Knowledge, Attitude and Practice Study into Water, Sanitation and Hygiene in 24 Townships of Myanmar

October 2011

FOREWORD

This 2011 Knowledge, Attitude and Practice (KAP) study of Water, Sanitation and Hygiene (WASH) portrays the current conditions of the household hygiene and living environment in Myanmar. This information is vital for all actors in the health sector in Myanmar including the Ministry of Health and other concerned ministries of the Government of the Republic of the Union of Myanmar, United Nations and other international organizations, national and community based non-governmental organizations and the general public.

The Ministry of Health together with UNICEF has undertaken KAP studies at the start of every five year programme cycle for the past 20 years; however this KAP survey has been designed somewhat differently. Questions about water availability and sanitation use have been expanded to look into seasonal variations, quality of structures, sanitary conditions and availability of soap. Indicative information has also been collected, such as the incidences of diarrhoea, a fundamental health indicator. The findings of this survey do not contradict the 2009 - 2010 Multiple-Indicator Cluster Survey or the 2009 – 2010 Integrated Household Living Conditions Survey; however they do shed greater light on the data and explain the reasons for the ambiguities between different health indicators.

The study shows that the innovative four cleans programme, which the Ministry of Health has implemented over the past two decades, has clearly had an impact on people's knowledge. The challenge now is finding the next steps to ensure that this knowledge is translated into practice, through an attitudinal change. The National Sanitation Week has undoubtedly been the reason for the extensive coverage of latrines across the country. People know why they should have a latrine, and want to use one, however the belief is that they cannot afford to maintain the infrastructure unless further subsidy is provided, which is resulting in dilapidated and unused facilities.

From the study findings we see that there is a need to upgrade the current approach to motivate the whole community to stop open defecation. Current global best practice is to measure real success by the number of communities which are open defecation free and no longer just count the number of latrines built, or used. This has been seen to succeed in neighbouring countries such as India, Bangladesh and Cambodia through the use of the Community Led Total Sanitation (CLTS) tool, which only succeeds if a household based subsidy is not provided. Using tools such as CLTS, locally developed solutions maintainable within community's budgets are possible. This can be combined with water safety planning to create both an awareness of the problem of open defecation and other poor hygiene practices, as well as an attitudinal change where people believe avoiding these risks is within their power.

This survey allows the benchmarks for the beginning of a new chapter in the WASH sector in Myanmar. The indicators show that great advances have been made in the drive towards total sanitation and universal safe water coverage in Myanmar, but there remains much work to be done to protect, promote and secure a healthy environment and good hygiene practices to safeguard our nation's health.

TABLE OF CONTENTS

ACKNOWLEDGEMENTS

UNICEF would like to acknowledge the support and advice provided by the Department of Health, Ministry of Health, the Republic of the Union of Myanmar. We would also like to thank Myanmar Survey Research (MSR) for carrying out the field research in line with the agreed methodology.

EXECUTIVE SUMMARY

Background.

In March 2011, a baseline survey was conducted by UNICEF on the knowledge, attitudes and practice of the communities on water, sanitation and hygiene in over **6,000 households in 24 Townships of 9 States and Regions across Myanmar**. The survey was conducted in both urban and rural areas of the townships.

The objective of this study is to develop township level baseline data for the new country programme (2011-15). The study focuses on knowledge, attitude and practice of the community households rather than hardware infrastructure coverage. It is anticipated that data and information collected will be valuable to formulate the future strategy to sustain the momentum for universal improved water and sanitation coverage to meet MDG in 2015.

The study applied both quantitative and qualitative methods. In the quantitative method, a household questionnaire, a checklist and 2 individual interview questionnaires, one for age 8-14 year old and another for age 15-64 year old community members, was used. In the qualitative method, two focus group discussions were held with the community members and mothers and care takers in each village.

Findings.

During the summer months (the driest time of year) 68% of the surveyed households used improved water sources for drinking. Almost a third of the household latrines were located within 50 feet of a water source, and **only 17% of households used a safe way to handle water before drinking**.

In both winter and summer seasons, one third of households used unimproved water sources for drinking and half of these households did not use an adequate method of treating their water at home. **About 19% of the households said that they had difficulty in getting water in the summer**, almost entirely due to the source drying up.

About two-thirds of the households had to fetch water, and twice as many women fetched water than men, with most of the households spending less than 30 minutes to fetch water. Just over 65% of households reported using a safe method for treating water at household level, primarily boiling, 44.6%, which has negative effects on the environment (fuel wood)., add bleach/chlorine and strain it through a cloth.

The survey found that the community members are quite aware of how a water source can be contaminated. Most households were aware of the potential negative impact of unclean water on health.

Although 75% of households could be classified as having improved latrines, a closer look at the conditions reveals that only 33% have clean floors or slabs, with the result that overall **only 25% of the population actually defecate in hygienic conditions.**

Over 7% of households defecate openly either in the field or in their house compound. A large number of households (62%) reported that at least one household member was working in the field. Among those households, 85 % reported that no latrine was available in the field. Six per cent

reported they could not use their latrine at home for an average four weeks. In most cases, this was due to flooding. At such times almost 42% defecated of them openly.

The average cost of a latrine was about 41,742 Kyats, and 56.5 % of households said they could not afford to build latrines, while 7.2 % of households said they do not have space.

The survey found that although 97% infants had been properly cleaned after defecation, **only 19% of infant's caretakers had properly disposed of the faeces into a latrine, and only 75% wash their hands with water and soap.**

Most adults (54%) said that they understand personal hygiene as 'bathing' and 'to wash the face' (21%). But while most people took bath more than once a day (55%), and 89% of adults said they washed their hands after defecating, **only 69% said they wash their hands with water and soap**, i.e. four out of ten people do not wash their hands with soap after defecating. **Most strikingly 8% of households with children under 5 said they had children suffering from diarrhoea during the two weeks preceding the survey.**

Ninety-one per cent of adults were eating their meals with their fingers, but only 40% said they washed their hands with soap and clean water before eating. Children aged 8-14 years were found to have the same pattern of understanding personal hygiene like the adults.

Recommendations

Knowledge of correct hygiene practices is very high in Myanmar, with over 80% of people expressing a good understanding of ways water can be contaminated and the reason for using a toilet. **The survey shows however that knowledge is not translated into practice, and a major attitudinal change is essentially required.**

There is a need for a holistic approach to minimising the risks to water supply and from poor sanitation, as well as translating the knowledge of hygiene into good practices. Recent pilots in water safety planning and community led total sanitation in Myanmar by UNICEF show that these objectives can be achieved for the remaining vulnerable people who were not coping the NSW. However in order to achieve the greatest impact these approaches must be done together with the multiple stakeholders. In addition WASH in School initiatives can add to this combined effect, educating children in proper water, sanitation and hygiene practices, reinforces the message at home.

In order to achieve these goals the UNICEF should assist the responsible departments in the Government of the Republic of the Union of Myanmar to work together at national, state or region, and township level, to achieve access to safe water and proper use of sanitation facilities sustainably and simultaneously. The impact of an improved water supply is lessened if the improvement in sanitation and hygiene do not come at the same time. Equally improved sanitation is rarely possible if safe water is not available, and good hygiene practices are not in place.

Measurement of success of this type of programme should not be the number of latrines which are built, functioning, but instead the number of communities which are open defecation free, defined as follows: household have a functioning latrine, which everyone uses and is fly proof, and everyone washes their hands with soap after use. Equally provision of water supply should not just be counted as a community with a system but rather as a community where every member has sufficient quantity of safe water all year round.

1. INTRODUCTION

1.1. Background

This survey was prepared in order to develop baseline data for the water, sanitation and hygiene (WASH) component of UNICEF's five year (2011 – 2015) Country Programme in Myanmar. Indicators for access and use of safe water, improved sanitation and good hygiene are not only the existence and functioning of infrastructure such as water systems and toilets (latrines), but the knowledge, attitude and practices of the communities where the programme works.

This Knowledge, Attitude and Practice (KAP[1]) survey was conducted in March 2011, the beginning of the hot summer season, and provides a snap shot of the WASH conditions in over 6,000 households in both urban and rural areas in 24 townships in 9 states and regions of Myanmar. The townships were selected based on the priority townships in the WASH component of UNICEF's five year country programme. These townships have some of the highest diarrhoea rates coupled with high infant and child mortality, along with extreme poverty. In addition some of townships have high incidences of malaria or serious water quality issues. All these problems are health related, and can be mitigated with proper WASH programming.

UNICEF has undertaken KAP surveys at the start of every programme cycle for the past 20 years, however this KAP survey has been designed somewhat differently, considering the advances in coverage gained compared with the relatively high WASH related health indicators measured in other surveys. Questions about water availability and sanitation use have been expanded to look into seasonal variations, quality of structures, sanitary conditions and availability of soap. Indicative information has also been collected, such as the incidences of diarrhoea in a household in the two weeks prior to the survey.

The survey applied both quantitative and qualitative methods. In the quantitative method, a household questionnaire, a checklist and 2 individual interview questionnaires, one for age 8-14 years old and another for age 15-64 years old community members was used. In the qualitative method, two focus group discussions were held with the community members and mothers and care takers.

The sampling design, indicator logic and all data collection tools, that is, questionnaires, observation checklists and focus group discussion tools, were developed by UNICEF. The field work, data entry and tabulations were contracted to Myanmar Survey Research, MSR, based in Yangon.

1.2. Objectives of the study

The objective of this study is to have township level baseline data for the coming country programme. The study focuses on knowledge, attitude and practice of the community households rather than hardware infrastructure coverage. It is anticipated that data and information collected will be useful to formulate future strategy to sustain the momentum for universal sanitation coverage to meet MDG in 2015.

[1] Knowledge, attitude and practice (KAP) surveys are focused assessments that evaluate changes in human knowledge, attitudes and practices in response to a specific intervention, usually outreach, demonstration or education. It collects information about cultural beliefs, norms, habits and misconceptions by asking a structured and predetermined set of questions, producing quantitative data from a relative sample of randomly selected individuals or groups (families).

The assessment of KAP was operationalized as follows. Different data collection tools focussed on different aspects. Knowledge was primarily assessed through individual questionnaires. Attitudes were assessed through focus group discussions. Practices were assessed through the household as well as individual questionnaires. The below scheme illustrates the different data collection tools (See the annex 2 for the actual tools used).

The study covered 24 townships in 9 states and regions where UNICEF has plans to implement projects in the coming country programme 2011-2015. The 24 townships listed below were selected by UNICEF. The survey was conducted in both urban and rural areas of the townships. The methodology is described in detail in the annex 1.The equal sample sizes are 6 only.

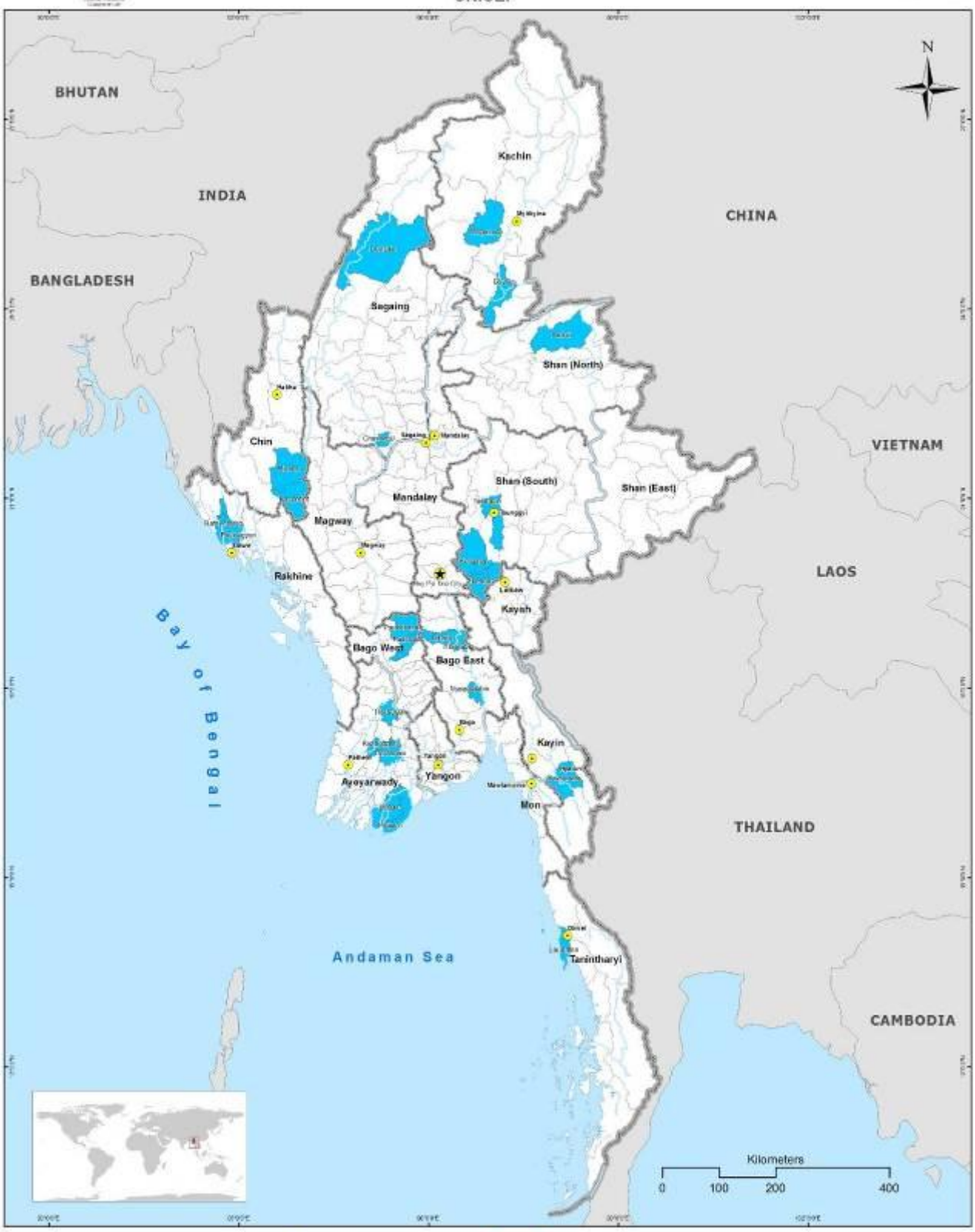
Table.1. Townships Selected for the KAP Study

No.	Township Name	State/Region Name	Strata
1	Launglone	Tanintharyi	coastal
2	Ponnagyun	Rakhine	coastal
3	Rathedaung	Rakhine	coastal
4	Bogalay	Ayerwaddy	delta
5	Pyapon	Ayeyarwady	delta
6	Kyaunggone	Ayeyarwady	delta
7	Hinthada	Ayeyarwady	delta
8	Pantanaw	Ayeyarwady	delta
9	Mogaung	Kachin	hilly
10	Bamaw	Kachin	hilly
11	Pekhon	Shan South	hilly
12	Taunggyi	Shan South	hilly
13	Pinlaung	Shan South	hilly
14	Kutkai	Shan North	hilly
15	Mindat	Chin	hilly
16	Kanpetlet	Chin	hilly
17	Kawkareik	Kayin	hilly
18	Homalin	Sagaing	hilly
19	ChaungOo	Sagaing	plain
20	Paukkhaung	Bago West	plain
21	Paungde	Bago West	plain
22	Nyaunglaybin	Bago East	plain
23	Oktwin	Bago East	plain
24	Htantabin	Bago East	plain

Myanmar Information Management Unit

Knowledge, Attitude and Practice (KAP) Study Townships, 2011

UNICEF



Map ID: MIMU814v01
Creation Date: 2 December 2011, A3
Projection/Datum: Geographic/WGS84

Map produced by the MIMU - info.mimu@undp.org
www.themimu.info

Capital
State Capital
Rivers and River
Shore
State Boundary
International Boundary
Project Townships
Other Townships

Data Source :UNICEF
Boundaries: MIMU/WFP
Place Name: Ministry of Home Affairs(GAD) translated by MIMU

Disclaimer: The names shown and the boundaries used on this map do not imply official endorsement or acceptance by the United Nations

2. WATER

2.1. Water source

Myanmar has a tropical climate with three seasons: the monsoon or rainy season, from May to October; the cool or winter season, from November to February; and the hot or summer season, generally from March to April. Rainfall during the monsoon season totals more than 500 cm (200 in) in upper Myanmar and over 250 cm (100 in) in lower Myanmar and Yangon (formerly Rangoon). Central Myanmar, called the dry zone, and Mandalay, the largest city in this area, each receive only about 76 cm (30 in) per annum.

The survey results reflect the seasonal patterns in utilizing the sources of water. Table 1 below shows the utilized of water sources for each of the three seasons. In winter and summer season, about two thirds of households used an improved water source for drinking purposes. About 21% use surface water during these seasons. In the rainy season, a large number of households shifted from using surface water (from 21% to 12%) to using rain water collected (from 2% to 16%). About 5%were using piped water throughout the year.

Table.2. Households using improved drinking water sources in all seasons

	Rainy		Winter		Summer	
	Count	Percent	Count	Percent	Count	Percent
Piped water into dwelling	62	1.0%	63	1.0%	59	1.0%
Piped water to yard/plot	232	3.8%	238	3.9%	221	3.6%
Public tap/standpipe	109	1.8%	112	1.8%	115	1.9%
Tube well/borehole	1,992	32.7%	2,054	33.8%	2,082	34.2%
Protected dug well (Brick-lined well)	1,252	20.6%	1,313	21.6%	1,319	21.7%
Protected spring	269	4.4%	301	4.9%	276	4.5%
Rainwater collection	977	16.1%	115	1.9%	76	1.2%
Improved water source	***4,893***	***80.4%***	***4,196***	***69.0%***	***4,148***	***68%***
Bottled purified water (Purchased)	126	2.1%	126	2.1%	130	2.1%
Cart with small tank/drum	14	0.2%	45	0.7%	48	0.8%
Tanker/truck	3	0.05%	14	0.2%	15	0.2%
Unprotected dug well	242	4.0%	264	4.3%	271	4.5%
Unprotected spring	96	1.6%	158	2.6%	181	3.0%
Surface water (river, dam, lake, pond, stream, canal, irrigation channels)	709	11.7%	1,282	21.1%	1,292	21.2%
Unimproved water source	***1,190***	***19.6%***	***1,763***	***31%***	***1,807***	***32%***
Total	6,083	100%	6,085	100%	6,085	100%

The study also investigated the original water source in the case where water was piped into the dwelling or yard, retrieved from a public standpipe or came from a tanker truck. For this matter, household respondents were asked about the type of the original water source for these immediate water sources. Table 2 shows the percentages of households using different original water sources.

Table.3. Original Water sources by season

	Rainy		Winter		Summer	
	Count	Percent	Count	Percent	Count	Percent
Tube well/borehole	2,039	33.5%	2,110	34.7%	2,140	35.2%
Protected dug well (Brick-lined well)	1,274	20.9%	1,341	22.0%	1,348	22.2%
Protected spring	552	9.1%	590	9.7%	548	9.0%
Rainwater collection	995	16.4%	160	2.6%	122	2.0%
Improved water source	***4,860***	***79.9%***	***4,201***	***69.0%***	***4,158***	***68.3%***
Bottled purified water (Purchased)	126	2.1%	126	2.1%	130	2.1%
Unprotected dug well	246	4.0%	268	4.4%	275	4.5%
Unprotected spring	144	2.4%	209	3.4%	230	3.8%
Surface water (river, dam, lake, pond, stream, canal, irrigation channels)	709	11.7%	1,282	21.1%	1,292	21.2%
Unimproved water source	***1,225***	***20.1%***	***1,885***	***31.0%***	***1,927***	***31.7%***
Total	6,085	100.00%	6,085	100.00%	6,085	100.00%

Taking into account the original water source, the survey found that80% households used water from improved water sources during rainy season, around 69%duringthe drier winter and summer seasons. This means that some of the piped water reported under table 1 originated from unimproved sources, mostly surface water or water from unprotected springs. The above figures are aggregated over urban and rural areas. The sample sizes for urban and rural areas were 1,151 and 4,934 households, respectively. The survey found stark differences in water use between urban and rural areas.

Tables 3 show the water use during the three seasons separately for urban and rural areas. The overall difference in the use of drinking water from improved sources decreased by more than 10 percentage points, from rainy to summer season. During rainy season, tube wells/boreholes were more commonly used in urban areas, 43.4%, compared to only 31.2% in rural areas. Urban households (15.8%) use rain water almost as much as rural households (16.5%).

Table.4. Original drinking water source by urban/ rural

Season	Rainy			Winter			Summer		
Type of souece	Urban	Rural	Total	Urban	Rural	Total	Urban	Rural	Total
Tube well/borehole	43%	31%	34%	46%	32%	35%	46%	33%	35%
Protected dug well (Brick-lined well)	20%	21%	21%	21%	22%	22%	21%	22%	22%
Protected spring	4%	10%	9%	4%	11%	10%	4%	10%	9%
Rainwater collection	16%	17%	16%	7%	2%	3%	6%	1%	2%
Improved water source	83%	79%	80%	77%	67%	69%	76%	67%	68%
Bottled purified water (Purchased)	10%	0%	2%	10%	0%	2%	11%	0%	2%
Unprotected dug well	2%	5%	4%	3%	5%	4%	3%	5%	5%
Unprotected spring	1%	3%	2%	1%	4%	3%	1%	5%	4%
Surface water (river, dam, lake, pond, stream, canal, irrigation channels)	4%	14%	12%	10%	24%	21%	10%	24%	21%
Unimproved water source	17%	21%	20%	23%	33%	31%	24%	33%	32%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%

Overall, it was found that more urban households (83%) had access to improved water sources compared to rural households (79%) during rainy season. Table4 shows that in urban areas the proportions of households using water from improved water sources were higher for all seasons. While during the rainy season the urban-rural difference was 14 percentage points, it was 20 percentage points during the drier winter and summer seasons.

Table.5. Water source for drinking water in all seasons by type and by urban/rural

Location	Urban		Rural		Total	
Season of Use	Count	Percent	Count	Percent	Count	Percent
All seasons use improved water source	994	86%	3,266	66%	4,260	70%
All seasons use unimproved water source	77	6.7%	994	20%	1,071	18%
Rainy and winter seasons use improved water source and summer unimproved	10	0.9%	53	1.1%	63	1.0%
Rainy and summer seasons use improved water source and winter unimproved	0	0%	0	0%	-	0%
Only rainy season use improved water source	69	6%	594	12%	663	11%
Winter and summer seasons use improved water source and rainy unimproved	0	0%	2	0.04%	2	0.03%
Only winter season use improved water source	0	0%	0	0%	-	0%
Only summer season use improved water source	0	0%	26	0.5%	26	0.4%
Total	1,150	100.00%	4,935	100.00%	6,085	100.00%

About two-thirds of the households (64.4%) had to fetch water. While in rural areas the proportion was 71%, it was 33% in urban areas. About 7.4% households spend more than 30 minutes to fetch water in dry summer season. Women were more likely to fetch water, that is, 67% water fetchers were women. Water was usually fetched by younger people. Half of the water fetchers were between 11-30 years old (11-20 years: 26.2%; 21-30 years: 24.8%); most water fetchers were sons/daughters or sons/daughters-in-law. The survey also found that 1.2% water fetchers were below the age of 10 years.

1.3. Difficulty in getting water

Table 5shows the townships with water access difficulties, that is, townships with higher percentages of households using water from unimproved water sources or stating that they had difficulties in getting water in any of the three seasons. Overall about 19.4% households reported difficulties in getting water. Again differences were found between urban (15%) and rural areas (23%).

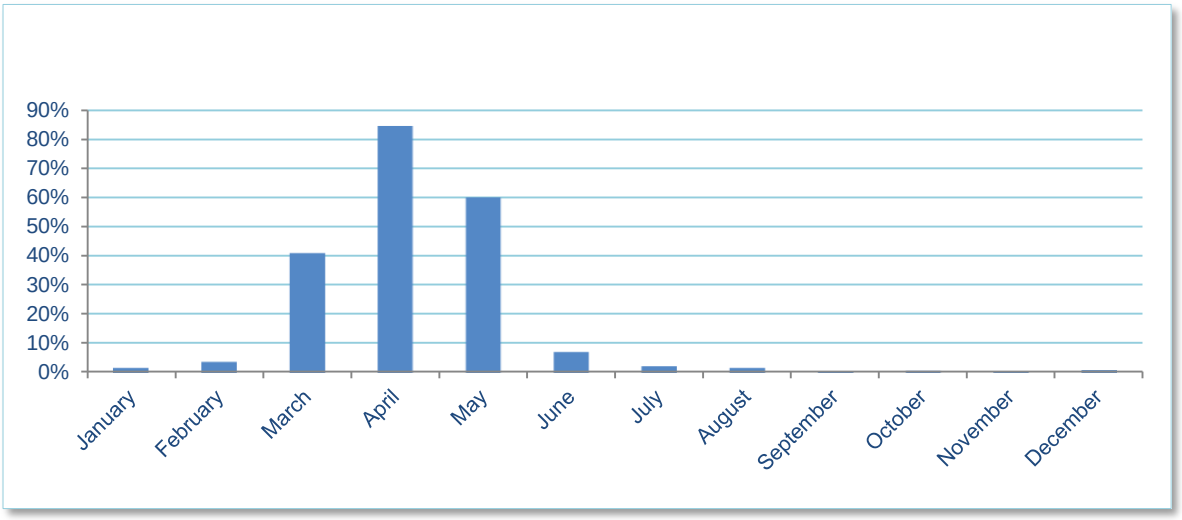
The townships with the highest percentages of households with reported water difficulties were Ponnagyun (75.5%; total 189 households) and Rathedaung (82.4%; total 239 households). The type of terrain does not appear to influence the difficulty of getting water.

As shown in graph 1, the months where households had most difficulties in getting water were the dry months; March, April and May. Water difficulties were mainly due to depletion of water from the source (95%) rather than a breakdown of the water system (3%).

Table.6. Seasonal difficulty in getting water.

Township name	State/Region Name	Terrain	Number of cases	Unimproved water all seasons	Improved water only rainy season	Improved water all seasons	Difficulty in getting water
Rathedaung	Rakhine	coastal	239	99.2%	0.0%	0.8%	82.4%
Ponnagyun	Rakhine	delta	189	82.4%	0.0%	17.6%	75.5%
Mindat	Chin	hilly	58	39.8%	1.1%	58.0%	73.3%
Kanpetlet	Chin	hilly	29	68.2%	1.7%	30.1%	62.4%
Pinlaung	Shan South	coastal	216	12.3%	24.1%	62.7%	38.6%
Kutkai	Shan North	hilly	278	24.3%	0.8%	64.5%	36.3%
Bogalay	Ayeyarwady	delta	375	3.5%	77.9%	12.5%	28.5%
Longlone	Tanintharyi	coastal	289	26.9%	0.4%	72.0%	25.4%
Phyapon	Ayeyarwady	hilly	409	7.5%	70.3%	20.7%	25.2%
ChaungOo	Sagaing	plain	161	12.7%	0.0%	73.7%	23.4%
Mogaung	Kachin	hilly	181	0.9%	0.0%	99.1%	20.7%
Paukkhaung	Bago West	plain	196	11.4%	0.5%	88.1%	18.7%
Taunggyi	Shan South	hilly	475	17.7%	0.8%	81.5%	17.4%
Htantabin	Bago East	plain	182	3.8%	0.0%	96.2%	13.1%
Oktwin	Bago East	plain	219	0.0%	0.0%	100.0%	7.0%
Kawkareik	Kayin	hilly	399	11.0%	0.0%	88.7%	6.7%
Bamaw	Kachin	hilly	147	1.5%	0.0%	98.5%	4.5%
Hinthada	Ayeyarwady	delta	506	0.5%	0.0%	99.5%	4.1%
Pantanaw	Ayeyarwady	delta	410	34.2%	1.8%	63.1%	2.7%
Homalin	Sagaing	hilly	243	26.6%	0.4%	72.6%	2.5%
Pekon	Shan South	hilly	101	15.7%	1.1%	83.2%	1.6%
Nyaunglaybin	Bago East	plain	363	1.3%	0.0%	98.7%	1.3%
Kyaunggone	Ayeyarwady	delta	220	2.2%	0.9%	97.0%	0.0%
Paungde	Bago West	plain	200	2.7%	5.0%	92.3%	0.0%

Graph.1. Water scarcity months



When households faced difficulties in getting water, they usually switched to obtaining water from an alternative water source within the same village (32% for drinking water, 37% for domestic water) or from another village (45% for drinking water, 44.1 % for domestic water).

Table.7. Strategies of households to address water difficulty

Strategies	Drinking Water (%)	Domestic Water (%)
Use reserve storage	3.5	2.0
Use alternative source in the village	32.4	37.1
Buy water	8.3	4.6
Neighbour / Monastery share the water	10.9	12.1
Fetch from outside ward / village	31.4	37.2
Fetch from other village	13.4	6.9
Other	0.1	0.1
Total	100.0	100.0

1.4. Water treatment

Sixty-six per cent of households reported that they used an adequate in-house method to treat their water. 89.2% households reported that they treat their drinking water to make it safer, but not all methods are considered adequate[2]. No significant differences were found in terms of water treatment practices between urban and rural areas. Townships with lower percentages of households treating their drinking water in any way were Homalin(59%), Kanpetlet(60%), Mogaung(71%), Kutkai(74%), Rathedaung(78%),Taunngyi(80%), Bamaw(80%), and Oktwin(85%).

Table 7 shows the most commonly applied drinking water treatment methods.[3]Among the adequate methods, 61.1% of households reported boiling the water, 3.6% adding bleach or chlorine, 7.9% using a water filter, and 0.1% using solar disinfection. Straining water through clothes(78.7%) and letting it stand and settle (23.5%) – both considered inadequate methods - were also common.

Table.8. Method used for treating drinking water

Method used for drinking water treatment	Count	Percent
Strain through a cloth	4272	78.70%
Boil	3317	61.10%
Stand and settle	1277	23.50%
Use a water filter (ceramic, sand, composite, etc.)	428	7.90%
Add bleach/chlorine	193	3.60%
Solar disinfection	3	0.10%
Other	92	1.70%

When it came to treating water for other purposes, only 24% treated their water and only one third among those treating the water used an adequate treatment method. This means that only 8% households treated their water for other purposes with an adequate method.

Water treatment becomes particularly important for those households using water from unimproved water sources. It was found that winter and summer seasons pushed more households to use water

[2]Adequate treatment methods include boiling water, adding bleach or chlorine, using a water filter and solar disinfection.

[3]Multiple answers were allowed so that the percentages do not add up to 100.

from unimproved sources. Taking the original water source into account, it was noted that one third of households used unimproved sources during these seasons. Among them, 48%usedno method or only inadequate methods to treat their drinking water, which makes these households particularly vulnerable to water borne diseases. This means 14% of all households in the sampled townships used drinking water from unimproved water sources and did not treat their water at all or treated it inadequately in winter and summer seasons. During rainy season, this percentage dropped slightly to 9%.

Table.9. Awareness about adequate water treatment methods

	Count	Per cent
Boil	5,056	83.1%
Add bleach/chlorine	626	10.3%
Use a water filter (ceramic, sand, composite, etc.)	592	9.7%
Solar disinfection	36	0.6%
Strain it through a cloth	4,260	70.0%
Let it stand and settle	1,684	27.7%
Others	128	2.1%
Don't' know/No response	1,359	22.3%

An important determinant of the use of adequate versus inadequate methods is awareness. Individuals were asked whether they could name adequate water treatment methods. 87.5% of individuals cited at least one adequate drinking water treatment method among their multiple answers. Table 8 shows the most commonly cited drinking water treatment methods[4]. Among the adequate methods, 83.3% of individuals mentioned boiling the water, 10% adding bleach or chlorine, 10% using a water filter, and 0.6% using solar disinfection. Straining water through cloths (70%) and letting it stand settle (28%) were also commonly cited.

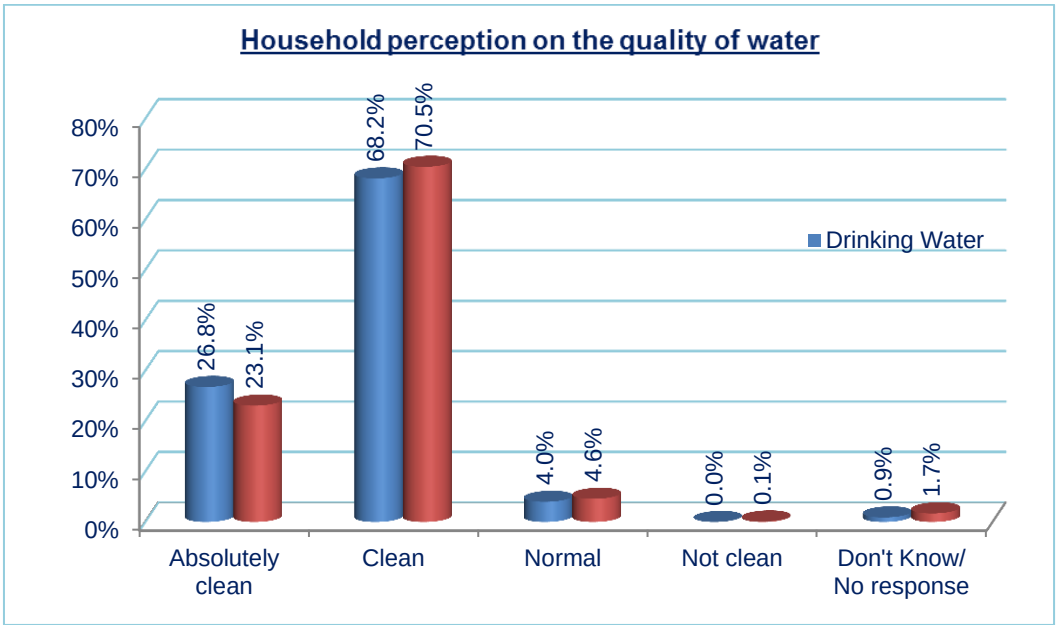
1.5. Water quality

Household members determined the quality of water by saying that water was clean after boiling (22%), filtering (17.6%),or coming from tube well/hand pump (17.6%). Individuals thus based their judgments on water quality on the fact that water had been treated or came from an improved water source. Other criteria included the fact that water was colourless and transparent (19.4%) or, in their opinion, free from germs (4.3%).These estimates refer to their initial answers. Allowing for multiple answers, 56% mentioned boiling water, 52% filtering water, 42% colourless/transparent water, 30% water with no sediments, and 30% coming from tube wells.

After water treatment (if any was applied by households), the majority of households perceived the quality of their drinking water (95%) and water for other purposes (94%) as at least clean among the categories ‘absolutely clean’, ‘clean’, ‘not clean’ and ‘absolutely unclean’. This is also largely consistent with the observations from the enumerators reported in the observation checklist, except for the quality of the water for other purposes (88%).

[4] Multiple answers were allowed which is why percentages do not add up to 100.

Graph.2. Household perception on the quality of water they are using



Most households were aware of the potential negative impact of drinking unclean water on health. Table 9 shows the negative health effects that individuals cite in connection with drinking unsafe water. The first column shows the percentages for the first answers and the second column shows the percentages allowing multiple answers. Most individuals cited gastro-intestinal diseases among their first and multiple answers, that is, diarrhoea (80 and 90%). Other categories included dysentery, cholera stomach pain, hepatitis and malaria. A small percentage (4%) could not cite any possible negative health effects from drinking unsafe water as their initial answer.

Table.10. Negative health effects from drinking unsafe water

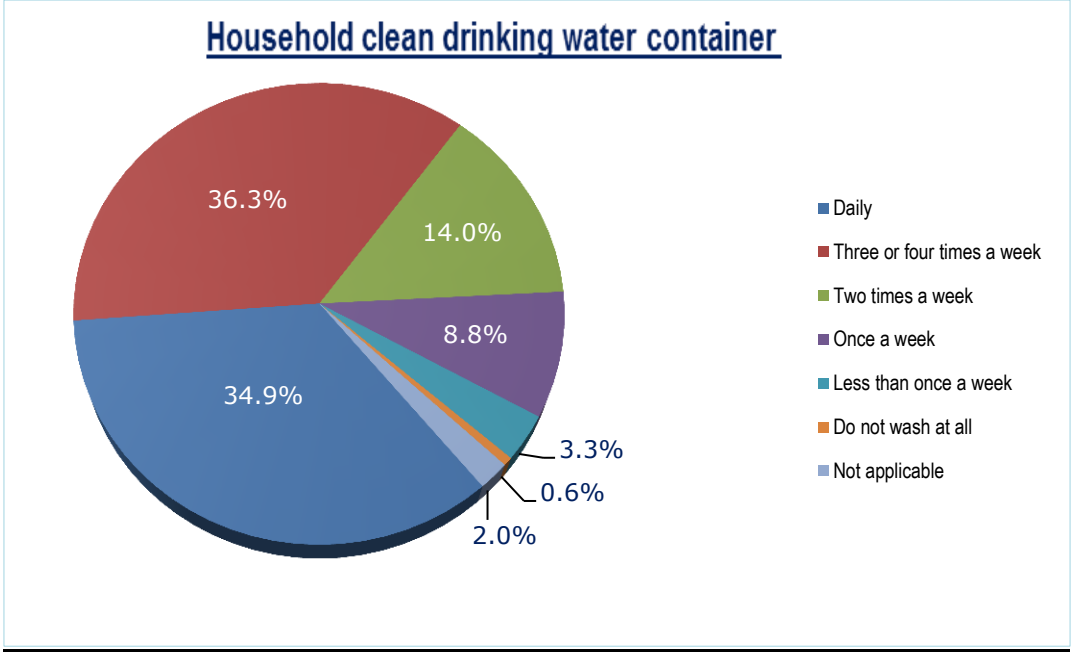
	First Answer		Multiple Answer	
	Count	Per cent	Count	Per cent
Diarrhoea	4,835	79.5%	5,502	90.4%
Dysentery	84	1.4%	1,238	20.4%
Cholera	114	1.9%	1,033	17.0%
Stomach pain	280	4.6%	1,725	28.4%
Catch fever	70	1.2%	554	9.1%
Typhoid	5	0.1%	212	3.5%
Hepatitis	55	0.9%	914	15.0%
Polio	3	0.1%	43	0.7%
Malaria	214	3.5%	1,235	20.3%
Round worm	24	0.4%	427	7.0%
Ringworm, scabies, itchy skin	37	0.6%	633	10.4%
Influenza	13	0.2%	235	3.9%
Dengue Haemorrhagic fever	21	0.4%	402	6.6%
Goitre	21	0.3%	119	2.0%
Other	69	1.1%	233	3.8%
Don't know/No response	241	4.0%	1,816	29.8%
Total	6,085	100.0%		

Water containers and cups

Seventy eight per cent of households reported the use of earthen pots and 17% of households use plastic containers and 4% use metal (usually tin) containers to store water. Thirty-two per cent of households had storage capacities of less than two gallons (nine litres). Seventy seven per cent of

households kept their water container inside the house and elevated, while 12% kept their water container on the ground. Ninety two per cent of households had their water containers covered, and most of them cleaned them either daily or 3 to 4 times a week.

Graph.3. Households cleaning drinking water container



It was observed by the field teams that 95.3% of the households had adequate water for drinking. A closer look throughout the sample townships also indicates there had been a fair adequacy of drinking water across the townships. It is also observed that 90.3 % of the households which have hand-washing facilities have adequate water for hand washing.

Enumerators further observed that most households (97%) were using drinking water cups of either 'good' or 'somewhat good' quality. The majority of these water cups (89%) had handles.[5]65% households reported to clean their water cups daily and 23% cleaned their cups 3 or 4 times a week. At least 'somewhat clean' water cups were recorded by enumerators for 85% households. However, only 17%householdsusedasafe way to extract water to drink from the water containers; 10% households have a tap on their container and 7% pour the water from the container. Most households (83%) dipped their cups into the container, in a way which could contaminate the water through dirty hands.

1.6. Water source contamination

Bathing, washing clothes, having latrines and feeding animals near a water source can all lead to its contamination. Allowing for multiple answers, bathing/washing clothes, defecation, the existence of latrines and trash disposal close to the water source were mentioned by about 47%, 30%, 26% and 33%, respectively. Having a well without a roof was mentioned by 12% respondents.[6]

[5]Handles help to prevent contamination of drinking water through dirty hands.

[6]All tables on awareness of water contamination include a column with the percentages of the items mentioned as a first response, which add up to 100; as well as a column for multiple answers.

Table.11. Knowledge of individual respondents on water source contamination

	First Answer		Multiple Answer	
	Count	Percent	Count	Percent
Bathing / washing clothes at water source	1470	24.2%	2866	47.1%
Urinate / Defecate at the water source	536	8.8%	1839	30.2%
Latrine close to the water source	528	8.7%	1553	25.5%
Water does not flow	272	4.5%	930	15.3%
Dispose trash near the water source	692	11.4%	2017	33.1%
Trash fallen into the water source	923	15.2%	2100	34.5%
Washing raw meat and raw fish near the water source	79	1.3%	452	7.4%
Pouring contaminated water into the water pump to siphon off water	55	0.9%	126	2.1%
Not properly plugging in the holes of the water pipe	28	0.5%	68	1.1%
Do not have separate bucket or rope at the well/Using dirty bucket	146	2.4%	431	7.1%
The well has no roof	198	3.3%	702	11.5%
Then well has no walling	108	1.8%	589	9.7%
The animals can go into the water source. No fence / broken fence around the pond	689	11.3%	1503	24.7%
Other	74	1.2%	126	2.1%
Don't know/ No response	288	4.7%	1409	23.2%
Total	6085	100.0%		

Table.12. Knowledge on water contamination during water fetching

Ways in which water can be contaminated during fetching (transportation)	First Answer		Multiple Answer	
	Count	Percent	Count	Percent
Using contaminated pot / bucket / barrel	1,365	**22.4%**	2,664	43.8%
Handling the container with dirty hands	323	5.3%	1,130	18.6%
Putting a hand or fingers while fetching it	340	5.6%	1,174	19.3%
With Hand	*663*	***10.9%***		
No cover while fetching drinking water	744	12.2%	1,434	23.6%
Dirt and mud getting into water while carrying	1,711	28.1%	2,790	45.9%
No Cover / Dirt getting into water	*2,455*	***40.3%***		
Don't have one pot kept specially for this purpose	235	3.9%	859	14.1%
Fetching water without cleaning the container	530	8.7%	1,573	25.9%
Putting cloth or small branch on top of water	53	0.9%	179	2.9%
Because of the animals	203	3.3%	564	9.3%
Fetching water while wearing wet clothes	99	1.6%	446	7.3%
Stepping into the pond /river /stream to fetch water	166	2.7%	457	7.5%
Other	1	0.0%	4	0.1%
Don't know/ No response	315	5.2%	1,819	29.9%
Other knowledge on water contamination during fetching	1,602	**26.3%**		
Total	6,085	100.0%		

Awareness of water contamination was also investigated, for both water fetching and water storage activities. Table 11 shows the responses on practices during water fetching that can contaminate a

water source. Water getting contaminated through lack of a cover and using a contaminated container was mentioned by most respondents (40% and 22% respectively) as their first response.

Table 12 shows the awareness of respondents on practices that may contaminate water during storage. Lack of a proper cover and using a dirty container was seen by most respondents as a problem for both first response and multiple answers.

Table.13. Knowledge on water contamination during storage

Ways in which water can become contaminated during storage.	First Answer		Multiple Answer	
	Count	Percent	Count	Percent
Stored water not covered properly	2,621	43.1%	4,276	70.3%
Using dirty container / do not wash at all	1,321	21.7%	2,694	44.3%
Larvae found in water	926	15.2%	2,345	38.5%
Water fetched using unclean bucket / cup	364	6.0%	1,024	16.8%
Water fetched using dirty hands	407	6.7%	1,396	22.9%
Pouring back the leftover water	281	4.6%	1,109	18.2%
Other			2	0.0%
Don't know/ No response	164	2.7%	1,744	28.7%
Total	6,085	100.0%		

The awareness of hazardous practices, that may contaminate the water source, was rarely reflected in actual household behaviour. Table 13 shows the bathing locations identified by respondents. The survey found that about one-third of households bathed close to a water source outside their compounds.[7]Another one-third of households bathed inside their compounds and they also had their water source inside their compounds.

Table.14. Bathing location

Location of bathing place	Count	Percent
Bathroom inside the house	268	4.4%
Inside compound (water fetched from outside)	1,870	30.7%
Rain water storage point	41	0.7%
Inside compound (water source inside)	2,061	33.9%
Outside compound (Motorized / hand pump tube well)	384	6.3%
Outside compound (Water tap)	128	2.1%
Outside compound (Near the well)	690	11.3%
Outside compound (Near the pond)	196	3.2%
Outside compound (In the pond)	18	0.3%
Outside compound (river / stream)	1,104	18.1%
Outside compound (Inside the dam)	4	0.1%
Other	39	0.6%
Total	6,085	

The patterns of washing clothes were almost the same as the bathing patterns. About 77% households did not have drainage (see table 14).

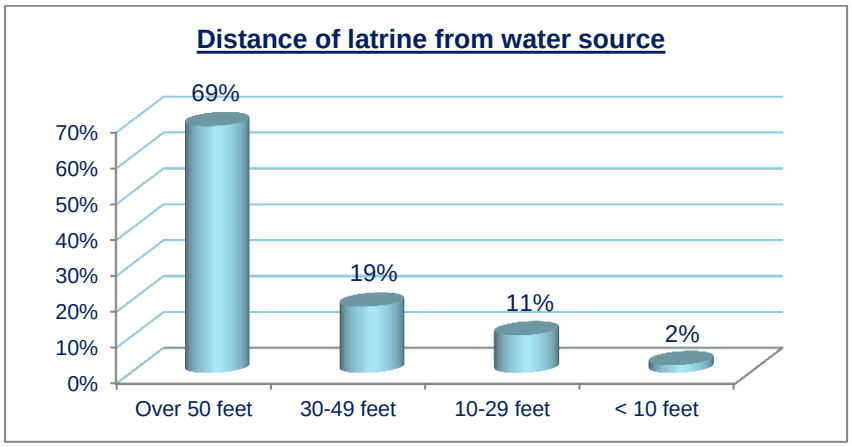
[7]90% households did not have separate places of bathing for men and women.

Table.15. Where washing water flows

	Count	Percent
Directed to septic tank/well dug pit	104	2.8%
Well dug drainage	632	17.2%
No drainage, spread all around	2830	76.9%
Other	115	3.1%
Total	3682	100.0%

Most latrines (69%) were located at a safe distance (>50 feet) from a water source. Still almost a third of latrines were within less than 50 feet (see graph 4).

Graph.4. Distance of latrine from water source



Almost half of the households (47.8%) raised animals, and 45.1% households raising animals fed them close to a water source.

3. SANITATION

3.1. Latrine availability

The majority of households had latrines at home (83.6%). Most of these latrines were used exclusively by the members of the household (92.5%), while 7.5% households shared the latrines with other households. For those households having shared latrines, their latrines were shared by an average two households. A large number of households (61.9%) reported that at least one household member was working in the field. Among those households, 85.2% reported that no latrine was available in the field. Among the households with latrines at home, 89.7%could be classified as having improved latrines. In other words, among all households, the proportion of households having improved sanitation facilities was 75.1%. Table 15 shows the percentages of latrines by type.

Table.16. Latrine type

Type of Latrine	Count	Per cent
Flush/ pour flush to Pit latrine	3,530	69.4%
Flush/ pour flush to Septic tank	475	9.3%
Pit latrine with slab	358	7.0%
Ventilated improved pit latrine (VIP)	122	2.4%
Flush/ pour flush to Piped sewer system	50	1.0%
Composting toilet	33	0.6%
Improved latrine	***4,568***	***89.7%***
Pit latrine without slab/open pit	371	7.3%
Hanging toilet/hanging latrine	82	1.6%
Flush/ pour flush to Elsewhere	20	0.4%
Flush/ pour flush to Unknown place/not sure	2	0.0%
Bucket	1	0.0%
Others	40	0.8%
Unimproved latrine	***516***	***10.1%***
Total	5,085	100.0%

Table 16 shows estimates disaggregated for urban and rural areas. In rural areas, the proportion of households without any latrine was much higher (19.1%) compared to urban areas (5.1%). Also the proportion of households with unimproved latrines was higher in rural areas (9.3%) compared to urban areas (5.2%).

Table.17. Latrine Condition

Latrine condition	**Urban**		**Rural**		**Total**	
	Count	Percent	Count	Percent	Count	Percent
Improved latrine	1032	89.7%	3536	71.6%	4568	75.1%
Unimproved latrine	59	5.2%	458	9.3%	517	8.5%
No latrine	59	5.1%	942	19.1%	1000	16.4%
Total	1150	100.0%	4935	100.0%	6085	100.0%

Table 17 shows the proportion of households for different types of latrines for the group of households with latrines. Among the households with latrines, the use of septic tanks was more common in urban areas and flush into pit latrine systems less common compared to rural areas.

Table.18. Latrine type

Type of Latrine	Urban		Rural		Total	
	Count	Percent	Count	Percent	Count	Percent
Flush/pour flush toPiped sewer system	14	1.3%	35	0.9%	50	1.0%
Flush/pour flush toSeptic tank	258	23.6%	218	5.4%	475	9.3%
Flush/pour flush toPit latrine	649	59.5%	2,880	72.1%	3,530	69.4%
Ventilated improved pit latrine (VIP)	24	2.2%	98	2.4%	122	2.4%
Pit latrine with slab	78	7.2%	280	7.0%	358	7.0%
Composting toilet	8	0.7%	25	0.6%	33	0.6%
Flush/pour flush toElsewhere	13	1.2%	7	0.2%	20	0.4%
Flush/pour flush toUnknown place/not sure	1	0.1%	1	0.0%	2	0.0%
Pit latrine without slab/open pit	34	3.1%	338	8.5%	371	7.3%
Bucket			1	0.0%	1	0.0%
Hanging toilet/hanging latrine	10	0.9%	72	1.8%	82	1.6%
Other	2	0.2%	38	0.9%	40	0.8%
Total	1,091	100.0%	3,993	100.0%	5,085	100.0%

Table 18 shows the proportion of households with improved, unimproved and no latrines across the sampled townships. The table is sorted by the proportion of households with improved latrines in ascending order, then by households without latrines in descending order. This means that townships mentioned first were townships with relatively lower availability of improved latrines. Remarkably even in the 6th ranked township Paukkhaung almost one third households had no latrine within their compounds.

Table.19. Latrine conditions in Townships

TOWNSHIP	Total number of respondents	Improved Latrines	Unimproved Latrines	No Latrine	States/Regions
Rathedaung	239	30.1%	0.8%	69.0%	Rakhine
Ponnagyun	189	31.9%	2.3%	65.7%	Rakhine
Kutkai	278	47.5%	44.4%	8.1%	Shan North
Kanpetlet	29	59.0%	26.6%	14.5%	Chin
Phyapon	409	65.8%	12.9%	21.3%	Ayeyarwady
Paukkhaung	196	66.2%	4.1%	29.7%	Bago West
Bogalay	375	70.8%	4.8%	24.4%	Ayeyarwady
Longlone	289	75.4%	9.1%	15.5%	Tanintharyi
Pantanaw	410	75.7%	7.5%	16.8%	Ayeyarwady
Paungde	200	76.8%	8.2%	15.0%	Bago West
Nyaunglaybin	363	78.4%	12.1%	9.5%	Bago East
Homalin	243	82.6%	7.5%	10.0%	Sagaing
Htantabin	182	82.6%	6.6%	10.8%	Bago East
Taunggyi	475	83.1%	10.5%	6.4%	Shan South
Pinlaung	216	83.8%	7.9%	8.3%	Shan South
ChaungOo	161	84.9%	0.0%	15.1%	Sagaing
Oktwin	219	85.2%	11.8%	3.1%	Bago East
Hinthada	506	85.5%	4.6%	9.9%	Ayeyarwady
Kyaunggone	220	85.7%	1.7%	12.6%	Ayeyarwady
Pekon	101	87.0%	5.4%	7.6%	Shan South
Kawkareik	399	87.2%	1.5%	11.3%	Kayin
Mogaung	181	88.3%	8.0%	3.8%	Kachin
Bamaw	147	92.0%	3.0%	5.0%	Kachin
Mindat	58	93.2%	5.1%	1.7%	Chin

The quality of the latrine construction materials was modest. Bamboo mat floors, wooden floors and brick/concrete floors could be observed in 39%, 22% and 15% households, respectively. The majority of the latrines (43%) had wood and bamboo walls, bricks, wood and plastic pans (30.9%), and bricks/ceramic pan (14%).53% latrines had thatched roofs and 29% tin/corrugated sheets. Surprisingly it was found that about 8% latrines were observed not having roofs.

An analysis of the differences in material for urban and rural areas shows that latrines in urban households had stronger materials. As table 19, urban latrines with bricks/concrete and wood walls were about 60%, while for the rural households it was only 31 %.

Table.20. Latrine Wall materials

Type of latrine wall material	Urban		Rural		Total	
	Count	Per cent	Count	Per cent	Count	Per cent
Bricks/Concrete	369	33.8%	404	10.1%	774	15.2%
Wood	284	26.0%	832	20.8%	1117	22.0%
Wood & bamboo	65	5.9%	292	7.3%	357	7.0%
Wood & corrugated sheet	78	7.1%	89	2.2%	167	3.3%
Betel/Coconut tree and thatch	6	.5%	190	4.7%	195	3.8%
Bamboo mat & thatch	220	20.2%	1760	44.1%	1980	38.9%
Polyester/plastic/tarpaulin & Related materials	65	6.0%	350	8.8%	415	8.2%
Other	4	.4%	75	1.9%	79	1.6%
Total	1091	100.0%	3993	100.0%	5085	100.0%

Similarly 64 % of urban latrines had ‘bricks/concrete & plastic pan, and wood’ flooring, while that was the case for only 40% rural latrines (see table 20).

Table.21. Latrine Floor materials

Type of latrine floor material	Urban		Rural		Total	
	Count	Per cent	Count	Per cent	Count	Per cent
Bricks/Concrete & ceramic pan(Sitting)	27	2.5%	11	.3%	37	.7%
Bricks/Concrete & ceramic pan (Squatting)	338	31.0%	332	8.3%	670	13.2%
Bricks & plastic pan (Sitting)	30	2.7%	126	3.2%	156	3.1%
Wood & plastic pan (Sitting)	298	27.3%	1115	27.9%	1413	27.8%
Betel/Coconut tree	1	.1%	70	1.8%	72	1.4%
Wood & bamboo	365	33.4%	1831	45.9%	2196	43.2%
Bamboo	26	2.4%	471	11.8%	497	9.8%
Other	6	.5%	38	.9%	43	.9%
Total	1091	100.0%	3993	100.0%	5085	100.0%

Table 21 shows that urban latrines had better roofing materials (Tin/corrugated sheets 53%); while for the rural households it was only 23%. Wooden doors for latrines are much stronger, and it was found in 59% urban households, while for rural households it was only 28% (see table 22). Thus, urban latrines can be functional for a longer period of time.

Table.22. Latrine Roof materials

Type of latrine roof material	Urban		Rural		Total	
	Count	Percent	Count	Percent	Count	Percent
No Roof	39	3.6%	385	9.6%	424	8.3%
Tin/corrugated sheet	578	53.0%	904	22.6%	1482	29.2%
Thatch	296	27.1%	2406	60.2%	2702	53.1%
Tarpaulin	26	2.4%	87	2.2%	113	2.2%
Bamboo	38	3.5%	126	3.2%	164	3.2%
Other	114	10.4%	86	2.1%	200	3.9%
Total	1091	100.0%	3993	100.0%	5085	100.0%

Table.23. Latrine Door materials

Type of latrine door material	Urban		Rural		Total	
	Count	Percent	Count	Percent	Count	Percent
Wood	643	58.9%	1136	28.4%	1779	35.0%
Tarpaulin	162	14.8%	1361	34.1%	1523	30.0%
Bamboo	108	9.9%	772	19.3%	880	17.3%
Other (Specify)	178	16.4%	725	18.1%	903	17.8%
Total	1091	100.0%	3993	100.0%	5085	100.0%

Field teams observed that 64.5%toilets were functional, 29.8%were partially functional while 5.7% were not functional. It was observed that about 69%toilets were either clean or somewhat clean, leaving about 31% judged as ‘not clean’.

Table.24. Latrine functionality by urban and rural

Latrine functionality	Urban		Rural		Total	
	Count	Per cent	Count	Per cent	Count	Per cent
Functional	896	82.1%	2384	59.7%	3280	64.5%
Partially functional	182	16.7%	1333	33.4%	1515	29.8%
Not functional	12	1.1%	277	6.9%	290	5.7%
Total	1091	100.0%	3993	100.0%	5085	100.0%

The survey revealed that 8.3% households usually used the latrines of other households and 1% used communal latrines. Among these communal latrines and latrines from other households, 86.0% qualified as improved facilities. Table 25 shows the types of communal and other households’ latrines as reported by household respondents. Most of these latrines (72.9%) were latrines with flush/pour flush to a pit. Pit latrines with slabs were reported by 6.9% households using these latrines. Pit latrines without slab and hanging toilets – both unimproved facilities – were reported by 6.7% and 6.2%, respectively.

Table.25. Cleanliness of latrine by urban and rural

State of latrine	Urban		Rural		Total	
	Count	Per cent	Count	Per cent	Count	Per cent
Clean	465	42.6%	795	19.9%	1260	24.8%
Somewhat Clean	441	40.4%	1810	45.3%	2251	44.3%
Somewhat not clean	134	12.3%	920	23.0%	1054	20.7%
Not Clean	51	4.7%	468	11.7%	520	10.2%
Total	1091	100.0%	3993	100.0%	5085	100.0%

Table.26. Access to improved communal or other households' latrines

Types of latrines	Count	Per cent
Flush/ pour flush to Piped sewer system	8	1.4%
Flush/ pour flush to Septic tank	14	2.4%
Flush/ pour flush to Pit latrine	413	72.9%
Ventilated improved pit latrine (VIP)	11	2.0%
Pit latrine with slab	39	6.9%
Composting toilet	2	0.4%
Improved latrine	***487***	***86.0%***
Flush/ pour flush to Elsewhere	2	0.3%
Flush/ pour flush to Unknown place/not sure/DK where	1	0.2%
Pit latrine without slab/open pit	38	6.7%
Hanging toilet/hanging latrine	35	6.2%
Others	3	0.6%
Unimproved latrine	***79***	***14.0%***
Total	567	100.0%

When individual household respondents were asked about whether they perceived the latrines used by them as sanitary, 62% individuals perceived them so. This includes their own latrines, other households' latrines and communal latrines. To most households the advantage of having a sanitary latrine meant that it was good for one's health (64.9%), the environment would be clean (43.5%), there would be no bad odour (40.9%) and it would be free from files (39.2%).

3.2. Defecation practices

When at home, 95% of residents of urban households used the latrines compared to 81% of the rural households. Open defecation in this case was significantly higher among rural households (8.7%), while in urban areas, it was almost non-existent.

Table.27. Defecation practice when at home

Defecation Practice	Urban		Rural		Total	
	Count	Per cent	Count	Per cent	Count	Per cent
Defecate openly it in the field	2	.0.17%	409	8.3%	411	6..75%
Defecate openly in the compound	0	.0%	20	.4%	20	.3%
Use latrine at home	1085	94.4%	4002	81.1%	5087	83.6%
Use communal latrine	10	.8%	48	1.0%	58	1.0%
Use other people's latrine	53	4.6%	455	9.2%	508	8.3%
Total	1150	100.0%	4935	100.0%	6085	100.0%

Table.28. Common practice of open defecation while at home

Defecation practice	Urban		Rural		Total	
	Count	Per cent	Count	Per cent	Count	Per cent
Open defecate	34	3.0%	926	18.8%	961	15.8%
Not Open defecate	1116	97.0%	4009	81.2%	5124	84.2%
Total	1150	100.0%	4935	100.0%	6085	100.0%

Many individuals were aware of the hazards of unsanitary defecation practices. Defecating behind the bush, using latrines without pits, using latrines without lids and using latrines with open gutters were mentioned by 43%, 16.7%, 11% and 0.9% of individuals respectively. Nine per cent of respondents did not know the potential hazards of unsanitary defection. The survey found that at home, 83.6% households usually used latrines, while about 7.1% defecate openly either in the field or their compounds. Among those households having a latrine at home, almost all households said they usually use them (99.1%). Table 26 shows the usual defecation practices of household members disaggregated by households having and not having toilet facilities at home. The table below also reveals that almost 50% usually defecated openly in the field among the households without latrines at home (16.4% had no latrines at home). The rest (48%) of households without own latrines usually used the latrines from other households.

Table.29. Household members working in the field

Working in the field	Urban		Rural		Total	
	Count	Per cent	Count	Per cent	Count	Per cent
Yes	161	14.0%	3605	73.0%	3766	61.9%
No	989	86.0%	1330	27.0%	2319	38.1%
Total	1150	100.0%	4935	100.0%	6085	100.0%

The survey also found that 14 % of the urban households work in the field, while 73% of the rural households work in the field. When asked on the practice of defecation, 62% of the urban householders who work in the field practiced open defecation, while 69% of the rural households say they practiced open defecation.

Table.30. Place of defecation when at work in the field

Defecation practice	Urban		Rural		Total	
	Count	Per cent	Count	Per cent	Count	Per cent
Do it openly in the field	71	62.2%	2172	69.1%	2243	68.8%
Go back home where there is latrine	35	30.1%	815	25.9%	849	26.1%
Use other household's latrine	8	6.6%	146	4.6%	153	4.7%
DK/NR	1	1.1%	12	.4%	14	.4%
Total	115	100.0%	3145	100.0%	3260	100.0%

Table 31 shows usual defecation practices of household members, when they are at home. Since the aim is to eradicate open defecation, the survey investigated the incidences of open defecation at home and at work in the field.

Table.31. Defecation practice while working in the field.

Defecation practice	Urban		Rural		Total	
	Count	Per cent	Count	Per cent	Count	Per cent
Open defecate	78	67.7%	2287	72.7%	2365	72.5%
Not Open defecate	37	32.3%	858	27.3%	895	27.5%
Total	115	100.0%	3145	100.0%	3260	100.0%

Table.32. Defecation practices and availability of latrines

Defecation practice at home	Does this household have a latrine (From Checklist)			
	Yes		No	
	Count	Per cent	Count	Per cent
Defecate openly it in the field	4	0.1%	407	40.7%
Defecate openly in the compound			20	2.0%
Use latrine at home	5038	99.1%	49	4.9%
Use communal latrine	21	0.4%	38	3.8%
Use other people's latrine	22	0.4%	486	48.5%
Total	5085	100.0%	1000	100.0%

The household respondents were asked to report the frequency of open defecation between '1' (never) and '5' (always) for different groups of household members, that is, male adults, female adults and children between the ages 8 and 14. 15.8% respondents reported that at least one group of household members had practiced open defecation at least once during the year preceding the survey, that is, more frequently than '1' ('never'). 9.6% reported frequencies of more than '2'. The group of male adults was reported to have defecated openly most frequently. Table 32 shows the frequencies for each group of household members.

Table.33. Frequency of Open Defecation

Frequency of open defecation	Male Adults		Female Adults		Children (8-14)	
	Count	Percent	Count	Percent	Count	Percent
Never	4877	80.1%	5275	86.7%	2409	39.6%
>1	838	13.8%	760	12.5%	515	8.5%
>2	514	8.5%	508	8.4%	343	5.6%
DK/NR	1	0.0%			1	0.3%
Not applicable	369	6.1%	50	0.8%	3159	51.9%
Total	6085	100.0%	6085	100.0%	6085	100.0%

The qualitative study indicates a similar situation, "In the urban areas there is hardly any open defecation, except by some small children". In the villages open defecation has declined noticeably, with only on average between 10-30% of villagers, and mostly these are children. However, according to the qualitative study between 50-60% of the households work in the field, open defecation among households working in the field is as high as 50-100% among those households. In Rakhine State more than 75% of respondents practice open defecation. "It's a custom here". (Ponnagyun) 60%. Open defecation is also high in the Chin State (25-80%). In the Delta villages open defecation is rare. As mentioned earlier open defecation is rarely practiced in the urban areas,

but in rural villages where households are working in the field open defecation takes place 'between some times and most of the time'. It happens mostly in the morning and for some people, in the evenings. For children they do it all the time. Qualitative study reveals that men defecate in the open more often than women. But women choose some cover or hidden place, while men do not care. A Kanpetlet villager in the Chin State says, "Women do it very close to the house, as they are afraid of being attacked or harmed".

Sixty two per cent of households had members working in the field and 85.2% of those had no latrines where they worked. The defecation practices for household members working in the field were reported as follows.

Table.34. Frequency of open defecation of household members in the past year

Frequency of open defecation	Male Adults		Female Adults		Children (8-14)	
	Count	Per cent	Count	Per cent	Count	Per cent
Never	891	27.3%	1,302	40.0%	1,006	30.9%
>1	2,249	69.0%	1,915	58.8%	560	17.2%
>2	1631	50.0%	1,324	40.6%	334	10.0%
DK/NR	9	0.3%	6	0.2%	4	0.1%
Not applicable	110	3.4%	36	1.1%	1,690	51.8%
Total	3,260	100.0%	3,260	100.0%	3,260	100.0%

Among those working in the field without latrines in their work area, 68.8% reported that they or their household members usually practiced open defecation during the year preceding the survey. Table 33 shows the frequencies of open defecation when working in the field for the various groups of household members. As expected, 52% respondents reported that the question was not relevant for children between 8 and 14, that is, they were not working in the field. Though almost half of the respondents stated that children did work or stay in the field. The group of male adults was reported to defecate openly more than '2' by 50% respondents. Also a substantial number of female adults were reported to defecate openly more than '2' (40.6%). (Table 33)

The above figures depend on the knowledge of the household respondents about the defecation behaviour of all household members. To get figures based on self-reporting only, similar questions as the above were asked to sampled individuals within the households about their own open defecation practices. Almost 8% reported that they had usually practiced open defecation during the year preceding the survey. This is consistent with the results from the household questionnaire. Table 34 shows the self-reported frequencies for different types of defecation practices.

Table.35. Defecation location, when at home

Defecation location	Count	Per cent
Defecate openly it in the field	428	7.0%
Defecate openly in the compound	29	0.5%
Use latrine at home	5102	83.8%
Use communal latrine	61	1.0%
Use other people's latrine	466	7.7%
Total	6085	100.0%

Table 35 shows the same table disaggregated by townships and sorted according to the proportions of usual open defecation in descending order. Four townships had more than 10% individuals usually defecating openly, either in the compound or field.

Table.36. Defecation practices by township and by type

Township	State/Division	Total sample township	Openly defecate	Not open defecate	Defecate openly in the field	Defecate openly in the compound	Use latrine at home	Use communal latrine	Use other people's latrine
Rathedaung	Rakhine	239	66.10%	33.90%	66.10%	0.00%	30.50%	1.70%	1.70%
Ponnagyun	Rakhine	189	64.40%	35.60%	63.00%	1.40%	32.40%	1.90%	1.40%
Paukkhaung	Bago West	196	10.50%	89.50%	10.00%	0.50%	70.80%	0.50%	18.30%
Kanpetlet	Chin	29	10.40%	89.60%	9.20%	1.20%	84.40%	0.60%	4.60%
ChaungOo	Sagaing	161	7.30%	92.70%	7.30%	0.00%	83.40%	2.40%	6.80%
Longlone	Tanintharyi	289	6.80%	93.20%	5.70%	1.10%	84.10%	0.00%	9.10%
Homalin	Sagaing	243	5.80%	94.20%	5.40%	0.40%	90.00%	0.00%	4.10%
Kawkareik	Kayin	399	4.30%	95.70%	3.70%	0.60%	89.00%	0.00%	6.70%
Pantanaw	Ayeyarwady	410	3.90%	96.10%	3.30%	0.60%	87.10%	1.80%	7.20%
Kutkai	Shan North	278	3.50%	96.50%	3.50%	0.00%	91.90%	0.00%	4.60%
Nyaunglaybin	Bago East	363	2.60%	97.40%	2.60%	0.00%	91.10%	2.60%	3.60%
Mogaung	Kachin	181	2.30%	97.70%	1.40%	0.90%	95.80%	0.00%	1.90%
Phyapon	Ayeyarwady	409	2.10%	97.90%	1.50%	0.60%	77.80%	3.60%	16.50%
Bamaw	Kachin	147	2.00%	98.00%	2.00%	0.00%	95.00%	0.00%	3.00%
Bogalay	Ayerwaddy	375	1.60%	98.40%	1.00%	0.60%	76.90%	1.00%	20.50%
Pekon	Shan South	101	1.60%	98.40%	1.60%	0.00%	92.40%	0.00%	5.90%
Htantabin	Bago East	182	1.40%	98.60%	0.90%	0.50%	89.70%	0.50%	8.50%
Mindat	Chin	58	1.10%	98.90%	1.10%	0.00%	98.30%	0.00%	0.60%
Kyaunggone	Ayeyarwady	220	0.90%	99.10%	0.90%	0.00%	87.80%	0.90%	10.40%
Pinlaung	Shan South	216	0.40%	99.60%	0.40%	0.00%	91.70%	0.00%	7.90%
Hinthada	Ayeyarwady	506	0.30%	99.70%	0.30%	0.00%	88.80%	0.80%	10.20%
Oktwin	Bago East	219	0.00%	100.00%	0.00%	0.00%	94.80%	1.70%	3.50%
Paungde	Bago West	200	0.00%	100.00%	0.00%	0.00%	85.50%	0.00%	14.50%
Taunggyi	Shan South	475	0.00%	100.00%	0.00%	0.00%	93.30%	0.00%	6.70%

Further questions were asked to individuals on the frequencies of open defecation.13.7% individuals reported that they had defecated openly at least once during the last year, that is, more than '1' or 'never'. It is noteworthy that 7.0% reported to always defecate openly. Table 36 shows the self-reported frequencies when at home during the year preceding the survey.

Table 37 shows the proportions for the different frequencies of open defecation disaggregated by townships. The table is sorted according to the proportion of individuals who openly had defecated at least once during the year preceding the survey. Twelve townships had proportions of more than 10% individuals who had defecated at least once.

Table.37. Frequency of open defecation during past year.

Frequency of open defecation	Count	Per cent
Never	5248	86.2%
>1	835	13.7%
>2	559	9.2%7

Table 38 shows the self-reported frequencies of open defecation disaggregated by individuals who reported usually openly defecating and not usually defecating when at home during the last year. It shows that a large number of individuals, who reported that they usually had not defecated openly, had defecated openly at least once during the year preceding the survey.

Table.38. Proportions of open defecation disaggregated by townships.

Township	State/Division	Total sample Township	Never	>1	>2	Always
Rathedaung	Rakhine	239	33.10%	67%	67%	65.70%
Ponnagyun	Rakhine	189	34.70%	65%	64%	62.00%
Kanpetlet	Chin	29	76.30%	24%	14%	11.00%
Paukkhaung	Bago West	196	87.70%	12%	12%	11.00%
ChaungOo	Sagaing	161	84.40%	16%	12%	7.30%
Longlone	Tanintharyi	289	56.40%	44%	12%	6.10%
Homalin	Sagaing	243	93.40%	7%	6%	5.80%
Kawkareik	Kayin	399	84.40%	16%	6%	4.00%
Pantanaw	Ayeyarwady	410	92.20%	8%	6%	3.90%
Kutkai	Shan North	278	91.10%	9%	6%	3.50%
Bamaw	Kachin	147	85.50%	15%	8%	3.00%
Mogaung	Kachin	181	90.60%	9%	6%	2.30%
Phyapon	Ayeyarwady	409	86.50%	14%	6%	2.10%
Nyaunglaybin	Bago East	363	90.50%	10%	5%	2.00%
Pekon	Shan South	101	95.70%	4%	3%	1.60%
Htantabin	Bago East	182	97.20%	3%	2%	1.40%
Bogalay	Ayerwaddy	375	93.30%	6%	3%	1.30%
Mindat	Chin	58	90.30%	10%	2%	1.10%
Hinthada	Ayeyarwady	506	97.20%	3%	2%	0.50%
Kyaunggone	Ayeyarwady	220	92.20%	8%	5%	0.40%
Pinlaung	Shan South	216	87.30%	13%	5%	0.40%
Taunggyi	Shan South	475	99.70%	0%	0%	0.30%
Oktwin	Bago East	219	96.10%	4%	1%	0.00%
Paungde	Bago West	200	100.00%	0%	0%	0.00%

Table.39. Households with any person reporting having defecated openly in the field

Open Defecation Frequency	Individuals defecating openly in the field		Individuals defecating openly in the field	
	Count	Per cent	Count	Per cent
Usually openly defecating	455	54.5%	453	81.1%
Not usually openly defecating	380	45.5%	105	18.9%
Total	835	100.0%	586	100.0%

Among the individual respondents, 49% reported that they had worked in the field during the year preceding the survey. Among them, 86% reported that no latrines were present in the field. Among the individuals working in the field without field latrines, 68% usually practiced open defecation, 27% usually waited to get back home to defecate and 5% usually used the latrines of other households. Table 39 shows the self-reported frequencies of open defecation of those working in the field.

Table.40. Open defecation frequency over past year

Open defecation in past year	Count	Per cent
Never	762	29.4%
>1	1828	70.5%
>2	1276	49.2%
Don't know	2	0.1%
Total	2592	100.0%

Finally household respondents were asked about whether they knew instances of open defecation by their neighbours during the year preceding the survey. About 33% respondents reported they knew of such instances.

Findings of qualitative study on open defecation (FGDs with Mothers and Care Takers) are quite consistent with the quantitative investigation. When villagers work outside of the village they sometimes defecate in the open, mostly during daytime. However, it is found that most people who defecate in the open are children, and men seem to practice open defecation more than women, perhaps because they work in the field more.

Upon further probing in the qualitative investigation, some participants of the FGDs said that when they see people defecating openly, "they feel embarrassed, uneasy, disappointed, disgusted and uncomfortable. Most are worried and concerned for health risks. A few said, it's rather usual and they just ignore it. (A villager from Pyapon)

In fact most of the respondents say they just ignore this practice of others, especially if they are children. But a few say they suggested that they should not defecate openly, and to cover their waste after defecation. When asked 'What should be done about open defecation' the respondents had different ideas, such as, "Need to build more latrines. Parents should teach and control their children not to defecate openly in future. Village authorities should take some measures to control it. Need to provide more health education. These people should at least be taught to cover up their faeces with earth or something. But one villager from Kyaunggone said, "If it's village tradition nothing can be done. If it happens in the village, the faeces need to be disposed of somewhere far from houses."

There were some discussions on possible barriers to do the above. Most of the participants said there are no particular barriers, but to only help people who cannot afford to build latrines, to explore ways to help households that have no land space available, how to help some who lack health knowledge and those who have low income.

3.3. Defecation practices of children under 8

Children less than 12 months

Among a sample of 471 households with infants (children 12 months or under), the survey found that the majority (up to 75%) of caretakers used napkins (swaddling clothes). Ten per cent used unsanitary defecation practices such as having the infants defecate directly on the ground while they sit on the caretaker's feet.

Most caretakers cleaned the infant either with water only (56%), a water-soaked gauze (12%) or tissue (16%). Thirteen per cent of caretakers used water and soap. The practice of using just paper, a stick or a twig for anal cleansing is rare, but still present among 3% of caretakers. After having cleaned the infant, 93% caretakers reported that they washed their hands, with 75% of them washing their hands with water and soap.

When it came to disposing the infant's faeces, only 19% infant's caretakers properly disposed of the infant's faeces into a latrine. Most caretakers washed the infant's napkins with water and soap (41%) and re-used them, however 16% did it with water only.In other cases the infant's faeces was disposed of inside or outside of the yard. Disposal of infant's faeces into surface water was recorded by 7% of households.

Children between one and two years

With respect to children between 1 and 2 years(445 households) when no more napkins are used, the survey found that two thirds of children between 1 and 2 years defecated improperly, with 30%defecation directly on the ground and 22% into shorts or in bed. The use of pots increased for this age group to 21%. Few children in this age group (6%) defecated into latrines. The use of paper, sticks or twigs is a more common practice for anal cleansing (9%), with 66%;the most common was the use of water only. The use of water and soap was reported by only 15% of the caretakers.

When it came to disposing the child's faeces, disposal into latrines increased from 19% for infants to 37% for children from 1 to 2 years. Many caretakers reported disposing of the child faeces inside (9%) and outside the yard (23%), and disposal into surface water was practiced by 4%. The hand-washing practices of caretakers after cleaning the child were similar to those after cleaning an infant. 94% caretakers washed their hands, with 72% of them washing their hands with water and soap.

Children between two and five years

Of the 1,464 sampled households with children between 2 and 5 years, many children had switched to using latrines (49%) or pots (10%). However a large proportion (37%) used unsanitary practices by defecating directly on the ground.

With respect to cleaning the child, in most cases it was done by adults (85%). 16% reported that the child cleaned themselves. The survey found stark differences in the sanitation level for children cleaning themselves and children cleaned by adults (probably younger children within the age group).

Among the 227 sampled children cleaning themselves, 72% of them used latrines and 17% defecated directly on the ground. Defecation into the pot was only practiced by 1%. More than half of the children using latrines used paper, sticks or twigs for anal cleansing. Water and soap was used by only 2.6%, compared to 43% children using water only. Only43% reported hand washing after defecation and only half of the children washing their hands used soap.

Out of the 1,237 sampled 2-5 year olds cleaned by adults after defecation the use of latrines was less common with 45% reporting such practice. In contrast, defecation on the ground was much more common at 39%. Defecation into a pot was practiced by 11%.Among the children cleaned by adults, 22% caretakers used paper and sticks for anal cleaning. Again mostly water alone was used (58%) instead of water and soap (13%). For the 55%of children not defecating into latrines, disposal into latrines was reported by 20% of caretakers. Disposal in (7%) and outside (19%) of the yard were other common practices. Eighty eight per cent of caretakers washed their hands and 72% of them used soap.

Children between five and eight years

For the group of 5 to 8 year olds, improper defecation drops to 16%. 80% of caretakers of these children reported that the children cleaned themselves but 23.4%used paper, stick or twig. Fifty seven per cent of these children are cleaned properly, and since most of them (88.1%) use the latrines there is not much need to dispose of the faeces. About 65% of the children wash their hands after defecation, and 57% use water with soap.

For this age group of children where mothers and child caretakers clean these children, it is found that 76.6% were cleaned properly, and 83% of these adults who cleaned the children dispose of the faeces properly. Ninety two per cent of them washed their hands and 74% of them washed their hands with water and soap.

The findings of FGDs among mothers and care takers reflect a similar situation regarding disposal of the child faeces. All villages in the sample townships reported that child faeces are disposed of by mothers or those who take care of the children (grandmothers, elder sisters), and the faeces are thrown into the latrine. Where the children are small, the faeces in their clothes are washed away. It is generally perceived that the child's faeces are dangerous and can be harmful to health, as the flies can carry the diseases or infection. However, all believe that adult' faeces are more dangerous, citing the reasons that adults eat different kinds of food.

Findings from the qualitative support the above findings. Most young children after defecation were cleaned and the faeces disposed by mothers and child caretakers such as grandmothers and older siblings. However, for very young children the faeces were washed away with their clothes and were exposed to the caretakers. In most cases the faeces were thrown into latrines. Some covered them with ash or earth. In some cases it was thrown into the bush or backyard, where it could not be seen.

It was seen that disposals of faeces depends on where people live. Some may throw them into the latrine. Some who live near the drain throw them into the drain. Some cover it up with earth. Young children's faeces are often washed away into the drain. Some who live near the market dispose it near there and some into the garbage bin. Some may throw it outside or even inside the compound, some into the creek or river. Respondents from Mindat said that 50 % of the households threw child's faeces into the bushes, and the rest threw it into the hole in the ground or into the valley.

In any case all villagers and urban residents understand and believe that children's faeces are dangerous and can bring disease. "Any waste, even chicken waste, can be dangerous and harmful", an urban resident of Nyaunglebin.

Everybody understands and agree that a child's faeces can affect the child's health and others'. With the dirty hands bad germs can be passed on to other people and can result in diarrhoea. Flies can pass on the diseases. When the participants were asked what common practices are dangerous for health, the answers were open defecation, indiscriminate disposal of child faeces thrown around, throwing around waste including child faeces.

Most believed that adult's faeces are more dangerous because they eat all sort of things, while 25 % said that both are dangerous and very few, about 10 % said that children's faeces were more dangerous, as they liked eating many things and defecated openly in different places.

3.4. Latrine construction

72% households reported they had built their own latrines, while 23.2% had been built through hired people, and 4.8% had been built and donated by organizations. The average age of latrines was about three years, and the average cost per latrine was about 41,742Kyats[8].

When asked about who had urged them to build their latrines, 18% reported that health staff had urged them, while about 15% said that ward/village officials had urged them to build latrines. It is remarkable that about 2.2% of the households said that children and students had urged their parents to build the latrines.

Increased knowledge on health was the main reason for building a latrine for 64.9% households. About 16% reported no particular reason for having built their latrine – mostly these were households who had built their latrine many years ago. Among household without latrines, 57% reported they could not afford to build one, while 7.2% mentioned lack of space and 18% lack of experience in building latrines as the main barriers to building latrines.

FGDs of both mothers and community members support the fact that due to increased knowledge on health more community members are using the latrines and there is a reduction of open defecation practices, except in remote townships such as Kanpetlet and Mindat (Chin State) and Ponnagyun and Rathedaung (Rakhine State).

3.5. Latrine maintenance

Almost half of the households (42%)reported the existence of an entity that checks the latrine conditions, mostly linked to the Department of Health(65%). Other entities checking the latrine conditions include the Ward PDC (11.5%), community health workers (11.6%) INGOs (4.5%) and others (8%).

When the pit gets full, most of the households (83.6%) reported to seal off the current pit and dig a new pit. The maintenance of latrines was reported mostly as the domain of men (78.7%), with only 8.0% women performing latrine maintenance work.

About 6.2% households said there were times when their latrines did not work, and on average it would last for about 4 weeks. The reasons for these dysfunctional conditions were mostly due to decay in the structure (85.7%), i.e. decay in roof (28.7%). rotten wall (31.3%) and rotten floor (25.7%). Thirty-three per cent say they cannot use their latrines due to floods or the door being broken (10%).

At such times most of them (55.3%) use other people's latrines, or simply go out into the field (26.5%), or do it inside their own compound (15.2%) or use communal latrines (1.8%).

[8]Equivalent to about 50 USD at an approximate rate of 800 Kyats per USD in January 2011.

4. HOME HYGIENE

4.1. Hygiene Knowledge

Adults aged 15-64 years were asked what activities came to their minds when talking about personal hygiene. Table 40 shows the proportion for different hygiene activities. Looking at the multiple (combined) answers, bathing, brushing teeth, washing face and clipping nails were mentioned most commonly by 89.5%, 72.9%, 72.4% and 43.7%, respectively. A similar pattern could be observed when children (8-14 years) were asked the same question which is why a separate table for children is not added here.

Table.41. Known hygiene activities (Household members age 15-64 years)

Hygiene Activity	First Answer		Multiple Answer	
	Count	Per cent	Count	Per cent
Bathing	3265	53.7%	5443	89.5%
Shampoo hair	214	3.5%	2027	33.3%
Keep the hair clean	47	0.8%	1260	20.7%
Wash the face	1253	20.6%	4406	72.4%
Brush the teeth	398	6.5%	4436	72.9%
Apply Thanakha	43	.7%	1995	32.8%
Wearing clean clothes	179	2.9%	2241	36.8%
Clip hand nails / toe nails	398	6.5%	2660	43.7%
Wash hands after coming out of the latrine	70	1.2%	1048	17.2%
Wash hands	145	2.4%	1861	30.6%
Wash feet	48	0.8%	1385	22.8%
Others			1	0.0%
Don't know/ No response	25	0.4%	171	2.8%
Total	6085	100.0%		

Most adults reported to take a bath more than once a day (55.4%), while 33.3%reported once a day and 3.5% reported taking bath 4-5 times a week,8% reported to bath less 2-3 times a week. Most individuals (69%) washed their feet only before going to bed, while 25% reported washing their feet 'any time coming back from work or after playing with friends'. 5.4% respondents said they rarely washed their feet.

With respect to bathing practices, a similar pattern was observed for children aged 8 to 14 years, except that more adults (69%) washed their feet 'before going to bed' than children (55%). More children (38%) washed their feet after 'coming back from school/after playing with friends than adults (25%) when they 'came back from work.' Table 41 shows the bathing frequencies separately for adults and children.

Table.42. Bathing Frequency

Frequency of bathing	8-14 years	15-64 years
More than once a day	54.0%	55.4%
Once a day	34.7%	33.3%
4-5 times a week	2.7%	3.5%
2-3 times a week	5.8%	5.8%
Once a week	2.8%	1.8%
Less than once a week	0.1%	0.2%

Table 42 shows the bathing frequencies for adults disaggregated by townships. Sorting for the proportions of 'less than once a day' reveals five townships had more than 13% adults bathing less than once a week on average. Notably in Mindat townships almost half of individuals reported bathing only once a week. This is probably linked to the cold climate in this northern part of Myanmar.

Table.43. The bathing frequencies for adults disaggregated by township

	Total sampled individuals	At least once a day	Less than once a day	4-5 times a week	2-3 times a week	once a week	less than once a week
Mindat	58	6.8%	93.2%	4.5%	34.7%	47.7%	6.2%
Kanpetlet	29	12.1%	87.9%	16.2%	42.8%	24.3%	4.6%
Kutkai	278	25.1%	74.9%	12.4%	42.9%	18.5%	1.2%
Pinlaung	216	28.1%	71.9%	17.5%	47.4%	6.6%	0.4%
Taunggyi	475	69.2%	30.8%	12.6%	16.6%	1.1%	0.5%
Pekon	101	84.3%	15.7%	7.6%	7.0%	1.1%	0.0%
Mogaung	181	91.5%	8.5%	7.0%	1.4%	0.0%	0.0%
Phyapon	409	94.0%	6.0%	5.4%	0.6%	0.0%	0.0%
Bamaw	147	95.5%	4.5%	4.0%	0.5%	0.0%	0.0%
ChaungOo	161	96.1%	3.9%	3.4%	0.5%	0.0%	0.0%
Homalin	243	97.5%	2.5%	2.5%	0.0%	0.0%	0.0%
Oktwin	219	98.7%	1.3%	0.9%	0.4%	0.0%	0.0%
Bogalay	375	98.7%	1.3%	0.6%	0.3%	0.3%	0.0%
Paukkhaung	196	99.1%	0.9%	0.5%	0.5%	0.0%	0.0%
Kyaunggone	220	99.1%	0.9%	0.9%	0.0%	0.0%	0.0%
Rathedaung	239	99.2%	0.8%	0.4%	0.4%	0.0%	0.0%
Hinthada	506	99.2%	0.8%	0.0%	0.5%	0.3%	0.0%
Kawkareik	399	99.4%	0.6%	0.3%	0.3%	0.0%	0.0%
Longlone	289	99.6%	0.4%	0.0%	0.4%	0.0%	0.0%
Nyaunglaybin	363	99.7%	0.3%	0.3%	0.0%	0.0%	0.0%
Pantanaw	410	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Paungde	200	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Htantabin	182	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Ponnagyun	189	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%

Most adults (97%) reported brushing their teeth at least 1-2 times per day. About 82% used tooth brush and tooth paste, while 15% still used the traditional way of cleaning their teeth with salt using their fingers. Still about 2% cleaned their teeth by using either charcoal or ash. A similar pattern could be observed for children (8-14 years). Table 43 shows the frequencies and modes of brushing teeth separately for adults and children.

Table.44. Teeth brushing and methods

Frequency of brushing teeth and methods.	**Proportion brushing teeth and methods used**	
	Children (%)	Adults (%)
Once a day	60.2	49.7
More than Once a day	39.8	50.3
Toothbrush using tooth paste	87.6	82.2
Toothbrush using salt	0.5	1.0
Salt using finger	11.0	14.7
Charcoal using finger	0.2	0.8
Ash using finger	0.6	0.9

About 76.9% adults reported that they cut their nails at least once a week, and 18% said they cut their nails once in two weeks. Most of them (78.9%) cut their nails with nail clippers; while 11% cut their nails with scissors and another 11% cut their nails with knives or other cutting materials. Still 0.2% respondents cut their nails by biting them with their teeth.

Like adults most children (80%) cut their nails 'at least once a week', followed by 'once in two weeks' (15.2%), and 'once a month' (3.9%). The percentage of children who did not cut their nails is 0.4%, the same as that of adults. The proportion of children using cutting tools to cut their nails is also like adults with 79.8% using nail clippers, 10.3% using scissors, and 9.5% using knife and other cutting materials.

Most adults (89.1%) reported washing their hands after defecating, as part of personal hygiene, but only69.3% washed their hands with water and soap. About 30%reported using only water. It was also found that almost all respondents (99.7%) washed their hands before meals. However, only 40.1% used soap for washing their hands. This is very notable as 90% reported eating their meals with their fingers.

Table.45. Availability of water in the toilets by availability of soap

Water availability	Soap availability			
	Yes		**No**	
	Count	Per cent	Count	Per cent
Yes	771	18.4%	3418	81.6%
No	10	1.1%	886	98.9%

Table.46. Individuals washing hands after defecating by urban and rural

Individual who washed hands after defecation	**Urban**		**Rural**		**Total**	
	Count	Per cent	Count	Per cent	Count	Per cent
Yes	1,123	97.7%	4,296	87.1%	5,419	89.1%
No	27	2.3%	639	12.9%	666	10.9%
Total	1,150	100.0%	4,935	100.0%	6,085	100.0%

Table.47. Individuals washing hands after defecating with soap by urban and rural

Individual who washed hands with soap after defecation	**Urban**		**Rural**		**Total**	
	Count	Per cent	Count	Per cent	Count	Per cent
Only with water	139	12.4%	1466	34.1%	1,605	29.6%
Burned paddy husk/ash	8	0.7%	8	0.2%	16	0.3%
Rubbing matter (dried sponge gourd/brush)			8	0.2%	8	0.1%
With sand soap	3	0.2%	32	0.7%	34	0.6%
With soap	973	86.7%	2,781	64.7%	3,754	69.3%
Other			1	0.0%	1	0.0%
Total	1,123	100.0%	4,296	100.0%	5,419	100.0%

Table.48. Individuals eating with fingers by urban and rural

Eating habits of individuals	Urban		Rural		Total	
	Count	Per cent	Count	Per cent	Count	Per cent
Fingers	897	78.0%	4,585	92.9%	5,482	90.1%
Spoon/Fox/Chopstick	253	22.0%	350	7.1%	603	9.9%
Total	1,150	100.0%	4,935	100.0%	6,085	100.0%

An impressive 97.7% of the urban households said they wash their hands after defecation, while only 87.1% of the rural households did that. However, among those who washed their hands, only 86.7% of the urban households washed their hands with soap, while only 64.7% of the rural households wash their hands with soap.

Most Myanmar people, 93% in the rural areas, and 78% in the urban areas, eat with their fingers. The survey reveals that only 22% of the urban households and 7% of the rural households use cutlery.

Table.49. Hand washing practice of household who eat with fingers.

Hand washing method	Urban		Rural		Total	
	Count	Per cent	Count	Per cent	Count	Per cent
Only with water	360	40.1%	2,905	63.6%	3,265	59.7%
Burned paddy husk/ash	4	.5%	4	.1%	8	.1%
Rubbing matter	1	.1%	4	.1%	6	.1%
With sand soap	1	.2%	7	.2%	9	.2%
With soap	530	59.1%	1,649	36.1%	2179	39.9%
Others	0	.0%	1	.0%	1	.0%
Total	897	100.0%	4,570	100.0%	5467	1,00.0%

Table 48 shows the percentages of household who eat with their fingers, by the methods they use to wash their hands. About 40% said they washed their hands with soap before eating, 59% for urban individuals and 36% for rural. About 60% wash their hands with water only. It must also be noted that while most household (82%) had water available for washing in their compounds, only 81.6% of those with water had soap as well.

Focus group discussions among mothers/care takers and community members found that the community members have knowledge of and practice personal hygiene, like bathing using soap, cutting nails, washing hands, faces, brushing teeth, washing clothes, using fragrance, combing hair, washing and keeping clothes clean.

4.2. Waste Disposal

The field teams checked the cleanliness of the housing compound, and they judged only 70.2% to be at least fairly clean. However, almost one-third of the compounds were judged as unclean.

With regard to waste disposal, most of the households (36.3%) burned their waste, with 17.0% disposing their waste into the fields or disposing them into garbage holes in the house compound (15%).Almost 16% of households dumped their waste either on river banks, into streams or ponds.

Table.50. Disposal location of kitchen waste

Disposal Location	Urban		Rural		Total	
	Count	Per cent	Count	Per cent	Count	Per cent
Place specified by municipal	90	7.8%	0	.0%	90	1.5%
Garbage collector (Municipal)	75	6.5%	0	.0%	75	1.2%
Garbage collector (Private)	34	2.9%	0	.0%	34	.6%
In a garbage disposing hole inside the compound	128	11.1%	770	15.6%	898	14.8%
Burn them	394	34.2%	1,816	36.8%	2,209	36.3%
Where everybody dispose garbage (illegal)	133	11.6%	324	6.6%	458	7.5%
Into the ditch	73	6.3%	212	4.3%	285	4.7%
On the bank of the river, stream, pond	16	1.4%	129	2.6%	145	2.4%
Into the river, stream, pond	133	11.6%	676	13.7%	809	13.3%
In the field	71	6.2%	964	19.5%	1,035	17.0%
Other	4	.3%	43	.9%	47	.8%
Total	1,150	100.0%	4,935	100.0%	6,085	100.0%

The waste disposal methods and pattern seemed to be partially the same between urban and rural households, except that in the urban areas there were places specified by the municipality to throw waste or the garbage collector (appointed by the municipality) came and collected the garbage, while in the rural areas there were no such opportunities.

Most households (34% of urban, 37% of rural) burned their waste. Many households (12% of urban and 14% of rural) threw their waste into the river, stream or pond and about 20% of the households threw their waste in fields, whereas only 6 % of the urban households do this.

5. Children and Hygiene Promotion

5.1. Linkages between WASH and Diarrhoea

Eight per cent households with children under 5 said they had children suffering from diarrhoea or loose motion during the two weeks preceding the survey, table 51.Further analysis shows that 17.3% of children under five in households practising open defecation had diarrhoea in the past two weeks, as opposed to 9.3% using other peoples or communal latrines and 6.5% using latrine at home.

Table.51. Incidences of diarrhoea in children under five years.

Incidents in past 2 weeks	Households	Per cent
Under 5 child with Diarrhoea	163	7.9%
Under 5 child without Diarrhoea	1,896	92.1%
Total households with under 5 children	2,058	100.0%

It was seen from the survey that children under five were

- Twice as likely to have diarrhoea in the past two weeks if their house did not have a latrine, but three times more likely to have diarrhoea in the past two weeks if their house had an unimproved latrine
- Twice as likely to have diarrhoea in the past two weeks if the household used an unimproved water source
- Twice as likely not to have diarrhoea in the past two weeks if there were hand washing facilities in the home, and almost twice as likely again not to have diarrhoea if there was soap available at these facilities

Water and sanitation access problems frequently come together. Table 52 shows that households with difficulties of getting water were more likely to have no or unimproved latrines.

Table.52. Water and sanitation cross tabulation

Household with difficulty in getting water for drinking or for kitchen/general use	Improved Latrine		Unimproved Latrine		No Latrine	
	Count	Per cent	Count	Per cent	Count	Per cent
Yes	679	14.9%	122	23.6%	379	37.9%
No	3,889	85.1%	395	76.4%	621	62.1%
Total	4,568	100.0%	517	100.0%	1000	100.0%

Table.53. Under 5 children diarrhoea incidence

Under 5 Child with diarrhoea in the past two weeks	Improved water source				Unimproved water source			
	Correct treatment method		Incorrect or no method		Correct treatment method		Incorrect or no method	
	Count	Per cent	Count	Per cent	Count	Per cent	Count	Per cent
Yes	39	4.5%	23	6.1%	30	9.4%	23	10.7%
No	817	95.5%	362	93.9%	293	90.6%	195	89.3%
Total	856	100.0%	386	100.0%	324	100.0%	219	100.0%

Using a correct method of household water treatment was not observed to have a significant impact on household with either unimproved or improved water sources, table 53.

5.2. Hygiene and Sanitation Promotion

In interviewing the household members, it was found that only 23.7% interviewed heard about the Four Cleanliness Program, and most of them had heard about it for an average of 4 years preceding the survey. Information was primarily received through INGOs (34%), basic health staff (34%), TV (29%), radio (14%), banners and IEC materials (14%)or other sources such as health journals, newspapers, health volunteers, and village authorities. Only around 5%were aware of the National Sanitation Week.

Table.54. Individuals' awareness of 4-Cleanliness Programme

Aware of 4 Cleans	Urban		Rural		Total	
	Count	Percent	Count	Percent	Count	Percent
Yes	331	28.7%	1109	22.5%	1440	23.7%
No	819	71.3%	3826	77.5%	4645	76.3%
Total	1,150	100.0%	4935	100.0%	6085	100.0%

In the qualitative study, discussions were conducted on the subject of "Children as agents or advocates for the promotion of hygiene and basic sanitation". The findings are most interesting.

All respondents in different townships agreed that adults knew more than children about personal hygiene. The children learned from school education talks, from teachers, from parents, from health workers, TV, health pamphlets, radio talks, village library and elder siblings. The main information learned was about basic hygiene practices such as how to wash hands properly, about taking bath regularly, wearing thanakha, washing hands with soap, washing every part of the body, brush teeth regularly and clean mouth regularly, cut nails, wear clean clothes, wash not only hands but also feet, etc.

It was also found that most children applied what they learned at school (85%). Only a few did not apply. They liked to play more and forgot to practice personal hygiene. Some children applied only some of what they have learned, e.g. taking a bath regularly, washing feet, etc., which were easier and more convenient to practice.

There was however some barriers in applying what they learned at school. Children from poor families were too busy helping their parents so that they did not have time or the consciousness to practice what they have learned. Parental support and guidance were important, but where parents were poor and/or busy they did not have time to guide or support their children on the hygiene practices.

But all respondents (participants) agreed that the lessons the children learned at school were useful for adults. The only problem was that in addition to the children being lazy to practice what they have learned, the parents also need to encourage the children.

Most participants agreed that children can influence their parents or other adults at home, including their siblings or friends. By seeing their new behaviour and practices, their friends can learn from these. But most respondents were of the opinion that the children cannot influence older persons. Also there are villagers from 2 townships who said that it hardly had any influence, and even if it has, the impact is small.

The majority of the participants said its 'open defecation' that concerned them most, followed by indiscriminate disposal of child faeces, access to having clean water source, and the habit of proper washing hands, particularly in washing with soap. The community perceived that to help improve sanitation, the community need to help build latrines, help repair latrines and to increase health knowledge of villagers. They were of the opinion that the department of health and village administrative should come together or collaborate to develop and implement a health programme related to sanitation.

6. Conclusions and Recommendations

The findings of this survey do not contradict the 2009 Multiple-Indicator Cluster Survey, not in line with it or the 2009-10 Integrated Household Living Conditions Survey; however they do shed greater light on the data and explain the reasons for the anomalies with relevant health indicators. In Table 54 below, selected indicators from socio-economically similar ASEAN countries have been extracted from UNICEF's 2010 State of the World's Children publication. Myanmar's sanitation coverage is reported as comparable to Thailand or Malaysia, but the infant mortality rate is similar to Lao PDR or Cambodia. Although the infant mortality rate in Myanmar has improved in the most recent MICS (2010), it is still not comparable to countries which have sanitation coverage above 80%.

Table.55. Comparison of child mortality and sanitation figures in eight ASEAN countries

Country	Under-5 mortality rank	Under-5 mortality rate		Infant mortality rate (under 1)		Neonatal mortality rate 2009	Life expectancy at birth (years) 2009	% of population using improved sanitation facilities 2008		
		1990	2009	1990	2009			total	urban	rural
Malaysia	157	18	6	16	6	3	75	96	96	95
Thailand	125	32	14	27	12	8	69	89	92	82
Viet Nam	93	55	24	39	20	12	75	75	94	67
Philippines	77	59	33	41	26	15	72	76	80	69
Indonesia	66	86	39	56	30	19	71	52	67	36
Myanmar	44	118	71	84	54	33	62	81	86	79
Cambodia	36	117	88	85	68	30	62	29	67	18
Lao PDR	52	157	59	108	46	22	65	53	86	38

While 83% of the community households report that they had latrines at home, about 14% did not have access to improved latrines and more than 8% defecate openly. A closer look at the condition of these latrines, 75% of which are claimed to be improved, shows that the actual number of hygienic, fly proof latrines is very small. Designation of flush or pour flush in Myanmar context must be understood. Most latrines of this type (see Table 15) refer to the HDPE[9] 'pan and pipe'.- Seventy two per cent of the improved latrines are labelled as 'flush/pour flush to pit latrine' which indicates the use of the HDPE pan and pipe, which is neither water sealed nor fly proof. In the photos below, all the families with these latrines said that they had functioning latrines at home, and they did not defecate in the open.

Over eight per cent of the households with children under 5 said their children had suffered from diarrhoea during the two weeks preceding the survey. The predominance of unhygienic latrines is most likely a major cause of this diarrhoea. The survey found that children under five years were twice as likely to have diarrhoea in the past two weeks if their house did not have a latrine, but three times more likely to have diarrhoea in the past two weeks if their house had an unimproved latrine. Also the children were twice as likely not to have diarrhoea in the past two weeks if there were hand washing facilities in the home, and almost twice as likely again not to have diarrhoea if there was soap available at these facilities.

[9] High density polyethylene, a polyethylene thermoplastic made from petroleum.

Unhygienic Latrines with Pan and Pipe

In the sampled communities it was found that about 68% of the households have access to improved water source for drinking. Despite the fact that Myanmar people have six months of rain as its water source, 19% of the households said they have difficulty in getting water, and only 5% have water piped into their dwelling or yard.

With 68% access to improved water sources the condition of water supply would seem to be reasonably good. However the survey further showed that at the point of consumption of the water is probably being contaminated, as only 17% of households had a safe way to extract drinking water from storage. Additionally there are many possibilities for source contamination in between, with almost one third of latrines too close to water sources and many other poor hygienic practices creating a risk of contamination.

Knowledge of correct hygiene practices is very high in Myanmar, with over 80% of people expressing a good understanding of ways water can be contaminated and the reason for using a toilet. Hand washing is relatively common; however the use of soap is not. Knowledge is not translated into practice (nothing if nobody has knowledge), and a major attitudinal change is essentially required.

This fact is reflected in the perception that people can not afford toilets, listing the cost at over 40,000 kyats. This cost is for prescribed technology, often imposed by external projects, based on best practices from outside the community. Naturally the better the latrine the more hygienic it should be, however a basic standard should be the first target. What's required is a more attainable facility, within community's budget, as well as an understanding that as long as one person in the community defecates in the open, everyone is at risk from excreta related diseases (especially diarrhoea).

There is a need for a holistic approach to minimising the risks to water supply and from poor sanitation, as well as translating the knowledge of hygiene into good practices. Recent pilots in water safety planning and community led total sanitation in Myanmar by UNICEF show that these objectives can be achieved for remaining vulnerable communities who have not previously achieved total sanitation through the NSW or other programmes.. However in order to achieve greatest impact these approaches must be done together with multiple stakeholders. In addition WASH in School initiatives can add to this combined effect, educating children in proper water, sanitation and hygiene practices, reinforces the message at home.

In order to achieve these goals- UNICEF should efficiently assist the responsible departments in the Government of the Republic of the Union of Myanmar to work together at national, state or region, and township levels, to achieve access to safe water and proper use of sanitation facilities sustainably and simultaneously. The impact of an improved water supply is lessened if the improvement in sanitation and hygiene do not come at the same time. Equally improved sanitation is rarely possible if safe water is not available, and good hygiene practices are not in place.

Measurement of success of this type of programme should not be the number of latrines which are built, functioning or clean, but instead the number of communities which are open defecation free, defined as follows: household have a functioning latrine, which everyone uses and is fly proof, and everyone washes their hands with soap after use. Equally provision of water supply should not just be counted as a community with a system but rather as a community where every member has sufficient quantity of safe water all year round.

The innovative four cleans programme which Myanmar has implemented over the past two decades has clearly had an impact on peoples knowledge. The challenge now is finding the next steps to ensure that this knowledge is translated into practice, through an attitudinal change.

The National Sanitation Week has undoubtedly been the reason for the extensive and milestone coverage of latrines across the country. People know why they should have a latrine, and want to use one, however the belief is that they cannot afford to maintain the infrastructure in sector of apart- belief unless further subsidy is provided, which is resulting in decapitated and unused facilities. Using tools, such as CLTS, locally developed solutions, maintainable within community's budgets are possible. This can be combined with water safety planning to create both an awareness of the problem of open defecation and other poor hygiene practices, as well as a knowledge-based attitudinal change where people believe avoiding these risks is within their power.

All of this will require responsible departments such as the Environmental Sanitation Division, Central Health Education Bureau and Occupational Health Division of the Ministry of Health, the Department Of Developmental Affairs of the Ministry of Border Area Affairs and the Department of Educational Planning and Training of the Ministry of Education to be able to collaborate at township level to ensure a convergent approach to achieve common goals together. This will only be possible if the line ministries at national level begin by establishing a mechanism to plan and work together in a coherent manner, accepting a joint responsibility for the basic health of the nation.

To monitor the progress a follow up KAP study is recommended before the end of UNICEF's five year country programme. This will deliver indicators on progress, as well as provide new indicators for the next country programme.

ANNEX 1 – Methodology and sampling design

Methodology

The study applies both quantitative method and qualitative methods. In the quantitative method, quantitative tools such as household interviews, individual interviews, and observation checklists were used. In the qualitative component, focus group interviews with general the population as well as with mothers and care takers were conducted.

The sampling design, indicator logic and all data collection tools, that is, questionnaires, observation checklists and focus group discussion tools, were developed by UNICEF. The field work, data entry and tabulations were contracted to Myanmar Survey Research, MSR, based in Yangon.

Sampling design.

Reliable estimates were needed at both overall (i.e. 24 townships) and township levels.[10]Townships were used as first level strata and the total sample size of 6085 households was allocated to each townships based on a compromise allocation mechanism (Kish 1998). Thereafter allocation to urban and rural areas within townships was done through an allocation proportional to population size in each area. From each village tract, one village was selected based on simple random sampling.

Sample Size- Wards, Villages, and Households in 24 Townships

Sr.	Township	Region	# of Urban sample		# of Rural sample		# of total sample	
			Wards	Household	Villages	Household	Village & Wards	Household
1	Longlone	Coastal	1	13	10	251	11	264
2	Ponnagyun	Coastal	1	36	7	180	8	216
3	Rathedaung	Coastal	1	12	8	227	9	239
4	Bogalay	Delta	2	51	10	261	12	312
5	Phyapon	Delta	3	65	11	268	14	333
6	Kyaunggone	Delta	1	25	8	205	9	230
7	Hinthada	Delta	5	135	10	257	15	392
8	Pantanaw	Delta	1	24	12	309	13	333
9	Mogaung	hilly	4	98	5	115	9	213
10	Bamaw	hilly	2	59	6	141	8	200
11	Pekhon	hilly	1	27	6	158	7	185
12	Taunggyi	hilly	6	161	8	212	14	373
13	Pinlaung	hilly	1	9	8	219	9	228
14	Kutkai	hilly	3	64	8	195	11	259
15	Mindat	hilly	2	40	5	136	7	176
16	Kanpetlet	hilly	1	25	6	148	7	173
17	Kawkareik	hilly	2	51	11	276	13	327
18	Homalin	hilly	1	23	9	218	10	241
19	ChaungOo	plain	2	44	6	161	8	205
20	Paukkhaung	plain	2	46	7	173	9	219
21	Paungde	plain	2	46	7	174	9	220
22	Nyaunglaybin	plain	2	42	11	263	13	305
23	Oktwin	plain	1	18	8	211	9	229
24	Htantabin	plain	1	14	8	199	9	213
TOTAL			**48**	**1128**	**195**	**4957**	**243**	**6085**

[10]A relative standard error of 20%, a design effect of 1.5 and an assumed proportion of 30% was used to calculate the required sample size for each township.

In the selected wards and villages, households were selected by systematic random sampling method. If a selected ward/village was too big, the ward/village was divided into equal parts (for example, northern part, southern part, western part, and eastern part) and one part was selected at random and households were selected from that selected part.

For the household questionnaire, respondents were selected based on their knowledge regarding the different issues covered in the questionnaires. For example, in household questionnaires, household head were asked general question on the household's background but mothers or caretakers were asked questions on defecation practices of children. For the individual questionnaire, a respondent from age groups 8-14 and 15-64 were selected from each sampled household by using the Kish Grid method.

With respect to the selection of individuals for the focus group discussions, the following mechanism was used. Three focus group discussions— one FGD in urban area and two FDGs in rural area— with general population, who were neither village authorities nor village elders, were conducted in every selected township. In urban areas, FGDs were mixed in which both male and female participants took part in the discussions. In rural areas, two separate focus group discussions were conducted for the community and for mothers and care takers were conducted. In total there were 72 FDGs conducted in the 24 townships. Each focus group had 8 participants. FGD participants were selected from households other than those of the household survey.

Number of FGDs conducted in each township by urban and rural, 2011

Sr.	Township	S/D Name	Region	Urban	Rural	Total
1	Longlone	Tanintharyi	Coastal	1	2	3
2	Ponnagyun	Rakhine	Coastal	1	2	3
3	Rathedaung	Rakhine	Coastal	1	2	3
4	Bogalay	Ayerwaddy	Delta	1	2	3
5	Phyapon	Ayeyarwady	Delta	1	2	3
6	Kyaunggone	Ayeyarwady	Delta	1	2	3
7	Hinthada	Ayeyarwady	Delta	1	2	3
8	Pantanaw	Ayeyarwady	Delta	1	2	3
9	Mogaung	Kachin	hilly	1	2	3
10	Bamaw	Kachin	hilly	1	2	3
11	Pakhon	Kayah	hilly	1	2	3
12	Taunggyi	Shan South	hilly	1	2	3
13	Pinlaung	Shan South	hilly	1	2	3
14	Kutkai	Shan North	hilly	1	2	3
15	Mindat	Chin	hilly	1	2	3
16	Kanpetlet	Chin	hilly	1	2	3
17	Kawkareik	Kayin	hilly	1	2	3
18	Homalin	Sagaing	hilly	1	2	3
19	ChaungOo	Sagaing	plain	1	2	3
20	Paukkhaung	Bago West	plain	1	2	3
21	Paungde	Bago West	plain	1	2	3
22	Nyaunglaybin	Bago East	plain	1	2	3
23	Oktwin	Bago East	plain	1	2	3
24	Htantabin	Bago East	plain	1	2	3
	Total			24	48	72

ANNEX 2 – Data collection tools

Survey on Community Knowledge, Attitude and Practice of WASH

(Household Questionnaire)

id1	Questionnaire No._____	
id2	Respondent_____	
id3	Respondent HH ID No.___	|__|__|
id4	Address_	
Id5	State/Region____	|__|__|__|__|
Id6	Township_____	|__|__|__|__|
Id7	Village-tract_____	|__|__|__|__|
Id8	Ward/Village____	|__|__|__|__|

	Place:	1.Urban	2.Rural	|__|
	Date:	Date (DD/MM/YYYY) _____/____/11 |__|__/__|__/2|0|1|1|		
	Time of enumeration:	Start time(HH:MM) _____:_____(To use 24-hour digits)		
		End time(HH:MM) _____:_____ (To use 24-hour digits)		

Enumerator		Field Supervisor		Editor	
Signature:	_____	Signature:	_____	Signature:	_____
Name: I___I	_____	Name: I___I	_____	Name: I___I	_____

(Regarding details of the household, interviewer can ask any household member aged 15 years and above who could give household information.)

Particulars of the Household Members

Household is defined here as people who live under the same roof or in the same compound and share the same meal. Total number of households in this house is ------ (Select one household randomly and continue)

Data for household information serial 1 and 2 must be filled in descending order of age.

Data for household information serial ID 3, 5, 6, 7 & 8 (for each individual) must be filled in with the codes provided. Columns for domestic chores 9 – 1, 9 – 2 and 9 – 3 must be filled with Code 1 for "Yes" and Code 0 for "No."

Details of the Household Members

Household Member ID No.	Name	Sex	Age	Relationship to the household head	Acquired education (Those above age 5)	Ethnicity	Religion	Domestic chores managed / done		
	Enter the Head of HH in Serial No 1, and record the others in descending order.	M 1 F 2	< 12 months 00	HH head 1 Spouse of HH head 2 Son/ daughter; son in law / daughter in law 3 Parent / Parent in law 4 Relative 5 Non relative of HH head 6	Fill in the standard already passed 0-10 Monastic education, but literate 11 Vocational institute certificate holder (Non high school graduate) 12 Vocational institute certificate holder (High school graduate) 13 College / University student 14 College / University graduate 15 Post-grad diploma/ post-grad Master / PhD 16 Illiterate/No education 17 Don't know/No response 99	Bamar 1 Kachin 2 Kayah 3 Kayin 4 Chin 5 Mon 6 Rakhine 7 Shan 8 Immi ethic 9 Others 10 DK/No res 99	Buddhist 1 Hindu 2 Christian 3 Muslim 4 Others 10 DK/NR 99	Yes 1 No 2	Yes 1 No 2	Yes 1 No 2
		Code No	Code No Except <12 months	Code No	Code No	Code No	Code No	Code No	Code No	Code No
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9-1)	(9-2)	(9-3)
1.										
2.										
3.										

4.										
5.										
6.										
7.										
8.										
9.										
10.										
11.										
12.										
13.										
14.										
15.										

Water Source & Utilization Section

Let's talk about drinking water and water used in the kitchen

Water Source of Household

W1a What is the main source of drinking-water and water used by your household for other purposes, such as cooking and hand washing in the past 12 months? (SA)?

(Continue with W1b for the type of the original source, after getting an answer each for 1 to 5 in W1a.)

	Drinking water			Water for Kitchen use		
	Rainy	Winter	Summer	Rainy	Winter	Summer
Piped water into dwelling	1	1	1	1	1	1
Piped water to yard/plot	2	2	2	2	2	2
Public tap/standpipe	3	3	3	3	3	3
Cart with small tank/drum	4	4	4	4	4	4
Tanker/truck	5	5	5	5	5	5
Tube well/borehole	6	6	6	6	6	6
Protected dug well (Brick-lined well)	7	7	7	7	7	7
Unprotected dug well	8	8	8	8	8	8
Protected spring	9	9	9	9	9	9
Unprotected spring	10	10	10	10	10	10
Rainwater collection	11	11	11	11	11	11
Bottled purified water (Purchased)	12	12	12	12	12	12
Surface water (river, dam, lake, pond, stream, canal, irrigation channels)	13	13	13	13	13	13
Others (Mention)_____	98	98	98	98	98	98

W1b What is the type of the original water source for the following water sources? (Give the main source only)

	Tube well	Protected dug well	Unprotected dug well	Protected spring	Unprotected spring	Surface water	Others	Don't Know

	Piped water into dwelling	1	2	3	4	5	6	98	99
	Piped water to yard/plot	1	2	3	4	5	6	98	99
	Public tap/standpipe	1	2	3	4	5	6	98	99
	Cart with small tank/drum	1	2	3	4	5	6	98	99
	Tanker/truck	1	2	3	4	5	6	98	99

Emergency Water Source of Household						
W2a	Did you ever have difficulty in getting water for drinking or for kitchen/general use?	Yes	1	Continue		
		No	2	▶ W3a		
		Don't Know/ No response	99	▶ W3a		
W2b	If yes, was it for …..	Drinking water	1			
		Domestic/general use	2			
		Both	3			
		Don't Know/No Response	99			
			Code			Code
W2c	If you had difficulties, could you tell me the months during which you were faced with difficulties?(Circle the Codes.) (MA)	Jan	1		Jul	7
		Feb	2		Aug	8
		Mar	3		Sep	9
		Apr	4		Oct	10
		May	5		Nov	11
		Jun	6		Dec	12
W2d	Why did these difficulties occur?					
	Water system broke down	1	▶ W2e			
	Water source was depleted	2	▶ W2f			
	Others (Mention)_____	98	▶ W2f			
	Don't know/ No response	99	▶ W2f			
W2e	If the system broke down, what main part broke down?					
	Pump	1				
	Pipes	2				
	Truck	3				
	Others (Mention)_____	98				
	Don't know/ No response	99				
W2f	When you had these difficulties in getting water from your main water source, what did you do to get drinking water and water for general use? (each SA)					
		Drinking water	Water for general use			
	Use reserve storage	1	1	Continue		
	Use alternative source in the village	2	2	Continue		

	Buy water	3	3	Continue
	Neighbour / Monastery share the water	4	4	Continue
	Fetch from outside ward / village	5	5	Continue
	Fetch from other village	6	6	Continue
	Other ----------	98	98	Continue

Water Treatment by Households to Make it Safer				
W3a	Ask all households. Do you treat your water in any way to make it safer to drink?	Yes	1	Continue
		No	2	▶W3c
		Don't Know/ No response	99	▶W3c

W3b	If Yes, what do you usually do to the water to make it safer to drink? *Anything else?* *Record all items mentioned. (MA)*	
		Drinking water
	Boil	1
	Add bleach/chlorine	2
	Strain it through a cloth	3
	Use a water filter (ceramic, sand, composite, etc.)	4
	Solar disinfection	5
	Let it stand and settle	6
	Others (specify) ----------	98
	Don't know/No response	99

W3c	Do you treat your water in any way to make it safer to use for purposes other than drinking?	Yes	1	Continue
		No	2	▶W4a
		Don't Know/ No response	99	▶W4a
W3d	If yes, what do you usually do to the water to make it safer to use it? Anything else? Record all items mentioned. (MA)			

		Water for kitchen
	Boil	1
	Add bleach/chlorine	2
	Strain it through a cloth	3
	Use a water filter (ceramic, sand, composite, etc.)	4
	Solar disinfection	5
	Let it stand and settle	6
	Others (specify) ----------	98
	Don't' know/No response	99

Household Perception on Water Quality			
W4a	Show the card (level of cleanliness). To what extent do you think your drinking water / water for kitchen use at your house is clean after your treatment of the water (in case you treated it)? (each SA)	Drinking water	Water for kitchen use
	Absolutely clean	1	1
	Clean	2	2
	Not so clean	3	3
	Very unclean	4	4
	Don't Know/ No response	99	99

Household Water Fetching				
W5a	Does your household need to fetch water?	Yes	1	Continue
		No	2	▶W6a
		DK/ No response	99	▶W6a
W5b	If yes, who usually go out and fetch the water? (Write it down as in the details of the household members)			
	Name		household member ID.	
W5c	How does the water fetcher go to fetch the water? (SA)			

		Rainy	Winter	Summer
	On foot	1	1	1
	Water cart	2	2	2
	Bicycle / trishaw/motorcycle	3	3	3
	Bullock / Buffalo / Horse cart	4	4	4
	Boat/motorboat	5	5	5
	Motor driven vehicle	6	6	6
	Other	98	98	98

W5d	How long does it take to fetch water round-trip, including the queuing time?			
	Less than 30 min	1	Rainy	|___|
	Between 30 min and 1 hour	2	Winter	|___|
	Between 1 hour and 2 hours	3	Summer	|___|
	Between 2 hours and 3 hours	4		
	More than 3 hours	5		
	Not relevant	98		

W5e	How many times do you need to fetch water each day? (Water source to home)			
	Less than once a day	1		
	Every day	2	Rainy	_____times
			Winter	_____times
			Summer	_____times

Maintenance or Washing of Water Cups, Drinking Water Pots and WaterContainers

W6a	How often is the drinking water cup washed? (SA)		
	Daily	1	Continue
	Three or four times a week	2	Continue
	Two times a week	3	Continue

W6b	Washed with what? (SA)	
	With only water	1
	Burned Paddy husk / ash	2
	Rubbing matter (dried sponge gourd/ brush)	3

Once a week	4	Continue
Less than once a week	5	Continue
Do not wash at all	6	▶W6c

With sand soap	4
With soap	5
Others	98

W6c	How often is the drinking water pot washed? (SA)		
	Daily	1	Continue
	Three or four times a week	2	Continue
	Two times a week	3	Continue
	Once a week	4	Continue
	Less than once a week	5	Continue
	Do not wash at all	6	▶ W6e
	Not applicable	7	▶ W6e

W6d	Washed with what? (SA)	
	With only water	1
	Burned Paddy husk / ash	2
	Rubbing matter (dried sponge gourd/ brush)	3
	With sand soap	4
	With soap	5
	Others ----------	98

W6e	How often is the water container for kitchen use washed? (SA)		
	Daily	1	Continue
	Three or four times a week	2	Continue
	Two times a week	3	Continue
	Once a week	4	Continue
	Less than once a week	5	Continue
	Do not wash at all	6	▶ W7a
	Do not have a container	7	▶W7a

W6f	Washed with what? (SA)	
	With only water	1
	Burned Paddy husk / ash	2
	Rubbing matter (dried sponge gourd/ brush)	3
	With sand soap	4
	With soap	5
	Others -------	98

Bathing and Washing Clothes by Household Members		
W7a	(For bathing) Where do your household members mostly bath? Continue with W7b after you get the answer for W7a	
	Bathroom inside the house	1
	Inside compound (water fetched from outside)	2
	Rain water storage point	3
	Inside compound (water source inside)	4

	Outside compound (Motorized / hand pump tube well)			5
	Outside compound (Water tap)			6
	Outside compound (Near the well)			7
	Outside compound (Near the pond)			8
	Outside compound (In the pond)			9
	Outside compound (river / stream)			10
	Outside compound (Inside the dam)			11
	Others ----------			98
W7b	Where do your household members mostly wash clothes?			
	Bathroom inside the house			1
	Inside compound (water fetched from outside)			2
	Rain water storage point			3
	Inside compound (water source inside)			4
	Outside compound (Motorized / hand pump tube well)			5
	Outside compound (Water tap)			6
	Outside compound (Near the well)			7
	Outside compound (Near the pond)			8
	Outside compound (In the pond)			9
	Outside compound (river / stream)			10
	Outside compound (Inside the dam)			11
	Others ----------			98
W7c	Do you have a separate place for male and female to bathe? (each SA)	Yes	1	
		No	2	
		Don't Know/ No response	99	

Drinking Water for Animals				
W8a	Do you raise farm animals?	Yes	1	Continue
		No	2	▶W9a
W8b	If yes, where do you feed them water?			
	Inside compound (water fetched from outside)			1

	Collected rain water	2
	Inside compound (water source inside)	3
	Outside compound (Motorized / hand pump tube well)	4
	Outside compound (Water tap)	5
	Outside compound (Near the well)	6
	Outside compound (Near the pond)	7
	Outside compound (In the pond)	8
	Outside compound (river / stream)	9
	Outside compound (Inside the dam)	10
	No need to feed water. They take it themselves	11
	Others ----------	98
	Don't Know/No response	99

Incidences of Diarrhoea				
W9a	In any day of the past 2 weeks, did any member of your household have diarrhea/ loose motion at least 3 times per day?	Yes	1	Continue
		No	2	▶ S1a
		DK/ No response	99	▶ S1a

W9b	If yes, tell me their sex and in which age bracket they belong to. (*Number of persons)*	Age Group	Male	Female
		<1		
		1 - <5		
		5 - <18		
		18 - <64		
		> 65		

Latrine Usage/Environmental Sanitation

Let's talk about latrine usage and environmental sanitation

Defecation Behavior of Household Members

S1a	During the last year, when at home, where did you and your household members usually go to defecate (SA)	Defecate openly in the field	1	Continue
		Defecate openly in the compound	2	Continue
		Use latrine at home	3	Continue
		Use communal latrine	4	Continue
		Use other people's latrine	5	Continue
	NOTE: Code 1 (Defecate openly in the field) encompasses all manners of outside defecation without a latrine/toilet—in the field, in the bushes, in the forest, on the beach, between the rocks on the beach, in the creek/river, etc.			

S1b	During the last year, when at home, how commonly did you and your household members openly defecate? (Please tick)		Always				Never	DK/NR	Not applicable
			5	4	3	2	1	88	99
		Male adults (15 and above)							
		Female adults (15 and above)							
		Children (8-15)							

S2a	During the last year, did you and/or any of your household members work in the field?	Yes	1	Continue
		No	2	▶S2d
		DK/ No response	99	▶S2d
S2b	Was there a latrine in the field?	Yes	1	
		No	2	
		DK/no response	99	
S2c.1	If "yes," did you and/or the household members working in the field usually use it?	Yes	1	
		No	2	
		DK/NR	99	
S2c.2	If "No," where did you and/or your household members usually defecate when working in the field?	Do it openly in the field	1	
		Go back home where there is latrine	2	
		Use other household's latrine	3	
		DK/NR	99	

S2c.3	During the last year, for those household members working in the field, how commonly did you and/or your household members openly defecate when working in the field? *(Please tick)*		Always				Never	DK/NR	Not relevant
			5	4	3	2	1	88	99
		Male adults (15 and above)							
		Female adults (15 and above)							
		Children (8-15)							

S2d	During the last year, do you know of any instances when any of your neighbours defecated openly?	Yes	1
		No	2
		DK/ No response	99

Communal/Other People's Latrine		
S3a	<u>Display show card</u> <u>(For households whose members use communal/other people's latrine, S2a = 4 or 5)</u> We understand that your household members use communal / other people's latrine. What kind of latrine is it? (SA)	
	Flush/pour flush to:	
	Piped sewer system	1
	Septic tank	2
	Pit latrine	3
	Elsewhere	4
	Unknown place/not sure/DK where	5
	Ventilated improved pit latrine (VIP)	6
	Pit latrine with slab	7
	Pit latrine without slab/open pit	8
	Composting toilet	9
	Bucket	10
	Hanging toilet/hanging latrine	11

	Others (Specify)----------		98
S3b	Does this latrine have a pan?	Yes	1
		No	2
		DK/NR	99
S3c	Does this latrine pan / foothold have a lid?	Yes	1
		No	2
S3d	Do you find the pan / foothold covered with a lid when you go to the latrine?	Yes	1
		No	2
S3e	Do you know how many other households are usually using this latrine?	Yes	1
		No	2
	If yes, tell me the number of households	_____ households	

Latrines Built: (costs, reasons, time)				
S4a	Ask those who say they have latrine at home (S1a=3). In case more than one latrine exists at home, all questions concern the main latrine used in the household. When was the main latrine built? (If this latrine existed when the respondent moved in, write down 'already existed')			
	Built since (Fill in the year)	1	_____ A.D. (_____years up to now)	
	Existed since the respondent moved in	2	▶ S6a	
S4b	Did you build the latrine you mainly used yourself? (SA)	Ourselves		1
		Hired hands		2
		Donated by a humanitarian/other organization		3
S4c	How much did the main latrine cost?	_____Kyats		1
		I do not know/I can't recall.		2
S4d	Who gave the decision to build the main latrine? (SA)	Household head		1
		Housewife		2
		Household members		3
		Neighbours		4

S4e Who – individual or entity- urged you to build the main latrine?(If the answer is 'no one') prompt (Record first mentioned separately) Any others? What else? (MA)

Response	First	Others
Children	1	1
Children who are students	2	2
Teachers	3	3
Health staff / employees	4	4
Monks	5	5
Ward / village officials	6	6
Ethnic leader	7	7
Friends / Neighbour	8	8
Afraid of being penalised	9	9
NGOs	10	10
UN agencies	11	11
Nobody urges me	12	12
Others----------	98	98
Don't know/ No response	99	99

S4f What is the reason for building the main latrine?(If the answer is 'nothing') prompt (Record first mentioned separately) Any others? What else? (MA)

Response	First	Others
Due to increased knowledge in health / For family's health	1	1
Due to increased GE outbreak in the ward or village / fatality due to GE outbreak	2	2
Because other people build the latrine	3	3
Customary	4	4
Because I saw it in TV	5	5
I heard it from the radio	6	6
I read it in the newspaper	7	7
Nothing. We have been building and using latrine long time ago.	8	8

	Others----------	98	98
	Don't know/ No response	99	X

Households Having No Latrine: Reasons and Barriers			
S5a	Ask those who answer that they have no latrine currently (S1a=1 & 2). What is the main reason you don't build and utilise the latrine? (SA)		
	No space to build it	1	
	Can't dig the pit (swamp, daily tide)	2	▶ S5b
	Can't dig the pit (hardness of earth)	3	
	Neighbours don't approve of	4	
	Can't afford to build one	5	▶ S5c
	Not customary	6	▶ S5d
	No one urges me (Health/Authority)	7	▶ S5d
	No one urges me (Children/household members/ Friends)	8	▶ S5d
	Don't know the consequences	9	▶ S5d
	Others ------	98	▶ S5d
	Don't know/No response	99	▶ S5d

S5b	<u>Ask those who do not have space to build the latrine (code 1-4 in S5a)</u>You need to have the space five feet square to build a latrine. If your plot has extra space where you can dig the pit, will you build the latrine? (Continue from S6a after this question)	Yes, I will	1
		No, I won't	2
S5c	<u>Ask those who cannot afford to build the latrine (code 5 in S5a)</u>How much is the maximum amount you can afford to build the latrine?	_____ Kyats	▶S6a
S5d	<u>Ask those whose answer does not relate to space availability and financial problem (code 6+ in S5a)</u>Do you have any plan to build the latrine for your household in the future? If so when?		
	Within one month		1
	Within two to three months		2
	Within four to six months		3
	Within seven to 12 months (a year)		4

	Beyond one year	5
	Will build it. But not determined yet.	6
	No, I won't.	7

Availability of Materials to Build a Latrine				
S6a	Ask all households. Are latrine materials such as pan and pipe available to be bought?	Yes	1	Continue
		No	2	▶ S7a
		DK/No response	9	▶ S7a
S6b	If yes, where is it available?			
	Shops in this village			1
	Shops in other village			2
	Shops in town			3
	Don't know/No response			99

Maintenance of Individual Household Latrine				
(Ask those who answered Code 3 in S1a.)				
S7a	What do you usually do if the latrine pit gets full? (SA)			
	Seal off the current pit and dig a new pit			1
	Order the vehicle tanker and pump out the faeces			2
	Let out the faeces during flood so that septic tank never gets full.			3
	Run out of space so former pit have to be dug and used again			4
	Put a lot of salt into the pit			5
	Pour acid into the pit			6
	No Pit. Surface latrine			7
	No Pit. Tide or flood carries the faeces away			8
	Others -------			98
S7b	Are there times when you cannot use your latrine? (SA)	Yes	1	Continue
		No	2	▶ S7f
		DK/No response	99	▶ S7f

S7c	If yes, when does it occur mainly?(SA)		
	Monsoon / flood		1
	While the latrine is out of order		2
	Others ----------		98
	Don't Know/No response		99
S7d	How long is the latrine usually unavailable in these times?	_____weeks	1
		Less than one week	2
S7e	If your latrine is not usable because it is out of order, which parts of the latrine go bad?		
	Pit out of order – due to rain falling from the roof		1
	Pit out of order - flood		2
	Pit out of order – rodent dig holes		3
	Pit out of order – pit cover gives in		4
	Pit out of order – due to domestic animals		5
	Latrine structure decayed - termite		6
	Latrine structure decayed – rotten roof		7
	Latrine structure decayed – wall rotten		10
	Latrine structure decayed – floor rotten		11
	Ventilation Pipe – not present		12
	Others ----------		98
	Don't know/No response		99
S7f	When the latrine is unusable, where do you and/or your household membersmostly go to defecate?(SA)	Inside compound	1
		In the field (Outside compound)	2
		At other people's latrine	3
		At communal latrine	4
		Other place	98
S7g	Who is mainly responsible for the maintenance of the latrine at home?(SA)	Male household member	1
		Female household member	2
		No one in particular	3
		No need to do the maintenance	4

S7h	Is there an entity in your ward / village that check the latrine condition?	Yes	1	Continue
		No	2	Go to S8a
		Don't Know/No response	99	Go to S8a
S7i	If yes, who plays the primary role? (SA)			
	Community Health Worker			1
	Health dept			2
	Ward PDC			3
	Ward Environmental Sanitation committee/ Latrine committee			4
	Ward volunteer association (Maternal & Child Care etc)			5
	Non-governmental organizations			6
	Others -----			98
	Don't Know/No response			99

Children: Defecation practices, How Mother Cleans and Disposes Waste				
S8a	Ask all households Do you have a child of under one year of age? (Check with the details of the household)	Yes	1	Continue
		No	2	▶ S9a
		DK/No response	99	▶ S9a
S8b	If yes, how does the child mostly defecate? (SA)			
	In the napkin / shorts / in bed.			1
	Defecate in the pot, assisted by mother			2
	Defecate on disposable, laid on the ground, while sitting on mother's feet			3
	Defecate directly onto the ground, while sitting on mother's feet			4
	By chance			5
	Others ----------			98
S8c	How does the child's caregiver clean the child's bottom? (SA)			
	Water soaked gauze			1
	Cloth / water soaked paper / tissue			2
	Water			3

	Water and soap			4
	Paper			5
	Stick/Twig			6
S8d	After cleaning the child's bottom where does the child's caregiver dispose it? (SA)			
	Into the latrine			1
	Washed napkin / shorts with water only			2
	Washed napkin / shorts with soap			3
	Inside the yard			4
	Outside of the yard			5
	Into the trash can			6
	Into the drainage			7
	Into the pond / river / stream			8
	No need to dispose			9
S8e	Does child's caregiver wash his/her hands after cleaning the child's bottom?	Yes	1	Continue
		No	2	Go to S9a
		Don't Know/No response	99	Go to S9a
S8f	If yes, with what does the child's caregiver clean his/her hands?	Only with water	1	
		With water and soap	2	
		With something	3	
S9a	<u>Ask all households?</u> Do you have a child at the age between one and less than two years? (Check with the household member's details)	Yes	1	Continue
		No	2	▶ S10a
		Don't Know/No response	99	▶ S10a
S9b	<u>Ask if there is a child at the age of one and less than two years? If yes,</u> how does the child mostly defecate? (SA)			
	In the shorts / in the bed			1
	In the pot assisted by the mother			2
	Defecate on disposable, laid on the ground, while sitting on mother's feet			3
	Defecate directly onto the ground, while sitting on mother's feet			4

	By chance			5
	At the latrine (Circle ' No need to dispose' at E9d)			6
	Others ----------			98
S9c	How does the child's caregiver clean the child's bottom?(SA)			
	Water soaked gauze			1
	Cloth / water soaked paper / tissue			2
	Water			3
	Water and soap			4
	Paper			5
	Stick/ Twig			6
S9d	After cleaning the child's bottom where does the child's caregiver dispose it?(SA)			
	Into the latrine			1
	Washed napkin / shorts with water only			2
	Inside the yard			3
	Outside of the yard			4
	Into the trash can			5
	Into the drainage			6
	Into the pond / river / stream			7
	No need to dispose			9
S9e	Does the child's caregiver wash his/her hands after cleaning it's bottom?	Yes	1	Continue
		No	2	▶ S10a
		DK/No response	99	▶ S10a
S9f	If yes, with what does the child's caregiver clean his/her hands?	Only with water	1	
		With water and soap	2	
		With something	3	
S10a	<u>Ask all households</u> Do you have children at the age of between two	Yes	1	Continue
		No	2	▶ S11a

	and under five years at this house? (Check with the details of the household members)	Don't Know/No response	99	▶ S11a

S10b	If yes, how does the child defecate mostly? (SA)	
	In the shorts	1
	In the pot	2
	Defecate on disposable, laid on the ground, while sitting on mother's feet	3
	Defecate directly onto the ground, while sitting on mother's feet	4
	On the ground by itself	5
	At the latrine (Circle ' No need to dispose' at E10e)	6
	Others ----------	98

S10c	Who clean the child's bottom? (Child between 2 and under 5 years of age)	Itself	1	Continue
		The adult	2	▶ S10h

S10d	If the child cleans itself, with what does the child clean the child's bottom?(SA)	
	Water soaked gauze	1
	Cloth / water soaked paper / tissue	2
	Water	3
	Water and soap	4
	Paper	5
	Stick/ Twig	6
	Other----------	98

S10e	If the child cleans itself, after cleaning the child's bottom where does the child dispose it?(SA)	
	Into the latrine	1
	Washed napkin / shorts with water only	2
	Inside the yard	3
	Outside of the yard	4
	Into the trash can	5
	Into the drainage	6
	Into the pond / river / stream	7

	No need to dispose			9
S10f	If the child cleans itself (in S10c) then does the child wash its hands by itself?	Yes	1	Continue
		No	2	▶ S11a
		Don't Know/No response	99	▶ S11a
S10g	If yes, with what?	Only with water	1	▶ S11a
		With water and soap	2	▶ S11a
		With something	3	▶ S11a
S10h	If the adult clean the child's bottom, with what does the child's caregiver clean the child's bottom?(SA)			
	Water soaked gauze			1
	Cloth / water soaked paper / tissue			2
	Water			3
	Water and soap			4
	Paper			5
	Stick/ Twig			6
	Others----------			98
S10i	If the adult clean the child's bottom, after cleaning the child's bottom where does the child's caregiver dispose it?(SA)			
	Into the latrine			1
	Washed napkin / shorts with water only			2
	Inside the yard			3
	Outside of the yard			4
	Into the trash can			5
	Into the drainage			6
	Into the pond / river / stream			7
	No need to dispose			9
S10j	If the adult clean the child's bottom, does the adult wash his/her hands after cleaning the child's bottom?	Yes	1	Continue
		No	2	▶ S11a
		Don't Know/No response	99	▶ S11a

S10k	If yes, with what?	Only with water		1
		With water and soap		2
		With something		3
S11a	<u>Ask all households</u> Do you have the child at the age of between five and eight years at this house?(Check with the details of the household members)	Yes	1	Continue
		No	2	▶ S12
S11b	If yes, how does the child defecate mostly? (SA)			
	In the shorts			1
	In the pot			2
	Defecate on disposable, laid on the ground, while sitting on mother's feet			3
	Defecate directly onto the ground, while sitting on mother's feet			4
	On the ground by itself			5
	At the latrine (Circle ' No need to dispose' at S11e)			6
	Others ----------			98
S11c	Who clean the child's bottom? (Child between 5 and 8 years age)	Itself	1	Continue
		The adult	2	S11h
S11d	If the child cleans itself, with what does the child clean the child's bottom?(SA)			
	Water soaked gauze			1
	Cloth / water soaked paper / tissue			2
	Water			3
	Water and soap			4
	Paper			5
	Stick/ Twig			6
	Others----------			98
S11e	If the child cleans itself, after cleaning the child's bottom where does the child dispose it?(SA)			
	Into the latrine			1
	Washed napkin / shorts with water only			2

	Inside the yard			3
	Outside of the yard			4
	Into the trash can			5
	Into the drainage			6
	Into the pond / river / stream			7
	No need to dispose			9
S11f	If the child cleans itself (in S11c) then does the child wash its hands by itself?	Yes	1	Continue
		No	2	▶ S12
		DK/No response	99	▶ S12
S11g	If yes, with what?	Only with water	1	▶ S12
		With water and soap	2	▶ S12
		With something	3	▶ S12

S11h	If the adult clean the child's bottom, with what does the child's caregiver clean the child's bottom?(SA)	
	Water soaked gauze	1
	Cloth / water soaked paper / tissue	2
	Water	3
	Water and soap	4
	Paper	5
	Stick/ Twig	6
	Others----------	98
S11i	If the adult clean the child's bottom, after cleaning the child's bottom where does the child's caregiver dispose it?(SA)	
	Into the latrine	1
	Washed napkin / shorts with water only	2
	Inside the yard	3
	Outside of the yard	4
	Into the trash can	5
	Into the drainage	6

	Into the pond / river / stream			7
	No need to dispose			9
S11j	If the adult clean the child's bottom, does the adult wash his/her hands after cleaning the child's bottom?	Yes	1	Continue
		No	2	▶ S12
		Don't Know/No response	99	▶ S12
S11k	If yes, with what?	Only with water		1
		With water and soap		2
		With something		3

Disposal of Kitchen Waste		
S12	<u>Ask all households</u> Where do you mostly dispose the waste from the kitchen? (SA)	
	Place specified by municipal	1
	Garbage collector (Municipal)	2
	Garbage collector (Private)	3
	In a garbage disposing hole inside the compound	4
	Burn them	5
	Where everybody dispose garbage (illegal)	6
	Into the ditch	7
	On the bank of the river, stream, pond	8
	Into the river, stream, pond	9
	In the field	10
	Others ----------	98

Thank You

■

Survey on Community Knowledge, Attitude and Practice of WASH

(Household Questionnaire)

id1	Questionnaire No._____	
id2	Respondent_____	
id3	Respondent HH ID No.____	|__|__|
id4	Address_	
Id5	State/Region____	|__|__|__|__|
Id6	Township_____	|__|__|__|__|
Id7	Village-tract_____	|__|__|__|__|
Id8	Ward/Village____	|__|__|__|__|

	Place:	1.Urban	2.Rural	|__|
	Date:	Date (DD/MM/YYYY) _____/_____/11 |__|__/__|__/2|0|1|1|		
	Time of enumeration:	Start time(HH:MM) _____:_____(To use 24-hour digits)		
		End time(HH:MM) _____:_____ (To use 24-hour digits)		

Enumerator		Field Supervisor		Editor	
Signature:	_____	Signature:	_____	Signature:	_____
Name: I___I	_____	Name: I___I	_____	Name: I___I	_____

(Regarding details of the household, interviewer can ask any household member aged 15 years and above who could give household information.)

Particulars of the Household Members

Household is defined here as people who live under the same roof or in the same compound and share the same meal. Total number of households in this house is ------ (Select one household randomly and continue)

Data for household information serial 1 and 2 must be filled in descending order of age.

Data for household information serial ID 3, 5, 6, 7 & 8 (for each individual) must be filled in with the codes provided. Columns for domestic chores 9 – 1, 9 – 2 and 9 – 3 must be filled with Code 1 for "Yes" and Code 0 for "No."

Details of the Household Members

Household Member ID No.	Name	Sex	Age	Relationship to the household head	Acquired education (Those above age 5)	Ethnicity	Religion	Domestic chores managed / done		
	Enter the Head of HH in Serial No 1, and record the others in descending order.	M 1 F 2	< 12 months 00	HH head 1 Spouse of HH head 2 Son/ daughter; son in law / daughter in law 3 Parent / Parent in law 4 Relative 5 Non relative of HH head 6	Fill in the standard already passed 0-10 Monastic education, but literate 11 Vocational institute certificate holder (Non high school graduate) 12 Vocational institute certificate holder (High school graduate) 13 College / University student 14 College / University graduate 15 Post-grad diploma/ post-grad Master / PhD 16 Illiterate/No education 17 Don't know/No response 99	Bamar 1 Kachin 2 Kayah 3 Kayin 4 Chin 5 Mon 6 Rakhine 7 Shan 8 Immi ethic 9 Others 10 DK/No res 99	Buddhist 1 Hindu 2 Christian 3 Muslim 4 Others 10 DK/NR 99	Yes 1 No 2	Yes 1 No 2	Yes 1 No 2
		Code No	Code No Except <12 months	Code No	Code No	Code No	Code No	Code No	Code No	Code No
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9-1)	(9-2)	(9-3)
1.										
2.										
3.										

4.										
5.										
6.										
7.										
8.										
9.										
10.										
11.										
12.										
13.										
14.										
15.										

Water Source & Utilization Section

Let's talk about drinking water and water used in the kitchen

Water Source of Household

W1a What is the main source of drinking-water and water used by your household for other purposes, such as cooking and hand washing in the past 12 months? (SA)?

(Continue with W1b for the type of the original source, after getting an answer each for 1 to 5 in W1a.)

	Drinking water			Water for Kitchen use		
	Rainy	Winter	Summer	Rainy	Winter	Summer
Piped water into dwelling	1	1	1	1	1	1
Piped water to yard/plot	2	2	2	2	2	2
Public tap/standpipe	3	3	3	3	3	3
Cart with small tank/drum	4	4	4	4	4	4
Tanker/truck	5	5	5	5	5	5
Tube well/borehole	6	6	6	6	6	6
Protected dug well (Brick-lined well)	7	7	7	7	7	7
Unprotected dug well	8	8	8	8	8	8
Protected spring	9	9	9	9	9	9
Unprotected spring	10	10	10	10	10	10
Rainwater collection	11	11	11	11	11	11
Bottled purified water (Purchased)	12	12	12	12	12	12
Surface water (river, dam, lake, pond, stream, canal, irrigation channels)	13	13	13	13	13	13
Others (Mention)_____	98	98	98	98	98	98

W1b What is the type of the original water source for the following water sources? (Give the main source only)

	Tube well	Protected dug well	Unprotected dug well	Protected spring	Unprotected spring	Surface water	Others	Don't Know

	Piped water into dwelling	1	2	3	4	5	6	98	99
	Piped water to yard/plot	1	2	3	4	5	6	98	99
	Public tap/standpipe	1	2	3	4	5	6	98	99
	Cart with small tank/drum	1	2	3	4	5	6	98	99
	Tanker/truck	1	2	3	4	5	6	98	99

Emergency Water Source of Household						
W2a	Did you ever have difficulty in getting water for drinking or for kitchen/general use?	Yes	1	Continue		
		No	2	▶ W3a		
		Don't Know/ No response	99	▶ W3a		
W2b	If yes, was it for …..	Drinking water	1			
		Domestic/general use	2			
		Both	3			
		Don't Know/No Response	99			
			Code			Code
W2c	If you had difficulties, could you tell me the months during which you were faced with difficulties?(Circle the Codes.) (MA)	Jan	1		Jul	7
		Feb	2		Aug	8
		Mar	3		Sep	9
		Apr	4		Oct	10
		May	5		Nov	11
		Jun	6		Dec	12
W2d	Why did these difficulties occur?					
	Water system broke down	1	▶ W2e			
	Water source was depleted	2	▶ W2f			
	Others (Mention)_____	98	▶ W2f			
	Don't know/ No response	99	▶ W2f			
W2e	If the system broke down, what main part broke down?					
	Pump	1				
	Pipes	2				
	Truck	3				
	Others (Mention)_____	98				
	Don't know/ No response	99				
W2f	When you had these difficulties in getting water from your main water source, what did you do to get drinking water and water for general use? (each SA)					
		Drinking water	Water for general use			
	Use reserve storage	1	1	Continue		
	Use alternative source in the village	2	2	Continue		

	Buy water	3	3	Continue
	Neighbour / Monastery share the water	4	4	Continue
	Fetch from outside ward / village	5	5	Continue
	Fetch from other village	6	6	Continue
	Other ----------	98	98	Continue

Water Treatment by Households to Make it Safer				
W3a	Ask all households. Do you treat your water in any way to make it safer to drink?	Yes	1	Continue
		No	2	▶W3c
		Don't Know/ No response	99	▶W3c

W3b	If Yes, what do you usually do to the water to make it safer to drink? *Anything else?* *Record all items mentioned. (MA)*	
		Drinking water
	Boil	1
	Add bleach/chlorine	2
	Strain it through a cloth	3
	Use a water filter (ceramic, sand, composite, etc.)	4
	Solar disinfection	5
	Let it stand and settle	6
	Others (specify) ----------	98
	Don't know/No response	99

W3c	Do you treat your water in any way to make it safer to use for purposes other than drinking?	Yes	1	Continue
		No	2	▶W4a
		Don't Know/ No response	99	▶W4a
W3d	If yes, what do you usually do to the water to make it safer to use it? Anything else? Record all items mentioned. (MA)			

		Water for kitchen
	Boil	1
	Add bleach/chlorine	2
	Strain it through a cloth	3
	Use a water filter (ceramic, sand, composite, etc.)	4
	Solar disinfection	5
	Let it stand and settle	6
	Others (specify) ----------	98
	Don't' know/No response	99

Household Perception on Water Quality			
W4a	Show the card (level of cleanliness). To what extent do you think your drinking water / water for kitchen use at your house is clean after your treatment of the water (in case you treated it)? (each SA)	Drinking water	Water for kitchen use
	Absolutely clean	1	1
	Clean	2	2
	Not so clean	3	3
	Very unclean	4	4
	Don't Know/ No response	99	99

Household Water Fetching				
W5a	Does your household need to fetch water?	Yes	1	Continue
		No	2	▶W6a
		DK/ No response	99	▶W6a
W5b	If yes, who usually go out and fetch the water? (Write it down as in the details of the household members)			
	Name		household member ID.	
W5c	How does the water fetcher go to fetch the water? (SA)			

		Rainy	Winter	Summer
	On foot	1	1	1
	Water cart	2	2	2
	Bicycle / trishaw/motorcycle	3	3	3
	Bullock / Buffalo / Horse cart	4	4	4
	Boat/motorboat	5	5	5
	Motor driven vehicle	6	6	6
	Other	98	98	98

W5d How long does it take to fetch water round-trip, including the queuing time?

Less than 30 min	1		
Between 30 min and 1 hour	2	Rainy	|___|
Between 1 hour and 2 hours	3	Winter	|___|
Between 2 hours and 3 hours	4	Summer	|___|
More than 3 hours	5		
Not relevant	98		

W5e How many times do you need to fetch water each day? (Water source to home)

Less than once a day	1		
Every day	2	Rainy	_____times
		Winter	_____times
		Summer	_____times

Maintenance or Washing of Water Cups, Drinking Water Pots and WaterContainers

W6a How often is the drinking water cup washed? (SA)

Daily	1	Continue
Three or four times a week	2	Continue
Two times a week	3	Continue

W6b Washed with what? (SA)

With only water	1
Burned Paddy husk / ash	2
Rubbing matter (dried sponge gourd/ brush)	3

	Once a week	4	Continue
	Less than once a week	5	Continue
	Do not wash at all	6	▶W6c

	With sand soap	4	
	With soap	5	
	Others	98	

W6c	How often is the drinking water pot washed? (SA)		
	Daily	1	Continue
	Three or four times a week	2	Continue
	Two times a week	3	Continue
	Once a week	4	Continue
	Less than once a week	5	Continue
	Do not wash at all	6	▶W6e
	Not applicable	7	▶ W6e

W6d	Washed with what? (SA)	
	With only water	1
	Burned Paddy husk / ash	2
	Rubbing matter (dried sponge gourd/ brush)	3
	With sand soap	4
	With soap	5
	Others ----------	98

W6e	How often is the water container for kitchen use washed? (SA)		
	Daily	1	Continue
	Three or four times a week	2	Continue
	Two times a week	3	Continue
	Once a week	4	Continue
	Less than once a week	5	Continue
	Do not wash at all	6	▶W7a
	Do not have a container	7	▶W7a

W6f	Washed with what? (SA)	
	With only water	1
	Burned Paddy husk / ash	2
	Rubbing matter (dried sponge gourd/ brush)	3
	With sand soap	4
	With soap	5
	Others -------	98

Bathing and Washing Clothes by Household Members		
W7a	(For bathing) Where do your household members mostly bath? Continue with W7b after you get the answer for W7a	
	Bathroom inside the house	1
	Inside compound (water fetched from outside)	2
	Rain water storage point	3
	Inside compound (water source inside)	4

	Outside compound (Motorized / hand pump tube well)			5
	Outside compound (Water tap)			6
	Outside compound (Near the well)			7
	Outside compound (Near the pond)			8
	Outside compound (In the pond)			9
	Outside compound (river / stream)			10
	Outside compound (Inside the dam)			11
	Others ----------			98
W7b	Where do your household members mostly wash clothes?			
	Bathroom inside the house			1
	Inside compound (water fetched from outside)			2
	Rain water storage point			3
	Inside compound (water source inside)			4
	Outside compound (Motorized / hand pump tube well)			5
	Outside compound (Water tap)			6
	Outside compound (Near the well)			7
	Outside compound (Near the pond)			8
	Outside compound (In the pond)			9
	Outside compound (river / stream)			10
	Outside compound (Inside the dam)			11
	Others ----------			98
W7c	Do you have a separate place for male and female to bathe? (each SA)	Yes	1	
		No	2	
		Don't Know/ No response	99	

Drinking Water for Animals				
W8a	Do you raise farm animals?	Yes	1	Continue
		No	2	▶W9a
W8b	If yes, where do you feed them water?			

	Inside compound (water fetched from outside)	1
	Collected rain water	2
	Inside compound (water source inside)	3
	Outside compound (Motorized / hand pump tube well)	4
	Outside compound (Water tap)	5
	Outside compound (Near the well)	6
	Outside compound (Near the pond)	7
	Outside compound (In the pond)	8
	Outside compound (river / stream)	9
	Outside compound (Inside the dam)	10
	No need to feed water. They take it themselves	11
	Others ----------	98
	Don't Know/No response	99

Incidences of Diarrhoea				
W9a	In any day of the past 2 weeks, did any member of your household have diarrhea/ loose motion at least 3 times per day?	Yes	1	Continue
		No	2	▶ S1a
		DK/ No response	99	▶ S1a

W9b	If yes, tell me their sex and in which age bracket they belong to. (*Number of persons)*	Age Group	Male	Female
		<1		
		1 - <5		
		5 - <18		
		18 - <64		
		> 65		

Latrine Usage/Environmental Sanitation

Let's talk about latrine usage and environmental sanitation

Defecation Behavior of Household Members				
S1a	During the last year, when at home, where did you and your household members usually go to defecate (SA)	Defecate openly in the field	1	Continue
		Defecate openly in the compound	2	Continue
		Use latrine at home	3	Continue
		Use communal latrine	4	Continue
		Use other people's latrine	5	Continue
	NOTE: Code 1 (Defecate openly in the field) encompasses all manners of outside defecation without a latrine/toilet—in the field, in the bushes, in the forest, on the beach, between the rocks on the beach, in the creek/river, etc.			

S1b	During the last year, when at home, how commonly did you and your household members openly defecate? (Please tick)		Always				Never	DK/NR	Not applicable
			5	4	3	2	1	88	99
		Male adults (15 and above)							
		Female adults (15 and above)							
		Children (8-15)							

S2a	During the last year, did you and/or any of your household members work in the field?	Yes	1	Continue
		No	2	▶S2d
		DK/ No response	99	▶S2d
S2b	Was there a latrine in the field?	Yes	1	
		No	2	
		DK/no response	99	
S2c.1	If "yes," did you and/or the household members working in the field usually use it?	Yes	1	
		No	2	

		DK/NR	99	
S2c.2	If "No," where did you and/or your household members usually defecate when working in the field?	Do it openly in the field	1	
		Go back home where there is latrine	2	
		Use other household's latrine	3	
		DK/NR	99	

S2c.3	During the last year, for those household members working in the field, how commonly did you and/or your household members openly defecate when working in the field? *(Please tick)*		Always			Never	DK/NR	Not relevant
			5	4	3	2	1	88	99
		Male adults (15 and above)							
		Female adults (15 and above)							
		Children (8-15)							

S2d	During the last year, do you know of any instances when any of your neighbours defecated openly?	Yes	1
		No	2
		DK/ No response	99

Communal/Other People's Latrine		
S3a	Display show card (For households whose members use communal/other people's latrine, S2a = 4 or 5) We understand that your household members use communal / other people's latrine. What kind of latrine is it? (SA)	
	Flush/pour flush to:	
	Piped sewer system	1
	Septic tank	2
	Pit latrine	3
	Elsewhere	4
	Unknown place/not sure/DK where	5
	Ventilated improved pit latrine (VIP)	6

	Pit latrine with slab		7
	Pit latrine without slab/open pit		8
	Composting toilet		9
	Bucket		10
	Hanging toilet/hanging latrine		11
	Others (Specify)----------		98
S3b	Does this latrine have a pan?	Yes	1
		No	2
		DK/NR	99
S3c	Does this latrine pan / foothold have a lid?	Yes	1
		No	2
S3d	Do you find the pan / foothold covered with a lid when you go to the latrine?	Yes	1
		No	2
S3e	Do you know how many other households are usually using this latrine?	Yes	1
		No	2
	If yes, tell me the number of households	_____ households	

Latrines Built: (costs, reasons, time)				
S4a	<u>Ask those who say they have latrine at home (S1a=3).</u> In case more than one latrine exists at home, all questions concern the main latrine used in the household. When was the main latrine built? (If this latrine existed when the respondent moved in, write down 'already existed')			
	Built since (Fill in the year)	1	_____ A.D. (_____years up to now)	
	Existed since the respondent moved in	2	▶ S6a	
S4b	Did you build the latrine you mainly used yourself? (SA)	Ourselves		1
		Hired hands		2
		Donated by a humanitarian/other organization		3
S4c	How much did the main latrine cost?	_____Kyats		1

		I do not know/I can't recall.	2
S4d	Who gave the decision to build the main latrine? (SA)	Household head	1
		Housewife	2
		Household members	3
		Neighbours	4

S4e Who – individual or entity- urged you to build the main latrine?(If the answer is 'no one') prompt (Record first mentioned separately) Any others? What else? (MA)

Response	First	Others
Children	1	1
Children who are students	2	2
Teachers	3	3
Health staff / employees	4	4
Monks	5	5
Ward / village officials	6	6
Ethnic leader	7	7
Friends / Neighbour	8	8
Afraid of being penalised	9	9
NGOs	10	10
UN agencies	11	11
Nobody urges me	12	12
Others----------	98	98
Don't know/ No response	99	99

S4f What is the reason for building the main latrine?(If the answer is 'nothing') prompt (Record first mentioned separately) Any others? What else? (MA)

Response	First	Others
Due to increased knowledge in health / For family's health	1	1
Due to increased GE outbreak in the ward or village / fatality due to GE outbreak	2	2
Because other people build the latrine	3	3

	Customary	4	4
	Because I saw it in TV	5	5
	I heard it from the radio	6	6
	I read it in the newspaper	7	7
	Nothing. We have been building and using latrine long time ago.	8	8
	Others----------	98	98
	Don't know/ No response	99	X

Households Having No Latrine: Reasons and Barriers			
S5a	Ask those who answer that they have no latrine currently (S1a=1 & 2). What is the main reason you don't build and utilise the latrine? (SA)		
	No space to build it	1	
	Can't dig the pit (swamp, daily tide)	2	▶ S5b
	Can't dig the pit (hardness of earth)	3	
	Neighbours don't approve of	4	
	Can't afford to build one	5	▶ S5c
	Not customary	6	▶ S5d
	No one urges me (Health/Authority)	7	▶ S5d
	No one urges me (Children/household members/ Friends)	8	▶ S5d
	Don't know the consequences	9	▶ S5d
	Others ------	98	▶ S5d
	Don't know/No response	99	▶ S5d
S5b	Ask those who do not have space to build the latrine (code 1-4 in S5a)You need to have the space five feet square to build a latrine. If your plot has extra space where you can dig the pit, will you build the latrine? (Continue from S6a after this question)	Yes, I will	1
		No, I won't	2
S5c	Ask those who cannot afford to build the latrine (code 5 in S5a)How much is the maximum amount you can afford to build the latrine?	_____ Kyats	▶S6a

S5d	Ask those whose answer does not relate to space availability and financial problem (code 6+ in S5a)Do you have any plan to build the latrine for your household in the future? If so when?	
	Within one month	1
	Within two to three months	2
	Within four to six months	3
	Within seven to 12 months (a year)	4
	Beyond one year	5
	Will build it. But not determined yet.	6
	No, I won't.	7

Availability of Materials to Build a Latrine				
S6a	Ask all households. Are latrine materials such as pan and pipe available to be bought?	Yes	1	Continue
		No	2	▶ S7a
		DK/No response	9	▶ S7a

S6b	If yes, where is it available?	
	Shops in this village	1
	Shops in other village	2
	Shops in town	3
	Don't know/No response	99

Maintenance of Individual Household Latrine		
(Ask those who answered Code 3 in S1a.)		
S7a	What do you usually do if the latrine pit gets full? (SA)	
	Seal off the current pit and dig a new pit	1
	Order the vehicle tanker and pump out the faeces	2
	Let out the faeces during flood so that septic tank never gets full.	3
	Run out of space so former pit have to be dug and used again	4
	Put a lot of salt into the pit	5
	Pour acid into the pit	6

	No Pit. Surface latrine			7
	No Pit. Tide or flood carries the faeces away			8
	Others -------			98
S7b	Are there times when you cannot use your latrine? (SA)	Yes	1	Continue
		No	2	▶ S7f
		DK/No response	99	▶ S7f
S7c	If yes, when does it occur mainly?(SA)			
	Monsoon / flood			1
	While the latrine is out of order			2
	Others ----------			98
	Don't Know/No response			99
S7d	How long is the latrine usually unavailable in these times?	_____weeks		1
		Less than one week		2
S7e	If your latrine is not usable because it is out of order, which parts of the latrine go bad?			
	Pit out of order – due to rain falling from the roof			1
	Pit out of order - flood			2
	Pit out of order – rodent dig holes			3
	Pit out of order – pit cover gives in			4
	Pit out of order – due to domestic animals			5
	Latrine structure decayed - termite			6
	Latrine structure decayed – rotten roof			7
	Latrine structure decayed – wall rotten			10
	Latrine structure decayed – floor rotten			11
	Ventilation Pipe – not present			12
	Others ----------			98
	Don't know/No response			99
S7f	When the latrine is unusable, where do you and/or your household membersmostly go to	Inside compound		1
		In the field (Outside compound)		2

	defecate?(SA)	At other people's latrine		3
		At communal latrine		4
		Other place		98
S7g	Who is mainly responsible for the maintenance of the latrine at home?(SA)	Male household member		1
		Female household member		2
		No one in particular		3
		No need to do the maintenance		4
S7h	Is there an entity in your ward / village that check the latrine condition?	Yes	1	Continue
		No	2	Go to S8a
		Don't Know/No response	99	Go to S8a

S7i	If yes, who plays the primary role? (SA)	
	Community Health Worker	1
	Health dept	2
	Ward PDC	3
	Ward Environmental Sanitation committee/ Latrine committee	4
	Ward volunteer association (Maternal & Child Care etc)	5
	Non-governmental organizations	6
	Others -----	98
	Don't Know/No response	99

Children: Defecation practices, How Mother Cleans and Disposes Waste				
S8a	Ask all households Do you have a child of under one year of age? (Check with the details of the household)	Yes	1	Continue
		No	2	▶ S9a
		DK/No response	99	▶ S9a

S8b	If yes, how does the child mostly defecate? (SA)	
	In the napkin / shorts / in bed.	1
	Defecate in the pot, assisted by mother	2
	Defecate on disposable, laid on the ground, while sitting on mother's feet	3

	Defecate directly onto the ground, while sitting on mother's feet			4
	By chance			5
	Others ----------			98
S8c	How does the child's caregiver clean the child's bottom? (SA)			
	Water soaked gauze			1
	Cloth / water soaked paper / tissue			2
	Water			3
	Water and soap			4
	Paper			5
	Stick/Twig			6
S8d	After cleaning the child's bottom where does the child's caregiver dispose it? (SA)			
	Into the latrine			1
	Washed napkin / shorts with water only			2
	Washed napkin / shorts with soap			3
	Inside the yard			4
	Outside of the yard			5
	Into the trash can			6
	Into the drainage			7
	Into the pond / river / stream			8
	No need to dispose			9
S8e	Does child's caregiver wash his/her hands after cleaning the child's bottom?	Yes	1	Continue
		No	2	Go to S9a
		Don't Know/No response	99	Go to S9a
S8f	If yes, with what does the child's caregiver clean his/her hands?	Only with water	1	
		With water and soap	2	
		With something	3	
S9a	<u>Ask all households?</u> Do you have a child at the age between one and	Yes	1	Continue
		No	2	▶ S10a

	less than two years? (Check with the household member's details)	Don't Know/No response	99	▶ S10a
S9b	Ask if there is a child at the age of one and less than two years? If yes, how does the child mostly defecate? (SA)			
	In the shorts / in the bed			1
	In the pot assisted by the mother			2
	Defecate on disposable, laid on the ground, while sitting on mother's feet			3
	Defecate directly onto the ground, while sitting on mother's feet			4
	By chance			5
	At the latrine (Circle ' No need to dispose' at E9d)			6
	Others ----------			98
S9c	How does the child's caregiver clean the child's bottom?(SA)			
	Water soaked gauze			1
	Cloth / water soaked paper / tissue			2
	Water			3
	Water and soap			4
	Paper			5
	Stick/ Twig			6
S9d	After cleaning the child's bottom where does the child's caregiver dispose it?(SA)			
	Into the latrine			1
	Washed napkin / shorts with water only			2
	Inside the yard			3
	Outside of the yard			4
	Into the trash can			5
	Into the drainage			6
	Into the pond / river / stream			7
	No need to dispose			9
	Does the child's caregiver wash his/her hands	Yes	1	Continue

S9e	after cleaning it's bottom?	No	2	▶ S10a
		DK/No response	99	▶ S10a
S9f	If yes, with what does the child's caregiver clean his/her hands?	Only with water	1	
		With water and soap	2	
		With something	3	
S10a	<u>Ask all households</u> Do you have children at the age of between two and under five years at this house? (Check with the details of the household members)	Yes	1	Continue
		No	2	▶ S11a
		Don't Know/No response	99	▶ S11a
S10b	If yes, how does the child defecate mostly? (SA)			
	In the shorts			1
	In the pot			2
	Defecate on disposable, laid on the ground, while sitting on mother's feet			3
	Defecate directly onto the ground, while sitting on mother's feet			4
	On the ground by itself			5
	At the latrine (Circle ' No need to dispose' at E10e)			6
	Others ----------			98
S10c	Who clean the child's bottom? (Child between 2 and under 5 years of age)	Itself	1	Continue
		The adult	2	▶ S10h
S10d	If the child cleans itself, with what does the child clean the child's bottom?(SA)			
	Water soaked gauze			1
	Cloth / water soaked paper / tissue			2
	Water			3
	Water and soap			4
	Paper			5
	Stick/ Twig			6
	Other----------			98
S10e	If the child cleans itself, after cleaning the child's bottom where does the child dispose it?(SA)			

	Into the latrine			1
	Washed napkin / shorts with water only			2
	Inside the yard			3
	Outside of the yard			4
	Into the trash can			5
	Into the drainage			6
	Into the pond / river / stream			7
	No need to dispose			9
S10f	If the child cleans itself (in S10c) then does the child wash its hands by itself?	Yes	1	Continue
		No	2	▶ S11a
		Don't Know/No response	99	▶ S11a
S10g	If yes, with what?	Only with water	1	▶ S11a
		With water and soap	2	▶ S11a
		With something	3	▶ S11a
S10h	If the adult clean the child's bottom, with what does the child's caregiver clean the child's bottom?(SA)			
	Water soaked gauze			1
	Cloth / water soaked paper / tissue			2
	Water			3
	Water and soap			4
	Paper			5
	Stick/ Twig			6
	Others----------			98
S10i	If the adult clean the child's bottom, after cleaning the child's bottom where does the child's caregiver dispose it?(SA)			
	Into the latrine			1
	Washed napkin / shorts with water only			2
	Inside the yard			3
	Outside of the yard			4

	Into the trash can			5
	Into the drainage			6
	Into the pond / river / stream			7
	No need to dispose			9
S10j	If the adult clean the child's bottom, does the adult wash his/her hands after cleaning the child's bottom?	Yes	1	Continue
		No	2	▶ S11a
		Don't Know/No response	99	▶ S11a
S10k	If yes, with what?	Only with water		1
		With water and soap		2
		With something		3
S11a	<u>Ask all households</u> Do you have the child at the age of between five and eight years at this house?(Check with the details of the household members)	Yes	1	Continue
		No	2	▶ S12
S11b	If yes, how does the child defecate mostly? (SA)			
	In the shorts			1
	In the pot			2
	Defecate on disposable, laid on the ground, while sitting on mother's feet			3
	Defecate directly onto the ground, while sitting on mother's feet			4
	On the ground by itself			5
	At the latrine (Circle ' No need to dispose' at S11e)			6
	Others ----------			98
S11c	Who clean the child's bottom? (Child between 5 and 8 years age)	Itself	1	Continue
		The adult	2	S11h
S11d	If the child cleans itself, with what does the child clean the child's bottom?(SA)			
	Water soaked gauze			1
	Cloth / water soaked paper / tissue			2
	Water			3
	Water and soap			4

	Paper			5
	Stick/ Twig			6
	Others----------			98
S11e	If the child cleans itself, after cleaning the child's bottom where does the child dispose it?(SA)			
	Into the latrine			1
	Washed napkin / shorts with water only			2
	Inside the yard			3
	Outside of the yard			4
	Into the trash can			5
	Into the drainage			6
	Into the pond / river / stream			7
	No need to dispose			9
S11f	If the child cleans itself (in S11c) then does the child wash its hands by itself?	Yes	1	Continue
		No	2	▶ S12
		DK/No response	99	▶ S12
S11g	If yes, with what?	Only with water	1	▶ S12
		With water and soap	2	▶ S12
		With something	3	▶ S12
S11h	If the adult clean the child's bottom, with what does the child's caregiver clean the child's bottom?(SA)			
	Water soaked gauze			1
	Cloth / water soaked paper / tissue			2
	Water			3
	Water and soap			4
	Paper			5
	Stick/ Twig			6
	Others----------			98

S11i	If the adult clean the child's bottom, after cleaning the child's bottom where does the child's caregiver dispose it?(SA)			
	Into the latrine			1
	Washed napkin / shorts with water only			2
	Inside the yard			3
	Outside of the yard			4
	Into the trash can			5
	Into the drainage			6
	Into the pond / river / stream			7
	No need to dispose			9
S11j	If the adult clean the child's bottom, does the adult wash his/her hands after cleaning the child's bottom?	Yes	1	Continue
		No	2	▶ S12
		Don't Know/No response	99	▶ S12
S11k	If yes, with what?	Only with water		1
		With water and soap		2
		With something		3

Disposal of Kitchen Waste		
S12	<u>Ask all households</u> Where do you mostly dispose the waste from the kitchen? (SA)	
	Place specified by municipal	1
	Garbage collector (Municipal)	2
	Garbage collector (Private)	3
	In a garbage disposing hole inside the compound	4
	Burn them	5
	Where everybody dispose garbage (illegal)	6
	Into the ditch	7
	On the bank of the river, stream, pond	8

	Into the river, stream, pond	9
	In the field	10
	Others ----------	98

Thank You

■

Survey on Community Knowledge, Attitude and Practice of WASH

Individual Interview (15-64)

id1	Questionnaire No._____	
id2	Respondent_____	
id3	Respondent HH ID No.____	|__|__|
id4	Address_	
Id5	State/Region____	|__|__|__|__|
Id6	Township_____	|__|__|__|__|
Id7	Village-tract_____	|__|__|__|__|
Id8	Ward/Village____	|__|__|__|__|
Id9	Household sample No. _____	|__|__|__|

Place: 1.Urban 2. ကျေးလက် 2.Rural |__|

Date (DD/MM/YY) ____/____/11 |__|__/__|__/2|0|1|1|

Time of enumeration: Start time(HH:MM) _____:_____(To use 24-hour digits) |__|__:__|__|

End time(HH:MM) _____:_____ (To use 24-hour digits) |__|__:__|__|

Enumerator		Field Supervisor		Editor	
Signature:	_____	Signature:	_____	Signature:	_____
Name:	_____	Name:	_____	Name:	_____
|__|		|__|		|__|	

Members aged 15 – 64 years old in the household				KISH GRID									
		Age		Last digit of questionnaire number									
No.	Name	Male	Female	1	2	3	4	5	6	7	8	9	0
1				1	1	1	1	1	1	1	1	1	1
2				1	2	1	2	2	1	1	2	1	2
3				2	3	2	2	3	1	3	1	2	1

4				3	1	3	4	1	2	3	2	1	4
5				2	5	3	3	4	4	1	1	2	5
6				4	1	1	6	5	1	6	2	3	3
7				1	3	6	7	3	4	7	2	1	5
8				8	1	7	4	3	1	5	2	6	3
9				2	5	6	1	8	5	9	4	3	7
10				2	3	4	1	6	9	3	8	10	7
11				2	4	6	11	8	5	3	9	7	10
12				1	3	12	7	4	6	8	10	9	11
13				6	13	10	8	1	7	9	12	11	5
14				2	5	6	14	10	8	11	7	9	4
15				9	15	6	8	10	13	7	12	4	11

Awareness of Social Mobilization & National Sanitation Week

A1a. Have you ever heard about the 4-Cleanliness program (Thant Lay Thant)?

1.	Yes	Continue	2.	No	▶ A2a

A1b. How long have you heard about it? Last_____ years

A1c. Can you let me know what social mobilization is (Thant Lay Thant)? (Record first mentioned separately.) What else? Any others? (MA)

Responses	first	Others
Obtaining and using clean water	1	1
Building and using sanitary latrine	2	2
Environmental sanitation	3	3
Personal hygiene	4	4
Others (specify) ----------	98	98
Don't know/No response	99	99

A1d. How did you hear about it?(Multiple Answers)

	Responses			
	Radio			1
	TV			2
	Newspapers			3
	Journals			4
	Magazines			5
	Banner/IEC Materials			6
	Basic health staff			7
	Health volunteers (Non-government employee)			8
	Village authorities			9
	Non-governmental organizations (NGOs)			10
	Others			98
	Don't Know/No Response			99
A2a.	Have you ever heard of "National Sanitation Week"?	Yes	1	Continue
		No	2	▶ W1
A2b.	How long have you heard it?	Last _____ years		

Water Source & Utilization Section

W1 What are your norms for "clean/safe water"? (Record first mentioned separately.) What else? Any others? (MA)

Responses	first	others
Colourless, transparent	1	1
Cool	2	2
Acceptable taste; Odourless	3	3
Being water from tube well / hand pump	4	4
No sediments	5	5
Free from harmful chemicals (e.g. calcium, iron)	6	6

	Free from germs (e.g. chlorinated, not causing sickness or diarrhoea)	7	7
	Filtered water	8	8
	Because the water has been kept overnight	9	9
	Because the water weigh at least 3.6 lbs	10	10
	Not salty	11	11
	Flavoured	12	12
	Boiled water	13	13
	Others ----------	98	98
	Don't know/ No response	99	99
W2	How could we treat water to make it clean/safe to drink? (Record first mentioned separately.) What else? Any others? (MA)		
	Responses	first	others
	Boil	1	1
	Add bleach/chlorine	2	2
	Strain it through a cloth	3	3
	Use a water filter (ceramic, sand, composite, etc.)	4	4
	Solar disinfection	5	5
	Let it stand and settle	6	6
	Others (specify) ----------	98	98
	Don't' know/No response	99	99
W3	What can happen if someone drinks unclean/unsafe water? (Record first mentioned separately.) What else? Any others? (MA)		
	Responses	first	others
	Diarrhoea	1	1
	Dysentery	2	2
	Cholera	3	3
	Stomach pain	4	4

	Catch fever	5	5
	Typhoid	6	6
	Hepatitis	7	7
	Polio	8	8
	Malaria	9	9
	Round worm	10	10
	Ringworm, scabies, itchy skin	11	11
	Influenza	12	12
	Dengue Hemorrhagic fever	13	13
	Goitre	14	14
	Others ----------	98	98
	Don't know/No response	99	99

W4	Can you tell me as far as you know what can contaminate a water source? (Record first mentioned separately.) What else? Any others? (MA)		
	Responses	first	others
	Bathing / washing clothes at water source	1	1
	Water does not flow	2	2
	Urinate / Defecate at the water source	3	3
	Latrine close to the water source	4	4
	Dispose trash near the water source	5	5
	Trash fallen into the water source	6	6
	Washing raw meat and raw fish near the water source	7	7
	Pouring contaminated water into the water pump to siphon off water	8	8
	Not properly plugging in the holes of the water pipe	9	9
	Do not have separate bucket or rope at the well/Using dirty bucket/rope	10	10
	The well has no roof	11	11
	Then well has no walling	12	12

	The animals can go into the water source. No fence / broken fence around the pond	13	13
	Others ----------	98	98
	Don't know/ No response	99	99

W5 Can you tell me, as far as you know, what can contaminate the water during carrying or fetching the water? Record first mentioned separately) What else? Any others? (MA)

Responses	first	others
Using contaminated pot / bucket / barrel	1	1
Don't have one pot kept specially for this purpose	2	2
Fetching water without cleaning the container	3	3
Handling the container with dirty hands	4	4
Putting cloth or small branch on top of water	5	5
Putting a hand or fingers while fetching it	6	6
No cover while fetching drinking water	7	7
Because of the animals	8	8
Fetching water while wearing wet clothes	9	9
Dirt and mud getting into water while carrying	10	10
Stepping into the pond /river /stream to fetch water	11	11
Others ----------	98	98
Don't know/ No response	99	X

W6 Can you tell me, as far as you know, what can contaminate the water when it is stored? (Record first mentioned separately) What else? Any others? (MA)

Responses	first	others
Using dirty container / do not wash at all	1	1
Stored water not covered properly	2	2
Larvae found in water	3	3
Water fetched using unclean bucket / cup	4	4
Water fetched using dirty hands	5	5

	Pouring back the leftover water	6	6
	Others ----------	98	98
	Don't know/ No response	99	99

Latrine Usage/Environmental Sanitation

Defecation Behavior of Household Members

S1a.1	During the last year, when at home, where did you usually go to defecate (SA)	Defecate openly in the field	1	
		Defecate openly in the compound	2	
		Use latrine at home	3	
		Use communal latrine	4	
		Use other people's latrine	5	
	NOTE: Code 1 (Defecate openly in the field) encompasses all manners of outside defecation without a latrine/toilet—in the field, in the bushes, in the forest, on the beach, between the rocks on the beach, in the creek/river, etc.			

S1a.2	During the last year, when at home, how commonly did you openly defecate? (Circle the code.)		Always				Never	DK/NR	Not applicable
			5	4	3	2	1	88	99

S1b	During the last year, did you work in the field?	Yes	1	Continue
		No	2	▶S1g
		DK/ No response	99	▶S1g
S1c	Was there a latrine in the field?	Yes	1	
		No	2	▶S1e
		DK/no response	99	▶S1e
S1d	If "yes," did you, while working in the field, usually use it?	Yes	1	
		No	2	
		DK/NR	99	
S1e	If "No," where did you usually defecate when working in the field?	Do it openly in the field	1	
		Go back home where there is latrine	2	
		Use other household's latrine	3	

		DK/NR				99			
S1f	During the last year, how commonly did you openly defecate when working in the field? *(Please circle the code)*		Always				Never	DK/NR	Not relevant
			5	4	3	2	1	88	99

S1g	During the last year, do you know of any instances when any of your neighbours defecated openly?	Yes	1
		No	2
		DK/ No response	99

S2a	Do you think that your latrine is sanitary?	Yes	1	
		No	2	
		DK/ No Response	99	

S2b What advantages do you get out of using a 'Sanitary Latrine' (Record first mentioned separately)? What else? Any others? (MA) If the answer is that one does not contract fever or disease, ask what kind? If can not tell in detail, then circle '6'?

Response	First	Others
No flies	1	1
No bad odour	2	2
Environment is clean	3	3
I feel alright	4	4
One gets healthy	5	5
No fever of any kind	6	6
No gastro intestinal diseases	7	7
No typhoid	8	8
No Polio	9	9
One doesn't contract any kinds of worm related illness	10	10
No Malaria	11	11
Other diseases ----------	98	98

	Don't know/No response	99	X

S3	Can you tell me, as far as you know, what kind of defecating habits contaminate the environment? (Record first mentioned separately) What else? Any others? (MA)		
	Response	First	Others
	Defecating behind the bush	1	1
	Using latrines without pits	2	2
	Using latrines without lids	3	3
	Using latrine with open gutter	4	4
	Defecating directly into the water	5	5
	Latrine with pit in swamp / pit that is not water proof	6	6
	Children defecating discriminatorily	7	7
	Disposing child's faeces discriminatorily	8	8
	Defecating into the ditch	9	9
	Others ----------	98	98
	Don't know/ No response	99	X

Personal Hygiene (Age 15-64 years)

H1	(H1a) What activities come to your mind when you talk about personal hygiene? (Record first mention separately.)	Responses	first (H1a)	others (H1b)
		Bathing	1	1
		Shampoo hair	2	2
		Keep the hair clean	3	3
		Wash the face	4	4
		Brush the teeth	5	5
	(H1b) What else? Any others? (MA)If do not understand, explain that ' It concerns cleanliness of all	Apply Thanakha	6	6
		Wearing clean clothes	7	7
		Clip hand nails / toe nails	8	8

	the parts of your body"	Wash hands after coming out of the latrine	9	9
		Wash hands	10	10
		Wash feet	11	11
		Others ----------	98	98
		Don't know/ No response	99	X

H2	Currently how many times do you take bath <u>mostly</u>? (SA)				
	more than once a day	1	2-3 times a week	4	
	once a day	2	once a week	5	
	4-5 times a week	3	less than once a week	6	

H3	Mostly how many times do you cut your nails? (SA)				
	at least once a week	1	less than once a month	4	
	once in two weeks	2	don't cut	5	▶H5
	once a month	3		6	

H4	What do you <u>mostly</u> use to cut your nails? (SA)			
	nail clippers	1	knife and other cutting material	3
	scissors	2	biting by teeth	4

H5	When do you usually wash your feet?			
	Before going to bed	1	Others	98
	After coming back from work/after playing with friends	2	No, I don't	99

H6a	How do you eat your meals?		
	With fingers	1	
	With spoon/ chopsticks	2	▶ H7a

H6a	Do you usually wash your hands before eating?	Yes	1	Continue
		No	2	▶ H7a
		DK/ No response	99	▶ H7a

H6b	If yes, with what do you wash? (SA)	
	Only with water	1
	Burned paddy husk/ash	2

	Rubbing matter (dried sponge gourd/brush)	3
	With sand soap	4
	With soap	5
	Others ----------	98

H7a	Do you usually wash your hands after defecating?	Yes	1	Continue
		No	2	▶H8a
		DK/ No response	99	▶H8a

H7b	If yes, with what do you wash? (SA)	
	Only with water	1
	Burned paddy husk/ash	2
	Rubbing matter (dried sponge gourd/brush)	3
	With sand soap	4
	With soap	5
	Others ----------	98

H8a	Do you usually brush your teeth?	Yes	1	Continue
		No	2	End interview
		DK/ No response	99	End interview

H9a1	If yes, how many times each day?	_____ time(s)

H9a2	If yes, with what do you usually brush your teeth (SA)	
	Toothbrush using tooth paste	1
	Toothbrush using salt	2
	Salt using finger	3
	Charcoal using finger	4
	Ash using finger	5
	Others ----------	98

Thank You

■

Individual Interview (8-14)

id1	Questionnaire No._____	
id2	Respondent_____	
id3	Respondent HH ID No.____	|__|__|
id4	Address_	
Id5	State/Region____	|__|__|__|__|
Id6	Township_____	|__|__|__|__|
Id7	Village-tract_____	|__|__|__|__|
Id8	Ward/Village____	|__|__|__|__|
Id9	Household sample No. _____	|__|__|__|

Place:	1. Urban	2.Rural	|__|
Date:	Date (DD/MM/YY) ____/____/11 |__|__/__|__/2|0|1|1|		
Time of enumeration:	Start time(HH:MM) _____:_____(To use 24-hour digits) |__|__:__|__| End time(HH:MM) _____:_____ (To use 24-hour digits) |__|__:__|__|		

Enumerator		Field Supervisor		Editor	
Signature:	_____	Signature:	_____	Signature:	_____
Name: |__|	_____	Name: |__|	_____	Name: |__|	_____

Personal Hygiene (Age 8-14 years)

	Response		First (H1a)	Others (H1b)
H1	H1a. What activities come to your mind when you talk about personal hygiene? (Record first mention	Bathing	1	1
		Shampoo hair	2	2
		Keep the hair clean	3	3

	separately.) (SA) H1b. What else? Any others? (MA) If they do not understand, explain that ' It concerns cleanliness of all the parts of your body."	Wash the face	4	4
		Brush the teeth	5	5
		Apply Thanakha	6	6
		Wearing clean clothes	7	7
		Clip hand nails / toe nails	8	8
		Wash hands after coming out of the latrine	9	9
		Wash hands	10	10
		Wash feet	11	11
		Others ----------	98	98
		Don't know/ No response	99	X

H2	Currently how many times do you take bath <u>mostly</u>? (SA)			
	more than once a day	1	2-3 times a week	4
	once a day	2	once a week	5
	4-5 times a week	3	less than once a week	6

H3	Mostly how many times do you cut your nails? (SA)				
	at least once a week	1	less than once a month	4	
	once in two weeks	2	don't cut	5	▶H5
	once a month	3		6	

H4	What do you <u>mostly</u> use to cut your nails? (SA)			
	nail clippers	1	knife and other cutting material	3
	scissors	2	biting by teeth	4

H5	When do you usually wash your feet?			
	Before going to bed	1	Others	98
	After coming back from work/after playing with friends	2	No, I don't	99

H6a	How do you eat your meals?		
	With fingers	1	▶ H6b
	With spoon/ chopsticks	2	▶H7a

H6b	If you eat with fingers, do you usually wash your hands before eating?	Yes	1	Continue
		No	2	▶H7a
		Don't Know/ No response	99	▶H7a
H6c	If yes, with what do you wash? (SA)			
	Only with water			1
	Burned paddy husk/ash			2
	Rubbing matter (dried sponge gourd/brush)			3
	With sand soap			4
	With soap			5
	Others ----------			98
H7a	Do you usually wash your hands after defecating?	Yes	1	Continue
		No	2	▶H8a
		Don't Know/ No response	99	▶H8a
H7b	If yes, with what do you wash? (SA)			
	Only with water			1
	Burned paddy husk/ash			2
	Rubbing matter (dried sponge gourd/brush)			3
	With sand soap			4
	With soap			5
	Others ----------			98

H8a	Do you usually brush your teeth?	Yes	1	Continue
		No	2	◗End interview
		DK/ No response	99	◗End interview
H8b	If yes, how many times each day?	_____time(s)		
H8c	If yes, with what do you usually brush your teeth (SA)			
	Toothbrush using tooth paste			1
	Toothbrush using salt			2
	Salt using finger			3

	Charcoal using finger	4
	Ash using finger	5
	Others ----------	98

■ Thank you!

Survey on Community Knowledge, Attitude, and Practice of WASH

Observation Checklist

id1	Checklist No.____	
id2	Ward/Village____	|__|__|__|__|
id6	Village-tract_____	|__|__|__|__|
id7	Township_____	|__|__|__|__|
id8	State/Region____	|__|__|__|__|

	Place:	1. Hilly	2. Plain	3. Coastal	4. Delta
	Observation time:	Date (DD/MM/YY) _____/_____/2011			
		Start time(HH:MM)_____:_____			
		End time(HH:MM)_____:_____			

Enumerator		Field Supervisor		Editor	
Signature:	_____	Signature:	_____	Signature:	_____
Name:	_____	Name:	_____	Name:	_____
|__|		|__|		|__|	

1. Basic Information

1. Water for household members (Drinking and Hand washing)			
1.1	Does the household have access to enough drinking water	Yes 1 No 2	|____|
		Enough: *The household has access to drinking water adequate for the daily consumption of the entire household without being faced with*	

		such difficulties as shortage of drinking water at the main water source or fetching water, taking more than 1 hour for the round trip.	
1.2	Drinking water quality	Good 1 Fairly good 2 Somewhat bad 3 Very bad 4	|____|
		Good: *The water is clean without any visible particles or sediments and the taste is normal and there is no bad smell.*	
		Fairly good: *The water is clean and potable but there may be some traces of imperfections such as a little bad smell and/or a little amount of sediments seen*	
		Somewhat bad: *The water is a little bit turbid (and/or) there are some small particles seen (and/or) the taste is not so normal (and/or) there is some perceptible smell.*	
		Very bad: *The water is badly turbid (and/or) there are visible particles or sediments in it (and/or) the taste is not normal (and/or) the smell is rather bad.*	
1.3	What type of drinking water container/pot is the household using?	Earthen pot 1 Plastic container 2 Tin/metal container 3 Others 4	|____|
1.4	What is the drinking water storage capacity?	Less than 2 gallons 1 Between 2 gallons and less than 4 gallons 2 Between 4 gallons and less than 6 gallons 3 6 gallons and more 4	|____|

1.5	Where is this water container/pot for drinking kept?	Outside the house (elevated) 1 Outside the house (on the ground) 2 Inside the house (elevated) 3 Inside the house (on the ground) 4 Other 98	|____|
1.6	What type of drinking water cup is the household using?	Coconut shell 1 Enamel cup 2 Plastic cup 3 Tin/metal cup 4 Glass cup 5 Others 6	|____|
1.7	Does this water cup have a handle?	Yes 1 No 2	|____|
1.8	How clean is the water drinking cup?	Clean 1 Somewhat clean 2 Somewhat unclean 3 Not clean 4	|____|
1.9	How does a household member get water from the water container/pot to drink?	Container has a tap 1 Dip the cup into the container 2 Pour water from the container 3 Other 4	|____|
1.10	Is drinking water container covered?	Yes 1 No 2	|____|
1.11	If water pot/container with cup Is it covered?	Yes 1 No 2	
1.12	Does the household have hand-washing facilities or a place when household members can wash their hands?	Yes 1 No (▶ 2.1) 2	|____|
1.13	Type of hand washing facility?	Tap and sink 1	|____|

		Tap only 2 Water pot/container and cup 3 Other _____ 4	
1.14	Water for washing hands Quantity(At least one gallon per household member)	Adequate1 Somewhat adequate 2 Somewhat inadequate 3 Totally inadequate 4 No separately reserved water 5	|____|
1.15	What is the storage capacity of water for kitchen/general use (including hand washing)?	Less than 5 gallons 1 Between 5 gallons and 10 gallons 2 More than 10 gallons 3	|____|
1.16	Quality of water for washing hands?	Good 1 Somewhat good 2 Somewhat bad 3 Bad 4	|____|
1.17	Is soap available at hand-washing facilities/ place for hand washing during the time of observation?	Soap is available 1 Soap is not available 2	|____|
1.18	How does the used water from this hand washing facility/ Place for hand washing flow?	Directed to septic tank/well dug pit 1 Well dug drainage 2 No drainage, spread all around 3 Other _____ 4	|____|

2. Latrines/Toilets for household member				
2.1	Does this household have a latrine	Yes 1 No 2	▶ 3.1	|___ _|
2.2	If yes, is this latrine	Shared 1 Private 2	Continue ▶ 2.4	|___ _|

2.3	If it is shared latrine, how many households are using this latrine?	No. of households _____ households 1 Commercial 99	▶ 2.5	|___| _|
2.4	Type of main latrine	Flush/pour flush to: Piped sewer system 3 3 — 1 Septic tank 2 3 — 2 Pit latrine — 3 Elsewhere — 4 Unknown place/not sure — 5 Ventilated improved pit latrine (VIP) — 6 Pit latrine with slab — 7 Pit latrine without slab/open pit — 8 Composting toilet — 9 Bucket — 10 Hanging toilet/hanging latrine — 11 Others (Specify)---------- — 98	|____|	
2.5	With what materials is the latrine mainly built of (Walling)?	Bricks/Concrete 1 Wood 2 Wood & bamboo 3 Wood & corrugated sheet 4 Betel/Coconut tree and thatch 5 Bamboo mat & thatch 6 Polyester/plastic/tarpaulin & Related materials 7 Other (Specify) 98 Don't know/No response 99	|____|	
2.6	With what materials is the latrine mainly built of (Flooring)?	Bricks/Concrete & ceramic pan (Sitting)- 1 Bricks/Concrete & ceramic pan (Squatting) 2	|____|	

		Bricks & plastic pan (Sitting) 3 Wood & plastic pan (Sitting) 4 Betel/Coconut tree 5 Wood & bamboo 6 Bamboo 7 Other (Specify) 98 Don't know/No response 99	
2.7	With what materials is the latrine mainly built of (Roofing)?	Tin/corrugated sheet 1 Thatch 2 Tarpaulin 3 Bamboo 4 Other (Specify) 98 Don't know/No response 99	|____|
2.8	With what materials is the door of the latrine mainly built of?	Wood 1 Tarpaulin 2 Bamboo 3 Other (Specify) 98 Don't know/No response 99	|____|
2.9	Functionality	Functional 1 Partially functional 2 Not functional 3	|____|
		Functional: *The toilet facilities are not physically broken and can be used.*	
		Partially Functional: *The toilets can be used, but there are at least some problems with the physical infrastructure (e.g. some deterioration in concrete, doors/locks coming loose, roof deteriorating, etc.) and some repair is necessary.*	
		Not Functional: *The toilets exist, but are so badly damaged or deteriorated it is no longer reasonably possible to use them (e.g. squatting plate*	

<table>
<tr><td></td><td></td><td colspan="2">broken, door missing, roof has holes, etc.)</td></tr>
<tr><td>2.10</td><td>In general, how clean are the toilet facilities?* (For each type of toilet <u>circle the appropriate code</u> with your general impression.)</td><td colspan="2">
<table>
<tr><td></td><td></td><td colspan="3">Status of Cleanliness</td></tr>
<tr><td></td><td>Clean</td><td>Somewhat Clean</td><td>Somewhat not clean</td><td>Un-clean</td></tr>
<tr><td>Toilet No.1</td><td>1</td><td>2</td><td>3</td><td>4</td></tr>
<tr><td>Toilet No.2</td><td>1</td><td>2</td><td>3</td><td>4</td></tr>
</table>
Clean:

The toilet facilities are not smelly, there is no visible faeces in or around the facility, there are no flies and there is no litter.

Somewhat Clean:

The toilet facility is almost clean except some bad smell.

Somewhat not clean:

There is some smell and/or some sign of faecal matter and/or some flies and/or some litter.

Not clean:

There is a strong smell and/or presence faecal matter and/or a significant fly problem and/or a large amount of litter.
</td></tr>
<tr><td>2.11</td><td>Is water available in toilet(s) during time of observation?</td><td>Yes, water is available 1
No, water is not available 2
Don’t know/No response 9</td><td>|____|</td></tr>
<tr><td>2.12</td><td>Is soap available in toilet(s) during time of observation?</td><td>Yes, soap is available 1
No, soap is not available 2
Don’t know/No response 9</td><td>|____|</td></tr>
<tr><td>2.13</td><td>How far is the toilet from the water source?</td><td>< 10 feet1
10-29 feet 2
30-49 feet 3
Over 50 feet 4
Don’t know/No response 9</td><td>|____|</td></tr>
<tr><td>▶</td><td colspan="3">Explain to the respondent that water source means the place from which one mainly obtains water such as ponds, wells and tube wells. Water storage places/tanks are not included in the kinds of water source.</td></tr>
</table>

3. Environment			
3.1	Status of Cleanliness of compound	Clean 1 Fairly clean 2 Somewhat not clean 3 Totally unclean 4	|____|
		Clean: *The house and its compound are clean with no garbage, rubbish and no flooding*	
		Fairly clean: *The house and its compound are clean. There is some garbage or rubbish but with no flooding*	
		Somewhat not clean: *The house and its compound are not clean. They are not properly swept or mopped but there is not much garbage or rubbish in compound.*	
		Totally unclean: *The house and its compound are not properly swept or mopped. Garbage or rubbish is also seen here and there.*	

Observation completed

■

Survey on Community Knowledge, Attitude and Practice of WASH

Focus group discussion guide for mothers and care takers

Participants can be mothers or women who are taking care of children from babies to under 18 years of age.
To introduce hygiene practices to the focus group and "break the ice" Present picture cards for defecation practices and hand washing practices. Then explain the picture cards and let the group members vote what the most common practice in their community/village is.

Hand washing practices				
C1.		How common is hand washing in your community/village?		P
C1.	a	Are many people doing hand washing? Please explain.		
C1.	b	How do people wash their hands? How commonly do people use soap?		
C1.	c	On what occasions is hand washing most commonly practiced? Before eating or after defecation?		
C1.	d	Are there differences in the hand washing practices between children, adults and older people? Between males and females? Please explain.		
C1.	e	Why do some people not wash their hands? Are there barriers to practising hand washing? Please explain.		
C2.		Do youthink it is important that people wash their hands?	K	
C2.	a	Can hand washing or not hand washing affect one's or other people's health? How does it affect one's or other people's health?Please explain.		
C2.	b	When should people wash their hands? If no answer, then probe: before breakfast/ lunch/dinner (and/or) after defecation (and/or) before going to bed (and/or) before cooking?		
C2.	c	Explain for each situation why people should wash their hands?		
C2.	d	Is soap important? Why is it important?		

Open defecation				
C4		How common is open defecation in your community/village?		P
C4.	a	Are many people defecating openly?Please explain.		
C4.	b	How often are people practicing open defecation—often or sometimes?		
C4.	c	When do they do it most often? Day time (or) Night time?		
C4.	d	Who are they, males or females, children or young persons or old persons?		
C4.	e	Please explain any differences in the practice of open defecation between <u>males and females</u>.		
C4.	f	Please explain any differences in the practice of open defecation between <u>children, adults and older people</u>.		
C4.	g	Where do they practice open defecation?Why?Please explain.		
C5		Can open defecation of one person affect health in a community?	K	
C5.	a	Can open defecation affect <u>one's own</u> health? How? Please explain.		
C5.	b	Can it affect <u>other people's</u> health? How? Please explain.		
C5.	c	Where did you learn about the potential effects of open defecation on health?		
C6		What do you feel about when you see or know of others defecating openly?	A	
C7		Do you do something when you see or know of others defecating openly? What? Please explain.		P
C8		Do you think something should be done about it?	A	
C8.	a	If so, what should be done?		
C8.	b	What are the barriers/reasons for doing or not doing something about it?		

Child faeces				
C9		Who usually disposes of child faeces?		P
C10		How do people in this community usually dispose of child faeces? Are there differences in the disposal methods? What are they?		P
C11		Can child faeces affect the child's or other people's health? How?	K	
C11.	a	Which is more dangerous to people's health, child faeces or adult faeces?		

C12		Are some of the common practices in this community/village dangerous for health? Please explain.		A P
C12	a	What do you feel about those practices?		
C12	b	What do you do about those practices?		
C12	c	What should be done about those practices?		

Other hygiene practices				
C13.		Are there any other hygiene practices that people in your community are applying? Please describe the practices and the reasons for applying those practices.		P
C14.		Are there any other hygiene practices that people in your community should be applying but currently they are not applying them? Please describe the practices and why you think they are important.		A P

Children as agents of change for hygienic practices				
C15.		Do children generally know more or less than adults or older people about hygiene? Please explain.	K	
C16.		Where do children learn about hygiene? At school? At home?		P
C17.		What are the main things that they learn?	K	
C18.		Do they apply what they have learned about hygiene?		P
C18.	a	Why not? What are the barriers to applying what they have learned about hygiene?		
C19.		Do you think these lessons that children learn at school may be useful for adults too?	K	
C20.		Do they influence the hygienic behaviour of others? If so, how? If so, who?		P

Priority issues in the community/village				
C21.		Of all the hygiene issues discussed, what concerns you most and why? Or nothing concerns you?	A	
C21.	a	What could be done about it?		

Survey on Community Knowledge, Attitude and Practice of WASH

Focus group discussion guide for community members

Participants can be elders, youth (age 15 - 24) and people from different occupational backgrounds, such as farmers, fishery workers, casual workers, small traders, etc.
To introduce hygiene practices to the focus group and "break the ice" Present picture cards for defecation practices and hand washing practices. Then explain the picture cards and let the group members vote what the most common practice in their community/village is.

Hand washing practices			
C1.		How common is hand washing in your community/village?	P
C1.	a	Are many people doing hand washing? Please explain.	
C1.	b	How do people wash their hands? How commonly do people use soap?	
C1.	c	On what occasions is hand washing most commonly practiced? Before eating or after defecation?	
C1.	d	Are there differences in the hand washing practices between children, adults and older people? Between males and females? Please explain.	
C1.	e	Why do some people not wash their hands? Are there barriers to practicing hand washing? Please explain.	
C2.		Do youthink it is important that people wash their hands?	K
C2.	a	Can hand washing or not hand washing affect one's or other people's health? How does it affect one's or other people's health? Please explain.	
C2.	b	When should people wash their hands? If no answer, then probe: before breakfast/ lunch/dinner (and/or) after defecation (and/or) before going to bed (and/or) before cooking?	
C2.	c	Explain for each situation why people should wash their hands?	
C2.	d	Is soap important? Why is it important?	

Open defecation				
C4		How common is open defecation in your community/village?		P
C4.	a	Are many people defecating openly? Please explain.		
C4.	b	How often are people practicing open defecation—often or sometimes?		
C4.	c	When do they do it most often? Day time (or) Night time?		
C4.	d	Who are they, males or females, children or young persons or old persons?		
C4.	e	Please explain any differences in the practice of open defecation between males and females.		
C4.	f	Please explain any differences in the practice of open defecation between children, adults and older people.		
C4.	g	Where do they practice open defecation?Why?Please explain.		
C5		Can open defecation of one person affect health in a community?	K	
C5.	a	Can open defecation affect one's own health? How? Please explain.		
C5.	b	Can it affect other people's health? How? Please explain.		
C5.	c	Where did you learn about the potential effects of open defecation on health?		
C6		What do you feel about when you see or know of others defecating openly?	A	
C7		Do you do something when you see or know of others defecating openly? What? Please explain.		P
C8		Do you think something should be done about it?	A	
C8.	a	If so, what should be done?		
C8.	b	What are the barriers/reasons for doing or not doing something about it?		

Child faeces				
C9		Who usually disposes of child faeces?		P
C10		How do people in this community usually dispose of child faeces? Are there differences in the disposal methods? What are they?		P
C11		Can child faeces affect the child's or other people's health? How?	K	
C11.	a	Which is more dangerous to people's health, child faeces or adult faeces?		

C12		Are some of the common practices in this community/village dangerous for health? Please explain.		A P
C12	a	What do you feel about those practices?		
C12	b	What do you do about those practices?		
C12	c	What should be done about those practices?		

Other hygiene practices				
C13.		Are there any other hygiene practices that people in your community are applying? Please describe the practices and the reasons for applying those practices.		P
C14.		Are there any other hygiene practices that people in your community should be applying but currently they are not applying them? Please describe the practices and why you think they are important.		A P

Children as agents of change for hygienic practices				
C15.		Do children generally know more or less than adults or older people about hygiene? Please explain.	K	
C16.		Where do children learn about hygiene? At school? At home?		P
C17.		What are the main things that they learn?	K	
C18.		Do they apply what they have learned about hygiene?		P
C18.	a	Why not? What are the barriers to applying what they have learned about hygiene?		
C19.		Do you think these lessons that children learn at school may be useful for adults too?	K	
C20.		Do they influence the hygienic behaviour of others? If so, how? If so, who?		P

Priority issues in the community/village				
C21.		Of all the hygiene issues discussed, what concerns you most and why? Or nothing concerns you?		A
C21.	a	What could be done about it?		