

Sanitation promotion and household latrine

Learning and Communications in WASH in Amhara

Introduction

Access to sanitation services in Ethiopia is currently reported at 43% (WaterAid, 2010) approaching only the Millennium Development Goal (MDG) target (52%). According to literature, the sanitation coverage in the Amhara Region increased from 4% in 2004 (O'Loughlin et al., 2006) to 63% in 2010 (WaterAid, 2010). However, the non-functionality of the available latrines was estimated to be greater than 80% in the country (Gebreselassie, 2007) which is likely the same in the region. If this trend of non-functionality of sanitation facilities continues, the risk of fecal-oral transmission and the mortality rate of children due to poor sanitation increase.

In most rural areas of Amhara Region, Health Extension Workers (HEWs) who are part of the Health Extension Program (HEP) are conducting outreach activities, such as latrine construction and excavation of waste disposal pits by going house to house. In addition, some implementers, donors, CSOs and governmental organizations are promoting and implementing sanitation as they provide clean water supply in the region. To increase coverage and enhance the functionality of sanitation facilities, sanitation practices and their challenges should be documented by both implementers and HEP.

With the objective of improving the documentation of different issues of Water Supply, Sanitation and Hygiene (WaSH) in Amhara Region, the School of Civil and Water Resources Engineering at the Institute of Technology (IoT) of Bahir Dar University (BDU) with a financial support from WaterAid have conducted research on the community participation, technology, implementation, operation and maintenance, monitoring and evaluation, sustainability and impact of WASH projects in the Amhara Region. These were conducted in 32 villages located throughout Amhara. To supplement the data on sanitation, two research thesis conducted in two *woredas* were reviewed.

This briefing note provides an overview of the research specific to the current situation and problems of increasing sanitation coverage in addition to key findings and recommendations that could improve the functionality of sanitation in Amhara Region. The main research document will soon be available at www.wateraidethiopia.org and <http://www.bdu.edu.et>



Well roofed and walled Pit Latrine at Shinkurt locality of Farta Woreda S. Gonder Zone (Wondim P., 2010)

Background

Inadequate sanitation is one of the factors that cause 80 percent of all sickness and disease in the world (WHO, 1997). In Ethiopia, it has been reported that 60% of overall diseases is related to poor sanitation and lack of hygiene (Gebreselassie, 2007). Admassu et al. (2004) showed that approximately half of all water sources (protected and unprotected) in North Gonder of Amhara Region are polluted by feces, specifically human, which is the most likely source of diarrhoea and the main breeding media of *Musca sorbens*, the eye-seeking fly that transmits trachoma (Emerson et al., 2001).

This is actually attributed to poor sanitation practices such as open defecation, a low level of hygiene education, and irregular disinfection of water at the source. It is generally believed that proper latrine construction and use, and hygienic practices can reduce communicable diseases, such as diarrhoea and trachoma arising from the poor environmental sanitation and hygiene.

Government and non-governmental organizations (NGO's) have dedicated considerable resources to improve sanitation in Amhara Region. For example, the Ministry of Health in 2003 launched a new health care plan to provide quality preventive health services in an accessible and equitable manner to all segments of rural population through a comprehensive Health Extension Program (HEP) (Alula, 2008). One of the components of this program is hygiene & environmental sanitation. And Health Extension

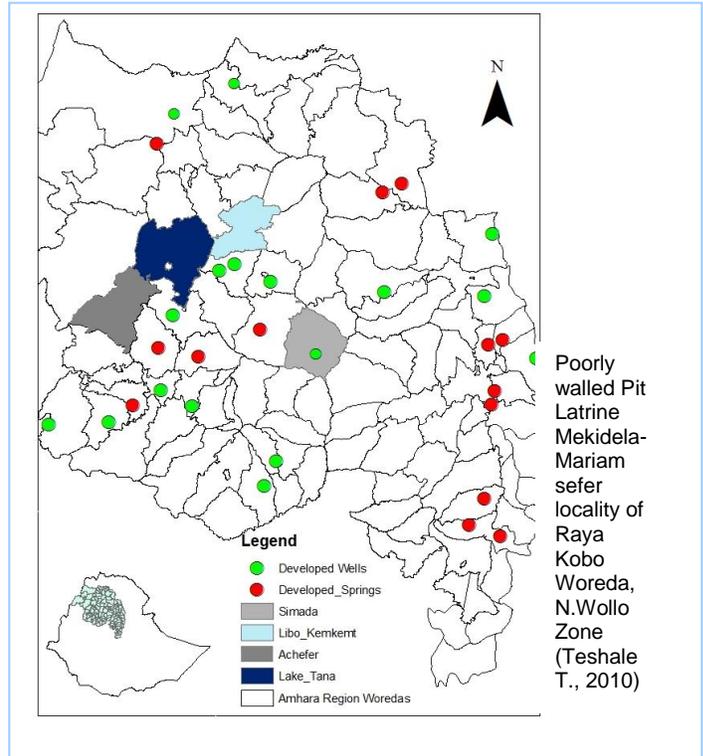
Workers (HEWs) are working at the *kebele* level in order to promote proper and safe excreta disposal system in households throughout the region. Moreover, the rural water supply providers of local and international NGO's are promoting sanitation in conjunction with water supply improvements. But this is not the case for all NGO's. Some are working integrating water supply, sanitation and hygiene and others not. Despite these efforts and high sanitation coverage report of woredas in Amhara Region, latrines are virtually non-existent in rural communities with defecation taking place in fields, bushes or along river banks.

Thus, WaterAid Ethiopia granted fund to BDU's School of Civil and Water Resources Engineering to document practices and different issues of WASH including sanitation. This would lead to a better understanding of practices that could be adopted in different areas and to identify challenges that affect the efforts of improving sanitation in the region.

Documenting the sanitation practices implemented by various WASH implementers, government agencies and responsible stakeholders in the region would provide an opportunity to revise and evaluate current strategies for improving sanitation in the region.

Methodology

After explaining the objective of the research, the schemes were selected based on extensive discussion of zones and *woredas*. We used the presence of a latrine as a proxy of sanitation in this research. Structured interviews were conducted with the users of an improved water supply scheme, the district WaSH committee and *Woreda* Water Resource Development office members in 32 schemes located at different zones and *woredas*. The users interview covered topics on who promotes constructing and using latrine, type of latrines, who uses the latrine and current state of the latrine. Two-day long site visits were conducted at each site by a team of two staff researchers from the School of Civil and Water Resources Engineering. These helped to observe the presence of latrines and their conditions in two to four randomly selected households within each site. A total of 8 professionals were involved covering evaluation of the 32 schemes. In addition, three master's thesis on the sustainability of rural water supply and sanitation services in Ethiopia: a case study of twenty villages in Ethiopia (Tegegne, 2009), the determinants of household participation in water source management in the Achefer area at 16 villages (Aschalew, 2009) and assessment of drinking water quality and determinants of household potable water consumption in Simada district at 16 villages, Ethiopia (Meseret, 2011) were reviewed to supplement the findings of the research. The twenty villages were in Libo Kemekem *Woreda* conducting normal survey of 200 households while in Simada and Achefer *Woreda*, the survey included 160 households.



Key Findings

Latrine coverage and use: The sanitation coverage reported from *woredas* in the region ranges from 30 to 100% but the spatial coverage variability of latrine within the *woreda* is very high as learned from Libo Kemekem such as 67.5% in some villages to 31.3% to the other villages within the *woreda*. The survey in the same *woreda* demonstrated that construction of latrine by itself does not mean it is used regularly. Only 20% or less of those who constructed latrines used them regularly. This was also the case for the 32 sites assessed within the Amahara Region. Most latrines were not used or had not been constructed completely. A teenager from Gafate locality of West East showed an excavated hole for an unfinished pit latrine in their back yard. The latrine was started upon her request, and she explained, "I learned about sanitation in my elementary class and asked my father to construct pit latrine. He started digging the hole but he could not finish it because of his poor health condition".

Ato Ambaw Geremew in Ermito locality of Enebsie Sar Midir *Woreda*, East Gojam said, "Although there are many toilets built in this village to escape the 25 ETB penalty set by HEWs, the actual number of people using toilets is rather low". The latrines were rarely used because of the bad odor around the latrine and not feeling comfortable using the latrine. In addition, those living in households with latrines must travel long distances from their agricultural fields back to their home to use the latrine. Furthermore, a household family in a sub-urban or market area is likely to use their extra open land for income generation instead of constructing a latrine. In Semada, the percentage of

households in non market centers having a latrine (52.5%) far exceeds the coverage the percentage of households with latrines in market centers (31.6%) and in sub-urban peripherals (27.3%). One of the respondents from a market center said, *“It is nothing to dig a pit for a latrine unless my neighbor does the same because his children will likely defecate in the neighbor’s open land which attracts flies and easily spreads disease to my children”*. The case in Dembia at Wasadera locality is different. Wayzaro (Mrs.) Mantegbosh Fenta explained, *“Three years ago, we had latrines in our backyard, but we stopped using the latrines since the first fill up of the pit and digging another pit was our headache”*.

Promotion of Sanitation: It was observed in areas where HEWs promote hygiene and sanitation concurrently with water supply provision of latrine construction and latrine use was relatively better. Kanat Kebele in Farta Woreda was chosen as a model kebele for good practice in sanitation and hygiene programs because of the close work and cooperation between CARE South Gonder (Water provider) and HEWs in this Kebele. The Shinkurt locality in this Kebele has, for example, separate latrines for men and women at some households. In the case of Lay Armachiho, Babawu locality, most HH’s initially constructed latrine around their yard because sanitation was set as a prerequisite to get improved water even though the scheme at last stopped delivering water. For continuous use of latrines by users in this community, the continuous functionality of such water supply scheme is a priority.

Type of Latrines: In all the sites where latrines were constructed, people with sickness and disabilities as well as other physically challenged people like older people were not considered in their design. In most cases, the response from respondents about such people’s presence in the area is none. At the household level most disabled people and other physically challenged people have not reached the stage of systematic working out practical solutions to the problem of access and inclusion. Providing information about possible simple local and low technologies options by the project is important. The type of latrines that were constructed in the regions was open pit latrine without house, pit latrine with walls but without roof, and pit latrine with closed wall and roof. On the average over the Libo Kemekem Woreda, 37% of the latrines had a wall and roof. Similarly, only 40% of the latrines observed at 32 villages of Amhara Region have wall and roof. Most of the latrines including those who have wall let in light through their wall and roof, and did not have a door to ensure privacy. All of the latrines are constructed from local materials of wood, mud, straw and stones. It is only observed in Oromia Zone at Dewa Chefa Woreda and South Wolo area at Werebabu and Kalu Woreda that concrete slab for floor was provided at a cost of 200ETB by water supply provider (Water Action and World Vision). However, it

had a poor seal between the slab and the ground. Despite this limitation, Shihe Endris Mohamed (WaSH committee) at Siter Kebele in Dawa Chefa Woreda expresses the advantage obtained by using latrines made from such slab *“Previously, we didn’t use latrines and we were practicing open defecation and every place was dirty to sit down and to do our prayer. As it rained, the smell of the surrounding was also bad. Now after we started using latrines, our surrounding environment is clean and therefore we can worship our God at any place and time. And we relived from bad smell during the rainy season.”*

Cover for latrine hole: Air vents are used to reduce the bad odour emanating from the latrines. However, in most of the latrines observed randomly at the 32 WaSH sites, Air vents weren’t available and holes were not properly constructed and were not covered, and air vents were not installed.

A hole in a latrine demarcates the area to be used for defecation and urination, defines the area to be covered by a plate to prevent odour and reduce flies, and ultimately to help maintain a clean environment within the latrine. Only 10% of the 32 villages covered their latrines holes. Similarly, less than 35% of the latrine holes were covered in Libo Kemekem Woreda. This poses a risk as far as human health is concerned due to a high probability of water and food contamination by flies visiting the latrines. Moreover, covering the hole may prevent bad smells from spreading beyond the latrine. The funnel-shaped covers of local mud and straw constructed in some villages of Libo Kemekem and Ermito locality in East Gojam Zone can be taken as examples for other communities to share. They are easy to construct and use.

Impact of pit latrines: Previous studies in North Gonder showed that approximately 50% of the protected spring and 30% of the protected well water supply sources were contaminated by faecal coliform at levels exceeding WHO drinking water standards for humans (Admassu et al, 2004). Recently, similar results were found in Achefer and Semada Woreda where 50% and 85% of their analyzed water supply sources had total faecal coliform exceeding WHO standards. However, water supply sources were treated only twice a year or upon the request of the community when the smell and test of water changes. This might suggest the presence of open defecation and current latrine construction and user’s practices did not bring the required impact. In addition, other researchers showed that there is no significant difference between pit latrine users and open defecators in terms of health outcomes in Ethiopia (Cameron, 2009). This suggests that the quality of the pit latrine construction should be appropriately monitored and/or one should come up with a better disposal mechanism.

Recommendations

1. Integrate sanitation with water supply provision

Promotion and implementation of sanitation and hygiene should be interlinked with the provision of water supply since poor sanitation and hygiene practices affect the water source, which should be reasonably free from biological contamination for drinking water. Hygiene and sanitation promoters or water supply providers of government or NGO's should no longer address sanitation or water supply independently.

2. Sanitation for all: Sanitation is a right of every one in the community including the marginalized and the excluded. To ensure access of every one regardless of age, sex, health and disability the facilities needs to be inclusive for all. During construction of latrine, it should be inclusive by considering disable, old and sick peoples. Promoters should advocate that disability, sickness and being old could happen to anyone at any moment in time and in future and helping community members how to consider such issues in their design and construction of latrine must be a priority. One way of doing this is through promoting inclusive model latrines for these groups of people. Consulting this people at every cycle of the project is also equally important as provision of accessible facilities. This will ensure that their voices are heard and reflected in the project the fact that old and widow people are not physically able to dig their own latrines also hinders their access to these facilities. This needs to be considered by the community.

3. Re-evaluation of sanitation technology

It looks that current practices of pit latrines aren't bringing the required impact in the community even though it requires further research on the area. NGO's and Government organization should monitor and evaluate the current practices and its impact on human health and water sanitation to learn from previous. If pit latrine isn't working well, finding other technologies that solves challenges of users are paramount importance. And if utilizing latrines isn't improving, awareness through formal education by including sanitation in the curriculum could be done.

4. Regular assessment of water supply sources and storage

Regular bacteriological assessment of water supply sources and storage in conjunction with sanitary survey at the household level for drinking water should be planned and conducted to monitor the impact of using latrine on drinking water supply quality. Sources of contamination of water and then preventive strategies could be defined from regular assessment.

5. Improving latrine use than coverage

Government and NGO's should devise strategies on how communities use their constructed latrine than simply focusing on improving sanitation coverage by constructing latrine within the region. This might require an effective monitoring mechanism that will serve as the learning platform and solve user challenges to use their latrine than penalizing them for not constructing a latrine.

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