respondent household head ? <table border="1"> <tr> <td>YES</td> <td>NO</td> </tr> <tr> <td></td> <td></td> </tr> </table>	YES	NO										
YES	NO												
B3. Respondent education: <i>Check box</i>	B4. Respondent occupation:												
<table border="1"> <tr><td>None</td><td></td></tr> <tr><td>Some primary</td><td></td></tr> <tr><td>Full primary</td><td></td></tr> <tr><td>Some secondary</td><td></td></tr> <tr><td>Full secondary</td><td></td></tr> <tr><td>Higher</td><td></td></tr> </table>	None		Some primary		Full primary		Some secondary		Full secondary		Higher		
None													
Some primary													
Full primary													
Some secondary													
Full secondary													
Higher													
B5. Age of respondent:	B6: language												
B7: Religion:	B8: Tribe:												

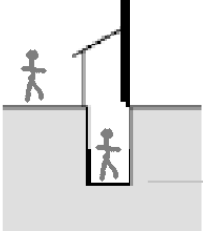
<i>Household size</i>				
B9. Number of women aged 50 years or older:	B10. Number of men aged 50 or older:			
B11. Number of women aged 15 – 49 years:	B12. Number of men aged 15-49 years:			
B13. Number of girls aged 6 -14 years:	B14. Number of boys aged 6 – 14 years:			
B15. Number of girls aged 0 -5 years:	B16. Number of boys aged 0 -5 years:			
B17. Total of household members:				
B18. Because of a health problem or old age, how many persons in your household have:				
	1. No difficulty	2. Some difficulty	3. A lot of difficulty	4. Unable to do it
Difficulty seeing				
Difficulty walking or climbing steps				
Difficulty with self-care such as washing or dressing?				
<p><i>Note: When babies and small children cannot walk or care for themselves yet, those of course do not count.</i></p> <p>Total number of people in this household with special needs (all those with a 3. lot of difficulty and/or 4. unable to do it): — —</p> <p><i>Note: The enumerator needs to add all the total number of persons who have a lot of difficulty (3) or are unable to do it (4), and fill in that number here. Of course not counting people twice.</i></p>				

Wealth index (C) observe and ask	
<i>Questions shaded blue require the interviewer to both ask the question, and observe</i>	
C1. What is the material of the roof of the house?	
C2. What is the material of the floor/base of the house?	
C3. What is the material of the walls of the house?	

Group identification (D)		
D1. Do you use a latrine?	<ul style="list-style-type: none"> • Yes • No 	<ul style="list-style-type: none"> • Go to question D2 • Group 1: OD
D2. Do you own a latrine?	<ul style="list-style-type: none"> • Yes • No 	<ul style="list-style-type: none"> • Go to question D3 • Group 2: Non owner shared
D3. Do you share your latrine?	<ul style="list-style-type: none"> • Yes • No 	<ul style="list-style-type: none"> • Group 4: Owner shared • Group 3: Owner not shared
D4. Respondent is in group:		

Group path questionnaire			
GROUP 1: OD	GROUP 2: NON OWNER SHARED	GROUP 3: OWNER NOT SHARED	GROUP 4: OWNER SHARED
<i>Skip section E,F,G. Start sector H with question H1.</i>	<i>Fill in section E,F,G. Then start section H with question H2.</i>	<i>Fill in section E,F,G. Then start section H with question H1.</i>	<i>Fill in section E,F,G. Then start section H with question H2.</i>

Sanitation (E)	
<i>Questions shaded blue require the interviewer to both ask the question, and observe</i>	
E1. What type of toilet/latrine do you use? Can you show it? <i>write down what you observe, check option from list, or add other when it is not in the list.</i> <i>Ask if you can take photos of the toilet. Front, Back and inside</i>	<ul style="list-style-type: none"> • Flush/pour flush toilet • Ventilated improved pit latrine (VIP) • Pit latrine with slab • Pit latrine without slab • Composting toilet • Urine diversion toilet • Bucket • Hanging toilet or hanging latrine • Other, describe:
ONLY OBSERVATION E2. Can rats reach the faeces in any way?	<ul style="list-style-type: none"> • Yes • No
ONLY OBSERVATION E3. Does the toilet pan or slab allow flies to go in and out of the pit?	<ul style="list-style-type: none"> • Yes • No
E4. Is the toilet slab washable and/or cleanable? <i>washable means with water; cleanable means with a broom and no water</i>	<ul style="list-style-type: none"> • Yes cleanable and washable • Yes, cleanable, but not washable • No

<p>E5. How deep is the pit below the surface? (Feet)</p>  <p><i>If unsure – when the pit was being dug, was the pit deeper than the respondent? Make estimate of respondent's height</i></p>	<ul style="list-style-type: none"> • _____ Feet • _____ metres • Don't know
<p>E6. How old is the latrine? When did people start to use it?</p>	
<p>E7. What is the distance between hut and latrine?</p>	<ul style="list-style-type: none"> • _____ Feet • _____ Meters
<p>E8. Has the pit ever been emptied?</p>	<ul style="list-style-type: none"> • Yes • No
<p>E9. When was the last time the pit was emptied?</p>	

<p style="text-align: center;">Use of Sanitation (F) <i>Questions shaded blue require the interviewer to both ask the question, and observe</i></p>	
<p>F1. Is the toilet in use, as a toilet?</p>	<ul style="list-style-type: none"> • Yes • No
<p>F2. Is the toilet functioning as intended for this technology?</p>	<ul style="list-style-type: none"> • Yes • No • Don't know
<p>F3. Are the walls of the toilet in place?</p>	<ul style="list-style-type: none"> • Yes • No
<p>F4. Is the door of the toilet in place?</p>	<ul style="list-style-type: none"> • Yes • No
<p>F5. Is the Roof of the toilet in place?</p>	<ul style="list-style-type: none"> • Yes • No
<p>F6. Is the toilet free from faecal smears on pan, wall and floor?</p>	<ul style="list-style-type: none"> • Yes • No
<p>F7. Is the toilet pan and floor free from used cleansing materials (PAPER, STONES, STICKS)?</p>	<ul style="list-style-type: none"> • Yes • No

<p style="text-align: center;">Hand washing (G) <i>Questions shaded blue require the interviewer to both ask the question, and observe</i></p>	
<p>G1. Is there a place for hand washing within 10 meters from the toilet?</p> <p><i>Ask if you can take a photo when the interview is completed, or now if suitable</i></p>	<ul style="list-style-type: none"> • Yes • No
<p>G2. Is there water available at the specific place for hand washing, now?</p>	<ul style="list-style-type: none"> • Water is available • Water is not available

<p><i>Verify by checking the tap/pump, or basin, bucket, water container or similar objects for presence of water.</i></p> <p><i>When object is still wet it counts as available</i></p>	
<p>G3. Is there soap or a soap substitute available at the specific place for hand washing, now?</p> <p>Can you show it to me please?</p>	<ul style="list-style-type: none"> • Soap • Ash / mud / sand • Other, <i>Specify:</i> • No

Sharing of latrines (H)	
<p>H1. Did you ever share a toilet/latrine?</p>	<ul style="list-style-type: none"> • Yes > <i>Go to question 2</i> • No > <i>Go to question 19</i>
<p>H2. With how many household do you share? (total of households)</p>	
<p>H3. With how many people do you share? (total of households)</p>	
<p>H4. What is positive about sharing a toilet</p> <p><i>Frame question for group 2 and 4: What is it you like about sharing</i></p> <p><i>Frame question for group 1 and 3: Is there something you like about sharing?</i></p>	
<p>H5. What is it you don't like about sharing?</p>	

<p>H6. Why do you share a toilet?</p>	
<p>H7. With which people do you share the toilet? <i>(probe: children, sisters, parents, husband, in-laws, etc.)</i></p>	
<p>H8. With which people don't you share or like to share your toilet?</p>	
<p>H9. Did you or other household members ever had problems with sharing a toilet? Which ones?</p>	
<p>H10. When you need to go to the toilet, do you sometimes need to wait for others who occupy the toilet?</p>	<ul style="list-style-type: none"> • Yes > Go to question H11. • No > Go to question H16.
<p>H11. How many times a week do you need to wait?</p>	
<p>H12. Which days of the week do you normally wait?</p>	

<p>H13. Which moment of the day do you normally wait?</p>	
<p>H14. How long do you need to wait?</p>	
<p>H15. What do you do when the toilet is occupied and you need to go?</p>	
<p>H16. In which period of the year/season do you share a toilet? Why?</p> <p><i>Probe</i></p>	
<p>H17. For how long have you been sharing a toilet? <i>Write down unit of measurement mentioned by respondent</i></p>	<p>.....Weeks Months Years</p>
<p>H18. Who makes the decision whether to share a toilet or not? Why?</p>	
<p>H19. What do you do when your toilet is broken, out of use or full? Where do you go then?</p>	

H20. Who cleans the toilet you use?	
H21. Who repairs the toilet when it is broken?	
H22. Did you or your household members ever have problems with cleanliness or maintaining the toilet you use?	<ul style="list-style-type: none"> • Yes > go to question 23 • No > go to question 24
H23. Which problems?	
H24. Do you prefer using a toilet for yourself and your own household or is sharing okay for you?	<ul style="list-style-type: none"> • Own toilet • Sharing toilet
H25. What do you think about sharing a toilet?	
H26. What does the community think about sharing a toilet?	

H27. What do you think about not sharing a toilet??	
H28. What do you think about not owning a toilet	
<i>HEALTH RELATED QUESTIONS</i>	
H29. Did anyone in the household suffer from diarrhea last week?	<ul style="list-style-type: none"> • Yes > go to question H30 • No > Go to question H31
H30. How many people in your household did suffer from diarrhea last week?	
H31. Did anyone in the household suffer from diarrhea last month?	<ul style="list-style-type: none"> • Yes > go to question H32 • No > go to question H33
H32. How many people in your household did suffer from diarrhea last month?	
H33. How much money do you spend on average each month on diarrhea medication?	

END OF QUESTIONNAIRE. THANK PARTICIPANT FOR PARTICIPATION

Appendix 3. Coding scheme survey

Question Code	Variable	Instruction
A1.	HH_ID	Fill in number of household ID #
A2.	Date	Fill in date: dd-mm-yyyy
A3.	Interviewer	1 = Annet 2 = David
A4.	Observer	1 = Milande 2 = Steven
A5.	District	1 = Arua 2 = (Ruwenzori)
A6.	Subcounty	1 = Oluko (LCB interventions) 2 = Uriama (LCB interventions) 3 = Manibe 4 = Ajia
A7.	Parish	1 = Yabiavoko 2 = Turu 3 = Akinio 4 = Ejomi 5 = Otumbari 6 = Olufe 7 = Eleku 8 = Ajia 9 = Ombokoro
A8.	Village	1 = Rabala 2 = Drimu 3 = Perea 4 = Erepea 5 = Otumbari 6 = Okupaliri 7 = Agorovu 8 = Ombamba 9 = Oyeku
B1.	Gender	1 = Male 2 = Female
B2.	Householdhead	1 = Yes 0 = No
B3.	Education	1 = None 2 = Some primary 3 = Full primary 4 = Some secondary 5 = Full secondary 6 = Higher
B4.	Occupation	1 = Peasant farmer 2 = Farmer 3 = VHT (Village Health Team) 4 = Student 5 = Housewife 6 = LC 1 (local council level 1)

		7 = Business men/women 8 = Policeman 9 = Pastor (religious leader)
B5.	Age	Fill in Number
B6.	Language	1 = Lugbara 2 = Lanawage (HHID#10) 3 = English and Lugbara
B7.	Religion	1 = Catholic 2 = Protestant 3 = Islam
B8.	Tribe (clans people are from)	1 = Lugbara 2 = Obi 3 = Kura 4 = Ombokoro 5 = Yole 6 = Turu 7 = Pajulu 8 = Orivu 9 = Muteso 10 = Aripizaci 11 = Aripsi 12 = Maraju 13 = Siripi 14 = Nyo 15 = Noki 16 = Osua 17 = Nyaranga 18 = Aawa 19 = Yivu 20 = Kuli 21 = Asiyu 22 = Ocopi 23 = Abiru 24 = Ariapi 25 = Ara 26 = mingoro 27 = Aya 28 = Agorovu 29 = Oreko 30 = Ombamba 31 = Vurra 32 = Adumi 33 = Ajia 34 = Odravu 35 = Ocoko 36 = Oceku 37 = Ayalangi 38 = Yurra 39 = Akulua 40 = Olaka 41 = Orevu

		42 = Madi
B9.	Women50	Fill in number
B10.	Men50	Fill in number
B11.	Women15_49	Fill in number
B12.	Men15_49	Fill in number
B13.	Girls6_14	Fill in number
B14.	Boys6_14	Fill in number
B15.	Girls0_5	Fill in number
B16.	Boys0_5	Fill in number
B17.	TotalHH	Fill in number
B18.	TotalDisabled	Fill in number
C1.	RoofHouse	1 = Grass thatched 2 = Iron sheet
C2.	FloorHouse	1 = Stones connected with mud 2 = Water and Mud (mortar) 3 = Brick 4 = Cemented
C3.	WallsHouse	1 = Mortar (mud) 2 = Bricks
D1.	UseLatrine	1 = Yes 0 = No
D2.	Own latrine	1 = Yes 0 = No
D3.	Share latrine	1 = Yes 0 = No
D4.	GroupID	1 = Open Defecation 2 = Non owner shared 3 = Owner not shared 4 = Owner shared
E1.	Type_Latrine	1 = Flush/pour flush toilet 2 = Ventilated improved pit latrine (VIP) 3 = Pit latrine with slab 4 = Pit latrine without slab 5 = Composting toilet 6 = Urine diversion toilet 7 = Bucket 8 = Hanging toilet or hanging latrine 9 = other 999 when OD
E2.	Rats	1 = Yes 0 = No 999 when OD
E3.	Flies	1 = Yes 0 = No 999 when OD
E4.	WashClean	1 = Yes, Cleanable and Washable 2 = Yes, Cleanable, not Washable 0 = No

		999 when OD
E5.	DepthPit	Fill in depth in meters (calculate from feet) 992 = Don't know 999 when OD
E6.	UseMonths	Fill in number of months 999 when OD
E7.	DistanceHutLat	Fill in distance in meters 999 when OD
E8.	EmptiedPit	1 = Yes 0 = No
E9.	TimeEmptiedpit	Fill in number of months ago from interview date. 999 when OD or when E8 = No
F1.	ToiletUse	1 = Yes 0 = No
F2.	ToiletFunction	1 = Yes 0 = No 992 = Don't know
F3.	WallsinPlace	1 = Yes 0 = No
F4.	DoorinPlace	1 = Yes 0 = No
F5.	RoofinPlace	1 = Yes 2 = No
F6.	FreefromSmear	1 = Yes 0 = No
F7.	FreefromCIMA	1 = Yes 0 = No
G1.	HandWashFac	1 = Yes 0 = No
G2.	WaterAvailable	1 = Yes 0 = No
G3.	Soap	1 = Yes, Soap 2 = Yes, Ash, mud, sand 0 = No
H1.	Ever_Shared	1 = Yes 0 = No 999 when OD
H2.	HHsharing	Fill in Number
H3.	PeopleSharing	Fill in Number
H4. Pos_Sharing	H4_noOD Sharing prevents those who not own a latrine from OD	1 = Yes 0 = No
	H4_SaveCost Sharing saves cost by collective contribution latrine	1 = Yes 0 = No
	H4_MainClean Sharing makes maintenance and cleaning collective role	1 = Yes 0 = No
	H4_AccessNonOwn	1 = Yes

	Sharing helps non-owners of latrine to have access to one	0 = No
	H4_Relatives Sharing is okey because it is with relatives/within homestead	1 = Yes 0 = No
	H4_Nothing Nothing positive about sharing	1 = Yes 0 = No
H5. Neg_Sharing	H5_MainClean Maintenance and cleaning is a problem	1 = Yes 0 = No
	H5_HealthRisk Sharing involves health risks (spread of diseases, infections)	1 = Yes 0 = No
	H5_ChildLitter Children litter the latrine	1 = Yes 0 = No
	H5_PitFill Pit fills up fast	1 = Yes 0 = No
	H5_Distance Shared latrine is distant	1 = Yes 0 = No
	H5_Waiting Waiting when latrine is occupied	1 = Yes 0 = No
	H5_Embarras Embarrassing when having visitors	1 = Yes 0 = No
	H5_PromLaziness Promotes laziness among those who not own (to construct one)	1 = Yes 0 = No
	H5_Nothing Nothing negative about sharing	1 = Yes 0 = No
H6. WhySharing	H6_OnlyAvailable It is the only available latrine	1 = Yes 0 = No
	H6_ProcessConstruct In the process of constructing own latrine, meanwhile they share	1 = Yes 0 = No
	H6_DoesntOwn Respondent doesn't own	1 = Yes 0 = No
	H6_NeighbourNot Neighbour doesn't own latrine	1 = Yes 0 = No
	H6_Unable (Other) household is unable to afford/dig & construct own latrine (due to illness, age, woman)	1 = Yes 0 = No
	H6_Relatives They are family/relatives so it is normal	1 = Yes 0 = No
	H6_Collapse Respondent's latrine collapsed	1 = Yes 0 = No
	H6_NeighbourCollapse	1 = Yes

	The Neighbours latrine collapsed	0 = No
	H6_Soil The soil makes it difficult to construct latrine (rocky/Sandy)	1 = Yes 0 = No
H7. WhoSharing	H7_Children Children	1 = Yes 0 = No
	H7_Parents Parents	1 = Yes 0 = No
	H7_BroSis Brothers and Sisters	1 = Yes 0 = No
	H7_Inlaw In-laws	1 = Yes 0 = No
	H7_HusWife Husband and wife (<u>one</u> wife)	1 = Yes 0 = No
	H7_CoWifes Co-wives and Wives (when more than one wife)	1 = Yes 0 = No
	H7_Neighbours Neighbours	1 = Yes 0 = No
	H7_Passersby Passers-by	1 = Yes 0 = No
	H7_whosharing	1 = Relatives 2 = Neighbours and relatives 3 = Neighbours
H8. WhoNotSharing	H8_Diseases People infected with diseases	1 = Yes 0 = No
	H8_MainClean People who not maintain cleanliness and hygiene	1 = Yes 0 = No
	H8_Neighbours Neighbours	1 = Yes 0 = No
	H8_Passersby Passers-by	1 = Yes 0 = No
	H8_Children Children (litter pit)	1 = Yes 0 = No
	H8_Nobody Nobody outside own household	1 = Yes 0 = No
	H8_Anyone Sharing is fine with anyone	1 = Yes 0 = No
	H8_Alcoholic Alcoholics and Drug users	1 = Yes 0 = No
	H8_Women Women	1 = Yes 0 = No
H9.	H9_ProblemSharing	1 = Yes 0 = No
	H9_ProblemSpec	1 = Maintenance and cleanliness: dirty latrine 2 = Other refuses to contribute money 3 = Owning neighbour lost key 4 = Neighbours children dirty latrine 5 = Complaint by woman of single workload

		999 when H9a. = No or when OD
H10.	Waiting	1 = Yes 0 = No
H11.	WaitTimesaWeek	Fill in number (1 – 7)
H12. WaitDay	H12_WaitMon Monday	1 = Yes 0 = No
	H12_WaitTues Tuesday	1 = Yes 0 = No
	H12_WaitWed Wednesday	1 = Yes 0 = No
	H12_WaitThur Thursday	1 = Yes 0 = No
	H12_WaitFri Friday	1 = Yes 0 = No
	H12_WaitSat Saturday	1 = Yes 0 = No
	H12_WaitSun Sunday	1 = Yes 0 = No
	H12_WaitEvery Everyday	1 = Yes 0 = No
	H12_WaitAny Any day	1 = Yes 0 = No
H13. Waitmoment	H13_Morning Morning	1 = Yes 0 = No
	H13_Lunch Lunchtime	1 = Yes 0 = No
	H13_Afternoon Afternoon	1 = Yes 0 = No
	H13_Evening Evening	1 = Yes 0 = No
	H13_Any Any moment	1 = Yes 0 = No
H14.	WaitTimesTurn	Fill in number in minutes (average when range is indicated)
H15. WaitSolve	H15_Wait Waiting	1 = Yes 0 = No
	H15_Neighbours Goes to the neighbours	1 = Yes 0 = No
	H15_Bush Goes to the bush	1 = Yes 0 = No
	H15_OutandPit Defecates out and throws in pit after it	1 = Yes 0 = No
H16 SharePeriod	H16_SharePeriod	1 = Rainy season 2 = Dry season 3 = Thorough 4 = Don't know
	H16_PeriodWhy	1 = Overconsumption vegetables and fruits leads to running stomach

		<p>2 = More food available, more consumption, more toilet visits</p> <p>3 = Cold weather prompts urinating</p> <p>4 = Pits cannot be sunk for constructing own latrine</p> <p>5 = More people at home, rain restricts people's movements</p> <p>6 = People shelter in toilet during rain (so move to another latrine)</p> <p>7 = No vegetation/bush to shelter for practicing OD, so people who not own latrine use latrine of others</p> <p>8 = More people at home because no work in the fields</p> <p>9 = If you don't own, you share on daily basis as you go daily</p> <p>10 = On market days when people are around</p>
H17.	Timesharing	Fill in number in months
H18.	DecisionSharing	<p>1 = Constructor/owner of latrine</p> <p>2 = Not owning HH member</p> <p>3 = No particular person decides</p>
H19.	ShareSolve	<p>1 = Open hole and cover feaces after</p> <p>2 = Open temporary hole/pit in the bush</p> <p>3 = To the bush</p> <p>4 = To the neighbours</p> <p>5 = Use stand-by latrine</p> <p>6 = Struggle to construct</p>
H20.	ToiletClean Note: when gender is not specified it fall also in the category 'both gender'.	<p>1 = Owning household male</p> <p>2 = Owning household female</p> <p>3 = Owning household both gender</p> <p>4 = Not owning household female</p> <p>5 = Owning and not owning household female</p> <p>6 = Owning and not owning household both gender</p> <p>7 = Not cleaned</p>
H21.	ToiletRepair	<p>1 = Owning household male</p> <p>2 = Owning household female</p> <p>3 = Owning household both gender</p> <p>4 = Not owning household male</p> <p>5 = Owning and not owning household male</p> <p>6 = Owning and not owning household both gender</p> <p>7 = hired labour</p>
H22	ProblemMain	<p>1 = yes</p> <p>0 = No</p>
H23.	ProblemMspec	<p>1 = My neighbours continuously make the latrine dirty</p> <p>999 when H22. = No</p>
	H24. PrefToilet	<p>1 = Own toilet</p> <p>2 = Sharing toilet</p>

H25. Image sharing	H25_ImagePersS	1 = positive 2 = negative
	H25_Own Every household should own a latrine	1 = yes 0 = No
	H25_Disease Diseases easily spread	1 = yes 0 = No
	H25_MainClean Hard to maintain cleanliness of latrine	1 = yes 0 = No
	H25_Bylaw It is a by-law to have a latrine	1 = yes 0 = No
	H25_inconvenient Sharing is inconvenient (waiting, distance, visitors)	1 = yes 0 = No
	H25_PitFull Pit fills up fast	1 = yes 0 = No
	H25_ButCond But certain conditions (not owning) force and allow people to share	1 = yes 0 = No
	H25_PosNon Positive for non-owner, it prevents OD	1 = yes 0 = No
	H25_Land Safes land shortage problem	1 = yes 0 = No
	H25_ButOwn But owning a latrine is better	1 = yes 0 = No
H26. Community image sharing	H26_ImageComS	1 = positive 2 = negative 3 = mixed 4 = don't know
	H26_own Every household should own a latrine	1 = yes 0 = No
	H26_Disease Diseases can easily spread	1 = yes 0 = No
	H26_MainClean Hard to maintain cleanliness of latrine	1 = yes 0 = No
	H26_Bylaw Bylaw to have a latrine	1 = yes 0 = No
	H26_Inconvenience Sharing inconvenience the neighbour	1 = yes 0 = No
	H26_cost Cost of latrine are not shared	1 = yes 0 = No
	H26_Dependency Promotes dependency syndrome	1 = yes 0 = No

	H26_Sensitized Sensitized by organization that every HH should own a latrine	1 = yes 0 = No
	H26_ButCond But certain conditions force/allow people to share	1 = yes 0 = No
	H26_Common It is a common practice	1 = yes 0 = No
	H26_BetterShare Sharing is better than going to the bush	1 = yes 0 = No
H27. Imagine not sharing	H27_ImageNotS	1 = positive 2 = Negative
	H27_Own Every household should own latrine	1 = yes 0 = No
	H27_Disease Disease spread can be avoided	1 = yes 0 = No
	H27_MainClean Cleanliness can be maintained	1 = yes 0 = No
	H27_Inconvenience Avoids Inconveniences (rain, distance, visitors, bothering neighbours)	1 = yes 0 = No
	H27_LastLong Latrine last longer (pit)	1 = yes 0 = No
	H27_train Easy to train children in proper use	1 = yes 0 = No
	H27_Sharingok Sharing is okey when people do not own	1 = yes 0 = No
H28.	H28_ImageNoToilet	1 = positive 2 = negative
	H28_Own Every household should own latrine	1 = yes 0 = No
	H28_Disease It promotes disease spread	1 = yes 0 = No
	H28_Inconvenience It inconvenience the neighbour (or yourself)	1 = yes 0 = No
	H28_PromOD It promotes open defecation	1 = yes 0 = No
	H28_Sensitization Not owners need sensitization (in form of support/reportpunishment/fines)	1 = yes 0 = No
	H28_Sharing It leads to sharing	1 = yes 0 = No

	H28_Shame It makes you feel ashamed	1 = yes 0 = No
	H28_ButShar But when sharing it is okey to not own a latrine	1 = yes 0 = No
	H28_ButWeak But when people are weak/old and cannot construct a latrine it is okey	1 = yes 0 = No
H29.	WeekDia	1 = Yes 0 = No
H30.	WeekDiaAm	Fill in amount of people
H31.	MonthDia	1 = Yes 0 = No
H32.	MonthDiaAm	Fill in amount of people
H33.	MoneyDia	Fill in amount of money in shillings (take average when range is mentioned)

Appendix 4. Topic list Focus group discussions

1. Do people share toilets?
2. Why do you share or do you not share?
3. When you share it with more households, do you dig a bigger pit? So it sustains longer? Tell me about it
4. Who is responsible for construction? And what happens after the pit is full? Who constructs a new one?
5. Who repairs the toilet when it is broken?
6. And who cleans the toilet you use?
7. What kind of problems are happening when sharing?
8. And what about maintaining or cleanliness of a shared facility?
9. What is positive about sharing a toilet?
10. What is it you don't like about sharing a toilet?
11. When you share, with who do you share and who not? Why?
12. Is there a specific period / season of the year that you share a toilet most? And why?
13. When you need to go to the toilet, do you sometimes need to wait for others who occupy the toilet?
14. How many times a week? Which days? Which moment of the day?
15. how long do you need to wait?
16. What do you do when the toilet is occupied and you need to go? Do you share then? And with who? Is that okay for everyone?
17. And what do you do when the toilet is broken or out of use or full and you need to go to the toilet? Do you share then? And with who? Is that okay for everyone?
18. If other people want to share your toilet, how is that for you? Is that okay? Are there particular situations in which it is okay and when not (for example when somebody's toilet collapsed, or is full, or person needs to wait)