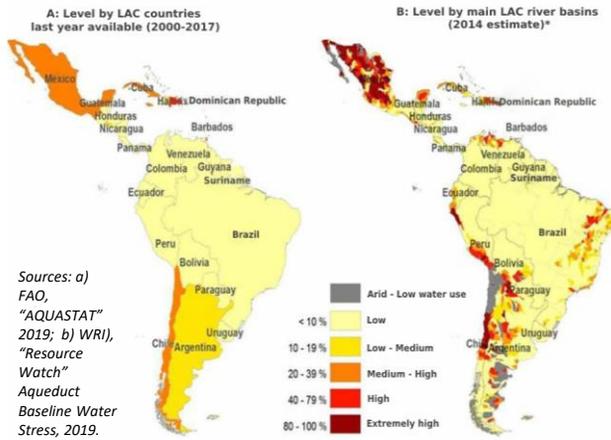


# Towards a Sustainable and Inclusive Water Transition In Latin America and the Caribbean

Water is at the heart of the economy, health and climate, yet it is seriously undervalued in our society. In recent decades, the region has seen strong inequalities in access to water, as well as a growing overexploitation of water resources and increased pollution, which is further complicated by the current context of climate instability. It is therefore necessary to promote a transition in regional water management that allows both universal access to drinking water and quality sanitation, as well as its responsible and sustainable use, based on circularity and equity.

## Challenges of water management in Latin America and the Caribbean (LAC)



### Heterogeneous water availability

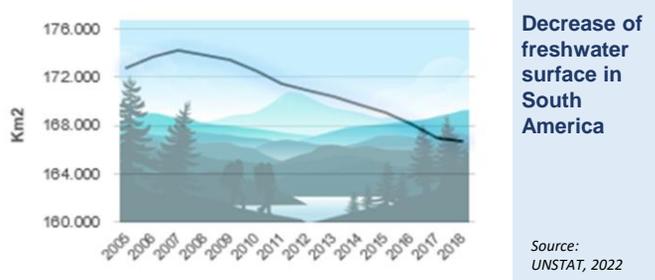
LAC has a per capita water endowment four times higher than the world average, but its reserves are very heterogeneously distributed. While the average level of water stress is low at 3.5%, the same indicator reaches 19% for the Caribbean sub-region. In fact, the latest IPCC report highlights that seven Caribbean countries are on the global list of the most water-stressed nations (IPCC, 2021). The situation within countries is even more heterogeneous. During the driest months of the year, the most densely populated areas of Latin America record high water stress values (500 m<sup>3</sup>/person/year), similar to North Africa or the Middle East (IIASA, 2019).

### Impact of climate change

Climate projections for 2050 and 2070, associated with temperature increases, indicate an increase in precipitation in the western Amazon and southern South America of between 10% to 15% (Magrin et al., 2014), and a trend towards drought and reduced precipitation of up to 20% in northeastern Brazil, Mexico, Central America and the Caribbean (Magrin et al., 2014).

DECADE	DROUGHTS	FLOODS	TOTAL
1980-1990	48	275	323
2000-2020	89	559	648

Source: CRED, 2020.



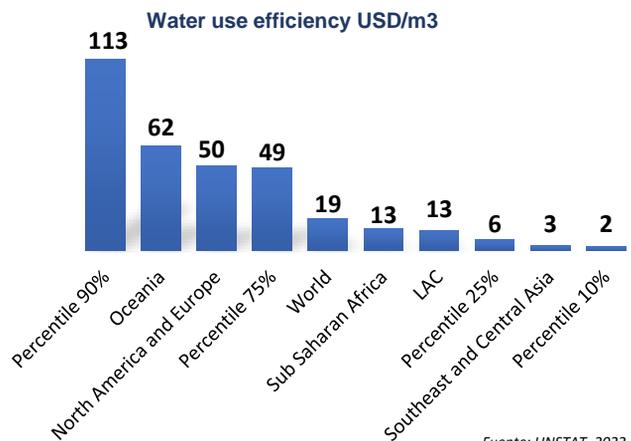
Between 2000 and 2018, a loss of 183,000 m<sup>2</sup> of permanent snow and glaciers has been observed.

### Competition and conflicts over multiple water uses

In the region, consumptive water uses are distributed as 73.8% freshwater abstraction for agriculture, 16.2% for municipal or domestic use and 9.9% for industry and mining (AQUASTAT, 2019).

Water use conflicts are increasingly being generated in the region, with water use conflicts initiated between 2000-2019 estimated to be four times more than those initiated between 1980-1999 (ICTA, 2021).

The region also shows a trend towards coupling and inefficiency in water use. Regarding the latter, the global average is USD 19/m<sup>3</sup> while the regional average is USD 12/m<sup>3</sup> (UNSTAT, 2022).





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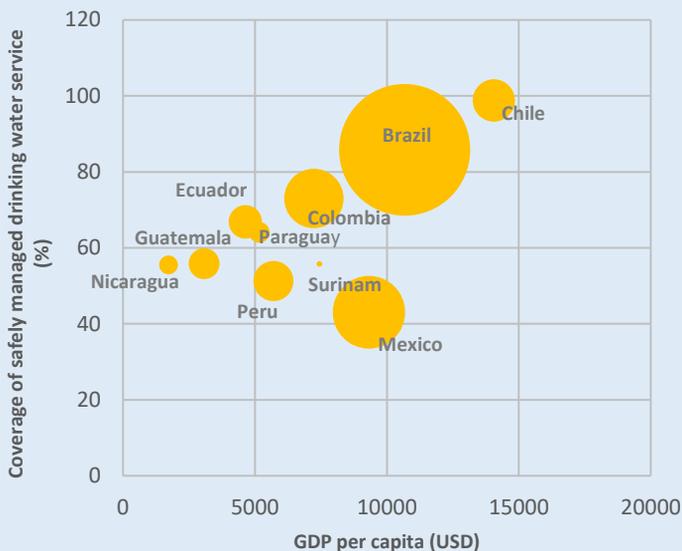
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# Towards a Sustainable and Inclusive Water Transition In Latin America and the Caribbean

## The human right to water and sanitation

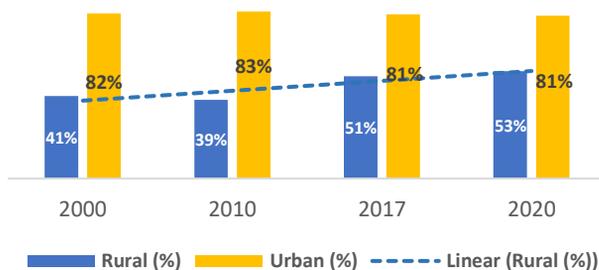
On 28 July 2010, through Resolution 64/292, the United Nations General Assembly recognised the Human Right to Water and Sanitation. However, in LAC, 161 million people in 2020 did not have access to safely managed drinking water and 431 million people did not have access to safely managed sanitation.

Access to safely managed drinking water service vs. GDP per capita (2020) (%)



Source: WHO/UNICEF, "The JMP global database", 2021, and ECLAC, 2020.

Access to safely managed drinking water in LAC: rural and urban gaps



Source: WHO/UNICEF, "The JMP global database", 2021.

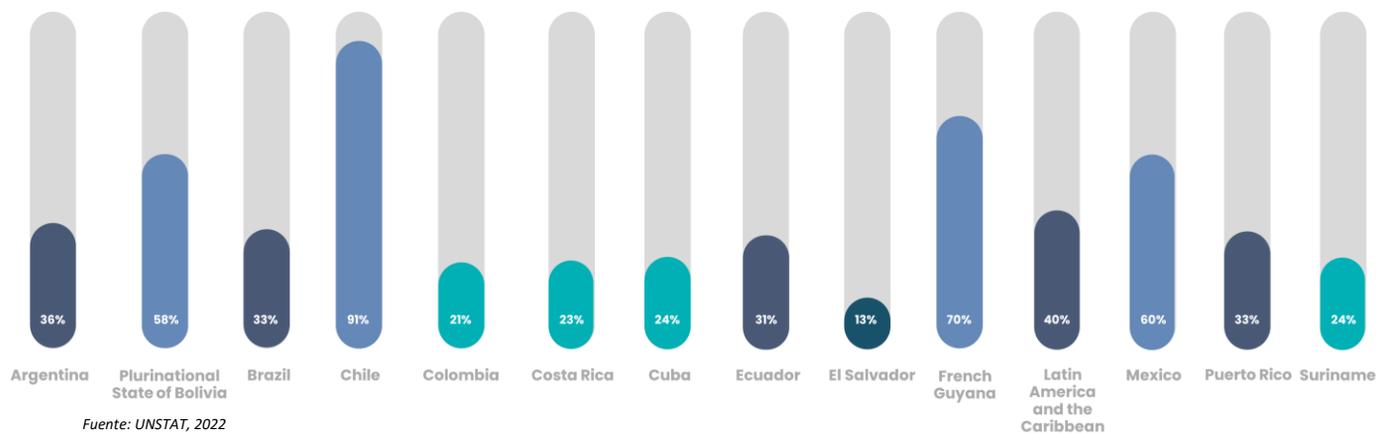
### Gaps in access to safe drinking water and safely managed sanitation

- Income quintile 1 has 25% less access to safely managed drinking water than the richest quintile and can pay proportionally up to 2 times more for drinking water and sanitation services.
- There are marked differences between the level of access in urban and rural areas.
- Inequalities in access to safely managed drinking water are also apparent between countries in the region and are directly related to their gross domestic product.

## Quality and pollution of water bodies

In LAC, most countries safely treat less than half of their wastewater, but the proportion that is safely treated does not exceed 45%. Almost a quarter of river stretches are estimated to be affected by severe pathogenic pollution, with a substantial increase of almost two-thirds from 1990 to 2010 (UNEP, 2016). In 2016 alone, 5.7 million disability-adjusted life years were estimated to have been lost in the region due to diseases related to lack of access to safe water and sanitation, valued at US\$ 1.8 billion in 2016.

Proportion of safely treated domestic wastewater flows



Fuente: UNSTAT, 2022



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# Towards a Sustainable and Inclusive Water Transition In Latin America and the Caribbean

## Governance and public policy recommendations

ECLAC proposes the following four pillars of action to promote a sustainable and inclusive water transition in LAC as a regional strategy for the achievement of the SDG6.



### Investment drive to universalise drinking water and sanitation services

Countries face the challenge of coverage and increasing efficiency in the provision of services and in the use of budgetary resources allocated to the sector.

In LAC, universal access to safe drinking water and sanitation is estimated to present a cost-benefit ratio of 2.4 for drinking water and 7.3 for sanitation (WHO, 2012). Here, the adoption of drinking water treatment systems with methane recovery, in addition to reducing plant operating costs by approximately 40%, offers a cost-benefit ratio of 1.34 per person in intermediate cities (Saravia Matus et al., 2022).

To achieve universal access to safely managed drinking water and sanitation within ten years, around \$75 billion per year is required by 2019, equivalent to 1.3% of annual regional GDP, which could generate 3.6 million new jobs per year.

### Recommendations: Investment and Financing

- Obtain long-term public and private sources of financing.
- In rural areas, the state is indispensable in the development of infrastructure, establishment of subsidies and regulation of providers.
- With regard to the private sector, generate conditions of security in terms of the capacity to recover investment and obtain profitability.
- Promote a culture of payment to encourage sustainable water management by all stakeholders.

### Recommendations: Governance

- Implement the human right to safe drinking water and sanitation in countries' legal frameworks.
- Make progress on international treaties for transboundary waters.
- Design mechanisms for the conservation of glaciers.
- Build a single, independent, national water authority with sustained funding, political hierarchy and independence.

### Recommendations: Climate change management

- Prioritise universal access and allocation of water.
- Increase the productivity of multiple water uses. This includes crop shifting, improved water retention and conservation principles.
- Increase availability through actions that incorporate circularity principles.



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# Towards a Sustainable and Inclusive Water Transition In Latin America and the Caribbean

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The information contained in this document is an excerpt from the book  
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Water and Energy Unit  
Natural Resources Division

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