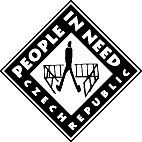


**Establishment of sustainable drinking water supply systems in small towns in the district zone of Sidama, SNNPR, Ethiopia, II**

**Sanitation and Hygiene Knowledge, Attitudes, and Practices (KAP) Baseline Survey**

**Aletawondo Woreda –Bargo Kebele**





**Contents**

[1. Executive summary 3](#_Toc425345619)

[2. Project Background 6](#_Toc425345620)

[3. Baseline survey 6](#_Toc425345621)

[4. Main findings (Bargo kebele) 9](#_Toc425345622)

[4.1. Demographic profile of the respondents 9](#_Toc425345623)

[4.2. Access to water 11](#_Toc425345624)

[4.3. Knowledge and practices on water, hygiene and sanitation 15](#_Toc425345625)

[4.4. Sanitation facilities 22](#_Toc425345626)

[4.5. Diseases: awareness and prevalence 25](#_Toc425345627)

[5. Conclusion and recommendation 28](#_Toc425345628)

# Executive summary

**Introduction**

The baseline survey has been conducted for the project “Establishment of sustainable drinking water supply systems in small towns in the district zone of Sidama, SNNPR, Ethiopia, II’’ funded by Czech Development Agency. The project includes the development of new water supply infrastructure, rehabilitation of the existing water supply accompanied by awareness-raising and educational campaigns focused on ensuring the long-term sustainability of the water supply systems usage, strengthening hygienic habits, increasing awareness on water-related health issues, and building capacity for the technical maintenance of the system. **The report summarizes the key findings related to the WASH sector in Huluka Kebele (Bensa woreda) in Sidama Zone.** Information from other targeted areas, Teso (Aletachuko woreda) and Bargo Kebele (Aletawondo woreda), are covered in separated reports. The results are based on information from quantitative household structured interviews, FGDs, observations and secondary data analysis.

**Summary of project objectives and expected results**

The baseline field data collection took place 23rd April to 13th May 2015 in 3 kebeles of Sidama Zone. It provides data on community access to and practices related to water, sanitation and hygiene. In Bargo, 168 households were interviewed, and 24 community members participated in the focus group discussions.

The overall objective of the project is to create a sustainable system for supplying drinking water to the inhabitants of Teso, Bargo and Huluka. Main findings on hygiene and sanitation awareness, access to water, sanitation and hygiene practices in **Bargo** are summarized in the table below:

|  |  |
| --- | --- |
| Bargo kebele | |
| Household water supply and practices | **Main source of water in dry season**  Improved/protected: 24%  **Water collection time in dry season**  30 min and less: 60%  **Water for cooking and drinking per day per person**  15l+/d/p (total/safe water) 2%/1%  8l+/d/p (total/safe water) 15%/4% |
| HYGIENE AND SANITATION PRACTICES | **Hand washing**  Hand washed after using toilet: 98%  Hands washed before eating: 99%  Hand washing facility in the HH(total/with water + soap or ash):18% / 3%  Hands washed with water /water+ soap: 39%/45%  **Safe water storage**  Containers clean & closed: 17%  Water is poured: 99%  **Safe child faeces disposal**: 76%  **Treatment of unsafe water**: 1%  **HHs with toilet**: 64%  Latrines kept well & clean: 36%  Latrines used by all HH members: 100%  Latrines with solid super structure: 37%,  l. with solid sub structure: 53%,  l. with functional door: 7%,  l. with solid slabs: 64% |

**Conclusions & Recommendations**

**Access to water**

* On average, households in the target areas have 5.5l of water for each member per day used for drinking and cooking. Only 3 % use between 8 and 15 liters of safe water per day, and only 1% has access to 15 and more liters of safe water per day.
* Vast majority of households use unprotected sources for laundry and food utensil. The majority of non-safe water users use cold water only for washing their utensils (88%) and 9% use cold water with soap. **Therefore, it is recommended that continuous awareness raising activities through community conversation and demonstration should be conducted for families regarding how they should wash their utensils especially when using unsafe water.**

**Willingness to pay**

* Majority of households get water free of charge irrespective of whether it is from safe water source or not. But woman FGD participants are willing to pay on average 0.50 cents and men FGD participants 0.20 cents for 20 liters jerry can. **Limited financial capacity is mentioned as the most common reason.**

**Knowledge and practices on water, hygiene and sanitation**

* 99% of respondents declare that they have received some information/messages mainly from Heath extension workers (96%), community events (48%) and from family and friends (34%) respectively.
* Hand washing messages leads the trail with 93% followed by disposal of garbage (92%) and proper use of latrine (87%). Other frequently mentioned messages include messages about proper food handling (74%), covering food (68%), jerry can cleaning (65%), bathing regularly (59%) and use of safe water source (51%).
* **Awareness seems not to influence real behavior especially in cases of hand washing, water storing and treating, and latrine ownership and quality. Therefore usage of CLTS and other intensive participatory approaches is recommended.**

**Water treatment**

* When looking at unsafe water source users, in 99% of cases they don’t treat their water.
* 29% of respondents declare that they remember message on water treatment. **From this it can be concluded that the awareness of the problem doesn’t necessarily lead to behavior change.**
* Unsafe water source users give the reason that they don’t know any treatment method (56%), can’t afford treatment chemicals (22%) and 17 % think that the source is protected.
* **As the project is planning to construct new schemes in the kebele, in the area where unprotected sources are used it is recommended to focus on water treatment as a complementary activity. But for those accessing improved water sources, promotional activities should focus more on safe water handling instead of water treatment.**

**Handling water**

* Only 17 % of the households surveyed store water in clean and closed container. But their behavior related to extracting water which shows that 99% of households pour water into a cup to reduce the risk. **It is recommended that promotional activities on safe handling of water should be conducted continuously, especially on proper care of and proper condition of water containers.**

**Hand washing**

* Most respondents declare that they wash their hands before eating (99 %) and after using latrine (98%). 45% of the respondents usually wash their hands with soap and water using both hands. **But in 82 % of households, data collectors haven’t observed any hand washing facility and a proper hand washing facility with water and soap or ash has been observed in only 3 % of HHs.**
* This indicates that the awareness regarding the importance of hand washing practices (93% remember messages related to hand washing) and declaratory practices don’t necessarily reflect real behavior. **It is therefore recommended that the** **project focuses on activities that enable households to obtain and use hand washing facilities and access to soap or ash combined with marketing techniques to put greater social pressure on hand washing. Promotional messaging and education sessions alone will not be effective in changing this specific behavior.**

**Latrine coverage**

* Only 64% of households have a toilet facility at the compound described as traditional pit latrines. Only 36 % of latrines could be described as being kept well and clean.
* When comparing HHs without latrine, there is slightly higher proportion among women headed HHs (41 %) than among men headed HHs (36 %). The vast majority (86 %) of HH members without latrine practice open defecation in bush, backyard or field.
* **The main reason for not having a toilet facility is a lack of finances/ financial problems (69%) more often mentioned in women headed HH (78 %) in comparison to men headed HHs (67 %).**
* **Therefore, the** **project should focuses on activities that enable households to construct and care for their latrines through combining marketing as promotional messaging and education sessions alone will not be effective in changing this specific behavior. Special focus should be aimed at women headed HH where the direct (material) support could be considered.**
* The quality of latrines is low.

**Latrine Improvement**

* A majority of households suggests they would improve their latrines by having a roof (79%), stable slabs (78 %), functional door (77%), and solid super structure (41%). Suggestions for improvements reflect the observed weaknesses of existing latrines.
* The lack of financial sources is mentioned as the most common reason (82%) followed by lack of skilled artisans in village (30 %) and lack of accessible materials (23 %). **Therefore it is recommended to conduct barriers & motivations analysis (or formative research) which clearly indicates the barriers and also capacities of the community members to improve as well us build new latrine. Thus, through house to house visits and community conversation sessions, accessible cost latrines could be demonstrated and local skilled artisans could be promoted which initiate community members to get motivated to improve their latrines.**

**Diseases: awareness and prevalence**

* There is high prevalence of diarrheal disease. In last 30 days, 2 % of population got diarrhea (10 % among children) which affected 14 % of HHs.
* **Therefore, it is recommended that, focus should be given on activities that enable households to obtain and use hand washing facilities and access to soap or ash combined with techniques to put greater social pressure on hand washing and personal hygiene which will contribute to the prevention of diarrheal, parasitical and skin diseases.**

# Project Background

This survey was prepared in order to develop baseline data for the project “Establishment of sustainable drinking water supply systems in small towns in the district zone of Sidama, SNNPR, Ethiopia, II’’ funded by Czech Development Agency. The project is implemented by People in Need (PIN), in coordination with government stakeholders from Sidama Zone Finance and Economic Development, Sidama Zone Water, Mines and Energy Department (SZWMED) and Sidama Zone Health department. The project is implemented in Teso (Aletachuko woreda), Huluka (Bensa woreda) and Bargo Kebele (Aletawondo woreda) of Sidama Zone, SNNP Region. The project is aimed at creating a sustainable system for supplying drinking water to the inhabitants of Teso, Bargo and Huluka.

The current project and its activities build upon a similar project in the Sidama Zone (Introduction of a sustainable drinking water supply system in small towns of the Sidama Zone, SNNPR, Ethiopia, I) conducted within the framework of the Programme for foreign development cooperation of the Czech Republic. The latter project has been in progress since September 2011 and is scheduled to be completed in November 2015 and also contributes to the achievement of the Millennium Development Goals, i.e. to decreasing the number of people without access to safe drinking water to 50% of the population by 2015 by creating a sustainable system for the supply of safe drinking water. The project has provided access to drinking water in the towns of Daye (Bensa Woreda), Bona (Bona zuriya Woreda) and Hagere selam (Hula Woreda).

This project plans to improve the supply of drinking water, management of water sources, and sanitation and hygiene situation of people in Sidama zone. Thus, Through the project contribution, it was forecasted that the number of people with access to safe drinking water will increase by at least 15 000 people in the target area with access to 20 liter water per day per person and public awareness of correct hygienic habits will Increase significantly in Teso, Bargo and Huluka kebeles on Sidama Zone.

# Baseline survey

**Methodology**

The study combines quantitative data collection (structured interviews and observations) together with qualitative approaches consisting of focus group discussions, key informant interviews and observations, and the secondary data review. The Knowledge, Attitude and Practice (KAP) survey approach has been selected to generate data on WASH related issues from the community, while FGDs, interviews with woreda official and kebele leaders and observations have provided additional information and a means for triangulation.

The target respondents for the community-based survey were household heads or other adult members of the households from the target areas with purposive emphasis on selection of women due to the significance of their role in WASH-related issues. Data collection took place between 23rd April and 13th May 2015.

**Data collection tools**

The questionnaire for the study was designed to capture a wide range of issues covering demographic characteristics, knowledge, attitude and practice towards hygiene and sanitation and Family planning. The questionnaire translated to Amharic and was programmed for Open Data Kit software so the data could be collected directly by using electronic devices (tablets). The questionnaire was tested during the piloting phase.

To assess hygiene level and sanitation equipment of health and education facilities in the targeted areas, an assessment questionnaire combining interview, secondary data collection and observation has been developed.

**Training and fieldwork**

Four data collectors (2 female and 2 male) and 1 supervisor, with prior experience of participating in similar WASH assessments, were selected to conduct the survey. All the data collectors were fluent speakers of Sidamigna language. They were provided with a one day training which included general briefing on the project, detailed discussion on standards of interviewing techniques and field survey procedures followed by review of each item in the questionnaires was carried out. A session was dedicated to working with tablets, which were the primary data recording device of the data collectors. Following this, a pre-test was carried out in Aletachuko woreda – Teso kebele and an in-depth discussion was held during the feedback session which then led to modification of some questions based on the challenges experienced during pre-testing.

**Sampling Technique**

The target population was considered as the habitants of kebeles were any of PIN’s WASH activities were planned. As project consists of intervention in 3 different geographic areas, sample size was calculated separately for each of them. A household is considered as the main cluster unit representing its members and final beneficiaries. Using the total number of targeted HHs, a final sample size has been calculated (see table 3) for a 95% confidence level and 7 % confidence interval according to the formula below.

**Sample Size**

Where:

Z = Z value (e.g. 1.96 for 95% confidence level)

p = percentage picking a choice, expressed as decimal

(.5 used for sample size needed)

c = confidence interval, expressed as decimal

(in our case .**07 = ±7**)

Correction for Finite Population

Where: pop = population

The samples were calculated: for Teso 154, for Bargo 158 and for Huluka 162. The samples were then extended by 10 % (to cover potential non-response rate).The final number of questionnaires collected could be seen in the table below. With considering 95% confidence level, this decreased the confidence interval to 6.7 % in case of Teso and Bargo and 6.8 % in case of Huluka.

**Tab.1 Distribution of population in targeted kebeles**

|  |  |  |  |
| --- | --- | --- | --- |
| Woreda | Aletachuko | Aletawondo | Bensa |
| Kebele | Teso | Bargo | Huluka |
| Total Population of the Kebeles/ towns | 4000 | 4070 | 7153 |
| No. of Males | 2400 | 2118 | 3448 |
| No. of Females | 1600 | 1952 | 3705 |
| Total no. of HHs | 721 | 798 | 926 |
| No. of questionnaires | 165 | 168 | 170 |

**SAMPLING PROCEDURE**

The survey used a two-stage cluster sampling approach. The entire population in all 3 target kebeles was divided into smaller clusters, so called Development Teams (already existing, relatively small units of 15-60 households, commonly used by the kebele administration). The number of clusters per kebele was calculated by using a sampling with "probability proportional to population size" (kebeles with a larger population have a higher number of clusters selected, while considering the number of clusters per kebele and their actual size). Specific clusters were then randomly selected (from the lists of all clusters per each kebele) by using Excel’s RAND function. In the second step, for the final selection of interviewed households, a systematic random sampling from lists of HHs from each cluster was used. Given that female headed households are an important target group and source of information, it was purposively decided to interview all female headed households with in the selected clusters which make the proportion be 30 %, where it was possible.

The survey included the following randomly selected clusters:

|  |  |  |
| --- | --- | --- |
| **Woreda** | **Kebele** | **Name of clusters** |
|
| **Aleta Chuko** | Teso | Digalo, Dafursa Gasha, Kakawo, Shisho , Chanchicha |
| **Bensa** | Huluka | Fardano , Usamo, Murshano, Haro, Ayimo, Sega, Megeni balcho, Borenita, Sodicha, Chicho |
| **Aleta Wondo** | Bargo | 1st Butula, 2nd butula, Sisha, Gudicho, Baloshe Gosaliwa, Baloshe Hamumo, Dufa Bedeso, 1st Dufa, Dufa Dagucho |

# Main findings (Bargo kebele)

# Demographic profile of the respondents

From the total of 168 respondents from Bargo kebele, majority of the respondents is male 65% compared to the female 35%. The selection of the respondents per household was dependent on who was present during the interview. Majority of these respondents (85%) are married, 14% are widowed; only a small fraction of the respondent are single. The average age of the respondents is 42. A majority of the respondents falls under the age of 50.

Most of the families are patriarchal by leadership with 87% male-headed household. Female-headed households account for the 13% of the population.

**Tab.2: Age and marital status of interviewed HH representatives**

|  |  |
| --- | --- |
| Age Distribution |  |
| up to 25 | 8% |
| 26-35 | 45% |
| 36-50 | 24% |
| >51 | 23% |
| Total | 100% |
| Marital status |  |
| Single | 1.19% |
| currently married | 84.52% |
| widowed | 14.29% |
| Total | **100.00%** |
| MHHH | 86.90% |
| FHHH | 13.10% |
| N | **168** |

As indicated in the table below, 54% of the respondents can neither read nor write but the iliteracy of women compared to men is significantly higher (69%). Thus, more than half of the population (65%) has low or no education. Regarding occupation, majority of men (94%) are farmers and 4% are government employees. Women are also engaged in agriculture (53%), followed by a significant house keeper role (47%).

**Tab.3: Education and occupation**

|  |  |  |  |
| --- | --- | --- | --- |
| Education | Men | Women | Total |
| Illiterate(Unable to read and write) | 46% | 69% | 54.17% |
| Only able to read and write | 12% | 8% | 10.71% |
| First cycle (Grade 1-2) | 23% | 14% | 19.64% |
| Second cycle (Grade 5-8) | 10% | 7% | 8.93% |
| Secondary school(9-10) | 6% | 2% | 4.76% |
| College and above | 3% | 0% | 1.79% |
| Grand Total | 100% | 100% | 100.00% |
| Occupation | **Men** | **Women** |  |
| Farmer | 94% | 53% | 80% |
| Merchant | 1% | 0% | 1% |
| House wife | 0% | 47% | 17% |
| Government employee | 4% | 0% | 2% |
| Unemployed | 1% | 0% | 1% |
| Grand Total | 100% | 100% | 100.00% |
| N | **109** | **59** | **168** |

The average family size is 6 members. Male headed households are larger in comparison with female headed households. In both male and female headed households, the proportion of women is approximately 50% of the household members. In female headed households, on average there are a lower proportion of children under 5 (7%), in comparison with male headed household where the proportion of children dominates (18%).

When comparing monthly incomes, male headed households are able to earn on average 941 ETB per month which is 158 ETB more than female headed households. When income per HH member is calculated, the income is more of equivalent in both male and female headed households as the difference is only 4 ETB. The capability to save money is in general relatively low, see table below, but it is more problematic for female headed households. In general, about 40% of HHs are not able to save any money.

**Tab.4: Household characteristics**

|  |  |  |  |
| --- | --- | --- | --- |
| Family size | MHHH | FHHH | Total |
| 2 and less | 4.79% | 0.00% | 4.17% |
| 3 to 5 | 38.36% | 59% | 41.07% |
| 6 and more | 56.85% | 41% | 54.76% |
| Average Family size | **6.20** | **5.09** | **6.05** |
| % of women in the HH | 47.29% | 53.57% | 47.98% |
| % of children under 5 in HH | 18% | 7% | 17% |
| % of children 5-15 in HH | 33% | 36% | 33% |
| % of adults (16-49) | 42% | 45% | 42% |
| % of elderly (50 and above) | 8% | 13% | 8% |
| HH income |  |  |  |
| monthly average income | 941.09 | 783.36 | 920.43 |
| per HH member | 171.34 | 166.88 | 170.75 |
| Median for income | 816.50 | 550.00 | 710.00 |
| Average HH monthly savings | 139.65 | 68.36 | 130.32 |
| Median for savings | 40.00 | 15.00 | 33.00 |
| % of HH unable to save | 39% | 45% | 40% |
| N | **146** | **22** | **168** |

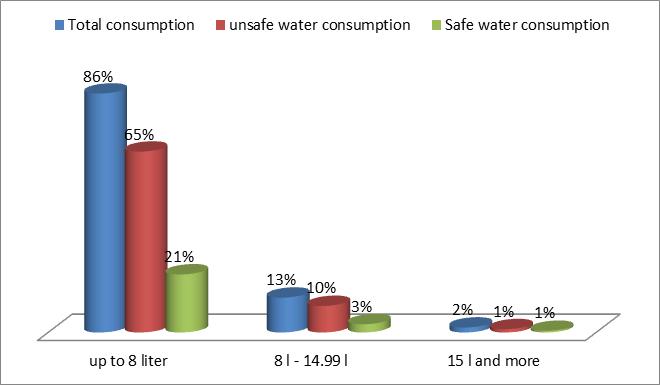
# Access to water

On average, households in the target areas have 5.5l of water for each member per day used for drinking and cooking. Average water consumption per person in men headed HH (5.5l) is similar to women headed HHs (5.6l). The median value is 5l, which means that half of the population has 5 and less liters of water per person, other half has 5 liters and more.

As can be seen in the graph 1 below, 86% of population has less than 8 liters of water per person per day for cooking, drinking and personal hygiene purposes. 13 % of population use between 8 and 15 liters of water per day, and only 2% of population use 15 liters of water per day.

When the data is filtered to consider only safe and protected water sources, the findings show that 21 % of the population has access up to 8 liters of safe water per day, only 3 % use between 8 and 15 liters of safe water per day, and only 1% has access to 15 and more liters of safe water per day.

**Graph 1: Water consumption per person per day**

****

**Water source for drinking, cooking and personal hygiene**

In order to compare the seasonal patterns in utilizing the sources of water, respondents were asked to specifically mention the water source during rainy and dry season. Table 5 below shows that majority of the households (74%/76%) use water for drinking, cooking and personal hygiene from unprotected water sources in rainy and dry season consecutively. The water source used in both seasons is similar and the most common source of water is unprotected spring**.**

The FGD participants also confirmed the use of spring as a source of water but men FGD participants mentioned using protected spring during rainy season and unprotected spring mostly in dry season. The reason was that during rainy season unprotected spring will get dry therefore they use the protected spring. Women FGD participants mentioned using protected spring all year through. In addition to the spring, participants also use other alternative water source including river water but the use of stand pipes and protected dug well was not mentioned. Generally, it can be concluded that the respondent population has more than one main source of water for drinking, cooking and personal hygiene but majority are accessing unprotected sources.

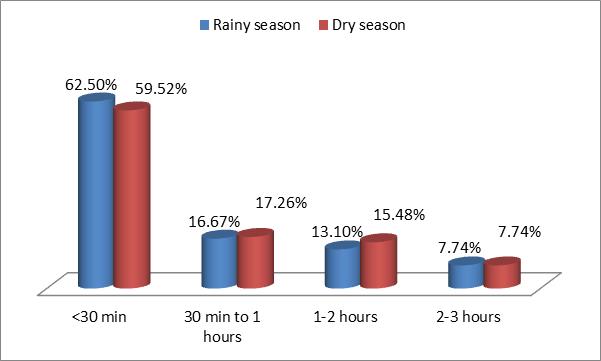
**Tab.5: Source of water for drinking, cooking and personal hygiene**

|  |  |  |
| --- | --- | --- |
|  | Rainy season | Dry season |
| public taps/tap stand/standpipes | 4% | 4% |
| protected dug well | 1% | 0 |
| protected spring | 21% | 21% |
| Improved source | **26%** | **24%** |
| unprotected spring | 66% | 67% |
| Surface water (river, dam, lake, ponds, creeks, canal, etc.) | 8% | 8.93% |
| Unimproved Source | **74%** | **76%** |
| N | **168** | **168** |

FGD participants’ satisfaction with the water sources’ availability (protected and unprotected spring) and water quality varied. From the male FGD participants, more than half of the respondents were fully satisfied. In case of women FGD participants, all were unsatisfied. Respondents raised concerns mainly regarding quality of the water source as the water from protected spring is not clear and sometimes they find insects in it. According to the male FGD participants, unprotected water source is found near their household but the protected spring is found with in a distance of 1 hour. Thus, they prefer to get water from unprotected spring but when the water dries, they are forced to use the distant one. Due to these household members collect water once in a day from protected spring which is insufficient for the whole family.

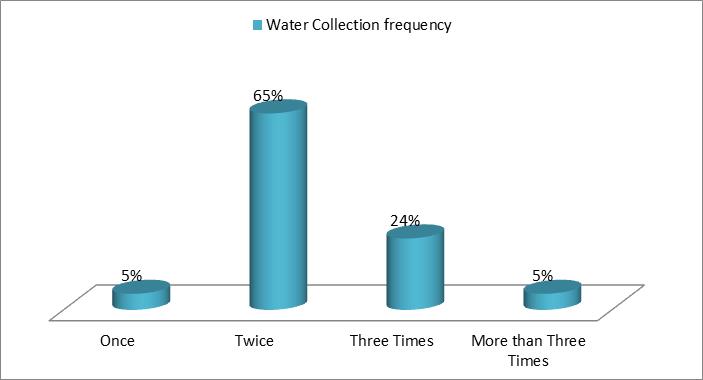
**Water collection time and responsibilities**

**Graph 2: Time spent collecting water for drinking, cooking and personal hygiene**

****

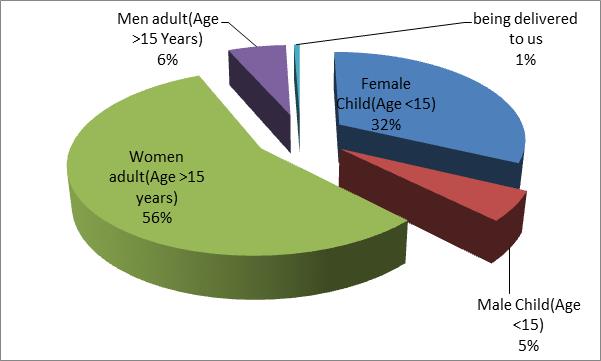
More than half (60%) of households spend less than 30 minutes during dry season for one-round trip to collect water. For 17% of households the trip takes between 30 minutes and one hour, for 15% it takes one to two hour but for 8% of households spend between two to three hours to collect water. From FGDs it was find out that, for majority of the respondents, the most comment source of safer water is found within 30 minutes to 1 hour distance from the household and for one round trip it takes a maximum of 2hours.

**Graph 3: Frequency of water collection**



More than half of households (65%) collect water twice a day, 24% of households go usually for three times a day followed by those collecting only once a day which accounts 5% of households. Only 5% collects water more often. Findings of FGD contradicts from this as the majority of FGD participants mentioned that they usually collect water once a day as the water is found between 30 minutes and 1 hour distance from the household and for the round trip it takes a maximum of 2 hours.

**Graph 4: Responsibility for water collection**

****

Collecting water is a major household task in the rural locations irrespective of what distances are covered and the water source types. The burden of collecting water is mostly with women, who form more than half of the household members (56%) followed by girls at 32%. Boys and men who do help in collecting water stand at only 5% and 6% respectively.

During the FGD session with women and men groups, none of the discussion groups mentioned men as collectors of water. Instead, women are listed as the one most responsible for collecting water.

During the FGDs, the participants report that the place they go to fetch water is sloppy and is not conducive for women. In addition to this hardship, they often fight at the water point due to the long queues. The long queues and fighting at the water points are indicators that more people are fetching from the same water points.

**Payment for water**

**Tab.6: Payment for water according to water sources**

|  |  |  |  |
| --- | --- | --- | --- |
| Water source dry season | No - Don’t pay | Yes - pay | Total Count |
| public taps/tap stand/standpipes | 3.57% | 0.00% | 6 |
| protected spring | 20.83% | 0.00% | 35 |
| unprotected spring | 66.67% | 0.00% | 112 |
| Surface water (river, dam, lake, ponds, creeks, canal, etc.) | 8.93% | 0.00% | 15 |
| Grand Total | **100.00%** | **0.00%** | **168** |

When asking about price for water paid by households during dry season, all HHs declare they don’t pay anything. From these, only 24% are using protected sources and the remaining 76% are using unprotected water source. From the FGD it was also find out that households don’t pay any fee for water except the costs for transportation which only selected households pay 2 birr per Jeri can.

**Willingness to pay**

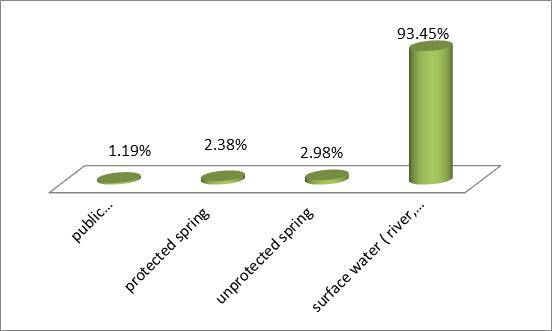
As can be seen in the project background part in the above chapter, a clear objective is set which focus on providing access to safe drinking water to residents of Bargo Kebele. Thus, technical work including drilling of a new hydrogeological wells and establishment of new water supply systems for public places of delivery is planned. As this water points will be availed to community with a small fee, willingness to pay of the community members was assessed as part of this baseline research.

Accordingly, it was found out that for 20 liters jerry can woman FGD participants are willing to pay 0.50 cents and majority men FGD participants 0.20 cents and two men FGD participants 0.50 cents. All women FGD participants mentioned 0.50 cents. The maximum amount mentioned by the men FGD participants is 0.50 cents and the minimum amount which was mentioned by the majority was 0.20 cents. Compared to men FGD participants, all women FGD participants mentioned a maximum amount (0.50 cents) which shows their need for the construction of water sources as it will ease the burden of water transportation. When probing the reasons behind proposed amounts, majority declared that it is the maximum they can afford. Additionally, experience with prices (used as benchmark) from other kebeles was mentioned.

**Water source for laundry and food utensils**

A vast majority of households use unprotected sources for laundry and food utensil. Thus, 93% of households reported that they use surface water and 3% use water from unprotected spring. As can be seen in the table below, only 5% of unsafe water users wash their utensils with warm water. But the majority use cold water only (74%) and 19% use cold water with soap.

**Graph 5: Source of water for laundry and food utensils**

****

**Tab.7: How utensils are washed**

|  |  |  |  |
| --- | --- | --- | --- |
|  | Total | Unsafe water users | safe water users |
| warm water only | 6% | 3% | 0% |
| cold water only | 77% | 88% | 100% |
| cold water with soap | 17% | 9% | 0% |
| Grand Total | 100% | 100% | 100% |
| Frequency of washing utensils |  |  |  |
| every day | 90% | 75.5% | 100% |
| twice a week | 1% | 0.5% | 0% |
| once a week | 9% | 24% | 0% |
| Grand Total | 100% | 100% | 100.00% |
| N | **168** | **162** | **6** |

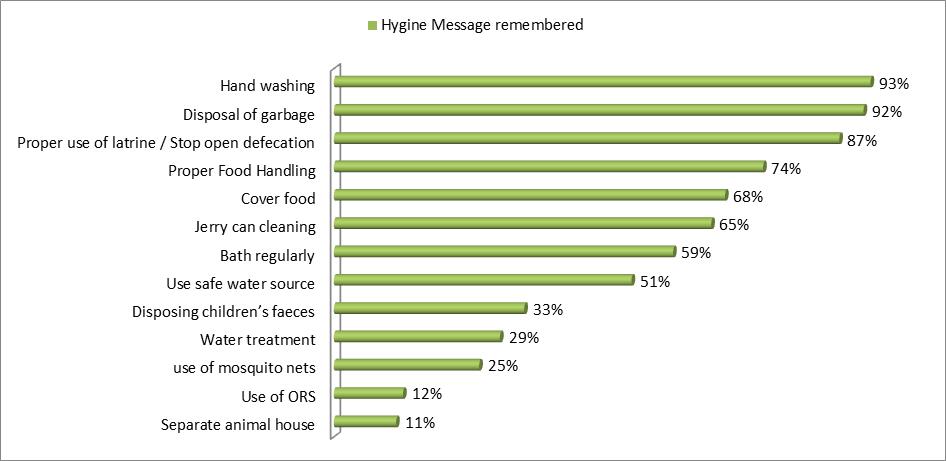
# Knowledge and practices on water, hygiene and sanitation

Regarding access to water hygiene and sanitation information/ messages, 99% of respondents declare that they have received some information/messages mainly from Heath extension workers (96%), community events (48%) and from family and friends (34%) respectively. From FGD participants, the two main channels mentioned were Heath Extension Workers and health professionals working in health posts.

**Tab.8: General hygiene and sanitation awareness**

|  |  |
| --- | --- |
| Have you ever received information on water, sanitation and hygiene? | |
|
| Yes | 99% |
| No | 1% |
| Grand Total | 100.00% |
| N | 168 |
| Source of Information |  |
| Health Extension workers/VHP | 96% |
| WASHCO | 1% |
| Kebele Leader | 33% |
| Religious Leader | 12% |
| Family and friends | 34% |
| NGO staff | 14% |
| Radio | 21% |
| Television | 2% |
| Church/mosque | 13% |
| clinic/hospital / health posts | 23% |
| Leaflets /broachers/magazines/newspapers | 8% |
| community events | 48% |
| school children | 5% |
| N | **167** |

**Graph 6: Hygiene messages remembered**

****

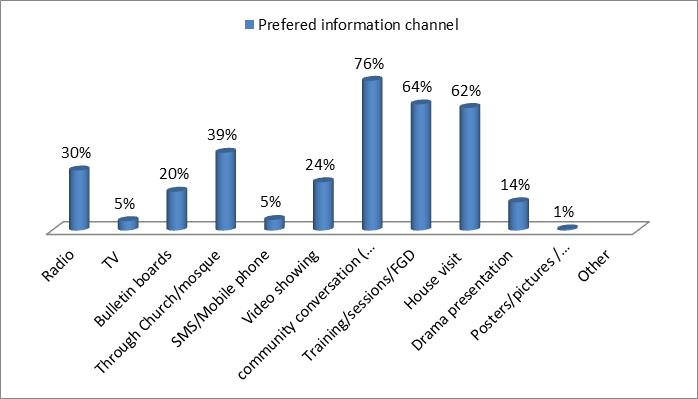
According to the respondents, the messages widely spread are on different themes. Thus hand washing messages leads the trail with 93% followed by disposal of garbage (92%) and proper use of latrine (87%). Other frequently mentioned messages include messages about proper food handling (74%), covering food (68%), jerry can cleaning (65%), bathing regularly (59%) and use of safe water source (51%). Other messages though important in preventing WASH-related diseases were mentioned by less than half of the respondents.

FGD participants also declared having heard messages on Hand washing and using latrine. Compared to men, women FGD participants were able to list out more messages they heard including cleaning children regularly, use of safe water source and jerry can cleaning.

Community Conversation is preferred by 76% of the respondents while others prefer to receive hygiene messages through trainings and FGDs (64%) and home visit (62%). Through church and mosque (39%), radio broadcasting (30%) and video showing (24%) were also mentioned.

FGD findings also confirmed that community discussions are the preferred channel for hygiene messages by integrating it to the health extension workers activity. Participants also mentioned the use of the existing community level development groups to disseminate hygiene messages.

**Graph 7: Preferred channel for Hygiene Message**

****

**Water treatment**

Water treatment is not very common practice with only 1% of the population practicing boiling as a water treatment method as shown in table 10. When looking at unsafe water source users, except 1%, in 99% of cases they don’t treat their water. When the data is filtered between men and women headed households, the 1% treating their water fall under male headed households. Even though it is insignificant it shows that male headed households are better informed and are practicing a safe behavior. But in general, the data illustrates that respondents behave in similar way regardless of water from a safe or unsafe source.

**Tab.9: Knowledge and practices on water treatment**

|  |  |  |  |
| --- | --- | --- | --- |
| Do you treat water? | Total | unsafe water users | safe water users |
| Yes | 1% | 1% | 0% |
| No | 99% | 99% | 100% |
| Grand Total | 100.00% | 100% | 100% |
| N | 168 | 127 | 41 |
| How do you treat it? |  |  |  |
| Boiling | 100% | 100.00% | 0% |
| Message on water treatment remembered |  |  |  |
| Yes | 29% | 31% | 20% |
| No | 71% | 69% | 80% |
| N | 168 | 127 | 41 |

As can be seen in the table above only 29% of respondents declare that they remember message focused on how and why water should be treated. From those who remember messages on water treatment, male headed households comprise of 90% of households and the remaining 10% are female headed households. But only 1 % states that they treat the water. When it is filtered from the unsafe water user point, 31 % of unsafe water users declare they remember messages on water treatment but only 1% are treating their water. From this it can be concluded that the awareness of the problem doesn’t necessarily lead to behavior change.

**Tab.10: Reasons why water is not treated**

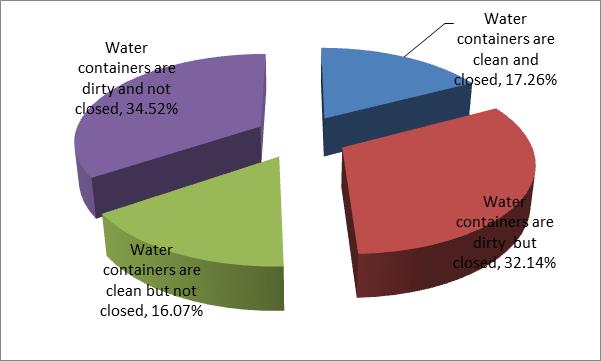
|  |  |  |
| --- | --- | --- |
| Why don’t you treat water? | Safe water source users | Unsafe water source users |
| It is clean/source is protected | 80.49% | 17% |
| we can't afford treatment chemicals | 4.88% | 22% |
| we don't know any treatment method | 14.63% | 56% |
| Other | 0% | 4.76% |
| N | **41** | **127** |

From the 99% that disclosed they do not treat water, unsafe water source users give the reason that they don’t know any treatment method (56%), can’t afford treatment chemicals (22%) and 17 % think that the source is protected. A few respondents also show a kind of passive approach as among the commonly mentioned reasons is mentioned waiting for local authorities’ action. Generally, for unsafe water users, lack of awareness about treatment methods is significantly decisive.

**Water storage**

At the household level, members do not always clean and cover water containers. Only 17 % of the households surveyed store water in clean and closed container, equivalent number of HHs (16 %) store water in clean but not closed container, another 32 % of households use closed containers, but which are not clean.

**Graph 8: Condition of water containers**

****

**Tab.11: Handling water**

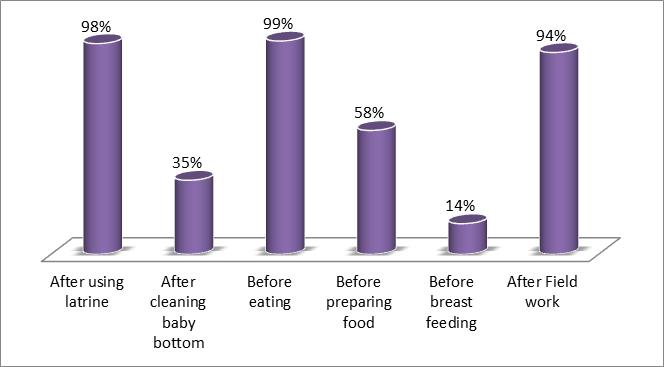
|  |  |
| --- | --- |
| How water is taken from container | |
| Pour | 99% |
| Dip | 1% |
| Appropriate behavior: container clean & closed, water is poured | |
| Yes | 17% |
| No | 83% |

The survey notes that the risk of contamination may be high given that 51 % of the respondents don’t close their containers. But their behavior related to extracting water which shows that 99% of households tilt and pour water into a cup reduce the risk. The combination of data on the condition of water containers and the behavior related to extracting water, shows that only 17% of households have proper behavior that adequately minimizes the risk of contamination.

**Hands washing**

Most respondents declare that they wash their hands before eating (99 %) and after using latrine (98%). The survey participants also mentioned after field work, before preparing food and after cleaning their baby bottom.

**Graph 10: Occasions when people wash hands**



The most commonly mentioned among the FGD groups is washing hands before cooking food and before eating followed by after latrine use. Others also mention other critical times like after cleaning their house and after field work. All participants think that hand washing is well practices in their community with youth and women being those mostly washing their hands.

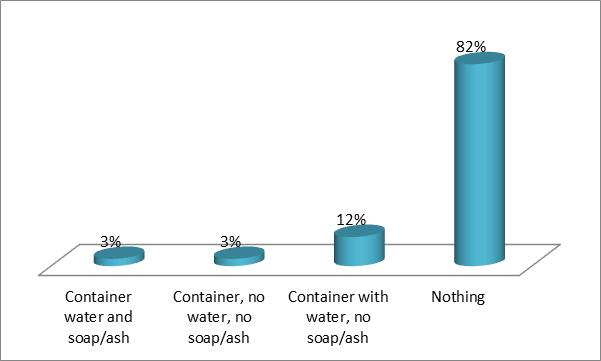
**Tab.12: Knowledge and practice on hand washing**

|  |  |
| --- | --- |
| using water only | 39% |
| using soap on 1 hand | 2% |
| using soap on 2 hands | 45% |
| With Ash | 14% |
| N | **168** |
| Hygiene and Sanitation Message remembered | |
| Hand washing | 93% |
| Proper use of latrine | 87% |
| Proper Food Handling | 74% |

As Table 12 shows, 45% of the respondents declare that they usually wash their hands with soap and water using both hands. FGD participants also mentioned the use of soap while washing their hands, using ash as alternative when they don’t have soap but they also mention that sometimes they use only water to clean their hands as they think it is safe.

**But in 82 % of households, data collectors haven’t observed any hand washing facility and a proper hand washing facility with water and soap or ash has been observed in only 3 % of HHs.** This indicates that the awareness regarding the importance of hand washing practices (93% remember messages related to hand washing) and declaratory behavior don’t necessarily reflect the real behavior.

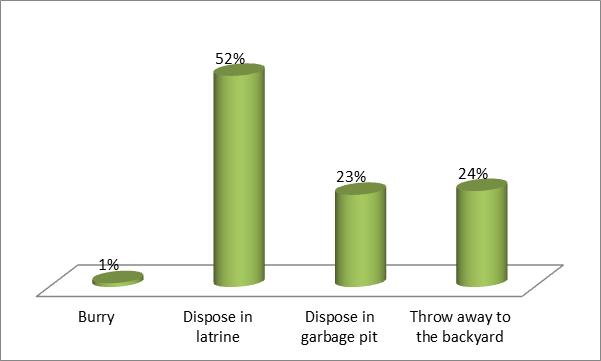
**Graph 11: Availability of hand-washing facility in the household**



**Children feaces disposal**

More than half of respondents (63%) declare that there are child/children under 5 years old in the household. When these respondents were asked how they dispose their child’s faeces, 52 % said that they would dispose it in a latrine; 24% of the households throw away to the backyard; about 23 % of households dispose it in the garbage pit and 1% of the households burry it. From this, it can be concluded that majority (76%) of the respondents are practicing a proper behavior in contrary to 24% which are not practicing properly.

**Graph 12: Children faeces disposing**

****

**Menstrual Hygiene**

This section deals with menstrual hygiene and how women and their daughters deal with their menses. The discussions were done exclusively with women respondents facilitated by female FGD facilitator. From the FGD it was observed that, women were a bit shy to discuss menstrual issues.

Participants regard menses as a sign of maturity and a natural process but they used to hide themselves when they experience their menses and don’t want their husbands / family members to know about it as they feel embarrassed. But now family members are better aware and discuss on such issues.

The most common practices for managing menstruation include the use of a piece of cloth and wearing more than two under wears. Sanitary pads are not common as it is not locally available in the local shops.

One issue mentioned by FGD participants is that there are still communication gaps between mothers and their daughters. The girls don’t discuss such things with their mothers which affects their education as they tend to be absent from school during that time and also discriminate themselves from others.

# Sanitation facilities

**Availability and quality of latrines**

In total, **about one third of households don’t have any toilet facility at the compound**. At remaining two thirds, all the toilet facilities have been described as traditional pit latrines with and without slab. 99% of the households constructed the latrine by themselves.

**Tab.13: Latrines’ availability, condition and usage**

|  |  |
| --- | --- |
| Latrine present at the HH compound |  |
| Yes | 64% |
| No | 36% |
| N | 168 |
| Latrine Type |  |
| Pit Latrine with slab | 71% |
| Pit latrine without slab | 29% |
| Total | 100% |
| Latrine's condition |  |
| kept well and clean | 36% |
| Kept poor and unclean | 64% |
| HH with clean latrine (of total respondents) | 23% |
| Latrine usage |  |
| Yes | 100% |
| Who helped you construct the latrine |  |
| Self | 99% |
| Other | 1% |

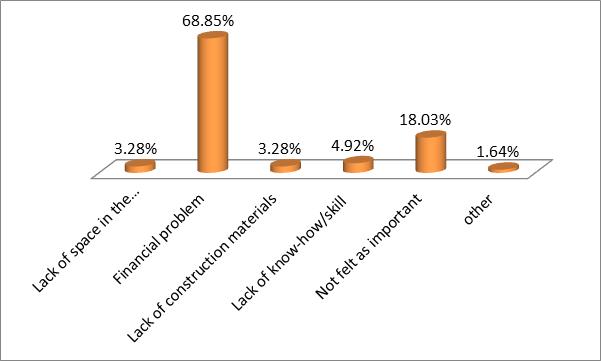
In total, only 36 % of latrines could be described as being kept well and clean. When recalculated on total number of households, it could be said that there are only 23 % of households with a clean and well-kept latrine.

When comparing HHs without latrine, there is slightly higher proportion among women headed HHs (41 %) than among men headed HHs (36 %). Only 11.5 % of respondents living in households without a latrine share it with other HHs. The vast majority (86 %) of HH members without latrine practice open defecation in bush, backyard or field.

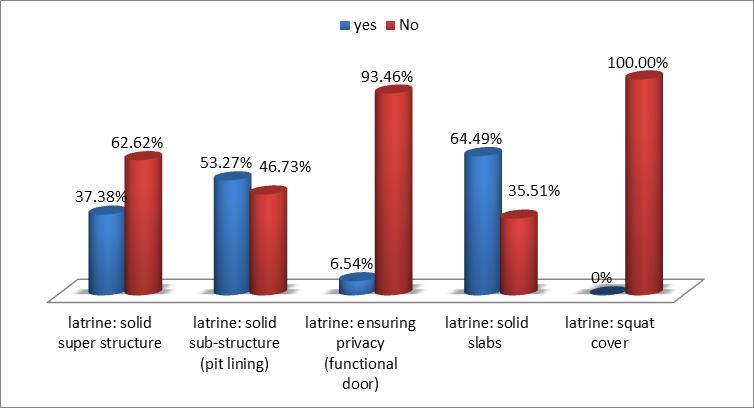
Some of FGD participants pointed that their kebele was selected as an open defecation free kebele as most people were advised to construct own latrines and also 42 public latrines were constructed for guests coming from other kebele. But currently the kebele is returned to the former practice of open defecation as people fail to construct own latrine and also most of the public latrines are out of order.

The reason for not having a toilet facility is a lack of finances/ financial problems (69%) more often mentioned in women headed HH (78 %) in comparison to men headed HHs (67 %). About 18 % of HHs doesn’t consider having latrine as important issue; more among women headed HHs (22 %) than among men headed HHs (17 %). Others mentioned lack of space in the compound, lack of construction materials and lack of know-how as a reason.

**Graph 13: Why HHs don’t have latrine**



**Graph 14: Latrines’ components quality**

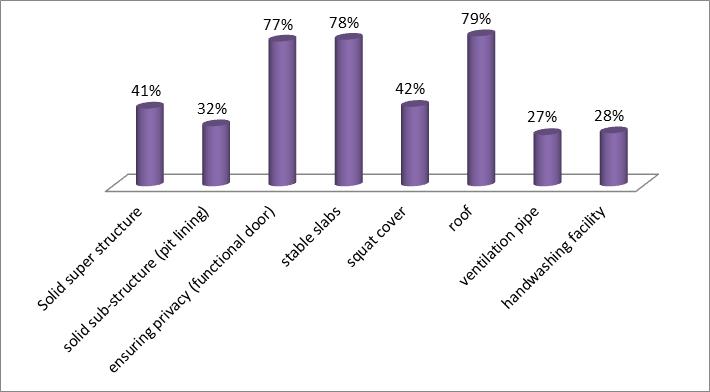


In general, the quality of latrines is low. For example, only 7 % of latrines have a functional door, therefore the vast majority of latrines do not ensure privacy; this has a negative impact especially on the comfort and dignity of women and girls.

The condition of the latrines doesn’t correspond to the awareness of proper use of a latrine. The majority of respondents (87%) declare that they remember such a message, but the data doesn’t show that it influences their related behavior significantly.

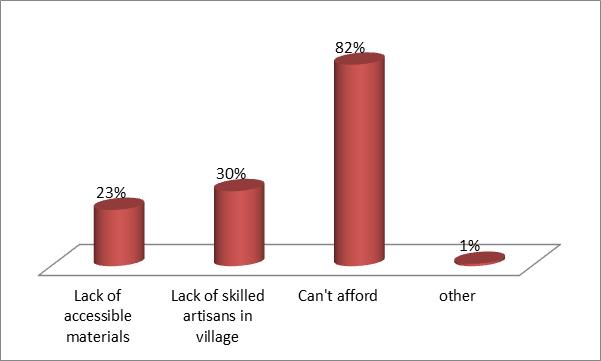
**Latrines’ improvements suggested**

**Graph 15: Improvements suggested**



A majority of households suggests they would improve their latrines by having a roof (79%), stable slabs (78 %), functional door (77%), and solid super structure (41%). Suggestions for improvements reflect to some extent the observed weaknesses of existing latrines.

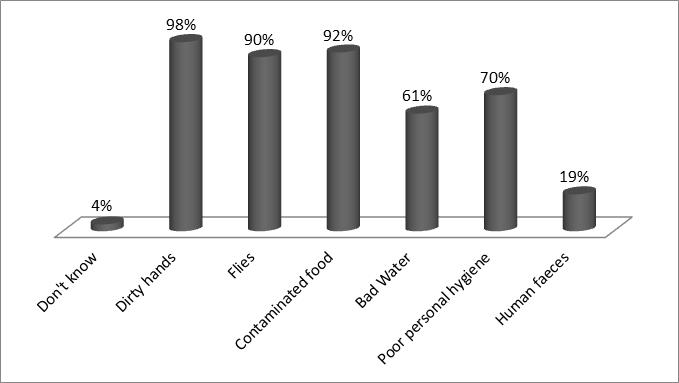
**Graph 16: What has prevented HHs to make any changes so far**



When respondents were asked **why nothing has been done so far, most respondents (82%) declare that they can’t afford the improvements; significantly more often among women headed HHs (92 %) than men headed HHs (80 %)**. For 30 %, the problem was lack of skilled artisans in village, 23 % complained about lack of accessible materials. But when the respondents were asked about potential amount of money they would be willing to pay for improvements, it was found out that the realistic estimations of how much the components or latrine could cost are missing.

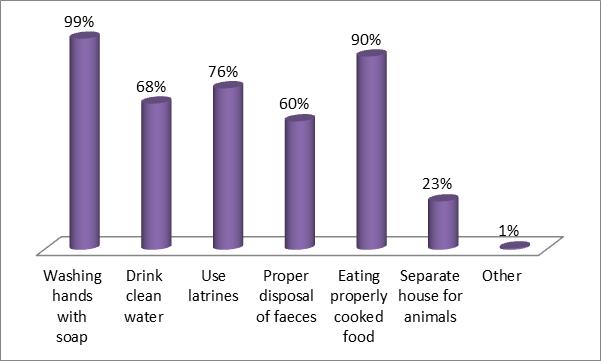
# Diseases: awareness and prevalence

**Graph 17: Perceived causes of diarrhea**



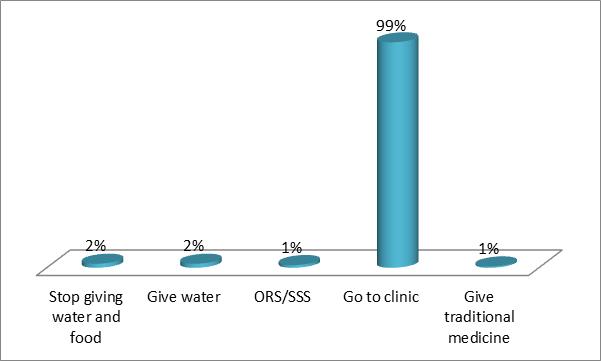
When respondents were asked what could cause diarrhoea, 98 % of them consider dirty hands as a main cause, followed by contaminated food (92 %) and flies (90%) and poor personal hygiene (70 %).

**Graph 18: How diarrhea could be prevented**



For diarrhea prevention, the vast majority (99 %) mentioned washing hands with soap, 90% eat properly cooked food and use latrines (76%).However comparing to observations of actual hygiene and sanitation behavior mentioned in previous chapters, awareness doesn’t necessary lead to appropriate action.

**Graph 19: How is diarrhea treated**



Regarding diarrhea treatment, almost all households would take the patient to a clinic; some (2%) would give water, 1% give ORS and 1% will give traditional medicine. From the respondents 2% mentioned they will stop giving water and food which shows shows the awareness gap as related to diarrheal treatment.

**Prevalence of diseases in last 30 days**

As can be seen in the table below, there is high prevalence of diarrheal disease. In last 30 days, more 2 % of population got diarrhea (10 % among children) which affected 14 % of HHs. Considering how children were affected, the highest proportion of affected children compared to the total number of affected people could be found in the case of diarrheal diseases (71 %) followed by skin diseases (29%)and typhoid (14%).

**Tab.14: Prevalence of diseases in last one month**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | % of population with disease | % of sick children under 5 from total sick | % of HHs with disease | % of sick children under 5 from children pop |
| Diarrhea | 2.4% | 71% | 14% | 10.1% |
| Parasite | 0.8% | 13% | 5% | 0.6% |
| Malaria | 0.2% | 0% | 1% | 0.0% |
| Typhoid | 0.7% | 14% | 4% | 0.6% |
| skin diseases | 0.7% | 29% | 4% | 1.2% |

# Conclusion and recommendation

**Access to water**

* On average, households in the target areas have 5.5l of water for each member per day used for drinking and cooking. Thus, only 21 % of the population has access up to 8 liters of safe water per day, only 3 % use between 8 and 15 liters of safe water per day, and only 1% has access to 15 and more liters of safe water per day.
* Vast majority of households use unprotected sources for laundry and food utensil. Thus, 93% of households reported that they use surface water and 3% use water from unprotected spring. The majority of non-safe water users use cold water only for washing their utensils (88%) and 9% use cold water with soap. **Therefore, it is recommended that continuous awareness raising activities through community conversation and demonstration should be conducted for families regarding how they should wash their utensils especially when using unsafe water.**
* All HHs declare they don’t pay anything. From these, only 24% are using protected sources and the remaining 76% are using unprotected water source.

**Willingness to pay**

* Majority of households get water free of charge irrespective of whether it is from safe water source or not. But woman FGD participants are willing to pay on average 0.50 cents and men FGD participants 0.20 cents for 20 liters jerry can. The maximum amount mentioned by the women and men FGD participants is 0.50 cents and the minimum amount was 0.20 mentioned by men FGD participants. People would probably switch to unprotected sources more. **Limited financial capacity is mentioned as the most common reason.**

**Knowledge and practices on water, hygiene and sanitation**

* 99% of respondents declare that they have received some information/messages mainly from Heath extension workers (96%), community events (48%) and from family and friends (34%) respectively.
* Hand washing messages leads the trail with 93% followed by disposal of garbage (92%) and proper use of latrine (87%). Other frequently mentioned messages include messages about proper food handling (74%), covering food (68%), jerry can cleaning (65%), bathing regularly (59%) and use of safe water source (51%).
* Community Conversation is preferred by 76% of the respondents while others prefer to receive hygiene messages through trainings and FGDs (64%) and home visit (62%). **Therefore, the project should implement an effective community conversation session to address water hygiene and sanitation issues but these sessions should not be standalone events as it will not be effective in changing specific behavior.**
* **Awareness seems not to influence real behavior especially in cases of hand washing, water storing and treating, and latrine ownership and quality. Therefore usage of CLTS and other intensive participatory approaches is recommended.**

**Water treatment**

* Water treatment is not very common practice with only 1% of the population practicing boiling as a water treatment method.
* When looking at unsafe water source users, in 99% of cases they don’t treat their water. When the data is filtered between men and women headed households, the 1% treating their water fall under male headed households. Even though it is insignificant it shows that male headed households are better informed and are practicing a safe behavior. This also illustrates that respondents behave in similar way regardless of water from a safe or unsafe source.
* 29% of respondents declare that they remember message on water treatment but only 1% are treating their water. **From this it can be concluded that the awareness of the problem doesn’t necessarily lead to behavior change.**
* From the 99% that disclosed they do not treat water, unsafe water source users give the reason that they don’t know any treatment method (56%), can’t afford treatment chemicals (22% )and 17 % think that the source is protected.
* **As the project is planning to construct new schemes in the kebele, in the area where unprotected sources are used it is recommended to focus on water treatment as a complementary activity. But for those accessing improved water sources, promotional activities should focus more on safe water handling instead of water treatment.**

**Handling water**

* Only 17 % of the households surveyed store water in clean and closed container, equivalent (16 %) store water in clean but not closed container, another 32 % of households use closed containers, but which are not clean.
* The survey notes that the risk of contamination may be high given that 51 % of the respondents don’t close their containers. But their behavior related to extracting water which shows that 99% of households tilt and pour water into a cup reduce the risk.
* The combination of data on the condition of water containers and the behavior related to extracting water, shows that only 17% of households have proper behavior that adequately minimizes the risk of contamination. **It is recommended that promotional activities on safe handling of water should be conducted continuously, especially on proper care of and proper condition of water containers.**

**Hand washing**

* Most respondents declare that they wash their hands before eating (99 %) and after using latrine (98%). 45% of the respondents usually wash their hands with soap and water using both hands.
* But in 82 % of households, data collectors haven’t observed any hand washing facility and a proper hand washing facility with water and soap or ash has been observed in only 3 % of HHs. This indicates that the awareness regarding the importance of hand washing practices (93% remember messages related to hand washing) and declaratory practices don’t necessarily reflect real behavior. **It is therefore recommended that the** **project focuses on activities that enable households to obtain and use hand washing facilities and access to soap or ash combined with marketing techniques to put greater social pressure on hand washing. Promotional messaging and education sessions alone will not be effective in changing this specific behavior.**

**Child faeces disposal**

* 76 % of the respondents are practicing a proper behavior and are safely disposing their child’s faeces but 24% of the households which throw away to the backyard are not practicing proper behavior. **Therefore, as part of house to house monitoring visits a prompt message should be provided in this matter.**

**Latrine coverage**

* Only 64% of households have a toilet facility at the compound described as traditional pit latrines with and without slab. 99% of the households constructed the latrine by themselves.
* Only 36 % of latrines could be described as being kept well and clean.
* When comparing HHs without latrine, there is slightly higher proportion among women headed HHs (41 %) than among men headed HHs (36 %). The vast majority (86 %) of HH members without latrine practice open defecation in bush, backyard or field.
* **The reason for not having a toilet facility is a lack of finances/ financial problems (69%) more often mentioned in women headed HH (78 %) in comparison to men headed HHs (67 %).** About 18 % of HHs doesn’t consider having latrine as important issue; more among women headed HHs (22 %) than among men headed HHs (17 %). Others mentioned lack of space in the compound, lack of construction materials and lack of know-how as a reason.
* **Therefore, the** **project should focuses on activities that enable households to construct and care for their latrines through combining marketing as promotional messaging and education sessions alone will not be effective in changing this specific behavior. Special focus should be aimed at women headed HH where the direct (material) support could be considered.**
* The quality of latrines is low. For example, only 7 % of latrines have a functional door, therefore the vast majority of latrines do not ensure privacy; this has a negative impact especially on the comfort and dignity of women and girls.
* The majority of respondents (87%) declare that they remember such a message, but the data doesn’t show that it influences their related behavior significantly.

**Latrine Improvement**

* A majority of households suggests they would improve their latrines by having a roof (79%), stable slabs (78 %), functional door (77%), and solid super structure (41%). Suggestions for improvements reflect the observed weaknesses of existing latrines.
* The lack of financial sources is mentioned as the most common reason (82%) followed by lack of skilled artisans in village (30 %) and lack of accessible materials (23 %). **Therefore it is recommended to conduct barriers & motivations analysis (or formative research) which clearly indicates the barriers and also capacities of the community members to improve as well us build new latrine. Thus, through house to house visits and community conversation sessions, accessible cost latrines could be demonstrated and local skilled artisans could be promoted which initiate community members to get motivated to improve their latrines.**
* When the respondents were asked about potential amount of money they would be willing to pay for improvements, it was found out that the realistic estimations of how much the components or latrine could cost are missing. **Thus, also marketing research should be conducted to assess real prices of components and latrines’ construction.**

**Diseases: awareness and prevalence**

* 98 % of them consider dirty hands as a main cause, followed by contaminated food (92 %) and flies (90%) and poor personal hygiene (70 %).
* The vast majority (99 %) mentioned washing hands with soap, 90% eat properly cooked food and use latrines (76%).However comparing to observations of actual hygiene and sanitation behavior mentioned in previous chapters, awareness doesn’t necessary lead to appropriate action.
* Regarding diarrhea treatment, almost all households would take the patient to a clinic; some (2%) would give water, 1% give ORS and 1% will give traditional medicine. From the respondents 2% mentioned they will stop giving water and food which shows the awareness gap as related to diarrheal treatment. **Thus, as part of house to house monitoring visits a reminder messages should be provided.**
* There is high prevalence of diarrheal disease. In last 30 days, 2 % of population got diarrhea (10 % among children) which affected 14 % of HHs. The highest proportion of affected children compared to the total number of affected people could be found in the case of diarrheal diseases (71 %) followed by skin diseases (29%) and parasitical disease (13%). **Therefore, it is recommended that, focus should be given on activities that enable households to obtain and use hand washing facilities and access to soap or ash combined with techniques to put greater social pressure on hand washing and personal hygiene which will contribute to the prevention of diarrheal, parasitical and skin diseases.**