1. Name of the indicator			
Percentage of household income spent on water supply.			
Last updated:	21/10/2021	**Version:**	1.2

2. Area	
Main area	Environment
Sub-area	Drinking water

3. Definition

Proportion of household income spent on domestic water supply.

4. Calculation formula

$$= \left(\frac{\sum Supply\ expenditure_i}{Average\ annual\ income_i} \right) * 100$$

Where:

- i represents a municipality
- Amount charged for water supply: Annual expenditure on domestic water consumption calculated at 12m^3 per month. The annual expenditure includes the following concepts associated with water supply: cost of municipal water distribution system, water charges, sewage charges and VAT for hypothetical water consumption of 12 m^3 per month.
- Average annual income: represents the average net income per household.

5. Reading

This indicator shows the percentage share of income (average values) that households spend on domestic water consumption. The indicator is given as a percentage (%).

6. Frequency

Annual

7. Source

Catalan Water Agency (ACA)
National Institute of Statistics (INE)

8. Constraints

Geographical ☐	Time ☐	Statistical confidentiality ☒

Description of constraints

Amb el suport de:
Diputació de Girona
Generalitat de Catalunya
Unió Europea
Fons Europeu de Desenvolupament Regional

Yield data are unavailable for some municipalities due to statistical confidentiality restrictions.
In some municipalities, the data source has no data on the cost of supply for some time periods.

This indicator is developed by estimating the amount of domestic water supply corresponding to a family unit of 3 members with a monthly consumption of 12 m3, and from using the average income per household as a measure of the capacity of families to meet the cost of domestic water consumption.

9. SDGs

Mark the SDGs that can be related to this indicator.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
☐	☐	☐	☐	☐	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Mark the sub-SDGs that can be related to this indicator.

6.1

10. Comments and observations

Source data taken from.

Measuring water affordability is complex and there is no standardised indicator available.

In July 2010, the United Nations General Assembly recognised water and sanitation as a human right.
Water is an essential universal human right and a public good that must be regulated efficiently and with solidarity, based on the principles of equity and respect for the environment. The Assembly recognised the right of all human beings to access a sufficient quantity of water for domestic and personal use (between 50 and 100 litres of water per person per day). Water should be safe, acceptable, affordable (it should not exceed 3% of household income), and physically accessible (the source should be within 1,000 metres of the household and collection should take no more than 30 minutes.

https://www.un.org/es/sections/issues-depth/water/index.html

The data source corresponding to the variables used to calculate the amount of water needed for domestic consumption is taken from a register compiled by the Catalan Water Agency (ACA). This register is based on consultations of the tax by-laws published in Official Gazettes, edicts from the Catalan Prices Commission (the body responsible for authorising maximum prices), information published on municipal websites, the service administrator or provided by the municipal town council.

Other considerations related to ACA data records are as follows:

- In the event that there is more than one water supply company in the same municipality, only the company supplying the urban area and with the largest number of subscribers will be taken into account.
- The tariffs authorised by the Pricing Commission of Catalonia are the maximum approved tariffs and may not coincide with the price finally passed on to the customer.
- Effective date of tariffs: all items are updated according to the tariffs in force on 1 January of each year.
- Water supply, sewage fees and water tax are included, regardless of whether or not they are charged jointly on the water bill (rates for sewage and water treatment in municipalities not based on water consumption calculations (e.g. the cadastral value of a property) have not been considered as these data are unavailable.
- The supply price includes meter maintenance and other surcharges, or charges related to the service. Other items on the water bill not directly related to the water cycle (e.g. waste management fees) are not included.
- The calculated price is based on a household with 3 registered residents and a type C water meter (not all municipalities have meters).
- The unit price was calculated by dividing the total amount on applying the tariffs in force (at the time of the update) by cubic metre consumed in the period under study (consumption of 12 m^3/month).

The net income concept used is published by INE in the Atlas of income distribution by household. This statistical operation carried out by INE is subject to Regulation 1980/2003 of the EP and the Council concerning community statistics on income and living conditions (EU-SILC).

The income published by Atlas is obtained solely from tax sources, therefore the results are not fully comparable with income obtained from the Living Conditions Survey (LCS), which uses mixed-methods data collection for which household members are interviewed. This enables income not captured by the AEAT (Spanish Tax Authority) to be taken into account, e.g. income from the informal economy or foreigners' pensions.