

MURUSI SAFE WATER AND SANITATION PROJECT

BASELINE SURVEY REPORT

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However, AFARD takes full responsibility for the views and errors expressed herein.

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Programme Director

ACRONYMS

AFARD	=	Agency for Accelerated Regional Development
BCCE	=	Behavior Change Communication and Education
BO	=	Beneficiary Organization
FO	=	Field Officers
LLG	=	Lower Local Government
RNE	=	The Royal Netherlands Embassy (in Kampala)
UGX	=	Uganda Shillings

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EXECUTIVE SUMMARY

Why and how the baseline study

The Royal Netherlands Embassy in Kampala extended a small grant (Ref # KAM/S2/272/09) to AFARD for Murusi Safe Water and Sanitation Project. This is a 6 months project that AFARD envisaged will improve the health status of the people in Munduriema village through increasing access to, and utilization of, safe sanitation and water chain management. This study, therefore, aimed at establishing the current status of safe sanitation and water chain management in the benefiting households so as to make the project intervention locally responsive.

The survey covered all the households in Munduriema village. Data was collected, under the supervision of AFARD staff, by local trained personnel using a questionnaire designed to capture household and individual information. Data entry, cleaning, and analysis followed by report generation were conducted within AFARD offices. Below are the findings.

Finding 1. Access to and utilization of safe water

There is no safe water point in the village. All households use water from seasonal streams.

Finding 2. Safe sanitation and hygiene status

- Personal hygiene is fair (77%) but observation showed that the majority of the people had skin diseases indicating that the clean clothes, smart hair, etc were just to impress 'visitors conducting the survey'
- Home hygiene is poor (35%). Only 45% have pit latrines, 31% have garbage pits, 9% have facilities for washing hands after visiting latrines
- Only 9% use mosquito nets
- Virtually all latrines are uncovered, creating conducive environment for the spread of vector borne diseases, especially in a social setting where greeting by the hand is mandatory.

Finding 3. Health status

- 99% of the diseases suffered in the month leading to the survey were preventable, with malaria leading the pack (41%), followed closely by gastro-intestinal infections (38%) and respiratory tract infections (20%).
- This translates into loss of workdays (average of 13 days lost to sicknesses, taking care of the sick and a total of UGX 308,000 spent on treatment. All these could be avoided because they are preventable

Observations

Effective results of safe water point provision will come once sanitation and hygiene education, in the local language, focuses on promote knowledge and practices of safe sanitation and hygiene. Community byelaw should enforce all family to put in place the basic safe facilities to reduce endangering the whole community.

1 INTRODUCTION

This section gives a brief about the basis for the study, the methodology used and how the findings are presented.

1.1 Basis for the study

In April 2009, AFARD submitted a project proposal to the Royal Netherlands Embassy (RNE) in Kampala. This proposal was based on the field observations and discussions AFARD staff had with the community of Murusi parish during a livelihood profiling study. The community members noted that their main source of water was dirty, seasonal streams. Only a few households had access to safe water from neighboring villages once in 4 days. Likewise, many homes were noted not to be having safe basic sanitary facilities like pit latrines, garbage pits, soak pits and even animal dens. Evident from this exercise was the critical need to address the limited access to, and utilization of, safe water and sanitation starting with Munduriema, one of the six villages in Murusi Parish.

The project proposal's primary objective was, 'to promote safe water and sanitation chain management for improved health and social status'. Doing so was envisaged would result into improvement in personal and home hygiene as well as vector contract practices (what we call 'community sanitation index'). It will also free women from the long time and distance to access water. These will cumulate into improved health status, cash savings from would-be medical cost, and social harmony as conflicts will be reduced

To what extent this project would achieve these aims remained questionable as no hard data was in place. This study was therefore conducted in order to:

1. Establish the beneficiary household status with respect to safe sanitation and water chain management practices.
2. Fine-tune monitoring and evaluation framework for the project.

1.2 Data collection methods and processes

In order to collect relevant data to meet the above objectives, the critical question asked was, "to what extent are Munduriema village households using safe sanitation and water chain management practices and with what effects? This question aimed at eliciting answers to current practices with regard to "safe community sanitation index and health status". Such answers would therefore aid in identifying the current strengths and gaps in existing practices so as to customize the sanitation education in a locally responsive manner.

In answering this question, the following were done:

- **Design of project effect indicators:** To ensure that a clear M+E data needs was in place, a M & E framework was participatorily developed by AFARD staff in consultation with the community members basing on what goal indicators they were striving for..
- **Questionnaire production:** That the M&E framework and its core indicators was in place, the study questionnaire was developed to capture demographic and household information.
- **Interviewer identification and training:** The interviewers were identified by AFARD Field Officer (in-charge community health) together with the community leaders basing on their educational status. Only those with at least Ordinary level education were preferred because of the need for effective comprehension of questionnaire administration. The interviewers were then by AFARD staff.
- **Household interviews:** After the interviewers were trained, they embarked on collecting data from all households in the village. Respondents were interviewed on dates set with them and at their premises. During this process, an AFARD staff provided the supervision through daily reviews of questionnaires as well as mentoring the interviewers.
- **Data entry, cleaning, and analysis:** Once data collection was finished, data entrants were identified (from the old team AFARD has been working with). They were briefed on the data entry norms and template designed for that purpose. After the team accomplished their job, the data was cleaned of entry errors and analyzed concurrently with the report generation by AFARD staff. The draft report was then shared internally for discussions before this final report was produced and disseminated to various end users.

1.3 Structure of the report

This report is structured in 7 parts starting with this Part 1 that gives background information to the baseline study. Part 2 presents the characteristics of the beneficiary households and population. While Part 3 explains access to and utilization of safe water, Part 4 presents the safe sanitation and hygiene practices. Part 5 dwells on the effects of current safe water and sanitation management on the health and socio-economic status of the community. Part 6 presents the project M& E Framework and finally Part 7 explores the most effective way forward.

2 PROJECT OUTREACH

The Munduriema safe water and sanitation project will reach out to a total of 121 households. As table 1 below shows, these households have 636 people (51.4% females) who largely depend on farming for a livelihood.

Table 1: Outreach demographic characteristics by district

Characteristics	Total
Total population (Number)	
Males	309
Females	327
Total	636
Mean household size	5.3
Marital status of household heads (%)	
Single	2.5
Married	82.6
Widow(er)	14.9
Total	100.0
Education status of household heads (%)	
None	38.8
Primary	57.0
Secondary	4.1
Total	100.0
Main source of livelihoods (%)	
Farming	95.9
Employment income	0.8
Family support	3.3
Total	100.0

From the household data above, the following can be inferred:

- 86% percent of the population is either illiterate or stopped their education at primary level. This therefore necessitates the use of simple education materials in the local language
- That the majority are married (83%) implies that the spouses in those households will be expected to play their roles in a complementary manner. However, single parents may not have that extra labor force. For instance, widows may find it difficult to construct latrines. It is therefore suggested that the community comes up with strategies for dealing with such cases. This should not present too much of a problem because, even though the social network has almost broken down, the community can still be rallied to come to the assistance of the more unfortunate in their midst.

3 SAFE WATER UTILIZATION STATUS

The respondents were asked where they drew water for drinking and the results are presented below.

Table 2: Percent safe personal hygiene practices

	Total
Source of drinking water (%)	
Borehole & protected spring/well	-
Stream	100.0
Total	100.0
Distance to water point (%)	
Less than 1Km	-
1 Km	0.8
> 1 Km	99.2
Total	100.0
Time taken to and from water source (%)	
Less than 1 hour	-
1 hour	12.4
>1 hour	87.6
Total	100.0

Table 2 above shows that all households in Munduriema access water from streams that dry up in the dry seasons. A woman lamented that 'the streams run in valleys with steep sides and carrying a 20-litre jerrycan of water up the slopes is extremely tiring. This year the valleys are even drying up too early and we have to wait for the water to collect in the creeks '. The distance and the waiting at the water points explain why the women spend not less than an hour when they go for water.

4 SAFE SANITATION AND HYGIENE PRACTICES

As the saying goes, 'water is life and sanitation is health', the survey also explored the extent to which key safe hygiene practices were being used. Respondents were asked about different aspects related to personal, home and vector control practices. Table 3 below reveals that overall only 4 in 10 household exhibits safe sanitation practices with worst scenarios of poor practices in vector control and home hygiene.

Table 3: Community sanitation status

Personal hygiene	Total
Have smart hair	62.8
Brush teeth once a day	94.2
Have clean nails	100.0
Bath at least once a day	98.3
Have no skin disease	47.1
Have clean cloths	58.7
Sub-total	76.9
Home hygiene	
Have a kitchen	45.4
have a bath shelter	60.3
Have utensil drying rack	39.7
Have cloth line	47.9
Have soak pit	8.3
Have garbage pit	30.6
Have pit latrine	44.6
Have hand washing facility	5.8
Sub-total	35.3
Vector control practices	
Uses safe drinking water	9.1
Covers water storage facility	66.9
Uses 2 cups for drinking water	72.7
Has a separate sleeping room	41.3
Sleeps on <i>kitanda</i> (raised bed)	5.8
Covers latrine pit	1.7
Sleeps under mosquito nets	6.6
Serves food on individual plates	10.7
Sub-total	26.9
Overall total	46.3

The data in table 3 suggests that the people of Munduriema are doing well in terms of personal hygiene (average score of 76.9%). However the presence of skin diseases on the majority of the people (53%) suggests that the personal hygiene could have been temporarily improved because the survey was taking place and a little more attention given to the clothes, hair, etc. However, the more lasting indicator of personal hygiene (skin diseases) could not be easily covered up.

The performance in terms of home hygiene was very poor (overall average 35.3%). Latrine coverage was only 45% but observations showed that most were not safe for use. The

virtual absence of hand washing facilities (only 6%) and low levels of garbage disposal facilities (34%) aggravates the situation further. Put more plainly, the majority of the people are defecating in the bushes and disposing garbage around the compound thereby putting the whole village to risk of insect-vector-borne infections. In a culture where hand contact is unavoidable (actually it is a serious social offense not to greet people by the hand and firmly too) the risk of contamination from people with poor hygiene practices is even greater.

The performance under vector control is even worse (average score of 27%) with the worst cases being lack of drinking water (9%), lack of mosquito nets (6%), pit latrines uncovered (2%). It should be noted that stream water is used by every household but 9% still consider the water "safe".

It is therefore important that education focuses on the link between the lack of facilities and the diseases they are likely to suffer as a consequence. Unless the people understand the link, asking them to have the structures may prove less effective.

5 HEALTH AND SOCIO-ECONOMIC EFFECTS

The second part of the survey question focused on what effects the current safe sanitation and water chain management practice had on the health and socio-economic being of the people. From Table 4 below it is evident that almost all cases of sicknesses in the households were related to unsafe water and sanitation. Malarial disease remained the single leading cause of ailment among both adults and children. Yet, only half of the households are able to access modern medicine leaving a near equal population either with alternative sources of medication or without any treatment.

Table 4: Disease prevalence rate and health seeking behavior by district

Disease prevalence rate (%)	
- Other ailment	7.2
- Malarial infections	40.7
- Gastro intestinal tract diseases	38.2
- Respiratory tract infections	20.1
Water & sanitation related diseases	99.1
Malarial infection rates (%)	
- In children	20.7
- In adults	79.3
Malaria death cases in children (%)	10.7
Where the sick were treated (%)	
- Health center	56.2
- Home	31.4
- Herbalist	0.8
- None	2.5
- Total	100.0

Meanwhile, as Table 5 below shows, the people are generally losing a number of productive days to sickness. While overall about 13 days were lost on average to being sickness, among children of school-going age about a week was lost to non participation in schools due to sickness. Apart from days lost to sickness (by being sick or taking care of the sick), households also lost cash equivalent of 19 labour-hire days to meet medical bills.

Table 5: Disease prevalence rate by district

	Days lost to sickness	Children 4-15 years days sick	Amount spent on treatment ('000)
Mean	13.21	4.00	19.25
Minimum	2	1	1
Maximum	22	15	77
Sum	1,427	176	308

6 MONITORING AND EVALUATION FRAMEWORK

In order to effectively monitor and evaluate the project within its implementation span, below is the framework that will be used to ensure that the health security status of the population improves. This framework is designed to help assess the realization of the envisaged changes as well as to account for the efficacy of the project. Worthy to note is that as a complement to the figure-based framework, life stories too will be collected to show the inherent meetings in each change.

Table 6: The monitoring and evaluation checklist and targets

Monitoring Indicators	Baseline 2009	Target	Method	Responsible
Impact 1: Reduction in sanitation-based mortality rates				
• Proportion of malaria related deaths	10.7%	5%	Survey	PD & PHM
Impact 2: Reduction in sanitation-based morbidity rates				
• Water-related diseases prevalence rate	99.1%	25%	Survey	PD & PHM
• % reporting GIT infection	38.2%	12%	Survey	PD & PHM
• % reporting RTI	20.1%	10%	Survey	PD & PHM
• % adults reporting malarial infection	79.3%	5%	Survey	PD & PHM
Impact 2: Increased education participation				
• Average number of days lost by children to water-based sicknesses	4	1	Survey	PD & PHM
Impacts 3: Medical cost on water-based sicknesses reduced				
• Average number of days lost to water-based sicknesses	13.2	4	Survey	PD & PHM
• Average amount (UGX) spent during the last sickness	19,250	5,000	Survey	PD & PHM
• % using modern medicine when sick	56.2%	80%	Survey	PD & PHM
Outcomes 1: Utilization of safe water increased				
• % using safe drinking water	0%	100%	Survey	PHM & FO
Outcomes 2: Time stress on women reduced				
• Distance to safe water source \leq 1 KM	0.8%	90%	Survey	PHM & FO
• Time spent fetching water \leq 1 hour	12.4%	80%	Survey	PHM & FO
Outcomes 3: Safe sanitation practices increased				
• Personal hygiene status	76.9%	95%	Survey/observation	PHM & FO
• Home hygiene status	35.3%	95%	Survey/observation	PHM & FO
• Vector control practices	26.9%	85%	Survey	PHM & FO
** latrine coverage	44.6%	95%	Survey/observation	PHM & FO
** Use of mosquito nets by all household members	6.2%	100%	Survey	PHM & FO

Note: PD = Programme Director; PHM= Preventive Health Manager; and FO= Field Officer

7 WAY FORWARD

From the above findings, it can be said that in Munduriema village:

- The socio-economic characteristics of the population (largely illiterate and married) implies that messages should be simplified, in the local language. Also care should be taken of single parents who may have difficulty having in place all the structures at the pace needed by the project
- Provision of safe water points is a critical factor. One borehole is even not enough. The safe water chain should also be emphasized
- The area need at least 3 boreholes in order to reduce waiting time and distance travelled.
- Personal hygiene should become routine, not just because visitors are coming.
- Home hygiene should be enforced throughout the village because those who do not have the basic facilities will endanger even those who have them
- Mosquito nets should be provided to the people as they do their own part to destroy the breeding places for mosquitoes
- Education should aim at making the people understand the link between their current practices and the diseases they are suffering most of which are preventable

Concluding Observations

Effective results of safe water point provision will come once sanitation and hygiene education, in the local language, focuses on promote knowledge and practices of safe sanitation and hygiene. Community byelaw should enforce all family to put in place the basic safe facilities to reduce endangering the whole community.