

Urban Water Census

Year 2012

This report describes the main results of the 2013 edition of the Urban Water Census, with data related to 2012.

Since 1951 Istat has periodically collected information on water resources for domestic use through a specific census, with the aim of describing the state of urban water services in Italy. The respondent units are all management companies operating in Italy in the urban water services.

The survey contents have been progressively up-to-date by considering both the European directives on Water resources and the increasing enquiry of information from public institutions and private stakeholders.

In the 2012 edition a web questionnaire with a customized compilation has been developed through an in-house software. This type of data-capture has limited the statistical burden on the respondents and provided an higher quality of data gathered.

The web questionnaire has been structured in five sections: (i) water abstraction for each sampling point managed, (ii) water transmission and water exchanges among management companies, (iii) public water supply network, (iv) public sewerage and (v) urban wastewater treatment plants.

In the last edition important changes have been improved also in the detection of quantitative variables, with the aim of obtaining data with higher detail and precision, as management bodies had to distinguish between the volume of measured and estimated water.

Planning the 2013 Urban Water Census, Istat organized technical meetings inviting the main water management companies, presenting the questionnaire and involving them into the survey design, in order to reduce the number of non-responses (partial or total) and to detect and discuss specific local issues.

The main variables disseminated with this report are:

- water abstraction;
- water input in the public water supply (absolute values and per capita);
- water delivered (absolute values and per capita);
- water losses;
- urban wastewater treatment plants.

Data have been disseminated at regional and national level and, if crucial, the comparison with the 2008 results have been explicated.

Water abstraction. The volume of water withdrawn for drinking use amounts to 9.5 billion cubic meters in 2012. Compared to the 2008 urban water census, it had an increase of 3.8%, confirming the steady, however slight, upward trend observed since several years.

The daily output production of drinking water from the treatment plants is about eight million cubic meters, which corresponds to an annual total of 2.9 billion cubic meters, that is the 30.6% of the water withdrawn.

Water input in public water supply. 8.4 billion of cubic meters of water for drinking use are placed in municipal distribution networks: 385 liters per capita per day, with an increase of 2.6% comparing with 2008.

Water delivered. Water delivered to the users corresponds to 5.2 billion cubic meters: 241 liters per capita per day (12 liters less than 2008).

Water losses. Water lost by leaky pipes in the distribution system - calculated as the percentage difference between the volumes input in the public water supply and the delivered water - amounts to 37.4%, indicating a deterioration compared to what happened in the previous census when it was of 32.1%.

More than 3.1 billion cubic meters are, then, lost in the journey along the pipes.

Compared to 2008, the regional dispersion of network shows the most critical situations in the Islands and in the Center-south, with the exception of Abruzzo and Puglia, which in recent years have restored some situations of strong losses. Although with lower levels, also the northern regions indicate a general deterioration of the losses level in the water supply network, with the exception of Valle d'Aosta.

Wastewater treatment plants. Urban wastewater treatment plants (UWWTP) are, in 2012, 18,786, of which 18,162 in operation. In the North Italy there is the biggest number of plants.

UWWTP with advanced treatment, even if represent only the 10.0% of the total plants, process more than 60% of pollutant loads. In most cases, these plants are at the service of big urban areas. In the South Italy and in the Islands there is the major ratio of plants with an at least secondary treatment.

Comparing with 2008 result, the load of pollutants from industry that flows to the UWWTP with secondary or advanced treatment, is reduced of 27.8%.

A little increase in the percentage of civil pollution loads treated by secondary or advanced UWWTP has been observed, shifting from the 56.5% in 2008 to the 57.6% in 2012.

For more details please refer to the Italian version

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