FS 1.4.b: OLAS Household Survey Data Set 2023 Update: Water Access Indicators

One of the key objectives of the Water and Sanitation Observatory for Latin America and the Caribbean (OLAS) is to provide reliable data on water and sanitation access throughout the region. To this end, the OLAS created the OLAS Household Survey data set (HHS-OLAS), which provides key indicators on water and sanitation access in Latin America and the Caribbean (LAC). The data set has undergone multiple iterations, the most recent of which has dramatically expanded the data available and its potential uses. This fact sheet outlines the changes to the dataset as an update to the previously published **FS 1.4 OLAS Household Survey Data Set: Water Access Indicators** [1].

The newest iteration of the dataset has 33 water access indicators, addressing sources of water used for general household use and water sources used for human consumption, as well as water network connections, multiple indicators on continuity of access, metering, and in-home water treatment. Data is available in percent of households as well as by number of households, and can be broken down by various socio-economic elements, including income, gender, and ethnicity.

Fact Sheet 1.4 OLAS Household Survey Data Set: Water Access Indicators

Water Sources

Data on water sources for both general use and human consumption are detailed, with indicators for several specific sources such as bottled water, the water network, protected wells, rainwater and more. Water sources are categorized into improved and unimproved sources according to the Joint Monitoring Programme's (JMP) definitions, allowing for the creation of aggregate indicators representing improved, unimproved, and unclassifiable water sources [2]. These classifications are important because "safely managed water access", the type of access used to measure Sustainable Development Goal (SDG) 6, requires access to an improved water source. The definitions and organization of these indicators are shown in Table 1.

Table 1: Water Source Indicators [3]

Topic	Aggregate Indicator	Definition	Indicator	Definition
Water source for human consumption	aguafconnulo_ch			Percent of households that lack data on the potability or information specifically about the water source used for human consumption
	aguafdesconcon_ch			Percent of households that use an unclassifiable water source as their primary source for water used for human consumption
	aguafmejoradacon_ch	Percent of households that use an improved water source as their primary source for water used for human consumption	aguafredcon_ch	Percent of households that use the piped water distribution network as their primary source for water used for human consumption (not including public standpipes)
			aguafpublicocon_ch	Percent of households that use public standpipes as their primary water source used for human consumption
			aguafembotcon_ch	Percent of households that use bottled water as their primary source for water used for human consumption
			aguafpozoprotcon_ch	Percent of households that use a protected well as their primary source for water used for human consumption
			aguaflluviacon_ch	Percent of households that use rainwater harvesting for human consumption
			aguafcamioncon_ch	Percent of households that receive trucked water for human consumption
			aguafotramejcon_ch	Percent of households that source water from other improved sources (protected springs) for human
	aguafnmcon_ch	Percent of households that use an unimproved water source as their primary source for water used for human consumption	aguafsupercon_ch	Percent of households that source water for human consumption directly from surface water bodies.
			aguafotranmcon_ch	Percent of households that source water for human consumption directly from other non-improved sources
General water source	aguafdesconocido_ch			Percent of households that use an unclassifiable water source as their primary source for water
	aguafmejorada	Percent of households that use an improved water source as their primary source	aguafred_ch	Percentage of households with aqueduct water service (connections to home or plot) that is used as the primary source of water
			aguafpublico_ch	Percent of households that use public standpipes as their primary water source

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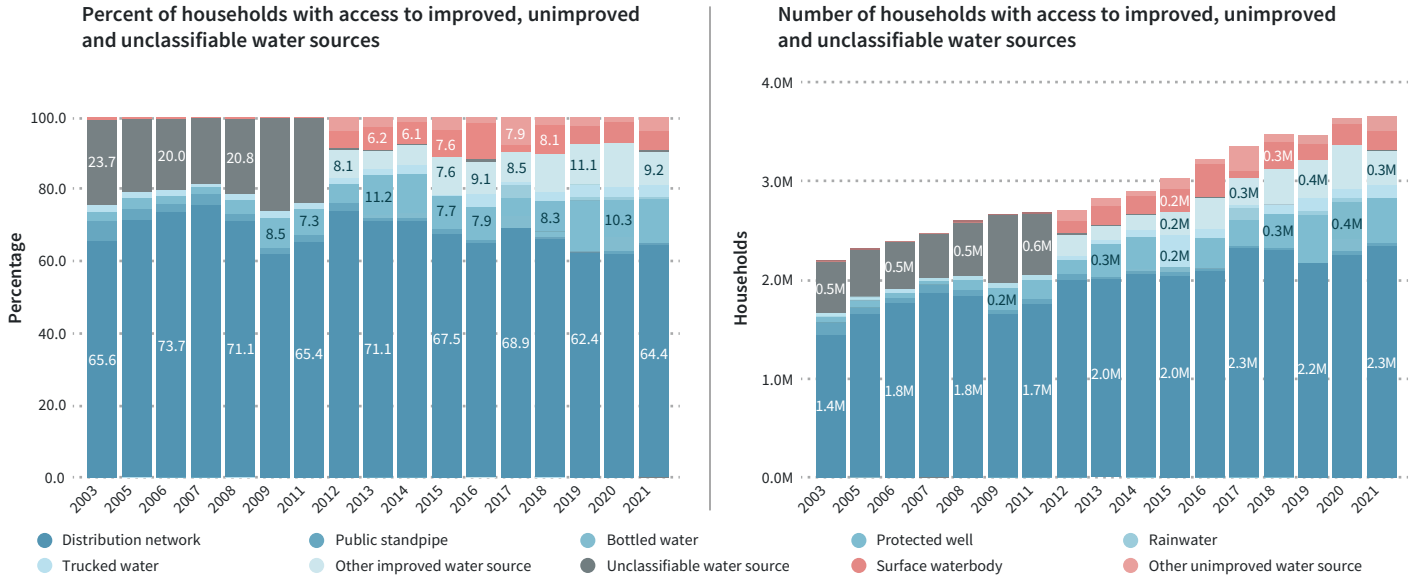
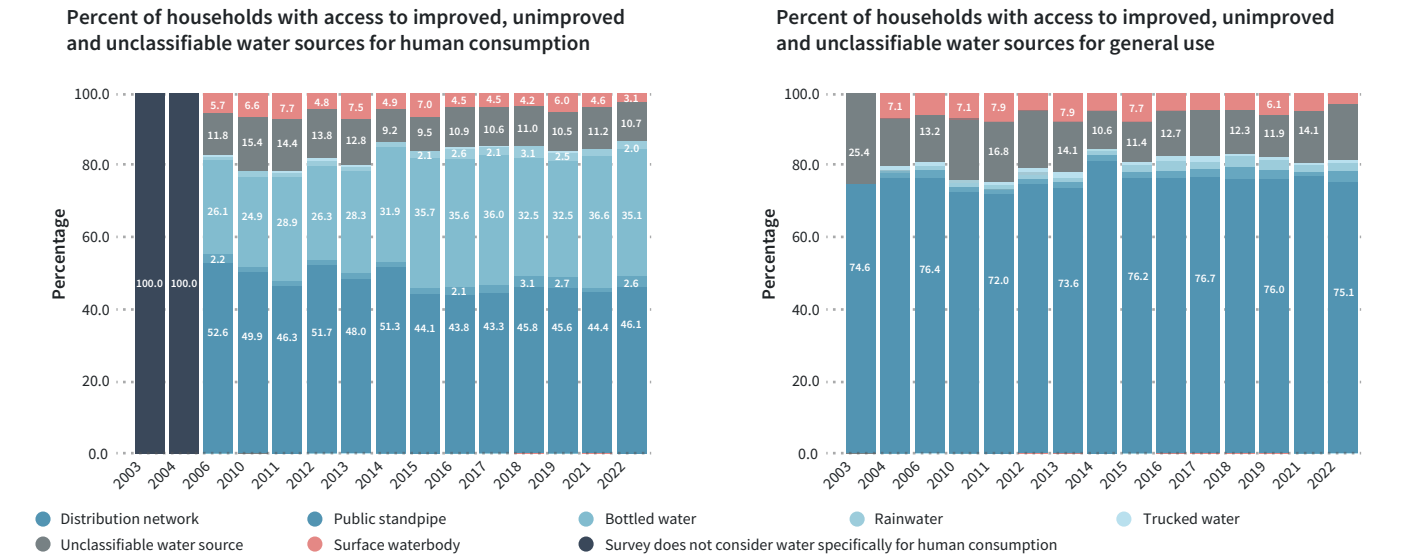
Topic	Aggregate Indicator	Definition	Indicator	Definition
General water source	aguafmejorada	Percent of households that use an improved water source as their primary source	aguafembotellada_ch	Percent of households that use bottled water as their primary source for water
			aguafpozoprot_ch	Percent of households that use protected wells as their primary source for water
			aguaflluvia_ch	Percent of households that use rainwater harvesting
			aguafcamion_ch	Percent of households that receive trucked water
			aguafotramej_ch	Percent of households that source water from other improved sources (protected springs)
	aguafnomejorada	Percent of households that use an unimproved water source as their primary source	aguafsuperficial_ch	Percent of households that source water directly from surface water bodies.
			aguafotranm_ch	Percent of households that source water directly from other non-improved sources

Figure 1: Use of specific water sources over time in Bolivia [3]



The separation of indicators for water sources used generally and those specifically only used for human consumption is an important differentiation. For example, comparing water sources used for human consumption (Figure 2 left) versus those used for general use (Figure 2 right) in Guatemala we can see that a little less than half of the population that generally uses water network choose to use bottled water for drinking purposes. While we do not know the reason for this choice and it does not impact the larger aggregations of improved water sources, understanding this high prevalence of bottled water use is valuable from a water service and policy perspective.

Figure 2: Comparison of water sources used for human consumption vs those used for general use in Guatemala [3]



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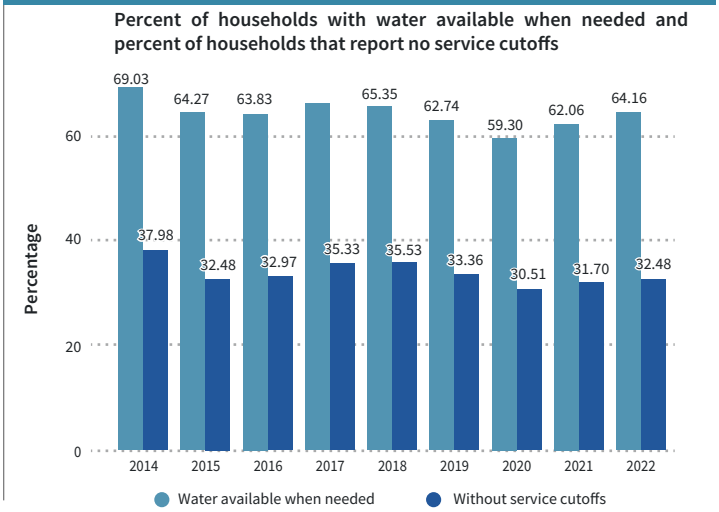
Location of Access

Location of access is a component of safely managed access, while time to the water source is a component of basic access under the framework of the JMP Access Ladder [4]. Most household surveys include information on location, but often access location is only specified for those that use water from the water network, and time to the source is not commonly addressed. The indicators on location of access were not incorporated into the data set, although variables on access were harmonized during the harmonization process (See FS 1.3 Update) and may be incorporated in the future. The concept was instead incorporated into the water source indicators, where network connections (aguafred_ch, aguafredcon_ch) are on the property and public standpipes are off property (aguafpublico_ch, aguafpublicocon_ch).

Figure 3: Water continuity rates measured using both indicators in El Salvador [3]



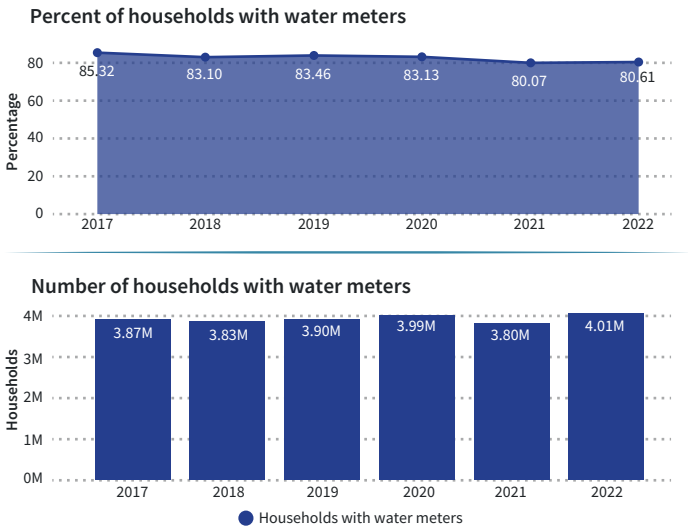
Continuity of Access

Another facet of safely managed water access is continuity – households must have access to sufficient quantities of water when needed in order to be categorized as having safely managed water access. The updated data set has two indicators that measure this concept as well as one that measures the lack of this information in the survey (Table 2). One indicator represents the JMP definition of continuity of access, which includes households that report sufficient continuity of access or those that have access more than half the time (Figure 3). The other represents households that reported no water cutoffs in the period of reporting. Sometimes, surveys allow for both indicators to be calculated while other times only one or the other is available.

Table 2: Water continuity indicators [3]

Water Continuity Indicators	
aguadispnulo_ch	Percent of households without information on continuity of water access
aguadispcontinuo_ch	Percent of households that report no water shutoffs
aguadisp_ch	Percent of households with water available as needed (more than 50% of the time or explicitly stated) - JMP definition for SDG 6

Figure 4: The data shows that usage of water meters in Ecuador over time seems to be remaining steady or slightly increasing, but due to population growth the rate of meter use has decreased [3]



Additional Indicators

Additional indicators related to water access include network connection rates, the rate of meter usage among households and the use of at-home water treatment methods. Rates of meter use are only available for Chile, Guatemala, and Ecuador, while information about at-home water treatment is only available for Brazil, El Salvador, Guatemala, Uruguay, and Venezuela.

Conclusion

The OLAS Household Survey Data Set, which contains data on 47 water and sanitation access indicators over 2003-2022, can be accessed on the OLAS, along with associated documentation such as the Methodology Document and code repositories. For more information on the changes to the data set in the 2023 iteration, please see FS 1.3.b: OLAS Household Survey Data Set: Data Set 2023 Update.

References: **[1]** OLAS, (2022). "FS 1.4 OLAS Household Survey Data Set: Water Access Indicators". Water and Sanitation Observatory for Latin America and the Caribbean. Accessed at: https://publications.iadb.org/en/fs-14-olas-household-survey-data-set-water-access-indicators. **[2]** JMP, (2021). "Metadata: SDG Global Indicator 6.1.1." Joint Monitoring Programme. Accessed at: Metadata: SDG global indicator 6.1.1 | JMP (washdata.org). **[3]** OLAS, 2023. "OLAS/SCL WASH Household Survey Dataset", Water and Sanitation Observatory for Latin America and the Caribbean. Accessed at: https://mydata.iadb.org/Water-and-Sanitation/OLAS-SCL-WASH-Household-Survey-Dataset/bjat-gfsm. **[4]** JMP, (2023). "Drinking water", Joint Monitoring Programme. Accessed at: https://washdata.org/monitoring/drinking-water.

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