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## **Survey on Water Supply and Treatment Year 2008**

**Average household consumption decreases 1.9% as compared with 2007, standing at 154 litres per inhabitant per day**

**The unit value of water increases 4% to 1.31 euros per cubic metre**

4,941 cubic hectometres (Hm<sup>3</sup>) of water were supplied to public urban supply networks during the year 2008 in Spain. Three quarters of this amount (3,732 Hm<sup>3</sup>) were registered as water distributed for household consumption, for consumption by the different economic sectors of the economy (industry, services and livestock)<sup>(1)</sup>, as well as for municipal consumption, for a decrease of 1.2% as compared with the year 2007.

In the case of households, the consumption of drinking water reached 2,540 Hm<sup>3</sup>, which represented a 0.2% decrease as compared with the year 2007.

Actual losses of water in the public urban supply networks due to leaks, breaks and breakdowns were estimated at 820 Hm<sup>3</sup>, accounting for 16.6% of the total water supplied to said networks.

The volume of water not registered due to estimated consumption, measurement errors, fraud or other causes was 389 Hm<sup>3</sup>, that is, 7.9% of the total water supplied to the said networks.

### **Volumes of water registered and distributed to users**

Unit: cubic hectometres

Households	2,540	68.0%
Economic sectors <sup>(1)</sup>	833	22.3%
Municipal consumption and others	359	9.7%
<b>TOTAL consumption</b>	<b>3,732</b>	<b>100%</b>

### **Origin of water collected**

The origin of the water collected by the supply companies themselves, excluding purchases from third parties, was distributed into 64.8% from surface water, 32.2% from groundwater and 3.0% from other types of water (desalinated sea or brackish water).

(1) The survey excludes the use of water in irrigation agriculture, which according to the 2008 Survey on the Use of Water in the Agrarian Sector reached 15,313 Hm<sup>3</sup>.

## Average Household Water Consumption

The average household water consumption stood at 154 litres per inhabitant per day (estimated de jure population) for the year 2008. This figure was 1.9% lower than the 157 litres registered in 2007.

By Autonomous Community, the highest average consumption was in Comunitat Valenciana (with 189 litres), Cantabria (188) and Principado de Asturias (177).

Conversely, the lowest average consumption was in households in Comunidad Foral de Navarra (131 litres per inhabitant per day) and in Cataluña, Illes Balears and País Vasco (139 litres).

## Water Consumption by Autonomous Community

Unit: litres/inhabitant/day

	2008
Andalucía	157
Aragón	150
Asturias (Principado de)	177
Balears (Illes )	139
Canarias	157
Cantabria	188
Castilla y León	153
Castilla-La Mancha	155
Cataluña	139
Comunitat Valenciana	189
Extremadura	158
Galicia	146
Madrid (Comunidad de)	144
Murcia (Región de)	159
Navarra (Comunidad Foral de)	131
País Vasco	139
Rioja (La)	151
Ceuta y Melilla	133
<b>Spain</b>	<b>154</b>

### Unit value of water

The unit value of water (quotient between amounts paid for water supply plus that of quotas for sewerage and waste water filtering, as well as for the sanitation tax, and the volume of water registered and distributed to users) stood at **1.31 euros per cubic metre, for an increase of 4%** as compared with the 1.26 euros for the year 2007.

The unit value of the water supply reached 0.81 euros/m<sup>3</sup>, while that of sanitation (sewage, waste water treatment and tax) was 0.50 euros/m<sup>3</sup>.

By Autonomous Community, the highest average expenditure values corresponded to Illes Balears (1.89 euros /m<sup>3</sup>), Región de Murcia (1.87) and Canarias (1.70).

Conversely, Galicia (0.75 euros /m<sup>3</sup>), Cantabria (0.89) and Castilla y León, País Vasco and Principado de Asturias (0.94) presented the lowest unit values.

### Unit Value of Water by Autonomous Community

Unit: euros/m<sup>3</sup>

	2008
Andalucía	1.12
Aragón	1.18
Asturias (Principado de)	0.94
Balears (Illes )	1.89
Canarias	1.70
Cantabria	0.89
Castilla y León	0.94
Castilla-La Mancha	0.99
Cataluña	1.59
Comunitat Valenciana	1.52
Extremadura	1.11
Galicia	0.75
Madrid (Comunidad de)	1.57
Murcia (Región de)	1.87
Navarra (Comunidad Foral de)	1.23
País Vasco	0.94
Rioja (La)	0.97
Ceuta y Melilla	1.38
<b>Spain</b>	<b>1.31</b>

## Methodological note

The INE conducts this survey annually, for the purpose of quantifying, in physical units, the activities related to the collection of water from the environment, and to water purification, supply and sanitation (sewage and waste water treatment). Likewise, information is collected on the unit costs of the water supply and sanitation services. The survey excludes the use of water in irrigation agriculture, which is studied in the Survey on the Use of Water in the Agrarian Sector (INE).

The total number of water management entities or companies investigated was 425 for the reference year 2008. The frame of reference for the survey was constituted from the Central Companies Directory (CCD) compiled by the INE and from the Directory of Local Entities compiled by the General Directorate for Financial Coordination with Local Tax Offices belonging to the Ministry of the Treasury. Said frame is extended with those Municipal Councils that carry out the direct management of water-related services.

The theoretical sample of units is obtained by selecting a quota within the strata formed in each Autonomous Community, according to the size of the population serviced. Once the water management unit is selected, in order to avoid duplicity, all of the municipalities serviced by said unit are related. This includes, with an exhaustivity criterion, those management units that service municipalities larger than 20,000 inhabitants, as well as a representation of the remaining municipality sizes. This yields coverage effectiveness indices, by Autonomous Community, of nearly 90% of the resident population.

For the variables related to the water supply in those municipalities serviced by management units that are not a part of the exhaustive stratum, the sampling data is corrected with a ratio estimator, using the resident population as an auxiliary variable.

As regards the sanitation variables (collection and treatment of waste water), the auxiliary variable for the ratio estimators is the data corresponding to the *equivalent population* (in agreement or not in agreement according to the official definition) serviced in urban agglomerations, information which is provided by the Ministry of the Environment.

Regarding indicators in terms of water consumption per inhabitant per day, Population Now Casts for Spain, calculated from the 2001 Census, at 1 January each year, have been used as a population variable.

As of and including 2007, the survey questionnaire explicitly asks for the value of the sewage tax, which by delegation is billed by municipal councils and water cycle management bodies. This leads to a better estimate of the expenditure on waste water purification, which must be taken into account when comparing water unit cost indicators with previous years.