FS 1.1 Water access in Latin America and the Caribbean: Definitions and Data

Key Takeaways

- While an average of 94 percent of households in LAC have access to improved drinking water sources, 34 percent of households use bottled water as their primary drinking water source **[1]**.
- There are large disparities in water access between countries and between rural and urban communities with access to improved water sources varying by over 10 percentage points in some cases **[1]**.
- The ratio of households with access to water on the premises varies significantly throughout LAC but is generally high (over 90 percent); however, significantly lower numbers of households access their drinking water from on-premises sources **[1]**.
- According to the 2018/19 AmericasBarometer survey, 41 percent of households with network connections reported being unable to access enough water at some point during the previous month.
- There are large data gaps with respect to drinking water quality throughout Latin America and the Caribbean (LAC).

Water access and safely managed drinking water

Access to water, especially safe drinking water, has important repercussions for public health, personal well-being and social equity.

Sustainable Development Goal (SDG) 6.1 seeks universal access to safe drinking water, with an emphasis on safely managed access. To measure progress towards this goal and inequalities in service levels between countries, the WHO/UNICEF Joint Monitoring Program (JMP) has developed the Drinking Water Ladder, whose rungs are designed to allow countries at different stages of development to compare their progress over time. The primary indicator for 6.1 (Indicator 6.1.1) measures the percentage of the population with access to safely managed drinking water, making its provision one of the principal goals in the sector.

Safely managed drinking water is defined as water from an **improved drinking water source**, which is:

- **located on premises,**
- **available when needed, and**
- **free from fecal and priority chemical contamination [2].**

This fact sheet examines each of these components and their status in LAC in turn.

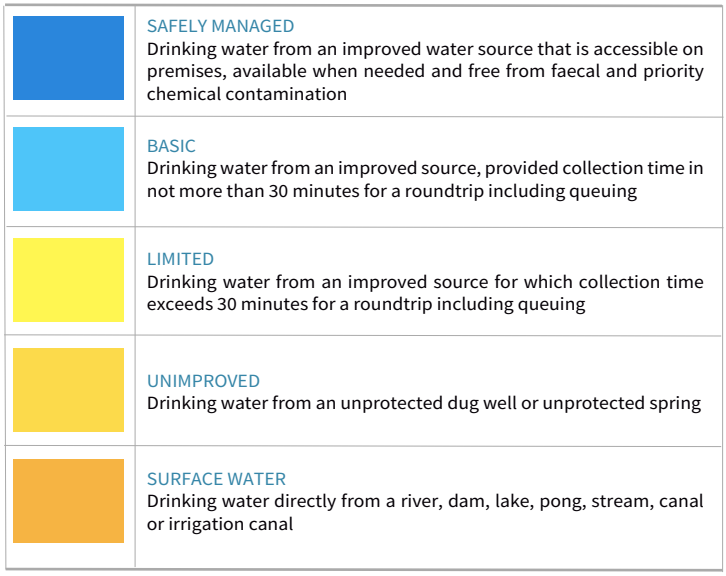

Figure 1: JMP drinking water ladder [2].

Improved vs. unimproved water sources

For a household to have safely managed drinking water, their water must come from an improved source. Generally, improved sources are protected from outside contamination, must be easily accessible and readily available.

Improved Water Sources		Unimproved Water Sources
Piped water on premises	Other Improved	Unprotected dug well, unprotected spring, and surface water (river, dam, lake, pond, stream, canal, irrigation channels)
Piped household water connection located inside the user's dwelling, plot or yard.	Public taps or standpipes, tube wells or boreholes, protected dug well, protected springs and rainwater collection, cart with small tank/drum, tanker truck, and bottled water.	

Table 1: Improved vs unimproved water sources [3].

Based on data from the AmericasBarometer survey (2018/19), 94 percent of households in LAC use an improved water source as their primary drinking water source; however, 34 percent of households rely primarily on bottled water, which can be expensive and not always available in sufficient quantities. Reasons for this heavy reliance on bottled water include lack of confidence in the quality of piped water, lack of access to piped water, and dislike of the taste of piped water.

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Water sources throughout LAC

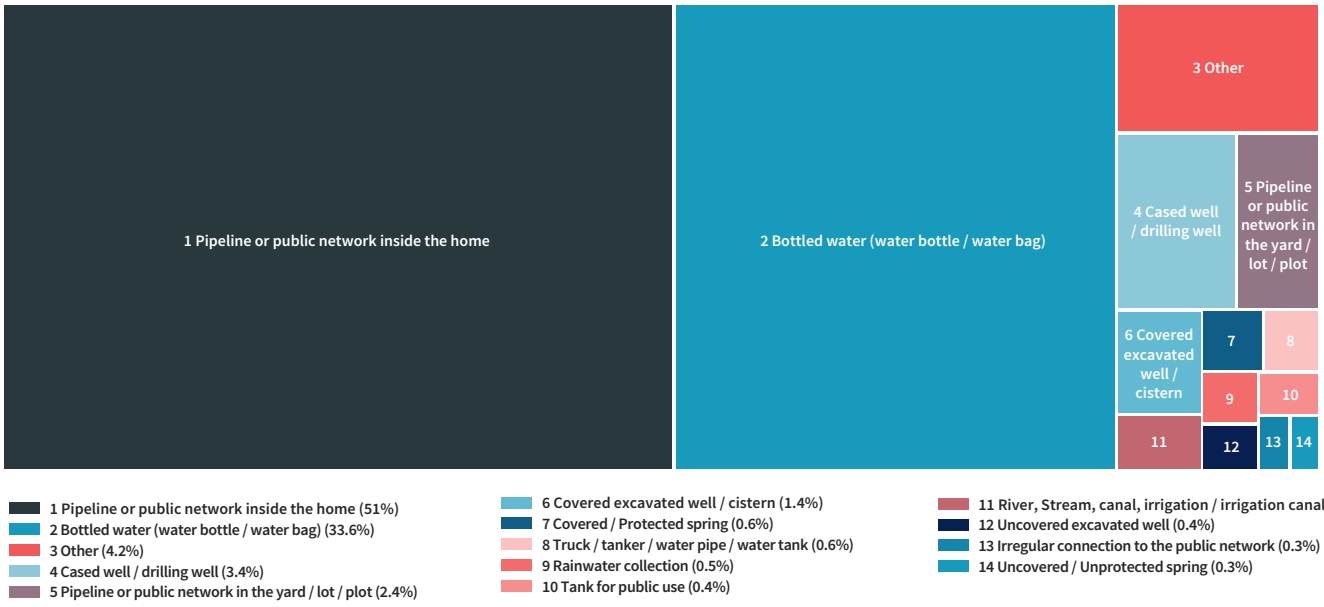

Figure 2: Average ratio of households using improved vs non-improved water sources throughout surveyed countries [1].

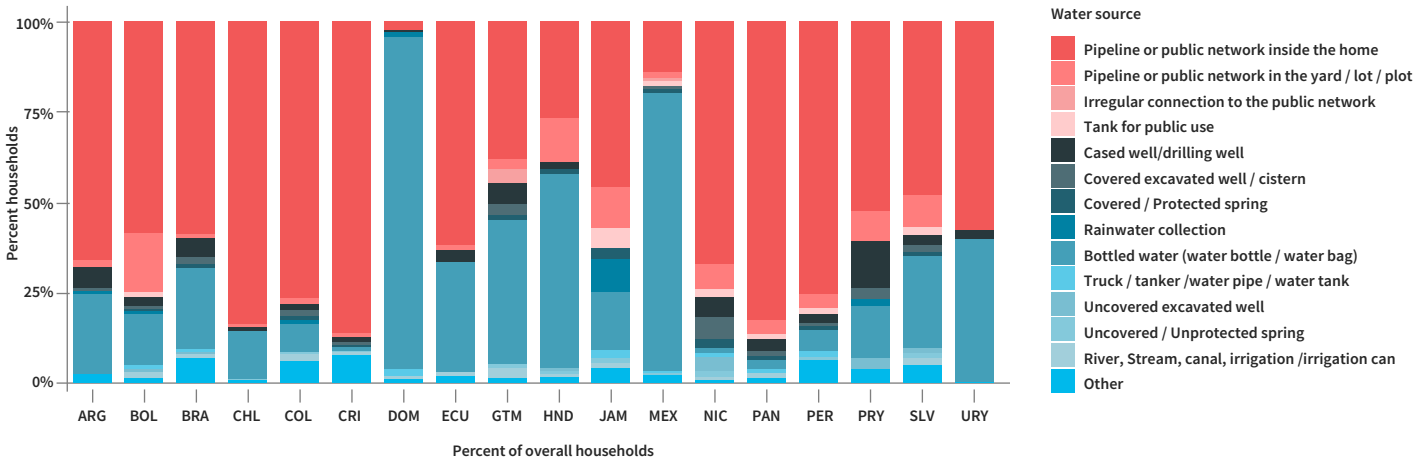

Figure 3: Drinking water sources throughout surveyed countries [1].

Bottled water is considered an improved water source, in part because of the quality standards it is held to; however, small water purification companies and informal water suppliers operate throughout the region. This water is often purified, but can be of questionable quality **[4]**. The 2021 AmericasBarometer survey looks specifically at this phenomenon in the Dominican Republic and Mexico. The survey results show that 3 percent of Dominicans reported using economic bottled water (without purification) while 35 percent of Mexicans reported using local refillable bottled water sourced from a tank or warehouse.

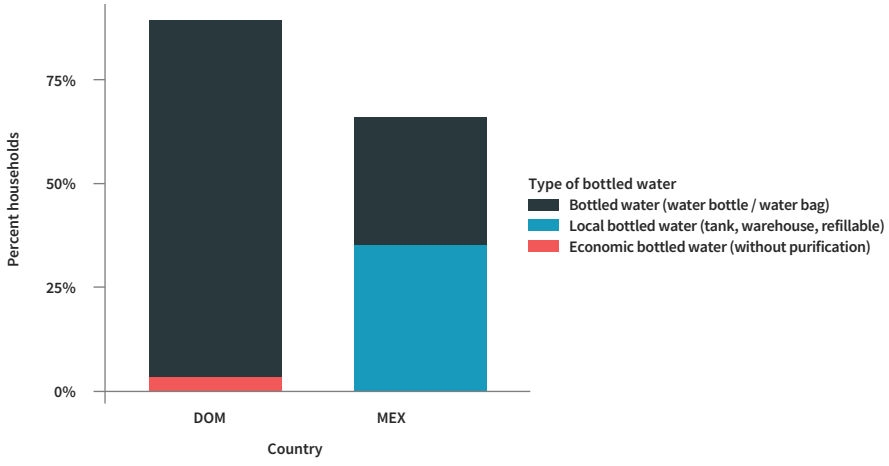

Figure 4: Bottled water consumption in the Dominican Republic and Mexico [5].

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LAC has significant disparities in access to improved water sources between rural and urban populations, with approximately 96 percent of urban households having access to an improved water source, as compared to approximately 87 percent of households in rural communities. These gaps in access are especially pronounced in countries like Colombia, Brazil, Nicaragua, and El Salvador where the gap between urban and rural households with access to improved water sources is over 10 percent **[1].**

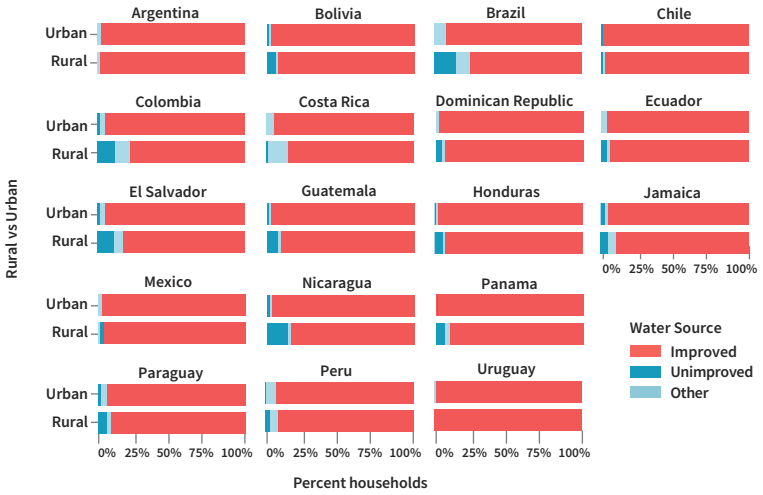

Figure 5: Percent of urban and rural households using improved vs non-improved water sources by country [1].

Located on premises

For drinking water to be considered safely managed, the point of access must be on premises, defined as within the home, in the yard or on the same plot of land as the home, or trucked to the home via water tanker **[6]**. Throughout LAC, access to drinking water on premises generally ranges between 60-80 percent, with some notable exceptions such as Dominican Republic, Honduras, and Mexico, in which less than 50 percent of the population use on premises sources as their primary drinking water source. This may seem surprisingly low, but it is largely because many households have piped water but do not consider it potable or desirable and instead rely heavily on bottled water or other water sources.

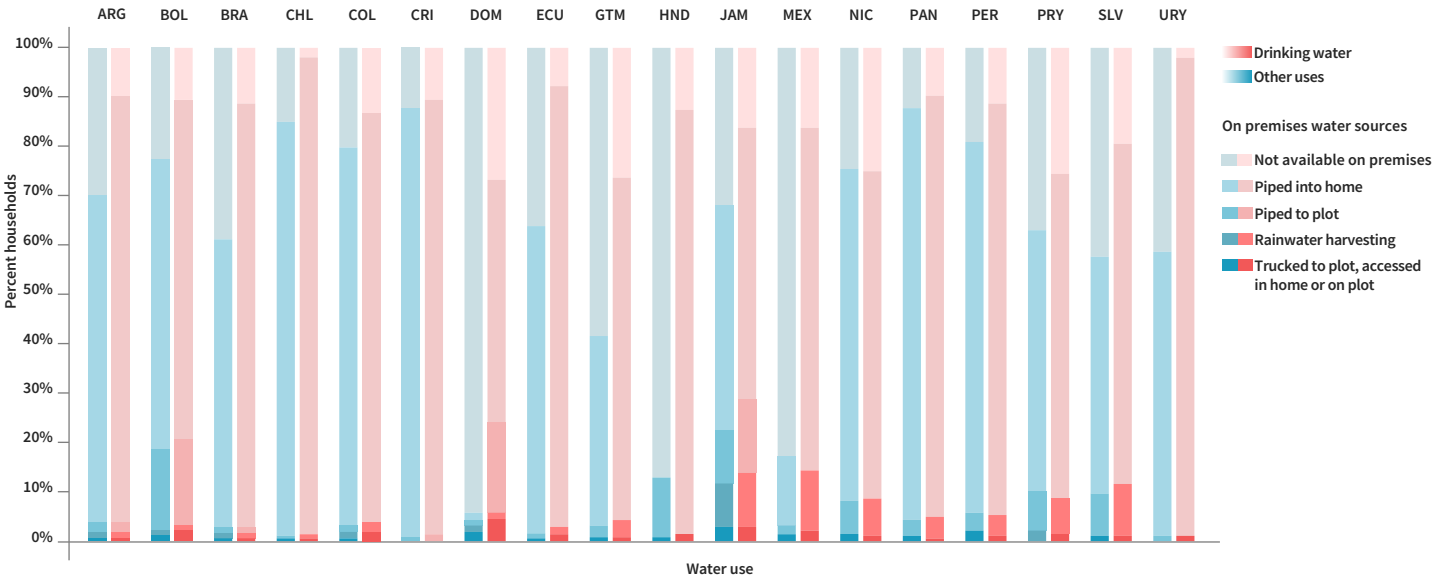

Figure 6: Percent of households with on premises access to drinking water and on premises access to water for other uses by country [1].

Available when needed

Safely managed drinking water must be available when needed. This means households must have access to sufficient quantities of water 'available when needed' which includes households that 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), although ideally water should be available without interruptions **[6]**. Throughout the region the percent of households that report no supply interruptions in the last month varies from 22 percent in Jamaica to 85 percent in Chile, with 49.4 percent of households in the region reporting no water outages.

Of those that have piped water 59 percent of households throughout the region report no service interruptions, ranging from 34 percent in Jamaica to 87 percent in Chile. The most common causes of interruptions are maintenance and repair related, such as valve changes, cleaning and disinfection of reservoirs, and repairs to main or pipe breaks. Network improvements and failure to pay water bills can also cause disruptions. On average, rural areas report slightly higher incidents of disruptions.

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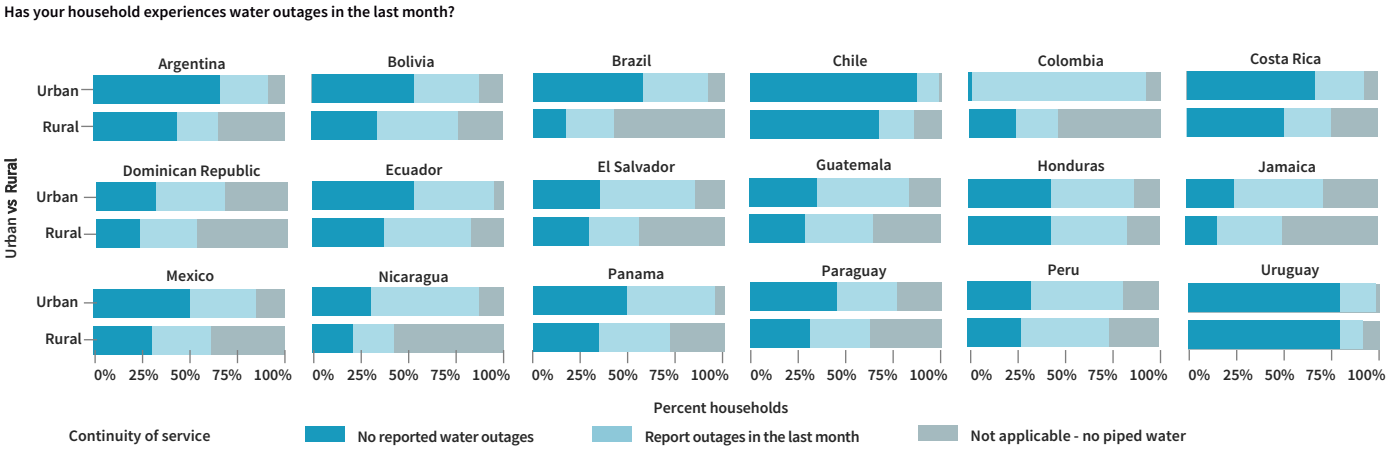

Figure 7: Percent of households reporting insufficient water access in the past month [1].

Free from fecal and priority chemical contamination

Safely managed drinking water must meet relevant national and local water quality standards. In the absence of such standards, water must meet the WHO Guidelines for Drinking Water Quality. E. coli or thermotolerant coliforms are the preferred indicator for microbiological quality, and arsenic and fluoride are the priority chemicals for global reporting. There are large data gaps with respect to this information, with some countries having detailed data on tap water quality while others have no data.

The perceived need for water treatment can act as a proxy for piped water quality, although it is important to consider that preference also contributes to water treatment rates. Home treatment of piped water is very common throughout the region, either by filtering, boiling, or adding disinfectants. Within countries surveyed, home treatment of piped water varies widely between countries, ranging from 19 percent in Costa Rica to 92 percent in Peru, primarily due to quality concerns **[5]**.

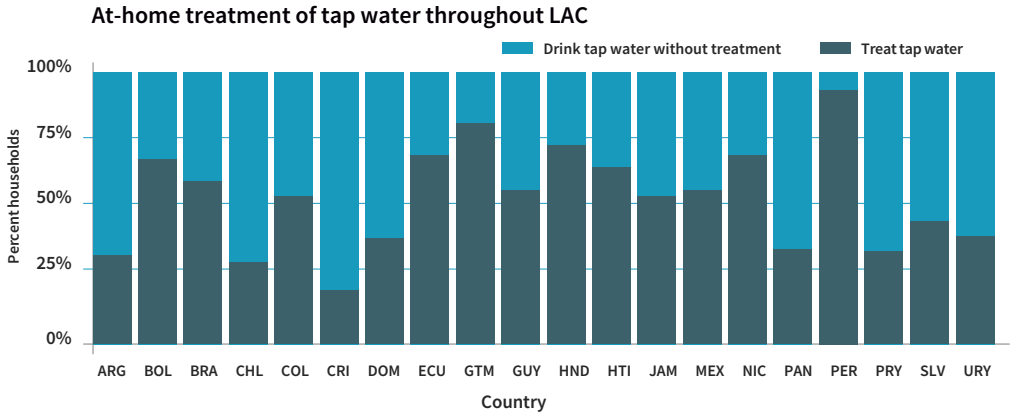

Figure 8: Percent of households that report treating their tap water [5].

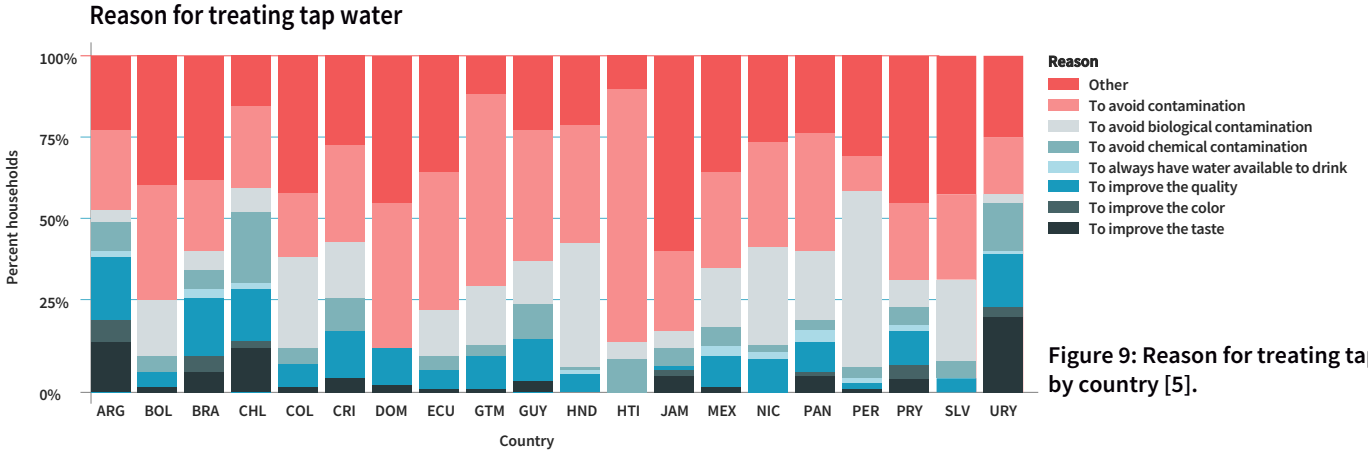

Figure 9: Reason for treating tap water by country [5].

References: 1. The AmericasBarometer (2019). Latin American Public Opinion Project (LAPOP), http://lapopsurveys.org **2.** Washdata.org. "Drinking Water", accessed October 5, 2021 at: https://washdata.org/monitoring/drinking-water. Joint Monitoring Programme WHO/UNICEF **3.** JMP (2018). Methodology 2017 Update & SDG Baselines. Programa de Monitoreo Conjunto OMS/UNICEF **4.** Orozco-Magdaleno, Cansedo-Ávila, Elorza-Claros, et al. (2019) "Microempresas de purificación de agua en la costa de Chiapas: calidad bacteriológica y puntos de riesgo críticos" Higiene y Sanidad Ambiental 19 (4): 1825-1828. Accessed at: https://saludpublica.ugr.es/sites/dpto/spublica/public/inline-files/bc5de4f4667dcdf_Hig.Sanid_.Ambient.19.%284%29.1825-1828.%282019%29.pdf **5.** AmericasBarometer (2021). Latin America Public Opinion Project (LAPOP), http://www.lapopsurveys.org **6.** JMP (2021). Metadatos de indicadores ODS: 6.1.1. Programa de Monitoreo Conjunto OMS/UNICEF. Accessed at: https://washdata.org/sites/default/files/2022-01/jmp-2021-metadata-sdg-611.pdf

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