



# Drinking Water, Sanitation & Hygiene

Household Survey of Drinking Water Quality - Sri Lanka



Department of Census and Statistics

Ministry of Finance, Economic Stabilization and National Policies



The Department of Census and Statistics (DCS) conducted the Household Survey of Drinking Water Quality to collect data on water quality parameters particularly on bacteriological contamination and chemical contamination with the focus of Fluoride as a purity chemical. The objective of the survey is to compile the SDG targets (6.1), which is especially to drinking water service to achieve access to safely managed services on access to water and sanitation, availability and quality of the household drinking water. The WHO/UNICEF Joint Monitoring Programme for Water Supply, Sanitation and Hygiene (JMP) concepts and recommendations was used for the survey design and data analysis. In selecting the appropriate sample for this survey, in compliance with the technically acceptable methods and procedures of sample selection, a sample of 3210 households were selected representing cross-section of the entire country to provide reliable estimates. Data collection was taken place in year 2021. This bulletin presents the key findings and estimates on measures of household drinking water, sanitation and hygiene of Sri Lanka.

## SDG Indicators

### 1.4.1 Use of 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 %**

**33.4%**

### 6.1.1 Use of 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 (within the reference period).

### 6.2.1 Hand washing facility with water and soap

Percentage of household members with a hand washing facility where water and soap or detergents are present.

**85.0%**

**99.7%**

### 3.8.1 Use of improved sanitation facilities

Percentage of household members using improved sanitation facilities.

# 1. Drinking Water

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

Improved drinking water sources are designed and constructed to potentially provide safe water. These include protected well, tube well, tap water, bottled water & RO plant. To fulfil the criteria for a safely managed drinking water service (as outlined in SDG 6.1), 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.

This survey specifically focuses on assessing the quality of drinking water by sampling households. It exclusively examines water used for drinking purposes to estimate the conditions related to drinking water. The analysis of drinking water quality is conducted in-depth, considering various criteria. As a result, the relevant estimates are separately generated based on the specific criteria.

Figure 1: JMP ladder for drinking water

SERVICE LEVEL	DEFINITION
<b>SAFELY MANAGED</b>	Drinking water from an improved source that is accessible on premises, available when needed and free from faecal and priority chemical contamination.
<b>BASIC</b>	Drinking water from an improved source, provided collection time is not more than 30 minutes for a round trip, including queuing.
<b>LIMITED</b>	Drinking water from an improved source, for which collection time exceeds 30 minutes for a round trip, including queuing.
<b>UNIMPROVED</b>	Drinking water from an unprotected dug well or unprotected spring.
<b>SURFACE WATER</b>	Drinking water directly from a river, dam, lake, pond, stream, canal or irrigation canal.

Table 1: Percentage distribution of household population by Service level (Drinking water) & Sector.

	Sri Lanka	Urban	Rural	Estate
<b>SAFELY MANAGED</b>	33.4	68.6	28.2	3.1
<b>BASIC</b>	46.4	23.6	48.6	86.4
<b>LIMITED</b>	0.3	-	0.4	-
<b>UNIMPROVED</b>	19.2	7.7	22.2	5.5
<b>SURFACE WATER</b>	0.7	0.1	0.5	4.9

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

## Key Findings

**Nearly, one third (33.4%)** of the household population had access to a **safely managed drinking water service** located on the premises, consistently available whenever needed, and free from faecal (E-coli) contamination.

**7 in 10 (70.3%)** of the people used **improved sources which available on premises.**

**2 in 5 (40.6%)** people used **improved sources free from E-coli contamination.**

**2 in 3 (68.6%)** people in **urban** sector & nearly **1 in 4 (28.2%)** people in **rural** sector using **safely managed drinking water services.** Only **3.1 %** reported from **estate** sector.

**0.7%** household population collected drinking water **directly from surface water sources.**

**20.3%** of the household population **lacked even basic drinking water service.**

**7 in 10 (70.6%)** people used **improved sources with water available** when needed.

**Main source of drinking water** for **16.1%** of the household population was **unprotected well.**

**4 in 5 (79.7%)** people use at **least basic service** - an improved source within 30 minutes round trip to collect water.

## 2. Sanitation

Improved sanitation facilities are designed to hygienically separate excreta from human contact. These facilities include toilets with water seal connected to septic tanks, toilets with water seals connected to a pit, toilets with water seal connected to sewer systems, and decks without water seals. To meet the criteria for a safely managed sanitation service as per SDG 6.2, there are three primary methods. Individuals should utilize improved sanitation facilities that are exclusive to their household and handle excreta in one of three ways (refer to Figure 2):

- Treated and disposed of in situ,
- Stored temporarily and then emptied, transported and treated off-site, or
- Transported through a sewer with wastewater and then treated off-site.

If excreta from improved sanitation facilities isn't properly handled, individuals using those facilities will be categorized as having a basic sanitation service (SDG 1.4). Moreover, individuals using improved facilities shared with other households will be considered as having a limited service. The Joint Monitoring Programme (JMP) continue to monitor the population practicing in open defecation, which is an explicitly focus of SDG target 6.2.

Figure 2: JMP ladder for sanitation

SERVICE LEVEL	DEFINITION
SAFELY MANAGED	Use of improved facilities that are not shared with other households and where excreta are safely disposed of in situ or transported and treated offsite.
BASIC	Use of improved facilities that are not shared with other households.
LIMITED	Use of improved facilities shared between two or more households.
UNIMPROVED	Use of pit latrines without a slab or platform, hanging latrines or bucket latrines.
OPEN DEFECACTION	Disposal of human faeces in fields, forests, bushes, open bodies of water, beaches or other open spaces, or with solid waste.

Table 2: Percentage distribution of household population by Service level (Sanitation) & Sector

	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 DEFECACTION	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.

### Key Findings

**93.7 %** of the household population used **at least basic sanitation service**.

**1 in 20** (6.3%) people were not using basic sanitation services in Sri Lanka. **80%** of them reported from rural sector.

Only **0.1%** of the household population Island wide practiced **open defecation**.

**Majority** (84.9%) of the household population used **pit latrines with water seal facility**.

**Only 1.9%** of the household population used sanitation facilities connected to **sewers**.

only **6%** of the household population used **limited sanitation service level**.

**99.7%** of the household population used **improved sanitation facilities**.

**11%** of the household population used sanitation facilities connected to a **septic tank**.

**9.6 %** of the household population used **gully bowser service**. **29.2%** in urban sector, **6.2%** in rural sector **2.0 %** in estate sector.

## 3. Hygiene

The straightforward practice of handwashing stands out as one of the most effective tools for preventing diseases. An estimate suggests that it could potentially decrease the occurrence of diarrheal disease by around 23% to 40%. The COVID-19 pandemic highlighted for everyone the critical importance of hand hygiene in preventing and managing various infections.

The 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. Households that possess this facility meet the criteria for a basic hygiene facility (SDG 1.4 and 6.2). 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.

Figure 3 : JMP ladder for Hygiene

SERVICE LEVEL	DEFINITION
<b>BASIC</b>	Availability of a handwashing facility on premises with soap and water
<b>LIMITED</b>	Availability of handwashing facility on premises without soap and water
<b>NO FACILITY</b>	No handwashing facility on premises

Table 3: Percentage distribution of household population by Service level (Hygiene) & Sector

	Sri Lanka	Urban	Rural	Estate
<b>BASIC</b>	85.0	93.4	85.0	56.1
<b>LIMITED</b>	5.7	3.7	5.5	15.8
<b>NO FACILITY</b>	9.3	2.9	9.5	28.1

### Key Findings

**85.0%** of the household population had **basic handwashing facilities with soap and water.**

**5.7%** household population had handwashing facilities lacking soap or water.

Nationally **9.3%** household population had **no** handwashing facility on their premises.

**93.4%** of urban sector, **85.0%** of rural sector & **56.1%** of estate sector household population lived with **basic handwashing facilities.**

**90.7%** of the household population had place for handwashing.


**99%** of them have **water** and, **94.1%** of them have **soap.**





Nearly one-fourth (28.1%) of people in **estate sector** still do not have handwashing facility on their premises.

In **urban sector 2.9%** and **rural sector 9.5%** of household population lived **without handwashing facilities.**

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"To be the leader in the region in producing timely statistical information to achieve the country's development goals."

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