

Amhara National Regional State Health Bureau

Baseline Household Survey, Institutional Performance and School Assessment Conducted in 22 Woredas of the Amhara National Regional State

Program to Support At Scale Implementation of the National Hygiene and Sanitation Strategy through Learning by Doing in the Amhara Region

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Disclaimer: Differences may exist between the data presented in this report and the data made available through the Health Management Information System (HMIS) collected through the Ministry of Health's routine administrative statistics. The differences between findings in this report and those reported via the HMIS are based on different methodologies used in collecting the information. The data in this report should not be construed as the only lens through which to represent conditions in Amhara.

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Acronyms

AED	Academy for Educational Development
ANOVA	Analysis of Variance
ARHB	Amhara Regional Health Bureau
BCC	Behavior Change and Communication
COOPI	Cooperazione Italiana
CSA	Central Statistical Agency
DFID	UK Department of International Development
EPI	Expanded Program on Immunization
EOC-DICAC	Ethiopian Orthodox Church-Development Inter Church Aid Commission
GTZ	Deutsche Gesellsehaft Fur Techische Zusammenarbeit
HEWs	Health Extension Workers
HH	Household
HIP	Hygiene Improvement Project
HW	Hand Washing
JMP	WHO/UNICEF Joint Monitoring Programme for Water Supply and Sanitation
MDG	Millennium Development Goal
MOU	Memorandum of Understanding
M&E	Monitoring and Evaluation
NGO	Nongovernmental Organization
PASDEP	Plan for Accelerated and Sustained Development to End Poverty
POU	Point of Use
RWSSHP	Rural Water Supply, Sanitation and Hygiene Promotion
SC-UK	Save the Children United Kingdom
SC-USA	Save the Children United States of America
SDPRP	Sustainable Development and Poverty Reduction Program
TOR	Terms of Reference
UNDP	United Nations Development Program
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development
WASH	Water, Sanitation and Hygiene
WatSan	Water and Sanitation
WB	World Bank
WHO	World Health Organization
WSP-AF	Water and Sanitation Program Africa
WSS	Water Supply and Sanitation

Executive Summary

Background and Methodology

In support of the national commitment to universal access (100%) to hygiene and sanitation by 2012, the Government of Ethiopia has forged key sanitation and hygiene policies. International donors including UNICEF, the World Bank, DFID, and the African Development Bank are supporting the Government of Ethiopia in its effort to achieve the water and sanitation millennium development goals and universal access. In late 2005, the Government of Ethiopia requested assistance with implementation of the newly adopted National Hygiene and Sanitation Strategy. After laying the basic groundwork, the Regional State of Amhara committed to pioneer an innovative approach to implementation of the national strategy and launched the Learning by Doing Program for Achieving At Scale Hygiene and Sanitation. The regional program was further elaborated as Community-Led Total Behavior Change in Hygiene and Sanitation, an approach grounded in the National Health Extension Program, which involved committed action from multiple sectors including health, water resources, and education and focused action at multiple levels including the region, district (*woreda*), village (*kebele*), and local (*gott*) levels.

The program is regional and includes all 150 woredas in the Amhara Region. However, some woredas identified as "Round One" recipients of support through the national water, sanitation, and hygiene (WASH) program (mainly supported by the World Bank/DFID, Africa Development, and UNICEF) receive priority and focused attention, technical assistance, and accelerated funding. This phased approach will eventually reach all woredas in the region, but funding and implementation will occur in stages.

A conceptual framework for the Learning by Doing Program was endorsed (found in the report annex) and evaluation indicators developed to measure changes at multiple levels, including changes in coordinated planning, budget allocation, actual hygiene and sanitation infrastructure in homes and schools, and household-level hygiene and sanitation behavior. The household, school, and institution level indicators were captured by this baseline survey.

On behalf of the World Bank's Water and Sanitation Program (WSP-AF), USAID's Hygiene Improvement Project (USAID-HIP), and the Amhara Regional State Health Bureau (ARHB), Michael Dejene Public Health Consultants conducted a cross-sectional survey in selected rural localities of 22 woredas in Amhara Region. The survey was conducted from May through July 2008 to generate a baseline to measure the effectiveness of the Learning by Doing Initiative and report on indicators in the Monitoring and Evaluation Plan associated with the regional program for at scale hygiene and sanitation.

The study sample draws from three strata of woredas—high, direct, and indirect involvement. High involvement woredas include a sample of woredas, four participating in "Round One" of the water and sanitation loans and receiving technical support from the ARHB/WSP-AF/USAID-HIP Learning by Doing Program for Achieving At Scale Hygiene and Sanitation. The direct involvement woredas¹ represent a sample of an additional seven woredas. Donor funds will be available to implement hygiene and sanitation promotion in these woredas, and they will benefit from tools and

¹ Note that the four high involvement and seven direct involvement woredas are referred to as ignition woredas. There is one ignition woreda for each of the 11 zones of the Amhara Region.

training given by ARHB/WSP-AF/USAID-HIP to the high involvement woredas, which will be delivered through a cascade mechanism relying on government trainers like the health extension workers to replicate their training. Indirect involvement woredas are those where other development agencies (not ADB, WB, DFID, UNICEF, WSP-AF/USAID-HIP) are expected to implement the regional program and replicate the behavior change and monitoring and evaluation trainings and the interventions introduced by ARHB/WSP-AF/USAID-HIP in the ignition woredas, but without any focused loans or technical input. These indirect involvement woredas serve as a natural control group for comparison with greater intensity woredas for the baseline and first round of follow-up measures (scheduled for May 2009), as no focused assistance or earmarked funding will flow in the early rounds of the program. These differences may disappear over time, as the program is more robustly implemented; the inputs will be tracked over time.

A total of 2,000 households from 330 randomly selected clusters were interviewed during the household survey. The woreda and kebele level interviewees were selected from 110 kebeles and 22 surveyed woredas. Similarly, the school level assessment included 78 schools located in the surveyed kebeles. The household, school, and institution level survey results of selected water, sanitation, and hygiene indicators are summarized below:

Socio-Demographic Characteristics of Respondents

All respondents were adult female (mothers or adult child caretakers) household members. About one-third (30.6%) were aged 30-39 and a similar proportion (30.3%) were aged 20-29. The mean age of respondents was 35.4 years. Only 271 (13.6%) of respondents reported having any formal schooling. Of the 246 who could specify the grade she completed, 74.8% had a primary school level education (grade 1 to 6) whereas the remaining 25.8% reported a secondary school level education (grade 7 and above). The mean number of school years completed by the respondents that attended school was 4.93. Findings further showed that a significantly higher proportion of respondents from indirect involvement woredas reported attending formal school (χ^2 =21.8, P=000).

The average household size was 5.3 people. About two-thirds (63.3%) of households have five or more members, and only 1.3% of households are single person households. Thirty-seven percent (37%) of households with children reported having one or more children under the age of five. On average, nearly two children per household were under age five.

Two-thirds (67.2%) of the households were located in homes in individual compounds, while 25% shared the compound with other families. The proportion of households located in a separate compound is similar for the households sampled from all three strata. Wood and mud (89%) and stone and mud (7.5%) are the construction materials commonly used by households to construct the main living quarters. Corrugated iron sheet (64.9%) and reeds/leaves (27.9%) are the two materials commonly used for roofing the main living area. Many households from the high and direct involvement woredas used corrugated iron sheet as compared to those from indirect involvement woredas (68.6% and 66.2% versus 59.7%). None of the residential quarters of the surveyed households were reported to have solid roofing. In general, the houses' physical characteristics were more precarious in high intensity woredas.

Overall, respondents residing in the high intensity woredas were "worse off" than those in direct and indirect intensity woredas, indicating greater need and a greater challenge to change conditions. Any subsequent comparisons will take into account these differences in baseline strata.

Sanitation

The households' access to a latrine or related sanitary facilities was very low. Results showed that 36.4% of households had access to sanitation facilities and 63.4% practiced open defecation. The breakdown of the type of sanitation facilities available by improved vs. unimproved was relatively even (18.9% had improved facilities and 17.4% had unimproved facilities). Open defecation households were more common in the high intensity woredas, and differences across sample strata were statistically significant. A cross tabulation between access to sanitation and household characteristics showed that respondents who live in homes in a separate compound are more likely to practice improved sanitation. On average, households with latrines had installed them 3.7 years prior to the survey. The more recent installations occurred in the high involvement woredas where it is 4.6 years. These differences are also statistically significant.

In households where a latrine was available, 17.1% had a hand washing station near the latrine. Six out of 10 of these households had visible water at that facility at the time of the survey. However, only one in 10 had soap.

Despite very low access to improved sanitation and very high practice of open defecation, 53% of respondents indicated being partially or totally dissatisfied with their present sanitation condition. The mean satisfaction score was 1.16 among open defecators and 1.90 among fixed placed defecators when using a five-point satisfaction scale where one is "very unsatisfied" and five is "very satisfied." The difference between the groups is statistically significant.

The four common motivating factors for building toilets were feelings of shame for contaminating the environment (40.9%), convenience (27.4%), security (12.7%), and disease prevention (12.7%). No statistical differences by sampling strata were identified. Nevertheless, statistically significant motivators that distinguished latrine defecators from open defecators were: being perceived as modern, gaining the respect of others, being popular, keeping the compound clean, and facilitating defecation for the elderly. In addition, results indicate that the absence of a person in the household with the capacity to build a latrine (17.4%), not owning land that can be used to build a latrine (12.2%), shortage of land that can be used to build a latrine (11.3%), and other priorities in the household (10.3%) were the commonly mentioned reasons for not building a latrine for households with no sanitation facilities.

When the gender roles of men and women in hygiene were examined, the data showed that in most households male heads often made decisions and were involved in hygiene and sanitation activities for a limited period of time. Yet women and other household members were often found responsible for hygiene and sanitation related activities that demanded their continuous day-to-day involvement.

Hand Washing

The respondents' level of awareness about the importance of hand washing using water and soap or an alternative cleansing agent such as ash at critical junctures was found to be very low. In this regard, 63.1% of respondents were aware of the importance of washing hands before eating, 45.7% before preparing food, 19% after defecation, and only 5.4% after cleaning the buttocks of a child.

The hand washing practices of the households further revealed that only 19.4% of the respondents used soap for hand washing in at least one critical juncture the day prior to the survey date. Only 1.9% of the respondents reported using soap for hand washing in at least two critical junctures. The average number of times informants reported washing their hands using soap the day prior to the survey date was 0.9.

Access to and Utilization of Water

The results show that 58% of the sampled households have access to water from protected sources. A communal water tap is the major source of protected water for 25% of households, followed by a protected spring (14.5%). Nearly a quarter of households reported getting their water from an unprotected spring. Findings further showed that fetching takes much longer than suggested by the Millennium Development Goal guidelines; the average time to fetch water was 42.4 minutes for households from all three strata.

When asked what families can do to make water safe for drinking, the most common response (77%) was water storage rather than treatment. These respondents indicated that keeping water in a closed container was sufficient. Water treatment methods were mentioned by very few respondents in the following order of frequency: boiling (5.6%), use of a cloth filter (1.2%), use of ceramic filters and letting the water stand and settle were each mentioned by less than 1% of respondents. When asked what products could be used to make water safe for drinking, 35.7% said that no such products existed, and an additional 35.3% indicated that they did not know. Wuha Agar, the Amharic brand name for the locally produced sodium hypochlorite available in the Amhara Region, was mentioned by only 13.7% of respondents.

Only 7.8% of respondents indicated that they were treating their water to make it safe for drinking at the time of the survey. Boiling (3.4%), use of traditional water treatment methods like leaves, roots, and barks from different plants (1.7%), Wuha Agar (1.2%), and cloth filters (0.8%) were the most frequently mentioned water treatment methods that households used. Few or no respondents mentioned other water treatment methods like Biosand filters, ceramic filters, or Aquatabs.

The data showed that 82% of households stored drinking water and 79% permitted enumerators to observe their water storage containers. The mean number of containers used to store drinking water was 2.3, and the mean number of liters of drinking water stored was 56.3. When all households were considered, spot checks made us conclude that 20% used only narrow neck containers (primarily traditional clay *enseras*), 30% used only hard covers, and only 1.5% used containers that have a tap. In 26% of all households, drinking water containers were accessible to animals.

Exposure to Hygiene Promotion

Findings on households' exposure to different sources of information on hygiene and sanitation showed that less than one-third of respondents could mention their main source of information on hand washing. A significantly high proportion of respondents from high involvement (43%) and indirect involvement woredas (44%) mentioned health facilities as their main sources of information on the importance of hand washing before eating (χ^2 =12.59, P=0.002). These percentages contrast with the equivalent 25% reported in direct involvement woredas. Village health workers were reported as a source of information on hand washing before eating by a significantly high number of respondents from the direct involvement stratum (χ^2 =14.08, P=0.001).

Domain	Indicators	High	Direct	Indirect	Total	Chi2	р
		Intensity	Involvement	Involvement			-
	% of households (HH) using improved	30.9	44.2	34.8	36.1	26.5	.00
	sanitation facilities meeting minimum						
	standards by woreda (15)						
	% of hand washing (HW) stations near	0.5	0.3	0.0	0.3	3.4	.18
	improved sanitation facilities meeting						
	minimum standards with appropriate hw						
	supplies by woreda (16)						
	% of households with HW station	4.6	5.6	6.6	5.6	2.7	.25
s	elsewhere in the house with soap and water						
old	% of household with HW station elsewhere	10.9	102	9.9	10.0	.39	.82
eho	in house with water only						
sne	% of caretakers washing their hands with	1.4	1.9	2.5	1.9	2.01	.36
Ho	cleansing agent at least during 2 critical						
	junctures (17)						
	% of caretakers washing their hands with	19.5	19.1	19.5	19.4	0.38	.93
	cleansing agent at least during 1 critical						
	junctures						
	% of HHs in target areas practicing	6.6	3.8	4	5.0		
	effective household water treatment by						
	woreda (19)						
	% of HHs in target areas practicing	34.1	35.9	42.3	37.5	8.66	.01
	effective drinking water storage by woreda,						
	if water is stored (20)						

The following is a summary table indicating the status of household level indicators at the baseline.

School Water and Sanitation

Results of the school hygiene and sanitation survey showed that 85% of students in the 78 surveyed schools have latrines, and 37% of teachers in those schools have access to a latrine dedicated solely to teachers and administration staff.

The average number of male and female students per toilet was 484 and 467, respectively. This figure is much higher than that stated in the national protocol for hygiene and onsite sanitation where the male to female students per latrine ratio is set to be less than 100 and 150, respectively. A hand washing facility near the toilet was available in only three male student toilets and five female

student toilets. Water and soap/ash were available near the hand washing facilities in only one toilet for male students.

About one-third (31%) of the visited schools made drinking water accessible to their students. However, only one of the 24 visited schools with drinking water reported storing water.

Forty-seven of the 78 visited schools reported availability of hygiene- and sanitation-related education. Of these, only 38% reported that the education was integrated into the school curriculum. In 40% of the schools with hygiene and sanitation education, hygiene clubs provided the information to students. In an additional 15%, this role was played jointly by health professionals in collaboration with the hygiene clubs.

Hand washing with soap and water, making drinking water safe, and properly storing drinking water were the three commonly reported topics covered in hygiene and sanitation education. About 30% of schools did not use teaching aids for the hygiene and sanitation education that they provided to their students.

Less than one-fourth of schools reported extending hygiene and sanitation education to parents of students (20%) and the general community (24%).

Institutional Response to Water and Sanitation

In all 22 woredas covered by the assessment, WASH-related activities were reported to be among the major development interventions. However, findings showed that the intensity and coverage of the WASH-related activities differed from area to area within and among the woredas in the three strata.

Results showed that in the past three years, many people in kebeles and woredas from the three strata benefited from the water schemes jointly developed by the government, NGOs, and the community. However, some woredas and kebeles from the indirect involvement strata reported very limited activities and achievements related to providing communities with access to a safe and adequate water supply.

Unlike water scheme development, construction and use of latrines and related sanitation facilities were reported as areas where little has been achieved among the WASH-related interventions. The communities' low level of awareness of sanitation and hygiene-related issues, the poverty situation that prevailed in the rural areas, the social taboo associated with using latrines, and the lack of basic skills to construct and sustain latrines and related sanitation facilities are perceived by interviewed officials to be the key contributing factors for the communities' low responsiveness to latrine construction and use.

Raising awareness of different water, sanitation, and hygiene-related issues was found to be the key intervention in which the different community and woreda-level stakeholders were involved.

In high involvement woredas, key sector offices like the woreda Health, Water, Agriculture, Women's Affairs, and Education Desks are involved in coordinating and implementing WASH-related activities both at woreda and kebele levels. Similarly, numerous development partners including local and international NGOs and UN agencies were reportedly involved in existing

WASH activities in the four high involvement woredas. Sector office and local and international development partner participation in WASH activities was found to be limited in direct and indirect involvement woredas.

Findings further showed that in the four high involvement woredas, the capacity of major stakeholders (WASH actors) both at the woreda and kebele levels is being built. In this regard, each woreda is supported to establish a WASH coordinating office, WASH teams, WASH committees, and WASH facilitators.

Of the 22 woredas covered by the assessment, only the four high involvement woredas and three of the seven direct involvement woredas reported that key woreda level partners (Water, Health, Education, Agriculture, Women's Affairs, etc.) have started to plan activities related to water, sanitation, and hygiene jointly. However, joint planning is limited to the activities funded by the Rural Water Supply, Sanitation and Hygiene Promotion (RWSSHP) program funded by World Bank/DFID and is never part of regular activities supported by government funding.

Most woreda-level and few kebele-level respondents from the four high involvement woredas were familiar with the monitoring and evaluation tools developed by WSP–USAID-HIP. (Note: High involvement woredas received direct training in the use of these tools as part of the capacity building trainings offered in the woredas.) However, no respondents from the direct and indirect involvement woredas were familiar with the tools.

Recommendations

Household-Level Implications and Recommendations

Latrine promotion:

- Include men in negotiation strategies. In most households men make the decisions about constructing the latrines and where the latrines should be located.
- Develop a behavior change/negotiating strategy for promoting latrine use for families living in shared family compounds, as toilets are currently more common in individual homes.
- Highlight social factors rather than health benefits when promoting latrine installation and use, as these are more motivational to the target audience in Amhara.
- Consider solutions for common barriers to sanitation such as no land or human resources in the household to build latrines to increase latrine uptake.
- Emphasize the need to comply with minimum specifications such as walls and privacy even among those people who already have latrines to encourage use.

Hand washing:

- Consider adding a "critical time" for hand washing after cleaning or playing on the floor, given the prevalence of dung flooring in the region.
- Promote information about the critical times for hand washing through advocacy and reminder materials, especially given the low knowledge about the need to wash hands after defeca

- tion. Key knowledge and enabling technologies both increase hand washing practices at critical times. While knowledge is not alone sufficient to motivate hand washing, knowledge of critical times to wash is essential for people to practice the behavior.
- Promote two hand washing stations at fixed points. Setting up dedicated (fixed) hand washing stations at latrines and where food is prepared and eaten can reduce barriers to proper hand washing and serve as a reminder at critical times.

Water treatment and handling:

- Reinforce good water handling practices. Transitioning to jerry cans or closed containers with spigots is the ideal, however, cultural preference for the ensera ceramic jug is strong and will be difficult to change. Reinforce positive practices like covering containers, hygienic dipping with a cup or ladle, and keeping containers out of the reach of animals and children.
- Promote water treatment as well as safe handling and storage. Because much water comes from unprotected sources and water transport is time-consuming and arduous, much water likely arrives at households already contaminated. Further, water handling may contaminate water from protected sources. Program implementers should discuss water treatment.
- Add water treatment to the national "minimum standard" for water storage and handling as part of the integrated package for household water management. Most households already possess at least two water containers and feasible and effective options can be explored and promoted over time while addressing other challenges to promoting water treatment.

Institutional-Level Implications and Recommendations:

- Publicize norms and standards for latrine/student ratios to promote school compliance with official regulations. Ensure appropriate designs for school latrines and hand washing stations. Conduct operations research and planning to identify and address barriers that prevent compliance and define strategies to overcome the problems.
- Promote school-to-community and school-to-household hygiene and sanitation with parents and the community at large within the existing school curricula and school club materials.
- Extend efforts to promote coordinated planning in high intensity woredas. Emphasize this coordination throughout the region. The next evaluation survey will indicate whether advocacy efforts are successful.
- Widely disseminate the monitoring and evaluation tools introduced by the Learning by Doing Program and promote these tools for planning, monitoring, and assessing programs.

1. Background Information and Statement of the Problem

1.1 Country Background

With an estimated population of 79.2 million people,² Ethiopia is the second most populous nation in Africa. The country's population is projected to double in 23 years, with a current annual population growth rate of 2.5%.³

About 83.5% of the country's population lives in rural areas, making Ethiopia one of the least urbanized countries in the world. As in many other developing countries the rate of growth of the urban population (4.1%) is higher than that of the total population (2.7%). Rapid population growth exacerbates critical gaps in basic health and social services, especially when growth of the economy is low or per capita incomes are in decline.⁴

Despite recent remarkable economic gain, Ethiopia still remains one of the poorest nations in the world. All the country's socio-economic indicators are the lowest by any standard. About 78% of the population lives on less than US\$2 per day. The UNDP's Human Development Index for 2005 ranks Ethiopia 169 out of 177 countries, and similarly the Human Poverty Index ranks it 105 out of 108 developing countries.⁵





² Central Statistical Agency 2008 Statistical Update.

³ UNDP: Human Development Report 2007/8 Country Fact Sheets Ethiopia.

⁴ HSDP III-Planning and Programming Department, FMOH 2005.

⁵ UNDP: Human Development Report 2007/8 Country Fact Sheets Ethiopia.

Low productivity of the agricultural sector (which is the source of livelihood for the majority of the rural population) associated with the low income levels of the population, chronic food shortages, low literacy levels, inadequate access to clean water and sanitation facilities, and low access to health services have contributed to the high burden of ill-health problems in the country.

Many children and women die from easily preventable communicable diseases. In 2005, infant and under-five mortality rate figures were 77 and 123 deaths per 1,000 live births, respectively.⁶ Similarly, in that same year the maternal mortality rate was 870 per 100,000 live births, and life expectancy was 51.8 years. The total fertility rate was 5.4 children per woman. Antenatal care coverage was estimated at 50.4%, while attended delivery was only 15.4%.⁷

1.2 Statement of the Problem Nationwide

In 2004, only six out of 10 people around the world had access to improved sanitation. In sub-Saharan Africa, the equivalent figure for that year was approximately four out of 10.8

The overarching objective of Ethiopia's PASDEP (Plan for Accelerated and Sustained Development to End Poverty 2005/6-2009/10) is to reduce poverty by enhancing rapid economic growth while at the same time improving service delivery. Water and sanitation are among the key sectoral measures and crosscutting issues to be addressed. The PASDEP target is to raise access to potable water within 1.5 kilometers from 44% to 80% in rural areas, and within 0.5 km from 80.5% to 92.5% in urban areas by the end of 2010.9 To achieve the PASDEP goals in rural water supply, the government has planned the construction of 2,135 deep wells, 14,910 shallow boreholes, 77,370 hand-dug wells, and 13,900 spring developments.

Reports showed that despite the reform measures taken in the sector, the level of sanitation coverage in the country is still low. The national sanitation coverage per the Welfare Monitoring (Household) Survey conducted in 2004 is 30.6%.¹⁰

Access to Clean Water Supply: 2004/05*

Rural: 35% **Urban:** 80%

PASDEP Targets for Clean Water Supply: 2009/10*

National: 84.5% Rural: 80% Urban: 92.5%

Sanitation Coverage: 2004**

National: 30.63% Rural: 21.34% Urban: 80.18%

^{*} **Data Source:** Ministry of Finance and Economic Development (MoFED) (2006). Ethiopia: Building on Progress; A Plan for Accelerated and Sustained Development to End Poverty (2005/6-2009/10) ** Central Statistical Agency (CSA), 2004: Welfare Monitoring Survey

⁶ EDHS: 2005.

⁷ UNDP: Human Development Report 2007/8-Country Fact Sheets-Ethiopia.

⁸ WHO & UNICEF (2008): Meeting the MDG Drinking Water and Sanitation Target. The Urban and Rural Challenge of the Decade.

⁹ MoFED (2006): Ethiopia: Building on Progress; A Plan for Accelerated and Sustained Development to End Poverty (2005/6-2009/10).

¹⁰ Ministries of Health, Water Resources, Education and Urban Development & European Union Water Initiative (2007): Need Assessment to Achieve Universal Access to Improved Hygiene and Sanitation by 2012.

Despite the gloomy facts presented above, due to high political commitment during the last few years, strides have been made to substantially improve the hygiene and sanitation situation in the country. This achievement has occurred as a result of a nationwide implementation of the health service extension program, the formulation of a national hygiene and sanitation strategy, followed by the development of a national "step-by-step" protocol describing what needs to be done to achieve the national vision of universal access (100%) to hygiene and sanitation by 2012.¹¹ A review of achievements in the WASH sector from 2001/02 to 2004/05 reveals that access to improved water supply increased from 23% to 35% in rural areas and from 74% to 80% in urban areas. With regard to expansion of rural water supply schemes, construction of 553 deep wells, 1,581 wells, 150,904 hand-dug wells, and 3,977 spring developments were undertaken.¹²

Since December 2004, Ethiopia's Ministry of Health has been actively engaged in addressing the issues of hygiene, sanitation, and water by officially endorsing a National Hygiene and Sanitation Strategy, key principles for achieving 100% coverage, a National Hygiene and Onsite Sanitation Protocol, and a national tri-partied Memorandum of Understanding (MOU) on hygiene and sanitation among the three key Ministries of Health, Education, and Water Resources. The goal is bold and simple: to achieve universal access to hygiene and sanitation by 2012, three years ahead of the ambitious millennium development goals.

1.3 The Water and Sanitation Situation of Amhara Region

In Amhara, about 80% of the population is rural. In this context, access to safe water and sanitation facilities is generally low. Schemes generally consist of shallow wells, spring developments, and boreholes. The most common are shallow wells and springs. In 2003, the water supply coverage as projected in the sector development program for the region's rural sector was 28%. The water sector development program for the rural water coverage to rise to 43.8% by 2009.¹³

Sanitation coverage in the region is also assumed to be low. In 1998, only 37.4% and 2.5% of the total urban and rural population, respectively, had access to toilet facilities. In this respect, nationally the Amhara region was at the bottom of the list.¹⁴ More recently, the 2005 Demographic and Health Survey indicated that nationwide sanitation coverage was 29.7% in rural areas with no regional breakdown available.¹⁵

The Amhara Regional Office has embraced the National Hygiene and Sanitation Strategy and is in the process of implementing it throughout the region. As part of this process, at-scale coverage activities are being implemented. To reach scale, Amhara has taken a "hybrid" approach that combines best practices and lessons learned from ambitious initiatives throughout the world and customizes them to fit the Ethiopian system and context. In the Amhara Region, sanitation coverage has been designated as a performance indicator for elected woreda and kebele administrators. The administrators have, in turn, dedicated themselves to achieving a minimum level of coverage by a given time leading to 100% sanitation coverage by 2012. In addition, the Amhara Regional bureaus

¹¹ Ethiopia, Country Sanitation Review. "To pave the path for all people to have access to basic sanitation by 2012."

¹² MoFED (2006). Ethiopia: Building on Progress; A Plan for Accelerated and Sustained Development to End Poverty (2005/6-2009/10).

¹³ Amhara region water supply implementation plan, Amhara Regional Water Bureau.

¹⁴ CSA, 1999. County Level Analytical Report.

¹⁵ Ethiopia Demographic and Health Survey 2005 (2006). Central Statistical Agency and ORC Macro, p.25.

of Health, Education, and Water Resources have joined forces and adapted the national MOU to their regional context, and signed a regional MOU.

National & Regional Achievements

- Water Supply and Sanitation Sector Review (2006)
- Multi-Stakeholder Forum Aide Memoire
- Assessment of Investment & Financing Needs to Achieve Universal Access to H&S by 2012 (draft)
- Amhara Regional MOU
- Influx of financial resources into WatSan
- Governmental commitment to Health Extension Worker Program with extensive capacity building
- Existing multi-sectoral resources in Amhara
- NGOs addressing a wide range of hygiene and sanitation challenges individually & collectively

The Amhara Region is pioneering a Learning by Doing Program. This program represents a new approach to At-scale Hygiene and Sanitation Improvement, and it involves a series of steps to accomplish the goals of the National Strategy and Universal Access. The steps are presented in the graph below, and they include: 1) mapping the context, 2) catalyzing partnerships, 3) identifying strategic solutions, 4) implementing them, 5) monitoring, and 6) evaluating.

As part of the Leaning by Doing Program, in late 2006, 100 regional stakeholders from a range of public and private commercial and NGO sector organizations came together to

develop a common action agenda. From this, a detailed action plan was finalized, and training, planning, and implementation proceeded at the woreda and kebele levels. Progress was tracked and monitored to make adjustments as needed and to assess the outcomes of the effort on the practice of key hygiene and sanitation behaviors.



While the overall approach nurtures the participation of the "whole system," including schools, religious institutions, and the private sector, changing century-old practices requires intensive activity at the household and community levels. The backbone of outreach into households and communities is through the Health Extension Program of Ethiopia, the national maternal and child health program, and concerted effort has been made to enhance the capacity of the 5,000-plus health extension workers assigned to the Amhara Region to "ignite" their communities to end open defecation, and then to negotiate behavior change through "MIKIKIR" to improve hygiene and sanitation practices. Health extension workers (HEWs) and rural extension workers known as development agents are receiving intensive training to complement their skills and are then sent out to "ignite" at the kebele and gott levels.

WSP-AF and USAID-HIP are helping the Amhara Regional State implement the National Hygiene and Sanitation Strategy. Through the Learning by Doing Program, WSP-AF and USAID-HIP are supporting the Regional Health Bureau to achieve its targets relating to hygiene and sanitation by building the capacity of the Amhara regional, district, NGO, and private commercial sector to improve planning, budgeting, and implementation of hygiene and sanitation, as well as national commitments to achieve universal sanitation coverage by 2012.

At present, the program is providing direct institutional development and capacity building support to 11 woredas in all the 11 zones (one woreda from each zone). The woredas shall serve as models to the other woredas in the zones. The program has planned to directly reach one woreda in each zone (i.e., the 11 ignition woredas will be replicated by the other 90 woredas over the next two years).

A monitoring and evaluation (M&E) plan for the Learning by Doing Initiative has been prepared. Baseline information is required to collect data on indicators in the M&E plan that will be used for pre- and post-measurements of achievements. The task of setting baseline information for the program incorporates the collection of basic information on water and sanitation from households, schools, and institutions. A summary chart listing the indicators that are part of the M&E plan is presented below. More detailed information about the M&E plan for the Learning by Doing Initiative may be found at http://www.hip.watsan.net/page/485.

Initial M&E Framework for Learning by Doing Initiative in Amhara



				% of water user committees with women as treasurers (22)
				% of students with increased knowledge of promoted hygiene practices by woreda (23)
				% of targeted schools complying with child/latrine ratio defined by the National Protocol for Hygiene and Sanitation (24)
				% of targeted schools with water supply (25)
				% of targeted schools with hw stations that have running water and cleansing agent (26)
Wheel Element	MAP	STRATEGIZE	ACTING	M&E

As part of the implementation of the M&E plan of the Learning by Doing Program, WSP and USAID-HIP conducted a cross-sectional survey with both quantitative and qualitative components that was carried out in a total of 22 woredas: four high involvement, seven direct involvement, and 11 comparison woredas. This report presents the major findings of that survey.

2. Survey Objectives

2.1 General Objective

Generate baseline information for selected indicators in the M&E plan for the Program to Support At Scale Implementation of the National Hygiene Strategy through Learning by Doing in the Amhara Region.

2.2 Specific Objectives

In line with the general objective, the specific objectives of the survey focused on gathering hygiene and sanitation-related information from the household, school, and institutional levels as described below.

Household survey:

The specific objectives of the household survey were to gather data on four hygienic practices:

- The hygienic disposal of human waste, including child feces.
- The installation of hand washing facilities next to latrines with necessary hand washing supplies.
- The practice of hand washing with cleansing agent at critical junctures by child caretakers.
- The handling of household drinking water and household water treatment to improve water quality.

School survey:

The school survey was conducted to assess:

- The hygienic practice in schools including the availability of toilets and hand washing facilities in the school compounds and the extent to which the student per latrine ratio meets norms.
- The practice of hygiene education in the visited schools.
- The practice of hand washing with cleansing agent after the use of the toilet within schools.
- The existence of school-based community hygiene promotion outreach activities.

Institutional survey:

The institutional survey was conducted to generate baseline information for indicators in the M&E plan associated with how woredas operate with an emphasis on:

- The implementation of stakeholder coordination meetings and the development of integrated work plans at the woreda level, especially among government agencies in the line ministries of Water Resources, Health, and Education.
- The use of behavior change and M&E tools introduced via WSP/HIP training activities.
- The incorporation of point-of-use (POU) messages to complement water utility construction.

3. Methodology

3.1 Study Design

This is a cross-sectional study at the household and facility levels using three study groups associated with different implementation levels: high, intermediate, and low referred to respectively as "high," "direct," and "indirect" involvement. The strata are represented by woredas that meet specific characteristics as described below and cover 90 of the 150 woredas in Amhara.

- **High involvement woredas** are districts receiving the largest and longest support from the ARHB/WSP-AF and USAID-HIP partnership to implement the Learning by Doing Program. These are the woredas where the intervention would have been be implemented since program outset, thus most likely for the longest duration, and where, given the level of support provided, the Learning by Doing Program expects to yield the highest impact in the earliest phases of program implementation.
- **Direct involvement** woredas¹⁶ are those in which ARHB/WSP and USAID-HIP funding will be made available to implement hygiene promotion. The woredas in this category will also benefit from cascade training given in the high involvement woredas.
- Indirect involvement woredas are those where development assistance agencies other than ARHB/WSP-AF/USAID-HIP are expected to replicate both the behavioral change and monitoring and evaluation trainings and the interventions introduced by ARHB/WSP-AF/USAID-HIP. In these woredas, the responsibility of hygiene promotion will lie in the hands of the Woreda Health Office with possible support of NGOs. In those woredas, NGO hygiene promotion efforts will be complementary to those implemented by public sector organizations.

Excluded from this design are fourth tier woredas, namely non-intervention woredas that contain a group of 60 woredas where hygiene promotion is least likely to occur. It is assumed that in these woredas hygiene promotion may rely exclusively on the government's budget.

3.1.1 Sample Size

The household survey was based on cluster sampling. One hundred ten clusters with six households per cluster were chosen per study group. The expectation was to interview 660 households per study group for a total 1,980 household informants. Data were finally collected from 2,000 cases.

Sample size calculation was based on expected sanitation coverage in Amhara. Based on available CSA data for rural Amhara, it was expected that the sanitation coverage in ignition woredas and kebeles in Amhara would be equal to 17%, and the sample chosen should be able to reflect that same figure. A plus or minus 5% precision was tolerated. Homogeneity within cluster was set at 0.4 and the design effect at 3.0.

¹⁶ Note that the four high involvement and seven direct involvement woredas are referred to as ignition woredas. There is one ignition woreda for each of the 11 zones of the Amhara Region.

3.1.2 Selection of Survey Sites, Households, and Household Informants

A multi-stage sampling approach was used. This approach required selecting woredas (districts), kebeles (sub-districts) within woredas, gotts (villages or groups of villages) within kebeles, and households within gotts. A total of 22 woredas were selected for inclusion in this study. There are four high involvement woredas, seven direct involvement woredas, and 11 indirect involvement woredas.

The high involvement woredas in the study are the universe of high involvement woredas in the Amhara Region. That is, all high involvement woredas were chosen for this study. The direct involvement woredas were selected on purpose to represent the 11 zones that make up the Amhara Region. These are the woredas that the Learning by Doing Program wants to convert into models and as a training ground for other woredas in the zones. The indirect involvement woredas to the direct involvement woredas in each one of those zones.

Administratively, woredas are divided into kebeles, and kebeles are subdivided into gotts. The gott is the smallest administrative unit, and in this study they constitute the sampling clusters. The clusters chosen in the study were selected at random from five kebeles per woreda. The kebeles were also chosen at random using a simple random selection technique. For cluster selection, a population proportion to size method was honored.

For the household survey, once a specific gott had been selected, a central location in the gott was identified, and a "bottle rotation technique" was employed to select the first household in the cluster. Accordingly, the first household where the neck of the bottle pointed was picked as the starting point and the five consecutive households to the right direction of the first household were selected as the study subjects. Households with children under five years of age were selected to participate. The respondents in the household survey were adult female child caretakers or mothers. Table 1 and Map 2 depict the woredas included in the survey. Gotts selected in this study can be found in Appendix 1.

	Zone	High Involvement Woredas	Direct Involvement Woredas	Indirect Involvement Woredas	Total Survey Sites
					at Different Level
1	East Gojam	-	Deber Elias	Dejen	2
2	West Gojam	Achefer	Jabitena		2
3	Bahir Dar	-	Tis Abay	Bahir Dar Town	2
4	Awi	-	Shekodod	Ankasha	2
5	North Gonder	Gonder Zuria	-	Takussa	2
6	South Gonder		Ebenat	Dera	2
7	Wag Humerha	-	Sekota	Dehena	2
8	North Wollo	-	Mekit	Lasta	2
9	South Wollo	Tehoilederie	Kutaber		2
10	Oromia	-	Dawochefa	Artuma	2
11	North Shoa	Kewet		Debre Birhan Town	2
	Total Woredas	4	9	9	22
	Number of				
	kebeles	20	45	45	110
	Total number	745	586	669	2,000
	of sample				
	households				

Table 1: Location of Surveyed Woredas for Learning by Doing Program Baseline

Map 2 - Amhara Region Showing the Different Woredas Surveyed



3.1.3 Selection of Informants for Schools and Woredas

All formal schools that were located in randomly selected rural kebeles and which were open on the date of the survey were covered by the school hygiene and sanitation assessment. The principal or vice principal of the visited schools were the respondents of the survey.

The institutional level assessment targeted the woreda and kebele WASH committee members. Accordingly, the WASH committee chairpersons and/or secretaries who were available in the woreda's/kebele's administration offices during the dates of the survey were approached and interviewed.

3.2 Instruments

WSP/HIP drafted structured household questionnaires and semi-structured school questionnaires. These instruments were translated to Amharic, pretested, and adopted to the local situation with collaboration from consultants and experts from WSP/Ethiopia and the Amhara Regional Health Bureau.

In addition, to gather information from members of the WASH committees at the woreda and kebele levels, Michael Dejene Public Health Consultants developed a key informant interview guide, which was reviewed by ARHB and WSP/HIP.

The English version of survey tools can be found in Appendix 1.

3.3 Data Collection

3.3.1 Selection and Training of the Research Team

Data were collected by a research team of 45 people including: 30 data collectors, six field supervisors, six coordinators/qualitative data collectors, and two lead consultants. Selection of the research team members was based on their qualifications, expertise, and knowledge of the local language. All field data collectors were high school graduates and had previous experience in conducting similar studies at the community level. The supervisors and qualitative data collectors were first and second degree holders in health and/or other social science fields with experience as supervisors or survey coordinators.

The training of the supervisors and data collectors was conducted in two stages. The initial training of the field supervisors and qualitative data collectors was conducted for three days in Addis Ababa. The training of the field data collectors was carried out for three days on site.

The training allowed the research team members to become familiar with: the objectives of the study, data collection instruments, the different concepts incorporated in the questionnaire, interviewing techniques, sampling procedure, ethical considerations, observation, coding, recording, and respondent management. The last day of the second training was devoted to a practicum whereby both the data collectors and the supervisors practiced data collection using the household questionnaire in localities outside the sample areas.

3.3.2 Ensuring Quality of Data Collected

The research firm implemented different steps to ensure the quality of the data. They included: appropriate survey instrument design with needed skips and clearly written instructions, adaptation of questions and response categories to local conditions, and the revision of the completed survey to check for inconsistencies. The process of adapting the survey instruments to the local situation was carried out by experts with many years of experience in the field of water and sanitation and supplemented with pretesting of the instruments. Adequate emphasis was also placed on the selection and training of the data collectors and supervisors. The supervisors and coordinators carried out close supervision of the data collection process. As part of the supervision process, the coordinators and supervisors spot-checked the completed questionnaire, randomly selected filled questionnaires, and called the respondents to check the consistency of the answers.

3.3.3 Organization of the Data Collection Process

Organization of the data collection process started with obtaining a support letter from the Regional Health Bureau; identifying sample woredas, kebeles, and gotts; and establishing a data collection schedule with collaboration from ARHB, the WSP/HIP coordinator at the Amhara Regional Health Bureau, woreda health offices, kebele administrations, and health extension workers (HEWs).

The survey team was grouped into six sub-teams. Each sub-team had five field data collectors and a supervisor. One coordinator/qualitative data collector was also embedded with each sub-team and gave close support and supervision to the team while at the same time carrying out interviews with institution-level respondents. Two consultants jointly coordinated the activities of the teams.

During the data collection process, the sub-team leaders were physically present with the data collectors and ensured the proper selection of the surveyed households and that questionnaires were filled out as per the expected standards. On a daily basis, each team had meetings with their respective coordinators to review activities and discuss the achievements and problems faced.

3.4 Data Management and Processing

SPSS version 15 was used for data entry and processing. Full double data entry by separate and independent data entry clerks was employed to ensure the quality of data entered. Data cleaning syntax (DO-File) was used to clean the data and rectify any inconsistencies.

The data analysis for the household and school survey includes cross tabulation by the level of intensity of the interventions and certain key water and sanitation related variables. The data analysis for the school questionnaire mainly focused on identifying availability of key sanitary facilities in schools and tabulating the ratio of sanitary facilities per number of students in schools and the presence of hand washing stations in schools with necessary supplies to wash hands; the data were presented in a table format.

The records of institutional level interviews were transcribed and submitted for analysis. As part of the analysis process, findings from each interview were thematically summarized by topic.

The final report groups findings by research area, reflecting the findings from interviews and observations.

The analysis plan and dummy tables developed by USAID-HIP and WSP were used for data analysis and presentation of the findings of the survey. Frequencies, means, and proportions were used to present the data. In addition to the descriptive statistics, χ^2 tests were used to determine the strength of association between the different key variables. One-way analysis of variance (ANOVA) was used to compare the results across sampling strata for continuous variables when appropriate.

For the purpose of this assessment, the following scales were used for the presentation of the qualitative information:

- "Majority/Most" refers to ³/₄ of participants.
- "Minority/Few" refers to ¹/₄ of participants.
- Less than ¹/₄ of participants were considered outlier respondents and more than ³/₄ were termed "almost all" or "all."

3.5 Limitations of the Study

In the Terms of Reference (TOR) issued for the implementation of the baseline research, it was assumed that lists of households for each of the selected kebeles would be available with health extension workers, and this would provide a sampling frame for the random selection of the study households. However, during the survey process, the field data collection team was not able to get a complete list of households for all clusters from the health extension workers. As a result, a different sampling technique (EPI Cluster Sampling) was used to select the visited households.

The school survey is not independent from the household survey. Schools visited are those that were located in randomly selected clusters. The school results may have been different if a separate school sample had been selected.

According to the TOR and the technical proposal, the qualitative information required for the study was intended to be gathered from the health extension workers and the kebele chairpersons or officials at the kebele level and from officials of Health, Water Resources, and Education Desks at the woreda level. However, during the survey period it was found that the majority of the respondents at the kebele level, particularly the HEWs, had no knowledge base that would enable them to respond adequately to the diverse issues incorporated in the interview guide. Besides this, they were found to have some difficulties understanding basic concepts such as "joint planning," "hard and software" contents of development undertakings, and so forth. This has made the data collection process very difficult.

The other limitation was the lack of well-documented information on water and sanitation activities at all levels. There was simply no exchange of information vertically or horizontally. Informants at the kebele level did not have information about what was going on at the woreda level. As a result, the qualitative data gathered from the different levels did not correspond to one other, and it was very difficult to generate comprehensive information about different WASH-related activities taking place in the study areas.

3.6 Ethical Considerations

Prior to the commencement of the study, the objectives of the survey were introduced to the relevant officials at the Regional Health Bureau, and their approval of the study was obtained. Similarly, before the data collection was started in each of the selected woredas, officials of the Woreda Health Offices, HEWs operating at kebele level, and representatives of the local community were briefed about the objectives of the survey, and their consent was obtained.

Interviewees were also briefed about the objectives of the assessment, and their verbal consent was obtained before being enrolled in the study. Getting authorization from the heads-ofhousehold to conduct the interviews, omitting the name of the respondents from the questionnaires, and conducting the interviews with the respondents in a place where the conversations were not overheard were some of the efforts made to ensure the privacy of the interviewees as well as the confidentiality of the information they provided.

4. Findings

4.1 Household Survey

4.1.1 Background

Out of the 2,000 households participating in the study, 36.9%, 29%, and 33.2% belong to the high, direct, and indirect involvement woredas, respectively.

4.1.2 Household Composition and Other Related Socio-Demographic Characteristics

Tables 2 and 3 show the distribution of the households in the survey strata by: age of the respondents, number of household members, educational attainment of the respondent, and other basic socio-demographic characteristics.

These data indicate that all respondents were adult females (mothers or adult child caretakers). About one-third (30.6%) of them were 30-39 and a similar percent (30.3%) were 20-29. The mean and median age of the respondents was 35.4 and 30 years, respectively, and the age was a variable that was fairly normally distributed. Only 13.6% of respondents reported having formal schooling. Out of the 246 who were able to specify the grades they completed, 74.8% had a primary school level education (grade 1 to 6), whereas the remaining 25.8% reported a secondary school level education (grade 7 and above). The mean number of school years completed by the respondents that attended school was 4.93. Findings further showed that a significantly higher proportion of the respondents from the indirect involvement woredas reported attending formal school (χ^2 =21.8, P=000).

About two-thirds (63.3%) of the households had five or more members, and only 1.3% of households were single person households. The average household contained 5.3 people. Thirty-seven percent of the households with children reported having one or more children under the age of five. On the average, there were nearly two children under the age of five per household.

			Sampling Stratur	n			
Categories of Variable	Specific Indicators/Variables	High Direct Involvement	Intermediate Direct Involvement	Indirect Involvement	Total	χ ² / One way ANOVA	P- value
	Number and % of	86	61	124	271	21.8	.00
	respondents that attended school	11.6%	10.4%	18.6%	13.6%		
Characteristics of Respondents	Mean number of school years completed	4.68	5.16	4.97	4.93	0.5	.61
	Number and % of respondents self	87	59	101	247	7.8	.02
	declared literate	11.7%	10.1%	15.2%	12.4%		

Table 2. Free	mency and	Percent	Distribution	of Educational	Variables P	v Sam	nlino	Strata
1 abic 2. 1 ice	fucincy and	I CICCIII .	Distribution	of Luucational	vallabics L	y Sam	pung	Juara

	Sampling Stratum							
Socio-Demographic	High Direct		Interm	ediate	Ind	irect	-	
Characteristics	Invol	vement	Direct Inv	olvement	Involv	ement		otal
Age	N/ Mean	0/-	N/ Mean	0/.	N/ Mean	0/-	N/ Mean	0/-
less than 20	30	7 0 4 1	24	70 4 1	20	3.0	74	37
20-24	86	11.6	75	12.9	71	10.7	232	11.7
25-29	140	18.0	104	17.9	125	18.8	369	18.6
30-34	118	16.0	110	19.0	111	16.7	339	17.1
35-39	84	11.0	85	14.7	98	14.8	267	13.5
40-44	92	12.4	70	12.1	80	12.0	242	12.2
45-49	48	6.5	35	6.0	50	7.5	133	67
50 and above	141	19.1	77	13.3	109	16.4	327	16.5
Total	739	100.0	580	100.0	664	100.0	1.983	100.0
Mean age	35.8	100.0	34.3	100.0	35.9	100.0	35.4	100.0
	55.0		5115					
Size of Household								
0	1	0.1	0	0.0	0	0.0	1	0.1
1	7	0.9	12	2.0	5	0.7	24	1.2
2	47	6.3	37	6.3	43	6.4	127	6.4
3	97	13.0	65	11.1	76	11.4	238	11.9
4	117	15.7	100	17.1	124	18.6	341	17.1
5	147	19.7	102	17.4	126	18.9	375	18.8
6	109	14.6	110	18.8	118	17.7	337	16.9
7	114	15.3	78	13.3	72	10.8	264	13.2
8	63	8.5	55	9.4	65	9.7	183	9.2
9 or more	43	5.8	27	4.6	39	5.8	109	5.5
Total	745	100.0	586	100.0	668	100.0	1,999	100.0
Average Size of the Household	5.31		5.28		5.3		5.3	
0	021	(27	701	60.0	052	64.6	2495	(20
1	931	20.8	400	34.2	304	20.8	1220	02.9 31.1
2	430	<u> </u>	63	5.4	60	<u> </u>	220	5.6
3	00	0.0	2	0.3	1	0.2	11	0.3
4	4	0.0	<u> </u>	0.5	<u>+</u> 0	0.5	11	0.5
5	3	0.0	0	0.1	1	0.0	1	0.0
Total	1 462	100.0	1 168	100.0	1321	100.0	4 3 051	100.0
Average Number of Children	1,402	100.0	1,100	100.0	1541	100.0	3,931	100.0
Under 5	1.5		1.4		1.4		1.4	

Table 3: Number and Percent Distribution of the Basic Socio-Demographic Characteristics of the Respondents by Sampling Strata

4.1.3 Household Characteristics and Construction Materials

The survey collected information on the type of residential quarters families lived in and the household construction materials used. Findings are presented in Table 4.

They indicate that just over 68% of the surveyed households were individual family homes and almost 25% shared a compound with other families, with no statistically significant variations by sampling strata.

Wood and mud (89%) were the most commonly used wall materials. The use of other materials like cane/trunk/bamboo/reed, cement, and cement block to construct walls was rare, regardless of the sampling strata.

Corrugated iron sheet (64.9%) and reeds/leaves (27.9%) were the two most commonly used materials by the households to construct the roof of the main living area.

The majority of households used cattle dung for flooring (82.7%), with dirt or sand being the second alternative (16%). Only 1.3% of the households used other materials like wood planks, ceramic tiles, cement bricks, plastic, cement concrete tiles, etc. as a flooring material for the main living room where the survey interview was generally held.

No significant variation was observed among the living condition of the respondents from the different strata in the location of the housing units (χ^2 =1.059, P=0.589), in the use of roofing materials (χ^2 =4.950, P=0.084), and in the use of flooring materials (χ^2 =3.487, P=0.175).

		Sampling	g Stratum (I	evel of Invo	lvement)			
Categories of Variable	Н	igh	Di	rect	Indirect		Total	
	No.	%	No.	%	No.	%	No.	%
Type of the residential quarter								
Individual home on its one lot	494	66.9	407	69.6	456	68.4	1,357	68.2
House located in a communal compound	163	22.1	150	25.6	180	27.0	493	24.8
Others	81	11.0	28	4.8	31	4.6	140	7.0
Total	738	100.0	585	100.0	667	100.0	1,990	100.0
Walling materials								
No walls	0	0.0	0	0.0	1	0.1	1	0.0
Cane/trunk/bamboo/reed	1	0.1	2	0.3	1	0.1	4	0.2
Bamboo/wood	17	2.3	9	1.5	25	3.7	51	2.5
Stone with mud	6	0.8	85	14.3	58	8.5	149	7.4
Cement	1	0.1	0	0.0	0	0.0	1	0.0
Cement blocks	0	0.0	0	0.0	2	0.3	2	0.1
Wood and mud	715	95.6	495	83.5	591	86.5	1,801	89.0
Other wall materials	8	1.1	2	0.3	5	0.7	15	0.7
Total	748	100.0	593	100.0	683	100.0	2,024	100.0
Roofing material								
Thatch/leaf	177	23.6	153	26.0	230	34.4	560	27.9
Rustic mat/plastic sheet	3	0.4	1	0.2	1	0.1	5	0.2
Reed/bamboo	34	4.5	32	5.4	26	3.9	92	4.6
Wood planks	1	0.1	0	0.0	1	0.1	2	0.1
Corrugated iron sheet	514	68.6	389	66.2	399	59.7	1,302	64.9
Wood	3	0.4	3	0.5	6	0.9	12	0.6
Wood, mud, and thatch	0	0.0	3	0.5	0	0.0	3	0.1
wood and iron sheets	17	2.3	7	1.2	5	0.7	29	1.4
Total	749	100.0	588	100.0	668	100.0	2,005	100.0
Flooring materials								
Dirt/Sand	126	16.9	75	12.8	118	17.7	319	16.0
Dung	612	82.1	503	85.8	538	80.7	1,653	82.7
Wood planks	0	0.0	0	0.0	1	0.1	1	0.1

Table 4: Physical Characteristics of the Households by Sampling Strata

Total	745	100.0	586	100.0	667	100.0	1,998	100.0
Others	0	0.0	1	0.2	0	0.0	1	0.1
Cement/concrete	1	0.1	1	0.2	0	0.0	2	0.1
Plastic tiles	0	0.0	3	0.5	1	0.1	4	0.2
Cement bricks	6	0.8	2	0.3	8	1.2	16	0.8
Ceramic tiles	0	0.0	1	0.2	1	0.1	2	0.1

4.1.4 Sanitation Facilities

4.1.4.1 Access and Availability of Sanitation Facilities in the Households

Safe disposal of human feces is the critical first step in preventing fecal-oral contact and other routes of disease transmission.

Findings of the survey showed that only 19% of the households have access to improved sanitation facilities and a considerably high percentage, 63.4%, practice open defecation. The remaining 17.4% have access to unimproved sanitation facilities. No differences across sampling strata were detected with respect to the installer. Only in 4% of the cases was the installer a mason. Analysis of results further showed that a significantly higher percentage of respondents from the high and indirect involvement woredas were practicing open defecation (χ^2 =25.849, P=0.000). However, a significantly higher percentage of households from the direct involvement stratum has access to unimproved sanitation facilities (χ^2 =16.687, P=0.000).

Further assessment of the installation and location of the sanitary facilities revealed that 73.8% of the households' toilets were attached to dwellings or located in the compound or the premise. In 87% of the cases, members of the households carried out the installation of the toilets. In most cases, that family member was the spouse or the older son of the respondent. On average, about 3.7 years have elapsed since the households installed their toilets. Details on access to sanitary facilities appear in Table 5.

Categories		Level of Involvement			Total	γ^2	р
of Variables	Specific Indicators/Variables	High	Direct	Indirect		One way ANOVA	
Access to sanitary facilities	No. & % of households owning latrines	232	260	234	726		
		31.1%	44.4%	35.0%	36.4%		
	No. & % of households practicing open defecation	511	324	433	1,268	25.8	.00
		68.6%	55.3%	64.8%	63.4%		
	No. & % of households with access to unimproved sanitation facilities ¹⁷	108	133	107	348	16.6	.00
		14.5%	22.7%	16.0%	17.4%		
	No. & % of households with access	124	127	127	378	5.4	.06
	to improved sanitation ¹⁸	16.6%	21.7%	19.0%	18.9%		
Installation	No. & % of households where	185	205	162	552	9.2	.01
and Location	installation of sanitary facility done by household member (e.g., spouse)	82.2%	80.7%	71.4%	78.2%		
of Sanitary Facility	Average number of years elapsed since installation of sanitary facility	2.9	3.6	4.6	3.7	4.7	.01
	No. & % of households with sanitary facility attached to dwelling or on compound premises	172	189	171	532	.25	.88
		74.5%	72.7%	74.3%	73.8%		
		36.1%	42.7%	43.0%	40.7%		

Table 5: Access and Availability of Sanitation Facilities in the Households

The cross tabulation made between the place of defecation and the household characteristics showed that a significant proportion of the respondents living in individual homes (separate compounds) practice improved sanitation (χ^2 =10.115, P=0.006). However, a significant proportion of respondents that live in a communal compound were found to practice open defecation (χ^2 =13.44, P=0.001). It is hard to determine what explains these differences. Two hypothetical interpretations are offered. One, that sharing space may require that collective decisions be made about the latrine, including specifications, location, cost-sharing, etc. In that context, decision making may be difficult. And two, respondents may have a preference for not sharing latrines. Future studies should explore what may explain this finding. Table 6 presents information on basic household characteristics versus sanitation facilities.

 ¹⁷ Unimproved sanitation facilities include: pit latrines without slabs, hanging latrines, or bucket latrines.
¹⁸ Ibid

¹⁸ Ibid
		Pla	ace of Defecation	n	Total	$\chi^2/$	р
	Specific Indicators/Variables	Open Defecation	Unimproved Sanitation	Improved Sanitation		ANOVA	
	No. & % of	832	244	279	1,355	10.1	.00
	respondents living in individual homes (separate compound)	65.9%	70.3%	74.2%	68.2%		
	No. & % of	343	80	68	491	13.4	.00
	respondents living in communal compounds	27.2%	23.1%	18.1%	24.7%		
Household	No. & % of	3	1	1	5	.032	.98
Household Characteristics and Assets	respondents living in homes with solid wall materials (cement blocks, stone, bricks, cement)	0.2%	0.3%	0.3%	0.3%		
	No. & % of	7	4	8	19	7.7	.02
	households with solid flooring (polished wood, vinyl, ceramic tiles, cement brick)	0.6%	1.1%	2.1%	1.0%		

Table 6: Basic Household Characteristics versus Sanitation Facilities in Households

Practices related to the hygienic disposal of a child's feces showed that only 7.8% of the households with children under the age of three "contained" the child's feces with a diaper, potty, or sanitary facility the last time the child passed a stool. Similarly, only one-quarter of the households reported hygienic disposal of a child's feces the last time the child passed a stool. However, no significant variation was observed between households from the three strata on their practice of hygienic disposal of child feces (Table 7).

Table 7: Practices Related to Hygienic Disposal of Child Feces

Categories of		Leve	el of Involv	vement		$\sqrt{2}$	
Variables	Specific Indicators/Variables	High	Direct	Indirect	Total	One way ANOVA	р
Households	No. & % of households with children	312	279	274	865	6.1	.05
in cohort	under 3 years of age	42.2%	47.7%	41.2%	43.5%		
	No. & % of households reporting	26	20	20	66	.51	.77
Sanitation	"contained" defecation (in diaper, potty, or sanitary facility) for children < 3 last time they passed a stool	8.6%	7.2%	7.4%	7.8%		
Practices	No. & % of households reporting	61	76	67	204	3.8	.15
	hygienic disposal of child feces for children <3 last time they passed a stool	20.7%	27.5%	25.5%	24.5%		

4.1.4.2 Condition and Maintenance of the Sanitary Facilities in the Households

Table 8 presents information on the condition and maintenance of the sanitary facilities in households. Denominators change depending on the number of respondents answering positively to some pre-condition necessary to "qualify" them for the question. For example, percentage of households reporting the use of products to control the smell is based on the number of households that have sanitary facilities. However, the percentage of households with soap at a hand washing station near a latrine is based on the number of households that keep a hand washing station near the latrine.

The conditions of the sanitary facilities observed during the survey showed that out of those households having access to latrines and those allowing their latrines to be observed by the data collectors, nearly 37% of the toilets were found to have no walls and roofs. Only 39.8% had curtains or doors at their entrance. Still only 27.7% of the toilets observed had a covered pit. The above findings indicate that more than 70% of the toilets did not fulfill the minimum standard a toilet should have. The attempt made to find out about the conditions of the toilets in the three strata showed that a significantly high proportion of households from indirect involvement woredas were more likely to own latrines that had walls (χ^2 =14.612, P=0.001) and roofs (χ^2 =11.19, P=0.004). The data also showed that households from high involvement woredas were more likely to own latrines with a covered pit (χ^2 =11.193, P=0.004).

The information gathered on the availability of hand washing facilities near a toilet and the use of water and soap at these hand washing stations showed that less than one-fifth (17.1%) of the latrines had a nearby hand washing facility, and out of those, 60.4% of the hand washing facilities were reported to have water. However, only 14% of the hand washing stations had soap.

Respondents were further asked about the activities their respective households have performed in order to maintain the toilets they own. Accordingly, 6.4% declared they had emptied the pit and 14.7% mentioned adding a product to control smell and flies. Of the latter group, 33.3% reported adding ash to the pit for smell and fly control.

		Leve	el of Involve	ment		$\sqrt{2}$	
Categories of Variables	Specific Indicators/Variables	High	Direct	Indirect	Total	One way ANOVA	P- value
	No. & % of households with	122	158	162	442	14.6	.00
	latrines that have walls	53.7%	63.2%	71.1%	62.7%		
	No. & % of households with	118	158	148	424	11.2	.00
	latrines that have a roof	53.9%	66.4%	67.9%	62.8%		
	No. & % of households with	85	102	83	270	1.2	.53
Conditions	latrines that have a door or curtain at entrance	39.0%	42.5%	37.6%	39.8%		
of Sanitary	No. & % of households with	80	54	57	191	11.2	.00
Facilities	latrines where pit is covered	35.7%	22.3%	25.6%	27.7%		-
	No. & % of households with	148	166	151	465	.02	.98
	latrines that are clean	65.8%	66.4%	66.2%	66.1%		
	No. & % of households with	39	40	38	117	.13	.93
	latrines with nearby hand washing station	17.7%	16.5%	17.1%	17.1%		
	No. & % of households with	9	5	3	17	4.1	.13
	hand washing stations near latrines with soap	23.7%	11.6%	8.1%	14.4%		
	No. & % of households with	25	26	16	67	2.0	.36
	hand washing stations with nearby latrines that have water	64.1%	65.0%	50.0%	60.4%		
	No. & % of households with	34	28	43	105	5.7	.05
	sanitary facilities declaring to add product to control smell/flies	14.8%	11.0%	18.8%	14.7%		
	No. & % of households	13	16	5	34	12.4	.00
Maintenance	adding ash to sanitary facilities to control smell/flies	41.9%	50.0%	12.8%	33.3%		
	No. & % of households with	24	15	7	46	11.1	.00
	sanitary facilities declaring to have emptied pit	10.5%	5.8%	3.0%	6.4%		
	No. & % of households with	1	1	0	2	.61	.74
	sanitary facilities that emptied pit that deposited sludge not in a waterway	4.5%	8.3%	0.0%	5.0%		
	No. & % of households with	23	14	4	41	.768	.68
	sanitary facilities continuing to use emptied pit	95.8%	100.0%	100.0%	97.6%		

Table 8: Condition and Maintenance of the Sanitary Facilities in the Households

4.1.4.3 Respondents' Attitudes and Beliefs Toward Having a Latrine

Respondents were asked to express their view using four scale responses (i.e., I fully agree, I partially agree, do not want to give comment, and I fully disagree) for 16 items measuring attitudes and beliefs intended to illicit response on motivators behind toilet ownership. The answers given by the respondents were further cross-tabulated by grouping the households as open defecation versus contained defecation practitioners. Scale scores were compared across households not owning and owning sanitary facilities. Results showed that some perceived benefits of latrine use were shared by open defecators and latrine defecators, such as privacy, ease of use, and reduction of danger and disease. But when comparing other benefits between users and non-users of latrines, statistically significant differences reveal possible motivators of

latrine defecators: feeling modern, being respected by members of the community and visitors, and allowing women privacy any time of the day. In addition, toilet owners perceive that sanitation facilities contribute to keeping the house compound clean and facilitate defecation for the elderly. Results of this analysis are presented in Table 9.

	Practitioners of Open defecation	Households with Sanitary Facilities	F	p value
Makes owners modern	3.86	3.94	11.1	.00
Makes owners respected members of their communities	3.90	3.95	8.4	.00
Makes owners respected by visitors that come to their house	3.91	3.98	14.1	.00
Makes owners popular	3.76	3.85	7.2	.00
Makes family members proud	3.83	3.89	5.2	.02
Allow women to have privacy any time of the day	3.93	3.96	2.1	.01
Helps keep the family compound clean	3.93	3.97	5.2	.02
Does not help to reduce the number of flies in the house	1.80	1.79	0.05	.81
Allows you to defecate easily when you are sick	3.89	3.92	1.1	.29
Allows you to defecate easily when you are old	3.90	3.94	5.3	.02
Reduces the possibility of disease in your family	3.89	3.92	2.7	.10
Gives latrine users more privacy	3.90	3.91	0.6	.43
It is a nuisance to go to the latrine all the time to defecate	1.36	1.27	4.5	.03
Avoids the dangers that could be faced while defecating in the bush at night	3.88	3.92	2.3	.12
It requires a lot of effort to maintain a latrine	3.66	3.64	0.3	.53

Table 9: Respondents' Attitudes and Beliefs toward Having a Latrine

4.1.4.4 Reasons for Building a Latrine

Households that own latrines were asked to mention their reasons for building the latrine. Multiple responses were possible. Accordingly, feelings of shame for contaminating the environment (40.9%), convenience (27.4%), security (12.7%), and disease prevention (12.7%) were found to be the four common motivating factors for building toilets. Comfort, status, and privacy as the main reasons for building latrines were mentioned only by 11.7%, 5.9%, and 2.6% of the respondents, respectively. For the most part, there were no statistical differences across sampling strata. The exception to this rule occurred in the case of justifying the installation of a latrine for security reasons, which is higher in the direct involvement strata compared to the other two. These findings are presented in Table 10.

Table 10:	Reasons	for E	Building	Sanitary	Facilities	in the	Households
				~			

		Level of Involvement				γ^2	
Categories of Variables	Specific Indicators/Variables	High	Direct	Indirect	Total	One way ANOVA	р
	No. & % of households that installed latrine for status	15	15	13	43	.19	.9
		6.4%	5.7%	5.5%	5.9%		
		25	35	25	85	1.1	.56

	No. & % of households that installed latrine for comfort	10.7%	13.4%	10.7%	11.7%		
		75	62	63	200	5.5	.23
	No. & % of households that installed latrine for convenience	32.2%	23.7%	26.8%	27.4%		
Reasons for		8	8	3	19	2.4	.29
Building Latrine	No. & % of households that installed latrine for privacy	3.4%	3.1%	1.3%	2.6%		
	No. & % of households	30	24	39	93	6.1	.04
	that installed latrine for security	12.9%	9.2%	16.6%	12.7%		
	No. & % of households	30	24	39	93	7.4	.11
	that installed latrine for disease prevention	12.9%	9.2%	16.6%	12.7%		
	No. & % of households	5	10	6	21	1.3	.50
	that installed latrine not to be shared with others	2.1%	3.8%	2.6%	2.9%		
	No. & % of households	84	112	101	297	4.9	.29
	that installed latrine for shame of environmental contamination	35.9	42.6	42.8	40.9		

4.1.4.5 Reasons for Not Building Latrine

Households without sanitation facilities were asked to mention their major reasons for not constructing the latrines. Multiple responses were possible. In essence, when grouped together, the reasons behind the obstacles are mainly associated with lack of land because of tenancy constraints or lack of space, or with lack of skills in house. In order of frequency respondents mentioned the following obstacles as the major reasons for not constructing and using latrines (Table 11): absence of a person in the household who is capable of building a latrine (17.4%), not owning land that can be used to build a latrine (12.2%), shortage of land that can be used to build a latrine (10.3%), not having the skill to build a latrine (9.1%), no expert mason in the area (4.3%), and cost (4.3%).

Table 11: Reasons for Not Building Sanitary Facilities in the Households	

	Lev	vel of Involveme	ent		γ^2	
Reasons for Not Building Latrine	High	Direct	Indirect	Total	One way ANOVA	P-value
Not owning land	42	60	53	155	19.1	.00
inot owning land	8.2%	18.6%	12.2%	12.2%		
Shortage of land that can be used for latrine	59	36	49	144	.043	.97
construction	11.6%	11.1%	11.3%	11.4%		
Land situation (loose soil)	27	14	12	53	3.7	.15
	5.3%	4.3%	2.8%	4.2%		
	23	17	24	64	.55	.75
Lack of construction materials	4.5%	5.2%	5.5%	5.1%		
	14	18	22	54	4.9	.08
Absence of expertise (mason) in the area	2.7%	5.6%	5.1%	4.3%		
Absence of a person in the household that	86	50	85	221	2.4	.29
can construct the larine	16.9%	15.5%	19.6%	17.5%		
	27	15	11	53	4.6	.09
rign construction cost	5.3%	4.6%	2.5%	4.2%		

Lask of skill to construct the latrice	40	25	51	116	5.4	.06
Lack of skill to construct the lattile	7.8%	7.7%	11.8%	9.2%		
Difficulty in getting permission from	0	2	2	4	2.8	.24
authorities	0.0%	0.6%	0.5%	0.3%		
Other priorities	47	40	43	130	2.14	.34
Other phonues	9.2%	12.3%	10.0%	10.3%		
Novy to the ener	14	13	13	40	1.1	.57
new to the area	2.7%	4.0%	3.0%	3.2%		
Combrane	16	10	10	36	.67	.71
Carelessness	3.1%	3.1%	2.3%	2.8%		
	5	0	12	17	11.6	.00
Keady to dig	1.0%	0.0%	2.8%	1.3%		
Lack of time	38	17	17	72	5.5	.06
	7.4%	5.2%	3.9%	5.7%		
Tried but failed as the land was hard	19	12	19	50	.34	.84
(stony) to dig the pit	3.7%	3.7%	4.4%	3.9%		
	19	5	7	31	5.8	.05
Not comfortable using latrines	3.7%	1.5%	1.6%	2.4%		
	37	18	25	80	1.2	.53
Lack of adequate information	7.2%	5.6%	5.8%	6.3%		
Problems related to physical and economic	58	46	44	148	3.0	.22
capacity to construct latrines	11.4%	14.2%	10.2%	11.7%		
Others	35	19	51	105	9.9	.00
Otners	7.8%	6.8%	13.1%	9.4%		

We wanted to explore the reasons why latrines have not been built by open defecators dissatisfied with their defecation practices. An analysis was done breaking down open defecators into two sub-groups: those not intending to change their sanitary conditions in the 12 months following the survey, and those intending to do so within that time frame. Reasons cited by open defecators for not intending to change their sanitary conditions include the following: lack of land/not owning land (χ^2 =21.9, P=. 000) and inadequate space to build latrine (χ^2 =7.62, P=. 02). On the flip side, reasons more frequently mentioned by those that do intend to change their sanitary situation include: having other priorities in the household (χ^2 , 13.22, P=. 000) and cost (χ^2 , 12.67, P=. 000) (Table 12). It would seem that the reasons among the non-intenders to not built latrines are structural. However, the reasons among intenders to explain why latrines have not yet been built are contextual or temporary.

Table 12: Reasons for Not Building Sanitary Facilities among Open Defecators by Intention to Change Sanitary Condition in the Future

Reasons for Not Building Sanitary Facilities	Open defecators dissatisfied with their situation with no intention to remedy situation in following 12 months (n=165)	Open defecators dissatisfied with their situation intending to change their situation in following 12 months (n= 799)	χ^2	P-value
No one in household to build	18.9%	17.6%	0.63	.73
latrine				
Lack of land	21.8%	12.2%	21.9	.00
No space/land to build latrine	17.6%	10.8%	7.6	.02
No skills to construct latrine	10.3%	9.3%	0.5	.74
Other priorities in household	3.6%	12.4%	13.2	.00

No expert mason nearby	5.5%	5.0%		
Too expensive	7.9%	4.5%	12.6	.00
Other reasons	39.6%	43.9%	23.8	.00

Table 13 presents the level of satisfaction of the respondents with the sanitary condition of their respective households. Accordingly, 53% of the respondents expressed their dissatisfaction with their current level of sanitation, and the great majority (78.5%) of the respondents that expressed their dissatisfaction with their current sanitation condition belonged to the group practicing open defecation. Many had no opinion on the issue of satisfaction, including many of those (652/888) having some sort of a latrine.

 Table 13: Level of Satisfaction of the Respondents with Sanitary Conditions of their Respective Households

Level of Satisfaction with the Current Sanitary		H	Place of Defecat	ion	
	Specific Indicators/Variables	Open Defecation	Unimproved Sanitation	Improved Defecation	Total
	Unsatisfied	990	33	29	1,052
	Unsatistieu	78.5%	9.6%	7.7%	53.1%
	Satisfied	35	4	2	41
Conditions		2.8%	1.2%	0.5%	2.1%
	No Opinion	236	308	344	888
	No Opinion	18.7%	89.3%	91.7%	44.8%
	T1	1,261	345	375	1,981
	Total	100.0%	100.0%	100.0%	100.0%

4.1.4.6 Exposure to Information about Sanitation

The following table presents data about exposure of households to sanitation messages by source of information and sampling strata. Fifty-two percent declared having been exposed to sanitation information in the month prior to the survey. The two most common sources of information among those reporting exposure were: village health educators (52%) and the local health center (40.4%).

 Table 14: Exposure to Sanitation Messages by Source and Sampling Strata

S	ource of Information	High	Direct	Indirect	Total	χ^2	р
		Involvement	Involvement	Involvement			
Exp	osed to Sanitation	392	271	368	1031		
Info	ormation	53.1%	46.3%	55.2%	51.8%	10.6	.00
S	Village Health	204	151	192	547	1.3	.52
0 U	Educator	51.3%	55.5%	51.9%	52.6%		
	Health Center	164	96	160	420	4.3	.11
R		41.3%	35.3%	43.2%	40.4%		
C	School Children	6	5	4	15	.65	.72
E		2.0%	1.8%	1.1%	1.4%		

There is a relationship between exposure to sanitation messages and the existence of sanitary facilities. Whereas only 48% of open defecators declared having been exposed to sanitation messages in the month prior to the survey, percentages for respondents in households with

unimproved sanitation facilities or with improved sanitation facilities (even though in some instances shared) was 60% and 58%, respectively. That is, exposure to such messages is less frequent among open defecators than among the other two categories. The relationship between these variables is statistically significant (Chi2= 230.8, p=.00). The presence of this relationship does not imply causality as it is hard to say whether the existence of sanitary facilities is a cause or an effect of the exposure.

4.1.4.7 The Role of Men in the Hygiene Situation of Households

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Respondents were asked different questions to find out the role male heads and other members of the household play in the hygienic situation of the households. Accordingly, findings showed that in the majority of the cases, male heads of households often make decisions and are involved in hygiene-related activities for a limited period of time. But the majority of women and other members of the households are often responsible for hygiene and sanitation-related activities that demand their continuous day-to-day involvement. In this regard, results showed that 71.6% of the households with latrines mentioned that male household heads made decisions on the construction of the latrine, and in 78.2% of the households they decided on the location of the latrine and constructed the latrine. Only 11.6% of the respondents' husbands were found involved in cleaning the toilets, 0.6% in checking the availability of water in a hand washing basin, and 0.1% in disposing the feces of a young child. Similarly, only in about one-third (35.3%) and one-tenth of the cases male heads of households decide on the purchase of soap and pick the type of container used to store drinking water, respectively (Table 15).

Categories of Variables	Specific Indicators/Variables	Lev	vel of Involvem		χ²/ One way ANOVA	P value	
		High	Direct	Indirect	Total		
	No. & % of households	172	179	164	515	3.5	.01
	where the husband decides on the construction of the toilets	76.1%	68.6%	70.7%	71.6%		
	No. & % of households	187	204	168	559	6.3	.04
	where the husband decides on the location where the latrine is to be constructed	82.0%	79.7%	72.7%	78.2%		
	No. & % of households	185	205	162	552	9.3	.01
	where the husband constructs the toilets	82.2%	80.7%	71.4%	78.2%		
	No. & % of households	1	0	0	1	1.8	.40
	where the husband disposes the feces of the young child	0.3%	0.0%	0.0%	0.1%		
	No. & % of households	5	2	1	8	2.8	.24
Gender Considerations	where the husband checks availability of water in hand washing basin	1.0%	0.5%	0.2%	0.6%		
	No. & % of households	6	2	1	9	5.2	.07

 Table 15: The Role of Men and Other Household Members in the Hygiene Situation of Households by Sampling Strata

where checks soap/a washir	the husband s the availability of ash near the hand ng basin	15.8%	4.9%	2.7%	7.8%		
No. &	% of households	35	24	23	82	5.3	.07
where cleans	the husband the toilet	15.7%	9.5%	10.0%	11.6%		
No. &	: % of households	225	189	224	638	.38	.82
where decide of soa	the husband es on the purchase P	34.4%	35.8%	35.9%	35.3%		
No. &	: % of households	48	47	71	166	5.8	.05
where the typ store c	the husband picks be of container to drinking water	8.5%	10.0%	12.9%	10.5%		
No. &	: % of households	2	0	3	5	2.4	.30
where cleans contai	the husband drinking water ners	0.4%	0.0%	0.5%	0.3%		

4.1.5 Hand Washing Related Awareness and Practices

4.1.5.1 Knowledge of Critical Junctures

Respondents' awareness of the importance of hand washing using water and soap or an alternative cleansing agent such as ash at critical junctures—before preparing food, eating, feeding a child, and after using the toilet and cleaning the bottom of a child—is critical for them to adapt safe hand washing behavior.

To illicit information on the level of respondent awareness about critical junctures, respondents were asked to mention spontaneously when they think it is important to wash their hands. Accordingly, 63.1% mentioned that it was important to wash hands before eating, 45.7% said before preparing food, 1% said after defecation, and only 5.4% said after cleaning a child's buttocks. Respondents from high and direct involvement woredas were more likely to know the importance of hand washing after defecation (χ^2 =18.95, P=0.000), before preparing food (χ^2 =29.23, P=0.000), and before feeding a child (χ^2 =6.920, P=0.031), but overall knowledge levels were still quite low.

Informants were further asked to state the reasons why people need to wash their hands. Accordingly, 40% and 32%, respectively, mentioned to prevent dirt from getting into food and into the mouth. Removal of germs from the dirty hand was mentioned by 9%, and prevention of diarrhea was mentioned by 5%. Avoiding dirt contact with the mouth seemed to be the most frequently mentioned reason for informants to wash hands in the high and direct strata (χ^2 =17.214, P=0.002); however, not getting dirt in the food was the most frequently mentioned reason for hand washing in the direct involvement strata (χ^2 =12.18, P=0.002). Findings on the respondents' awareness of the critical junctures in hand washing is presented in Table 16.

Categories		S (Le	ampling Str vel of Involv	atum vement)	Total	χ ² /	Р
Variables	Specific Indicators/Variables	High	Direct	Indirect	Iotai	One way ANOVA	-
	No. & % of informants who know	150	138	94	382	18.9	.00
	to wash after defecation	20.1%	23.5%	14.1%	19.1%		
	No. & % of informants who know		25	43	108	2.8	.23
Knowladaa	to wash after cleaning a child	5.4%	4.3%	6.4%	5.4%		
Allowledge	No. & % of informants who know	364	300	249	913	29.2	.00
Junctures	to wash before food preparation	48.9%	51.2%	37.3%	45.7%		
	No. & % of informants who know	77	49	43	169	6.9	.03
	to wash before feeding a child	10.3%	8.4%	6.4%	8.5%		
	No. & % of informants who know	481	383	397	1,261	5.8	.05
	to wash before eating	64.6%	65.4%	59.4%	63.1%		
	No. & % of informants who	242	214	176	632	17.2	.00
	mention no dirt into mouth	32.5%	36.5%	26.3%	31.6%		
Reasons	No. & % of informants who	268	265	256	789	12.1	.00
for	mention no dirt into food	36.0%	45.2%	38.3%	39.5%		
Washing	No. & % of informants who	34	34	39	107	1.4	.48
Hands	mention diarrhea prevention	4.6%	5.8%	5.8%	5.4%		
	No. & % of informants who	67	56	61	184	2.1	.71
	mention removal of germs	9.0%	9.6%	9.1%	9.2%		

Table 16: Knowledge of Critical Junctures in Hand Washing

According to the data, 27.2% of respondents indicated that they had been exposed to information about hand washing. No statistical difference from the sampling strata was detected.

Table 17 shows the breakdown of the reported channels for exposure to hand washing information. The village health educator was the most frequently mentioned channel for hand washing information followed by the health center. The role played by either radio or school children to relay hand washing information was relatively limited. However, the data in Table 17 also show significant differences across sampling strata for the most frequently mentioned information channels. Whereas village health educators were more frequently mentioned as information sources in the direct involvement woredas, that role was played by the health center in the indirect involvement areas. These differences are statistically significant.

Source of	High	Direct	Indirect	Total	χ^2	р
Information	Involvement	Involvement	Involvement			
Health Center	94	60	86	240	8.2	.02
	45%	33.7%	47.8%	42%		
Village Health	11	110	81	301	10.1	.01
Educator	53%	62%	45%	53%		
Radio	4	4	8	16	2.5	.28
	2%	2.2%	4.4%	2.8%		
School Children	6	0	1	4	2.9	.23
	2.0%	0%	0.6%	0.7%		

Table 17: Sources of Information for Hand Washing

Table 18 presents data on the relationship between exposure and knowledge of the critical hand washing junctures. In general, informants that reported exposure to hand washing information were more frequently aware of the critical hand washing junctures. The exception to the rule was before feeding a child. Hand washing after cleaning a latrine or cleaning a potty have not been traditionally included in messages about hand washing. They are presented in this table

because they were mentioned by informants. In neither of these junctures were there statistically significant differences by exposure.

Critical Juncture Mentioned Spontaneously	Expo	sure	2	р
	Not exposed	Exposed	χ-	r
After defecation	254	128	5.7	.01
	17.9%	22.6%		
After cleaning child's bottom or changing a diaper	80	27	61	25
	5.6%	4.8%	.01	.23
After cleaning a latrine	48	21	12	41
	3.4%	3.7%	.12	.41
After cleaning a potty	251	118	2.6	.06
	17.7%	20.8%		
Before making food	617	292	10.4	.00
	43.5%	51.5%		
Before feeding a child	122	46	2.6	.27
	8.6%	8.1%		
Before eating	874	379	4.79	.01
	61.6%	66.8%		
After eating	764	347	9.1	.01
	53.8%	61.2%		

Table 18: Relationship between Exposure and Knowledge of Critical Hand Washing Junctures

4.1.5.2 Hand Washing and Use of Cleansing Agent

The practice of hand washing using water and soap or an alternative cleansing agent such as ash during critical junctures is the most effective way to break the feces-oral route of disease transmission.

Table 19 presents information on hand washing practices by informants including *the use of soap and other detergents*. According to these data, 19.4% used soap for hand washing at least at one critical juncture the day prior to the survey. Only 1.9% of the respondents reported using soap for hand washing during at least two critical junctures. The average number of times informants reported washing hands using soap the day prior to the survey was 0.9. In addition, 44% of households that agreed to let enumerators see where they most often washed hands had soap at that location.

Findings indicate that 50% of informants reported using ash for cleansing purposes. However, it was found out that only 16 respondents used ash for hand washing at least at one critical juncture a day prior to the survey.

Nearly three-quarters of the respondents reported using different types of cleansing agents like leaves, shrubs, etc. other than soap and ash for cleansing purposes. It was further found that compared to the households from the high and direct involvement woredas, a significantly high proportion of the respondents from the indirect involvement woredas use cleansing agents other than soap and ash (χ^2 =46.9, P=0.000).

Findings on the location and type of hand washing facilities showed that 1.6% of the visited hand washing facilities were located inside or in the area surrounding the toilet. About 96.9% of the households that allowed their hand washing facilities to be inspected used basins/buckets to

wash their hands. However, only 2.7% and 0.4% of the households used tippy taps and faucets to wash their hands.

The observations made on the hand washing facilities further revealed that on the date of the interview water was available in only 14.4% of the observed hand washing facilities. However, about one-third (34%) of the respondents reported that water was available in the hand washing facilities a day prior to the interview.

	Level of Involvement						
Categories of Variables	Specific Indicators/Variables	High	Direct	Indirect	Total	One way ANOVA	Р
	No. & % of households having	224	179	242	645	4.39	.11
	soap at the time of interview	42.6%	42.3%	48.2%	44.5%		
	No. & % of informants	129	90	111	330	.03	.98
	reporting use of soap for hand washing during at least one critical juncture	19.5%	19.1%	19.5%	19.4%		
	No. & % of informants	9	9	14	32	2.0	.36
	reporting use of soap for hand washing during at least two critical junctures	1.4%	1.9%	2.5%	1.9%		
	No. & % of households with	224	179	242	645	4.3	.11
	soap at a commonly used hand	42.6%	42 3%	48.2%	44 5%		
Use of soaps and	Average number of times	12.070	12.370	10.270	11.570		
other detergents for hand washing	informant reported washing with soap day prior to the interview	1.0	0.9	0.9	0.9	1.3	.27
	No. & % of households having	1	0	0	1	1.7	.41
	ash at time of interview	0.2%	0.0%	0.0%	0.1%		
	No. & % of informants	11	4	1	16	6.7	.03
	reporting use of ash for hand washing during at least one critical juncture	13.4%	6.2%	1.8%	7.8%		
	Average number of times informant reported washing hands with ash a day prior to interview	1.19	1.17	1.20	1.19	0.03	.97
	No. & % of households using	527	395	555	1,477	46.9	.00
	other cleansing agents	71.1%	67.8%	83.6%	74.3%		
	Hand washing facility is inside	11	8	4	23	3.2	.20
Location of the hand washing facility	toilet or surrounding	2.1%	1.9%	0.8%	1.6%		
	Hand washing device: faucet	4	1	1	6		
Types of hand		0.8%	0.2%	0.2%	0.4%		
washing facilities	Hand washing device: tippy tap	26	10	2	38		
available		5.1%	2.4%	0.4%	2.7%	24.4	.00
	Hand washing device:	481	411	491	1,383	24.1	
	basın/bucket	94.1%	97.4%	99.4%	96.9%		
	Total	511	422	494	1,427		
		100.0%	100.0%	100.0%	100.0%		
	Water is visible at time of	82	60	67	209	1.1	.57
Availability of	interview	15.6%	14.2%	13.3%	14.4%		
washing facilities	Water available at the day prior	177	120	188	485	8.4	.01
8	to the interview	34.6%	28.8%	37.8%	34.0%		
Availability of water and soap at time of the interview at most often used hw station (Denominator # of households permitting observation)		29 3.9%	30 5.1%	42 6.3%	5.1%	4.2	.12

Table 19: Hand Washing, Use of Soap and Other Detergents

4.1.6 Water Supply

4.1.6.1 Source of Drinking Water

The survey examined the households' water sources for drinking and other uses, and the time invested in fetching water. Findings are summarized in Table 20.

The term "protected water source" refers to water points that are covered and are fitted with a lifting device that minimizes contamination of the water at the source.

Results show that 58% of the households in the surveyed areas had access to water from protected sources. Supply from protected water sources was more frequent in direct and indirect involvement areas than in high involvement woredas. As compared to those from the high involvement woredas, households from the direct and indirect involvement woredas were more likely to get their drinking water from protected sources (χ^2 =12.6, P=0.002).

A communal water tap was the source of protected water for 25% of the households, followed by a protected spring, which accounted for 14.5% of household water supply. Nearly a quarter of the households reported getting their water from an unprotected spring.

Almost 4% of the households changed their source of drinking water to reduce costs.

Categories of	Specific	Sam	pling Stratu Involvem	m (Level of ent)		χ ² /	
Variable	Indicators/Variables	High	Direct	Indirect	Total	One way ANOVA	P-value
	Protected	397	367	400	1164	12.6	
Main source of		53.4%	62.6%	59.9%	58.3%		00
drinking water	Unprotected	344	219	268	834		.00
		46.6%	37.4%	40.1%	40.1%		
Distance to main drinking water sources	Mean number of minutes it takes to get water	48.9	37.2	39.9	42.4	13.8	.00
Household source	Protected	258 35.3%	265 45.3%	299 45.0%	822 41.5%	18.3	
of water other than drinking	Unprotected	472 64.7%	320 54.7%	365 55.0%	1,157 58.5%		.00
Access to alternative water sources due to cost	% of households that change drinking water sources to reduce costs	32 4.3%	17 2.9%	25 3.7%	74 3.7%	1.7	0.41

Table 20: Main and Alternative Sources of Drinking Water

Households getting their water from sources other than rain and surface water were asked to indicate who provided their water, and the majority (82.6%) mentioned the local water committee, followed by government authority (14.1%), and NGOs and private providers (3.1%).

Distance to the water point and the time taken at the water point were the two major factors that determined access to potable water. In this study, the average time taken to fetch water across sampling strata was 42.4 minutes. The average amount of time households invested in fetching water was significantly higher in high involvement woredas than elsewhere (χ^2 =13.828, P=0.000).

As a reminder, the reader should keep in mind that the Joint Monitoring Programme suggests a period of 30 minutes or less.¹⁹

4.1.6.2 Awareness and Practice in Making Water Safer for Drinking

To address awareness, respondents were asked about what families can do to make water safe for drinking. Separately, they were also asked what products could be added to make water safe for drinking. As shown in Table 21, the majority (77.1%) believed that by keeping the water in a closed container, one could make water safe for drinking. This practice was mentioned by 82.4% from direct involvement woredas, 78.1% from indirect involvement woredas, and 71.5% from high involvement woredas. Differences by sampling strata are statistically significant (χ^2 =22.017, P=0.000).

Almost 8% of households mentioned other traditional methods of water treatment including leaves, roots, and barks of different types of plants that can be used to make water safe for drinking.

Keeping water in a covered container (77.1%), boiling (14.1%), and using a cloth filter (1.2%) were the practices that study participants believed would make water safe for drinking. When answering this question, none or very few of the respondents mentioned other methods like chlorine products, Biosand filters, ceramic filters, and solar disinfection as methods that can be used to make water safe for drinking. Some statistically significant differences across sampling strata were detected. The higher percentages are not necessarily found in the same sampling strata. Table 21 provides the needed details.

¹⁹ UNICEF and the World Health Organization. Progress on Drinking Water and Sanitation, 2008, p.37.

Categories of Variable	Specific Indicators/	S (Le	Sampling Str	atum vement)	Total	χ ² /	р
Vallable	Variables	High	Direct	Indirect		One way ANOVA	
	Boil	132	77	73	282	14.1	.00
		17.7%	13.1%	10.9%	14.1%		
Methods that	Ceramic filter	1	0	0	1	1.7	.43
families can use to		0.1%	0.0%	0.0%	0.1%		
make water safe to	Cloth filter	16	1	7	24	11.0	.00
drink		2.1%	0.2%	1.0%	1.2%		
	Keep water in	536	483	522	1,541	21.0	.00
	covered container	71.9%	82.4%	78.1%	77.1%		
	Other	68	32	52	152	6.3	.04
		9.1%	5.5%	7.8%	7.6%		
	Wuha Agar	115	94	64	273	15.8	.00
		15.4%	16.0%	9.6%	13.7%		
Due du ste that as see	Aquatabs	9	4	6	19	.99	.61
be used to make		1.2%	0.7%	0.9%	1.0%		
water safe to drink	Other chlorine	0	1	0	1	2.4	.29
	products (i.e., bleach)	0.0%	0.2%	0.0%	0.1%		
	Permanganate	3	1	1	5	1.1	.57
		0.4%	0.2%	0.1%	0.3%		
	None	239	225	249	713	8.0	06
		32.1%	38.4%	37.3%	35.7%	0.9	.06
	Does not know	231 31.0%	205 35.0%	269 40.3%	705 35.3%	13.3	.06

Table 21: Awareness about Household Water Treatment Methods by Sampling Strata

When asked about what products can be used to make water safe for drinking, 35.7% indicated that no such product existed, and 35.3% said they did not know. Yet, Wuha Agar, the local name for a sodium hypochlorite solution, was mentioned by 13.7% of the respondents. Respondents from the high and direct involvement woredas were more likely to know Wuha Agar (χ^2 =15.876, P=0.003). Only 1.5% reported awareness of other products like Aquatabs, permanganate, and bleach.

The quality of water at the source could lead consumers to seek and retain information about methods to make water safe for drinking. Based on this rationale, it can be hypothesized that knowledge about water treatment methods may be higher among consumers with access to unimproved water sources than among those with access to improved water sources. Table 22 presents the results of cross tabulations between water supply sources dichotomized into improved versus unimproved by knowledge about water treatment methods. The classification of water supply into improved and unimproved follows the WHO/UNICEF Joint Monitoring Programme definitions. The knowledge variables are grouped into practices and products following the different questions used to generate the information.

Findings in Table 22 indicate that there is a statistically significant relationship between knowledge and water supply sources for half of the knowledge variables considered. In most cases, the tendency is as expected despite the low level of knowledge that may exist. That is, knowledge of water treatment methods and products was more frequently found among informants with access to unimproved water sources. The exception to the rule was with respect to the commonly held belief that letting water stand and turbidity settle is a water treatment practice. In this case, this is a more frequently held perception among informants with access to improved water sources.

Domains	Categories of	Sourc	es of Water			
	Variable	Improved	Unimproved	Total	\mathbf{X}^2	P value
	Boiling	65	46	111	0.004	.94
		5.6%	5.5%	5.6%		
	Strain with cloth	5	19	24	14.0	.00
Practices		0.4%	2.3%	1.2%		
	Let it stand and	922	619	1,541	6.7	.01
	settle	79.1%	74.2%	77.1%		
	Cover storage	425	1112	1537	.00	.52
	container	76.8%	76.9%	76.9		
	Discound filter	1	16	17	4.1	.03
	Diosand Inter	0.2%	1.1%	0.9%		
	Others	64	88	152	17.7	.00
		5.5%	10.6%	7.6%		
	Wales Area	78	195	273	14	20
Due due ata	wuna Agar	14.1%	13.5%	13.7%	.14	.30
Froducts	Aquataba	7	12	19	.81	.25
	Aquatabs	1.3%	0.8%	1.0%		

Table 22: Knowledge of Water Treatment Methods by Source of Water Supply

Further assessment made on the awareness and practice of the households on the specific water treatment product Wuha Agar showed that only 17.1% of the respondents in the visited households were aware of the product. And out of them, 44.2% were aware of a specific outlet or where they could get the product if they wanted. As compared to the respondents from the high involvement woredas, a significantly high proportion of respondents from the direct and indirect involvement woredas were aware of specific Wuha Agar outlets (χ^2 =11.04, P=0.00).

Table 23: Knowledge of Wuha Agar by Sampling Strata

Categories of	ies Specific Indicators/Variables		npling Strat el of Involve	um ment)		χ^2 /	р
Variables	1	High	Direct	Indirect	Total	ANOVA	
Knowledge	No. & % of informants who	134	102	103	339	1.9	.38
	know Wuha Agar	18.2%	17.4%	15.5%	17.1%		
8	No. & % of informants aware of	43	49	50	142	11.0	.00
	specific Wuha Agar outlet	33.1%	51.6%	52.1%	44.2%		

4.1.6.3 Specific Water Treatment and Related Practices

Findings indicated that only 8.3% of the households visited reported practicing water treatment at the point of use to make water safe for drinking. Boiling (3.4%), use of traditional water treatment methods like leaves, roots, and barks of different plants (1.7%), chlorination using Wuha Agar (1.2%), and cloth filtration (0.8%) were the water treatment methods used by the households. While only 10 households from the high involvement woredas reported using Biosand filters, no respondent from the three strata mentioned other methods like ceramic filters and Aquatabs.

		(Le	Sampling Stratum (Level of Involvement)				
Categories of Variables	Specific Indicators/Variables	High	Direct	Indirect	Total	χ ² /One way ANOVA	р
	Don't know	1	1	3	5	2.2	.32
		1.3%	3.8%	6.0%	3.2%		
	Boil	30	15	23	68	3.4	.18
		37.5%	57.7%	46.0%	43.6%		
	Bleach	1	0	0	1		
		2.0%	0.0%	0.0%	1.1%		
	Wuha Agar	10	9	5	24	9.0	.01
		12.5%	34.6%	10.0%	15.4%		
Water treatment practices	Pur	0	1	0	1	5.0	.08
		0.0%	3.8%	0.0%	0.6%		
	Biosand filter	10	0	0	10	10.1	.00
		12.5%	0.0%	0.0%	6.4%		
	Cloth filter	5	0	10	15	10.0	.00
		6.3%	0.0%	20.0%	9.6%		
	Traditional methods ²⁰	23	1	9	33	7.7	.02
		28.8%	3.8%	18.0%	21.2%		
	Others	2	2	4	8	2.3	.31
		2.5%	7.7%	8.0%	5.1%		
	None	663	560	615	1838	19.3	.00
		89.0%	95.6%	92.2%	92.0%		

Table 24: Water Treatment Practices of the Households by Sampling Strata

²⁰ The traditional methods used to treat water to make it safe for drinking include leaves, roots, and barks of different plants.

Details about Wuha Agar use are presented below in Table 25. According to these figures, 16 of the 24 users allowed enumerators to check their bottle of Wuha Agar, and in 11 cases the solution was within the product's shelf life. In only two of the 24 households that used Wuha Agar were the results of the chlorine residual test positive.

	Specific Indicators	High	Direct	Indirect	Total	χ ² / One way ANOVA	р
Product validity	No. & % of households allowing	8	3	5	16		
	Wuha Agar bottle to be seen	100.0%	100.0%	100.0%	100.0%		
	No. & % of households using Wuha Agar within shelf life	5	2	4	11	.76	.68
		71.4%	100.0%	80.0%	78.6%		
	No. & % of households allowing	6	1	1	8	5.5	.06
Chlorine	chlorine residual test	75.0%	16.7%	25.0%	44.4%		
residual	No. & % of households with	1	1	0	2	3.0	.22
testing	positive residual chlorine test results	100.0%	33.3%	0.0%	33.3%		

Table 25: Wuha Agar Use by Sampling Strata among Households Allowing Enumerator to SeeWuha Agar Bottle

Information on the storage and retrieval practices of the boiled water of the households showed that out of the 68 households that reported boiling water to make it safer for drinking, seven (12.9%) were found to have practiced boiling on the date of the interview. Among households practicing boiling, 78.2% allowed the water container to be checked. The observation results further showed that 69.8% of the checked water storage containers used to store the boiled water had narrow necks and 93% had a hard cover. In addition, 46.3% of the households stored the boiled water in narrow neck containers that pour water. Only 18.2% of the households reported storing boiled water in wide mouth containers and extracting the water using a ladle or a cup with handle. The above findings suggest that the majority of the households that practice boiling further complied with some additional safe water storage recommendations. Yet, not all of those that have narrow containers are pouring water. Consequently, the necks of the containers permit the use of utensils introduced into the containers to retrieve water. The follow up study must include more precise measures of the width of the mouth of containers storing boiled water and/or specific information on how water is extracted. This will shed light on the likelihood of recontamination of boiled water through storage and handling practices. The water storage and retrieval practices of households that reported practicing boiling as a water treatment method are presented in Table 26.

Categories of	Specific	Le	evel of Involve	ment		a (2)	
Variables	Indicators/Variables	High	Direct	Indirect	Total	X ² / One way ANOVA	р
	No. & % of households	30	15	23	68	3.4	0.18
	practicing boiling	37.5%	57.7%	46.0%	43.6%		
-	No. & % of households	6	1	0	7	6.5	.03
Treatment	boiling water day of interview	26.0%	8.3%	0.0%	12.9%		
	Average number of minutes water boiled for	23.5	12.8	20.8	19.9	0.8	.42
	No. & % of households	19	9	15	43		
	where boiled water container checked	79.2%	75.0%	78.9%	78.2%		
Storage	No. & % of households	14	7	9	30	1.0	.58
Storage	where observed storage container for boiled water has a narrow neck	73.3%	77.8%	60.0%	69.8%		
	No. & % of households	18	9	13	40	.95	.62
	where observed storage container for boiled water has a hard cover	90.0%	100.0%	92.9%	93.0%		
	No. & % of households	3	1	4	8	6.5	.03
Retrieval	storing boiled water in wide mouth containers using ladle or cup with handle to extract water	100%	50.0%	67.0%	72%		
	No. & % of households	8	5	4	17	2.2	.31
	storing boiled water in narrow neck containers that pour water	72.7.0%	71.4%	44.4%	63.%		

 Table 26: Water Storage and Retrieval Practices of Households that Practice Boiling by Sampling Strata

4.1.6.4 Water Storage Practices

Information on the water storage practices of the households showed that 82.5% of the surveyed households store drinking water. The mean number of containers used to store drinking water was 2.3, and the mean number of liters of drinking water stored was 56.3. Further analysis of the results showed that a significantly high proportion of the respondents from direct and indirect involvement woredas was more likely to store drinking water ($X^2=16.85$, P=0.000), and those from the high and direct involvement strata were more likely to use a higher number of water storage containers ($\chi^2=12.009$, P=0.000).

Regardless of the quality of water at the source, storage practices influence water safety. Wide neck containers allow for hands to easily come into contact with water and potentially contaminate it. The characteristics of the water storage containers showed that 40% of the households that allowed their water containers to be inspected used narrow neck containers, 89.7% of the observed containers had hard covers, and only 2.7% of the households used containers that had a tap. About one-third of the households with drinking water containers were reportedly accessible to animals. The water container maintenance practices of the households showed that on average about 1.7 days passed between cleanings of the water storage containers. As compared to the other two strata, a significantly higher proportion of households from the high involvement woredas was more likely to use narrow neck containers to store drinking water (χ^2 =36.65, P=0.000). When all

safe storage criteria were accrued, the data showed that safe storage was a practice in about 30% of the households visited, with significant differences across sampling strata. The percentage of households practicing safe water storage was higher in the indirect involvement woredas.

Selection of water containers is primarily the domain of women. Only in 10.5% of visited households were men responsible for container selection. In fewer households men were involved in cleaning and maintenance.

Categories of	Specific Indicators/Variables	Lev	el of Involver	Total	χ ² /	n	
Variables	opeeme mulcators, variables	High	Direct	Indirect	10141	One way ANOVA	Р
Storage	No. & % of households storing	583	488	576	1,647	16.8	.00
practice	drinking water	78.3%	83.3%	86.5%	82.5%		
	No. & % of households using	583	488	576	1,647	16.8	.00
	containers to store drinking water	78.3%	83.3%	86.5%	82.5%		
Amount of drinking water	Mean number of containers used to store drinking water	2.44	2.44	2.04	2.30	12.0	.00
stored	Mean number of liters of drinking water stored	53.9	61.7	54.1	56.3	7.1	.00
	No. & % of households using	274	143	221	638	36.6	.00
	narrow neck containers to store drinking water	48.5%	30.0%	40.0%	40.0%		
	No. & % of households using	499	428	495	1,422	.13	.93
	drinking water containers that have hard covers	89.4%	90.1%	89.7%	89.7%		
Container	No. & % of households using	14	22	7	43	11.1	.00
Characteristics	drinking water containers that have a tap	2.5%	4.6%	1.3%	2.7%		
	No. & % of households with	195	151	182	528	0.8	.64
	drinking water containers accessible to animals in compound	34.6%	31.9%	32.9%	33.2%		
	Safe storage practices (all	195	171	238	604	15.1	.00
	appropriate criteria included)	26.2%	29.2%	35.8%	30.2%		
Container Maintenance	Mean number of days elapsed since water containers were cleaned	1.71	1.71	1.68	1.70	0.3	.78
	No. & % of households where	48	47	71	166	5.8	.00
Condor	the husband picked the type of	8.5%	10.0%	12.9%	10.5%		
Considerations	No & % of households where	2	0	3	5	24	30
	the husband cleans drinking water containers	0.4%	0.0%	0.5%	0.3%	2.1	.50

Table 27: Water Storage and Retrieval Practices of Households by Sampling Strata

4.1.6.5 Exposure to Information

The findings indicate that 36% of informants reported exposure to information on water treatment with no differences across sampling strata detected.

Table 28 presents findings on the analysis of the sources for information concerning water treatment recommendations by sampling strata among respondents that indicated they had been exposed to this type of information. The sources of information are ordered in terms of the frequency with which they were mentioned. As the reader can see, the health center and the village

health educator seem to be the most frequently mentioned sources of information, with radio occupying an intermediate position, and school children being rather rare. The health centers are more active in disseminating information about water treatment in the direct involvement woredas than in the other sampling strata, with the difference across study group being statistically significant.

Source of Information	High	Direct	Indirect	Total	χ ²	р
	Involvement	Involvement	Involvement			
Health Center	106	92	101	299	7.6	.02
	35.1%	47.4%	39.0%	39.6%		
Village Health Educator	115	68	99	282	.62	.73
-	38.2%	35.1%	38.2%	37.4%		
Radio	59	31	50	140		
	19.5%	16.1%	19.3%	18.6%		
School Children	6	2	6	14	1.06	.58
	2.0%	1.0%	2.3%	1.9%		

Table 28: Sources of Information for Water Treatment

In an attempt to relate exposure to practice, Table 29 presents the results of the cross tabulation between the practice of safe water storage by exposure to water treatment information. This information is broken down by sampling strata. The data in that table indicate that there is a statistically significant relationship between exposure and safe storage practices in the indirect involvement woredas only.

 Table 29: Distribution of Water Storing Respondents' Exposure to Water Treatment Information by Sampling Strata

Sampling Strata	Expo	sure	χ^2	-
	Not exposed	Exposed		Р
High Involvement	109	86	1.14	.16
	24.9%	28.5%		
Direct Involvement	111	60	40	20
	28.4%	30.9%	.40	.29
Indirect Involvement	119	119	10.6	00
	29.1%	45.9%	19.0	.00

4.2 Hygiene and Sanitation in Schools

The school hygiene and sanitation survey was conducted with the objective of assessing the existing hygienic practices in schools located in the target woredas. The assessment focused mainly on identifying the availability of toilets and hand washing facilities in the school compounds, the practice of hand washing with a cleansing agent after the use of the toilet, and the offering of hygiene education in the visited schools. Principals or vice principals of the visited schools were the respondents of the survey.

4.2.1 Background Information

A total of 80 schools distributed in the 20 surveyed woredas were covered by the assessment. However, due to incomplete information, data for two schools were excluded from the analysis. In the 2007/08 academic year, student enrollment in the visited schools ranged from 114 to 2,489. The

average number of students per school was 938. The number of academic and teaching staff in the schools ranged between three and 53, and the average number of administrative and teaching staff per school was 21.

4.2.2 Availability of and Utilization of Latrines by Students and Staff

Sixty-six (84.6%) of the 78 surveyed schools have student latrines. Out of these, 55 (83.3%) of the schools have separate latrines for male and female students. Only in 16.7% of the sampled schools boys and girls commonly share latrines.

Only 29 (37.2%) of the schools have latrines exclusively used by their teaching and administrative staff. However, only 21 and 19 of them separated toilet facilities for male and female teaching/administrative staff, respectively.

The average number of male and female students per toilet was found in this survey to be much higher than what is stated in the national protocol for hygiene and onsite sanitation,²¹ where the male and female students per latrine ratio was set to be less than 100 and 150, respectively.

Sanitary facilities for male students: Fifty-

five schools availed sanitary facilities for male students. Observation made on the sanitary facilities showed that only a few (5.4%) of the boys' toilets were without slabs, walls, or roofs or were found not functional. About 32.7% of the boys' latrines did not have doors or

Total number of schools covered by the assessment: 78

- Schools with latrines for students: **84.6**%
- Schools with latrines that segregated the latrines for male and female students: 55
- Schools availed urinals for male students: 1
- Schools with hand washing station near the boys' toilets: 3
- Schools with hand washing station near the boys' toilets having water: 0
- Schools with hand washing station near the boys' toilets having soap/ash: 1
- Schools with hand washing station near the girls' toilets: 5
- Schools with hand washing station near the girls' toilets having water and soap/ash: 0
- The average number of boys per male latrine in visited schools was **484**.
- Average number of girls per female latrine in visited schools was **467**.

Box 1: Availability of sanitary facilities in the visited schools.

curtains at the entrance, and four (7.5%) were found locked. Only about a quarter (24%) of the observed boys' toilets were clean. Urinals for male students were available only in one school, and a hand washing station near the toilet was available only in three of the 55 schools with toilets for boys. Furthermore, only one of the three schools had water and/or soap/ash available at the hand washing facilities. The average number of boys per male latrine in visited schools was 484. The national standard is 75 boys per latrine.

Sanitary facilities for female students: The overall sanitary conditions and functionality of the sanitary facilities available for female students are similar to those of male students. In this regard, out of the 55 sanitary facilities for female students, 54 (98.2%) were found functional. All had walls, one was without slab, and two did not have roofs. A little more than half (51.3%) did not have doors or curtains at their entrance; 7.3% were found locked; only a fifth (19.2%) were clean; and only five (9.3%) of the toilets had hand washing facilities. However, none of the visited hand washing facilities was found to have water and soap/ash on the day of the survey. The average number of girls per female latrine in visited schools was 467, again short of the national standard of 50.

²¹ FMOH (2006): National Protocol for Hygiene and "On-Site" Sanitation.

Sanitary facilities for female teaching and administrative staff: All the 21 sanitary facilities available for female teaching and administrative staff members have slabs, roofs, and walls. Seventeen (81%) had doors or curtains at the entrance. Around 14% of the doors were found locked. Only one-third (33.3%) of the visited toilets were clean. Though three of the 21 visited sanitary facilities had hand washing facilities, none had water or soap/ash on the date of the visit.

Sanitary facilities for male teaching and administrative staff: Nineteen of the visited schools had sanitary facilities for their male teaching and administrative staff: Out of these, all had slabs and walls but one toilet was without a roof. However, all were functional. Fifteen (78.9%) had doors or curtains at the entrance. Urinals for teaching and administrative staff were available only in one of the schools. Two of the 19 visited sanitary facilities had hand washing facilities. However, none had water or soap/ash on the date of the visit.

4.2.3 Availability of Drinking Water in Schools

Twenty-four (30.8%) of the visited schools had water for drinking. Of the schools with access to drinking water, 45.8% received it through a hand dug well fitted with water pump. The other sources of drinking water for the students were a tap in the compound of the school (25%), protected springs (12.5%), and protected springs fitted with a water line (4.2%). Ten (42.7%) of the schools with water reported that the drinking water supplied for their students was treated, seven of which (70%) indicated that the water was treated at the source. However, the remaining three could not specify the point of treatment for the water.

Only one of the 24 visited schools with drinking water for their students reported storing water.

4.2.4 Hygiene and Sanitation Education at the School and Community Level

Forty-seven of the 78 visited schools reported offering hygiene and sanitation-related education. Out of these, 38% of the schools reported that the education was integrated with the school curriculum. However, in the 44.7% of the schools with hygiene and sanitation education, the hygiene and sanitation education was not integrated into the school curriculum. In 40% of the schools with hygiene and sanitation education, hygiene education was done exclusively via health clubs, and 15% of hygiene education was done through a combination of health clubs and talks delivered by health professionals.

Hand washing with soap and water (66%), making drinking water safe (36%), and properly storing drinking water (17%) are the three commonly reported topics covered in the hygiene and sanitation education of the visited schools. About (30%) of the schools did not use teaching aids for hygiene and sanitation education.

Sixteen (20.5%) and 19 (24.4%) of the schools reported they provided hygiene and sanitation education for the parents of students and the general community. Community dialogue forums, especially arranged information exchange sessions, regularly scheduled parent and teacher dialogue sessions, annual school

Total number of schools covered by the assessment: 78

- Schools with hygiene and sanitation-related education: 47
- Schools with hygiene and sanitation-related education integrated with the school curriculum: 18
- Schools where the hygiene education was done exclusively via health clubs: 19
- Schools with a combination of health clubs and talks delivered by health professionals: 7
- Schools that did not use teaching aids for hygiene and sanitation education: 14

Box 2: Availability of hygiene and sanitation education at schools.

closing days, and church were the frequently mentioned occasions where schools are involved in passing hygiene and sanitation education to parents and the community members.

4.3 Institutional Survey

As part of the larger task of gathering baseline information from the different levels of respondents, a qualitative study was carried out in all the 22 survey woredas (four high involvement, seven direct involvement, and 11 comparison woredas) and in 110 kebeles.

From each of the kebeles, a minimum of two respondents were interviewed. They were health extension workers or members of the kebele WASH Committee. Similarly, responsible officials from Health and Water Desks as well as the Rural Water Supply, Sanitation and Hygiene Promotion (RWSSHP) coordinator of the woredas were also interviewed. These informants were interviewed separately.

4.3.1 High Involvement Woredas

A total of 20 randomly selected kebeles from the four high involvement woredas—Achefer, Gonder Zuria, Kewet, and Theuhuldere—were grouped in the high involvement woredas. The information in this section summarizes the results of the institutional interviews for this group of woredas.

4.3.1.1 Status of Sector: Priorities and Current Implementation Issues

Informants generally agreed that WASH sector activities are a priority in their jurisdiction, covering all kebeles in each one of the woredas, even when the level of intensity of the investment may vary from kebele to kebele. Informants indicated that large numbers of water schemes, including hand dug wells and springs, have been constructed over the past two to three years and that many more are currently under construction in many of the kebeles of these large woredas.

In addition, informants reported that the community and woreda level stakeholders have been actively engaged in constructing latrines and raising the awareness of the community members on different water, sanitation, and hygiene-related issues. In this regard, practically all kebele level respondents indicated that, in their respective locality, health extension workers and kebele officials are promoting latrine construction and use among community members. This is true despite the fact that latrine adoption rates still need to be increased. Informants argued that obstacles hindering adoption include the following: limited capacity to buy construction materials (especially in areas where wood is scarce, thus expensive), shame of being seen using a latrine, and fear of pit collapse (in areas where the soil is loose and not favorable to latrine construction).

One additional reported priority in hygiene promotion was drinking water treatment and storage. Informants stated that the hygiene education provided at the community level on point-of-use issues focused on having Wuha Agar available for treating drinking water and using narrow mouth containers.

Another WASH priority reported included institutional support structure and capacity building among major WASH stakeholders both at the woreda and kebele level. As a beneficiary of the RWSSHP program, jointly financed by the World Bank and the Government of Ethiopia, each RWSSHP woreda is given support to establish a WASH coordinating office, WASH teams, WASH committees, and WASH facilitators. All these are engaged in promoting and implementing hygiene and sanitation-related interventions as part of their regular work. Informants indicate that health extension workers operating at the community level are playing a leading role in promoting hygiene and sanitation in their respective kebeles.

4.3.1.2 Stakeholders Involved in Water and Sanitation-Related Activities

In an attempt to find out the involvement of different stakeholders in executing WASH-related activities at the woreda level, the Water and Health Desks of the visited woredas were reported to be playing a leading role in their respective field. The woreda education offices were also reported to be playing an active role in promoting WASH-related interventions taking place in schools.

Different development partners including local and international NGOs and UN agencies were also reported to be involved in WASH-related activities in the four high involvement woredas. The list of participating NGO partners by woreda is presented in the following table.

Achefer	North Gonder	Keweta	Tehuludere
• Amhara	• GTZ	• ESHE	Agri Service
Rehabilitation	• Mekane Eyesus	• Mekane	Orthodox Church
and Development	Church Aid	Eyesus	Aid
Organization	World Vision	Church	• ARDO
(ARDO)	Orthodox Church	Aid	Hope Enterprise
• UNICEF	AID		Red Cross
• ESHE			

4.3.1.3 Joint Planning and Joint Implementation of WASH Activities at Different Levels

Interviewees were asked whether or not the practice of joint planning was exercised in their respective kebeles and woredas.

At the woreda level following the introduction of the RWSSHP or RWSSH program, key woreda level partners (Water, Health, Education, Agriculture, Women's Affairs, and others) reported that they have started to jointly plan activities related to water, sanitation, and hygiene. Joint planning at the woreda level was still limited to the activities that were carried out with the funds provided by the RWSSHP program.

The woreda level interviewees who reported participating in joint planning activities were asked to outline/mention the benefits they got or intended to get for being part of the joint planning exercise. The majority claimed that the process enabled different stakeholders to pull together and efficiently use existing scarce financial resources, save time and other resources, avoid duplication of activities, and ensure the sustainability of the activities carried out at different levels. This is an indication that unlike what was found at the kebele level, the woreda level respondents are aware of the advantages of joint planning.

At the kebele level, the situation is quite different. Except in a couple of kebeles, the interviewees claimed that joint planning has never been practiced. The kebele level respondents provided the following reasons for not engaging in joint planning: lack of awareness of the benefits of the practice; absence of a responsible body to coordinate and follow up the activities of the different stakeholders at a lower level; and lack of interest in working together.

When asked what should be done to introduce and strengthen joint planning practices in their respective kebeles/woredas, the following suggestions were offered by some or most of the respondents:

- Involve higher level (regional and woreda) representatives to coordinate the process of joint planning;
- Allocate a budget for joint actions to be implemented by involved stakeholders; and
- Strengthen the role of the kebele chairpersons to coordinate WASH activities at the kebele level.

As far as joint implementation is concerned, health extension workers and kebele chairpersons were asked to outline the activities jointly carried out by different partners in the area of water, sanitation, and hygiene in their localities. The response was mixed with distinctive differences between the two groups (kebele chairpersons and HEWs).

The majority of the kebele chairpersons and some of the health extension workers claimed that WASH activities were carried out in a coordinated fashion among the partners working in the area; one would support the other in whatever way possible and execute the activities jointly. As far as the coordination was concerned, one respondent said, "Agriculture workers normally teach community members about the use of latrines and follow up the construction of latrines along with their regular work. Similarly, teachers always teach students and through them parents are reached with the message of clean water, construction and use of latrines, personal hygiene, and the likes."

On the contrary, the majority of the interviewed health extension workers said that in their respective locality, different actors are involved in issues related to WASH but independent of each other and strictly adhering to the plan they developed independently.

4.3.1.4 Integration of Hardware and Software Activities at Kebele/Woreda Level

The responses given on the issue of integration of the hardware (construction) and software (training, awareness creation, etc.) activities depended largely on who answered the question and from which sector (i.e., health or water).

Water sector representatives, for example, argued that the hardware and software components are well integrated. They indicated that whenever they planned to construct water supply schemes they followed two procedures to ensure integration of these components. On the one hand, they gathered members of beneficiary communities and discussed water scheme construction in detail. This first step permits them to inform community members about the importance of clean water, the management of the water schemes, and roles and responsibilities that will be assumed by community members. On the other hand, a second step includes organizing water committees before or soon after the completion of the construction. According to the respondents, water committees tend to be organized before the construction activities start, and they play an important role during the construction phase and thereafter. The software component is thus defined in terms of garnering community support and involvement for the construction and operation of water schemes.

The health extension workers, however, reported that the hardware and software activities were not normally carried out in an integrated manner. Their response is related to the focus of their promotional effort, which is organized around latrine construction promotion and use, proper management of drinking water at home, and the need and importance of personal hygiene, solid waste disposal, and so forth.

Respondents were further asked about the strategies they were using to raise awareness and change the behavior of communities on issues related to water and sanitation. Respondents (particularly the health extension workers) who were mainly involved in teaching community members about different health and health-related issues indicated that they used a variety of strategies, including model farmers, peer educators, school children, and others. Besides these strategies, which were reported by almost all kebeles, interviewees in a few kebeles reported that a strategy called "walk of shame" was adapted to show the importance of environmental sanitation to households that are reluctant to prepare and use latrines. In a few kebeles, it was reported that threat of a penalty was used as an alternative strategy to motivate people to dig and use latrines.

All interviewees claimed to use different types of information, education, and communication/behavior change materials to teach community members, including printed materials, posters, leaflets, and so forth. The majority, however, reported using oral teachings as the main method to pass WASH-related messages to community members. Social gatherings, community meetings, religious ceremonies, and traditional events were the reported forums for community awareness-raising on water, sanitation, and hygiene topics. Frequently mentioned places and common occasions used to pass WASH messages to members of the community included churches, schools, community meeting points, weddings and funerals, Sundays, and public holidays. In some kebeles, school children were instrumental in transmitting important behavior change messages to community members.

Except for a few respondents who claimed that no meaningful behavior change in the community had been observed, the majority reported that, although not to the required level, the behavior of the community members is changing for the better. Furthermore, some interviewees pointed out that recently in their respective localities many members of the community have started using latrines, adopting different water treatment methods, washing their hands at least at one of the critical junctures, and openly criticizing those who refuse to use a latrine. These hygiene and sanitation-related behavioral changes are associated with the teachings of the community health workers.

4.3.1.5 Means of Ensuring the Quality of Water

The majority of the respondents, both from woreda Health Desks and the kebele level, reported that apart from the continuous teaching about how to keep drinking water safe for consumption and how to facilitate the treatment of water, they did not have a scientific method to confirm whether or not community members were using clean water. However, during the regular visits health extension workers make to households, they would check the type of containers used to store the water, the utensils used to take the water out of containers, and whether or not the containers were covered and placed out of the reach of children and domestic animals.

Respondents in many of the visited kebeles indicated that the Water and Agriculture Desks at the woreda level are responsible for disinfecting water sources every six months. In Tehuludere, for example, it was reported that Mekane Eyesus (a local NGO) distributes chemical products for water treatment at the source.

4.3.1.6 The Application of the Monitoring and Evaluation Tools Developed by the Learning by Doing Program

The majority of kebele-level respondents interviewed from the four woredas reported being unfamiliar with the monitoring and evaluation tools that were developed by ARHB/WSP-AF/USAID-HIP. Some respondents from Acheifer, Tehuludere, and Kewet woredas reported knowing about the M&E tools. However, of those kebele-level respondents who reported being familiar with the M&E tools, only a few claimed to have started using them. Those who claimed to have started using the tools used them to gather baseline information on the existing water and sanitation situation of the communities in their respective kebeles.

Explaining the special merit and the effectiveness of the tools, one health extension worker from Acheifer said:

The monitoring and evaluation tools have different formats that are easy to use and at the same time the information collected using the formats would easily help to find out the actual water and sanitation related facts in a specific area. The tools, beside other things, address issues related with latrine, dry and liquid wastes disposal facilities, environmental sanitation and personal hygiene. The special merits of the tools enable us to monitor activities regularly and do all inclusive assessment of the program.

Comparing the M&E tools developed by ARHB/WSP-AF/USAID-HIP with other tools they were using, respondents indicated that the former were more comprehensive and complete and would help to explicitly depict the reality on the ground.

Unlike the kebele-level respondents, the majority of the interviewees at the woreda level had some knowledge of the M&E tools, however, only a few of them were able to explain the content as well as the benefits of the tools.

The few woreda-level officials who were found to have enough knowledge about the M&E tools developed and introduced by ARHB/WSP-AF/USAID-HIP were asked to give their evaluation of the tools. In this regard, one official from Tehuludere Woreda stated:

The tool is so important that it has brought other actors like agriculture, education, and kebele administration to be part of the implementation process and made them have equal stake in executing activities related with water, sanitation, and hygiene in all areas.

4.3.2 Direct Involvement Woredas

This group consisted of seven woredas from seven zones of the Amhara Region: Chefe Darwa, Deber Ellias, Ebenate, Ebnat, Tis Abay, and Shekudad.

4.3.2.1 Status of Sector: Priorities and Current Implementation Issues

Almost all respondents from all the seven woredas have reported that different activities related to water, hygiene, and sanitation had been carried out in the past years and some are still being implemented in their respective areas. Nevertheless, the situation is not monolithic and varies from woreda to woreda.

The activities reported by the respondents include among others: developing safe water supply schemes (hand dug wells, springs, boreholes, water distribution systems, etc.), maintaining faulty

water schemes, constructing household latrines, and increasing community awareness about different hygiene-related issues. Activities related to water treatment points were also reported in many kebeles. Besides these, respondents from some kebeles stated that within the last few months training was provided to people working in the areas of hygiene and sanitation. WSP/HIP delivered this training in collaboration with the Regional Health Bureau.

Activities related to awareness-raising at the community level on issues related to safe water, sanitation, and hygiene were reported to be successfully implemented. The fact that many of the community members started to use water from safe sources, adopt the methods on proper handling of water at home, wash hands at critical junctures, and construct and use latrines were attributed to the increased awareness about WASH issues. According to some respondents, besides protecting water sources, the awareness created among the community members has enabled them to ensure the operational status of individual water supply schemes and the sustainability of service.

Some interviewees from woredas like Debre Elias and Ebenat indicated that in their respective woredas, communities have observed a reduction in the prevalence of waterborne disease as well as other health problems that arose as a result of poor hygiene and sanitation.

Despite the claimed achievements in different areas related to WASH development, some interviewees from woredas like Tis Abay and Shekudad stated that there were no accomplishments worth mentioning. In particular, kebele chairpersons and health extension workers from Tis Abay Woreda have underscored the lack of water, sanitation, and hygiene interventions in their respective kebeles. They also indicated that the water supply situation in almost all kebeles of the two woredas is reported to be in very bad shape and is seriously affecting the health of the people.

4.3.2.2 Stakeholders Involved in Water and Sanitation-Related Activities

The majority of the kebele-level respondents stated that Health, Water, and Agriculture desks, schools, and kebele administrations were the key stakeholders involved in the development of hygiene and sanitation activities in their respective localities. Similarly, at the woreda level, the major players were sector offices including Water, Health, Agriculture, Finance and Economic Development, and Women's Affairs. The woredas that acknowledged the involvement of sector offices like Finance and Economic Development and Women's Affairs Desks were those where the RWSSHP program is being implemented.

Apart from the sector partners from the government and community side, others such as international and local NGOs and community-based organizations were also mentioned as partners in WASH- related interventions taking place at the community level. Accordingly, international NGOs including Save the Children-UK, COOPI, and World Vision as well as bilateral donors such as GTZ and UNDP have some stake in water, sanitation, and hygiene-related development taking place in the woredas. Similarly, local NGOs including ARDO and Ethiopian Orthodox Church (EOC) are reported to be working in this area.

According to the respondents, the above-mentioned organizations, particularly those other than the government institutions, play different roles and use different strategies to assist the woreda and kebele- level water, sanitation, and hygiene initiatives. For example, GTZ was mentioned as the funding agency that provided financial assistance for sector offices like Water and Health Desks to carry out the implementation of activities. On the other hand, NGOs such as EOC-DICAC and ARDO are reported to be directly involved in executing hygiene and sanitation projects, and their involvement in the area is all inclusive (i.e., they work on all water, sanitation, and hygiene activities).

Others such as SC-UK work in the areas of sanitation and hygiene only and are not involved in water supply and related activities.

The NGO partners in some places were considered to be the major contributors in the development of water, sanitation, and hygiene efforts, which included constructing almost three-fourths of the existing water supply schemes.

The summary list of involved partners includes:

Donors	Implementers	
• UNDP	Water Desk	• ARDO
• GTZ	Health Desk	• COOPI
	Agriculture Desk	• EOC-DICAC
	Finance and Economic Development	• Save the Children-
		UK
		World Vision

4.3.2.3 Joint Planning and Integration of Activities

The information gathered on this issue indicated that in four of the seven woredas covered by the assessment, the practice of jointly planning in the area of water, sanitation, and hygiene, was not exercised. However, the three woredas where the regional WASH program was being implemented (Ebnat, Deber Ellias, and Chefe Dawa) and where WASH coordination offices were established, joint planning was exercised.

Even in the above three woredas, the joint planning exercise was found to be limited to a few (timesensitive) activities. Joint planning exercises in these woredas also did not include other assignments implemented by specialized sector offices. This means that joint planning is not an institutionalized practice and hence, it is not a sustainable activity.

A small minority of kebele-level respondents claimed that they practiced joint planning. In their case, the process was coordinated by their respective kebele administration, and all the sectors working at the kebele level were involved. Kebele chairpersons indicated that especially in the area of water, sanitation, and hygiene development, the kebele administration was the responsible body for coordinating the joint planning exercises and used the plan to get the support required to achieve set targets.

The majority of the kebele-level interviewees from all the seven woredas, however, clearly indicated that they had never exercised joint planning in their respective localities. The activities they had to accomplish in their respective localities were commonly planned at the woreda level, and the plan would be sent to them by the woreda administration.

The interviewees were further asked to explain the reason for the lack of joint planning in their respective kebeles or woredas. The majority stated the reason to be lack of awareness about the benefit of such practices and the absence of an office that can coordinate such activities both at the woreda and kebele levels.

Respondents from woreda sector offices further indicated a possible obstacle that could hinder joint planning practices at all levels was the nonexistence of a policy or a directive that would enable such practices to be initiated and institutionalized from the lower to the higher level in the government administrative structure.

Regarding the benefits of joint planning, all respondents indicated that the practice of joint planning can save resources, enable sector offices to work together in all areas, allow them to provide the best possible services, and also overcome the serious problem of shortage of qualified personnel.

4.3.2.4 Integration of Hardware and Software Activities at Kebele/Woreda Level

Responses about the integration of hardware and software components are mixed for this sampling stratum. This discrepancy most likely reflects different interpretations about what integration means. The major argument for not having integrated supply and demand for both water and sanitation is that there is little improvement at the household level in general in both areas.

In response to the question about what approaches and tools are used to promote hygiene and sanitation, several examples are offered. They include the following:

- House-to-house visits made by HEWs
- The model household and model farmers approach
- Involvement and training of community health promoters to impart group talks and pay individual house visits
- School-based activities
- Leaflets and posters

In some Ebnat kebels and Dawa Chefa woredas, health extension workers and kebele chairpersons used an approach called the "walk of shame" to motivate the community members to adopt positive hygiene and sanitation practices.

Some woredas have developed unique approaches such as establishing community task forces, which incorporate key community figures like religious leaders, elders, and influential persons who are believed to have a sway over the community. These task forces are particularly important when approaching and convincing those members of the community who refuse to construct and use latrines.

4.3.2.5 Means of Ensuring Quality Water

Respondents particularly at the kebele level were asked to tell what mechanism they used to ensure a community's quality of water. The majority of the respondents have reported that teaching community members how to keep water clean at home and how to treat water collected from unsafe sources was the key method. Beside these, the respondents indicated that they teach community members about the types of water handling utensils they have to use to avoid possible contamination of water when it is moved from the source until it reaches the consumer at home. This includes the use of narrow mouthed containers both at home and for fetching water from sources, the use of separate containers for fetching and storing water, and the use of separate utensils to draw water from containers.

Besides this they mentioned that they regularly clean water sources by mobilizing community members. In some kebeles, health extension workers and kebele chairpersons reported that students take the lead role in cleaning water sources on regular basis.

Some woreda-level respondents further argued that one means of ensuring water quality is ensuring that there is no fecal contamination of drinking water, thus linking water quality to sanitation.

4.3.2.6 Application of ARHB/WSP-AF/USAID-HIP Monitoring and Evaluation Tools

None of the respondents from the woreda or the kebele level reported knowing, ever hearing about, or using any monitoring and evaluation tools developed by ARHB/WSP-AF/USAID-HIP.

4.3.3 Indirect Involvement Woredas

Eleven woredas sampled from each of the 11 zones of the Amhara Region formed the indirect involvement stratum. The woredas incorporated in this group are not among the woredas directly targeted by the ARHB/WSP-AF/USAID-HIP Learning by Doing Program.

4.3.3.1 Status of Sector: Priorities and Current Implementation Issues

Respondents indicated limited intensity activity in the WASH sector. Activities implemented in the sector in this stratum include the following: WASH awareness, water source development, rehabilitation and maintenance of water supply schemes, and hygiene and sanitation.

Some kebele-level respondents also reported that in their respective localities dry and liquid waste disposal pits were prepared and that water sources for human and animal consumption were segregated, thus avoiding the possible contamination of the water points by cattle.

Shortage of funds for water, sanitation, and hygiene activities and the limited number of health extension workers assigned at the kebele level were the two main reasons frequently mentioned for limited water and sanitation interventions. In this regard, the respondents indicated that the few health extension workers hired in their districts were stretched too thin and could not visit households on a regular basis to follow up on the construction and use of latrines. The health extension workers from some kebeles in Jebitena Woreda indicated, for example, that their daily routine was focused on other maternal child health activities such as immunization and family planning, but not on water and sanitation.

4.3.3.2 Stakeholders Involved in Water and Sanitation-Related Activities

The majority of the woreda and kebele-level respondents from this strata mentioned Health and Agriculture Desks as the major sector partners working in the area of water, sanitation, and hygiene. Beside the Health and Agriculture Desks, many also mentioned kebele administration and the Water Desk as partners working in the same area.

Except in three woredas, namely Ankasha, Dera, and Jabitena, no NGO was reported currently working in the area of hygiene and sanitation development in the remaining eight woredas. Donors and partners present in those three woredas are listed in the following table.

	Donors and Implementers by Woreda						
	Ankasha Dera Jebitena						
٠	FINNIDA	• FINNIDA	•	FHI			
٠	SIDA		٠	FINNIDA			
			٠	Pathfinder			
			•	Water Action			

Regarding the roles of donor and NGO partners, respondents, particularly from Ankasha, reported that their donor (FINNIDA), as the lead agency supporting the woreda's development, has given all-around support to the woreda's hygiene and sanitation-related development activities. The respondents interviewed from Ankasha Woreda further reported that they took the activities carried out by FINNIDA as models and tried to apply the same in kebeles where the donor was not working.

4.3.3.3 Joint Planning and Integration of Activities

Many of the health extension workers, particularly those at the kebele level, found it difficult to understand the concept of joint planning. Even people at the woreda level confuse the practice of joint planning with joint implementation. Normally some sectors do planning independently but carry out activities collectively.

Besides this, it was found that the health extension workers interviewed from the different woredas did not know much about what was going on at the woreda level. This was reported to be mainly due to poor information flow between the woreda and kebele-level officials on issues related to hygiene and sanitation.

The few interviewees both from the woreda and kebele levels who claimed to be practicing joint planning were asked to indicate the major WASH activities carried out with joint planning, the stakeholders involved in the process, and how effective the planning was. However, the responses obtained were mixed and inconsistent. In this regard, one interviewee from Dera Woreda reported that in the joint planning process, health extension workers and those working in family planning were involved. This answer revealed that the respondent did not understand what was meant by joint planning on WASH issues. Other respondents reported that they prepared their plan jointly with kebele officials. Still others argued that sector offices after preparing their plans separately discuss the plans at the kebele level in the presence of all sector offices. Few, however, indicated that representatives of different sector offices, particularly those from Health, Agricultural, Education, and Water Desks, were the actors involved in the joint planning for WASH sector activities.

Irrespective of the responses given by the kebele-level interviewees and some woreda officials, further inquiry made to the Water and Health Desk officials of the 11 woredas revealed that no woredas and kebeles were practicing joint planning on issues related to water, hygiene, and sanitation. Instead, they indicated that the government encourages the different sectors working at the woreda and kebele levels to coordinate their activities so that they would be able to support each other and share resources. This initiative was also reported to create a condition for continuous supervision and follow-up of activities carried out by the sectors at lower levels.

The respondents who claimed joint planning to be absent in their respective woreda/kebele were asked to state the reasons that have hindered the practice from being exercised in their localities. Accordingly, low awareness about the importance of joint planning and poor attention given to initiating and strengthening the practice by officials from the woreda and regional level were the two commonly cited reasons. However, some mentioned budget as a constraint to initiating and sustaining the practice of joint planning.

Asked to state the benefits of joint planning to WASH-related activities, the majority indicated that the practice could improve performance, save resources, avoid duplication, and enhance efficiency. Others stated that joint planning could strengthen the sectors and ensure sustainability of development activities/achievements. Still others claimed that joint planning could be a means of pulling the available resources together and use them in the most efficient and effective manner.

4.3.3.4 Integration of Hardware and Software Activities at Kebele/Woreda Level

Almost half of the respondents claimed that the hardware and software components were well integrated and functioning accordingly. They stated that the two were inseparably linked and to get the intended results in the specific areas of water, sanitation, and hygiene, the two have to always be integrated and go hand in hand. Some Water Desk officers argued that in their jurisdiction the construction of water schemes was implemented in parallel with community mobilization. On the other hand, the remaining half reported that the software and hardware were not integrated and each followed its own path without integration. Although some community mobilization around water schemes may happen, there was no true coordination to ensure the quality of water is maintained from source through consumption.

Although in some instances individuals responsible for the Water Desk argue that hardware and software are integrated in their jurisdiction because there are community mobilization activities implemented, in general respondents separated the nature of hardware intervention as a one time activity, in contrast to software interventions, which for the most part are ongoing. Integration of the two, as a consequence, is often seen as difficult. Informants who claimed that no integration between the two components exists argued that health extension workers often ignore when construction of infrastructure, such as water points, is beginning in their kebeles.

In general, in all woredas covered by the assessment, methods like model farmers, house-to-house visits, demonstrations, and wide-ranging community level awareness-raising activities were reported to be used to create awareness of WASH issues. In woredas like Bahir Dar Zuria and Ankasha, some other additional strategies such as the "walk of shame" were used to motivate the community members to construct and use latrines and keep the environment sanitary.

Training frontline health workers from the community to work at the household level and using health promoters to pass health messages to communities were also used as strategies to raise the community awareness about WASH issues.

Some kebele-level respondents from Dera Woreda reported that in their jurisdiction they not only use the model household approach, they have expanded it to include a model village approach. This approach involves selecting one or two villages from kebeles and carrying out intensive hygiene and sanitation promotion work. Accomplishments are shared with other villages, so they can observe and practically learn from the benefits reaped in model villages.

4.3.3.5 Means of Ensuring the Quality of Water

The majority of the respondents from the 11 indirect involvement woredas indicated that they did not have any means to control the quality of water supplied to community members. Some, however, indicated that community members were informed to report when something new, like changes in taste, color, smell, etc., has happened to the water they are consuming. The responsible agencies that received such reports from the community (in most cases the Ministry of Health via health extension workers working at the local level) were also instructed to report the case to the woreda Water and/or Agriculture Desks for the required corrective measures to be taken to maintain the quality of the water. The majority of the interviewees reported that members of the community were taught how to differentiate safe and unsafe water sources and protect drinking water from getting contaminated at home. The kebele-level respondents have further reported that they often would teach community members about the type of containers they should use, how frequently they should clean the containers, and the types of utensils they should use to take water from containers. The other topics being covered during health education sessions with the community members included the need for and advantages of covering water containers, keeping water containers away from the reach of children and domestic animals, separating containers for fetching water from the water sources, and storing water at home.

4.3.3.6 Application of ARHB/WSP-AF/USAID-HIP Monitoring and Evaluation Tools

None of the respondents from the woreda or the kebele level reported knowing, ever hearing about, or using any monitoring and evaluation tools developed by ARHB/WSP-AF/USAID-HIP.
5. Conclusion

The survey findings highlighted the basic hygiene and sanitation-related information from the household, school, and institution levels in the rural areas of Amhara Regional State.

5.1 Household Survey

A considerable proportion of the households (40%) from rural Amhara do not have access to drinking water from protected sources. The average time taken to fetch water from the nearest water point is found to be 42.4 minutes (ranging between an average of 37 minutes in direct involvement woredas to 49 minutes in the high involvement woredas). These facts coupled with the fact that women and children have to carry heavy containers to fetch water for household consumption will limit the households' access to adequate water for drinking and cleaning purposes.

Results of the study showed that respondents have a low level of awareness about the methods that could be used to make water safe for drinking. In this regard, few respondents mentioned methods like boiling and cloth filtration and none or very few mentioned Aquatabs, Pur, Biosand filter, ceramic filter, and solar disinfection as methods that can be used to make water safe for drinking. Only 13% of the respondents reported an awareness of Wuha Agar (a chlorine product locally available for water treatment). The above findings and the reported very low level of specific water treatment practices prevalent in the studied communities indicate a considerable proportion of households in rural Amhara consume unsafe water from unprotected sources.

It was found that a large proportion of the households (82.5%) store water. However, only 40% of the households store water using a narrow neck container, only 2.3% of the containers have taps, and about one-third of the water containers are accessible to animals. The above findings are indicators that proper water storage is not a universal practice and water that is obtained from protected sources is at an increased risk of contamination by disease-causing organisms.

Findings revealed the prevalent low level of awareness among studied households of the importance of hand washing using water and soap/ash at critical junctures and a related low level of hand washing practices. These two key findings of the study indicate that the most effective way to help break the fecal-oral route of disease transmission is not widely known and practiced among the studied communities.

Most of the households in the studied communities (63.4%) practice open defecation. The pits for the majority (72.3%) of the latrines are not covered, less than a fifth of the toilets have hand washing facilities, and only very few of the hand washing facilities have water and soap nearby. The above figures indicate that people in rural Amhara have very low access to improved sanitary facilities and widely practice unsanitary methods of human waste disposal.

Despite the high level of unsanitary methods of human waste disposal identified by the study, the great majority of the households that practice open defecation are not satisfied with their current sanitary conditions. This shows the existence of a huge potential for positive change if people are given the required support to construct and use sanitary facilities.

5.2 School Survey

The great majority of the surveyed schools (85%) provided latrines for their students. However, the average number of male and female students per toilet was found to be very large and the sanitary conditions and the physical status of most of the available toilets were found to be poor.

Hand washing stations and supplies near the toilet were available only in few of the schools. Moreover, only one-third of the visited schools availed drinking water to their students.

Hygiene and sanitation-related education was reported to be available in 60% of the schools. Forty percent of the schools reported not providing hygiene and sanitation education to the students, and only about one-quarter participate in hygiene and sanitation education rendered for parents and the general community. Only very few of the schools reported using communication materials for the hygiene and sanitation education given to the students.

In general the result of the school hygiene and sanitation assessment revealed that most of the visited schools are very far from qualifying as WASH-friendly schools and that the wash-friendly movement is still almost nonexistent or very scanty.

5.3 Institutional Assessment

The key informant interviews carried out with institutional and community-level respondents revealed that though the intensity and coverage varies, activities related to WASH are being implemented in all 22 woredas covered by the assessment. Large numbers of people in kebeles and woredas from the three strata benefited from the water schemes jointly developed by the government, NGOs, and the community. However, some woredas and kebeles from the indirect involvement strata reported very limited activities and achievements with regard to accessing a safe and adequate water supply for their communities.

Unlike the development of water schemes, the construction and use of latrines and related sanitation facilities are reported to be very low and are cited among the WASH-related interventions where much has not been achieved.

In high involvement woredas, key sector offices like the woreda Health, Water, Agriculture, Women's Affairs, and Education Desks and relatively large numbers of development partners including local and international NGOs and UN agencies are involved in the implementation of WASH-related activities. However, the involvement of sector offices and local and international development partners in WASH-related activities are found to be limited in direct and indirect involvement woredas.

Unlike those from the direct and indirect involvement woredas, the major stakeholders (WASH actors) in the four high involvement woredas were found to be benefiting from the training and other capacity building interventions carried out by WSP/HIP. It was also found that these four high involvement woredas have established WASH coordinating offices and organized WASH teams, WASH committees, and WASH facilitators.

Joint planning of WASH-related activities by the key woreda-level partners was reported by the four high involvement woredas and three of the seven direct involvement woredas. But the practice is found to be limited to activities carried out with RWSSHP funds and never with other regular activities whose costs are covered by the government.

The monitoring and evaluation tools that were developed by ARHB/WSP-AF/USAID-HIP are known by the majority of woreda-level and few of the kebele-level respondents from the four high involvement woredas. However, none of the respondents from the direct and indirect involvement woredas were familiar with the M&E tools.

6. Recommendations

Household Implications and Reccomendations

Latrine promotion:

- Include men in negotiation strategies. In most households men make the decisions about constructing the latrines and where the latrines should be located.
- Develop a behavior change/negotiating strategy for promoting latrine use for families living in shared family compounds, as toilets are currently more common in individual homes.
- Highlight social factors rather than health benefits when promoting latrine installation and use, as these are more motivational to the target audience in Amhara.
- Consider solutions for common barriers to sanitation such as no land or human resources in the household to build latrines to increase latrine uptake.
- Emphasize the need to comply with minimum specifications such as walls and privacy even among those people who already have latrines to encourage use.

Hand washing:

- Consider adding a "critical time" for hand washing after cleaning or playing on the floor, given the prevalence of dung flooring in the region.
- Promote information about the critical times for hand washing through advocacy and reminder materials, especially given the low knowledge about the need to wash hands after defecation. Key knowledge and enabling technologies both increase hand washing practices at critical times. While knowledge is not alone sufficient to motivate hand washing, knowledge of critical times to wash is essential for people to practice the behavior.
- Promote two hand washing stations at fixed points. Setting up dedicated (fixed) hand washing stations at latrines and where food is prepared and eaten can reduce barriers to proper hand washing and serve as a reminder at critical times.

Water treatment and handling:

- Reinforce good water handling practices. Transitioning to jerry cans or closed containers with spigots is the ideal, however, cultural preference for the ensera ceramic jug is strong and will be difficult to change. Reinforce positive practices like covering containers, hygienic dipping with a cup or ladle, and keeping containers out of the reach of animals and children.
- Promote water treatment as well as safe handling and storage. Because much water comes from unprotected sources and water transport is time-consuming and arduous, much water likely arrives at households already contaminated. Further, water handling may contaminate water from protected sources. Program implementers should discuss water treatment.
- Add water treatment to the national "minimum standard" for water storage and handling as part of the integrated package for household water management. Most households already possess at least two water containers and feasible and effective options can be explored and promoted over time while addressing other challenges to promoting water treatment.

Institutional-level Implications and Recommendations

- Publicize norms and standards for latrine/student ratios to promote school compliance with official regulations. Ensure appropriate designs for school latrines and hand washing stations. Conduct operations research and planning to identify and address barriers that prevent compliance and define strategies to overcome the problems.
- Promote school-to-community and school-to-household hygiene and sanitation with parents and the community at large within the existing school curricula and school club materials.
- Extend efforts to promote coordinated planning in high intensity woredas. Emphasize this coordination throughout the region. The next evaluation survey will indicate whether advocacy efforts are successful.
- Widely disseminate the monitoring and evaluation tools introduced by the Learning by Doing Program and promote these tools for planning, monitoring, and assessing programs.

APPENDICES

Appendix 1

Learning by Doing Initiative: Implemented by WSP and the USAID Hygiene Improvement Project

Hygiene, Water, Sanitation Baseline

Household Survey Questionnaire in English and Amharic

Learning by Doing Initiative Implemented by WSP and the USAID Hygiene Improvement Project

Household Survey Baseline Questionnaire

Consent Form:

The regional government would like to improve the living conditions of residents in your community. To be able to do this, however, we need your help to learn about family activities that impact health. We would\ like to talk with the person in your family who is responsible for taking care of children living in your house. The information we collect during this interview will be entirely confidential and will not ask for the names of none interviewed. Also, when the results of all of the interviews are combined, we will not identify specific individuals with any of the information collected. The information you provide will help government offices develop better programs to address the water and sanitation issues faced by your family and your community.

(Please circle the category that describes the decision made by the respondent).

Consent granted_____

Consent refused_____

NO O	UESTION	CODINC CATECODIES	SKID
1 1 1 1 1 1 1 1 1 1	v of respondent	EEMALE 1	SKIP
01 50.	x of respondent	MALE 2	
02 Da	ate of Interview	DAY MONTH	
03 Cc	ode of the Interviewer		
Inf	terviewer Sampling Stratum	High Direct Involvement 1	
04		Intermediate Direct Involvement 2	
		Indirect Involvement 3	
05 Na	ame of village/clustery (Write name directly)		
06 Na	ame of Kebele		
	(write name directly)	DAWA CHEEA 1	
		DEBRE ELIAS	
07 Na	ame of Woreda	DEMBIA	
		FAGETA LEKUMA 4	
		GONDER ZURIA 5	
		KALU 6	
		KEWET 7	
		LEBO KEMKEM 8	
		MECHA 9	
		MEKET	
		SEKOTA	
		SOUTH ACHEFER 12	
		TEHULEDRE	
		TIS ABAY 14	
		Etc.	
		AWI 1	
		BAHIR DAR ZURIA	
08 Na	ame of Zone	EAST GOJAM	
		NORTH GONDER 4	
		NORTH SHOWA	
		NORTH WOLLO	
		OROMIA	
		SOUTH GONDER	
		SOUTH WOLLO	
		WAG HIMERA 10	
		WEST GOJAM 11	
		Etc.	
	inervisor.		
09 Su	ipervisor		
09 Su		DAYMONTHYEAR	
09 Su 010 Da	ate questionnaire reviewed	DAYMONTHYEAR	

	0100 - Observations of Dwelling Characteristics			
NO.	QUESTION	CODING CATEGORIES		SKIP
101	What type of dwelling are you visiting? OBSERVE: (Observe only.)	House located in as separate compound House located in as communal compound Other (Specify)	1 2	
102	What is the material for the walls of the main living area? OBSERVE: (Observe only.)	No walls Cane/trunk/bamboo/reed Bamboo/wood with Stone with mud Uncovered adobe Plywood Carton Cement Stone with lime Bricks Cement Blocks Other (Specify)	1 2 3 4 5 6 7 8 9 10 11	
103	What is the material for the roof of the main living area? OBSERVE: (Observe only.)	Thatch/Leaf Rustic mat/Plastic sheets Reed/bamboo Wood planks Corrugated iron Wood Calamine/Cement fiber Cement/concrete Other (Specify)	1 2 3 4 5 6 7 8	
104	What is the material for the floor of the main living area? OBSERVE: (Observe only.)	Earth/sand Dung Wood planks Reed/Bamboo Polished wood Vinyl Ceramic tiles Cement brick Other (Specify)	1 2 3 4 5 6 7 8	

We are here	to talk about different activities in your household. Le	t's first start with some of the characteristics of the family	
105	How many people live permanently in your house?	(Write in the number.)	
106	How many of those are boys under 5 years of age?		
107	And how many are girls under 5 years of age?		
108	Who in the household is responsible for taking care of those children under 5?	RESPONDENT RESPONDENT'S MOTHER IN LAW SIBLING OF CHILDREN OTHER (SPECIFY)	
109	How old are you?	(Write directly the age)	
110	Did you ever attend school?	No	→ If No go to Question Number 112
111	What was the last grade of school that you completed? (Write in the number.)		
112	Can you read and write?	Yes I can read and write1Yes I can read but not write2No I can not read and write3	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES		SK
201	What is (currently) the main source of drinking water for your family?	Piped Water Into Dwelling Piped Water From A Neighbor Piped Water Into Yard/Plot Public Tap/Standpipe Tube Well Or Borehole Protected Dug Well Unprotected Dug Well Water From Protected Spring Water From Unprotected Spring Tanker Truck Cart With Small Tank Surface Water (River/Dam/Lake/Ponds/Stream/Canal/Irrigation Channel) Bottled Water	$ \begin{array}{c} 1 \\ 2 \\ 3 \\ 4 \\ 5 \\ 6 \\ 7 \\ 8 \\ 9 \\ 10 \\ 11 \\ 12 \\ 13 \\ 14 \\ \end{array} $	
202	Who is responsible for providing water at your main source?	Other (Specify) Does Not Know Government Authority Water Committee NGO Private Operator/Vendor Household Wells Rainwater Surface Water Other (Specify)	1 2 3 4 5 6 7 8	
203	How long does it take to go there, get water, and come back?	Minutes:	1	
204	What are the other sources (other than you use for drinking water) of water you use for other purpose?	Piped Water Into Dwelling Piped Water From A Neighbor Piped Water Into Yard/Plot Public Tap/Standpipe Tube Well Or Borehole Protected Dug Well Unprotected Dug Well Water From Protected Spring Water From Unprotected Spring Tanker Truck Cart With Small Tank Surface Water (River/Dam/Lake/Ponds/Stream/Canal/Irrigation Channel) Bottled Water	$ \begin{array}{c} 1\\2\\3\\4\\5\\6\\7\\8\\9\\10\\11\\12\\13\\14\end{array} $	
205	Do you get water from your main source throughout	Other (Specify)	1	\rightarrow If YES

		Piped Water Into Dwelling	1	
		Piped Water From A Neighbor	2	
		Piped Water Into Yard/Plot	3	
		Public Tap/Standpipe	4	
		Tube Well Or Borehole	5	
		Protected Dug Well	6	
	What other source of drinking water do you use when	Unprotected Dug Well	7	
	the main source does not have sufficient water?	Water From Protected Spring	8	
206	(Seasonal or intermittent)	Water From Unprotected Spring	9	
		Rainwater	10	
		Tanker Truck	11	
		Cart With Small Tank	12	
		Surface Water		
		(River/Dam/Lake/Ponds/Stream/Canal/Irrigation		
		Channel)	13	
		Bottled Water	14	
		Other (Specify)		
		Does Not Know	1	
		Government Authority	2	
		Water Committee	3	
		Ngo	4	
207	Who is responsible for providing water at this source?	Private Operator/Vendor	5	
	1 1 0	Household Wells	6	
		Rainwater	7	
		Surface Water	8	
		Other (Specify)		
				\rightarrow If No.
208	Do you sometimes change sources of drinking water to	NO	1	Go to
	access water that is less expensive?	YES	2	O# 210
	1	DOES NOT KNOW	1	2=
		GOVERNMENT AUTHORITY	2	
		WATER COMMITTEE	3	
		NGO	4	
209	Who provides that less expensive water?	PRIVATE OPERATOR/VENDOR	5	
		HOUSEHOLD WELLS.	6	
		RAINWATER	7	
		SURFACE WATER	8	
		OTHER (SPECIFY)	0	
207 208 209	Who is responsible for providing water at this source? Do you sometimes change sources of drinking water to access water that is less expensive? Who provides that less expensive water?	Private Operator/Vendor Private Operator/Vendor Household Wells Rainwater Surface Water Other (Specify) NO YES. DOES NOT KNOW	4 5 6 7 8 1 2 1 2 3 4 5 6 7 8	→ If No Go to Q# 210

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
	0210 – 342 Water Treatment K	nowledge and Initial Practice	
	What can families do to make water better for drinking?	Boil	1
		Add bleach	2
	RECORD ALL MENTIONED	Add chlorine solution (Wuha Agar/	
		Water guard)	3
		Add chlorine tablets (Aquatabs)	4
		Strain it through a cloth	5
		Let it stand and settle	6
210		Use ceramic filter	7
		Use sand filter	8
		Solar disinfection	9
		Keep water in covered container	10
		Use permanganate	11
		Other (specify)	12
		Nothing	13
		D/K	99

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES		SKIP
211	What products can be added to drinking water to make it safer to drink? RECORD ALL MENTIONED	Liquid Chlorine (Wuha Agar)	2 3 4 5 5 5 7 8	→ Go to Q# 213
212	Do you know a product called Wuha Agar/Water Guard?	No	l 2	→ If No go to Q#215
213	Do you have water guard at home?	No 1 Yes 2	l 2	→ If No go to Q# 215
214	Can you show me how to use Wuha Agar/Water Guard?	Incorrect	1	
215	Where could you get a Wuha Agar/Water Guard close by (less than 5 km) if you wanted one? (Record All Mentioned)	Nearby health facility 1 Store 2 Drug Depot 3 Elsewhere 4 Nowhere 5 D/K 6	2 3 4 5 5	
216	Do you do anything to make water safer to drink?	No 1 Yes 2	l 2	$\rightarrow If No go to Q# 300$
217	What do you currently do to make water safer to drink? Anything else? (Check All Mentioned And Go To The Section Corresponding To Each Method.) (Record All Mentioned)	Boil	10 99	$\rightarrow 218$ $\rightarrow 225$ $\rightarrow 234$ $\rightarrow 243$ $\rightarrow 257$ $\rightarrow 278$ $\rightarrow 298$ $\rightarrow 313$ $\rightarrow 326$

BOIL

218	When did you boil that water?	Day of the interview while cooking 1 Day of the interview after 2 cooking was done 2 Yesterday 3 Other (Specify):	
219	For how long did you let it boil for?	(Write answer in minutes)	
220	Can I see the container where you keep the boiled water?	No 1 Yes 2	→ If No go to Q#225

221	(OBSERVE) HOW CLEAR IS THE BOILED WATER?	Looks crystalline Has some color Has very noticeable but passes light Totally opaque.	1 2	
			3	
		Pot made of clay wide mouth	1	
		Pot made of clay parrow mouth	2	
	What container was used to store the boiled water?	lerry can	3	
222	what container was used to store the boned water.	Basel	4	
		Other (Specify:)		
		No	. 1	
223	(OBSERVE)	Yes	2	
223				
	Does the water strrage vessel have a hard cover?			
		Glass/cup with handle	1	
		Ladle	. 2	
224	How do you get water out of this container?	Pour into drinking glass/cup	. 3	
227		Other mechanism	. 4	
		(Specify):		
				1

Common Bleach				
225	How much water did you treat using this product?	(Write amount in lliters).		
226	What amount of bleach did you use to treat the water?	(Write in amount in).		
227	May I take a sample of your drinking water to test for chlorine?	Not allowed Allowed Not applicable, method not used	1 2 3	$\rightarrow 23$ 0 $\rightarrow 234$
228	(OBSERVE) How Clear is the Filtered Water?	Looks crystalline Has some color Has very noticeable color and did not passes light Totally opaque	1 2 3 4	7401
229	CHECK RESULTS OF RESIDUAL CHLORINE TEST. (ACCEPTABLE MINIMUM LEVEL IS 0.5 mg/l)	Negative (did not turn pink) Positive (turned pink) Not applicable, method not used	1 2 3	
230	How long ago did you treat this water with the product you mentioned?	(ESTIMATE THE NUMBER OF HOURS ELAPSED SINCE TREATMENT AND WRITE DOWN THAT NUMBER IN ROUNDED FIGURES)		
231	Do you have the package for the blech?	Do not have Have Not applicable	1 2 3	$\rightarrow 234 \rightarrow 232 \rightarrow 234$
232	Can you show me?	Yes No	1 2	

	233	Check the expiration of the Chlorine	Expired Not Expired	1 2	
--	-----	--------------------------------------	------------------------	-----	--

Wuha Agar				
234	May I take a sample of your drinking water to test for chlorine?	Not allowed Allowed Not applicable, method not used	1 . 2 . 3	237 243
235	(OBSERVE) HOW CLEAR IS THE TREATED WATER?	Looks crystalline Has some color Has very noticeable but passes light Totally opaque.	1 2 3 4	
236	CHECK RESULTS OF RESIDUAL CHLORINE TEST. (ACCEPTABLE MINIMUM LEVEL IS 0.5 mg/l)	Negative (did not turn pink) Positive (turned pink) Not applicable, method not used	. 1 . 2 . 3	
237	How long ago did you treat this water with the product you mentioned?	(ESTIMATE THE NUMBER OF HOURS ELAPSED SINCE TREATMENT AND WRITE DOWN THAT NUMBER IN ROUNDED FIGURES)		
238	How much water did you treat with this product last time you did it?	(write amount in liters)		
239	What amoaunt of WuhaAgar did you put in?	(Write number of caps)		
240	Do you still have the bottle/packaging that contains that product?	NOYESNOT APPLICABLE, USED BLEACH	. 1 . 2 . 3	→243 →243
241	May I see it?	Not allowed Allowed	. 1 . 2	→243
242	(CHECK THE EXPIRATION OF THE CHLORINE SOLUTION)	Expired Not expired	1 2	

	Aqu	atabs		
243	May I take a sample of your drinking water to test for chlorine?	Not allowed Allowed Not applicable, method not used	1 2 3	→246 →250
244	(OBSERVE) HOW CLEAR IS THE FILTERATED WATER?	Looks crystalline Has some color Has very noticeable but passes light Totally opaque	1 2 3 4	
245	CHECK RESULTS OF RESIDUAL CHLORINE TEST. ACCEPTABLE MINIMUM LEVEL IS 0.5 mg/l	Negative (did not turn pink)		
214	How long ago did you treat this water with the product you mentioned?			
246	(ESTIMATE THE NUMBER OF HOURS ELAPSED SINCE TREATMENT AND WRITE DOWN THAT NUMBER IN ROUNDED FIGURES)			
247	How much water did you treat with this product last time you did it?	(write amount in liters)		
248	What amoaunt of Aqua tabs did you put in?	Write number of tabs		
249	Do you still have the bottle/packaging that contains that product?	NO YES NOT APPLICABLE, USED BLEACH	1 2 3	\rightarrow \rightarrow
250	May I see it?	Not allowed Allowed	1 2	→
251	CHECK THE EXPIRATION OF AQUATABS	Expired Not expired	1 2	
	P	uR		
252	May I take a sample of your drinking water to test for chlorine?	Not allowed Allowed Not applicable, method not used	1 2 3	→256 →261
253	OBSERVE: HOW CLEAR IS THE FILTERED WATER?	Looks crystalline Has some color Has very noticeable but passes light Totally opaque.	1 2 3 4	
254	CHECK RESULTS OF RESIDUAL CHLORINE TEST. ACCEPTABLE MINIMUM LEVEL IS 0.5 mg/l	Negative (did not turn pink) Positive (turned pink) Not applicable, method not used	1 2 3	
255	How long ago did you treat this water with the product you mentioned? (ESTIMATE THE NUMBER OF HOURS ELAPSED SINCE TREATMENT AND WRITE DOWN THAT NUMBER IN ROUNDED FIGURES)			
256	How much water did you treat with this product last time you did it?	(write amount in liters)		

257	What amoaunt of PuR did you put in?	Write number of tabs		
258	Do you still have the bottle/packaging that contains that product?	NO YES NOT APPLICABLE, USED BLEACH	1 2 3	\rightarrow \rightarrow
259	May I see it?	Not allowed	1 2	\rightarrow
260	CHECK THE EXPIRATION OF PUR	Expired Not expired	1 2	

	Ceramic	Filters	
261	How long have you had this filter?	(Write the amount in years)	
262	DO YOU KNOW HOW TO USE THE FILTER	No 1 Yes 2	→ 264
263	Can you show me how to operate this filter?	Done incorrectly 1 Done correctly 2 Refused to show 3	
264	Have you ever been told by anyone how to operate it?	NO	→ 261
265	Who provided that instruction?	Retailer/Dealer 1 Health Educator 2 Read instructions 3 Other (specify)	
266	How do you know when it is time to clean your filter?	When it is performing too slowly1When the instructions tell me to2Other. Specify3	
267	Have you ever cleaned the filter?	No	\rightarrow
268	When did you last clean this filter? (Not sure what the recommendations would be in Ethiopia.)	Does not meet manufacturer's recommendations	\rightarrow
269	How often do you clean it?	(Write amount in months.)	
270	Can you show me how you (can) clean it?	Does not meet manufacturer's recommendations1Meets manufacturer's recommendations2	
271	Have you ever been told by anyone how to clean this filter?	No	\rightarrow
271	Who provided that instruction?	Retailer/Dealer	
273	Do any parts to this filter need replacement?	Does not know 1 NO	\rightarrow \rightarrow

274	How often does the candle need to be replaced?	(Write answer in months.)	
275	Have you ever had problems with the filter?	NO 1 YES 2	\rightarrow
276	What kind of problems have you had?	Not as efficient as at outset1Broken candle with no replacement available2	
277	Can I see your drinking water filter?	Not allowed 1 Allowed 2	\rightarrow
278	(OBSERVE)	NO	
	Is this filter covered with a lid?		
279	OBSERVE: does the filter have water in the bottom unit?	NO	
280	(OBSERVE) Does the filter have a ceramic filter installed in the unit?	NO	
281	(OBSERVE) Is the ceramic filtering element wet or dry?	Wet 1 Dry	
282	(OBSERVE) How Clear Is The Filtered Water?	Looks crystalline	

	Biosand F	ilters		
283	How long have you had this filter?	(Write the amount in years.)		
284	DO YOU KNOW HOW TO OPERATE THE FILTER	No Yes	1	→ 286
285	Can you show me how to operate this filter?	Done incorrectly Done correctly Refused to show	1 2 3	
286	Have you ever been told by anyone how to operate it?	NO YES	1 2	\rightarrow
287	Who provided that instruction?	Retailer/Dealer Health Educator Read instructions Other (Specify)	1 2 3	
288	How do you know when it is time to clean your filter?	When it is performing too slowly When the instructions tell me to Do not know Other Specify	1 2 3	\rightarrow
289	Can you show me how you (can) clean it?	Outer: Specify	1 2 3	
290	How did you clean it?	Does not meet manufacturer's recommendations (Did not change rocks, carbon or sand) Meets manufacturer's recommendations	1 2	→
291	Have you ever been told by anyone how to clean it?	(Changed rocks, carbon or sand) NO	1	\rightarrow
292	Who provided that instruction?	Retailer/Dealer Health Educator Read instructions Other (Specify)	1 2 3	
293	Have you ever had problems with the filter?	NOY	1 2	\rightarrow
294	What kind of problems have you had?	Not as efficient as at outset Does not know how to replace materials Others (specify)	1 2	
295	Can I see your drinking water (bio sand) filter?	NO YES	1 2	\rightarrow
296	(OBSERVE) is the filter covered with a lid????	NO YES	1 2	
297	(OBSERVE) does the inside of the top part of the filter have algae or visible slime?	NO YES	1 2	
298	(OBSERVE) IS THE FILTER IN DIRECT SUNLIGHT?	NO YES	1 2	
299	(OBSERVE) IS THE STORAGE UNIT OF THE FILTER CLEAN?	NO YES	1 2	
300	(OBSERVE) IS THE STORAGE UNIT OF THE ENTER COVERED	NO	1	
301	(OBSERVE) IS THERE A SPECIFIC DIPPER AVAILABLE TO EXTRACT FILTERED WATER?	NO YES	1 2	

202	(OBSERVE)	NO	1	
302	DOES THE DIPPER LOOK CLEAN?	YES	2	
	(OBSERVE)	Looks crystalline	1	
202	HOW CLEAR IS THE FILTERED WATER?	Has some color	2	l
505		Has very noticeable but passes light	3	l
		Totally opaque	4	

	Cloth Fil	lters		
304	How long have you had this clotrh filter?			
305	DO YOU KNOW HOW TO USE THE FILTER	NoYes	1 2	→ 307
306	Can you show me how to operate/use the cloth filter?	Done incorrectly Done correctly	1 2	
307	Have you ever been told by anyone how to operate/use the cloth it?	YES	1 2	→ 309
308	Who provided that instruction?	Retailer/Dealer Health Educator Read instructions Other (specify)	1 2 3 4	
309	How do you know when it is time to clean your cloth filter?	When it is performing too slowly When the instructions tell me to Other, Specify	1 2	
310	Have you ever cleaned the cloth filter?	NO YES Do not know how to clean it	1 2 3	$\rightarrow 313$ $\rightarrow 314$
311	When did you last clean this cloth filter?	Does not meet manufacturer's recommendations Meets manufacturer's recommendations Never cleaned it	1 2 3	→314
312	How often do you clean the cloth it?	(Write amount in months.)		
313	Can you show me how you (can) clean the cloth fliter ?	Does not meet manufacturer's recommendations Meets manufacturer's recommendations Do not know how to clean it	1 2 3 4	
314	Have you ever been told by anyone how to clean this cloth filter?	NO YES	1 2	→316
315	Who provided that instruction?	Retailer/Dealer. Health Educator. Read instructions. Other (Specify)	1 2 3	
316	Have you ever had problems with the cloth filter?	NO	1 2	→311
317	What kind of problems have you had?	Not as efficient as at outset Not with no replacement available	1 2	
318	Can I see your cloth filter?	Not allowed	1 2	\rightarrow
319	(OBSERVE) HOW CLEAR IS THE FILTERED WATER?	Looks crystalline Has some color Has very noticeable but passes light	1 2 3	
		Totally opaque.	4	

	Solar Disin	fection		
320	Did you receive any instructions about how to treat water using solar disinfection?	NO YES	1 2	→322
321	Who provided that instruction?	Health educator. School teacher. Ag extensionist. Other sources (specify)	1 2 3	
322	Can I see your SODIS bottles in the sunlight?	NO YES Bottles are not exposes to sunlight	1 2 3	→ 324
323	(OBSERVE) If allowed to see SODIS bottles, indicate number of bottles. (BOTTLES FILLED WITH WATER)	Number of bottles		
324	IF NOT ALLOWED, ASK: How many bottles are currently exposed to the sun?	Number of bottles IF 0 SKIP TO		→
325	Did you put all these bottles in the sun on the same day?	NO YES		→

326 IF NOT ALL BOTTLES EXPOSED ON THE SAME DAY, FILL IN THE TABLE BELOW THEN SKIP TO 320

Number of days exposed	Number of bottles	How many more days do you plan to expose these bottles?
One day		
Two days		
More than two days		

327	Do you have a separate set of bottles for fetching the water?	NO	→328
328	Do you use a separate set of bottles for storing the treated water?	NO	→329
329	How do you store the treated water through solar disinfection?	Does not store it	
330	How long have you used the bottles that you currently use to treat the water with solar disinfectiion?	(Write the amount in number of months)	
331	Have you ever had problems with this type of water treatment?	NO	→333
332	What kind of problems have you had?	Not enough bottles to satisfy family needs1Not enough sun most days2Family members got sick from drinking water treated this way	

	Traditional methods for treating water			
333	What other methods (tradataional methods) of water treament practiced in your locality?	Moringa Seeds Roots Leafs Other. Specify	1 2 3	
	Consumption of the treated water			-
334	How oftern do you treat water that you use for dirinikng purpose using the above methods?	Daily Not daily but often When a family members gets sick During rainy sessions During occasions Other (Specify)	. 1 . 2 . 3 . 4 . 5	
335	From the hosuehold who drinks the clean water	All family members Small children Sick member of the household Older people Other (Specify)	. 1 . 2 . 3 . 4	

1	Storage Responses to questions 745 through 753 must be provided by	e all households, regardless of how they treat their wate	r.
336	Do you store drinking water?	NO 1 YES 2	\rightarrow
337	How do you store drinking water ?	NO WATER STORED	
338	IF IN CONTAINERS, may I see the containers, please?	NO 1 YES 2	\rightarrow
339	Who decided to use these containers?	Wife	
340	(OBSERVE) Count how many containers are used and write down the number	Number of containers	
341	(OBSERVE) WHAT IS THE ESTIMATED AMOUNT OF WATER IN LITERS STORED PER CONTAINER	Container 1 Container 2 Container 3 Container 4	

	(OBSERVE)	CLAY POT WITH NARROW MOUTH	1	
	WHAT TYPES OF CONTAINERS ARE THESE?	CLAY POT WITH WIDE MOUTH	2	
342	OBSERVE AND CHECK ALL THAT APPLY.	CLAY POT BOTH TYPES	3	
	Narrow mouth opening is 3 cms. of less.	JERRY CAN	4	
	1 0	OTHER (SPECIFY)		
		NONE ARE ALL	0	
		COVERED WITH HARD COVERS	0	
	ADE CONTAINERS COVERED COREDUE AND	COVERED WITH HARD COVERS	1	
343	ARE CONTAINERS COVERED? (OBSERVE AND	SOME COVERED WITH HARD COVERS	1	
	CHECK)	ALL COVERED WITH SOFT COVERS SUCH	2	
		AS PIECE OF CLOTH	3	
		Other, Specify	4	
		NONE DO	0	
	(OBSERVE)	YES. ALL DO	1	
344	DO CONTAINERS HAVE A TAP?	SOME DO AND SOME DO NOT	2	
	Bo convinintent intent inte		-	
	(OPSERVE)	NO (all are alt)	1	
		NO (all are ok)	1	
345	Is drinking water storage container cracked?	YES(some are cracked)	2	
0.0		Yes (all are caked)	3	
		Other, Specify		
	(OBSERVE)	NO	1	
346	Is water container located in area accessible to animals in the	YES	2	
	house (cats, dogs, poultry)?			
	(OBSERVE)	NO	1	
347	Is water container located in an area accessible to children?	VEC	2	
	is water container located in an area accessible to children!	Della	1	
			1	
		From time to time, but not daily	2	
348	How often do you store water this way?	When somebody is sick in the		
510		household	3	
		During rainy season	4	
		Special occasions	5	
		1		
		All household members	1	
		Only shildren	2	
349			2	
542	who in the household drinks the stored water?	Only the sick	3	
		Only the elderly	4	
		Others (Specify:)		
		NT.		
	How long ago did you clean these containers?	Never	1	
350	(WRITE DOWN THE NUMBER OF DAYS. IF DAY			
	OF THE INTERVIEW,	Number of days		
	WRITE 1, IF YESTERDAY, WRITE 2)			
	· ,	Daily	1	
		Every other day	2	
	How often do you clean these containers?	Weekly	3	
351	110 otten do you clean inese containers:	Never	4	
		Other (Specify)	-	
		Other (Specify)		
		Wite	1	
		Daughter	2	
352	Who cleans the containers?	Husband	3	
		Son	4	
		Somebody else, specify		
I		····/···/	I	

0400-0417 Soap and other Cleaning Materials				
400	Is that common to use soap in the household	NO YES	1 2	
401	Do you have any type of soap in your house?	NO YES	1 2	\rightarrow

Γ

402 403 404	Who in the family decided to buy the soap? Did you use soap at anytime yesterday morning? The first time you used soap yesterday, what did you use it for? IF FOR WASHING MY OR MY CHILDREN'S HANDS IS MENTIONED, PROBE WHAT WAS THE OCCASION, BUT DO OT READ THE ANSWERS	Wife	1 2 3 4 1 2 3 4 5 6 7 8 9	→
405	Did you use soan at any other occasion vesterday?	Washing My Hands Before Eating Other. Specify		→
406	What did you use soap for? IF FOR WASHING MY OR MY CHILDREN'S HANDS IS MENTIONED, PROBE WHAT WAS THE OCCASION, BUT DO OT READ THE ANSWERS	Washing Clothes. Washing My Body Washing My Children Washing Child's Bottoms. Washing My Children's Hands. Washing My Children's Hands. Washing My Children's Hands. Washing My Hands After Defecating Washing My Hands After Cleaning A Child Washing My H Ands Before Feeding A Child. Washing My Hands Before Preparing Food. Washing My Hands Before Eating. Other. Specify	1 2 3 4 5 6 7 8 9 9 1 0	
407	For what purpose do you commonly use soap for?	Washing Clothes Washing My Body Washing My Children Washing Child's Bottoms Washing My Children's Hands Washing My Children's Hands Washing My Hands After Defecating Washing My Hands After Cleaning A Child	$ \begin{array}{c} 1 \\ 2 \\ 3 \\ 4 \\ 5 \\ 6 \\ 7 \\ 8 \\ 9 \\ 1 \\ 0 \\ \end{array} $	
	ASH			
408	Have you ever-used ash for washing purpose?	NO YES	1 2	→

409	Did you use that type of ash at anytime yesterday morning?	NO	1	
409	The first time you used ash yesterday, what did you use it for? IF FOR WASHING MY OR MY CHILDREN'S HANDS IS MENTIONED, PROBE WHAT WAS THE OCCASION, BUT DO OT READ THE ANSWERS	YES Washing Clothes Washing My Body Washing My Children Washing Child's Bottoms Washing My Children's Hands Washing My Hands After Defecating Washing My Hands After Cleaning A Child Washing My Hands Before Feeding A Child Washing My Hands Before Preparing Food Washing My Hands Before Eating Other, Specify	1 2 1 2 3 4 5 6 7 8 8 9 1 0	
411	Did you use ash at any other occasion yesterday morning?	NO YES	1 2	\rightarrow
412	What did you use ash for? IF FOR WASHING MY OR MY CHILDREN'S HANDS IS MENTIONED, PROBE WHAT WAS THE OCCASION, BUT DO OT READ THE ANSWERS	Washing Clothes Washing My Body Washing My Children Washing Child's Bottoms Washing My Children's Hands Washing My Hands After Defecating Washing My Hands After Cleaning A Child Washing My H Ands Before Feeding A Child Washing My Hands Before Preparing Food Washing My Hands Before Eating Other. Specify	1 2 3 4 5 6 7 8 8 9 1 0	
413	Did you use ash any other time yesterday?	NO YES	1 2	\rightarrow
414	What for? IF FOR WASHING MY OR MY CHILDREN'S HANDS IS MENTIONED, PROBE WHAT WAS THE OCCASION, BUT DO OT READ THE ANSWERS	Washing Clothes. Washing My Body Washing My Children Washing Child's Bottoms. Washing My Children's Hands. Washing My Children's Hands. Washing My Hands After Defecating Washing My Hands After Cleaning A Child Washing My Hands Before Feeding A Child. Washing My Hands Before Preparing Food. Washing My Hands Before Eating. Other. Specify	1 2 3 4 5 6 7 8 8 9 1 0	
415	Other than ash and soap are there other materials do you commonly use for washing/as detergent	NOYES	1 2	\rightarrow \rightarrow
416	Other than ash and soap what other materials do you commonly use for washing/as detergent	Leaf Sand Other (Specify)	1 2	\rightarrow \rightarrow

417	What specific type of leaf used to washing purpose? (Ask to mention the local name of the leaf used)			
		Washing Clothes	1	
		Washing My Body	2	
		Washing My Children	3	
		Washing Child's Bottoms	4	
		Washing My Children's Hands	5	
		Washing My Hands After Defecating		
			6	
		Washing My Hands After Cleaning A Child		
418	For what purpose do you commonly use the leaf?		7	
		Washing My H Ands Before Feeding A		
		Child	8	
		Washing My Hands Before Preparing		
		Food	9	
		Washing My Hands Before		
		Eating	1	
		Other. Specify	0	
				l

	0418-0432 Hand Washing /W	here Does Family Wash Hands		
419	Yesterday, how many times have you used soap to ahs your hands	(Erecuent in Number)		
420	After performing which activities/for what purpose did you use soap to wash hands?	(Frequeny in Number) Washing Clothes. Washing My Body Washing My Body Washing My Children Washing My Children Washing My Children's Hands. Washing My Children's Hands. Washing My Hands After Defecating Washing My Hands After Cleaning A Child Washing My H Ands Before Feeding A Child. Washing My Hands Before Preparing Food. Washing My Hands Before Eating. Other. Specify	1 2 3 4 5 6 7 8 9 10	
421	Yesterday, have you used ash to wash your hands	NO YES	1 2	\rightarrow
422	Yesterday, how many times have you used ash to wash your hands	(Erequeenv in Number)		
423	Can you show me where you usually wash your hands and what you use to wash hands? ASK TO SEE AND OBSERVE	INSIDE/NEAR TOILET FACILITY INSIDE/NEAR KITCHEN/ COOKINGPLACE ELSEWHERE IN YARD OUTSIDE YARD NO SPECIFIC PLACE NO PERMISSION TO SEE	1 2 3 4 5 6	→
424	(OBSERVE) (Frequceny in Number) LOCATION: What is the hand washing device?	Faucet Tippy tap Basin/bucket Other (specify)	123 4	
425	(OBSERVE) Was water available at time of interview?	NO YES	1 2	

	(ASK)	NO	1	
426	Did you have water here yesterday?	YES	2	
	OBSERVATION ONLY:	None	1	
		Soap	2	
	IS THERE SOAP OR DETERGENT OR OTHER	Detergent	3	
	LOCALLY USED CLEANSING AGENT?	Ash	4	
427		Mud	5	
427	THIS ITEM SHOULD BE EITHER IN PLACE OR	Sand	6	
	BROUGHT BY THE INTERVIEWEE WITHIN 5	Other (specify)		
	MINUTES. IF THE ITEM IS NOT PRESENT WITHIN			
	THAT IME CHECK NONE, EVEN IF PROVIDED			
	LATER.			
	Who in the family makes sure that there is water at this hand	Wife	1	
	washing station?	Daughter	2	
428	-	Husband	3	
		Son	4	
		Somebody else, specify		

	When/How Wash			
429	Sometimes people wash their hands before or after doing certain activities. What do you think are the most important occasions? RECORD ALL MENTIONED	After defecation	1 2 3 4 5 6 7 8	
430	What are the reasons for washing hands with Soap/Ash?	Prevent diarrhea Prevent other diseases Remove germs Prevent dirt getting into mouth Prevent dirt from getting into food Smells good Others (specify)	1 2 3 4 5 6	
431	Do you wash your hands using water treated with bleach?	No Yes	1 2	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES		SKIP
	0501-0525 Sanitati	ion Questions		
501	Do you have any children under three years of age?	No Yes	1 2	
502	The last time the youngest child passed a stool, where did he/she defecate?	Used sanitation facility Used potty Used washable diapers Used disposable diapers Went in house/yard Went outside the premises Went in his/her clothes Don't know Other (Specify)	1 2 3 4 5 6 7 8	
503	The last time your youngest child under your care passed stools, where were the feces disposed of?	Dropped into toilet facility Buried Solid waste/trash In yard Outside premises Public latrine Into sink or tub Thrown into waterway Thrown elsewhere (specify)	1 2 3 4 5 6 7 8	
504	Who disposed of the child feces?	Wife Daughter Husband Son Somebody else, specify	1 2 3 4	
505	What kind of toilet facility do members of your household usually use? Or, where do members of your household usually go to defecate? Who in the family decided to install the latrine?	None, field bush, plastic bag FLUSH OR POUR FLUSH TOILET FLUSHED TO: PIPED SEWER SYSTEM SEPTIC TANK SOAK PIT LATRINE SOMEWHERE ELSE	$ \begin{array}{c} 1\\ 2\\ 3\\ 4\\ 5\\ 6\\ 7\\ 8\\ 9\\ 1\\ 0\\ 1\\ 2\\ 3\\ \end{array} $	→
507	Who installed the latrine?	Somebody else, specify Husband Mason Other. Specify	1 2	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES		SKIP
508	Who decides where to locate the latrine?	Wife Daughter Husband Son.	1 2 3 4	
509	Where is your toilet facility?	Somebody else, specify Inside/attached to dwelling Elsewhere on premises Outside premises Public latrine	1 2 3 4	
510	Can I see the facility?	Not allowed Allowed to see it	1 2	
511	How long have you had that toilet? (Write information in months.)			
512	Do you share this facility with other households?	NO YES	1 2	
513	How many households share this facility? WRITE NUMBER OF HOUSEHOLDS	Number of households		
514	What were the top three reasons for building the facility? (Multiple choice, Do not read answers, record all answers provided.)	Status/Pride Comfort. Convenience. Privacy. Avoid sharing with others. Security. Disease prevention. Shame of environmental contamination Other. (Specify)	1 2 3 4 5 6 7 8	
515	Do you add any product to the pit to control the smell or the flies?	NO YES	1 2	
516	What do you add?	Ash Bleach Insecticide Motor oil Other. Specify	1 2 3 4	
517	Did you do any recent maintenance work on this toilet?	NO YES	1 2	\rightarrow
518	What did you do?	Changed an element of the structure above the ground Changed to a new pit Emptied the pit	1 2 3	
519	Was your toilet empted recently?	NO YES	1 2	\rightarrow
520	If emptied pit, where did you dispose of the contents of the pit?	Disposed in waterway Disposed in field far away from house Buried it elsewhere Burned it Used it for composting Other. (Specify)	1 2 3 4 5	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP	
501		NO	1	
521	If emptied pit, is that emptied pit still being used?	YES	2	
		Permanently	1	
522	Have you closed it permanently or temporarily?	Temporarily	2	
500	How long has it been closed for?			
523				
		(Write answer in months) Not having a dequate polt of land/no land to		
	What were the top three reasons for your household for not	cosntruct the toilet	1	
	having/building the toilet facility?	Soil is loose	2	
		Not having adequate cosntruction materials		
	(Multiple choice, Do not read answers, record all answers	No one to coentruct the toilet (No mecon)	3	
	provided.)	No one to cositifuet the tonet (No mason)	4	
524		Cosnutction cost is expensive	5	
524		Not having knweodge on how to cosntruct latrin		
			6	
		Not being able to get permission from local		
		additionates to cosmitate the tonet	7	
		We have other proiorites	8	
		Other. (Specify)		
			1	
	How satisfied are you with the place where your family defecates?	Somewhat unsatisfied	2	
	(Read answers)	No opinion	3	
525		Somewhat satisfied	4	
		Very satisfied	5	
		Other. (Specify)		
		Build a private latrine	1	
		Improve the current private latrine family has.	2	
		Help build a community latrine	3	
526	What would you like to do to change your current sanitation	Request government/outside assistance for		
	situation?	Improving situation	4	
		Other.Specify	5	
		Do not know	6	
	0527 – 0545 Sanitation Obser	vations and Gender Roles		
		Within house	1	
	(OBSERVE)	In yard	$\begin{bmatrix} 2\\ 3 \end{bmatrix}$	
527	Distance of the facility from the house?	21+ meters from house	4	
		NO	1	
528	(OBSERVE)	YES	2	
	Does it have walls?			
		NO	1	
529	(OBSERVE)	YES	2	
52)	Does it have a roof?			
		NO	1	
	(OBSERVE)	YES	2	
530	Does it allow privacy?			
	(It has a curtain or door or entrance is L shaped)			

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES		SKIP
531	(OBSERVE) Is it locked?	NO YES	1 2	
532	(OBSERVE) Does it have any of these child friendly features:	Pit latrine with smaller hole Lower seat Cannot determine None of the above	1 2 3 0	
533	(OBSERVE) Is the pit covered? (OBSERVE)	NOYES	1 2 1	
534	Is it being used? (OBSERVE IF THERE ARE FECES IN THE PIT, THROW A ROCK AND LISTEN IF IT SEEMS WET, IF THERE IS EVIDENCE OF ANAL CLEANSING, AND/OR IF THE PATH TO THE LATRINE SEEMS TO HAVE BEEN WALKED ON. CHECK ALL THAT APPLY.)	Observed anal cleansing materials in latrine Detectable path to the latrine Slab is wet Slab is grey color Smelly Flies around it	2 3 4 5 6 7	
535	(OBSERVE) It clean?	NO YES	1 2	
536	(OBSERVE) Is there a broom nearby?	NO YES	1 2	
537	(OBSERVE) Is there hand washing station near the latrine?	NO YES	1 2	\rightarrow
538	(OBSERVE) Is there water at the hand washing station near the latrine? (OBSERVE) What container is used for water at the HW station?	NO	1 2 1 2 3 4	→
540	(OBSERVE) Is there a cleansing agent at this hand washing station near the latrine? RECORD ALL PRESENT	NoneSoap Detergent Ash Other (specify)	0 1 2 3 4	
541	ASK: Who cleans the latrine?	Wife Daughter Husband Son Somebody else, specify	1 2 3 4	
542	ASK Who brings the water the hand washing station here?	No such family Wife Daughter Husband Son Somebody else, specify	1 2 3 4 5	
543	ASK: Who makes sure there is a cleansing agent available?	No such agent Wife Daughter Husband Son Somebody else, specify	1 2 3 4 5	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP	
0600-0616 Psycho Social Determinants of Latrine Ownership				
Now, I am going to ask a series of questions to get a sense of your opinions. I would appreciate it if you answered by telling me if you agree, if you disagree or if you have no opinion on the matter. However, if you agree or disagree, I would like you to let me know if you totally or partially agree or if you totally disagree or you are indifferent. What about if I say to you:				
OK. Let's get started. Tell me how your opinion about the following statements.				
Having a la	trine:			
600	Makes owners be modern	Totally agree 4 Partially agree 3 Indifferent 2 Totally disagree 1		
601	Makes owners be respected members of their communities	Totally agree 4 Partially agree 3 Indifferent 2 Totally disagree 1		
602	Makes owners be respected by visitors that come to their house	Totally agree		
603	Makes owners popular	Totally disagree		
604	Makes family members proud	Totally disagree		
605	Allow women to have privacy any time of the day	Totally agree		
606	Helps keep the family compound clean	Totally agree 4 Partially agree 3 Indifferent 2 Totally disagree 1		
607	Does not help to reduces the number of flies in the house	Totally agree 4 Partially agree 3 Indifferent 2 Totally disagree 1		
608	Allows you to defecate easily when you are sick	Totally agree 4 Partially agree 3 Indifferent 2 Totally disagree 1		
609	Allows you to defecate easily when you are old	Totally agree 4 Partially agree 3 Indifferent 2 Totally disagree 1		
610	Reduces the possibility of disease in your family	Totally agree 4 Partially agree 3 Indifferent 2 Totally disagree 1		
611	Gives latrine users more privacy	Totally agree 4 Partially agree 3 Indifferent 2 Totally disagree 1		
612	It is a nuisance to go to the latrine all the time to defecate.	Totally agree		
NO.	QUESTIONS AND FILTERS	CODING CATEGORIES		SKIP
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		Totally agree	4	
613	Avoids the dangers of defecating in the bush at night	Partially agree	3	
		Totally disagree	2 1	
		Totally agree	4	
	It requires a lot of effort to maintain a latrine operational	Partially agree	3	
614		Indifferent	2	
		Totally disagree	1	
		Totally agree	4	
615	It requires a lot of effort to keep it clean	Partially agree	3	
015		Indifferent	2	
		Totally disagree	1	
	0700-0707 Exposure	e Information		
704	In the past month, have you heard or seen any information on	NO	1	
/01	hand washing?	YES	2	
	What was the source of that information?	Through health center	1	
		Through village health		
	Anywhere else?	educator	2	
	RECORD ALL MENTIONED	Through children that	2	
702	RECORD ALL MENTIONED	go to school	5	
		Through other channels	4	
		(specify)		
		(speeny)		
702	In the past month, have you heard or seen any information about	NO	1	
/05	treating the water you drink?	YES	2	
	Where did you see it or hear it?	Through health center	1	
		Through village health		
	Anywhere else?	educator	2	
	BECORD ALL MENTIONED	I hrough children that	2	
704	RECORD ALL MENTIONED	go to school	5	
		Through other channels (specify)	т	
705	In the past month have you heard or seen anything about	NO	1	
	sanitation?	YES	2	
	what was the source of the information?	Through willage health	1	
	Anywhere else?	educator	2	
	,	Through children that	_	
706	RECORD ALL MENTIONED	go to school	3	
700		Through the radio	4	
		Through other channels (specify)		
505	In the past month, have you received information about diarrhea?	NO	1	→End
707	<u> </u>	YES	2	
	What was the source of that information?	Through health center	1	
		Through village health		
	Anywhere else?	educator	2	
700	DECODD ALL MENTIONED	I hrough children that	2	
/08	KEUUKD ALL MEN HUNED	go to school	5 1	
		Through the radio	4	
		rinough other channels (specify)		

በአማራ ብሄራዊ ክልላዊ መንግሰት ሰር በሚገኙ የገጠር እና የከተማ ቀበሌዎች ዉስተ የሚከናወን የሳኒቴሽን መሰሪታዊ ተናት

በተናት ዉስተ ለሚሳተፉ የማህበረሰብ አባላት የሚቀርብ የፍቃደኛንት መጠየቂያ ፎርም

የኣማራ ክልላዊ መንግስት የጤና ቢሮ ከዶኢሰአአይ-ዲ የሐይጅን ኢምፐሩሽመንት ፐሮጀክት እና ክአለም ባንክ የዉሃ እና የሳኒቴሽን ፐሮጀክት ,ጋር በመተባበር በክልሉ የሚገኙ ህዝቦችን የጤና እና የሐይጅን ሁኔታ ለማሻሻል በ,ጋራ በመሰራት ላይ ይገኛሉ ፡፡ የዚህም ተግባር አንዱ አካል የሆነዉ በማህበረሰቡ ዉስጥ ያለዉን የሐይጅን እና የሳኒቴሽን ሁኔታ ማወቅ ሲሆን ይሆንንም ለማከናወን ዛሬ ወደ አካባቢያችሁ መተተናል። ቃለ መጠይቁ የሚከናወነዉ በማህበረሰብ ዉስጥ ከሚገኙ የተመረጡ የቤተሰብ ሀላፊዎች ,ጋር ስለሆነ የዚህን ቤተሰብ ሃላፊ ወይንም እናት ለማንጋገር እንፈልጋለን ፡፡

አርሶ በጫይይታችን ወቅት የሚሰጡን መረጃ ሁሉ በከፍተኛ ሁኔታ በሚስተር ይያዛል። በመጠ ይቁ ላይ የመልስ ሰጪው/ ሰጪዋ ሰም በፍጽም አይፃፍም። ከየቤተሰቡ የሚሰበሰቡ መረጃዎችም በአንድ ላይ ስለሚጠናቀሩ ዉጤቱ በምንም አይነት መልኩ የአንድን ቤተሰብ ወይንም መልስ ሰጪ ማንኑት በሚገልጽ መልኩ አይዘጋጅም። የተናቱም ውጤት መንግስትና ሌሎች አጋሮቹ በማህበረሰቡ ዉስተ ያለዉን የዉሃ እና የሳኒቴሽን ሁኔታ ለማሻሻል የሚያስችላቸውን ፐሮጀክቶች ለመቅረጽ ይዉላል።

አባክዎን ቃለ መጠይቁን ከመጀመራችን በፊት ሰለመጠይቁ ማወቅ የሚፈልጉት ነገር ካለ ነፃ ሆነው እንዲጠይቁን አጠይቅዎታለሁ።

ለሚሰጡን ድጋፍ በቅድሚያ እናመሰግናለን።

ማስታወሻ ለቃለ መጠይቅ አቅራቢው

መልስ ሰጪው/ ሰጪዋ በዋናቱ ለመሣተፍ ፍቃደኛ ከሆኑ ቃለ መጠይቁን ይቀዋሉ። ነገር ግን ለመሣተፍ ፍቃደኛ የማይሆኑ ከሆነ ምስጋና በማቅረብ ቃለ መጠይቁን ያቋርጡ።

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	የመኖሪያ ቤትን ሁኔታ በመመል	ከት (በቃለ መጠይቅ አቅራቢው የሚሞላ)	
101	የመኖርያ አካባቢው ምን አይነት ነው (በጉብኝት ወቅት የታየው ይሞላ።)	ለብቻው ግቢ ያለው ቤት 1 በ,ጋራ ግቢ ውስተ ያለ ቤት 2 ሌላ (ይጠቀስ)	
102	ዋናው የመኖሪያ ቤት ንድግዳ የተሰራበት ቁሳቁስ ምንድን ነው? (በጉብኝት ወቅት የታየው ይሞላ ።)	- ግድግዳ የሌለው 1 - አገጻ/ ግንድ/ ቀርክሃ/ ሳር 2 - ቀርክህ/ አንጨት 3 - ድን.ጋይና ም.ቃ	
103	ዋናው የመኖሪያ ቤት ጣራ የተሰራበት ቁሳቁስ ምንድነው? (የመረጃ ሰብሳቢው ሁኔታውን ተመልክቶ ይሙላው)	የሳር ክዳን/ ቅጠል	
104	የዋናው መኖሪያ ቤት ወለል የተሰራብት ቁሳቁስ ምንድነው? (የመረጃ ሰብሳቢው ተመልክቶ ይሙላው)	- ም.ቃ /አሸዋ 1 - አበት የተለቀለቀ መራት 2 - ጣውላ 3 - ሰንበሊተ/ቀርክህ 4 - ለስልሶ የተቀባ አንጨት 5 - በስሱ ተቆርጦ የተዘጋጀ የወለል አንጨት 6 - የሲራሚክ ሸክላ 7 - የሲሚንቶ ብሎኬት 8 ሊላ (ይጠቀስ)	
105	የቤተሰቡ ቋሚ አባላት ብዛት ስንት ነው?	1017 04076 577	
106	በቤቱ ውስተ በቋሚነት ከሚኖሩ ሰዎች መካከል እድሜአቸው ከአምስት አመት ቤታች የሆኑ ወንድ ሀፃናት ስንት ናቸው?	(ብዛታቸው በቁዋር ይፃፍ)	

107	በቤቱ ውስተ በቋሚነት ከሚኖሩ ሰዎች መካከል እድሜአቸው ከአምስት አመት በታች የሆኑ ሴት ሀፃናት ስንት ናቸው?	(ብዛታቸው በቁጥር ይፃፍ)		
108	በቤተሰብ ውስጥ ከአምስት አሙት ቢታች ለሆኑ ሀፃናት እንክብካቤ የሚያደርገው ማነው?	- አባወራው - የአባወራው ሚስት - የአባወራው እናት - የአባወራው ሚስት እናት - የአባወራው አሁት - የቤት ሰራተኛ - ሌሎች ዘመዶች ሌላ (ይጠቀስ)	1 2 3 4 5 6 7	
109	አድሜዎ ስንት ነው?	(የተጠደቂጫ እድሚው (ነሙሉ አመት ይምሳ)		
110	ትምህርት ቤት ጉበተው ያውቃሉ?	የለም አዎ	$1 \rightarrow 2$	ማልሱ የለም ከሆን ወደ 112 ይታለፍ
111	እስከ ስንተኛ ክፍል ተምሪዋል? (በቀተር ይሞሳ)	(የትምህርት ደረጃውን መዋቀስ ካልቻሉ ዋይቄ 112ን ጠይቅ)		
112	ማንቡብና መፃፍ ይችሳሉ	አዎ፡ ማንበብና መፃፍ አችሳለሁ አዎ፡ ማንበብ አችሳለሁ መፃፍ ግን አልችልም የለም፡ ማንበብም መፃፍም አልችልም	1 2 3	

1. ‡	ተያቄዎችና ማጣሪያቸው	የመልስ አማራጮች	ወደ ዝላል
	ከዚህ የሚከተሉት ተያቄዎች በጣ	ጦጠዋ ውሃ ላይ ያተኮሩ ናቸው	autes
201	በአሁን ወቅት ቤተሰቡ በዋናነት ለመጠዋ የሚጠቀምበትን ውሀ ከየት ይገኛል?	- በቤት ውስጥ ካለ የቧንቧ መስመር 1 - ጉረቤት ካለ የቧንቧ መስመር 2 - በመኖሪያ አካባቢ ካለ የቧንቧ 3 መስመር 4 - ከቦኖ ውሃ 5 - ከጥልቅ ጉድንድ 6 - በአጅ የተቆፈረና ክዳን ካለው ጉድንድ 7 - በአጅ የተቆፈረና ክዳን ካለው ጉድንድ 8 - ከተከለለ ምንጭ (ከዳበረ ምንጭ) 10 - ከተከለለ ምንጭ (ከዳበረ ምንጭ) 10 - ከዝናብ ውሃ 11 - ከውሃ ቦቴ 12 - በ.2ሪ ከሚንንዝ አንስተኛ ታንከር 13 - ወንዝ/ግድብ/ ሃይቅ/ኩሬ/ጅሪት/ቴቦ/ የመስኖ መስመር 14 - የታሽገ ውሃ 15	
202	በዋናንት የምትጠቀሙትን ውሃ የማከፋፈል ሀሳፊንት የማንው?	- አላውትም 1 - የመንንስት ባለስልጣን 2 - የውሃ ኮሚቴ 3 - መንንስታዊ ያልሆን ድርጅት 4 - የግል ውሃ አቅራቢ/ ሻጭ 5 - የግል ጉድንድ 6 - የዝናብ ውሃ 7 - የተጠራቀመ ውሃ 8 ሌላ (ይጠቀስ)	
203	በመደበኝነት ከምትጠቀሙበት የውሃ ምንጭ ውሃ ቀድቶ ለማምጣት የሚወስድባችሁ ጊዜ ምን ያህል ነው? (ቁተሩ በደቂቃ ይፃፉ)	ደቂቃ	

204	በአሁኑ ወቅት ቤተሰቡ ከመጠተ ወሃ ውጪ ለማብሰያና ለእጅ መታጠቢያ የሚጠ ቀምበትን ውሃ የሚያገኘው ከየት ነው?	- ቤት ውስተ ካለ የቧንቧ መስመር 1 - ከጉሪቤት የቧንቧ መስመር 2 - በመኖሪያ አካባቢ (ቡሪያ) ካለ የቧንቧ መስመር 3 - ከቦኖ ውሃ 4 - ከተልቅ ጉድንድ 5 - በእጅ ከተቆፈረና ክዳን ካለው ጉድንድ 6 - በእጅ ከተቆፈረና ከዳን ከለው ጉድንድ 6 - በእጅ ከተቆፈረና ክዳን ከለው ጉድንድ 6 - በእጅ ከተቆፈረና ከዳን ከለው - 10 - የቦቴ ውሃ 10 - የቦቴ ውሃ 11 - በ.26 ከሚንንዝ አንስተኛ ታንከር 12 - መንዝ/ንድብ/ ሃይቅ/ኩሬ/ጅረት/ ቱበ/ የመስኖ መስመር 13 - የታሽገ ውሃ 14	
205	በዋናነት ከምትጠቀሙበት የውሃ ምንጭ (የውሃ ማግኛ) አጭቱን ሙሉ በቂ ውሃ ,ታግኛላችሁ?	- βΛ9" 1→ - አዎ 2	መልሱ የለም ከሆን ወደ 208 ይታልፍ
206	በመደበኝንት ውህ የምታገኙበት የውህ ምንጭ በሚደርቅበት ወይም የውህ መጠን በሚያንስበት ጊዜ የሚያስፈልጋችሁን ውሃ ክየት ታገኝላችሁ?	- በቤት ውስጥ ካለ የቧንቧ ውሃ መስመር 1 - ከጉሪቤት የቧንቧ ውሃ መስመር 2 - በመኖሪያ አካባቢ ዙሪያ ያለ የቧንቧ መስመር 3 - ከቦኖ ውሃ 4 - ከጥልቅ ጉድንድ 5 - በእጅ ከተቆፈረና ክዳን ካለው ጉድንድ 6 - በእጅ ከተቆፈረና ከዳን ካለው ጉድንድ 6 - በእጅ በ ማንጭ (ከዳበረ ምንጭ) 8 - ከዝናብ መሃ 10 - የቦቴ መሃ 11 - በ,26 ከሚንንዝ አንስትኛ ታንከር 12 - መንዝ/ግድብ/ ሃይት/ኩሬ/ጅረት/ ቱቦ/ የመስኖ መስመር	

207	በአማሪ-ጭነት የምትጠቀሙበትን የውሀ ምንጭ (ውሃ ማግኝ) የማስተዳደር ሃላፊነት የማነው?	- አላውቅም 1 - የመንግስት ባለስልጣን 2 - የውሃ ኮሚቴ 3 - መንግስታዊ ያልሆነ ድርጅት 4 የግልውሃ አቅራቢ/ ሻጭ 5 - የቤት ውስፑ ጉድዓድ 6 - የዝናብ ውሃ 7 - የመሬት ላይ (ወራጅ) ውሃ 8 ሌላ (ይጠቀስ)	
208	አንዳንድ ጊዜ ለውሃ ሳለመክፌል ወይም አንስተኛ ክፍያ ለመፈፀም ሰትሉ ውሃ የምታፕኙበትን ቦታ ትቀይራሳችሁ?	$\begin{array}{c} - & \rho \Lambda \mathcal{P} & 1 \rightarrow \\ - & \lambda \mathcal{P} & & 2 \end{array}$	መልሱ የለም ከሆኑ ወደ 210 ይታለፍ
209	ዋ,ጋው የሚቀንሰውን ውሃ የሚያቀርብላችሁ ማንው?	- አላውቅም 1 - የመንግስት ባለስልጣን 2 የውሃ ኮሚቴ 3 - መንግስታዊ ያልሆነ ድርጅት 4 - የግልውሃ አቅራቢ/ ሻጭ 5 - የቤት ውስተ ጉድጓድ 6 - የዝናብ ውሃ 7 - በመሬት ላይ የተጠራቀመ/ ወራጅ ውህ 8 አላ (ይጠቀስ)	
210	በኢንዚሀ አካባቢ ለመጠዋ የምትጠቀሙበትን ውሃ ጤናማ ለማድረግ (ለማክም) ምን ታደር,ጋሳችሁ? (ከአንድ በሳይ መልስ ሊኖር ስለሚችል ሌላስ በማለት በመጠየቅ የተጠቀሱት በሙሉ ይመዝገብ)	- ማፍላት 1 - በረኪ <i>ና መጨመር</i> 2 - ፈሳሽ ክለ-ሪን መጨመር (ውሃ አ.ጋር) 3 - የክሉ-ሪን እንክብል መጨመር (አኳታ-በስ) 4 - በጨርቅ ማተለል 5 - እቃ ውስተ በማቆየት እንዲጣል ማድረግ 6 - ሲራሚክ የውሃ ማጣሪያ መጠቀም 6 - ሲራሚክ የውሃ ማጣሪያ መጠቀም 8 - በፀሀይ ጨረር ጀርሞችን ማስወገድ 9 - ሽፋን ባለው ልቃ ውህን ማስቀመተ 10 - ምንም 11 - አላውቅም 99	

211	ውሃን ለመጠዋ በሚሆን መልኩ ንፁሀ ለማድረግ (ለማከም) የሚያስችሉ ምን አይኑት ዘዴዎች ያው.ቃሉ? (ከአንድ በላይ መልስ ሊኖር ስለሚችል ሊሳስ በማለት በመጠየቅ የጠቀሱት በሙሉ ይመዝግቡ) (አማሪ-ጮቹ አይነበቡሳቸው)	 ፈሳሽ ክሎሪን (ውሃ አ.2C) 1 የክሎሪን አንክብል (አኳታብስ) 2 ከክሎሪን ,2C የተዘ.2ጀ ማዝቀጫ- 3 ሌላ የክሎሪን ምርቶች (ኤች ቲ ኤች ግራ አላር፣ ክሎሪን፣ የላውንደሪ ኬሚካል ወዘተ) 4 አዮዲን (መብታ ወይም እንክብል) 5 ፕሮግን,2ኤት 6 ምንም 7 አላውቅም 99 ሌላ (ይጠቀስ) 99 	
212	ውሃ አጋር (ውተር ጋርድ) የሚባል ኬሚካል ያው ቃሉ?	- βΛ9 ^m 1→ - λ𝒫 2	መልሱ የለም ከሆኑ ወደ 216 ይታለፍ
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214	የውሃ አ.୬ርን (ውተር .୬ርድ) አጠቃቀምን ሊያሳዩኝ ይችላሉ? (መረጃ ሰብስበው አሰራናን ከተመለከተ በኋላ ትክክል ከሆነ ትክክል ነው፤ ትክክል ካልሆነ ትክክል አይደለም በሚለውን የመልስ ቁተር አኳያ ይክብብ)	- አጠቃቀሙ ትክክል አይደለም 1 - አጠቃቀሙ ትክክል ነው 2 - ፈቃደኛ አይደለም 3	
215	ከአምስት ኪሎ ሜትር ዐታች ዐሆነ ርቀት (ባነሰ ርቀት) ውስተ የውሃ አ.ጋርን በአካባቢዎ ለማማኘት የሚችሉት የት ነው?	- በአቅራቢያችን ካለ የጤና ድርጅት 1 - መደብር 2 - መድህኢት ቤት 3 - የትም ቦታ 4 - ከየትም አሳገኝም 5 - አሳውቅም 6 ሌላ (ይጠቀስ)	
216	ለመጠተ የሚሆን ውሃን የበለጠ ንፁሀ ለማድሬግ የሚጠቀሙበት ዘዴ አለ?	- የለም 1→ - <i>አ</i> ዎ 2	መልሱ የለም ከሆን ወደ 349 ይታለፍ

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217	በአሁኑ ወቅት በቤትዎ የመጠዋ ውሃን	መጣሪያ በሪኪና መጨመር	$2 \rightarrow$	226
	የበለጠ ንፁሀ ለማድረግ የሚጠቀሙበት ዘዴ	ፊሳሽ ክሎሪን መጨመር (ወተር <i>ጋ</i> ርድ)		
	ምንድንው?		$3 \rightarrow$	236
	(የተጠቀሱት ዘዲዎች ከማዝንብክ_ በኋላ	የክሎሪን እንክብል መጨመር		
	ከአያንዳንዱ መልስ ጋር ተዛማትኑት	(አኳታብስ)	$4 \rightarrow$	246
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		የሴራሚክ ፊልተር	$6 \rightarrow$	266
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		በጨርቅ የማጣራት ዘዴ	$8 \rightarrow$	311
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ውሃ	ማፍሳት			
218	ውሃውን ያሌሉት መቺ ነው?	- በቃለመጠይቁ ቀን ምንብ ሳበስል - በቃለ መጠይቁ ቀን ምንብ ካበሰልኩ በኋላ - ትላንትና ሌላ (ይጠቀስ <u>)</u>	1 2 3	
219	ለምን ያህል ጊዜ ነው ውህውን ያሬሉት?	መልሱ በቁተር (በደቂቃ ይፃፍ)		
220	ውሃ የምታፌሉብትን እቃ ማኖት አችሳለሁ?	– የለም – አዎ	$1 \rightarrow 2$	የለም ኩተባለ ወደ 222 ይታለፍ
221	ፈልቶ የተቀመሰው ውሃ ምን ይህል ንፁህ አንደሆነ ተመልከቱ። (በመረጃ ሰብሳቢው የሚሞላ)	- ዋርት ያለ ንፁሀ ይመስላል - የተወሰን ድፍረስንት አለው - ድፍርስ ቢሆንም ብርሃን ያሳልፋል - በጣም ድፍርስ ነው (ጭቃ የመሰለ) ሌላ (ይጠቀስ)	1 2 3 4	
222	የፈላሙን ሙሃ ለማስቀመጥ (ለማኖር) የሚጠቀሙበት እቃ ምድንው?	- አፊ ሰፊ ክሽክሳ የተሰራ እንስራ - አፊ መባብ እንስራ (ሽክሳ) - ጀሪካን - በርሜል ሌሳ (ይጠቀስ)	1 2 3 4	
223	የፈላው ውሃ የሚቀሙዋበት ልቃ ክዳን አለው? (በመረጃ ሰብሳቢው ታይቶ የሚሞላ)	የለም አዎ	1 2	
224	ስማጠራቀሚያው እቃ ውስዋ ውሃ የምትቀዱት በምንድነው?	- እጅታ ባለው ብርጭቆ (ኩባያ) - በሞልፋ - የውሃ መያዣውን አቃ ,ጋለል በማድረግ ሌላ <i>ዘዴ</i> (ይጠቀስ)	1 2 3	
225	ከቤተሰቡ ውስጥ የተፈላውን ውሃ የሚጠጣው ማንው?	- የቤተሰቡ አባላት በሙሉ - ህፃናት ብቻ - የታመመ የቤተሰቡ አባል - አረ <i>ጋ</i> ውያን ሌላ <i>ዘዶ</i> , (ይጠቀስ)	1 2 3 4	

	ብሊች (ክሎሪን)			
226	ይኼንን መድሃኒት (ኬሚክል) በመጠቀም ምን ያህል ውሃ አጣራችሁ (አከማቻችሁ)?	የውሃው መጠን በሊትር ነፍ		
227	ውሃውን ለማክም ምን ያህል (ኪሚክል) ብሊች በውሃ ውስቱ ጨመራችሁበት?	በውሃ ውስተ የተጨመረውን ኪሚካል ብሊች ልኪት ነፍ።		
228	የክሎሪን መጠኑን ለማወቅ ከመጠዋ ውሃችሁ ውስዋ ናሙና መውሰድ አችላለሁ?	- አይቻልም 1→ - ይቻላል 2 - አግባብ አይደለም (ዘዲውን ይጠቀሙም) 3→	መልሱ አይቻልም ክሆን ወደ 231 ይታለፍ 231	
229	መረጃ ሰብሰባቢው የተጣራውን ውሃ ተመልክቶ ተያቄዎቹን ይመልስ።	- ተርት ያለ ንፁሀ ይመስላል 1 - የተወሰነ ድፍሪስነት አለው 2 - ድፍርስ ቢሆንም ብርሃን ያሳልፋል 3 - በጣም ድፍርስ ነው (ጭቃ መስል) 4 ሌላ (ይጠቀስ)		
230	መረጃ ሰብሳቢው በውሀው ውስተ ያለውን የክሎሪን ቀሪ መጠን በመለካት (ተቀባይነት ያለው አነስተኛ የክሎሪን መጠን 0.5 ሚ.ግ/ ሊትር ነው መልስ ይስተ)	- ወደ ሮዝንት አልተለወጠም 1 - ሮዝ ሆኗል 2 - አግባብንት የለውም (ዘዴው በተቅም ላይ አልዋለም 3		
231	በተጠቀሰው ዘዴ ተጠቅመው ውሃውን ያጣሩት መቼ ነበር? (ተጠያቋው ዘዴውን ከተጠቀመበት ግዜ አንስቶ እስከ አሁን ድረስ ያለውን ጊዜ በመገሙት በሰዓት ፃፉ)			
232	የክሎሪን ማጣሪያ ኬሚካሉ ሲመጣ ታሽንበት የነበረው ፓኬት አለዎት?	- የΛ9" 1 → - λβ 2 - ληηηγή የΛ9" 3	መልሱ የለም ከሆን ወደ 235 ይታለፍ	
233	ሊያሳዮኝ ይችሳሉ?	- - አልችልም 1 → - ይችሳል 2	መልሱ አይቻልም ከሆነ ወደ 235 ይታለፍ	
234	መረጃ ሰብሳቢው የክሎሪን ፈሳሹን የመጠቀሚያ ጊዜ በመመልከት መልስ ይስተ።	- የመጠቀሚያ ጊዜዉ አልፎአል 1 - የመጠቀሚያ ጊዜዉ አሳለፊም 2 		
235	በኪሚካል የተ <i>ጣራ</i> ውን ውሀ የሚጠጣው የቤተሰብ አባል ማንው?	- ሁሉም የቤተሰብ አባላት 1 - ህፃናት ብቻ 2 - የታመመ የቤተሰቡ አባል 3 - አዛውንቶች 4 ሌላ (ይጠቀስ)		

	ውሃ አጋር			
236	በውሃው ውስተ ያለዉን የክሎሪን መጠን ለመለካት ከመጠተ ወሃችሁ ውስተ ናሙና መውሰድ አችሳለሁ?	- አይቻልም 1 → - ይቻሳል 2 - አማባብ አይደለም (ዘዴውን አይጠቀሙም) 3	መልሱ አይቻልም ከሆን ወደ 239 ይታለፍ	
237	መረጃ ሰብሳቢው። ኬሚካል ተጨምሮበት የታከመው ውሃ ምን ያህል ንፁሀ መሆን ተመልክቶ ትክክለኛውን መልስ ይሰተ።	- ንፁሀ ይመስሳል 1 - መጠንኛ ድፍረስንት አለው 2 - ድፍርስ ነዉ ነገር ግን ብርሃን 3 ያሳልፋል - ከድፍርስንቱ የተንሳ ብርሃን አየስሳልፍም 4 ሌላ (ይጠቀስ)		
238	መረጃ ሰብሳቢው። የክሎሪን ቀሪ መጠን በመለካት ውጤቱን ፃፍ። (ተቀባይነት ያለው አነስተኛ የክሎሪን መጠን 0.5 ሚ.ግ/ ሊትር ነው)	- ወደ ሮዝንት ቀለም አልተለወጠም 1 - ሮዝ ሆኗል 2 - አማባብንት የለውም (ዘደመን አይጠቀሙም) 3		
239	በተጠቀሰው ዘዴ, ተጠቅመው ውሃውን ያጣሩት ሙቼ ነበር?	(ተጠያቂው ዘዴውን ከተጠቀመበት ግዜ አንስቶ እስከ አሁን ድረስ ያለውን ጊዜ በመገመት በሰዓት ይፃፍ)		
240	ይሄንን መድሀኢት-(ኬሚክል) በመጠቀም ምን ያህል ውሃ አጣራችሁ?	የውሀውን መጠን በሊትር የፉ?		
241	ውሀዉን ለማከም ምን ያህል ውሃ አጋር በውሀው ውስተ ጨመራችሁ ?	ውሀው ውስተ የተጨመረውን የውሃ አጋር መጠን የፉ?		
242	የውሃ አጋሩ ሲመጣ ታሽነበት የነበረው ማሽጊያ አለዎት?	- የለም 1→ - አዎ 2 - አግባብንት የለም ዘዴውን አይጠሙም 3→	መልሱ የለም ከሆን ወደ 245 ይታለፍ	
243	ሊያሳዮኝ ይችሳሉ?	- አልችልም 1→ - ይቻሳል 2	አልቸልም ካሉ ወደ 245 ይታለፍ	
244	መረጃ ሰብሳቢው በማሽጊያ ላይ የተመለከተውን ፈሳሹ ክሎሪኑን የመጠቀሚያ ጊዜ በመመልከት ይሞላ	- የመጠቀሚያ <u>ጊዜው</u> አልን፡ል 1 - የመጠቀሚያ <u>ጊዜ</u> ው አሳለፊም 2		

245	ክቤተሰቡ አባላት መካከል የታከመውን ውሃ የሚጠጣው ማነው?	- ሁሉም የቤተሰቡ አባላት 1 - ህፃናት 2 - ይታመሙ የቤተሰቡ አባላት 3 - አረጋውያን 4	
		<u>ሌላ (ይጠቀስ)</u>	

የክሎሪን	እንክብል -አኳታብስ?		
246	በውስጡ ያለውን የክሎሪን መጠን ለማወቅ ከመጠዋ ወሃችሁ ውስዋ ናሙና መውሰድ አችሳለሁ?	 አይቻልም 1→ ይቻላል 2→ አግባብ አይደለም (ዘዴውን 3 አይጠቀሙም) 	አይቻልም ካሉ ወደ 248ይታለፍ ወደ 248ይታለፍ
247	መረጃ ሰብሳቢው የክሎሪን እንክብል (እኳ ታብሰ) ተጨምሮበት የታከመው ውሃ ምን ያህል ንፁሀ መሆን ተመልክቶ ትክክለኛውን መልስ ይስተ።	- ንፁሀ ይመስሳል 1 - መጠንኛ ድፍሪስንት አለው 2 - ድፍርስ ነዉ ነገር ግን ብርሃን ይሳልፋል 3 - ከድፍርስንቱ የተንሳ ብርሃን አየስሳልፍም 4 ሌላ (ይጠቀስ)	
248	መረጃ ሰብሳቢው የክሎሪን ቀሪ መጠን ልኬት አድርጉና ውጤቱን የፉ (ተቀባይነት ያለው አነስተኛ የክሎሪን መጠ ን 0.5 ሚ.ግ/ ሊትር ነው)	- ወደ ሮዝንት አልተለወጠም 1 - ሮዝ ሆኗል 2 - አግባብንት የለውም (ዘዴውን አይጠቀሙም) 3	
249	የክሎሪን እንክብሉን (አኳታብስ) ተጠ ቅመው ውሃውን ያጣሩት መቼ ነበር?	(ተጠያቂው ዘዴውን ከተጠቀመበት ግዜ አንስቶ እስከ አሁን ያለውን ጊዜ በመገመት በሰዓት ይፃፍ)	
250	ይሄንን የክሎሪን እንክብል (አኳታብስ) በመጠቀም ምን ያህል ውሀ አጣራችሁ?	የውህውን መጠን በሊትር የፉ?	
251	ውሀውን ለማከም ምን ያሀል የክሎሪን እንክብሎች (አኳታግብስ) በውሀው ውስተ ጨመራችሁ?	በውሀው ውስተ የተጨመረውን የክሎሪን እንክብል (አኳታብስ) መጠን ይፃፍ?	
252	የክሎሪን እንክብል (አኳታብስ) ሲመጣ ታሽንበት የነበረው ፓኬት አለዎት?	- βΛ9 [∞] 1 → - λ𝒫 2	መልሱ የለም ከሆን ወደ 255 ይታለፍ

253	ሊያሳዮኝ ይችሳሉ	- አልችልም 1 - ይችላል 2	መልሱ አልቸልም ከሆነ ወደ 255 ይታልፍ
254	መረጃ ሰብሳቢው የክሎሪን እንክብልን) (አኳታብስ) የመጠቀሚያ ጊዜ በመመልክት ይሙሳ	- የመጠቀሚያ ጊዜው አልን፡ል 1 - የመጠቀሚያ ጊዜው አሳለራም 2	
255	ክቤተሰቡ አባላት መካከል የታከመውን ውሃ የሚጠጣው ማንው?	- ሁሉም የቤተሰቡ አባላት 1 - ህፃናት 2 - የታማሙ የቤተሰቡ አባላት 3 - አረጋውያን 4 ሌላ (ይጠቀስ)	

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256	በውሃው ውስቱ ያለዉን የክሎሪን መጠን ለመለካት ከመጠቱ ወሃችሁ ውስቱ ናሙና መውሰድ አችሳለሁ?	 አይቻልም 1→ ይቻላል 2 አግባብ አይደለም (ዘዲውን አይጠ 3 ቀሙም) 	መልሱ አይቻልም ከሆን ወደ 259 ይታለፍ
257	መረጃ ሰብሳቢው ፒዩአር ተጨምሮበት የታከመዉ ውሃ ምን ያሀል ንፁሀ መሆን ተመልከቶ ትክክለኛውን መልስ ይስተ	- ንፁህ ይመስሳል 1 - የተወሰን ድፍረስንት አለው 2 - ድፍርስ ነው ግን ብርሃን ያሳልፋል 3 - ክድፍርስንቱ የተነሳ ብርሃን አያሳልፍም 4 ሌላ (ይጠቀስ)	
258	መረጃ ሰብሳቢው የክሎሪን ቀሪ መጠን በመለካት ውጤቱን ይፃፍ (ተቀባይነት ያለው አነስተኛ የክሎሪን መጠን 0.5 ሚ.ግ/ ሊትር ነው)	- ወደ ሮዝንት አልተለወጠም 1 - ሮዝ ሆኗል 2 - አግባብንት የለውም (ዘዴውን አይጠቀሙም) 3	
259	ፒዩአር ን ተጠቅመው ውሃ ያጣሩት መቼ ነበር? (ተጠያቂው ዘዴውን ከተጠቀመበት ግዜ አንስቶ እስከ አሁን ድረስ ያለውን ጊዜ በመገመት በሰዓት ይፃፍ)		
260	ፒዩአርን በመጠቀም ምን ያህል ውሀ አጣራችሁ?	የውሀው መጠን በሊትር ይፃፍ።	

261	ውሀዉን ለማከም ምን ደሀል ፒቶአር ውሀው ዉስተ ጨመራችሁ?	 በውሀው ውስተ የተጨመረውን የፒዩአር መጠን ይፃፍ?	
262	ፒዩአር ሲመጣ ታሽነበት የነበረው ፓኬት አለዎት?	- ₽Λ9" 1→ - λ9" 2	መልሱ የለም ክሆን 265 ይታለፍ
263	ሊያሳዮኝ ይችሳሉ?	- አይቻልም 1→ - ይችሳል 2	ማለሱ አይቻልም ከሆን 268 ይታለፍ
264	መረጃ ሰብሳቢው የፒዶአር የመጠቀሚያ ጊዜ ከማሽጊያዉ ላይ በመመልከት ይሞሳ	- የመጠቀሚያ ጊዜው አልጅል 1 - የመጠቀሚያ ጊዜው አሳለፊም 2	
265	ከቤተውቡ አባላት መካከል የታከመው ውሃ የሚጠጣው ማነው?	- ሁሉም የቤተሰቡ አባላት 1 - ህፃናት 2 - የታመሙ የቤተሰቡ አባላት 3 - አፈጋውያን 4 ሌላ (ይጠቀስ)	

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266	ይህ ማጣራያ አርስዎ እጅ ምን ያህል ጊዜ ቆይድል? (ጊዜው ከአንድ አመት በላይ ከሆነ 12 ወርን እንደ መነሻ በመጠቀም ከዓመት በላይ ከሆነው ወሩ ተጨምሮ ይፃፍ)	(ጊዜው በአመት ይፃፍ)	
267	<i>የማጣሪያውን</i> አጠቃቀም ያውቃሉ?	- <i>hP</i> 1 - <i>PhP</i> ^m 2 →	መልሱ የለም ከሆኑ ወደ 269 ይታለፍ
268	የማጣሪያውን አጠቃቀም ሊያሳዬኝ ይችላሉ? (መረጃ ሰብሳቢው አጠቃቀሙን ከተመለከትህ በኋላ መልሱን የፍ)	- በትክክል አሳይተዋል 2 - በትክክል አሳሳዩም 1	
269	ከዚህ በራት የማጣሪያውን አጠቃቀም ያሳየዎት ሰው አለ?	- βΛ9 ^m 1 → - λ𝒫 2	የለም ከሆን ወደ 271 ይታለፍ

270	አጠቃቀሙን ያሳየዎት ማንው?	- ቸርቻሪ ን <i>ጋዲ</i> 1 - የጤና ትምህርት አስተማሪ 2 - በውስጡ የተካተተውን (ማጣሪያውን ስንዛ አብሮ የተሰጠኝን) መመሪያ በማንበብ 3 (ሌላ ይመቋስ)	
271	ማጣሪያውን መቼ ማጽዳት እንዳለብዎት እንዴት ያውቃሉ?	- ውሃ የሚያጣራበት ፍተኑት በጣም ዝቅተኛ ሲሆን 1 - በመመሪያው ላይ ያለውን በመከተል 2 (ሌላ ይጠቀስ)	
272	ማጣሪያውን አዕድተውት ያውቃሉ?	ראשי 1→ גשי 2→	መልሱ የለም ከሆን ወደ 275 ይታለፍ
273	ለመጨረሻ ጊዜ ያወዱት መቼ ነው?	ቆይታውን <u>በወራት</u> ይየፉ	
274	በየስንት ጊዜው ነው የሚያፀዱት	ቆይታውን በወራት ይፃፉ	
275	እንዴት እንደሚøዓ ሊያሳዩኝ ይችሳሉ? (በመርጃ ሰብሳቢው የሚሞላ)	- አንዴት እንደሚወኝ አያውቁም 1 - ፋብሪካው በሚያዘው መስረት አላወዱም 2 - ፋብሪካው በሚያዘው መስረት አዕድተዋል 3	
276	ማጣሪያው እንዲት እንደሚወዳ ከዚህ በፊት ያሳየዎት ወይም የነገረዎት ሰው አለ?	የለም 1→ አዎ 2	የለም ከሆን ወደ 278 ይታለፍ
277	የማጣሪያውን የአፀዳድ ዘደ, የነገርዎት ማነው?	- አክፋፋይ/ ቸር <i>ቻሪ ነጋዴ 1</i> - የጤና ትምህርት አስተማሪ 2 - በውስጡ የተካተለ የፅሁፍ <i>መመሪያ</i> በማንበብ 3 	
278	በዚህ ማጣሪያ ውስጥ መቀየር የሚያስፌልገው አካል አለ?	- አላውቅም 1→ - የለም 2 - አዎ የማጣሪያ ሙቶቹ ይቀየራሉ	አሳውቅም ካሉ ወደ 280 ይታለፍ
279	<i>የማጣሪያው ካንድ</i> ል (ጡት) በየስንት ጊዜው መቀየር አለበት?	በወራት ይየቶ	

280	ማጣሪያውን ሲጠቀሙ ችግር ገተምዎት ያውቃል? ምን አይነት ችግር ነው ደጋጠምዎት?	የለም 1 አዎ 2 - አንደመጀመሪያው በተራት 1	መልሱ የለም ከሆን ወደ 282 ይታለፍ
		አይሰራም - <i>የማጣሪያ</i> ጡቶች ተሰብረው ለመለወተ አልቻልኩም2 (ሌላ ይጠቀስ)2	
282	<i>የመ</i> ጠጥ ውሃ <i>ማጣሪያውን</i> ሊያሳዶኝ ይችሳሉ?	- አልችልም 1→ - λችሳለሁ 2	አልቸልም ካሉ ወደ 288 ይታለፍ
283	መረጃ ሰብሳቢው ማጣሪያው ውስተ ውሃ እንዳለው ተመልክቶ መልስ ይሰተ፤	- የለውም 1 - አለው 2	
284	መረጃ ሰብሳቢው <i>ማጣሪያ</i> ው ክዳን እንዳለው ተመልክቶ መልስ ይሰተ፣	- የለም 1 - አለ 2	
285	የመረጃ ሰብሳቢው፡ ማጣሪያው በውስጡ የሴራሚክ ማጣሪያ እንደሆነ ይመልከት	- የለም 1 - አዎ 2	
286	የመረጃ ሰብሳቢው፡ የሴራሚክ ማጣሪያው ክፍል እርተብ ወይስ ደረቅ መሆን ይመልከት፣	- እርተብ 1 - ደረቅ 2	
287	የመረጃ ሰብሳቢው፡ የተጣራው ውሃ ምን ያህል ንፁሀ መሆኑን ይመልከት፤	- ንፁሀ ይመስሳል 1 - የተወሰን ድፍሪስንት አለው 2 - ድፍርስ ነው ግን ብርሃን ያሳልፋል - ከድፍርስንቱ የተነሳ ብርሃን 3 አያሳልፍም 4 ሌላ (ይጠቀስ)	
288	ከቤተውቡ አባላት መካከል የተጣራዉን ውሃ የሚጠጣው ማንው?	- ሁሉም የቤተሰቡ አባላት 1 - ሀፃናት 2 - የታመሙ የቤተሰቡ አባላት 3 - አረጋው ያን 4 ሌላ (ይጠቀስ)	

yÆ× úND ¥È¶Ã				
289	ይህ ማጣራያ እርስዎ እጅ ምን ያሀል ጊዜ ቆይቷል?	ቆይታው በወራት ይፃፍ		
290	የዚህን <i>ማጣሪያ</i> አጠቃቀም ሊያሳዬኝ ይችሳሉ?	- አልችልም 1→ - አዎ 2→	ምልሱ አልችልም ከሆን ወደ 292 ይታለፍ	

291	መረጃ ሰብሳቢው ያሳዩት አጠቃቀም ትክክል መሆን ያለመሆኑን ተመልክቶ መልስ ይሰተ?	በትክክል አሳሳጾም በትክክል አሳይተዋል	1 2	
292	ክዚሀ በፌት ስለማማሪያው አጠቃቀም መማለጫ የሰጠዎት ሰው አለ?	የለም አ <i>ዎ</i>	$1 \rightarrow 2$	መልሱ የለም ክሆን ወደ 294 ይታለፍ
293	ስለ አጠቃወሙ ገለፃ ያደረገልዎት ማንው?	- የሽጠልኝ <i>ነጋዴ</i> - የጤና አስተ <i>ማሪው</i> - አብሮት የመጣውን መመሪያ በማንበብ - ሌላ (ይጠቀስ <u>)</u>	1 2 3	
294	የውሃ ማጣሪያውን መቼ ማጽዳት አንዳለብዎት አንዱት ያውቃሉ?	- የሚያጣራው የውሃ መጠን በጣም ዝቅተኛ ሲሆን - በመመሪያው ላይ ያለውን የአሰራር ሂደት በመከተል - ሌላ (ይጠቀስ)	1 2	
295	ማጣሪያውን ለመጨረሻ ጊዜ እንዴት እንዳፀዱት ሊያሳዩኝ ይችሳሉ? (መረጃ ሰብሳቢው አ ፈፃፀሙን ተመልክቶ መልስ ይስዋ)	 ፋብሪካ በሚያዘው መሰረት አላፀዱም (ክስድስት ወር ለበለጠ ጊዜ አልፀዳም) ፋብሪካው በሚያዘው መሰረት አጽድተዋል (ክስድስት ወር ባንስ ግዜ) ውስተ አጽድተውት አያውቁም 	1 2 3→	መድ 297 ይታለፍ
296	አንዱት ነው ያወዱት? (መረጃ ሰብሳቢው ሁኔታውን ተመልክቶ መልስ ይስተ)	 አምራቹ በሚያዘው መሠረት አላፀዱትም (ጠጠሩን፣ ከሰሉን ወይም አሸዋውን አልቀየሩም) በትአዛዙ መሰረት አዕድተዋል (ጠጠሩን፣ ከሰሉን አሸዋውን ቀይረዋል) እንዴት እንደሚወዳ አያውቁም 	1 2 3	
297	<i>ማጣሪያ</i> ው እንዴት እንደሚፅዓ ከዚህ በፊት መማለጫ የሰጠዎት ሰው አለ?	– የለም – አለ	$1 \rightarrow 2$	መልሱ የለም ክሆን ወደ 299 ይታለፍ
298	የአፀዳድ መመሪያውን የነገርዎት ማነው?	- አቃውን የሽጠልኝ <i>ነጋዴ</i> - የጤና ትምህርት አስተማሪ - <i>መመሪያው</i> ን በማንበብ ሌላ (ይጠቀስ <u>)</u>	1 2 3	
299	ማጣሪያውን ሲጠቀሙ ችግር ገጥሞዎት ያውቃል?	- የለም - አዎ	$1 \rightarrow 2$	መልሱ የለም ክሆን ወደ 301 ይታለፍ

300	ያ.ጋጠመዎት ችግር ምን ነበር?	- እንደመጀመሪያው በተሩ ሁኔታ አይሰራም - መለዋወጫ እቃውን መተካት አልችልም- ሌላ (ይጠቀስ)	1 2	
301	የመጠጥ ውሃ የሚያጣሩበተን (የባዮ ሳንድ) ማጣሪያ ሊያሳዩኝ ይችላሉ?	- የለም - አዎ	1→ 2	መልሱ የለም ክሆን ወደ 310 ይታለፍ
302	መረጃ ሰብሳቢው፣ ማጣሪደው ክዳን እንዳለውና እንደሌለው አጣርቶ መልስ ይስተ?	- የለም - አለም	1 2	
303	መረጃ ሰብሳቢው፤ የማጣሪያው የላይኛው አካል ከውስተ በኩል አልጌ ወይም የሚታይ ዝልግልግ ነገር መኖሩን ተመልከት?	- የለም - አለም	$\frac{1}{2}$	
304	መረጃ ሰብሳቢው፣ ማ ጣሪያው የፅሀይ ብርሀን በቀዋታ ያተኝ አንደሆን ተመልከት?	- የለም - አዎ	1 2	
305	መረጃ ሰብስበው፣ የማጣሪያው የውሃ ማጠራቀሚያ ክፍል ንፁሀ መሆኑን ይመልክት?	- የለም - አዎ	1 2	
306	መረጃ ሰብሳቢው ፤ የማጣሪያው የውሀ ማጠ ራቀሚያ ክፍል የተሸፈነ መሆኑን ይመልክት?	- የለም - አዎ	1 2	
307	መረጃ ሰብሳቢው፣ የተጣራ ውሃ ከማጠራቀሚያው ለመቅዳት የሚያስችል የራሱ መቅጃ መኖሩን ተመልከት?	- የለም - አዎ	1 2	
308	መረጃ ሰብሳቢው፣ የውህ መቅዳው (መተለቂያው) ንፁሀ መሆኑን ተመልከት?	- የለም - አዎ	$\frac{1}{2}$	
309	መረጃ ሰብስበው ፣ የተጣራው ውሃ ምን ይህል ንፁህ መሆኑን ይመልከት?	- ዋርት ያለ ነው - በመጠኑ ድፍርስ ነው - ድፍርስ ቢሆንም ብርሃን ያሳልፋል - ብርሃን የማያሳልፍ ድፍርስ ነው ሌላ (ይጠቀስ)	1 2 3 4	
310	የተጣራውን ውሃ የሚጠጡት የቤተሰብ አባላት አንማን ናቸው?	- ሁሉም የቤተሰቡ አባላት - ህፃናት - የታመሙ የቤተሰብ አባል - አረ <i>ጋ</i> ውያን ሌላ (ይጠቀስ)	1 2 3 4	

በጨርቅ የማጣራት ዘዴ				
311	ከውጭ ሀገር የሚመጣ /ከሆንድ/ የውሃ ማጣሪያ ጨርቅ ትጠቀማሳችሁ ወይ?	- የለም - አዎ	1 2	መልሱ የለም ክሆን ወደ 329 ይታለፍ

312	በጨርቅ ውሃ <i>የማጣራ</i> ቱን ዘዴ ለስንት ጊዜ ተጠቀማችሁበት?	ግዜው በአመት ይፃፍ	
313	በጨርቁ ውሃ አንዱት አንደሚጣራ ያውቃሉ?	- አላሙቅም 1→ - አዎ 2	አላውቅም ካሉ ወደ ቁጥር 315 ይታለፍ
314	በጨርቁ ውሃ አንዴት እንደሚጣራ ሊያሳዶኝ ይችላሉ?	- በትክክል ሰርተዋል 1 - በትክክል አልሰሩም 2	
315	በጨርቁ ውሃ የማጣራቱን ዘዴ አስራር ዘዴ ያሳየዎት ሰው አለ?	- βΛ9" 1→ - አዎ 2	የለም ካሉ ወደ ቁተር 317 ይታለፍ
316	መመሪደውን የሰተዎት ማንው?	- ጨርቁን የሽጣልኝ አ <i>ጋዲ</i> 1 - የጤና ትምህርት አስተማሪው 2 - ከኢቃው <i>ጋር የመጣውን መመሪያ</i> በማንበብ 3 ሌላ (ይጠቀስ)	
317	የማጣሪያ ጨርቁን ማዕዳት እንደሚያስፈልኍት እንዴት ያውቃሉ?	- የሚያጣራው የውሃ መጠን ሲቀንስ 1 - መመሪያው የሚያዘውን በመከተል 2 ሌላ (ይጠቀስ)	
318	ጨርቁን አጽድተውት ያውቃሉ?	- ዮ∧ም 1→ - አዎ 2	የለም ካሉ ወደ ቁተር 321 ይታለፍ
319	ጨርቁን ለመጨረሻ ጊዜ ያፅዱት መቼ ነው? (መረጃ ሰብሳቢው ግዜን ከአምራቹ መመሪያ ጋር በማገናዘብ መልሱን ሙሉ)	- የአምራቹን መመሪያ አልተከተለም 1 - የአምራቹን መመሪያ ተካትቷል 2 - እንዲት እንደሚወዳ አያውቁም 3	
320	ጨርቁን በየስንት ግዜ ነዉ የሚያፀዱት?	<u> </u>	
321	የማጣሪያ ጨርቁን አንዴት አንደሚያፀዱት ሊያሳዩኝ ይችላሉ? (መረጃ ሰብሳቢው ሁኔታውን ተመልክቶ መልሱ ላይ ምልክት ያድርግ)	- የአምራቹን መመሪያ አልተከተለም 1 - የአምራቹን መመሪያ ተካትቷል 2 - እንዲት እንደሚወኝ አያውቁም 3	
322	የማጣሪያ ጨርቁን እንዲት እንደሚያወዱት ያሳየዎት ሰው አለ?	- የለም 1 - <i>አዎ</i> 2	መልሱ የለም ክሆን ወደ 324 ይታለፍ

323	ማንው ድሳዮዎት?	- የወጠልን ን <i>ንዱ</i> 1 - የጤና ትምህርት አስተማሪው 2 - ጨርቁን ስንዛ ተያይዞ የመጣውን መመሪያ በማንበብ 3 ሌላ (ይጠቀስ)	
324	የማጣሪያ ጨርቁን ሲጠቀሙ አጋዋምዎት የሚያውቅ ችግር አለ?	- የለም 1 - አዎ 2	መልሱ የለም ክሆን ወደ 326 ይታለፍ
325	ምን አይነት ችግር ነው ያ.ጋጠመዎት?	- አንደመጀመሪያው ተና አይሰራም 1 - መተኪያ የለውም 2	
326	የጨርቅ ማጣሪያዎትን ለማየት አችላለሁ?	- አይቻልም 1 - ይቻሳል 2	መልሱ አይቻልም ከሆን ወደ 329 ይታለፍ
327	መረጃ ሰብሳቢው የተጣራው ውሃ ምን ያህል ንፁሀ እንደሆነ ተመልክቶ ተገቢውን መልስ ይስተ	- ተርት ያለ ይመስሳል 1 - የተወሰን ድፍርስንት አለው 2 - ድፍርስ ነው ግን ብርሃን ያሳልፋል 3	
328	ክቤተሰቡ ውስተ የተጣራውን ውሃ የሚጠ ጣው ማነው?	- ሁሉም የቤተሰቡ አባላት 1 - ሀፃናት 2 - የታመሙ የቤተሰብ አባል 3 - አረጋውያን 4 ሌላ (ይጠቀስ)	
	በፀሀይ ብርሃን ው	ነን የማጣራት ክዬ	
329	የወሀይ ብርሀን በመጠቀም ውሃ ለማጣራት እንደሚቻል ትምህርት ተሰተድችሁ ያው ቃል?	- ዮ∧ም 1→ - λ𝒫 2	መልሱ የለም ክሆን ወደ 331 ይታለፍ
330	ትምህርቱን የሰጠው ማንው?	- የጤና ትምህርት አስተማሪ 1 - የትምህርት ቤቱ መምህር 2 - የግብርና የኤስክቴንሽን ስራተኛ 3 ሌላ (ይጠቀስ)	

331	በወሀይ ላይ የተደረጉ ጠርሙሶቹን ማየት አችላለሁ?	የለም አዎ ጠርሙሶቹ በወሀይ ላይ አልተቀመስ	1→ 2 n•9° 3→	መልሱ የለም ከሆን ወደ 333 ይታለፍ መልሱ 3 ከሆን ወደ 339 ይታለፍ
332	መረጃ ሰብሳቢው ጠርሙሶዎቹን መመልክት ከተፈቀደለት ቁተራቸውን ይመዝግብ (ውሃ የተሞሉ ጠርሙሶችን ብቻ)	የመርሙሶቹ ብዛት		
333	መረጃ ሰብሳቢው ጠርሙሶቹን አንድታይ ካልተሬቀደልህ (በአሁኑ ሰአት ስንት ጠ ርሙሶች ወሀይ ላይ መደረግ አለመደረ ጋቸውን ለመጠየቅ በጠርሙሶቹን ብዛት ሙሳ)	የጠርሙሶቹ ብዛት መልሱ "ምንም" ከሆን ወደ ተያቂ ዝለል	339	
334	ጠርሙሰቹ በሙሉ ወሀይ ላይ የተደረጉት በተመሳሳይ ቀን ነው?	- የለም - አዎ	1 2→	መልሱ አዎ ከሆን ወደ 339 ይታለፍ
	ጠርሙሶቹ በሙሉ ወሀይ ላይ የተደረጉት በአ' ወደ ተያቄ 339 እለፍ	ንድ ቀን ካልሆነ ከዚሀ በታች ያለው	ን ሰንጠረዥ ከምላ	U (131
335	ወሀይ ላይ የቆዩበት ቀን ብዛት	የጠርሙስ ብዛት	ጠርሙሶቹን ለስ ተጨማሪ ቀናት ወሀይ ላይ ለማፋ ታቅጿል	ንት ምት
336	አንድ ቀን			
337	ሁለት ቀናት			
338	ከሁለት ቀን በላይ			
339	ውሃ ለመቅዳት የሚጠቀሙባቸው የተለዩ ጠርሙሶች አለዎት?	የለም አ <i>ዎ</i>	1 2	
340	የተጣራው ውሃ የሚጠራቀምበት የተለዩ ጠርሙሶች አለዎት?	የለም አዎ	1 2	

341	በወሀይ ብርሀን የተጣራውን ውሀ በምን ሁኤታ ታጠራቅማላችሁ?	አናመራቅምም በጄሪካን እንስራ ሌላ (ይጠቀስ <u>)</u>	1 2 3	
342	አንዚህን ጠርሙሶች በፀሀይ ብርሃን ውሃ ለማጣራት ለምን ያህል ጊዜ ተጠቀማችሁባቸው?	ጊዜን በመራት ፃፍ		
343	በዚህ የውህ ማጣሪያ ዘዴ ሲጠቀሙ ችግር ገጥሞዎት ያውቃል?	- የለም - አዎ	1→ 2	መልሱ የለም ክሆን ወደ 345 ይታለፍ
344	ምን አይኑት ችግር ነበር የገጠመዎት?	- የቤተሰቡን የንፁሀ መጠጥ ውሃ ፍላንት ሊያሟላ የሚችሉ በቂ ጠርሙሶች አለሙኖር - በቂ የፅሀይ ብርሀን የለውም - በዚህ ዘዴ የተጣራውን ውሃ ጠጥተው የታመሙ ያቤተሰብ አባላት አሉ ሌላ (ይጠቀስ)	1 2 3	
345	የተጣራውን ውሃ የሚጠጡት የቤተሰቡ አባላት እንማን ናቸው?	- የቤተሰቡ አባላት በሙሉ - ህፃናት ብቻ - የታመመ የቤተሰብ አባል - አረ <i>ጋውያች</i> ሌላ (ይጠቀስ)	1 2 3 4	

ባህላዊ ውሃ የማጣሪያ ዘዴዎች				
346	የምትጠቀሙባቸው ባሀላዊ የውሀ ማጠሪያ ዘዲዎች የትኞቹ ናቸው?	- ሽፌራው (ቅጠል) - ስራስሮች - ቅጠሳ ቅጠል ሌሳ (ይመቀስ)	1 2 3	
347	ውሃን በዚህ ዘዲ የምታክ.ጋጁት በየስንት ጊዜ ነው?	በየቀኑ በየቀኑ ባይሆንም በየጊዜው የቤተሰብ አባል ሲታመም በዝናብ ወቅት በዓል ወቅት	1 2 3 4 5	
348	ክቤተሰብ አባላት ውስጥ የተጣራውን ውሃ የሚጠጣው/ጡት የቤተሰብ አባላት እንማን ናቸው?	- ሁሉም የቤተሰብ አባላት - ህፃናት ብቻ - የታመሙ ብቻ - አዛውንቶች/ ሽማንሌና አሮጊቶች ብቻ ሌላ (ይጠቀስ) ——	1 2 3 4	

ውህ ስ/	ውሀ ስለማጠራቀም				
349	ለመጠዋንት የምትጠቀሙበትን ዉሀ ታጠ ራቅማላችሁ?	- የለም 1 - አዎ 2	መልሱ የለም ከሆን ወደ 400 ይታለፍ		
350	ለመጠጥ የሚሆን ውሃን በቤት ውስጥ የም;ታጠራቅሙት እንዲት ነው?	- ውሃ አናጠራቅምም (የተጠራቀሙ ውሀ የለንም) 1 - ባልዲ 2 - በርሚል 3 - ጀሪካን 4 - እንስራ 5 - ጣሪያ ላይ የሚሰቀል የውሃ ማጠራቀሚያ 6 - በመሬት ውስተ የተቀበረ የውሃ ማጠ ራቀሚያ 7 ሌላ (ይጠቀስ)			
351	ማጠራቀሚያ አቃ የሚጠቀሙ ከሆነ ሊያሳዩኝ ይችላሉ?	- βΛ9" 1→ - λ𝒫 2	መልሱ የለም ከሆን ወደ 361 ይታለፍ		

352	ይህ ማጠራቀሚያ እቃ በተቅም ላይ እንዲውል ውጣኔ ያሰጠው ማንው?	- ሚስተ 1 - ሲት ልጅ 2 - ባል 3 - ወንድ ልጅ 4 ሌላ (ይጠቀስ)	
353	መረጃ ሰብሳቢው፤ በቤቱ ውስቱ ለውሃ ማጠራቀሚያነት የሚጠቀሙባቸውን አቃዎችን ብዛት የፍ	- የማጠራቀሚያ ልቃዎች ቁዋር	
354	መረጃ ሰብሳቢው፤ አያንዳንዱ የውሃ ማጠራቀሚያ እቃ ሊይዝ የሚችለውን የውሃ መጠን በማምት /በሊትር/ አስቀምም፡-	- ማጠራቀሚያ 1 - ማጠራቀሚያ 2 - ማጠራቀሚያ 3	
		- ማጠራቀሚያ 4	
355	መረጃ ሰብሳቢው የማጠራቀሚያ አቃዎችን አይነት በማየት ትክክለኛውን ምርጫ አመልክት (አፌጠባብ ማለት እጅ ማስገባት የማይችል ነው)	- አራ መባብ አንስራ ብቻ 1 - አራ ሥራ አንስራ ብቻ 2 - ሁላቱም አይነት 3 - ጄሪካን 4 ሌላ (ይመቀስ)	
356	መረጃ ሰብሳቢው፣ ማጠራቀሚያ አቃዎች በክዳን መከደናቸውን አጣራ	 ሁሉም ክዳን የላቸውም0 ሁሉም ጠንካራ ክዳን አላቸው1 የተወሰኑት ጠንካራ ክዳን አላቸው2 ሁሉም ሥሥ በሆን ጨርቅ ነገር 3 ተሸፍንዋል	
357	መረጃ ሰብሳቢው፤ የማጠራቀሚያ አቃዎቹ ውሀ ማንቆርቆሪያ አንዳላቸው አጣራ። (ውሀ ማንቆርቆሪያ ማለት አብሯቸው የተሰራ ኈናቸው ወይም ኪታቸ ያለ ውሀ ማፍሰሻ ማለት ነው)	- ሁሉም የሳቸውም 0 - ሁሉም አሳቸው 1 - አንዳንዶቹ አሳቸው 2 ሌላ (ይጠቀስ)	
358	መረጃ ሰብሳቢው። የመጠዋ ውሃ ማጠራቀሚያው አቃዎች ስንዋቅ አንደሌላቸው አጣራ	- ሁሉም ደህና ናቸው 1 - አንዳንዶቹ ስንተቅ አላቸው 2	
359	መረጃ ሰብሳቢው፤ የውሃ ማጠራቀሚያው ዕቃ የተቀመጠበት ቦታ ለተለያዩ ቤት እንስሳትና ሌሎች /ድመት፣ ውሾች፣ ዶሮዎች ወዘተ./ የተገለጠ መሆን ያለመሆናቸውን አጣራ።	- βΛ9 1 - λ9 2	

360	መረጃ ሰብሳቢው፤ የውሃ ማጠራቀሚያው የተቀመጠው ህፃናት ሊደርሱ ከማይችሉበት ቦታ መሆን አለመሆኑን አጣራ።	- የለም - አ <i>ዎ</i> ሌላ (ይጠቀስ)	1 2	
361	በዚህ መልኩ ውሃ የሚያጠራቅሙት በምን ያህል ድንግሞሽ ነው?	- በየቀ፦ - በየቀ፦ ሳይሆን አልፍ አልፍ - በቤት ውስተ ሰው ሲ <i>ታጫ</i> ም - በክሪምት ወቅት - በበ <i>ጋ ጊ</i> ዜ ሌላ (ይጠቀስ)	1 2 3 4 5	
362	በቤት ውስፑ የተጠራቀመውን ውሃ የሚጠ ጣው ማነው?	- ሁሉም የቤተሰብ አባላት - ሀየናት ብቻ - የታመሙ ሰዎች ብቻ - አረጋውያን ብቻ ሌላ (ይጠቀስ)	1 2 3 4	
363	የውሃ ማጠራቀሚያውን ክቆዱት ለንት ጊዜ ሆንዎት? /የቀን ቁጥር ይፃፍ። ቃለ መጠይቁ በተደረገበት ቀን ከሆነ «1» ይፃፍ ከአንድ ቀን በፊት ከሆነ «2» ይፃፍ።	- በፍፁም ታጥቦ አያውቅም - የቀናቱ ቁጥር	0→ 1	
364	የውሃ ማጠራቀሚያዎቹ የሚያፀዱት በየስንት ጊዜ ነው?	- በየቀጐ - በየ3 ቀጐ - በየማምጐት - አዕድተን አናውቅም ሌላ (ይጠቀስ)	1 2 3 4	
365	የማጠራቀሚያ አቃዎቹን የሚያፀዳው ማነው?	- ሚስት - ሴት ልጅ - ባል - ወንድ ልጅ ሌላ (ይጠቀስ)	1 2 3 4	

	ሣሙና እና ሌሎች ንጽህና መጠበቂያ ዕቃዎችን የመጠቀም ሁኔታ					
400	ሳሙናን ለማጠቢያነት መጠቀም የተለመደ ነው?	- የለም - አዎ	1→ 2	መልሱ የለም ክሆኑ ወደ 402 ይታለፍ		
401	ክቤተሰቡ ውስተ ሳሙና እንዲገዛ የሚያደርገው (የሚወስነው) ማነው?	- ሚስት - ሴት ልጅ - ባል - ወንድ ልጅ ሌሳ (ይመቀስ)	1 2 3 4			

402	በቅርብ ጊዜ ሣሙና ተጠቅመው ነበር? ለምሣሌ ትላንትና ጠዋት?	የለም አዎ	1→ 2	መልሱ የለም ክሆን ወደ 407 ይታለፍ
403	በትላንትናው ዕለት ለመጀመሪያ ጊዜ ሳሙና የተጠቀሙት ለምን ተማባር ነበር? (የራስን ወይም ያልጄን እጅ ለማጠብ ብለው ከመሰሉ አጃቸውን እንዲታጠቡ ያደረጋቸውን ሁኔታ እንዲገልፁ ይጠይቁ። ነገር ግን የተሰጡት የመልስ አማራጮቹን አይነበብላቸው)	 ልብስ ለማጠብ	1 2 3 4 5 6 7 8 9 10	
404	በትላንትናው ዕለት <i>Έ</i> ዋት ሣሙና ለሌላ ጉዳይ ተጠቅመው ነበር?	- የለም - አዎ	$1 \rightarrow 2$	መልሱ የለም ከሆን ወደ 407 ይታለፍ
405	ለምን ተግባር ነበር <i>ሣ</i> ሙናውን የተጠቀሙት? (የእኔን ወይንም የልጄን እጅ ለማጠብ ብለው ከመለሱ በምን ምክንያት እንደሆነ ጠይቁ፣ ነገር ግን የመልስ አማራጮቹን አይነበብላቸው)	 ልብስ ለማጠብ	1 2 3 4 5 6 7 8 9 10	

406	ሳሙናውን ለሌሳ ለምን ጉዳይ ነው የተጠቀሙበት?		ልብስ ለማጠብ ንሳዬን ለመታጠብ ልጆቼን ለማጠብ የልጆቼን መቀመጫ (ቂዋ) የልጆቼን እጅ ለማጠብ ስሽንት ቤት ስመለስ አጄን ለመታጠብ	1 2 3 4 5 6	
			የልጆቼን እጅ ለማጠብ ከሽንት ቤት ስመለስ አጄን ለመታጠብ ልጄን ካወዳሁ በኋላ ለመታጠብ ልጄን ከመመገቤ በፊት ለመታጠብ ምንብ ከማዘጋጀቴ በፊት እጄን ለመታጠብ	5 6 7 8 9	
		ሌሳ	ለመታጠብ (ይጠቀስ <u>)</u>	10	

	አመድን ለን	ጽህና መጠቀም	
407	በቤትዎ ውስቱ አመድን ለማጠቢያነት (ለፅዳት) ተጠቅመው ያውቃሉ?	- የለም 1→ - አዎ 2	መልሱ የለም ከሆን ወደ 414 ይታለፍ
408	በቅርቡ አመድን ለማጠቢያኑት (ለፅዳት) ስራ ተጠቅመዋ ለምሳሌ ትላንትና ጠዋት ተጠ ቅመው ነበር?	- βΛ9° 1→ - λ𝒫 2	መልሱ የለም ከሆን ወደ 414 ይታለፍ
409	ትላንትና ለመጀመሪያ ጊዜ አመድ ለማጠቢያነት (ለዕዳት) የተጠቀሙት ለምን ተግባር ነው? (የራሴን ወይን የልጄን አጅ ለማጠብ ብለው ከመለሱ አጃቸውን እንዲታጠቡ ያደረ <i>ጋ</i> ቸውን ሁኔታ እንዲገልፁ ይጠይቁ የተሰጡትን የመልስ አማራጮች አታንብቡላቸው)	 ልብስ ለማጠብ	
410	ትላንትና ሐዋት ለሌላ ጉዳይ አመድ ተጠቅመው ነበር?	- βΛ9 [∞]	መልሱ የለም ከሆን ወደ 414 ይታለፍ
41 1	ለምን ተግባር ነበር የተጠቀሙት? (የራሴን ወይን የልጄን አጅ ለማጠብ ብለው ከመለሱ አጃቸውን እንዲታጠቡ ያደረ <i>ጋቸውን</i> ሁኔታ እንዲገልፁ ይጠይቁ የተሰጡትን የመልስ አማራጮች አታንብቡላቸው)	- እብስ ለማጠብ 1 - ገላዬን ለመታጠብ 2 - እጆቼን ለማጠብ 3 - የእጆቼን መቀመጫ (ቂዋ) ማጠብ 4 - የእጆቼን እጅ ለማጠብ 5 - ከሽንት ቤት ስመለስ እጄን ለመታጠብ 6	

412	ትላንትና ቀን ሌላ አመድ የተጠቀሙበት ምክንይት ካለ?	 - Aぞう わめらい ロネイ ムのシナのイー	ማልሱ ያለም ከሆን ወደ 414 ይታለፍ
413	ለምን ነበር? (የራሴን ወይን የልጄን አጅ ለማጠብ ብለው ከመለሱ አጃቸውን እንዲታጠቡ ያደረ <i>ጋቸውን</i> ሁኔታ እንዲገልፁ ይጠይቁ የተሰጡትን የመልስ አማራጮች አታንብቡሳቸው) (ሌሳስ በማለት ዕስት ማዜ ይጠይቁ)	- እብስ ለማጠብ 1 - ገላዬን ለመታጠብ 2 - እጆቼን ለማጠብ 3 - የእጆቼን መቀመጫ (ቋጥ) ለማጠብ 4 - የእጆቼን እጅ ለማጠብ 4 - ስሽንት ቤት ስመለስ አጄን ለመታጠብ 6	
		- እዴን ባውንው ወደባ ለመቃንጠብ 7 - እዴን ከመመገቤ በራት ለመታጠብ 8 - ምንብ ከማዘጋጀቱ በራት እዴን ለመታጠብ 9 - ምንብ ከመብላቱ በራት እዴን ለመታጠብ 10 ሌላ (ይጠቀስ)	
414	ከሳሙና እና ከአመድ ሌላ ለፅዳት (ለማጠቢያንት) የምትጠቀሙት ዘዴ አለ?	- βΛ9 1→ - λ <i>P</i> 2	መልሱ የለም ከሆኑ ወደ 418 ይታለፍ
415	ምን አይነት ነገሮችን ነው ለፅዳት (ለማጠቢያነት የምትጠቀሙት)	- ቅጠላ ቅጠለッች 1→ - አሸዋ 2 ሌላ (ይጠቀስ)	ወደ 416 ይታለፍ
416	ምን የተለየ አይነት ቅጠሎችን ነው በማጠቢያነት የምትጠቀሙት (የቅጠሎቹን የአካባቢ መጠሪያ እንዲልጽሳችሁ ጠይቋቸው)	<u></u>	
417	አንዚህን ቅጠሎች ምን ለማጡብ ነው የምትጠቀሙባቸው?	- ልብስ ለማጠብ 1 - 74 ለመታጠብ 2 - ልጆች ለማጠብ 3 - የልጆችን መቀመጫ (ቂተ) ለማጠብ 4 - የልጆችን እጅ ለማጠብ 5 - ከተወዳይሁ በኋላ እጆችን ለመታጠብ ⁶ - ልጆቼን ካወይሁ በኋላ እጄን ለመታጠብ 7	

- ልጆቼን ከመመገቤ በፊት እጄን - 8	
ለመታጠብ - ምግብ ከግዘጋጀቴ በራት አጆቼን - 9 ለመታጠብ - ከመመገቤ በራት - እጆቼን - 10 ለመታጠብ ሌላ (ይጠቀስ)	

	XJN SIm¬-B¼ yb@tsB xƧT yT SF‰ 2	XNd,¬-b#	
418	ትላንትና እጅዎትን ስንት ጊዜ በሳሙና ታጠቡ?	የተጠቀሙቢትን ጊዜ በቁጥር ነፉ	
419	በምን ምክንድት ነበር (ምን ተማባር ካከናወኑ በኋላ ነው) ለመጨረሻ ጊዜ እጅዎን በማሙና የታጠ ቡት?	 ልብስ ሳተብ	
420	በትሳንትናው እለት እጅዎትን በአመድ ታዋበው ነበር?	- ዮ∧ም 1→ - <i>አ</i> ዎ 2	መልሱ የለም ከሆን ወደ 423 ይታለፍ
421	በትላንትናው አለት አጅዎን ስንት ጊዜ በአመድ ታጠቡ?	ሮተመቀም በትን ጊዜ ነፍ	
422	የቤተሰቡ አባላት አዘወትረው አጃችሁን የሚታጠቡበት ቦታና አጃቸውን በምን አንደሚታጠቡ ሊያሳዩን ይችላሉ?	- ማዮት አይቻልም 1→ - ይቻሳል 2	አይቻልም ከሆን ወደ 426 ይታለፍ
423	መረጃ ሰብሳቢው ፣ የቤተሰቡን የአጅ መታጠቢያ ቦታ በመመልክት የአጅ መታጠቢያው ቦታ የሚገኝበትን አካባቢ ከዝርዝሩ መካከል አመልክት	- በሽንት ቤት አቅራቢያ ወይም ውስተ 1 - በማዕድ ቤት አጠንብ ወይም ውስተ 2 - ማኅብመያ አካባቢ 3 - በማቢ ውስተ ሌላ ቦታ 4 - ድሚ ቦታ የላቸውም 5	

424	መረጃ ሰብሳቢው፣ የመታጠቢያ አቃው ምን አንደሆነ ተመልክቶ መልስ ይስዋ?	- ቧንቧ 1 - ማፍሰኛ ቧንቧ ያለው እቃ 2 - ማስታጣቢያ/ ባልዲ 3 ሌላ (ይጠቀስ)	

425	መረጃ ሰብሳቢው፣ በጉብኝት ወቅት ውሃ መኖር ያለመኖሩን ተመልከት?	- የለም 1 - አዎ 2	
426	ትላንትና ውሃ በመታጠቢያው ውስተ አበር?	- βΛ9 ^ν 1 - λ9 ^ν 2	
427	መረጃ ሰብሳቢው፣ በአካባቢው ማሙና ወይም ማጽጃ ወይም ሌላ ባህላዊ ለመታጠቢያነት የሚጠ ቀሙበት ነገር መኖሩን ተመልከት። (ለጽዳት የሚውሉ እንደ ሳሙና ያሉ ነገሮች በቦታው መኖር አለባቸው። ክሌለ ተጠያቂው በአምስት ደቂቃ ውስተ ሊያመጣ መቻል አለበት። ይህ ካልሆን የለም የሚለውን ምርጫ ክበብ።)	- የለም 1 - ማመ-ና 2 - አሞ/በሪኪና 3 - አመድ 4 - ጭድ 5 - አሸዋ 6 ሌላ (ይጠቀስ)	
428	በእጅ መታጠቢያ ቦታ/ እቃ ውስጥ ውሃ መኖሩን የማረጋገጥ ሃላፊነት የተሰጠው የቤተሰብ አባል ማንው?	- ሚስት 1 - ሴት ልጅ 2 - ባል 3 - ወንድ ልጅ 4 ሌላ ሰው (ይጠቀስ)	
429	ብዙ ሰዎች አንዳንድ ተማባራት ከመሬፅማቸው በፊት ወይም ክሬፀሙ በኋላ አጃቸውን ይታጠ ባሉ። በእርሶ አመለካክት እጅ መታጠብ አስፈላጊ የሚሆንባቸው ግዜአት (ሁኔታዎች) የትኞቹ ናቸው? (ከአንድ በላይ መልስ ይቻላል (የተጠቀሱት በሙሉ ይመዝግቡ)	 ከተፀዳዱ በኋላ 1 ምግብ ከመመገብ በራት 2 የህፃንን ገላ ካጠቡ ካፀዱ ወይም የሽንት ጨርቅ ከቀየሩ በኋላ 3 ሽንት ቤት ካፀዱ በኋላ 3 ሽንት ቤት ካፀዱ በኋላ 5 ምግብ ከጣኪጋጅት በራት 6 ለህፃን ምግብ ከመስጠት በፊት 7 ምግብ ከበሉ በኋላ 8 ሌላ (ይጠቀስ) 	
430	አጅዎን በማሙና የሚታጠቡበት ምክንደት ምንድነው?	- ተቅማተን ለመከላክል 1 - ሌሎች በሽታዎችን ለመከላክል 2 - ጀርምን ለማስወገድ 3	

	(ከአንድ በሳይ መልስ ሊኖር ይቻሳል። ተጠያቂው የሰጠው መልስ ሁሉ ይመዝገብ)	- ቆሻሻ ወደ አፍ አንዳይገባ ለመከሳከል 4 - ቆሻሻ ወደ ምግብ አንዳይገባ ለመከሳከል 5 - ተና ጠረን አንዲኖር 6 ሌላ (ይጠቀስ)
431	ክሎሪን በተጨመረበት ውሀ አጅዎትን ይታጠባሉ?	- የΛ9 ^m 1 - <i>λ</i> 9 ^m 2

መፀዳጃ ቤትን በሚመለከት			
501	ከሦስት አመት ቢታች የሆነ ሀፃን አለዎት?	- βΛ9" 1→ - λ𝒫 2	መልሱ የለም ከሆነ ወደ 505 ይታልፍ
502	ህፃን ልጅ <i>ዎ ለመጨረሻ ጊዜ ውገራ</i> ሲወጣ የት ነው የተወዳዳው?	- ሽንት ቤት 1 - ፖፖ ተጠቅሞ 2 - የሚታጠብ የልጆች መገራ መቀበድ 3 - ከአንድ ጊዜ በላይ የማይጠቅም የልጆች መገራ መቀበድ ተጠቅሞ - አቤት ውስተ/ በአካባቢው 4 - ከቤት አካባቢ ርቆ 5 - ልብሱ/ሏ ላይ 6 - አላውቅም 7 ሌላ (ይጠቀስ) 99	2.2 114
503	አርሶ የሚንክባክቡት (የሚያሳድጉት) ሀፃን ለመጨረሻ ጊዜ የወጣውን ሰገራ የት አስወገዱት (ጣሉት)?	- ሽንት ቤት ውስተ ጨመርኩት 1 - ቀበርኩት 2 - የደረቅ ቆሻሻ ማጠራቀሚያ ውስተ ጣልኩት 3 - ግቢ ውስተ ጣልኩት 3 - ግቢ ውስተ ጣልኩት 4 - ከግቢ ውጭ ጣልኩት 5 - የህዝብ ሽንት ቤት ውስተ ጣልኩት 6 - እቃ ማጠቢያ/ ቱቦ ውስተ ጣልኩት 7 - ውሃ መውረጃ ላይ ጣልኩት 8 - ሌላ ቦታ ጣልኩት (ይጠቀስ)	
504	የሀየጐን ሰገራ የጣለው ማን ነበር?	- ሚስት 1 - ሴት ልጅ 2 - ባል 3 - ወንድ ልጅ 4 - ማንም 5 ሌላ (ይጠቀስ)	
505	የቤተሰብ አባላት በመደበኝነት የሚጠቀሙበት መፅዳጃ ምን አይነት ነው? ወይም የቤተሰብ አባላት በመደበኝነት የሚፅዳዱት የት ነው?	ምንም፣ ጫካ፣ ፕላስቲክ (ፌስታል) 1→ በውሃ የሚሰራ ሽንት ቤት 2 የተሻሻለና ባለሙተንፈሻ ሽንት ቤት 3 አናቱ የተከደነ የጉድንድ ሽንት ቤት 4 አናቱ ደልተዘጋ የሽንት ቤት ጉድንድ- 5 ባለሁለት ክፍልና ሽንትና ሰገራ- የሚለይ ሽንት ቤት 6 ተንቀሳይሽ/ ተንጠልጣይ ሽንት ቤት - ሌላ (ይጠቀስ). 7	መልሱ 1 ከሆን ወደ 542 ይታለፍ

506	መፅዳጃ ቤት እንዲሰራ የወሰነው የቤተሰብ አባል ማነው?	- የቤተሰብ ሃላፊው ሚስት 1 - ሰ.ት ልጅ 2 - የቤተሰቡ ሃላፊ 3 - ወንድ ልጅ 4 ሌላ ሰው (ይጠቀስ)	
507	መፀዳጃቤቱን የገንባው ማንው?	- ግንበኝ 2 ሌሳ ሰው (ይጠቀስ)	
508	የመፀዳጃ ቤቱ የተሰራበትን ቦታ የመረጠው የቤተሰብ አባል ማንው?	- የቤተሰቡ ሃላፊው ሚስት 1 - ሴት ልጅ 2 - የቤተሰቡ ሃላፊው 3 - ወንድ ልጅ 4 ሌላ ሰው (ይጠቀስ)	
509	መፀዳጃ ቤት ሰርታትሁ መጠቀም ከጀመራችሁ ስንት ግዜ ሆናችሁ?	ግዜው በአመት ይፃፍ	
510	መፅዳጃ ቤቱን ክሌላ ቤተሰብ /ቤተሰቦች .2C ት.2ራላችሁ?	$\begin{array}{cccc} & & & & & \\ - & & & & & \\ & & & & & \\ & & & &$	የለም ከሆን ወደ 512 ይታለፍ
511	ይህንን መፀዳጃ ቤት ቢጋራ የሚጠቀሙ ቤተሰቦች ብዛት ስንት ነው? (የሚጠቀምበት የቤተሰብ ብዛት ይፃፍ)	ይመድር ይፃፍ	
512	መፀዳጃ ቤት ለመግንባት ይነሳሳችሁን ሶስት ዋና ዋና ምክንይቶች ይገለፁልን (ከአንድ በሳይ መልስ ይቻሳል። የተጠቀሱት በሙሉ ይመዝገቡ)	- የቤተሰቡን ደረጃ ክፍ ለማድረግ /ለቤተሰቡ ክብር 1 - ምቾት ለመጠቅ 2 - ለመጠቀም አመቺ በመሆኑ 3 - በተናፑል (ለብቻ) ለመጠቀም 4 - ክሌሌቶ ጋር መጋራትን ለማስወገድ- 5 - ለደሀንነት 6 - በሽታን ለመከላክል 7 - አካባቢን መበክል ከሚሬተረው አፍራት ለመዳን 8 ሌላ (ይጠቀስ)	
513	ሽታን ወይም ዝንቦችን ለመከላከል የምትጠ ቀሙበት ዘዴ/ ማዋሬያ መድህኒት አለ?	- የለም 1→ - አለ 2	ወደ 515 ይታለፍ
514	ምንድነው የምትጠቀሙበት ዘዴ/ የምትጨምሩት?	- አመድ 1 - በሪኪና 2 - የንፍሳት ማተፊያ ኪሚካል 3 - የሞተር ዘይት 4 ሌላ (ይጠቀስ)	

515	ለመፀዳጃ ቤትዎ በቅርቡ ተገና አድርገው የውቃሉ?	- βΛ9 ^m 1 → - λ.Ω	ወደ 517 ይታልፍ
516	ምን አይንት ተገና አደረጉ?	- ክመራት በላይ ያለው ክፍል ላይ ለውጥ አደረግሁ 1 - አዲስ ጉድጓድ ቆፈርኩ 2 - ጉድጓዱ ውስጥ የነበረው ቆሻሻ ተመረገ 3	
517	የመፀዳጃ ቤቱ ጉድጓድ በቅርብ ፀድኋል?	- βΛ9" 1→ - λΔ 2	ወደ 519 ይታለፍ
518	ጉድዓዱ ውስተ የነበረው ቆሻሻ ጠርገው ካወጡ፣ ተራጊውን የት አስወገዱት?	- በውሃ መውረጃ ላይ ተደፋ 1 - ከቤት ራቅ ያለ ቦታ ላይ ተደፋ 2 - ሌላ ቦታ ተቀበረ 3 - ተቃጠለ 4 - ለማዳበሪያንት ተጠቀምንበት 5 ሌላ (ይጠቀስ)	
519	ጉድጓዱ ውስተ የነበረውን ቁሻሻ ካወጡት ሽንት ቤቱ አሁንም አገልግሎት በመስጠት ላይ ነው?	- የለም 1 - አዎ 2→	ወደ 522 ይታስፍ
520	ጉድጓዱን በግዜአዊነት ወይም በቋሚነት ዘግታችሁታ?	- በኖሚነት 1 - በግዜአዊነት 2	
521	ከታሽህ ከተዘጋ ምን ያህል ጊዜ ሆኖታል		
522	የአሁኑን የመፀዳጃ ቤት ሁኔታ ለማሻሻል ምን ማድረግ ይፈል,ጋሉ?	- የግል መፀዳጃ ቤት መስራት 1 - የአሁኑን የቤተሰቡን የግል መፀዳጃ ማሻሻል 2 - የማህበረሰብ መፀዳጃ ቤት አንዲ ፓሳባ እርዳታ ማድረግ 3 - የመፀዳጃ ሁኔታውን ለማሻሻል የመንግስትን ወይን የሌላ የውጭ እርዳታ ሰጪን ድጋፍ መጠየት 4 - በሁኔታው የሪካሁ ስለሆን ምንም ማሻሻል አያስፌልግንም 5 - አላውቅም 99	
523	መወዳጃ ቤታችሁ ያለው የት ነው?	- ቤት ውስተ/ ክቤቱ ,ጋር ተያይዞ 1 - በግቢው ውስተ 2 - ከግቢ ውጪ 3 - የህዝብ መፀዳጃ 4 ሌላ (ይጠቀስ)	
524	መፅዳጃ ቤቱን ሊያሳዩኝ ይችሳሉ?	- አይፊ.ቀድም 1→ - ይፊ.ቀዳል 2	ወደ 541 ይታለፍ
525	መረጃ ሰብሳቢው፤ የመፀዳጃ ስፍራው ከመኖሪያ ቤቱ ያለው ርቀት ምን ያፀል መሆኑን ገምት?	- በ.ት ውስጥ ነው 1 - ንሮ ውስጥ ነው 2 - ከ1-20 ሜትር በሚደርስ ርቀት ውስጥ ነው 3 - ከቤቱ 21 ሜትር እና ከዛ በላይ በሆነ ርቀት ውስጥ ነው- 4	
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526	መረጃ ሰብሳቢው፤ መፀዳጃ ቤቱ ግድግዳ አንዳለው ተመልከት?	- የለም 1 - አዎ 2	
527	መረጃ ሰብሳቢው፣ መፀዳጃ ቤቱ ጣራ አንዳለ ተመልከት።	- የለም 1 - አዎ 2	
528	መረጃ ሰብሳቢው፤) ሽንት ቤቱ በተገቢው መንገድ ከውጭ አይታን የሚከሳከል መሆኑን ተመልከት?	- የለም 1 - <i>አዎ</i> 2	
	መ <i>ጋረጃ ወይም በር ወይም</i> ኤል (L) ቅርፅ ያለው <i>መ</i> ግቢ <i>ያ</i>)		
529	መረጃ ሰብሳቢው፤ መፀዳጃ ቤቱ የሚዘጋ መሆኑን ተመልከት።	- የለም 1 - አዎ 2	
530	መረጃ ሰብሳቢው፤ ለሀፃናት አመቺ የሆነ ሁኔታ መኖሩን ተመልከት።	- ትንሽ ቀዳዳ ያለው መቀመጫ 1 - ዝቅ ያለ መቀመጫ 2 - ለመወሰን ያስቸግራል 3 - ከላይ የተመለከቱትን በሙሉ. አያግላም	
531	መረጃ ሰብሳቢው፣ የመቀመጫው ቀዳዳ መከደኑን ተመልከት።	- የለም 1 - አዎ 2	
532	መረጃ ሰብሳቢው፤ መፀዳጃ ቤቱ በአገልግሎት ላይ መሆኑን ሰገራ አንዳለው ድንጋይ ወርውረህና፣ ጉድጓዱ አርተብ አንደሆነ በማየት) አረጋግጥ፣ የተፀዳዱበት ወረቀት አንዳለና ወደ ሽንት ቤት የሚወስደው መንገድ ሰው የሚጠቀምበት መሆኑን ማየትም አስፈላጊ ነው።)	 የእጅ ባትሪ በመጠቀም ጉድዓድ ውስተ ሰገራ አይቻለሁ 1 ከተፀዳዱ በኋላ የተጠቀሙባቸውን ወረቀቶች በሽንት ቤቱ አካባቢ አይቻለሁ 2 ወደ ሽንት ቤቱ የሚወስድ የአንር መንገድ አለ 3 የሽንት ቤቱ ጉድዓድ ሽፋን እርጥብ ነው 4 የሽንት ቤቱ ጉድዓድ ክዳን ወይቧል 5 ይሽታል አለው 6 በአካባቢው ዝንቦች አለ 7 	
533	መረጃ ሰብሳቢው፤ ንፁሀ መሆኑን ተመልከት?	- ንፁህ አይደለም 1 - ንፁህ ነው 2	
534	መረጃ ሰብሳቢው፤ በአቅራቢያው መተረጊያ መኖሩን ተመልክት?	- የለም 1 - አዎ 2	
535	መረጃ ሰብሳቢወ፣ የመፀዳጃ ቤቱ አጠንብ እጅ መታጠቢያ እቃ መኖሩን ተመልከት?	- የለም 1 - አዎ 2	
536	መረጃ ሰብሳቢው፣ የመፀዳጃ ቤቱ አጠንብ ባለው እጅ መታጠቢያ እቃ ውስቱ ውሃ አለ?	- የለም 1 - አም 2	

537	መረጃ ሰብሳቢው፣ አጅ መታጠቢያ ቦታ ላይ የተቀመጠው የውሃ ማጠራቀሚያ እቃ ምን እንደሆነ ተመልክት።	- ከሽክላ የተሰራ ባወላዊ ማጠራ ቀሚያ እ.ቃ 1 - ከፕሳስቲክ የተሰራ ማጠራ ቀሚያ ባልዲ 2 ሌላ (ይጠቀስ)	
538	መረጃ ሰብሳቢው፣ እጅ መታጠቢያ ቦታ ሳይ መታጠቢያ ሳሙና/ ሌላ መኖሩን ተመልከት?	- ሳሙና 1 - ዲተርጀንት 2 - አመድ 3 ሌላ (ይጠቀስ)	
539	ለአጅ መታጠቢያው ውሃ የሚያመጣው ማነው?	- በቤተሰቡ ውስፑ አንደዚህ ይለ ስራ አይሰራም 1 - የቤተሰብ ሃላፊው ሚስት 2 - ሴት ልጃቸው 3 - የቤተሰብ ሀላፊው 4 - ወንድ ልጃቸው 5 ሌላ ሰው(ይጠቀስ)	
540	የመታጠቢያ ሳሙና/ ሌላ በቦታው መኖሩን የሚያራጋግጠው ማንው?	- አንደዚህ ያለ ስራ ቤተሰቡ መስተ አይሰራም 1 - የቤተሰብ ሃላፊው ሚስት 2 - ሴት ልጃቸው 3 - የቤተሰብ ሀላፊው 4 - ወንድ ልጃቸው 5 ሌላ ሰው (ይጠቀስ)	
541	መፀዳጃ ቢቱን የሚያፀዳው ማኑው?	- በቤተሰቡ ውስተ አንዲህ ያለ ስራ አይሰራም 1 - የቤተሰብ ሃላፊው ሚስት 2 - ሴት ልጃቸው 3 - የቤተሰብ ሀላፊው 4 - ወንድ ልጃቸው 5 ሌላ ሰው (ይጠቀስ)	
542	ቤተሰብዎ በሚቆዳበት ቦታ ምን ያህል አሪክተዋል? (መልሱን አንብብላቸው)	- በጣም አልረካሁም/ አልተደሰተኩም 1 - ብዙም አልረካሁም 2 - አስተደየት የለኝም 3 - በመጣኑ እረክቼአለሁ 4 - በጣም አረክቼአለሁ 5	

543	ቤተሰብዎ የመፀዳጃ ቤት አንዳይኖረው ካደረጉት ምክንያቶች መካከል ሶስት ዋና ዋና ምክንያቶችን ይግለፁልን? (ከአንድ በሳይ መልስ ይቻሳል)	- የቤተሰቡ የሆነ መሬት ያለመኖር 1 - ለሽንት ቤት ሊሆን የሚችል ትርፍ ቦታ ያለመኖር	
544	ክአንድ አመት በኋላ ተመልሽ ብመጣ ሽንት <u>ቤት</u> የመስራት አድልዎ ምን ያህል ነው?	ምንም 1 ዝቅተኛ 2 መካከለኛ 3 ከፍተኛ 4	
	<i>የመፀዳ</i> ጃ ቤት ባለቤትነት	ያለው ማህበራዊ ተቀባይነት	
አሁን አ	ስተያየትዎን የሚጠይቁ ተከታታይ ጥያቄዎች	አጠይቆታለሁ። ለተያቄዎቼ መልስ ሲሰጡ መብ	∿ በሙ∙ለ∙
እስማማለ	ሁ፣ ሙሉ በሙሉ አልስማማም ፣ በክራል አስማኖ	ነለሀ እና አስተያየት የለምኝም ብለው ቢሆን ይመረሳ	ጣል።
የመፀዳጃ	ቤት መኖር፡		
601	ባለቤቱን ዘመናዊ ያደርጋል	- መኑሉ በሙሉ አስማማለሁ 4 - በክራል አስማማለሁ 3 - አስተያየት አልሰጥም 2	
		– <i>ሙ</i> ሉ ለሙሉ አልስማማም 1	
602	ባለቤቱን የተከበረ የማህብረሰብ አባል ያደር <i>ጋ</i> ል	- መንለ በመንለ አሰማማለሁ 4 - በክራል አስማማለሁ 3 - አስተያየት አልሰዋም 2 - መንለ ለሙሉ አልስማማም 1	
603	ባለቤቱን ቤታቸውን በሚጉበኝ ሰው የተከበሩ ያደር <i>ጋ</i> ል	- መኑሉ በሙሉ አስማማለሁ 4 - በክራል አስማማለሁ 3 - አስተያየት አልሰዋም 2 - ሙሉ ለሙሉ አልስማማን 1	
604	ባለቤቱን ዝንኛ ያደር.2ል	- መጉሉ በመጉሉ አሰማማለሁ 4 - በክራል አስማማለሁ 3 - አስተያየት አልሰዋም 2 - መጉሉ ለሙሉ አልስማማንም 1	
605	የቤተሰብ አባላት ኩራት እንዲሰማቸው ያደር <i>ጋ</i> ል	- መጉሉ በመጉሉ አሰማማለሁ 4 - በክራል አስማማለሁ 3 - አስተያየት አልሰዋም 2 - መጉሉ ለሙሉ አልስማማያም 1	

	Δυ 4
606 - ሴቶች ከሰው አይታ ርቀው በቀን ሽንት ቤት - በክራል አስማማለሁ	3
እንዲመቀሙ <u>ያደር</u> ጋል – አስተያየት አልሰ ተም -	2
- ምሳት ስምስት አልስማ	<i>ayg</i> 1
ሙሉ በሙሉ አስማማለሁ-	4
607 የቤተሰቡን የመኖሪያ አካባቢ ንፁሀ እንዲሆን በክሬል አስማማለሁ	
ያደር.2ል አስተያየት አልሰተም	2
መሳት ለሙሉ አልስማማም	1
መ ለ- በመ ለ- አሰማማለሁ-	4
608 የቤት ውስተ የዝንብ መጠን አንዲቀንስ በክሬል አስማማለሁ	
አያደርግም አስተያየት አልሰተም	2
መሳት ለሙሉ አልስማማም	1
መ ለ- በመ ለ- አሰማማለሁ-	4
609 በሽተኛ/ የታመመ ሰው በቀሳሉ እንዲወዳዳ በክራል አስማማለሁ	
ይረዳል አስተደየት አልሰተም	2
ሙሉ ለሙሉ አልስማማም	1
- መሳት በመስት አሰማማ	Δυ 4
610 ሽማግሌዎችና አሮጊቶችን በቀሳሱ ለመፀዳዳት – በክራል አስማማለሁ	
ደስችሳቸዋል – አስተደየት አልሰዋም-	2
- ምሳ ለምስ አልስማ	<i>"yg</i> "1
- መሳት በመስት አሰማማ	Δυ 4
611 በቤተሰቡ ወስተ የበሽታ መከሰት አድልን - በክራል አስማማለሁ	
ይቀንሳል – አስተያየት አልሰዋም-	2
- ምሳት ስምስት አልስማ	<i>ayg</i> 1
- ምሳት በምሳት አሰማማ	Δυ 4
612 የመፀዳጃ ቤት ተጠቃሚዎች በሚፀዳዱበት - በክራል አስማማለሁ	
ወቅት ከሰው አይታ አንዲርቁ ያደር ንቸዋል – አስተያየት አልሰጥም-	2
- ምሳት ስምስት አልስማ	<i>ayg</i> 1
- ምሳት በምሳት አሰማማ	ΔU4
613 ስግራ መውጣት ባስራለን ጊዜ ሁሉ መፀዳጃ - በክራል አስማማለሁ	
ቤት መሄድ አድካሚ /አሰልቺ ነው – አስተያየት አልሰዋም-	
- ምሳት ስምስት አልስማ	<i>ayg</i> 1
- ምሳት በምሳት አሰማማ	ΔU 4
614 በምሽት ወቅት በዱር/ በጫካ መፀዳዳት - በክራል አስማማለሁ	
ሊያስከትል የሚችለውን አዴጋ ያስቀራል 🔰 - አስተያየት አልሰተም-	
- ምሳ ለምስ አልስማ	<i>ayg</i> 1
- ምሳት በሙስ አሰማማ	ΔU4
615 መፀዳጃ ቤት ካለመቋረተ አገልግሎት - በክራል አስማማለሁ	
እንዲሰጥ ማድሪማ ከፍተኛ ጥራትን – አስተያየት አልሰጥም-	
ይጠይቃል። – ሙስ ስሙስ አልስማ	"yg" 1
- መሳት በመስት አሰማማ	Δυ 4
616 የመፀዳጃ ቤትን ፅዳት መጠበቅ ክፍተኛ ተራት - በክራል አስማማለሁ	
ይጠይቃል – አስተደየት አልሰዋም-	
– መላ ስሙስ አልስማ	"yg" 1

መረጃ የማግኘት ሁኔታ

701	ባለፈው ወር ስለ እጅ መታጠብ የሰሙት ወይም ያዩት መረጃ አለ?	- βΛ9" 1→ - λΛ 2	የለም ከሆን ወደ 703 ይታለፍ
702	የመረጃው ምንጭ ምንድነው? (ከየት ነው የሰሙት) ሌላ የሰሙት ካለ? (የተሰጡ መልሶችን በሙሉ መዝግብ)	- በጤና አጠባበቅ ጣቢያ በኩል 1 - በቀበሌ ጤና ትምህርት ሰጪ 2 በኩል- 3 - ትምህርት ቤት ከሚውሉ ህፃናት 4 - በራዲዮ - በሌላ መግናኛ ብዙሃን (ይጠቀስ)	
703	ባለፈው ወር የመጠዋ ውሃን ጤናማ ለማድረግ የሰሙት ወይም ያዩት መረጃ አለ?	- የለም 1→ - አለ 2	ያለም ከሆኑ ወደ 705 ይታለፍ
704	የመረጃው ምንጭ ምንድነው? (ከየት ነው የሰሙት) ሌላ የሰሙት ካለ? (የተሰጡ መልሶችን በሙሉ መዝግብ)	- በጤና አጠባበቅ ማቢያ በኩል 1 - በቀበሌ ጤና ትምህርት ሰጪ በኩል 2 - ትምህርት ቤት ከሚውሉ ህፃናት 3 - በራዲዮ 4 - በሌላ መገናኛ ብዙሃን (ይጠቀስ)	
705	ባለፈው ወር ስለ መፅዳጃ ቤት የሰሙት ወይም ያዩት መረጃ አለ?	- የΔ9" 1→ - አዎ 2	የለም ከሆን ወደ 707 ይታለፍ
706	የመረጃው ምንጭ ምንድነው? (ክየት ነው የሰሙት) ሌላ የሰሙት ካለ? (የተሰጡ መልሶችን በሙሉ መዝግብ)	- በጤና አጠባበቅ ማቢያ በኩል 1 - በቀበሌ ጤና ትምህርት ሰጪ በኩል 2 - ትምህርት ቤት ከሚውሉ ህፃናት 3 - በራዲዮ 4 - በሌላ መገናኛ ብዙሃን (ይጠቀስ)	
707	ባለፈው ወር ስለ ተቅማተ በሽታ ይገኙት መረጃ አለ?	- የለም 1 - አዎ 2	
708	የመረጃው ምንጭ ምንድነው? (ከየት ነው የሰሙት) ሌላ የሰሙት ካለ? (የተሰጡ መልሶችን በሙሉ መዝግብ)	- በጤና አጠባበቅ ጣቢያ በኩል 1 - በቀበሌ ጤና ትምህርት ሰጪ 2 በኩል	

አመስግናለሁ ተሳትፎዎን በጣም እናደንቃለን

Appendix 2

Learning by Doing Initiative: Implemented by WSP and the USAID Hygiene Improvement Project

Hygiene, Water, Sanitation Baseline

School Survey Questionnaire in English and Amharic

Hygiene, Water and Sanitation Baseline, School Survey Questionnaire

Consent Form:

The regional government would like to improve the living conditions of residents in your community. To be able to do this, however, we need your help to learn about the hygiene and sanitation condition in the school environment. We would\ like to talk with a responsible person in your school. The information we collect during this interview will be entirely confidential and will not ask for the names of none interviewed. Also, when the results of all of the interviews are combined, we will not identify specific individuals/schools with any of the information collected. The information you provide will help government offices develop better programs to address the water and sanitation issues faced by the school community.

(Please circle the category that describes the decision made by the respondent).

Consent granted_____

Consent refused_____

The informant here is the principal of the school.

	Section 1: IDENTIFICATION OF AREA OF OBSERVATION		
1	NAME OF THE SCHOOL		
2	ZONE		
3	WOREDA		
4	KEBELE		
5	NAME OF THE INTERVIEWER		
6	NAME OF THE SUPERVISOR		
7	VISIT DATE		
8	How many students are registered in the school this academic year?		
9	How many of the students are female?		
10	How many of the students are male?		
11	How many administrative and teaching staff work in the school this academic year?		
12	How many of administrative and teaching employees are Male?		
13	How many administrative and teaching employees are female?		

	Section 2 SANITATION	-	
14	DOES THIS SCHOOL HAVE LATRINES ACCESSIBLE TO CHILDREN ?	NO 0 YES	→45
15	Who are using the latrines?	Female Students only	
16	ARE THERE LATRINES EXCLUSIVELY FOR GIRLS ?	NO0 YES1	→ 30
17	CAN I SEE IT PLEASE ?	NO0 YES1	→ 30
18	HOW MANY ROOMS DOES THE LATRINE HAVE ? (OBSERVE) IS IT MORE IMPORTANT TO FIND OUT HOW MANY LATRINES ARE THERE PER LATRINE BLOCK ? I T HINK THAT WE NEED TO READ THE UNICEF SPECIFICATIONS FOR SCHOOL LATRINES TO GET A BETTER SENSE OF WHAT ARE THE RECOMMENDATIONS FOR ETHIOPIA IN TERMS OF THE CHARACTERISTICS OF THE INFRASTRUCTURE.		
19	WHAT IS RATIO OF GIRLS PER LATRINE? (DIVIDE THE NUMBER OF FEMALE STUDENTS BY THE NUMBER OF ROOMS AND REGISTER THE RATIO)		
20	DOES THE LATRINE HAVE A SLAB ? (OBSERVE)	NO0 YES1	
21	DOES THE LATRINE HAVE WALLS ? (OBSERVE)	NO0 YES1	
22	DOES THE LATRINE HAVE A SECURED ENTRY ? (OBSERVE)	NO0 YES1	
23	DOES THE LATRINE HAVE A ROOF ? (OBSERVE)	NO0 YES1	
24	IS IT FUNCTIONAL ? (OBSERVE) What I meant here is whether the slab is not broken up into pieces, that the whole is not so big that you may risk sinking in, that it is not dilapidated to fear going on as the structure may collapse as you are using it, etc. (Check for indications that the latrine is functional)	NO0 YES 1	
25	IS IT LOCKED ? (OBSERVE)	NO0 YES1	

26	IS IT CLEAN ? (OBSERVE) (Check for indications that the latrine is clean)	NO0 YES1	
27.	IS THERE A HAND WASHING STATION NEAR THE LATRINE ? (OBSERVE)	NO0 YES1	
28	IS THERE WATER IN THE HAND WASHING STATION ? (OBSERVE)	NO0 YES1	
29.	IS THERE SOAP AT THE HAND WASHING STATION ?	NO0	

(OBSERVE)	YES 1	

30	ARE THERE LATRINES EXCLUSIVELY FOR BOYS ?	NO0	→45
		YES 1	
31	CAN I SEE IT PLEASE?	NO0	→45
		YES 1	
32	HOW MANY ROOMS DOES THE LATRINE HAVE ?		
	(OBSERVE) AGAIN, IT IS NOT THE ROOMS THAT ARE IMPORTANT,		
	BUT THE NUMBER OF LATRINES PER BLOCK.		
33	WHAT IS RATIO OF GIRLS PER LATRINE?		
	(DIVIDE THE NUMBER OF FEMALE STUDENTS BY THE NUMBER OF ROOMS AND REGISTER THE RATIO)		
34		NO0	
	DOES THE LATRINE HAVE A SLAB ? (OBSERVE)	YES 1	
35		NO0	
	DOES THE LATRINE HAVE WALLS ? (OBSERVE)	YES 1	
36		NO0	
	DOES THE LATRINE HAVE A SECURED ENTRY ? (OBSERVE)	YES 1	
37	DOES THE LATRINE HAVE A ROOF ? (OBSERVE)	NO0	
		YES 1	
38	IS IT FUNCTIONAL ? (OBSERVE)	NO0	
		YES 1	
	(Check for indications that the latrine is functional)		
39	IS IT LOCKED ? (OBSERVE)	NO0	
		YES 1	

40	IS IT CLEAN ? (OBSERVE) (Check for indications that the latrine is clean)	NO0 YES1	
41	ARE THERE URINALS FOR BOYS ? (OBSERVE)	NO0 YES1	
42	IS THERE A HAND WASHING STATION NEAR THE LATRINE/URINAL ? (OBSERVE)	NO0 YES1	
43	IS THERE WATER IN THE HAND WASHINGFACILITY (OBSERVE)	NO0 YES1	
44	IS THERE SOAP AT THE HAND WASHING STATION ? (OBSERVE)	NO0 YES1	

45	DOES THIS SCHOOL HAVE LATRINES for administrative and teaching staff?	NO0 YES1	→76
46	Do men and women working in the school use them?	Females only 1 Males only 2. Both sexes 3.	
47	ARE THERE LATRINES EXCLUSIVELY FOR female administrative and teaching staff ?	NO0 YES1	→61
48	CAN I SEE IT PLEASE ?	NO0 YES1	→61
49	HOW MANY ROOMS DOES THE LATRINE HAVE ?		
	(OBSERVE) AGAIN, THE LATRINES PER BLOCK IS WHAT WE NEED TO COUNT ?		
50	WHAT IS RATIO OF administrative and teaching staff PER LATRINE?		
	(DIVDE THE NUMBER OF FEMALE administrative and teaching staff BY THE NUMBER OF ROOMS AND REGISTER THE RATIO)		
51		NO0	
	DOES THE LATRINE HAVE A SLAB? (OBSERVE)	YES 1	
52	DOES THE LATRINE HAVE WALLS? (OBSERVE)	NO0 YES1	
53	DOES THE LATRINE HAVE A SECURED ENTRY? (OBSERVE)	NO0 YES1	
54	DOES THE LATRINE HAVE A ROOF? (OBSERVE)	NO0 YES1	
55	IS IT FUNCTIONAL ? (OBSERVE)	NO0	
	(Check for indications that the latrine is functional)	YES 1	
56	IS IT LOCKED ? (OBSERVE)	NO0 YES1	
57	IS IT CLEAN ? (OBSERVE) (Check for indications that the latrine is clean)	NO0 YES1	
58.	IS THERE A HAND WASHING STATION NEAR THE LATRINE? (OBSERVE)	NO0 YES1	
59	IS THERE WATER IN THE HAND WAHSING FACILITY (OBSERVE)	NO0 YES1	

IS THERE SOAP AT THE HAND WASHING STATION? (OBSERVE)

60.

NO0

YES 1

61	ARE THERE LATRINES EXCLUSIVELY FOR males administrative and teaching staff? ?	NO0	→76
62	CAN I SEE IT PLEASE?	NO0	→76
63	HOW MANY ROOMS DOES THE LATRIN HAVE ?		
	(OBSERVE)		
64	WHAT IS RATIO OF MALES PER LATRINE?		
	(DIVDE THE NUMBER OF MALE administrative and teaching staff BY THE NUMBER OF ROOMS AND REGISTER THE RATIO)		
65		NO0	
	DOES THE LATRINE HAVE A SLAB? (OBSERVE)	YES 1	
66	DOES THE LATRINE HAVE WALLS? (OBSERVE)	NO0 YES1	
67		NO0	
	DOES THE LATRINE HAVE A SECURED ENTRY ? (OBSERVE)	YES 1	
68	DOES THE LATRINE HAVE A ROOF? (OBSERVE)	NO0	
		YES 1	
69	IS IT FUNCTIONAL ? (OBSERVE)	NO0	
	(Check for indications that the latrine is functional)	YES 1	
70	IS IT LOCKED ? (OBSERVE)	NO0 YES1	

71	IS IT CLEAN ? (OBSERVE) (Check for indications that the latrine is clean)	NO0 YES1
72.	ARE THERE URINALS FOR MALE administrative and teaching staff? (OBSERVE)	NO0 YES1
73	IS THERE A HAND WASHING STATION NEAR THE LATRINE/URINAL? (OBSERVE)	NO0 YES1
74	IS THERE WATER IN THE HAND WAHSING FACILITY (OBSERVE)	NO0 YES1
75	IS THERE SOAP AT THE HAND WASHING STATION? (OBSERVE)	NO0 YES1

	Section 3 : Source of drinking water for Students		
76	DOES THE SCHOOL HAVE DRINKING WATER FOR STUDENTS ?	NO0 YES1	→85
77	WHAT IS THE SOURCE OF DRINIKNG WATER FOR THE STUDENTS IN THE SCHOOL ?	Piped Water Into Yard/Plot 1	

		Public Tap/Standpipe 2	
		Tube Well or	
		Borehole 3	
		Protected Dug	
		Well 4	
		Lipprotected Dug	
		Wall 5	
		Water From Protocted	
		Socio a	
		Water From Unprotected Spring. 7	
		References of the second spring	
		Kainwater	
		Tanker 0	
		G AND A T	
		Cart With Small	
		Tank10	
		Surface	
		Water	
		(River/Dam/Lake/Ponds/Stream/Canal/Irrigati	
		on Channel)	
		Other (Specify)	
70	IN THIS WATED TREATED TO MAKE IT CAFE	NO	81
<i>ł</i> ŏ.	IS THIS WATER TREATED TO MAKE IT SAFE	0	
	FOR STUDENT CONSUMPTION P	YES 1	
		SOURCE BOUND	
	HOW IS IT USUALLY TREATED ?	.1	
79		SURFACE 2	
		OTHER METHOD, OTHER SPECIFY	
		INTERNATION A	
80	HOW DOES THE SCHOOL GET THE NEEDED	CONTRIBUTIONS FROM THE COMMUNITY 2	
00	SUPPLY OF PRODUCT(S) TO TREAT THE	PROJECT SPECIFIC	
	WATER?	OTHER SOURCES, SPECIFY	
04	WRITE ALL ANSWERS PROVIDED	CUT.	
δ1.	WHAT DRINKING WATER STORAGE SYSTEM		
	DUED THE DUNUE UDE (JERRYCAN	
	WRITE ALL ANSWERS PROVIDED		
		SAND FILTER	
		3	
00		OTHER SPECIFY	- 04
ŏZ.	OBSERVE)	ACCESS WAS GIVEN	-→ŏ1
	(OBOLINE)	GIVEN	
83.		NON HAS A HARD COVER	
		SOME HAVE HARD COVERS	
	ARE THE RECIPIENTS COVERED WITH A	ONLY SOFT COVERS LIKE CLOTHING MATERIAL 3	
	HARD COVER ?	JEERYCAN OR THE LIKE	

(OBSERVE)		
84.	HOW DO THEY USE IT FOR DRINKING ? (OBSERVE)	/ TAP/FAUCET 1 .TOOL DEDICATED ONLY TO GET WATER 2 OTHER METHOD, SPECIFY	
	Section 4. Awareness raising on hygiene and sanitation	ation for students,	
	family membres and communities		
85	DOES THE SCHOOL CONDUCT STUDENT AWARENESS ACTIVITIES THAT ADDRESS HYGIENE ISSUES ?	NO0 YES1	→88
86	WHICH ACTIVITIES ARE IMPLEMENTED ? MULTIPLE ANSWERS ARE POSSIBLE. WRITE ALL.	.INTEGRATED INTO THE CURRICULUM	
87.	WHAT TOPICS ARE ADDRESSED DURING THESE ACTIVITIES ? MULTIPLE ANSWERS ARE POSSIBLE WRITE ALL.	.HAND WASHING WITH SOAP1 TREATEMENT OF THE WATER FOR HOUSE CONSUMPTION2 STORAGE OF WATER IN THE HOUSE3 OTHER TOPIC SPECIFY	

88	DOES THE SCHOOL ORGANIZE HYGIENE AWARENESS ACTIVITIES TARGETING STUDENTS' PARENTS ?	NO0 YES1	→91
89	IF YES, WHICH ONES ? MULTIPLE ANSWERS ARE POSSIBLE. WRITE ALL.	CARNIVAL.1 INFORMATION SESSIONS2 COMMUNITY DIALOGUE3 OTHER SPECIFY	
90	WHAT TOPICS ARE ADDRESSED BY THESE ACTIVITIES ?	HAND WASHING WITH SOAP1 TREATMENT OF WATER FOR	
	MULTIPLE ANSWERS ARE POSSIBLE. WRITE ALL.	HOUSE CONSUMPTION2 STORAGE OF DRINKING WATER IN THE HOUSE3 LATRINISATION4 OTHER TOPIC, SPECIFY	
91	DOES THE SCHOOL CARRY OUT HYGIENE PROMOTION ACTIVITIES TARGETING THE GENERAL COMMUNITY ?	NO0 YES 1	→94
92	YES IF YES, WHAT ARE THEY ? MULTIPLE ANSWERS ARE POSSIBLE WRITE ALL.	FAIR1 INFORMATION SESSIONS2 COMMUNITY DIALOGUE3 OTHER SPECIFY4	
93.	WHAT TOPICS ARE ADDRESSED BY THESE ACTIVITIES?	HANDWAHSING WITH SOAP1 TREATMENT OF DRINKING	

	MULTIPLE ANSWERS ARE POSSIBLE. WRITE ALL.	WATER IN THE HOUSE2 STORAGE OF DRINKING WATER IN THE HOUSE3 OTHER TOPIC, SPECIFY5	
94	DOES THE SCHOOL HAVE ANY TEACHERS TRAINED IN HYGIENE PROMOTION ?	NO	→End QUESTI ONNIRE HERE
95	WERE THEY TRAINED BY THE HYGIENE IMPROVEMENT PROJECT OR ITS PARTNERS?	NO	

በአማራ ብሄራዊ ክልላዊ መንግስት በሚገኙ ትምህርት ቤቶች ዉስተ የሚከናወን የሳኒቴሽን መሰረታዊ ተናት

በተናት ዉስተ ለሚሳተፉ የሚቀርብ የፍቃደኛነት መጠየቂያ ፎርም

የኣማራ ክልላዊ መንግስት የጤና ቢሮ ከዩኢሰአአይ-ዲ የሐይጅን ኢምፐሩሽመንት ፐሮጀክት እና ከአለም ባንክ የዉሃ እና የሳኒቴሽን ፐሮጀክት *ጋ*ር በመተባበር በክልሉ የሚገኙ ሀዝቦችን የጤና እና የሐይጅን ሁኔታ ለማሻሻል በጋራ በመሰራት ላይ ይገኛሉ ፡፡ የዚህም ተግባር አንዱ አካል የሆነዉ በትምርት ቤቶች ዉስተ ያለዉን የሐይጅን እና የሳኒቴሽን ሁኔታ ማወቅ ሲሆን ይህንንም ለማከናወን ዛሬ ወደ ትምህርት ቤታችሁ መተተናል። ቃለ መጠይቱ የሚከናወነዉ ከየትምህርት ቤቱ ሀላፊዎች ጋር ስለሆነ የትምህርት ቤቱን ዳይሬክተር ወይንም ምክትል ዳይሬክተር ለማነጋገር እንፌልጋለን ፡፡

አርሶ በዉይይታችን ወቅት የሚሰጡን መሪጃ ሁሉ በከፍተኛ ሁኔታ በሚስጥር ይያዛል። በመጠ ይቁ ላይ የመልስ ሰጪዉ/ ሰጪዋ ሰም በፍጹም አይፃፍም። ከየትምርት ቤቶቹ የሚሰበሰቡ መሪጃዎችም በአንድ ላይ ስለሚጠናቀሩ ዉጤቱ በምንም አይነት መልኩ የአንድን ትምህርት ቤት ወይም መልስ ሰጪ ማንኑት በሚገልጽ መልኩ አይዘጋጅም ። የጥናቱም ውጤት መንግስትና ሌሎች አጋሮቹ በትምህርት ቤቶች ዉስጥ ያለዉን የዉሃ እና የሳኒቴሽን ሁኔታ ለማሻሻል የሚያስችላቸው ፕሮጀክቶች ለመቅረጽ ይዉላል።

አባክዎን ቃለ መጠይቁን ከመጀመራችን በፊት ሰለመጠይቁ ማወቅ የሚፈልጉት ነገር ካለ ነፃ ሆነው እንዲጠይቁን አጠይቅዎታለሁ።

ለሚሰጡን ድጋፍ በቅድሚያ እናመሰግናለን።

ማስታወሻ ለቃለ መጠይቅ አቅራቢው

መልስ ሰጪው/ ሰጪዋ በተናቱ ለመሣተፍ ፍቃደኛ ከሆኑ ቃለ መጠይቁን ይቀተሉ። ነገር ግን ለመሣተፍ ፍቃደኛ የማይሆኑ ከሆነ ምስጋና በማቅረብ ቃለ መጠይቁን አቋርጡ።

በተናት ዉስተ ለመሳተፍ ፍቃደኛ ሆንዉ መጠይቁ ቀተሏል

በተናት ዉስተ ለመሳተፍ ፍቃደኛ ሳይሆኑ ቀርተዉ መጠይቁ ተቋርጧል

	ክፍል 1 መሰፈታዊ መረጃዎች		
1	የትምህርት ቤቱ ስም		
2	የትምህርት ቤቱ ደረጃ		
3	ቀበሌ		
4	ወረዳ		
5	P3		
6	መጠይቁን የምሳው ሰው ስም		
7	የሱፐርቫይሰሩ ስም		
8	መጠይቱ የተሞሳበት ቀን	4 3	ወር
9	በትምህርት ቤቱ ውስተ በዚህ የትምህርት ዘመን ስንት ተማሪዎች ተመዝንበዋል?		
10	ከተማሪዎቹ ውስጥ ስንቱ ወንዶች ናችው?		
11	ከተማሪዎቹ ውስም ስንቱ ሴቶች ናችው?		
12	በዚህ የተምህርት ዘመን ስንተ መምህራንና የአስተዳደር ሰራተኞች በሰራ ላይ ይገኛሉ?		
13	ከሰራተኞቹ መካከል ስንቱ ወንድ ሰራተኞች ናቸው?		
14	ከሰራተኞቹ መካከል ስንተ ሴት ሰራተኞች ናቸው?		

	ክፍል 2 ለተማሪዎች ለመምህራን እና ለሌሎች ሰራተኞች የተዘጋጀ መፀጻጃ ቤትን በተመለከተ			
	<u> ተያቄዎች</u>	መልሶች		
15	በትምህርት ቤቱ ለተማሪዎች አገልማሎት የተዘጋጀ መወዳጃ ቤት አለው?	የለም 1 → አም 2	መልሱ የለም ክሆን ወደ 46 ይታለፍ	
16	በመወዳጃ ቤቱ የሚጠቀሙት አነማ ናቸው?	ሴት ተማሪዎች ብቻ 1 ወንድ ተማሪዎች ብቻ 2 ሴትና ወንድ ተማሪዎች 3		

	ለሴት ተማሪዎች ብቻ የተዘጋጀ መፀዳቅ	፤ <mark>ቤት</mark> ን በተመለከተ	
17	ለሴቶች ተማሪዎች ብቻ ተለይቶ የተዘጋጀ መፀዳጃ ቤት አለ?	የለም 1 → አዎ 2	መልሱ የለም ከሆን ወደ 31 ይታለፍ
18	የሴቶች ተማሪዎችን መፀዳጃ ቤት ልታሳዩኝ ትችላላችሁ?	የለም 1 → አዎ 2	መልሱ የለም ክሆን ወደ 31 ይታለፍ
19	በኢያንዳንዱ ብሎክ መፅዳጃ ቤት ስንት ክፍሎች አሉ? (ተመልክቱ)	ብለ•ክ 1 መፅዳጃ ቤት ቁጥር ብለ•ክ 2 መፅዳጃ ቤት ቁጥር ብለ•ክ 3 መፅዳጃ ቤት ቁጥር ድምር ብለ•ክ ይመፅቆጃ ቤት ቁጥር	
20	(የሙሊጡ) አንድ መፀዳጃ ክፍል ለስንት ሴት ተማሪዎች ይደርሳል? (የሴት ተማሪዎቹን ቁጥር ለሴት ተማሪዎች በተዘጋጀው የመፀዳጃ ቤት ክፍል ቁጥር አካፍሉና ውጤቱን የፉ)		
21	መፀዳጃ ቤቱ ወለል አለው? (ተጠቃሚዎቹን ለአደ <i>ጋ በማያጋ</i> ል ጥ መልኩ የተዘጋጀ ወለል አለዉ) (ተመልከቱ)	የስም 2 አዎ	
22	መፅዳጃ ቤቱ ግድግዳ አለው? (ተመልከቱ)	የስም 1 አዎ 2	
23	ሊዘ <i>ጋ የሚች</i> ል በር አለው (ተ መልከቱ)	የስም 1 አዎ 2	
24	መፅዳጃ ቤቱ <i>ጣራ</i> አለው? (ተ መልከቱ)	የለም 1 አዎ 2	

25	መፅዳጃ ቤቱ አገልግሎት በመስጠት ላይ ይገኛል?	የስም 1 አዎ 2	
	(መያዳጃ ቤቱ አገልግሎት በመስጠት ላይ መሆኑን አመላካች ነገሮች መኖራቸዉን ተመልከቱ)		
26	በሩ ተቆልቋል?	የለም 1	
	(T²⁰A (F)	<i>KP</i> 2	
21	መፅዳጃ ቤቱ ንውህ ንው? (መፅዳጃ ቤቱ ንውህ ሆኑን አመላካች ነገሮች መኖራቸዉን ተመልከቱ)	ንፁህ አይደለም 1 ንፁህ ነው 2	
	መፀዳጃ ቤቱ ወለል ላይ ስገራ/ ሽንት ወይም በተቅም ላይ የዋለ ወረቀት/ በዝንብ የተወረረ መኖሩን ተመልከቱ?		
28	ሴቶች መፀዳጃ ቤቱ አካባቢ ለእጅ መታጠ ቢያ የተዘጋጀ ቦታ አለ? (ተመልከቱ)	የለም 1 → አዎ 2	መልሱ የለም ክሆን ወደ 31 ይታልፍ
29	የአጅ መታጠቢያው ውሃ አለው? (ተመልከቱ)	የለም 1 አዎ 2	777 ur
30	የአጅ መታጠቢያውን አካባቢ ሳሙና/ አመድ	ሳሙና አለ 1	
	አለ?	አመድ አለ 2	
	(ተ መ ልከቱ)	ሳሙናና አመድ አለ 3	
		ምንም የለም 4	
	ለወንድ ተማሪዎች ብቻ የተዘጋጀ መፀጻ	ጃ <u>ቤት</u> ን በተመለከተ	
31	ለወንድ ተማሪዎች ብቻ ተለይቶ የተዘጋጀ መፀዳጃ <mark>ቤት</mark> አለ?	የለም 1 → አዎ 2	መልሱ የለም ክሆን ወደ 46 ይታለፍ
32	መፅዳጃ <u>ቤቱን</u> ልታሳዩኝ ትችሳሳችሁ?	^P Λ𝒫 1 → λ𝒫 2	መልሱ የለም ክሆን ወደ 46 ይታለፍ
		ብሎክ 1 መፅዳጃ ቤት ቁተር	
33	የወንድ ተማሪዎቹ መፀዳጃ ቤት ስንት ክፍሎች አሉ?	ብሎክ 2 መፅዳጃ ቤት ቁተር	<u> </u>
	(ተ መ ልክቱ)	ብሎክ 3 መፅዳጃ ቤት ቁጥር	
		<u>ድምር</u> ብሎክያመፀዳጃ ቤት_ቁጥር	<u> </u>

34	አንድ የወንድ ተማሪዎች መፅዳጃ ክፍል ለስንት ወንድ ተማሪዎች ይደርሳል? (የወንድ ተማሪዎችን ቁጥር ለወንድ ተማሪዎች በተዘጋጀው የመፅዳጃ ቤት ክፍል ቁጥር አካፍሎና ውጤቱን ዓፉ)		
35	መፅዳዳ ቤቱ ወለል አለው? (ተመልክቱ)	የስም 1 አዎ 2	
36	ተመልከቱ መፅዳጃ ቤቱ ግድግዳ አለው? (ተ መልከቱ)	የስም 1 አዎ 2	
37	ሊዘ <i>ጋ የሚች</i> ል በር አለው (ተ መልከቱ)	የስም 1 አዎ 2	
38	መፅዳጃ ቤቱ ጣራ አለው? (ተ መ ልከቱ)	የለም 1 አዎ 2	
39	መፅዳጃ ቤቱ አገልግሎት በመስጠት ላይ ይገኛል? (መፅዳጃ ቤቱ አገልግሎት በመስጠት ላይ መሆኑን አመላካች ነገሮች መኖራቸዉን ተመልከቱ)	የለም 1 አዎ 2	
40	የመፅዳጃ ቤቱ በር ተቆልጅል? (ተመልከቱ)	የስም 1 አዎ 2	
41	መፅዳጃ ቤቱ ንፁህ ነው? (መፅዳጃ ቤቱ ንፁህ ሆኑን አመላካች ነገሮች መኖራቸዉን ተመልከቱ)	ንውሀ አይደለም 1 ንውሀ ነው 2	
	መፅዳጃ ቤቱ ወለል ላይ ስገራ/ ሽንት ወይም በተቅም ላይ የዋለ ወረቀት/ በዝንብ የተወረረ መኖሩን ተመልከቱ?		
42	ወንድ ተማሪዎች ቆመዉ ሽንት የሚሸኑበት ቦታ (የቁም ሽንት መሸ ኛ ቦታ)አለ?	የስም 1 አዎ 2	
43	የወንዶች ተማሪዎች መፅዳጃ ቤት አካባቢ ለኢጅ መታጠቢያ የተዘጋጀ ቦታ አለ?	የለም 1 አዎ 2	→ ምልሱ የለም ከሆን ወደ 46 ይታለፍ
44	የአጅ መታጠቢያው ውሃ አለው? (ተ መልከቱ)	የስም 1 አዎ 2	
45	የወንዶች ተማሪዎች መፅዳጃ ቤት የአጅ መታጠቢያውን አካባቢ ሳሙና/ አመድ አሉ? (ተ መልከቱ)	ሳሙና አለ 1 አመድ አለ 2 ሳሙናና አመድ አለ 3 ምንም የለም	

	ለመምህራን እና ለሌሎች ሰራተኞች የተዘጋጀ መፀዳጃ ቤትን በተመለከተ		
46	ለመምህራን እና ለሌሎች ሰራተኞች ብቻ ተለይቶ የተዘ <i>ጋ</i> ጀ <i>መፅ</i> ዳጃ ቤት አለ?	የለም 1 → አዎ 2	መልሱ የለም ከሆን ወደ 77 ይታለፍ
47	በመወዳጃ ቤቱ የሚጠቀሙት አነማን ናቸው?	ሴቶች ብቻ 1 ወንዶች ብቻ 2 ሁለቱም <i>የታ</i> ዎች 3	
48	ለሴት መምህራንና ሰራተኞች ብቻ የተዘጋጀ መፀዳጃ ክፍል አለ?	ראשי 1 → גשי 2	መልሱ የለም ክሆን ወደ 62 ይታለፍ
49	መወዳጃ ቤቱን ልታሳዩኝ ትችላላችሁ?	ף∧ም 1 → አም 2	መልሱ የለም ክሆን ወደ 62 ይታለፍ
50	ለሴት መምህራን እና ለሌሎች ሰራተኞች የተዘጋጀዉ መፅዳጃ ቤት ስንት ክፍሎች አሉት? (ተ መልክቱ)	ብለ•ክ 1 መፅዳጃ ቤት ቁጥር ብለ•ክ 2 መፅዳጃ ቤት ቁጥር ብለ•ክ 3 መፅዳጃ ቤት ቁጥር ድምር ብሉቃ	
51	አንድ የመፅዳጃ ክፍል ለስንት ሴት (መምህራንና የአስተዳደር ሰራተኞች ይደርሳል) የሴት መምህራኑን/ ሰራተኞችን ቁተር ለሴቶች መምህራንና ሰራተኞች በተዘጋጀው የመፅዳጃ ቤት ክፍል ቁተር አካፍሉና ውጤቱን አስቀምጡ		
52	መፅዳጃ ቤቱ ወለል አለው? (ተ መልከቱ)	የስም 1 አዎ 2	
53	መፅዳጃ ቤቱ ግድግዳ አለው? (ተመልከቱ)	የስም 1 አዎ 2	
54	ሊዘጋ የሚችል በር አለው (ተ መልከቱ)	የስም 1 አዎ 2	
55	መፅዳጃ ቤቱ ጣራ አለው? (ተ መልከቱ)	<u>የስም</u> 1 አዎ2	

56	መፅዳጃ ቤቱ አገልግሎት በመስጠት ላይ ይገኛል? (መፅዳጃ ቤቱ አገልግሎት በመስጠት ላይ መሆኑን አመላካች ነገሮች መኖራቸዉን ተ መልክቱ)	የስም 2 አዎ	
57	በሩ ተቆልድል? (ተመልክቱ)	የለም 1	
58	መፀዳጃ ቤቱ ንፁህ ነው? (መፀዳጃ ቤቱ ንፁህ ሆኑን አመላካች ነገሮች መኖራቸዉን ተመልክቱ) መፀዳጃ ቤቱ ወለል ላይ ሰገሪ/ ሽንተ ወይም በተቅም ላይ የዋለ ወረቀተ/ በዝንብ የተወረረ መኖሩን ተመልክቱ?	ንፁህ አይደለም 1 ንፁህ ነው 2	
59	ለሴት መምህራን እና ለሌሎች ሰራተኞች የተዘጋጀዉ መፀዳጃ ቤት አካባቢ ለእጅ መታጠቢያ የተዘጋጀ ቦታ አለ? (ተመልክቱ)	የለም 1 → አዎ 2	መልሱ የለም ከሆን ወደ 62 ይታለፍ
60	የአጅ መታጠቢያው ውሃ አለው? (ተ መልክቱ)	የስም 1 አዎ 2	, . ,
61	ለሴት መምህራን እና ለሌሎች ሰራተኞች የተዘጋጀዉ መፀዳጃ ቤት የአጅ መታጠ ቢያውን አካባቢ ሳሙና/ አመድ አሉ? (ተ መልከቱ)	ሳሙና አለ 1 አመድ አለ 2 ሳሙናና አመድ አለ 3 ምንም የለም 4	
62	ለወንድ መምህራን ሰራተኞች ብቻ የተዘጋጀ መፀዳጃ ክፍል አለ?	የለም 1 → አዎ 2	መልሱ የለም ክሆን ወደ 77 ይታለፍ
63	መፀዳጃ ቤቱን ልታሳዩኝ ትችሳሳችሁ?	^ρ ∧𝒫· 1 → λ𝒫 2	መልሱ የለም ክሆን ወደ 77 ይታለፍ
64	ለወንድ መምህራን አና ለሌሎች ሰራተኞች የተዘጋጀዉ መፀዳጃ ቤት ስንት ክፍሎች አሉት? (ተመልከቱ)	ብሎክ 1 መፅዳጃ ቤት ቁጥር ብሎክ 2 መፅዳጃ ቤት ቁጥር ብሎክ 3 መፅዳጃ ቤት ቁጥር ድምር ብሎክ ያመፅዳጃ ቤት_ቁጥር	

65	አንድ የመፀዳጃ ክፍል ለስንት ወንድ		
	መምህራንና የአስተዳደር ሰራተኞች		
	ይደርሳል)		
	የወንድ መምክራኑን/ ስራተኞችን ቁተር		
	ለወንድ መምክራንና ስራተኞች በተዘጋጀው		
	የመፅዳጀ ቤት ክፍል ቁጥር አክፍሌና		
	ውጠቂያ አስቀምሙ		
66	መፅዳጅ ቤቱ ወለል አለው?	የለም 1	
	(+@Ah+)	λ.φ	
	(• • • • • • • • • • • • • • • • • • •	10 2	
67	መብደጀ ቤቱ ግዮግዴ አለው?	የለም	
0,	(+@Ab+)	λ <i>Φ</i> 2	
60		A7 2	
68	(1,7) F"7, TA U. AND"	1	
	(TOOANT)	λφ 2	
69	መፀዳጃ ቤቱ ጣራ አለው?	የለም 1	
	(ተ መ ልክቱ)	አ <i>ዎ</i> 2	
	መቆዳጃ ቤተ አንልግሎተ በመስጠተ ላይ	የለም 1	
70	ይገኛል?	አዎ 2	
	(መፀዳጃ ቤቱ አገልግሎት በመስጠት ላይ		
	መሆኑን አመላካች ነገሮች መኖራቸዉን		
	ተ መ ልክቱ)		

71	በሩ ተቆልኋል?	የስም 1	
	(ተ መ ልከቱ)	አዎ 2	
72	መፅዳጃ ቤቱ ንፁህ ነው? (መፅዳጃ ቤቱ ንፁህ ሆኑን አመላካች ነገሮች መኖራቸዉን ተመልከቱ)	ንፁህ አይደለም 1 ንፁህ ነው 2	
	መፅጓጓ ቤቱ ወለል ላይ በገራ/ ሰንተ ወይታ በታቅም ላይ የዋለ ወረቀት/ በዝንብ የተወረ መኖሩን ተመልከቱ?		
73	ወንድ መምህራን እና ለሌሎች ሰራተኞች ቆመዉ ሽንት የሚሸኑበት ቦታ (የቁም ሽን ት መሸኛ ቦታ)አለ?	ት አዎ 1 2	
74	ወንድ መምህራን እና ለሌሎች ሰራተኞች የተዘጋጀዉ መፀዳጃ ቤት አካባቢ ለእጅ መታጠቢያ የተዘጋጀ ቦታ አለ? (ተ መልከ ቱ)	^ρ Λም 1 → λ <i>P</i> 2	መልሱ የለም ክሆን ወደ 77 የ ተለፍ
75	የአጅ መታጠቢያው ውሃ አለው? (ተመልከቱ)	የስም 1 አዎ 2	<i>57</i> ft
76	ስመምህራን እና ስሌሎች ሰራተኞች የተዘጋጀዉ መፀዳጃ ቤት የእጅ መታጠ ቢያውን አካባቢ ሳሙና/ አመድ አለ? (ተ መልከቱ)	ሳሙና አለ 1 አመድ አለ 2 ሳሙናና አመድ አለ 3 ምንም የለም 4	
	ለተማሪዎች አገልማሎት ነ	ክፍል 3 የሚዉል የውሀው ምን ጭን በተመለከተ	
77	ለተማሪዎች አገልግሎት ነ ትምህርት ቤቱ ለተማሪዎች የሚሆን የውሀ ምንጭ አለዉ?	ክፍል 3 የሚዉል የውሀው ምንጭን በተመለከተ የለም 1→ አዎ 2	ልሱ የለም ነ ወደ 87 ነለፍ

79 80 81	ውሀው ለመጠዋኑት ተገቢ እንዲሆን ህክምና ተደርጉሊታል? ውሀው ለመጠዋኑት ተገቢ እንዲሆን ህክምና የተደረገለት እንዴት ነው? ለተማሪዎቹ የሚጠቀሙበት ውሀን ለመጠ ዋነት ተገቢ (ብቁ) ለማድረግ	የለም አም አሳዉቅም ከምንጨ ሳይ ነው ከምንጨ ከወጣ በህሳ ነዉ አሳዉቅም አሳዉቅም ስስራ ማስኬጃ በጀት ከማህበረሰቡ አባሳት ከመዋጮ	$1 \rightarrow 2$ $99 \rightarrow 1$ 1 2 99 1 2	መልሱ የለም ወይንም አላዉቅም ከሆን ወደ 82 ይታለፍ
	የሚያስፈልጉተን ዘዴዎችን (ኬሚካሎች) ትምህርት ቤቱ የሚያገኘው ከየት ነው? (ከአንድ በላይ መልስ ሊኖር ይችላል)	ከፕሮደክት (ይጠቀስ) አሳዉቅም ሌሳ ምንጭ ካለ (ይጠቀስ)	3 99	
82	በተምህርተ ቤቱ ለመጠተነት የሚውለው ውሃ ማጠራቀሚያ አለው?	የለም አ <i>ዎ</i>	$1 \rightarrow 2$	መልሱ የለም ከሆን ወደ 87 ይታለፍ
83	ለመጠዋነተ የማውለው ውሀ የማጠ ራቀመው በምንድ ነው?	በርሚል ጀርካን አንስራ ሌሳ ካለ (ይባለø)	1 2 3	
84	የውሀውን ማጠራቀሚያ ለማየት አንችሳለን?	የለም አ <i>ም</i>	$\begin{array}{c} 1 \\ 2 \end{array}$	መልሱ የለም ከሆነ ወደ 87 ይታለፍ
85	የውህ ማጠራቀሚያው በጠንካራ መሽራኛ ተሸፍኗል? (ተመልከቱ)	ጠንካራ መሽፈኛ የለውም የተወሰን ጠንካራ መሽፈኛ አለዉ በልብስ (በለስሳሳ) መሽፈኛ ተሸፍኗል በጀረካን ወይንም ሌላ ተመሳሳይ መደዣ	1 2 3 4	
86	ውሃው ከማመራቀሚያ ውስተ ወደ ተጠ ቃሚዎቹ (ተ ግሪዎቹ) የሚደርሰው አንዴት ንው? (ተ መልከቱ)	ቧንቧ አለው ሌላ ከማጠራ-ቀሚያ ውስጥ ውሃ የማወጣበተ ዘዴ አለ ሌላ ካለ ይገለጽ	1 2	
	ክፍል 4: ሐይጂንና ሳኒቴንሽንን በተመለከተ መረጃና የእውቀት ማንልበቻ ክፍለ <u>ጊዜዎችን</u> በተመለከተ			<u>62</u>
87	ሐይጂንና ሳኒቴንሽንን በተመለከተ ትምህርት ቤቱ ለተማሪዎቹ የግንዛቤ ማሰጨበጪ ክፍለ ጊዜዎችን አዘጋጅቷል?	የለም አ <i>ዎ</i>	$1 \rightarrow 2$	መልሱ የለም ከሆነ ወደ 91 ይታለፍ

88	የትንኞቹ የግንዛቤ ማሰጨበጫ ተግባራት ናቸው በሰራ ላይ የሚዉሉት? (ከአንድ በላይ መልስ ሊኖር ይችላል)	ከካሪኩለሙ ጋር ተጣምሯል ከካሪኩለሙ ውጭ ያለ የትምህርት ክፍለ ጊዜ የሀይጃ ን ክለብ ሌላ ካለ ይገለጽ	1 2 3	
		በሳሙናና በውሃ እጅን መታጠብ	1	
89	በኢንዚህ ክፍለ ጊዜዎች የሚሸራኑተ ርእሶች ምንድናቸው?	ውሀን ለመጠዋ ተገቢ ለማድረግ ማከም	2	
	(ከአንድ በላይ መልስ ካለ ይመዝገብ)	ለመጠተ የሚሆን ውሃን በተገቢው መልኩ ማጠራቀም 3 ንፅህና /ሳኒቴሽን/ 4 ሌላ ካለ ይገለጽ	3 4	
90	ውሃንና የግል ንጽህናን በተመለከተ ለተማሪዎቹ ለሚሰጠው ተምህርተ መምህራን ምን አይነት የተምህርት መረጃዎችን ይጠቀማሉ?	ምንም አይጠቀሙም አራሳቸው ያዘጋጁትን የትምህርት መርጃዎች በትምህርት ሚኒስተር የተዘጋጀ የመምህራን መምሪያ ሌላ ካለ ይገለጽ	1 2 3	
91	ሐይጂንና ሳኒቴንሽንን በተመለከተ ትምህርት ቤቱ ለወሳጆች የግንዛቤ ማሰጨበጫ ክፍለ ጊዜዎችን አዘጋጅቷል?	የለም አ <i>ዎ</i>	$1 \rightarrow 2$	መልሱ የስም ከሆነ ወደ 94 ይታለፍ
92	መልሱ አዎን ከሆነ የግንዛቤ ማሰጨበጫ ክፍለ ጊዜዉ በምን አይነት መልኩ ይከናወናል?	ልዩ ዝግጅት መረጃ መለዋወጫ ግዜያት የማህበረሰብ ውይይት ሌላ ካለ ይገለጽ	1 2 3	
93	በአንዚህ አንቅስቃሴዎች የሚሸፌኑት የትኞቹ ርዕሶች ናቸው?	በሳሙናና በውሃ አጅን መታጠብ ለመጠተ የሚሆን ውሃን ማክም በቤት ውስቱ ውህን በተገቢው መንገድ ስለማጠራቀም ሽንት ቤት አጠቃቀም ሌላ ካለ ይገለጽ	1 2 3 4	
94	ትምህርት ቤቱ የሀይጂንን የማስተዋወቅ ስራዎችን በአጠቃላይ ማህበረሰቡ መካከል በማካሄድ ላይ ይገኛል?	የለም አለ	$1 \rightarrow 2$	መልሱ የለም ከሆን ወደ 97 ይታለፍ
95	መልሱ አዎን ከሆነ አነዚህ የማስተዋወቅ ስራዎች በምን መልኩ ነው የሚከናወኑት? (ከአንድ በሳይ መልስ ሊኖር ይችሳል)	ባዛር የግንዛቤ ማስጨበጫ ክፍለ ጊዜ የግህበረሰብ ውይይት ሌላ ይገለጽ	1 2 3	

96	በኢንዚህ የማስተዋወቅ ስራዎች ምን አይንት ርዕሶች ይሸፈናሉ?	በሳሙና እጅን ስለመታጠብ 1 ለመጠዋ የሚሆን ውህን ስለማክም- 2 በቤት ውስም ለመጠዋ የሚሆን ውህን በተገቢው ስለማጠራቀም 3 ሌላ ይገለጽ		
97	ትምህርት ቤቱ ን ሐይጅንን በማስተዋወቅ የሰለጠኑ መምህራን አሉት?	የለም 1· አዎን 2 አላውቅም 3	↓ ↓	መልሱ የለም ከሆን ወይንም አሳውቅም ከሆን የተያቁዉ መጨረሻ
98	ስልጠናውን ያገኙት በሐይጅን ኢምፐሩቨመንት ፐሮጀክት ነዉ ወይስ በሌላ ኢጋር ድርጅት ?	በሐይጅን ኢምፐሩሽመንት 1 ፕሮጀክት በሌላ ድርጅት 2 ሌላ ይገለጽ		

አመሰግናለሁ ተሳትፎዎን በጣም እናደንቃለን