



DCS



Household Survey of
Drinking Water Quality- 2021
Sri Lanka

Department of Census and Statistics
Ministry of Finance, Planning and Economic Development

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Preface

The Department of Census and Statistics (DCS), the Ministry of Water Supply and Estate Infrastructure Development, and Housing Facilities, in collaboration with UNICEF, conducted the Household Survey of Drinking Water Quality (HSDWQ) for the first time in Sri Lanka in 2021. This comprehensive survey covered the entire country and aimed to provide insights into the overall drinking water quality situation.

The survey, conducted in 2021 as a special initiative, aimed to provide comprehensive insights into drinking water, sanitation, and hygiene in Sri Lanka. Utilizing the WHO/UNICEF Joint Monitoring Program (JMP) methodology, the survey collected data for Water, Sanitation, and Hygiene (WASH) to provide key indicators in this area.

This survey employed a two-stage stratified sampling design to select the representative sample of 3,210 housing units from 642 census blocks distributed across all 25 districts of Sri Lanka. The urban, rural, and estate sectors within each district served as the selection domains, with the district itself being the main domain used for stratification. In the first stage, census blocks were selected as primary sampling units (PSUs). In the second stage, five housing units were selected from each selected PSU as the secondary sampling units (SSUs).



D.D.G.A. Seneviratne
Director General
Department of Census and Statistics

Department of Census and Statistics
“Sankayana Mandiraya”
No.306/71,
Polduwa Road,
Battaramulla
09/01/2025

Acknowledgement

The "Household Survey of Drinking Water Quality - Sri Lanka" was conducted by the Department of Census and Statistics (DCS) with the objective of collecting data on water quality parameters, focusing particularly on bacteriological and chemical contamination, with a specific emphasis on fluoride as a purity chemical. The survey sought to compile data relevant to SDG targets (6.1), which aim to ensure access to safely managed drinking water services, including water quality and sanitation.

The survey was coordinated by Mrs. K.M.D.S.D. Karunaratna, Additional Director General (Statistics), with planning and execution overseen by staff of the Sample Survey Division under the guidance of Mrs. K.A.S. Kodikara, Director (Statistics), and the direction of Mrs. E.E.A.P. Egodawatta and Mr. W. Gnanathilaka, Deputy Directors.

The survey activities were organized and supervised by a team of statisticians including Mrs. H.M.D. Sepalika, Mr. Chintaka Karunaratna, Mr. T.D.M.S.D. Perera, Mrs. U.S. Dilrukshi, Mr. K.T. Sureshkumar, Mrs. Chanithi Chandraratna, Mrs. G.D. Manamperi, Mrs. P.D. Nanayakkara, Ms. R.P.M. Subashini, Mr. H.M.S.C. Bandara, and Ms. C.R. Liyanage from the Sample Surveys Division.

The computer data processing and final tabulations were handled by Mr. Suresh Kumara, Mrs. C.R.Liyanage, and Ms. R.P.M. Subashini, under the guidance of Mr. Gnanathilaka and Dr. M.D.D.D. Deepawansa, Deputy Directors of the Sample Surveys Division.

Publication preparation was carried out by Mrs. H.M.D. Sepalika, Mr. Chintaka Karunaratna, Mrs. U.S. Dilrukshi, Mrs. Chanithi Chandraratna, Ms. R.P.M. Subashini, Mr. H.M.S.C. Bandara, Ms. C.R. Liyanage, and Ms. A.H.L.T. Sandaruwini Statisticians, under the guidance of Mr. S.H. Mansoor Director (Statistics), and the direction of Mr. W. Gnanathilaka and Dr. M.D.D.D. Deepawansa, Deputy Directors, Sample Surveys Division.

The Information and Communication Technology Division, guided by W.H.P.W. Weerasiri, Director, and directed by Mr. E.M.D. Ekanayaka, Deputy Director (ICT), was responsible for preparing data entry, computer edit programs, and data management, ensuring the smooth processing of survey data.

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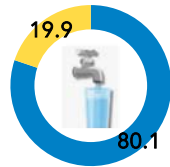
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Household Survey of Drinking Water Quality - 2021, Sri Lanka

DRINKING WATER



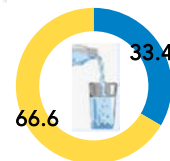
80.1 percent of the population used an improved source of drinking water.

■ Improved ■ Unimproved

88.4 percent of the household members had sufficient drinking water available when needed.



55.6 percent of household members drink from a water source contaminated with E-coli while, 65.6 percent of the household population had E.coli contamination in their drinking water.



33.4 percent of household members used safely managed drinking water.

■ Safely managed ■ Not safely managed



30.6 percent of the population uses an appropriate water treatment method.



SANITATION



99.7 percent of the population lived in households used improved sanitation facilities.



Most of the households used flush toilets connected to onsite facilities such as pit latrines (84.9 percent) or septic tank (11.0 percent).



93.7 percent of the household population used improved sanitation facilities and did not share them with other households.



5.5 percent of the household population used improved sanitation facilities but share them with other households and 0.5 percent used public facility.

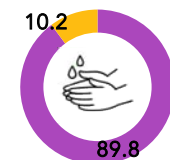


64.3 percent of the household population used basic drinking water, sanitation and hygiene services

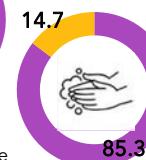
HYGIENE



90.7 percent of household members had fixed hand washing facilities on their premises.



■ Available ■ Not available



Soap availability is less than water availability among households with a place for handwashing facility on premises.

Among household members with a handwashing facility, 85.0 percent had water and soap present in the specific place.



5.7% had handwashing facilities lacking soap or water which falls into Limited-service level.

9.3 percent of household members didn't have hand washing facilities on their premises.



SDG Related Indicators



SDG 6.1.1

Proportion of population using safely managed drinking water services

Percentage of household members with an improved drinking water source on premises, whose source water was tested and free of E. coli and available when needed.

33.4%



Part of SDG 6.2.1

Proportion of population using hand washing facility with soap and water

Proportion of population using (b) a hand-washing facility with soap and water.

85.0%



Related to SDG 1.4.1

Proportion of population living in households with access to basic services

Access to basic drinking water services: Percentage of household members using improved sources of drinking water either in their dwelling/yard/plot or within 30 minutes round trip collection time.

79.7%



Related to SDG 3.8.1

Coverage of essential health services

Percentage of population using at least basic sanitation services

99.7%



Chapter 1 : Introduction

1.1 Background

The World Health Organization and United Nations Children’s Fund (WHO/ UNICEF) Joint Monitoring Programme for Water Supply, Sanitation and Hygiene (JMP) produces internationally comparable estimates of progress on drinking water, sanitation and hygiene (WASH). It is responsible for global monitoring of the Sustainable Development Goal (SDG) targets related to WASH. The JMP has refined the methods used for global monitoring of WASH indicators and has been instrumental in establishing global benchmarks that facilitate comparison of progress in WASH indicators across countries.

In 2013, the UN General Assembly and the Human Rights Council reaffirmed recognition of the human rights to water and sanitation. Consequently, most of the countries, including Sri Lanka are obliged to ensure progressive realization of these rights. This commitment is demonstrated by increased access to water and sanitation services, with aim of achieving universal access and improving service levels for present and future generations.

The JMP uses ‘service ladders’ to benchmark and compare progress across countries, which have been updated and expanded for SDG monitoring. The drinking water ladder defines five service levels, ranging from surface water to safely managed drinking water services, serving as the global indicator for SDG target 6.1¹ (Table 1.1).

Table 1.1 - SDG ladder for drinking water services

| Service level | Definition |
|----------------|---|
| Safely managed | Drinking water from an improved source that is accessible on premises, available when needed and free from faecal and priority chemical contamination |
| Basic | Drinking water from an improved source, provided collection time is not more than 30 minutes for a round trip, including queuing |
| Limited | Drinking water from an improved source, for which collection time exceeds 30 minutes for a round trip, including queuing |
| Unimproved | Drinking water from an unprotected dug well or unprotected spring |
| Surface water | Drinking water directly from a river, dam, lake, pond, stream, canal or irrigation canal |

¹ Progress on household drinking water, sanitation and hygiene 2000-2020

The ladder builds on the improved/unimproved source type classification used for Millennium Development Goal (MDG) monitoring and introduces additional criteria related to the level of service provided. For SDG monitoring, households using improved sources are divided into three categories. If a round trip to collect water, including queuing, exceeds 30 minutes, it is categorized as a 'limited service', while if it takes no more than 30 minutes, it is categorized as a 'basic service'.

To meet the SDG standard for 'safely managed services', improved sources must be accessible on premises, available when needed, and free from contamination. Households with safely managed services also meet the requirements for basic services. Therefore, these two levels can be grouped together as 'at least basic service', which is the indicator used for monitoring SDG target 1.4.

Improved sources encompass piped water, boreholes or tube-wells, protected dug wells, protected springs, rainwater, and packaged or delivered water. Sources are considered 'accessible on premises' if the point of collection is within the dwelling, compound, yard or plot, or if water is delivered to the household. Water is counted as 'available when needed' if households report having 'sufficient' water, or water is available 'most of the time' (that is, continuously or for at least 12 hours per day or four days per week). For the purposes of global monitoring, drinking water is considered 'free from contamination' if no E. coli or thermo-tolerant coliforms are detected in a 100ml sample, and it meets WHO standards for priority chemicals (arsenic and fluoride).

In 2017 JMP introduced new indicators for safely managed drinking water services and safely managed sanitation services along with updated methodologies for calculating these indicators. As a result proportion, the proportion of the population using safely managed drinking water services is currently measured by updated methodologies using an improved basic drinking water source which is located on premises and available when needed, and free from contamination.

The United Nations Children's Fund (UNICEF) agreed to support the Government of Sri Lanka in conducting the training and pretesting to prepare for the Household Survey of Drinking Water Quality 2020, that targets to monitor the safely managed water supply at household levels to responding to the SDG indicators 6.1. Accordingly, UNICEF was the principal Non-Government agency responsible for providing financial and technical support for the training and conducting the Household Survey of Drinking Water

Quality. The Department of Census and Statistics (DCS) , in coordination with the Ministry of Urban Development, Water Supply and Housing Facilities was conducted the Household Survey of Drinking Water Quality 2020 first time in Sri Lanka.

1.2 Objective of the Survey

The main objective of this engagement was to collect data on water quality parameters particularly on bacteriological contamination and chemical contamination with the focus of Fluoride as a priority chemical through a Household Survey of Drinking Water Quality. Using the data collected through this survey, the DCS measures and reports on selected water quality parameters as per the SDG reporting requirements for safely managed water supply systems at the household level.

Accordingly, the results of this survey have the potential to reveal a nationally representative view of the quality of water consumed by Sri Lankans at household and the quality of their drinking water source. Within each cluster of the survey, a number of households will be randomly selected for E.coli testing. E.coli is a faecal indicator bacteria, meaning that its presence suggests contamination from faeces or raw sewage in the water supply. The presence of E. coli in drinking water does not necessarily mean that the person drinking it will become sick, but it indicates that over time the household is at higher risk for waterborne diseases. The World Health Organization recommends as a guideline that there should be no E. coli present in a 100 mL sample of water.

The Household Income & Expenditure Survey conducted by the Department of Census and Statistics in 2016 and 2019 provides insights into the sources and safety of drinking water among households in Sri Lanka. In 2016, the survey categorized households' main sources of drinking water into 13 types, defining safe drinking water as sourced from protected wells within premises, protected wells outside premises, taps inside homes, taps within units/premises (main line), taps outside premises (main line), water projects in villages, tube wells, bowsers, or bottled water. It reported that 88.8% of households had access to safe drinking water, while 11.2% relied on unsafe sources such as unprotected wells, rivers/tanks/streams, rainwater, or other categories.

In contrast, the 2019 survey revised the categorization to 12 types, defining safe drinking water as sourced from protected wells, taps inside homes, taps within units/premises (main line), taps outside premises (main line), tube wells, bottled water,

or filtered water. It found that 88.5% of households had access to safe drinking water, with 11.5% using unsafe sources such as unprotected wells, water projects in villages, rivers/tanks/streams, rainwater, bowsers, or other categories. This slight decrease in the proportion of households accessing safe drinking water between the two survey years reflects on-going challenges and variations in water quality and access across Sri Lanka.

This report is used JMP definition for identifying safe drinking water and it differs from the previously mentioned definitions. Therefore, users have to be careful when comparing previously published figures on water quality with these survey findings.

This report presents the results of the Household Survey of Drinking Water Quality 2020. The following Chapter 2 outlines the Survey Methodology and Estimation Procedure. Chapter 3 and 4 are present the survey results of Drinking Water and Hand washing and sanitation respectively. Each chapter begins with, a brief introduction to the topic followed by the descriptions of all tables, are followed by the tabulations.

Chapter 2 : Survey Methodology and Estimation Procedure

2.1 Introduction

The main objective of the survey is to identify and quantify the quality of drinking water in Sri Lanka. To achieve these objectives in line with international practices, Department of Census and Statistics (DCS) conducted the household survey. This chapter outlines the methodology used for the Household Survey of Drinking Water Quality in 2021.

2.2 Scope and Coverage

Detailed information on drinking water use in households was collected in this survey. However, as quality of the drinking water is analysed in detail under different criteria and the relevant estimates were separately produced under respective criteria, based on The WHO/UNICEF Joint Monitoring Programme (JMP) drinking water quality guidelines, 2018. Accordingly estimating the global incidence of drinking water quality the JMP uses three main criteria accessibility, availability and contamination. Also these are the main criteria used in many other countries to explain quality of water. This survey take account of the quality of drinking water through a general household sample and hence only water use in households for drinking purpose were covered in the survey specially to estimate drinking water conditions. However, some information about the sanitation and hygiene practices use in households was also collected. Thus, the water use for agricultural or industrial purposes and even for washing purpose in a household were not covered in the survey.

The Computer Assisted Personal Interviewing (CAPI) method was used to collect data using a tablet programme. Initially, basic demographic information for all individuals residing in the in the sampled households was recorded in tablet programme. Subsequently, enumerators were instructed to gather the relevant data on household drinking water, sanitation facilities and hygiene practices².

As a part of data collection process, household water samples were tested practically to identify E-coli. This practical test known as “Membrane Filtration Method” was used for E-coli identification in water samples. Test results obtained after 24 hours were entered into the tablet programme.

2.3 Sample Design

This was the first Household Survey of Drinking Water Quality (HSDWQ) conducted for Sri Lanka in 2021, and it covers the entire country. Survey involves a countrywide representative sample of 3,210 housing units selected from 642 census blocks distributed across all 25 districts. It also covered urban, rural and estate sectors, encompassing all types of households including one-person households.

This survey used two stage stratified sample design to select the survey sample of 3,210 housing units. The urban, rural, and estate³ sectors within each district of the country form the selection domain and the district itself being the main domain used for stratification. In the first stage, census blocks (also known as census enumeration areas) are selected as primary sampling units (PSUs). The HSDWQ 2021 uses 642 PSUs in the second stage; five housing units are selected from each selected PSU as the secondary sampling units (SSUs). The HSDWQ 2021 includes a total 3210 SSUs.

The sampling frame prepared for 2012 Census of Population and Housing is used as the sampling frame for this HSDWQ 2021. The selected census blocks for the survey were updated for any significant changes that occurred between 2012 and 2020 and then selected the housing units from updated PSUs for the HSDWQ 2021.

Primary sampling Units (PUSs) were selected from each stratum systematically with the selection probability to PUS proportionately to number of housing unit available in the census block within the selection domain known as systematic probability proportional to size (PPS) sampling technique (642 PSUs). The Secondary Sampling Units (SSUs) of the survey are Housing units. Five SSUs were selected from each selected PSU using systematic sampling method and total were 3210 housing units. The detail of the sample allocation is shown in Table 2.1.

It was proposed that, upon completion of the Household Survey of Drinking Water Quality, the estimates provided should classify the quality of drinking water for main three residential sectors urban, rural and estate. Additionally, the estimates should classify the quality by improved or unimproved source of drinking water⁴.

² The survey questionnaire comprises various sections to achieve the objectives. (Please refer the questionnaire in the Annexure).

³ Estate is a special residential sector for Sri Lanka, which is related to country's formal plantation sector and the people who are living and working in these areas

⁴ It should be noted that estimates derived from sample surveys are always subject to sampling errors. Therefore, it is not possible to obtain estimates at every desired level.

2.3.1. Stratification

Table 2.1-Primary sample allocation and secondary sample distribution by district & sector

| District | Sector | | | | | | Total | |
|--------------|--------|-----|-------|------|--------|-----|-------|------|
| | Urban | | Rural | | Estate | | PSU | SSU |
| | PSU | SSU | PSU | SSU | PSU | SSU | | |
| Colombo | 45 | 225 | 14 | 70 | 1 | 5 | 60 | 300 |
| Gampaha | 9 | 45 | 50 | 250 | ** | | 59 | 295 |
| Kalutara | 3 | 15 | 28 | 140 | ** | | 31 | 155 |
| Kandy | 6 | 30 | 35 | 175 | 3 | 15 | 44 | 220 |
| Matale | 2 | 10 | 15 | 75 | ** | | 17 | 85 |
| Nuwaraeliya | 2 | 10 | 8 | 40 | 11 | 55 | 21 | 105 |
| Galle | 5 | 25 | 29 | 145 | ** | | 34 | 170 |
| Matara | 3 | 15 | 23 | 115 | 1 | 5 | 27 | 135 |
| Hambantota | 1 | 5 | 21 | 105 | ** | | 22 | 110 |
| Jaffna | 4 | 20 | 16 | 80 | * | | 20 | 100 |
| Mannar | 2 | 10 | 8 | 40 | * | | 10 | 50 |
| Vavuniya | 2 | 10 | 9 | 45 | * | | 11 | 55 |
| Mullaitive | * | | 11 | 55 | * | | 11 | 55 |
| Killinochchi | * | | 12 | 60 | * | | 12 | 60 |
| Batticaloa | 5 | 25 | 14 | 70 | * | | 19 | 95 |
| Ampara | 5 | 25 | 17 | 85 | * | | 22 | 110 |
| Trincomalee | 4 | 20 | 13 | 65 | * | | 17 | 85 |
| Kurunegala | | ** | 44 | 220 | 1 | 5 | 45 | 225 |
| Puttalam | 1 | 5 | 20 | 100 | ** | | 21 | 105 |
| Anuradhapura | 1 | 5 | 23 | 115 | ** | | 24 | 120 |
| Polonnaruwa | * | | 16 | 80 | ** | | 16 | 80 |
| Baddulla | 1 | 5 | 17 | 85 | 5 | 25 | 23 | 115 |
| Monaragala | * | | 15 | 75 | 1 | 5 | 16 | 80 |
| Ratnapura | 3 | 15 | 24 | 120 | 3 | 15 | 30 | 150 |
| Kegalle | 1 | 5 | 28 | 140 | 1 | 5 | 30 | 150 |
| Total | 105 | 525 | 510 | 2550 | 27 | 135 | 642 | 3210 |

* No Urban/ Estate areas in the district

** Not got selected when PPS method applied

The primary sample and secondary sample distribution of the HSDWQS are shown in the Table 2.1. However it is noted that certain strata such as estate sector in Gampaha, Kalutara, Matale, Galle, Hambantota, Puttalam, Anuradhapura and Polonnaruwa districts samples were not allocated due to small housing unit counts in these strata.

Effective sample due to non-response

In household surveys, non-response can occur due to various reasons such as refused response, demolition of the housing unit, no invalidity for survey purposes, vacant and so forth. In HSDWQ, each household's drinking water sample and the sample collected

directly from water source were both tested for E-coli. Therefore, if either drinking water sample or source water sample is unavailable for testing, the water quality testing results are considered as incomplete for drinking water or source water respectively.

Apart from unavailability of the water sample, incomplete survey results can also result from failed daily controlled tests used for instrument calibration. In such cases, all the tests conducted in the day with failed controlled test are considered as incomplete. Therefore, those types of incompleteness are considered as special types of non-responses for this survey. Non-response adjustments are made during the analysis stage where necessary. The summary of effective sample housing units excluding the non-responses for various reasons, are given in the Table 2.2.

Table 2.2 - Distribution of effective sample housing units by district and sector

| Survey Sample | | | | | |
|---------------------------|-------|-------------------------------|-------|-----------------------------|-------|
| Household Questionnaire | | Drinking Water Testing | | Source Water Testing | |
| Sampled | 3,210 | Sampled | 3,210 | Sampled | 3,210 |
| Occupied | 3,154 | Occupied | 3,154 | Occupied | 3,154 |
| Questionnaire Interviewed | 3,111 | Drinking water test completed | 3,105 | Source water test completed | 3,060 |
| Response rate (%) | 98.6 | Response rate (%) | 98.4 | Response rate (%) | 97.0 |

Note: As 56 housing units were found to be either vacant or demolished at the time of survey, the total effective sample size for the survey enumeration was 3154.

2.4 Estimation procedure

2.4.1 Estimation under different characteristics

Let \hat{X}_j be the estimate of any given characteristic for j^{th} district.

Then \hat{X}_j could be estimated using the formula below.

$$\hat{X}_j = \frac{1}{m_{j(u)}} \sum_{h(u)=1}^{m_{j(u)}} \frac{1}{P_{h(u)}} \frac{N_{h(u)}}{n_{h(u)}} \sum_{i(u)=1}^{n_{h(u)}} X_{hi(u)} + \frac{1}{m_{j(r)}} \sum_{h(r)=1}^{m_{j(r)}} \frac{1}{P_{h(r)}} \frac{N_{h(r)}}{n_{h(r)}} \sum_{i(r)=1}^{n_{h(r)}} X_{hi(r)}$$

$$+ \frac{1}{m_{j(e)}} \sum_{h(e)=1}^{m_{j(e)}} \frac{1}{P_{h(e)}} \frac{N_{h(e)}}{n_{h(e)}} \sum_{i(e)=1}^{n_{h(e)}} X_{hi(e)}$$

Where,

$m_{j(u)}$ = Number of census blocks selected from the urban sector of the j^{th} district.

$P_{h(u)}$ = Selection probability of the h^{th} census block in the urban sector, which can be given by,

$$P_{h(u)} = \frac{S_{jh(u)}}{\sum_{h=1}^{M_{jh(u)}} S_{jh(u)}}$$

$S_{jh(u)}$ = Measure of size (number of housing units) of the h^{th} census block in the urban sector of the j^{th} district.

$M_{jh(u)}$ = Total number of census blocks in urban sector of the j^{th} district.

$N_{h(u)}$ = Total number of housing units listed in the h^{th} census block in the urban sector.

$n_{h(u)}$ = Number of housing units selected from the h^{th} census block in the urban sector.

$X_{hi(u)}$ = The observed value for the i^{th} sample household in the h^{th} census block in the urban sector.

$m_{j(r)}$, $P_{h(r)}$, $S_{jh(r)}$, $M_{jh(r)}$, $N_{h(r)}$, $n_{h(r)}$, and $X_{hi(r)}$ are corresponding terms for the Rural sector and

$m_{j(e)}$, $P_{h(e)}$, $S_{jh(e)}$, $M_{jh(e)}$, $N_{h(e)}$, $n_{h(e)}$, and $X_{hi(e)}$ are corresponding terms for the Estate sector.

The estimate for the total value of a characteristic for the country,

$$\hat{X} = \sum^{All\text{districts}} \hat{X}_j$$

2.4.2 Sample weights

Let initial sample weighting factor for the h^{th} census block in a given sector is denoted by W^1_{hj} . Then W^1_{hj} is computed by,

$$W^1_{hj} = \frac{1}{m_j} \sum_{h=1}^{m_j} \frac{1}{p_h} \frac{N_h}{n_h}$$

2.4.3 Adjustment for unit non-response

The occurrence of unit non-response was determined by examining the result code recorded under 13 of identification information of the schedule. Based on the result codes, the households were grouped into the following categories, which were used as a basis for adjusting for the unit non-response.

| Category and description | Result code |
|------------------------------------|-------------|
| Schedule completed | 1 |
| Deferred/Party completed | 2 |
| Not eligible respondent | 3 |
| Refused | 4 |
| Housing unit is temporarily closed | 5 |
| Demolished/ Completely vacant | 6 |
| Other (specify) | 7 |

The unit non- response adjustment factor computed for census block h in the district j is given by W_{hj11} and is computed by,

$$W_{hj11} = \frac{\text{Number of schedules with result code (1-7)} - \text{Number of schedules with result code (6)}}{\text{Number of schedules with result code (1)}}$$

W_{hj11} = Non response adjustment factor

W_{hj111} = Population under coverage adjustment factor for District j

Then the final sample weighting factor for the hth census block in jth district denoted by W_{hj} (final) is computed by,

$$W_{hj(\text{Final})} = W_{hj1} \times W_{hj11} \times W_{j111}$$

The final weights computed by, $W_{hj(\text{Final})}$, were used in estimating the characteristics of the survey.

Chapter 3 : Drinking Water

Drinking water from an improved source that is accessible on premises, available when needed and free from faecal and priority chemical contamination is define as a safe drinking water service level in SDG 6.1. The improved water sources include: piped supplies, boreholes and tubewells, protected dug wells, protected springs, rainwater, water kiosks, and packaged and delivered water.

The safety of drinking water is essential as it can become contaminated with pathogens from human or animal waste, as harmful chemical and physical pollutants that pose health risks. Improving water quality is crucial for preventing diseases. However, ensuring easy access and an adequate supply of clean drinking water are equally important.

This survey specifically focuses to assess the quality of drinking water by sampling households focusing exclusively on water used for drinking purposes to evaluate its conditions. related to drinking water. The analysis of drinking water quality is conducted in-depth, considering various criteria and generated separate estimates based on the specific criteria.

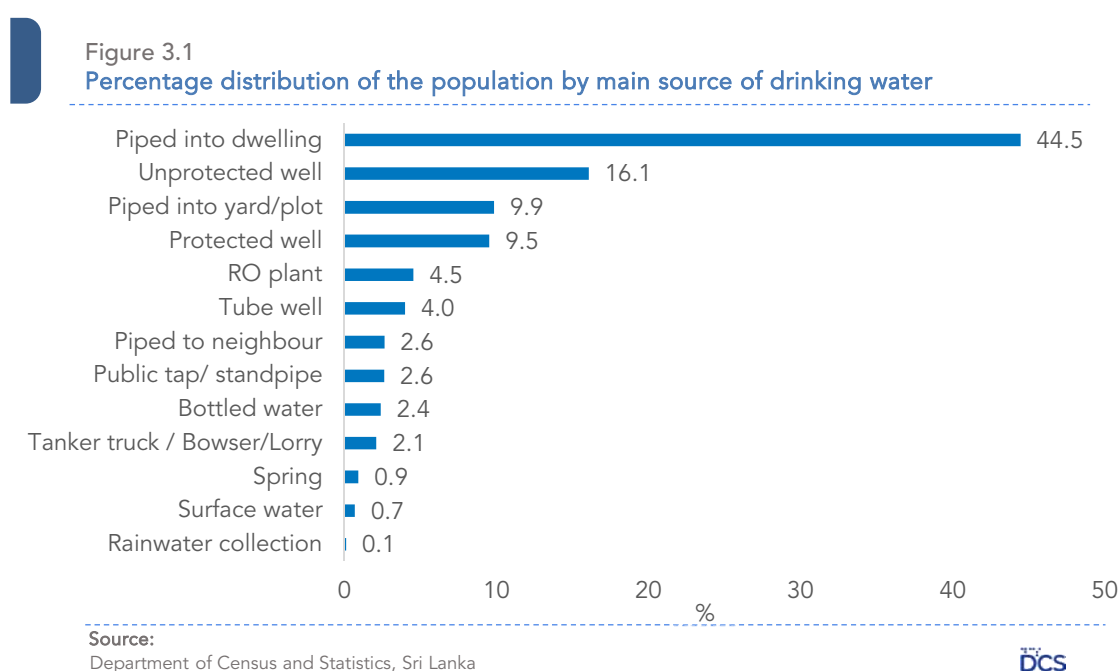
The SDG targets relating to drinking water are much more ambitious than the MDGs and aim to achieve universal access to basic services (SDG 1.4) and universal access to safely managed services (SDG 6.1)⁵. To fulfill the criteria for a safely managed drinking water service (as outlined in SDG 6.1.1), an improved water source must meet three essential conditions:

- Accessibility: The source should be conveniently located on the premises or nearby.
- Availability: Water must be reliably accessible whenever needed.
- Safety: The supplied water should be free from any form of contamination.

⁵ For more information on global targets and indicators please visit the website of the WHO/UNICEF Joint Monitoring Programme for Water Supply, Sanitation and Hygiene

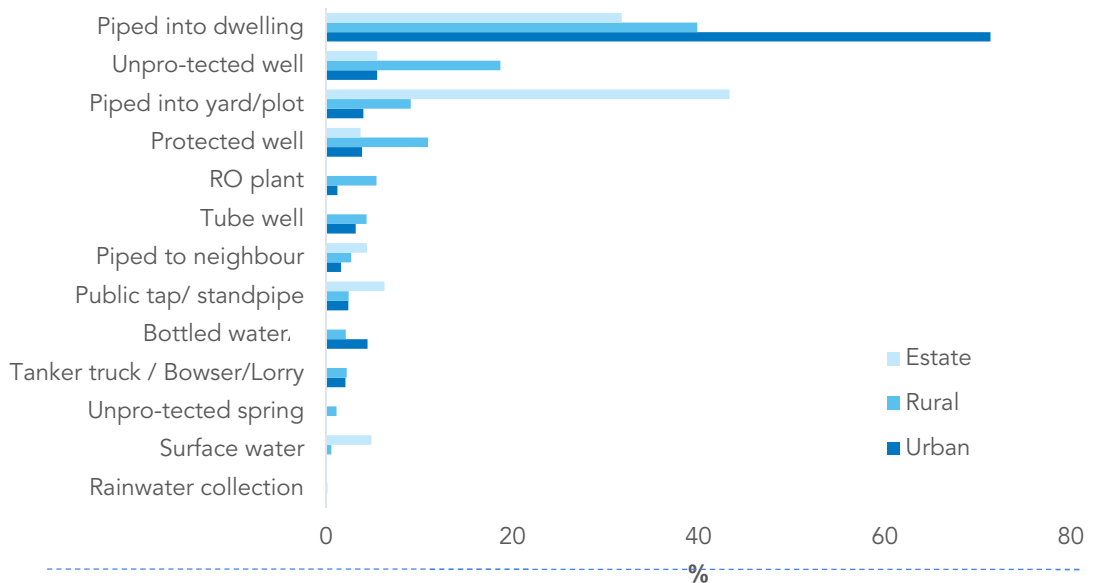
3.1 Drinking Water Sources

Accesses to basic drinking water services prefers use of drinking water from Improved water sources with a collection time of not more than 30 minutes for a round trip, including queuing. The improved drinking water sources includes : protected well, tube well, tap water, bottled water & RO plant. The detail information collected from this survey regarding the source of drinking water in Sri Lanka is provided below. The distribution of the population by main source of drinking water is shown in Figure 3.1. The Majority of the household population (44.5 percent) uses piped water to their dwelling as source of drinking water.



There was a significant different between urban, rural, and estate sectors in the usage of piped water into dwellings, yard or plot. Among sectors, piped water in to dwelling was the most reported water source in the urban and rural sectors, while piped in to yards/plots was reported most frequently in the estate sector.

Figure 3.2
Percentage distribution of the population by main source of drinking water and sector

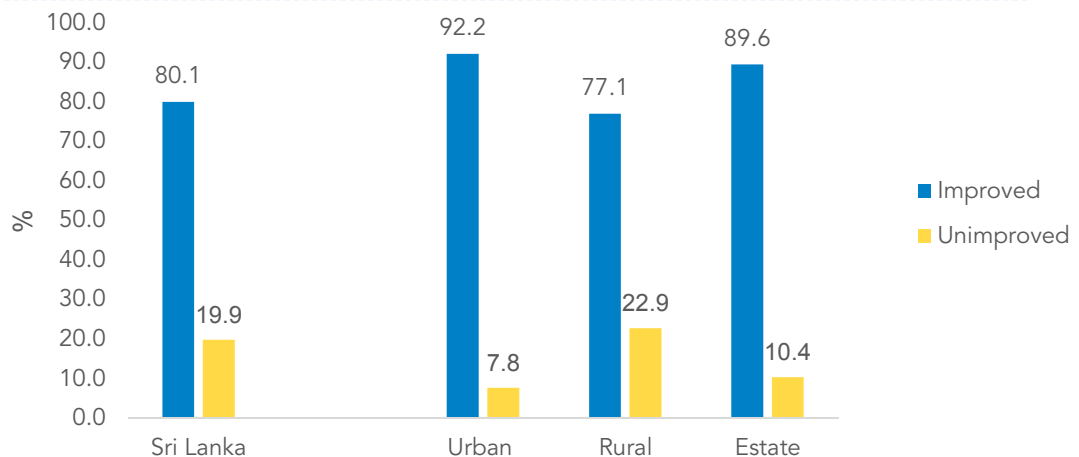


Source:
Department of Census and Statistics, Sri Lanka

DCS

The population using improved sources of drinking water includes those using any of the following types of supply: piped water (directly into dwelling, compound, yard or plot, to neighbour, public tap/standpipe), tube well/borehole, protected dug well, protected spring, bottled water & RO plant⁶.

Figure 3.3
Percentage distribution of the population by type of drinking water source



Source:
Department of Census and Statistics, Sri Lanka

DCS

⁶ Packaged water (bottled water and sachet water) and delivered water (tanker truck and cart with small drum/tank) are treated as improved based in new SDG definition.

Overall, 80.1 percent of the population used an improved source of drinking water (Figure 3.3), with 92.2 percent in urban sectors, 77.1 percent in rural sectors and 89.6 percent in estate sectors.

The usage of piped water into dwelling positively corresponded with the educational attainment levels of the household heads. (See Annexure table 3)

3.1.1 Accessibility

In order to safely manage drinking water, the sources should be conveniently located either on the premises or nearby. Household members using improved water sources located on their premises within 30 minutes round trip to collect water meet the SDG criteria for a 'basic' drinking water service (SDG 1.4.1).

Accordingly, this survey provides information related to accessibility to water sources in Sri Lanka through various means. Table 3.1 shows the amount of time taken per round trip to collect water for users of improved and unimproved sources. Use of improved water sources and time to collect water within 30 minutes per round trip is considered as basic drinking water service.

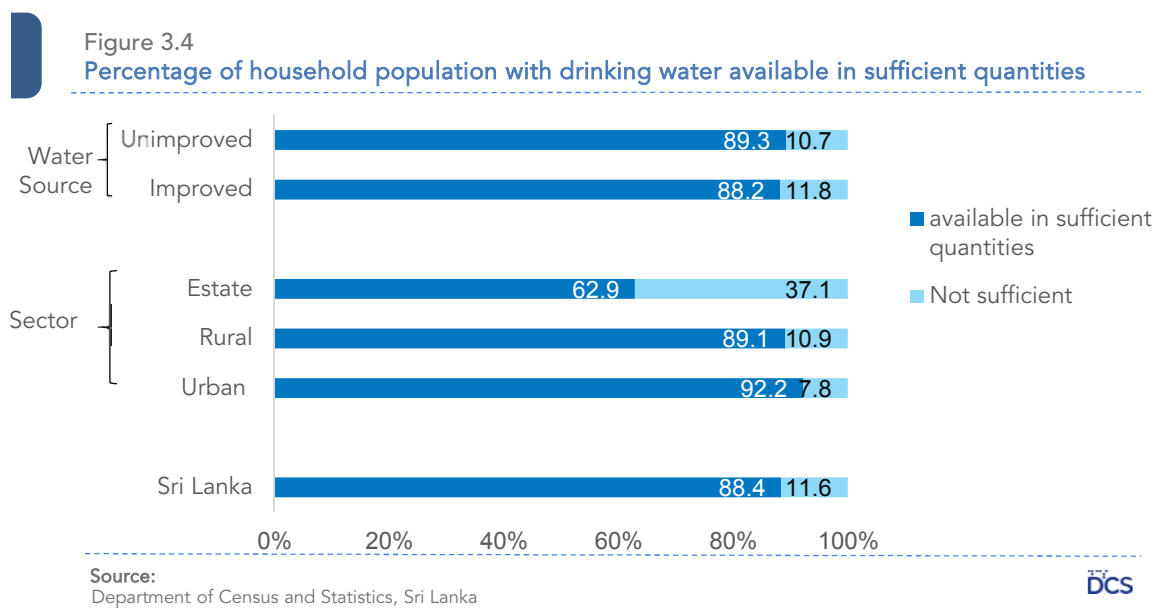
Table 3.1 - Distribution of population access to drinking water

| | Time taken to access source of drinking water | | | | | | Percentage using basic drinking water services |
|-----------|---|--------------------------------|----------------------|--|--------------------------------|----------------------|--|
| | Users of improved drinking water sources | | | Users of unimproved drinking water sources | | | |
| | Water on premises | Up to and including 30 minutes | More than 30 minutes | Water on premises | Up to and including 30 minutes | More than 30 minutes | |
| Sri Lanka | 87.8 | 99.5 | 0.5 | 71.8 | 98.7 | 1.3 | 79.7 |
| Urban | 95.3 | 100.0 | 0.0 | 73.1 | 100.0 | 0.0 | 92.2 |
| Rural | 85.8 | 99.4 | 0.6 | 72.1 | 98.6 | 1.4 | 76.7 |
| Estate | 92.0 | 100.0 | 0.0 | 56.8 | 100.0 | 0.0 | 89.6 |

Table 3.1 shows that overall, 79.7 percent of the population uses basic drinking water services, with 87.8 percent of household population accessing an improved water source located on their premises and 0.5 percent spending more than 30 minutes collecting water from an improved source. A lower percentage of basic drinking water service use was found in the rural sector (76.7 percent). Regarding the time of collecting improved drinking water, it was observed that a higher percentage of household population in the rural sector spend more than 30 minutes compared to those in other sectors.

3.1.2 Availability

The availability of sufficient drinking water is essential for public health. According to the SDG 6.1 drinking water is considered “available when needed” if households report having ‘sufficient’ water, or water is available ‘most of the time’ (i.e. at least 12 hours per day or 4 days per week). This survey provides the information on availability of drinking water among household population in Sri Lanka. Figure 3.4 shows the proportion of household members who had sufficient water available when needed from their main source of drinking water in the month prior to the survey date. Overall, 88.4 percent of the household members reported having drinking water available when needed. A lower percentage of household population with sufficient water available was found in the estate sector (62.9 percent). Interestingly, the percentages were nearly equal among the urban and rural population using improved and unimproved drinking water sources (89.3 percent and 88.2 percent, respectively).



3.1.3 Contamination

The most prevalent health risk associated with drinking-water is microbial contamination, typically assessed by analysing faecal indicator microorganisms, *Escherichia coli* (E.coli) or, is commonly used for this purpose, although, thermotolerant coliforms are also viable alternative. E.coli specifically indicates recent faecal pollution in water.

According to SDG 6.1 achieving “Free from faecal and priority chemical contamination” entails meet international standards for microbiological and chemical water quality

outlined in the WHO Guidelines for Drinking Water Quality. Globally, the primary indicator for monitoring microbiological contamination is E. coli (or thermotolerant coliforms), while arsenic and fluoride are prioritized chemical contaminants”.

In this survey of HSDWQ, a specially trained team from DCS & water board checked the faecal contamination (E coli) at the sources where people collect drinking water and in household drinking water at the household. The findings of that are presented below.

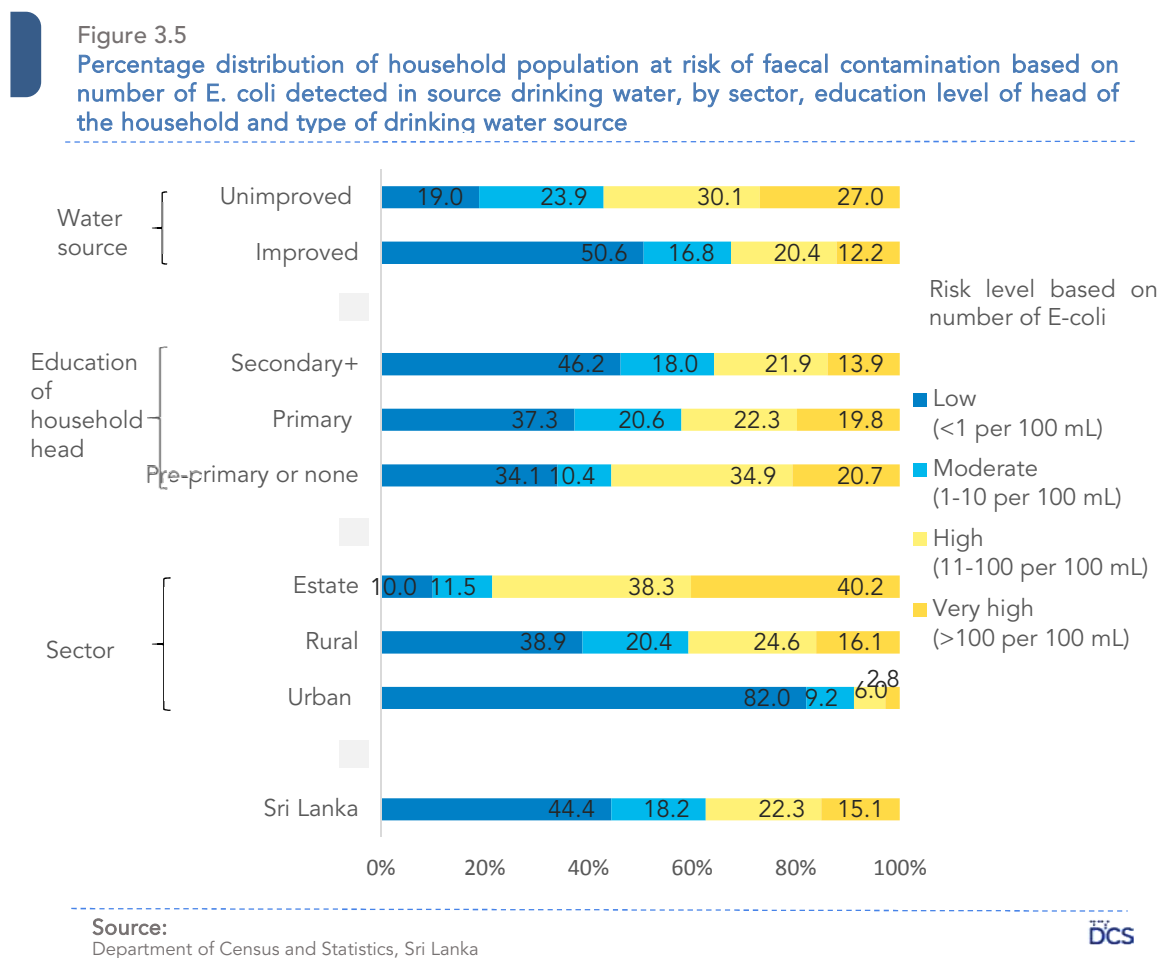


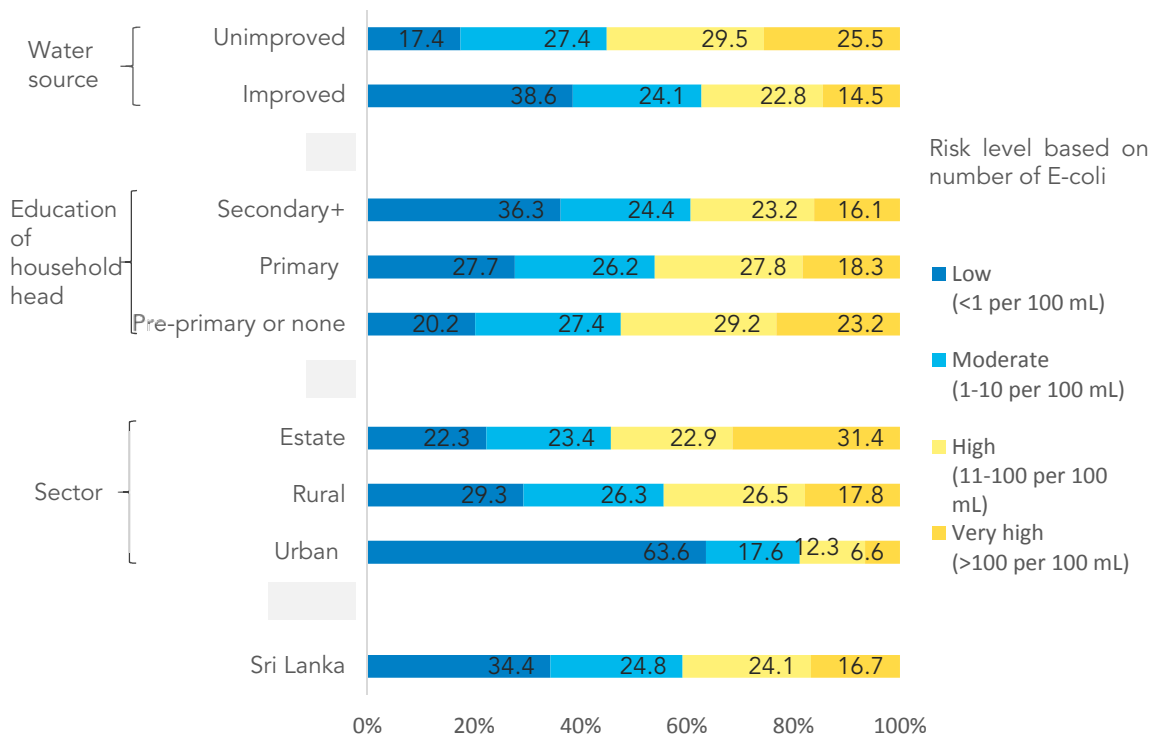
Figure 3.5 presents the proportion of household members whose drinking water sources showed indicators of faecal contamination. The risk levels are categorised based on contamination of Escherichia coli (E.coli) bacteria detected: low (<1 E.coli per 100 mL), moderate (1-10 E.coli per 100 mL), high (11-100 E.coli per 100 mL) and very high risk (>100 E.coli per 100 mL).

Overall, 55.6 percent of household members drank water from sources contaminated with E-coli (Moderate and above). The contamination rate varied among the sectors 18.0 percent of urban sectors, 61.1 percent of rural sectors and 90.0 percent of estate

sectors. The percentage of households using drinking water sources contaminated with E.coli decreased with the educational attainment of the household head.

Regarding water source, 49.4 percent of the household population had E.coli detected in their drinking water from improved water sources. Whereas as this rate was much higher at 81.0 percent for unimproved sources. Among improved sources, 83.0 percent of population had E.coli detected in their drinking water from protected wells and 24.7 percent of them had very high E.coli levels (>100 E-coli per 100MI). (Anexture table 6)

Figure 3.6
Percentage distribution of household population at risk of faecal contamination based on number of E. coli detected in household drinking water, by sector, education level of head of the household and type of drinking water source



Source: Department of Census and Statistics, Sri Lanka



Figure 3.6 shows the proportion of household members with detected E.coli in their drinking water at household . E.coli contamination can occur during transportation, handling and storage between the water the source and the household.

In households, 65.6 percent of the population had E.coli contamination in their drinking water indicating 10 percent increase from the contamination detected at the source to that found e in household drinking water. Variations in these percentages were

observed among urban rural and estate sectors, although the differences were smaller compared to those observed at the water sources. (Anexture table 7).

Chemical parameters - Fluoride

Fluoride is an essential element for humans and is naturally present in water. Surface water generally contains fluoride level less than 0.5 mg/L, while ground water can contain higher levels. The Sri Lanka standard for fluoride in drinking water is 1.0 mg/L. (Sri Lanka standard 614: 2013 UDC 663.6). When the naturally occurring fluoride level exceeds recommended limits, defluorination becomes necessary. Water treatment methods such as purification or distillation can be used to reduce fluoride level.

This survey (HSDWQ) examined the fluoride levels in household drinking water. The findings are presented below.

Table 3.2: Percentage of households by fluoride level of drinking water source

| Fluoride Level (mg/L) | Households (%) |
|-----------------------|----------------|
| <0.01 | 18.67 |
| 0.01 - 0.25 | 60.09 |
| 0.25 - 0.5 | 13.89 |
| 0.5 - 0.75 | 3.59 |
| 0.75 - 1.0 | 1.85 |
| 1.0 - 1.25 | 0.92 |
| 1.25 - 1.5 | 0.49 |
| 1.5 - 1.75 | 0.20 |
| 1.75 - 2.0 | 0.26 |
| 2.0 - 2.25 | 0.03 |

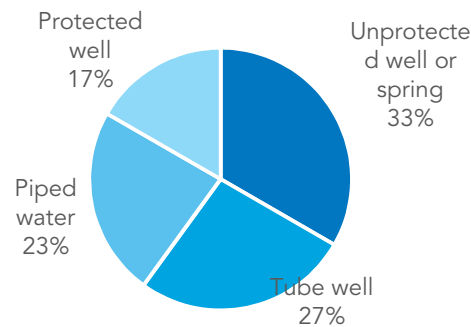
In some households, fluoride levels in drinking water sources exceeded 1.0 mg/L accounting for a notable 1.91% of reported cases. These elevated fluoride level (more than 1.0 mg/L) were found in various sources such as tube well, unprotected well or spring, protected well and piped water (see Table 3.3). The affected water sources were located in districts including Anuradapura, Batticaloa, Hambantota, Kurunegala, Mannar, Monaragala, Mullaitivu, Polonnaruwa, Trincomalee and Vavunia.

Table 3.3: Percentage of households using drinking water sources with more than 1.0 mg/L fluoride level

| Water source | Households % |
|----------------------------|--------------|
| Tube well | 4.79 |
| Unprotected well or spring | 1.85 |
| Protected well | 1.62 |
| Piped water | 0.40 |

When considering the contribution of households using drinking water sources with fluoride levels exceeding 1.0 mg/L, the majority utilize unprotected wells or springs (33%) as their primary source of drinking water, followed by tube wells (27%), piped water (23%), and protected wells (17%) (Figure 3.7).

Figure 3.7
Contribution of households using drinking water sources with fluoride level exceeding 1.0 mg/L



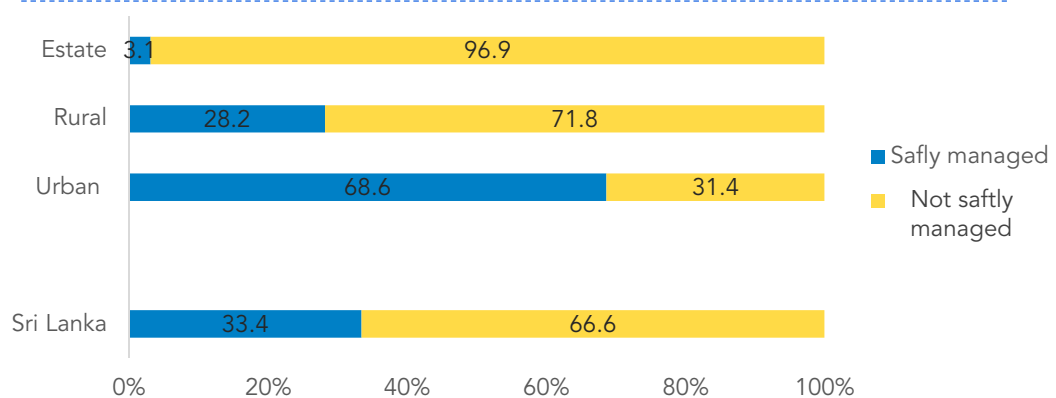
Source:
Department of Census and Statistics, Sri Lanka

DCS

3.2 Safely managed drinking water services

According to the SDG 6.1, 'safely manage drinking water services is defined as the proportion of population using improved drinking water sources accessible which is accessible on premises, sufficient quantities available when needed, and free from faecal and priority chemical contamination, meeting SDG criteria. Aggregating the finding of the survey, Figure 3.7 illustrates the proportion of household population with improved drinking water sources that meet these criteria.

Figure 3.8
Proportion of household population with safely managed drinking water



Source:
Department of Census and Statistics, Sri Lanka

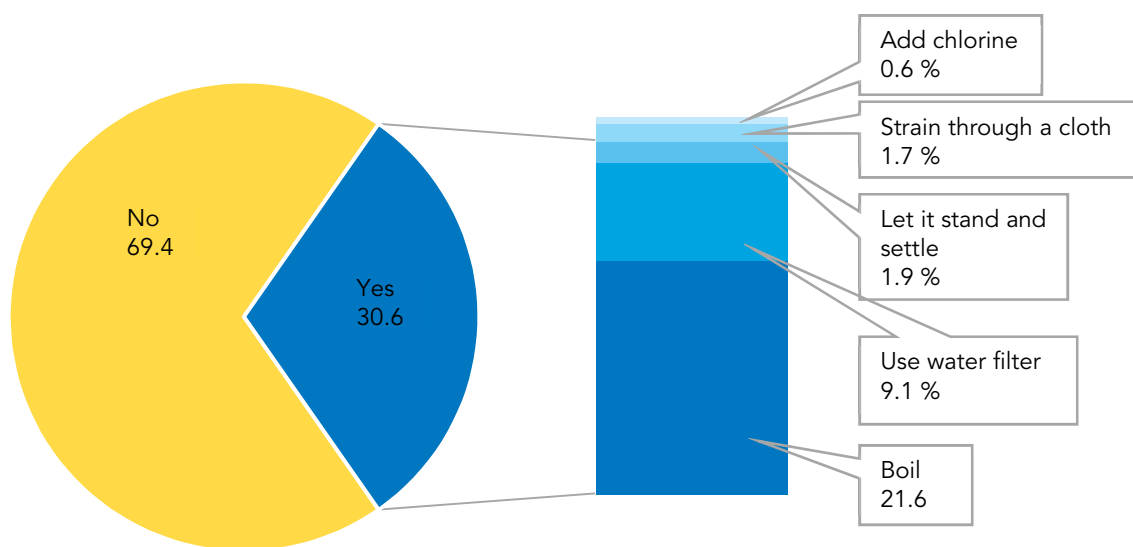
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Overall, 33.4 percent of household members accessed safely managed drinking water services, with urban sectors 68.6 percent, rural sectors at , 28.2 percent, and at estate sectors 3.1 percent. Among improved water sources, bottle water (52.8 percent), piped water (48.6 percent) and tube wells (37.0 percent) showed higher rates of safely managed sources compared to other sources., this trend correelates positively with the educational attainment level of the household head. (see Anexture Table 7)

3.3 Household water treatment

In addition to the data on safely manage drinking water services, this survey also collected the data related to household water treatment methods. Variouse methods are used by household to ensure water safety before consumption, including boiling water, adding bleach or chlorine, using a water filter, and employing solar disinfection. Figure 3.8. presents the primary methods reported by households for treating water to make it safer for drinking. Some households employ more than one method.

Figure 3.9
Proportion of household population using appropriate water treatment method



Source:
 Department of Census and Statistics, Sri Lanka



A significant fragment of the household population did not employ any treatment method, totaling 67.1 among the population that did not use treatment methods. 30.6 percent of the employed appropriate methods (boiling, adding bleach or chlorine, using a water filter, solar disinfection). Specifically 21.6 percent boiled their water, while 9.1 percent utilized water filters. In the estate sector, a paticularly higher

percentage population (54.5 percent) employed appropriate water treatment method before drinking.

3.4 JMP service ladder for drinking water

The Joint Monitoring Programme (JMP) service ladder for drinking water is a framework introduced by the World Health Organization (WHO) and UNICEF to categorize and monitor improved drinking water sources. This framework helps track global progress towards target for access to safely managed drinking water access across regions and populations ensuring consistency in definitions and enabling comparisons of progress across countries at different stages of development. The categories and definitions of the five levels in JMP service ladder for drinking water are given are provided in Table 3.4.

Table 3.4 - JMP ladder for drinking water

| Service level | Definition |
|----------------|--|
| Safely managed | Drinking water from an improved source that is accessible on premises, available when needed and free from faecal and priority chemical contamination. |
| Basic | Drinking water from an improved source, provided collection time is not more than 30 minutes for a round trip, including queuing. |
| Limited | Drinking water from an improved source, for which collection time exceeds 30 minutes for a round trip, including queuing. |
| Unimproved | Drinking water from an unprotected dug well or unprotected spring. |
| Surface water | Drinking water directly from a river, dam, lake, pond, stream, canal or irrigation canal. |

Table 3.4 presents the percentages related to the JMP service ladder for drinking water reported in the HSWQS in for Sri Lanka. Nearly approximately, one third (33.4%) of the households had access to a safely managed drinking water service located on the premises, consistently available whenever needed, and free from faecal (E-coli) contamination. Meanwhile, 20.3% of the household population lacked even basic drinking water service defined as an improved source within 30 minutes round trip to collect water. 19.2% of the household population used unimproved water sources, and majority (22.2%) reported from rural sectors.

Table 3.5 - Percentage distribution of household population by service level (drinking water) and sector

| Service Level | Sri Lanka | Urban | Rural | Estate |
|----------------|-----------|-------|-------|--------|
| Safely managed | 33.4 | 68.6 | 28.2 | 3.1 |
| Basic | 46.4 | 23.6 | 48.6 | 86.4 |
| Limited | 0.3 | - | 0.4 | - |
| Unimproved | 19.2 | 7.7 | 22.2 | 5.5 |
| Surface water | 0.7 | 0.1 | 0.5 | 4.9 |

Note: Priority chemical contamination did not consider for the Safely Managed services.

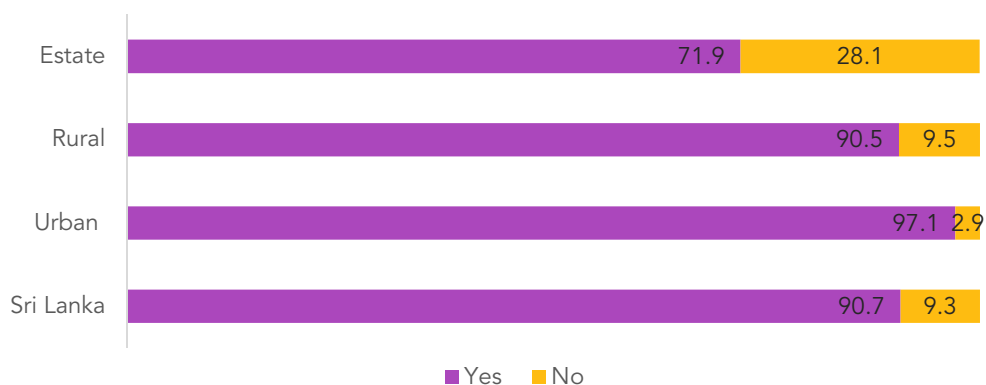
Chapter 4 : Hygiene Practices

Hygiene practices encompass habits and behaviors that help maintain cleanliness and prevent the spread of germs and diseases. These practices are essential for promoting overall health and well-being. These practices include handwashing, respiratory hygiene, personal grooming, bathing or showering and food hygiene etc. Practicing good hygiene not only protects individuals from infection but also contributes to community health by reducing the spread of illnesses. It is evidence that, the COVID-19 pandemic highlighted for everyone the critical importance of hand hygiene in preventing and managing various infections. The Household Survey of Drinking Water Quality (HSDWQ) collected data on handwashing hygiene practices. Hence this chapter presents the information about handwashing hygiene practices highlighting handwashing as a straightforward practice yet effective tools in preventing diseases.

Availability of handwashing facility with soap and water considered as access to basic hygiene facilities. Presence of a handwashing facility with soap and water on premises has been identified as the priority indicator for global monitoring of hygiene under the SDGs. SDG 6.2.1b is the "Proportion of population with handwashing facilities with soap and water available at home ". Households that have a facility but lack water or soap will be classified as having a limited facility, and distinguished from households that have no facility at all.

Handwashing with water and soap is the most cost-effective health intervention to reduce the incidence of both diarrhoea and pneumonia in children under five years of age. It is most effective when performed after using the toilet or cleaning a child, before eating or handling food, and before feeding a child. Direct observing handwashing behaviour at these critical times is challenging. An alternative method to assess the likelihood that corrects handwashing behaviour occurs by inspecting the designated handwashing area and checking for presence of water and soap. The survey reported the proportion of household members with fixed handwashing facilities observed on premises (in the dwelling, yard or plot) and given in Figure 4.1.

Figure 4.1
Distribution of household population with or without handwashing facility observed in the dwelling, yard, or plot

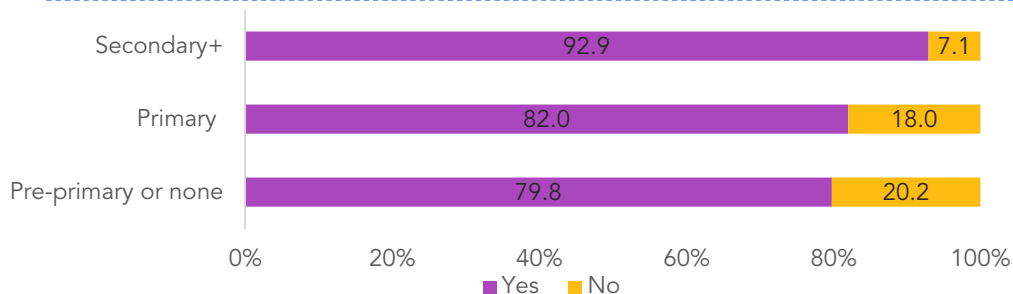


Source:
Department of Census and Statistics, Sri Lanka



In Sri Lanka, 90.7 percent of household members had a handwashing facility, while 9.3 percent did not have a specific place for handwashing. In estate sector nearly one-fourth (28.1%) of people lacks a handwashing facility on their premises. In urban sector this percentage is 2.9%, while in rural sector, it is 9.5% (Figure 4.1).

Figure 4.2
Distribution of household population with handwashing facility observed in the dwelling, yard, or plot by education level of head of the household



Source:
Department of Census and Statistics, Sri Lanka



Figure 4.2 illustrates the distribution of the household population observed with handwashing facilities in the dwelling, yard, or plot, categorized by the education level of the head of the household. The data shows a correlation: as the education level of the head of the household increases, so does the utilization of handwashing facilities.

Figure 4.3
Percentage distribution of household population with availability of soap, water among handwashing facility observed population

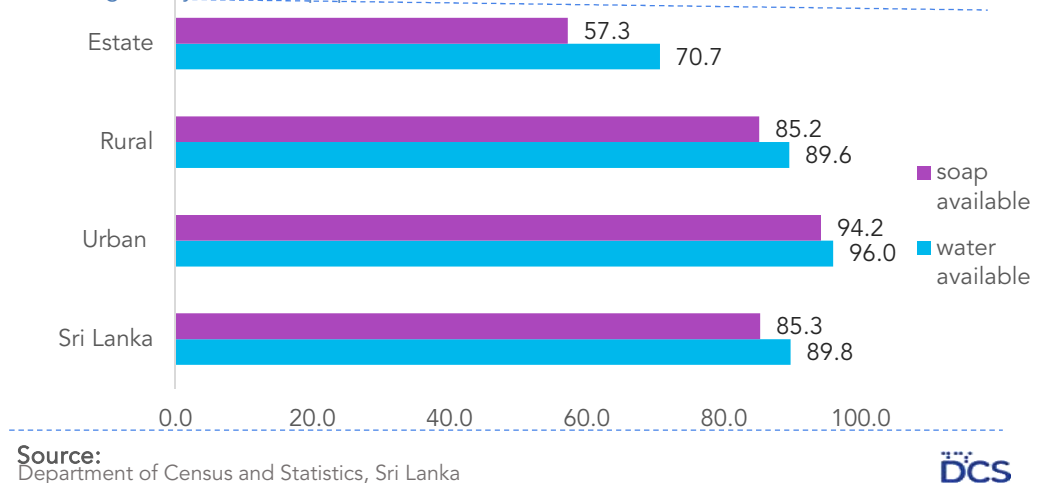


Figure 4.3 presents the percentage distribution of the household population with the availability of soap and water among those observed using handwashing facilities. It shows that among household members with a designated place for handwashing on their premises, 89.8% had water available and 85.3% had soap available when needed. Soap availability is lower than water availability at the national level and across all sectors. When comparing sectors, the estate sector has a lower percentage of household population with access to both soap and water for handwashing.

Figure 4.4 displays the availability of soap and water among the population observed using handwashing facilities, categorized by the level of education of the household head. It indicates that both soap and water availability increase as the education level of the household head increases.

Figure 4.4
Availability of soap, water among handwashing facility observed population by level of education of the household head

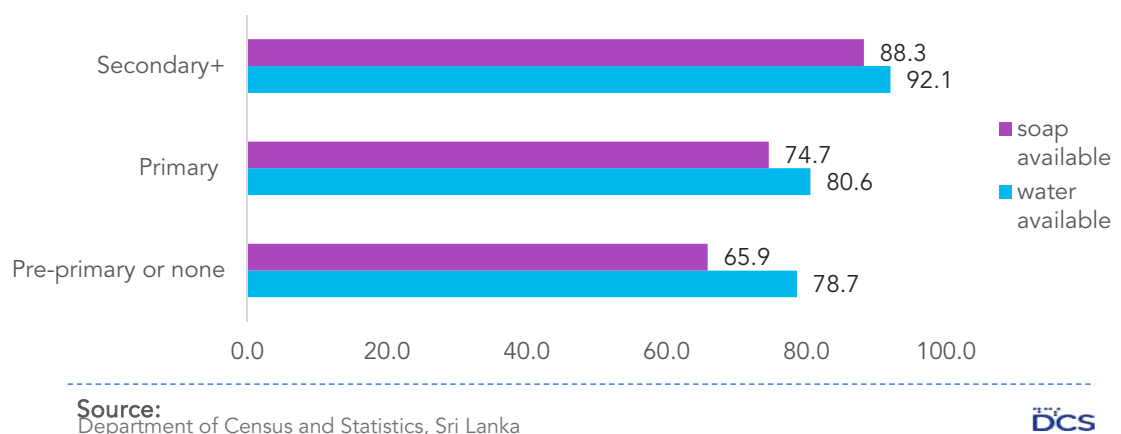


Figure 4.5 shows the proportion of household members with handwashing facilities where water and soap availability was observed. Household members with a handwashing facility on premises with soap and water are available meet the SDG criteria for a ‘basic’ handwashing facility. In Sri Lanka, this proportion is 85 percent.

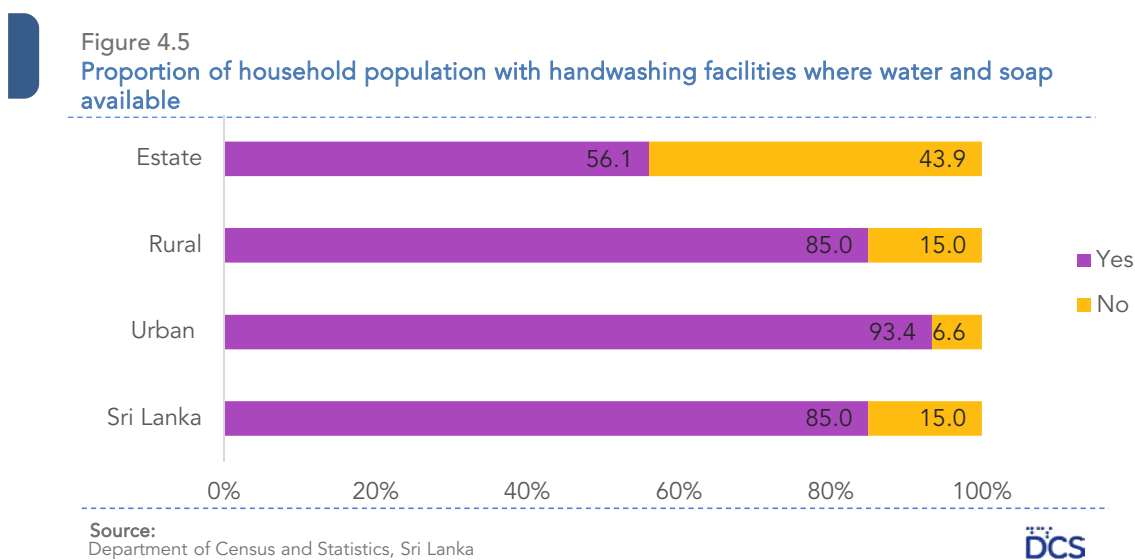
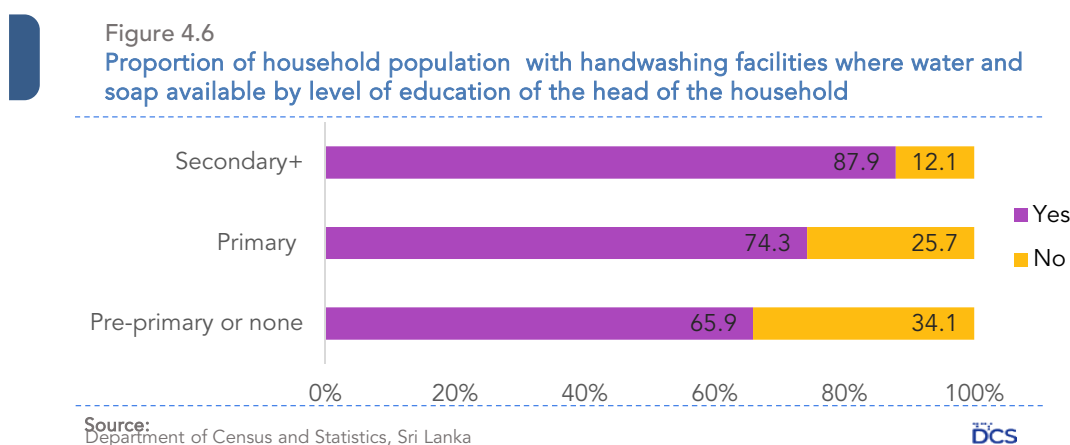


Figure 4.6 illustrates the proportion of the household population with handwashing facilities where water and soap are available, categorized by the level of education of the head of the household. This proportion increases as the level of education of the head of the household increases.



The JMP ladder for hygiene defines three service levels based on availability of hand washing facility, water and soap. This framework facilitates comparisons of hygiene standards between countries around the world.

Table 4.1 - JMP ladder for hygiene

| Service level | Definition |
|---------------|---|
| Basic | Availability of a handwashing facility on premises with soap and water |
| Limited | Availability of handwashing facility on premises without soap and water |
| No facility | No handwashing facility on premises |

Table 4.2 - Percentage distribution of household population by service level (hygiene) and sector

| Service level | Sri Lanka | Urban | Rural | Estate |
|---------------|-----------|-------|-------|--------|
| Basic | 85.0 | 93.4 | 85.0 | 56.1 |
| Limited | 5.7 | 3.7 | 5.5 | 15.8 |
| No facility | 9.3 | 2.9 | 9.5 | 28.1 |

According to the JMP ladder Table 4.2 shows that, 85.0% of the households had basic handwashing facilities with soap and water, catergorised under basic service level. Additionally, 5.7% had handwashing facilities that lackied either soap or water classified under Limited service level.

Chapter 5 : Sanitation

Unsafe management of human excreta and poor personal hygiene are closely associated with diarrhoea and parasitic infections, such as soil transmitted helminths (worms). Improved sanitation and hygiene can reduce diarrhoeal disease by more than a third, and significantly mitigate the health of soil-transmitted helminth infection and various other neglected tropical diseases.

According to the SDG, the uses of improved facilities that are not shared with households consider is considered access to basic sanitation services. An improved sanitation facility' is defined as one that hygienically separates human excreta from human contact. Examples of improved sanitation facilities include flush or pour flush toilets connected to piped sewer systems, septic tanks or pit latrines, as well as ventilated improved pit (VIP) latrines, pit latrines with slabs and composting toilets.

The Household Survey of Drinking Water Quality (HSDWQ) survey collected the data on household sanitation facilities and presented the findings. The Table 5.1 indicates the proportion of household population using improved and unimproved sanitation facilities. It as well as those who practice 'open defecation by disposing of faeces in bushes fields'.

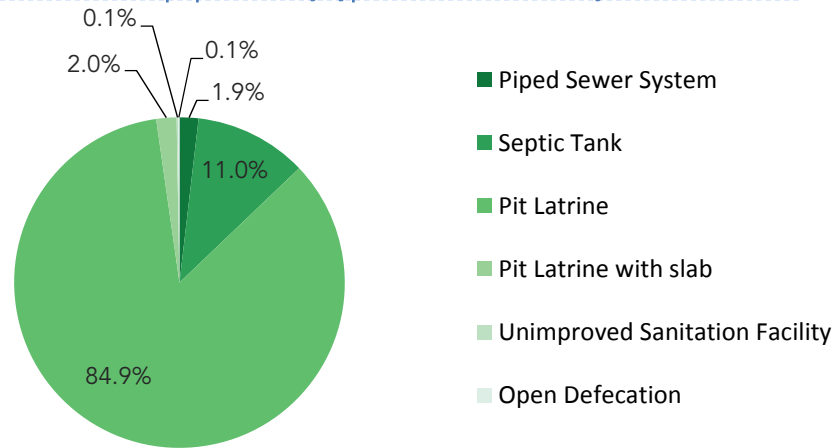
In Sri Lanka, 99.7 percent of the population resides in households that use improved sanitation facilities. Specifically, this was 99.95 percent in urban areas and 99.75 percent and 98.06 percent in rural and estate sectors respectively.

Table 5.1 - Percentage distribution of household population by the type of sanitation facility used by the household

| Area | Sanitation Facility | | Open Defecation |
|----------|---------------------|------------|-----------------|
| | Improved | Unimproved | |
| National | 99.70 | 0.17 | 0.12 |
| Urban | 99.95 | 0.00 | 0.05 |
| Rural | 99.75 | 0.16 | 0.10 |
| Estate | 98.06 | 1.07 | 0.87 |

Figure 5.1

Percentage of household population by type of sanitation facility used



Source:
Department of Census and Statistics, Sri Lanka

DCS

Most of the households used flush toilets connected to onsite facilities such as pit latrines (84.9 percent) or septic tank (11.0 percent) with only 1.9 percent used flush toilets connected to sewers.

The majority of the population lived in households that use improved sanitation facilities, primarily through the use of pit latrines. This pattern did not vary much based on the education of the household head, but the distribution of sanitation facilities did differ by sectors and location.

Table 5.2 - Percentage distribution of household population by use of private and public sanitation facilities and use of shared facilities, by users of improved and unimproved sanitation facilities

| Sanitation Facility | Shared Type | Area | | | |
|--|-----------------------|----------|-------|-------|--------|
| | | National | Urban | Rural | Estate |
| Improved | Not Shared | 93.68 | 94.54 | 93.95 | 85.71 |
| | With Other Households | 5.52 | 3.75 | 5.55 | 11.30 |
| | Public Facility | 0.50 | 1.66 | 0.25 | 1.05 |
| Unimproved | Not Shared | 0.17 | 0.05 | 0.15 | 0.91 |
| | With Other Households | 0.03 | 0.00 | 0.00 | 0.57 |
| Open defecation (no facility, bush, field) | | 0.10 | 0.00 | 0.10 | 0.46 |

Table 5.2 presents the distribution of the household population using improved and unimproved sanitation facilities, categorized by whether they are not shared, shared by other households or public facilities. Those who use shared or public improved sanitation facilities are classified as having a 'limited' service according to SDG of monitoring SDG criteria. Households using improved sanitation facilities that are not shared with other

households meet the SDG criteria for 'basic' sanitation service, and may be considered 'safely managed' depending on how excreta are managed.

As shown in Table 5.2, 93.68 percent of the household population used improved sanitation facilities that were not shared with other households. This percentage was considered between urban sector (94.54 percent) and rural sector (93.95 percent), but lower in estate sector (85.71 percent).

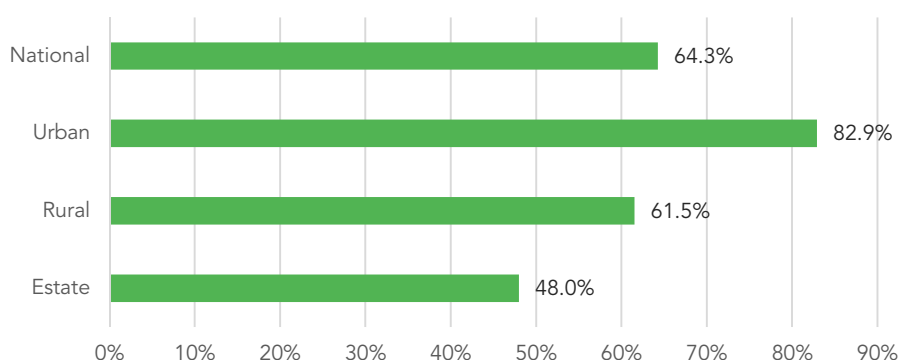
This definition of improved sanitation facilities aligns with the JMP sanitation ladder and services as the basis of SDG indicator 6.2.1a which measure the proportion of population using safely managed sanitation services. The latter is presented in Figure 5.2.

Table 5.3 - Percentage distribution of household population by service level (Sanitation) and Sector

| Service Level | Sri Lanka | Urban | Rural | Estate |
|-----------------|-----------|-------|-------|--------|
| Basic | 93.7 | 94.5 | 94.0 | 85.7 |
| Limited | 6.0 | 5.4 | 5.8 | 12.3 |
| Unimproved | 0.2 | - | 0.1 | 1.1 |
| Open defecation | 0.1 | 0.1 | 0.1 | 0.9 |

Note: Due to difficulties to collect information on excreta dispose correctly, 'Safely manage service' did not calculated.

Figure 5.2
Percentage of household population by basic drinking water, sanitation and hygiene service, by sector



Source:
Department of Census and Statistics, Sri Lanka

Summary

According to the survey findings, the summary of the percentages of household population meeting the SDG criteria for 'basic' drinking water, sanitation and handwashing services are given in Figure 5. Overall, 64.3 percent of the household population used basic drinking water, sanitation and hygiene services. Significant disparities were observed among urban, rural and estate sectors for this indicator. Urban areas sector achieved the highest percentage at (82.9 percent) outsourced followed by rural areas sector (61.5 percent) and estates at (48.0 percent).

ANNEX 1: Tables

Use of improved and unimproved water sources

Table 1 - Percentage distribution of household population by main source of drinking water and percentage of household population using improved drinking water sources, HSDWQ, 2021, Sri Lanka

| | Main source of drinking water | | | | | | | | | | | | | Total | Percentage using improved sources of drinking water ¹ | Number of household members |
|---|-------------------------------|-------------|----------------------|------------|------------|----------------|--------------------|---------------|----------------------|-----------------------------|------------------|--------------------|---------------|--------------|--|-----------------------------|
| | Improved sources | | | | | | Unimproved sources | | | | | | | | | |
| | Piped water | | | | Tube well | Protected well | RO plant | Bottled water | Rainwater collection | Tanker truck / Bowser/Lorry | Unprotected well | Unprotected spring | Surface water | | | |
| Into dwelling | Into yard/plot | To neighbor | Public tap/standpipe | | | | | | | | | | | | | |
| Sri Lanka | 44.5 | 9.9 | 2.6 | 2.6 | 4.0 | 9.5 | 4.5 | 2.4 | 0.1 | 2.1 | 16.1 | 0.9 | 0.7 | 100.0 | 80.1 | 11,502 |
| Sector | | | | | | | | | | | | | | | | |
| Urban | 71.4 | 4.0 | 1.6 | 2.4 | 3.2 | 3.9 | 1.2 | 4.5 | - | 2.1 | 5.5 | 0.1 | 0.1 | 100.0 | 92.2 | 1,876 |
| Rural | 39.9 | 9.1 | 2.7 | 2.5 | 4.4 | 11.0 | 5.4 | 2.1 | 0.2 | 2.2 | 18.8 | 1.2 | 0.6 | 100.0 | 77.1 | 9,061 |
| Estate | 31.8 | 43.4 | 4.4 | 6.3 | - | 3.7 | - | - | - | - | 5.5 | - | 4.9 | 100.0 | 89.6 | 565 |
| Education of household head | | | | | | | | | | | | | | | | |
| Pre-primary or none | 29.7 | 21.1 | 6.8 | 2.3 | 1.9 | 6.7 | 3.4 | - | 0.5 | 2.8 | 21.9 | 0.6 | 2.2 | 100.0 | 71.9 | 340 |
| Primary | 37.5 | 15.0 | 4.6 | 2.9 | 5.8 | 8.5 | 4.5 | 2.1 | 0.1 | 1.6 | 15.4 | 1.2 | 0.9 | 100.0 | 80.8 | 2,028 |
| Secondary+ | 46.5 | 8.4 | 2.1 | 2.6 | 3.7 | 9.9 | 4.6 | 2.6 | 0.1 | 2.2 | 16.0 | 0.9 | 0.6 | 100.0 | 80.2 | 9,134 |
| ¹ MICS indicator WS.1 - Use of improved drinking water sources | | | | | | | | | | | | | | | | |
| - : Not reported | | | | | | | | | | | | | | | | |

Use of basic and limited drinking water services

Table 2 - Percentage distribution of household population by time to go to source of drinking water, get water and return, for users of improved and unimproved drinking water sources and percentage using basic drinking water services, HSDWQ, 2021, Sri Lanka

| | Time to source of drinking water | | | | | | Percentage using basic drinking water services ¹ | Number of household members |
|--|--|--------------------------------|----------------------|--|--------------------------------|----------------------|---|-----------------------------|
| | Users of improved drinking water sources | | | Users of unimproved drinking water sources | | | | |
| | Water on premises | Up to and including 30 minutes | More than 30 minutes | Water on premises | Up to and including 30 minutes | More than 30 minutes | | |
| Sri Lanka | 87.8 | 99.5 | 0.5 | 71.8 | 98.7 | 1.3 | 79.7 | 11,502 |
| Sector | | | | | | | | |
| Urban | 95.3 | 100.0 | - | 73.1 | 100.0 | - | 92.2 | 1,876 |
| Rural | 85.8 | 99.4 | 0.6 | 72.1 | 98.6 | 1.4 | 76.7 | 9,061 |
| Estate | 92.0 | 100.0 | - | 56.8 | 100.0 | - | 89.6 | 565 |
| Education of household head | | | | | | | | |
| Pre-primary or none | 79.9 | 99.7 | 0.3 | 73.0 | 100.0 | - | 71.7 | 340 |
| Primary | 83.4 | 99.3 | 0.7 | 66.8 | 98.0 | 2.0 | 80.2 | 2,028 |
| Secondary+ | 89.0 | 99.6 | 0.4 | 72.7 | 98.8 | 1.2 | 79.9 | 9,134 |
| ¹ MICS indicator WS.2 - Use of basic drinking water services; SDG Indicator 1.4.1 | | | | | | | | |
| - : Not reported | | | | | | | | |

Person collecting water

Table 3 - Percentage of household members without drinking water on premises, and percentage distribution of household members without drinking water on premises by person usually collecting drinking water used in the household, HSDWQ, 2021, Sri Lanka

| | Percentage of household members without drinking water on premises | Number of household members | Number of household members without drinking water on premises |
|------------------------------------|--|-----------------------------|--|
| Sri Lanka | 15.4 | 11,502 | 1,833 |
| Sector | | | |
| Urban | 6.5 | 1,876 | 113 |
| Rural | 17.4 | 9,061 | 1,655 |
| Estate | 11.7 | 565 | 65 |
| Education of household head | | | |
| Pre-primary or none | 22.1 | 340 | 70 |
| Primary | 19.8 | 2,028 | 431 |
| Secondary+ | 14.2 | 9,134 | 1,332 |
| Source of drinking water | | | |
| Improved | 12.2 | 9,202 | 1,215 |
| Unimproved | 28.2 | 2,300 | 618 |

Availability of sufficient drinking water when needed

Table 4 - Percentage of household members with drinking water available when needed, HSDWQ, 2021, Sri Lanka

| | Percentage of household population with drinking water available in sufficient quantities ¹ | Number of household members | Number of household members unable to access water in sufficient quantities when needed |
|---|--|-----------------------------|---|
| Sri Lanka | 88.4 | 11,502 | 1,369 |
| Sector | | | |
| Urban | 92.2 | 1,876 | 165 |
| Rural | 89.1 | 9,061 | 1,009 |
| Estate | 62.9 | 565 | 195 |
| Education of household head | | | |
| Pre-primary or none | 82.9 | 340 | 59 |
| Primary | 86.4 | 2,028 | 273 |
| Secondary+ | 89.0 | 9,134 | 1,037 |
| Source of drinking water | | | |
| Improved | 88.2 | 9,202 | 1,124 |
| Unimproved | 89.3 | 2,300 | 245 |
| ¹ MICS indicator WS.3 - Availability of drinking water | | | |

Quality of source drinking water

Table 5 - Percentage distribution and percentage of household population at risk of faecal contamination based on number of *E. coli* detected in source drinking water, HSDWQ, 2021, Sri Lanka

| | Risk level based on number of <i>E. coli</i> per 100 mL | | | | Total | Percentage of household population with <i>E. coli</i> in source water ¹ | Number of household members* |
|--|---|----------------------------|--------------------------|-----------------------------|--------------|---|------------------------------|
| | Low (<1 per 100 mL) | Moderate (1-10 per 100 mL) | High (11-100 per 100 mL) | Very high (>100 per 100 mL) | | | |
| Sri Lanka | 44.4 | 18.2 | 22.3 | 15.1 | 100.0 | 55.6 | 11,318 |
| Sector | | | | | | | |
| Urban | 82.0 | 9.2 | 6.0 | 2.8 | 100.0 | 18.0 | 1,867 |
| Rural | 38.9 | 20.4 | 24.6 | 16.1 | 100.0 | 61.1 | 8,886 |
| Estate | 10.0 | 11.5 | 38.3 | 40.2 | 100.0 | 90.0 | 565 |
| Education of household head | | | | | | | |
| Pre-primary or none | 34.1 | 10.4 | 34.9 | 20.7 | 100.0 | 65.9 | 338 |
| Primary | 37.3 | 20.6 | 22.3 | 19.8 | 100.0 | 62.7 | 1,997 |
| Secondary+ | 46.2 | 18.0 | 21.9 | 13.9 | 100.0 | 53.8 | 8,983 |
| Main source of drinking water | | | | | | | |
| Improved sources | 50.6 | 16.8 | 20.4 | 12.2 | 100.0 | 49.4 | 9,068 |
| Piped water | 55.8 | 13.5 | 19.2 | 11.5 | 100.0 | 44.2 | 6,641 |
| Tube well | 40.4 | 37.4 | 17.8 | 4.4 | 100.0 | 59.6 | 592 |
| Protected well | 17.0 | 20.6 | 37.7 | 24.7 | 100.0 | 83.0 | 1,144 |
| RO plant | 60.9 | 27.3 | 6.5 | 5.4 | 100.0 | 39.1 | 455 |
| Bottled water | 54.2 | 35.2 | 8.3 | 2.4 | 100.0 | 45.8 | 236 |
| Unimproved sources | 19.0 | 23.9 | 30.1 | 27.0 | 100.0 | 81.0 | 2,250 |
| Rainwater collection | 18.7 | 8.8 | 32.3 | 40.2 | 100.0 | 81.4 | 15 |
| Tanker-truck/Lorry | 51.0 | 11.3 | 15.6 | 22.2 | 100.0 | 49.0 | 184 |
| Unprotected well or spring | 15.9 | 25.8 | 31.4 | 26.9 | 100.0 | 84.1 | 1,976 |
| Surface water | 9.3 | 12.9 | 37.0 | 40.8 | 100.0 | 90.7 | 75 |
| ¹ MICS indicator WS.4 - Faecal contamination of source water | | | | | | | |
| * : Number of household differ from sample, households which assessed for source E.coli only | | | | | | | |

Quality of household drinking water

Table 6 - Percentage distribution and percentage of household population at risk of faecal contamination based on number of *E. coli* detected in household drinking water, HSDWQ, 2021, Sri Lanka

| | Risk level based on number of <i>E. coli</i> per 100 mL | | | | Total | Percentage of household population with <i>E. coli</i> in household drinking water ¹ | Number of household members |
|--------------------------------------|---|----------------------------|--------------------------|-----------------------------|--------------|---|-----------------------------|
| | Low (<1 per 100 mL) | Moderate (1-10 per 100 mL) | High (11-100 per 100 mL) | Very high (>100 per 100 mL) | | | |
| Sri Lanka | 34.4 | 24.8 | 24.1 | 16.7 | 100.0 | 65.6 | 11,502 |
| Sector | | | | | | | |
| Urban | 63.6 | 17.6 | 12.3 | 6.6 | 100.0 | 36.4 | 1,876 |
| Rural | 29.3 | 26.3 | 26.5 | 17.8 | 100.0 | 70.7 | 9,061 |
| Estate | 22.3 | 23.4 | 22.9 | 31.4 | 100.0 | 77.7 | 565 |
| Education of household head | | | | | | | |
| Pre-primary or none | 20.2 | 27.4 | 29.2 | 23.2 | 100.0 | 79.8 | 340 |
| Primary | 27.7 | 26.2 | 27.8 | 18.3 | 100.0 | 72.3 | 2,028 |
| Secondary+ | 36.3 | 24.4 | 23.2 | 16.1 | 100.0 | 63.7 | 9,134 |
| Main source of drinking water | | | | | | | |
| Improved sources | 38.6 | 24.1 | 22.8 | 14.5 | 100.0 | 61.4 | 9,202 |
| Piped water | 45.1 | 22.0 | 20.3 | 12.7 | 100.0 | 55.0 | 6,659 |
| Tube well | 20.9 | 31.5 | 32.9 | 14.8 | 100.0 | 79.1 | 594 |
| Protected well | 15.8 | 28.1 | 31.0 | 25.2 | 100.0 | 84.3 | 1,164 |
| RO plant | 23.0 | 30.6 | 28.7 | 17.7 | 100.0 | 77.0 | 495 |
| Bottled water | 28.0 | 38.3 | 23.3 | 10.4 | 100.0 | 72.0 | 290 |
| Unimproved sources | 17.4 | 27.4 | 29.5 | 25.5 | 100.0 | 82.6 | 2,300 |
| Rainwater collection | 0.0 | 0.0 | 41.4 | 58.6 | 100.0 | 100.0 | 15 |
| Tanker-truck/ Lorry | 19.4 | 43.0 | 18.1 | 19.5 | 100.0 | 80.6 | 218 |
| Unprotected well or spring | 17.8 | 26.0 | 30.6 | 25.4 | 100.0 | 82.2 | 1,988 |
| Surface water | 5.2 | 20.7 | 34.1 | 40.0 | 100.0 | 94.8 | 79 |

¹ MICS indicator WS.5 - Faecal contamination of household drinking water

Safely managed drinking water services

Table 7 - Percentage of household population with drinking water free from faecal contamination, available when needed, and accessible on premises, for users of improved and unimproved drinking water sources and percentage of household members with an improved drinking water source located on premises, free of E. coli and available when needed, HSDWQ, 2021, Sri Lanka

| | Main source of drinking water | | | | | | | Number of household members with information on water quality who are using improved sources | Percentage of household members with an improved drinking water source located on premises, free of <i>E. coli</i> and available when needed ¹ | Number of household members with information on water quality* |
|--------------------------------------|---|--|---------------------------------------|--------------------|---|--|---------------------------------------|--|---|--|
| | Improved sources | | | Unimproved sources | | | | | | |
| | Without <i>E. coli</i> in drinking water source | With sufficient drinking water available when needed | Drinking water accessible on premises | | Without <i>E. coli</i> in drinking water source | With sufficient drinking water available when needed | Drinking water accessible on premises | | | |
| Sri Lanka | 50.6 | 88.2 | 88.3 | 9,068 | 19.0 | 89.0 | 73.1 | 2,250 | 33.4 | 11,318 |
| Sector | | | | | | | | | | |
| Urban | 84.4 | 91.8 | 95.3 | 1,737 | 52.7 | 99.3 | 73.1 | 130 | 68.7 | 1,867 |
| Rural | 45.3 | 89.1 | 86.4 | 6,832 | 17.2 | 88.8 | 73.6 | 2,054 | 28.2 | 8,886 |
| Estate | 11.1 | 61.9 | 92.0 | 499 | - | 71.6 | 56.8 | 66 | 3.1 | 565 |
| Education of household head | | | | | | | | | | |
| Pre-primary or none | 42.2 | 79.0 | 79.9 | 249 | 12.4 | 93.8 | 74.9 | 89 | 22.5 | 338 |
| Primary | 43.4 | 84.7 | 83.7 | 1,598 | 12.2 | 93.2 | 66.6 | 399 | 26.0 | 1,997 |
| Secondary+ | 52.5 | 89.3 | 89.6 | 7,221 | 20.7 | 87.9 | 74.4 | 1,762 | 35.4 | 8,983 |
| Main source of drinking water | | | | | | | | | | |
| Improved sources | | | | | | | | | | |
| Piped water | 55.8 | 86.4 | 94.3 | 6,641 | -- | -- | -- | -- | 41.7 | 9,068 |
| Tube well | 40.4 | 93.0 | 81.3 | 592 | -- | -- | -- | -- | 48.6 | 6,641 |
| Protected well | 17.0 | 90.8 | 79.2 | 1,144 | -- | -- | -- | -- | 37.0 | 592 |
| RO plant | 60.9 | 99.1 | 25.0 | 455 | -- | -- | -- | -- | 12.3 | 1,144 |
| Bottled water | 54.2 | 98.6 | 100.0 | 236 | -- | -- | -- | -- | 9.6 | 455 |
| Unimproved sources | | | | | | | | | | |
| Rainwater collection | -- | -- | -- | -- | 18.7 | 78.6 | 100.0 | 15 | -- | 2,250 |
| Tanker-truck/ Lorry | -- | -- | -- | -- | 51.0 | 95.2 | 7.3 | 184 | -- | 15 |
| Unprotected well or spring | -- | -- | -- | -- | 15.9 | 89.3 | 80.7 | 1,976 | -- | 184 |
| Surface water | -- | -- | -- | -- | 9.3 | 67.3 | 53.2 | 75 | -- | 1,976 |
| | | | | | | | | | | 75 |

¹ MICS indicator WS.6 - Use of safely managed drinking water services; SDG indicator 6.1.1

* : Number of household differ from sample, households which assessed for source E.coli only
 - : Not reported
 -- : Not applicable

Household water treatment

Table 8 - Percentage of household population by drinking water treatment method used in the household and the percentage who are using an appropriate treatment method, HSDWQ, 2021, Sri Lanka

| | Water treatment method used in the household | | | | | | Percentage of household members in households using an appropriate water treatment method* | Number of household members |
|--|--|-------------|----------------------|------------------------|------------------|-------------------------|--|-----------------------------|
| | None | Boil | Add bleach/ chlorine | Strain through a cloth | Use water filter | Let it stand and settle | | |
| Sri Lanka | 67.1 | 21.6 | 0.6 | 1.7 | 9.1 | 1.9 | 30.6 | 11,502 |
| Sector | | | | | | | | |
| Urban | 65.4 | 22.2 | 1.6 | 1.0 | 10.8 | 2.2 | 32.8 | 1,876 |
| Rural | 68.7 | 19.9 | 0.4 | 1.9 | 9.1 | 1.9 | 28.8 | 9,061 |
| Estate | 45.5 | 51.1 | 0.8 | 0.8 | 3.3 | - | 54.3 | 565 |
| Education of household head | | | | | | | | |
| Pre-primary or none | 66.2 | 23.4 | 1.1 | 2.9 | 7.3 | - | 31.9 | 340 |
| Primary | 69.8 | 23.0 | 0.8 | 1.5 | 4.6 | 1.9 | 28.0 | 2,028 |
| Secondary+ | 66.6 | 21.3 | 0.6 | 1.7 | 10.2 | 1.9 | 31.1 | 9,134 |
| Source of drinking water | | | | | | | | |
| Improved | 67.2 | 21.9 | 0.7 | 1.4 | 8.8 | 2.0 | 30.6 | 9,202 |
| Unimproved | 66.9 | 20.8 | 0.6 | 3.1 | 10.4 | 1.4 | 30.3 | 2,300 |
| * Note: responses may total to more than 100 percent since households may be using more than one treatment method. - : Not reported | | | | | | | | |

Handwashing facility with soap and water on premises

Table 9 - Percentage distribution of household members by observation of handwashing facility and percentage of household members by availability of water and soap or detergent at the handwashing facility, HSDWQ, 2021, Sri Lanka

| | Handwashing facility observed | No handwashing facility observed in the dwelling, yard, or plot | Number of household members where handwashing facility was observed | Handwashing facility observed and | | Percentage of household members with handwashing facility where water and soap are present ¹ | Number of household members where handwashing facility was observed or with no handwashing facility in the dwelling, yard, or plot |
|---|-------------------------------|---|---|-----------------------------------|----------------|---|--|
| | Fixed facility observed | | | water available | soap available | | |
| Sri Lanka | 90.7 | 9.3 | 10,452 | 89.8 | 85.3 | 85.0 | 11,502 |
| Sector | | | | | | | |
| Urban | 97.1 | 2.9 | 1,822 | 96.0 | 94.2 | 93.4 | 1,876 |
| Rural | 90.5 | 9.5 | 8,219 | 89.6 | 85.2 | 85.0 | 9,061 |
| Estate | 71.9 | 28.1 | 411 | 70.7 | 57.3 | 56.1 | 565 |
| Education of household head | | | | | | | |
| Pre-primary or none | 79.8 | 20.2 | 280 | 78.7 | 65.9 | 65.9 | 340 |
| Primary | 82.0 | 18.0 | 1,666 | 80.6 | 74.7 | 74.3 | 2,028 |
| Secondary+ | 92.9 | 7.1 | 8,506 | 92.1 | 88.3 | 87.9 | 9,134 |
| ¹ MICS indicator WS.7 - Handwashing facility with water and soap; SDG indicators 1.4.1 & 6.2.1 | | | | | | | |

Use of improved and unimproved sanitation facilities

Table 10 - Percentage distribution of household population by type of sanitation facility used by the household, HSDWQ, 2021, Sri Lanka

| | Type of sanitation facility used by household | | | | | | Total | Percentage using improved sanitation ¹ | Number of household members |
|--|---|-------------|--|-----------------------|-----------------------------------|------------|--------------|---|-----------------------------|
| | Improved sanitation facility | | | | Unimproved sanitation facility | | | | |
| | Flush/Pour flush to: | | | Pit latrine with slab | Pit latrine without slab/open pit | | | | |
| Piped sewer system | Septic tank | Pit latrine | Open defecation (no facility, bush, field) | | | | | | |
| Sri Lanka | 1.9 | 11.0 | 84.9 | 2.0 | 0.1 | 0.1 | 100.0 | 99.7 | 11,502 |
| Sector | | | | | | | | | |
| Urban | 7.1 | 23.2 | 69.6 | 0.1 | - | 0.1 | 100.0 | 100.0 | 1,876 |
| Rural | 0.9 | 9.2 | 89.1 | 0.6 | 0.1 | 0.1 | 100.0 | 99.8 | 9,061 |
| Estate | - | 1.4 | 63.7 | 33.0 | 1.1 | 0.9 | 100.0 | 98.1 | 565 |
| Education of household head | | | | | | | | | |
| Pre-primary or none | - | 9.1 | 87.4 | 2.2 | 0.8 | 0.6 | 100.0 | 98.6 | 340 |
| Primary | 0.9 | 11.1 | 81.7 | 5.6 | 0.4 | 0.4 | 100.0 | 99.3 | 2,028 |
| Secondary+ | 2.1 | 11.0 | 85.5 | 1.2 | 0.1 | 0.1 | 100.0 | 99.8 | 9,134 |
| Location of sanitation facility | | | | | | | | | |
| In dwelling / In plot/yard | 1.7 | 11.0 | 85.1 | 2.0 | 0.1 | - | 100.0 | 99.8 | 11,359 |
| Elsewhere | 14.3 | 10.9 | 74.9 | - | - | - | 100.0 | 100.0 | 123 |
| No facility/Bush/Field | -- | -- | -- | -- | -- | 100.0 | 100.0 | -- | 20 |
| ¹ MICS indicator WS.8 - Use of improved sanitation facilities | | | | | | | | | |
| - : not reported | | | | | | | | | |
| -- : not applicable | | | | | | | | | |

Use of basic and limited sanitation services

Table 11 - Percentage distribution of household population by use of private and public sanitation facilities and use of shared facilities, by users of improved and unimproved sanitation facilities, HSDWQ, 2021, Sri Lanka

| | Users of improved sanitation facilities | | | Users of unimproved sanitation facilities | | Open defecation (no facility, bush, field) | Total | Number of household members |
|---|---|----------------------------|-----------------|---|----------------------------|--|--------------|-----------------------------|
| | Not shared ¹ | Shared by Other households | Public facility | Not shared | Shared by Other households | | | |
| Sri Lanka | 93.7 | 5.5 | 0.5 | 0.2 | - | 0.1 | 100.0 | 11,502 |
| Sector | | | | | | | | |
| Urban | 94.5 | 3.8 | 1.7 | 0.1 | - | - | 100.0 | 1,876 |
| Rural | 94.0 | 5.6 | 0.3 | 0.2 | - | 0.1 | 100.0 | 9,061 |
| Estate | 85.7 | 11.3 | 1.1 | 0.9 | 0.6 | 0.5 | 100.0 | 565 |
| Education of household head | | | | | | | | |
| Pre-primary or none | 88.8 | 8.1 | 1.7 | 0.8 | 0.0 | 0.6 | 100.0 | 340 |
| Primary | 90.9 | 8.0 | 0.4 | 0.3 | 0.2 | 0.3 | 100.0 | 2,028 |
| Secondary+ | 94.4 | 4.9 | 0.5 | 0.1 | - | 0.1 | 100.0 | 9,134 |
| Location of sanitation facility | | | | | | | | |
| In dwelling / In plot/yard | 94.7 | 5.1 | - | 0.2 | - | - | 100.0 | 11,359 |
| Elsewhere | 0.0 | 47.5 | 52.5 | - | - | - | 100.0 | 123 |
| No facility/Bush/Field | -- | -- | -- | -- | -- | 100.0 | 100.0 | 20 |
| ¹ MICS indicator WS.9 - Use of basic sanitation services; SDG indicators 1.4.1 & 3.8.1 & 6.2.1 | | | | | | | | |
| - : not reported | | | | | | | | |
| - : not applicable | | | | | | | | |

Drinking water, sanitation and handwashing ladders

Table 12 - Percentage of household population by drinking water, sanitation and handwashing ladders, HSDWQ, 2021, Sri Lanka

| | Percentage of household population using: | | | | | | | | | | | | | | Basic drinking water, sanitation and hygiene service | Number of household members |
|---|---|-----------------|-------------|---------------|--------------|----------------------------|-----------------|------------|-----------------|--------------|----------------|------------------|-------------|--------------|--|-----------------------------|
| | Drinking water | | | | | Sanitation | | | | | Handwashing | | | | | |
| | Basic service ¹ | Limited service | Unimproved | Surface water | Total | Basic service ² | Limited service | Unimproved | Open defecation | Total | Basic facility | Limited facility | No facility | Total | | |
| Sri Lanka | 79.9 | 0.4 | 19.1 | 0.7 | 100.0 | 93.7 | 6.0 | 0.2 | 0.1 | 100.0 | 85.0 | 5.7 | 9.3 | 100.0 | 64.3 | 11,502 |
| Sector | | | | | | | | | | | | | | | | |
| Urban | 92.2 | - | 7.7 | 0.1 | 100.0 | 94.5 | 5.4 | - | 0.1 | 100.0 | 93.4 | 3.7 | 2.9 | 100.0 | 82.9 | 1,876 |
| Rural | 76.9 | 0.4 | 22.2 | 0.5 | 100.0 | 94.0 | 5.8 | 0.2 | 0.1 | 100.0 | 85.0 | 5.5 | 9.5 | 100.0 | 61.5 | 9,061 |
| Estate | 89.6 | - | 5.5 | 4.9 | 100.0 | 85.7 | 12.4 | 1.1 | 0.9 | 100.0 | 56.1 | 15.9 | 28.1 | 100.0 | 48.0 | 565 |
| Education of household head | | | | | | | | | | | | | | | | |
| Pre-primary or none | 72.3 | 0.2 | 25.4 | 2.2 | 100.0 | 88.8 | 9.8 | 0.8 | 0.6 | 100.0 | 65.9 | 13.9 | 20.2 | 100.0 | 46.1 | 340 |
| Primary | 79.9 | 0.6 | 18.7 | 0.9 | 100.0 | 90.9 | 8.4 | 0.4 | 0.4 | 100.0 | 74.3 | 7.7 | 18.0 | 100.0 | 55.1 | 2,028 |
| Secondary+ | 80.2 | 0.3 | 19.0 | 0.6 | 100.0 | 94.4 | 5.4 | 0.1 | 0.1 | 100.0 | 87.9 | 5.0 | 7.1 | 100.0 | 66.9 | 9,134 |
| ¹ MICS indicator WS.2 - Use of basic drinking water services; SDG Indicator 1.4.1 ² MICS indicator WS.9 - Use of basic sanitation services; SDG indicators 1.4.1 & 6.2.1 | | | | | | | | | | | | | | | | |
| - : not reported | | | | | | | | | | | | | | | | |

ANNEX 2: Survey Schedule



(For official use)

CONFIDENTIAL

The information collected in the survey will be strictly confidential according to the statistical ordinance and individual level information will not be divulged to a person or agency

| Month | | Sector | District | | DS Division | |
|-------|--|--------|----------|--|-------------|--|
| | | | | | | |

| | | | | | |
|------------------|--|--|--|--|--|
| MRCB No. (A0) | | | | | |
| PSU Number | | | | | |
| SSU Number | | | | | |
| Household Number | | | | | |

HOUSEHOLD SURVEY OF DRINKING WATER QUALITY

NATIONAL SURVEY

**Conducted by the Department of Census and Statistics
Collaboration with Ministry of Water Supply and United Nations
Children’s Fund**

| HOUSING UNIT IDENTIFICATION INFORMATION | | ID | | | | | | | | | | | | | | | | |
|---|---|---|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|--|
| ID 1. | Address (Location): | | | | | | | | | | | | | | | | | |
| ID 2. | Province : | | | | | | | | | | | | | | | | | |
| ID 3. | District : | | | | | | | | | | | | | | | | | |
| ID 4. | DS Division : | | | | | | | | | | | | | | | | | |
| ID 5. | GN Division : Number : | Name: | | | | | | | | | | | | | | | | |
| ID 6. | Sector 1. Urban 2. Rural 3. Estate | | | | | | | | | | | | | | | | | |
| ID 7. | Name of MC/UC/PS : | | | | | | | | | | | | | | | | | |
| ID 8. | Name of Ward/Village/Estate: | | | | | | | | | | | | | | | | | |
| ID 9. | Census Block No : <input type="text"/> <input type="text"/> | | | | | | | | | | | | | | | | | |
| ID 10. | <table border="1"> <thead> <tr> <th colspan="2">Survey Month (ID10.1)</th> <th colspan="2">Sector (ID10.2)</th> <th colspan="2">District (ID10.3)</th> <th colspan="2">DS Division (ID10.4)</th> </tr> </thead> <tbody> <tr> <td><input type="text"/></td> <td><input type="text"/></td> <td><input type="text"/></td> <td><input type="text"/></td> <td><input type="text"/></td> <td><input type="text"/></td> <td><input type="text"/></td> <td><input type="text"/></td> </tr> </tbody> </table> | Survey Month (ID10.1) | | Sector (ID10.2) | | District (ID10.3) | | DS Division (ID10.4) | | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | |
| Survey Month (ID10.1) | | Sector (ID10.2) | | District (ID10.3) | | DS Division (ID10.4) | | | | | | | | | | | | |
| <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | | | | | | | | | | | |
| ID 11. | <table border="1"> <thead> <tr> <th colspan="2">PSU Number (ID11.1)</th> <th colspan="2">SSU Number (ID11.2)</th> </tr> </thead> <tbody> <tr> <td><input type="text"/></td> <td><input type="text"/></td> <td><input type="text"/></td> <td><input type="text"/></td> </tr> </tbody> </table> | PSU Number (ID11.1) | | SSU Number (ID11.2) | | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | | | | | | | | | |
| PSU Number (ID11.1) | | SSU Number (ID11.2) | | | | | | | | | | | | | | | | |
| <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | | | | | | | | | | | | | | | |
| ID 12. | MRCB No (A0) : <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> | | | | | | | | | | | | | | | | | |
| ID 12.1. | Could you identify and contact the housing unit No. < SSU Number> as metioned on <CHIEF OCCUPANT Name>'s name? | | | | | | | | | | | | | | | | | |
| | 1. Yes 2. No | 1 2 ⇒ WQ27 | | | | | | | | | | | | | | | | |
| HOUSEHOLD IDENTIFICATION INFORMATION | | HH | | | | | | | | | | | | | | | | |
| ID13 | Number of Households in this unit: <input type="text"/> | | | | | | | | | | | | | | | | | |
| ID11.4 | Household Number <input type="text"/> | For main household (Chief Occupant name mentioned in NHSP) – 1 other households – 2, 3 | | | | | | | | | | | | | | | | |
| ID14 | Name of the Household Head : | | | | | | | | | | | | | | | | | |
| CON | Hello, my name is (<i>Interviewer's name</i>). We are from Department of Census and Statistics. We are conducting a survey for collecting the information about your household, situation of drinking water quality and sanitation. Your household has been selected at random for this survey and this interview usually takes about thirty minutes. While I am continuing this, my colleague may collect the relevant water samples time to time for testing the water quality from different places where you or other individual members of your household collecting water for the drinking purpose only. All the information we obtain will remain strictly confidential and anonymous and these information will be used for compiling statistical information to facilitate effective policy and decision-making for local and international clients. If you do not wish to answer a question or stop the interview in middle, please let me know. May I start interview now? | | | | | | | | | | | | | | | | | |
| | 1. Yes 2. No | 1 2 ⇒ WQ27 | | | | | | | | | | | | | | | | |
| ID 15 | T.P. Number (Head of the Household): <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> | | | | | | | | | | | | | | | | | |
| ID 16 | Number of persons usually residing in this Household (According to the definition of usual Residence) <input type="text"/> <input type="text"/> | | | | | | | | | | | | | | | | | |

Codes for Demographic Information

D3 - Relationship to Head of the Household

| | |
|--|---|
| Head of the household..... | 1 |
| Wife/Husband..... | 2 |
| Son/Daughter..... | 3 |
| Parents of head of the household/spouse... | 4 |
| Other Relative..... | 5 |
| Domestic Servant/Driver / Watcher..... | 6 |
| Boarder..... | 7 |
| Other..... | 9 |

D4 - Sex

| | |
|-------------|---|
| Male..... | 1 |
| Female..... | 2 |

D7 - Ethnicity

| | |
|-------------------------------|---|
| Sinhala | 1 |
| Sri Lankan Tamil | 2 |
| Indian Tamil..... | 3 |
| Sri Lankan Moors/Muslim | 4 |
| Burgher..... | 5 |
| Malay..... | 6 |
| Other | 9 |

D8 - Marital Status

| | |
|-------------------------------------|---|
| Never Married | 1 |
| Currently Married (Registered)..... | 2 |
| Currently Married (Customary)..... | 3 |
| Widowed..... | 4 |
| Divorced..... | 5 |
| Legally Separated..... | 6 |
| Separated (Not Legal)..... | 7 |

D9 – Highest Level of Education

| | |
|--|----|
| Studying/Studied Grade 1 | 00 |
| Passed Grade 1..... | 01 |
| Passed Grade 2 | 02 |
| Passed Grade 3 | 03 |
| Passed Grade 4 | 04 |
| Passed Grade 5 | 05 |
| Passed Grade 6 | 06 |
| Passed Grade 7 | 07 |
| Passed Grade 8 | 08 |
| Passed Grade 9 | 09 |
| Passed Grade 10 | 10 |
| Passed G.C.E. (O/L) or Equivalent | 11 |
| Passed Grade 12 | 12 |
| Passed G.C.E. (A/L) or Equivalent | 13 |
| Passed GAQ/GSQ..... | 14 |
| Passed Degree | 15 |
| Passed post Graduate Degree/Diploma..... | 16 |
| Phd..... | 17 |
| Special Education learning/learnt..... | 18 |
| No Schooling..... | 19 |

D10 - Main activity usually engaged in

Economically Active

| | |
|--|----|
| Engaged in economic activity..... | 01 |
| Retired (Obtaining government/semi government pension payment and currently engaged in economic activity)..... | 02 |
| Seeking for and available to work..... | 03 |

Economically Inactive

| | |
|--|----|
| Retired (Obtaining government/semi government pension payment and currently not engaged in economic activity)..... | 04 |
|--|----|

Retired from private/semi government sector and not obtain any pension payment..... 05

| | |
|-------------------------------------|----|
| Received other pension payment..... | 06 |
| Household activities | 07 |
| Student | 08 |
| Too old/Disable/unable to work..... | 09 |
| Other..... | 99 |

D14 - Employment Status

| | |
|---------------------------------|---|
| Government Employee | 1 |
| Semi government employee | 2 |
| Private sector employee | 3 |
| Employer..... | 4 |
| Own account worker | 5 |
| Contributing family Worker..... | 6 |

D15 b - Average Monthly Income of the Household

| | |
|---------------------------------|----|
| Less than or equal 16,000 | 01 |
| 16,001 - 24,500 | 02 |
| 24,501 - 30,000 | 03 |
| 30,001 - 37,000 | 04 |
| 37,001 - 44,000 | 05 |
| 44,001 - 52,000 | 06 |
| 52,001 - 64,000 | 07 |
| 64,001 - 82,000 | 08 |
| 82,001 - 1,16,000 | 09 |
| More than 1,16,000 | 10 |
| Don't Know | 77 |
| Refused | 88 |

| HOUSEHOLD DEMOGRAPHIC INFORMATION | | | | | | | | | | | | | | HD | | |
|-----------------------------------|--|---------------------------------------|-----|--------------------------------|-------|---|-----------|----------------|---|----------------------------------|---|--|------|---------------|--|------|
| Serial Number | Name of Household Members <i>(Usually residing persons in this Household)</i> | Relationship to head of the household | Sex | Date of birth (Year and Month) | | Age as at last Birthday (in full years) | Ethnicity | Marital Status | Highest level of education (Person's Age 5 years and above) | Person's Age 15 years and above | | | | | | |
| | | | | Year | Month | | | | | Main activity usually engaged in | Did you involve in any economic activity? /Have you had an economic activity during last week? Yes - 1 No-2 | For Employed persons only (for column HD11 code = 1) | | | Employment status of the main occupation | |
| | | | | | | | | | | | | Main Occupation | Code | Main industry | | Code |
| D1 | D2 | D3 | D4 | D5 | | D6 | D7 | D8 | D9 | D10 | D11 | D12 | | D13 | | D14 |
| 1 | | | | | | | | | | | | | | | | |
| 2 | | | | | | | | | | | | | | | | |
| 3 | | | | | | | | | | | | | | | | |
| 4 | | | | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | | | |
| 6 | | | | | | | | | | | | | | | | |
| 7 | | | | | | | | | | | | | | | | |
| 8 | | | | | | | | | | | | | | | | |

D15a. The average monthly income of the household (Received by all the household members combine)(in Rupees)

or

D15b. The average monthly income range of the household (from all the household members combine (Choose one code No. from Q15b codes)

| WATER QUALITY TEST INFORMATION | | | | | | | | | | | |
|---|---------------------------|--|--|--|--|--|--|--|--|--|--|
| WQ1. WQT (Water Quality Test) ID: (Bar Code) <div style="display: flex; align-items: center;"> Q- <table border="1" style="border-collapse: collapse; text-align: center;"> <tr> <td style="width: 30px; height: 30px;"></td> <td style="width: 30px; height: 30px;"></td> <td style="width: 30px; height: 30px;"></td> <td style="width: 30px; height: 30px;"></td> </tr> </table> </div> | | | | | | | | | | | |
| | | | | | | | | | | | |
| WQ2. Measurer's Name and Number: NAME _____ ID NUMBER <table border="1" style="border-collapse: collapse; text-align: center;"> <tr> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> </tr> </table> | | | | | | WQ3. Interviewer's Name and Number: NAME <table border="1" style="border-collapse: collapse; text-align: center;"> <tr> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> </tr> </table> _____ ID NUMBER _____ | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| WQ4. Water Quality Testing Date : Day / Month / Year _____ / _____ / <u>2 0 2</u> _____ | | | | | | | | | | | |
| WQ5. Is the household selected for blank testing? | YES 1 NO 2 | | | | | | | | | | |

| | | | | | | | | | | | |
|---|---|--|--|--|--|--|--|--|--|--|--|
| WQ6. Name of the respondent to Water Quality Testing: NAME _____ Telephone Number <table border="1" style="border-collapse: collapse; text-align: center;"> <tr> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> </tr> </table> | | | | | | | | | | | |
| | | | | | | | | | | | |
| WQ7. Is permission given to test water? | YES, PERMISSION IS GIVEN 1 ⇒ WQ 08 NO, PERMISSION IS NOT GIVEN 2 ⇒ WQ 27 | | | | | | | | | | |

| WATER QUALITY TESTING INFORMATION | | WQ |
|--|--|------------------------|
| WQ08. Record the time: | HOURS AND MINUTES ____ : ____ | |
| WQ09. Could you please provide me with a glass of water that members of your household usually drink? | YES..... 1 NO 2 | 2 ⇒ WQ27 |
| WQ10. Observe and record whether the water was collected directly from the source or from a separate storage container. | DIRECT FROM SOURCE..... 1 COVERED CONTAINER 2 UNCOVERED CONTAINER..... 3 UNABLE TO OBSERVE..... 8 | |
| WQ11. Record whether the household water sample is available Label the sample as <i>H-XXXX</i> , where <i>XXXX</i> is the WQT ID (WQ1) | HOUSEHOLD WATER SAMPLE COLLECTED... 1 HOUSEHOLD WATER SAMPLE NOT COLLECTED 2 (specify the reason) _____ | |
| WQ12. Have you or any other member of this household done anything to this water to make it safer to drink? | YES..... 1 NO 2 DON'T KNOW 8 | 2 ⇒ WQ14a 8 ⇒ WQ14a |
| WQ13. What has been done to the water to make it safer to drink? Probe: anything else? <i>Record all items mentioned.</i> | A BOILED IT 1. YES 2. NO B ADDED BLEACH/ CHLORINE 1. YES 2. NO C STRAINED IT THROUGH A CLOTH 1. YES 2. NO D USED A WATER FILTER (CERAMIC, SAND, COMPOSITE, ETC.) 1. YES 2. NO E SOLAR DISINFECTION 1. YES 2. NO F LET IT STAND AND SETTLE..... 1. YES 2. NO G OTHER..... 1. YES 2. NO (specify) _____ H DON'T KNOW..... 8 | |

| | | | | | | | | | | |
|---|--|--|--|--|--|----------------------|--|--|--|--|
| <p>WQ14a. What source was this water collected from?</p> | <p>GROUND WATER PROTECTED WELL01 UNPROTECTED WELL.....02 TUBE WELL.....03</p> <p>TAP WATER TAP WATER IN TO DWELLING.....04 TAP TO YARD/PLOT.....05 TAP TO NEIGHBOUR.....06 PUBLIC TAP/STANDPIPE07</p> <p>OTHER WATER SOURCE RIVER/ TANK/ STREAMS.....08 RAIN WATER09 BOTTLED WATER10 BOWSER11 IRRIGATION CANAL94 SPRING.....95 RO PLANT.....96 LORRY/TRUCK.....97 OTHER99</p> <p>(specify the source) _____</p> | <p>01 ⇒WQ14b 02 ⇒WQ14b 03 ⇒WQ14b</p> <p>04 ⇒WQ14d 05 ⇒WQ14d 06 ⇒WQ14b 07 ⇒WQ14b</p> <p>08 ⇒WQ14b 09 ⇒WQ14b 10 ⇒WQ15 11 ⇒WQ14b 99 ⇒WQ14b</p> | | | | | | | | |
| <p>WQ14b. Where is that water located?</p> | <p>IN OWN DWELLING1 IN OWN YARD/PLOT2 ELSEWHERE3</p> | <p>1 ⇒WQ15 2 ⇒WQ14d 3 ⇒WQ14c</p> | | | | | | | | |
| <p>WQ14c. How long does it take for members of your household to go there, get water, and come back?</p> <p>Estimate the distance between this home and the source of water.</p> | <table border="1" data-bbox="756 1391 1216 1514"> <tr> <td>Time (in minutes)</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Distance (In meters)</td> <td></td> <td></td> <td></td> </tr> </table> <p>If the water is delivered to their dwelling (a tanker truck or a small cart with a tank), record ‘000’.</p> <p>If don’t know, record ‘998’</p> | Time (in minutes) | | | | Distance (In meters) | | | | |
| Time (in minutes) | | | | | | | | | | |
| Distance (In meters) | | | | | | | | | | |

| | | |
|---|---|---|
| <p>WQ14d. Who does manage the tap water supply?</p> <p>(Note : Pls ask this Question only, if Q14a= 04,05,06 and 07)</p> | <p>National Water Supply and Management Organizations 1</p> <p>Community Based Water Supply and Management Organizations 2</p> <p>Local Government Institutions 3</p> <p>Private Water Supply 4</p> <p>Water supply network is directly managed by Household (not mentioned above)5</p> | <p>1 ⇒WQ15</p> <p>2 ⇒WQ15</p> <p>3 ⇒WQ15</p> <p>4 ⇒WQ15</p> <p>5 ⇒WQ14E</p> |
| <p>WQ14e. What is the main source for the household directly managed tap water?</p> | <p>PROTECTED WELL01</p> <p>UNPROTECTED WELL02</p> <p>TUBE WELL.....03</p> <p>RIVER/ TANK/ STREAMS.....04</p> <p>RAIN WATER05</p> <p>BOTTLED WATER06</p> <p>BOWSER.....07</p> <p>OTHER99</p> <p>(specify the source) _____</p> | |
| <p>WQ15. Can you please show me the source (<Water Source mentioned in WQ14a>) of glass water so that I can take a sample from there as well?</p> <p>If 'No' probe to find out why this is not possible?</p> | <p>YES, SHOWN 1</p> <p>NO, WATER SOURCE WAS NOT FUNCTIONAL.....2</p> <p>WATER SOURCE TOO FAR3</p> <p>UNABLE TO ACCESS SOURCE4</p> <p>DO NOT KNOW WHERE SOURCE IS LOCATED.....5</p> <p>OTHER REASON9</p> <p>(specify the reason) _____</p> | <p>2 ⇒WQ17</p> <p>3 ⇒WQ17</p> <p>4 ⇒WQ17</p> <p>5 ⇒WQ17</p> <p>6 ⇒WQ17</p> |
| <p>WQ16. Record whether source < Water Source mentioned in WQ14a> water sample collected.</p> <p>Label the sample as S-XXXX, where XXXX is the WQT ID (WQ1)</p> | <p>SOURCE WATER SAMPLE COLLECTED.....1</p> <p>SOURCE WATER SAMPLE NOT COLLECTED...2</p> <p>(specify the reason) _____</p> | |

| | | |
|---|---|--------------------------------|
| <p>WQ16A. Immediately collect another source water sample directly in bottle for chemical (fluoride) testing in the laboratory</p> <p>Record whether the fluoride test sample is available</p> <p>Label the sample as F-XXXX, where XXXX is the WQT ID (WQ1)</p> | <p>FLUORIDE TEST WATER COLLECTED.....1</p> <p>FLUORIDE TEST WATER NOT COLLECTED2</p> <p>(specify the reason) _____</p> | |
| <p>WQ17. (Check WQ5) Is this household initially assigned for blank testing?</p> | <p>YES.....1</p> <p>NO2</p> | <p>1⇒WQ 18</p> <p>2⇒WQ 17a</p> |
| <p>WQ17A As you have problem to conduct the blank test in the initially assigned household, do you select this household for Blank Test?</p> | <p>YES.....1</p> <p>NO2</p> | <p>1⇒WQ 18</p> <p>2⇒WQ 19</p> |
| <p>WQ 18. Record whether the blank sample is available.</p> <p>Take out the sample of sterile/mineral water that you got from your supervisor.</p> <p>Label the sample as B-XXXX where XXXX is the WQT ID (WQ1)</p> | <p>BLANK WATER SAMPLE AVAILABLE.....1</p> <p>BLANK WATER SAMPLE NOT AVAILABLE2</p> <p>(specify the reason for not available) _____</p> | |
| <p>Note: Conduct test for collected water samples within 30 minutes. Record the results following 24-48 hours of incubation.</p> | | |
| <p>WQ19. Record the time.</p> | <p>HOURS AND MINUTES__ : __</p> | |
| | | |

| HOUSEHOLD SANITATION AND HYGIENIC FACILITIES | | SH | | | | | | |
|--|--|----|------------------|-----------------------|--|----------------------|--|--|
| <p>SH01. In the last month, has there been any time when your household did not have sufficient quantities of drinking water when needed?</p> | <p>YES, AT LEAST ONCE 1 NO, ALWAYS ENOUGH 2 DON'T KNOW 8</p> | | | | | | | |
| <p>SH02. How many months did you have sufficient water to consume during last year?</p> | <table border="1"> <thead> <tr> <th></th> <th>Number of months</th> </tr> </thead> <tbody> <tr> <td>For drinking/ cooking</td> <td></td> </tr> <tr> <td>For bathing/ washing</td> <td></td> </tr> </tbody> </table> | | Number of months | For drinking/ cooking | | For bathing/ washing | | |
| | Number of months | | | | | | | |
| For drinking/ cooking | | | | | | | | |
| For bathing/ washing | | | | | | | | |
| <p>SH03. Where is the toilet facility located?</p> | <p>WITHIN UNIT/ WITHIN PREMISES</p> <p>EXCLUSIVE FOR THE HOUSEHOLD.....1 SHARING WITH ANOTHER HOUSEHOLD 2</p> <p>OTHER USAGE</p> <p>NO TOILET TO THIS HOUSING UNIT BUT SHARING WITH ANOTHER HOUSING UNIT3 PUBLIC TOILET4 NOT USING TOILETS.....5</p> | | | | | | | |
| <p>SH04. What kind of toilet facility do members of your household usually use?</p> | <p>TOILET WITH WATER SEAL CONNECTED TO SEPTIC TANK 1 TOILET WITH WATER SEAL CONNECTED TO A PIT2 TOILET WITH WATER SEAL CONNECTED TO SEWER SYSTEM.....3 TOILET WITH WATER SEAL CONNECTED TO A RIVER OR A DRAIN4 PIT LATRINE WITH DECK WITHOUT WATER SEAL5 OPEN PIT LATRINE WITHOUT DECK AND WATER SEAL6 NO TOILET FACILITY. USING BUSH/ FIELD7 OTHER9 (specify) _____</p> | | | | | | | |
| <p>SH05. Do you have a place, water and soap for washing your hands after using the toilet?</p> <p><i>Record all items mentioned.</i></p> | <p>A PLACE.....1.YES 2. NO B WATER1.YES 2. NO C SOAP1.YES 2. NO</p> | | | | | | | |

| | | |
|---|--|--|
| <p>SH06. Does your household receive Gully Bowser Service?</p> | <p>Yes..... 1 No..... 2</p> | |
| <p>SH07. How does your household dispose the garbage?</p> | <p>COLLECTED BY LOCAL GOVERNMENT..... 1 BURNED BY HOUSEHOLD 2 DUMPED WITHIN PREMISES 3 PROCESS FOR FERTILIZER 4 DUMPED / THROW AWAY OUTSIDE PREMISES (ROAD/ RIVER /STREAM /SEA/ LAGOON/ FOREST ETC)5 OTHER9 (<i>specify</i>) _____</p> | |

| WATER QUALITY TESTING RESULTS | | WQ |
|--|--|-----------|
| Following 24-48 hours of incubation the results from the water quality tests should be recorded. | | |
| WQ20. Day /Month / Year of recording test results: | ___ ___ / ___ ___ / <u>2</u> <u>0</u> <u>2</u> ___ | |
| WQ21. Record the time: | HOUR AND MINUTES..... ___ ___ : ___ ___ | |
| WQ22. <u>Household</u> water test (100ml): <i>Record 3-digit count of colonies. If 101 or more colonies are counted, record '101' If it is not possible to read results, record '991' If the results are lost, record '992'</i> | NUMBER OF BLUE COLONIES <input type="text"/> <input type="text"/> <input type="text"/> | |
| WQ23. Check WQ16. Was a source water sample collected? | YES, WQ16=1.....1 NO, WQ16=2 OR BLANK.....2 | 2 ⇒ WQ 25 |
| WQ24. <u>Source</u> water test (100ml): <i>Record 3-digit count of colonies. If 101 or more colonies are counted, record '101' If it is not possible to read results, record '991' If the results are lost, record '992'</i> | NUMBER OF BLUE COLONIES <input type="text"/> <input type="text"/> <input type="text"/> | |
| WQ25. Check WQ18. Was a blank water sample available? | YES, WQ18=1.....1 NO, WQ18=2 OR BLANK.....2 | 2 ⇒ WQ 27 |
| WQ26. <u>Blank</u> water test (100ml): <i>Record 3-digit count of colonies. If 101 or more colonies are counted, record '101' If it is not possible to read results, record '991' If the results are lost, record '992'</i> | NUMBER OF BLUE COLONIES <input type="text"/> <input type="text"/> <input type="text"/> | ⇒ WQ 27 |
| WQ27. Result of Water Quality Testing <i>Discuss any result not completed with Supervisor</i> | COMPLETED1 DEFERRED.....2 NOT COMPETENT RESPONDENT AT HOME.....3 REFUSED.....4 HOUSING UNIT TEMPORARILY CLOSED...5 HOUSING UNIT IS DEMOLISHED/ VACANT.....6 WATER SAMPLE UNAVAILABLE.....7 OTHER (Specify)8 PARTIALY COMPLETED.....9 DAY 1 COMPLETED (E.coli result not entered).....10 | |

Supervising Officer's Name :

ID Number

Household Survey of Drinking Water Quality - 2021
Sri Lanka

Department of Census and Statistics
Ministry of Finance, Planning and Economic Development