

HOUSEHOLD WATER USE PER CAPITA

General description

a) Brief definition: The quantity of water used to cover the household and related utility needs of the population **(including enterprise employees)**, calculated per capita.

Freshwater use is defined in the UNSD/UNEP Questionnaire as the quantity of freshwater that is actually used in a year by end users including water delivered by the water supply industry (ISIC 36), water directly abstracted for own use and water received from other parties. It excludes freshwater returned without use.

Household water use refers to all freshwater used in the normal functioning of households (e.g. drinking or washing) and may include household garden watering but not freshwater used for commercial agriculture. The definitions used in the UNSD/UNEP Questionnaire are consistent with the International Recommendations for Water Statistics (IRWS), which was endorsed by the United Nations Statistical Commission at its 41st session in February, 2010.

Household freshwater use as defined in the UNSD/UNEP Questionnaire includes freshwater obtained from all sources. However, most received data are equivalent to deliveries to households by the water supply industry. In some parts of the world the amount of households accessing freshwater from sources other than the water supply industry may be negligible, but usually this is not the case.

Aquastat Glossary: Municipal water withdrawal = Annual quantity of water withdrawn primarily for the direct use by the population. It includes renewable freshwater resources as well as potential over-abstraction of renewable groundwater or withdrawal of fossil groundwater and the potential use of desalinated water or treated wastewater. It is usually computed as the total water withdrawn by the public distribution network. It can include that part of the industries, which is connected to the municipal network.

b) Unit of measurement: Cubic metres/year per capita (or litres/day per capita).

Relevance for environmental policy

a) Purpose: The indicator provides a measure of the pressure on the environment in terms of **water abstraction from different water sources** the volume of freshwater used by households.

b) Issue: Adequate quantities of water for meeting basic human needs are a prerequisite for life, health and development. The indicator is one of the major ones defining the level of development of water economy services and the degree of water accessibility to cover all household needs of the population. This indicator helps to identify trends in rational water use in a particular location. The indicator of household water consumption differs by location and depends on many environmental and economic factors.

c) International agreements and targets: The Convention on the Protection and Use of

Transboundary Watercourses and International Lakes.

Methodology and guidelines

a) Data collection and calculations: Household water use capita can be determined based on the measured volume supplied mainly through the public water supply systems. Use of water by the population not supplied by public water supply systems needs to be calculated.

The volume of freshwater delivered to households is usually metered by the water supply industry. Sometimes it is not possible to distinguish between water supplied to households and water supplied to other users of the public water supply such as small industries, services etc. Public water supply connections don't always refer to households (e.g. one connection for a building with many households), thus the number of households and the number of inhabitants covered by the public supply have to be calculated.

Volumes of freshwater use from sources other than the water supply industry, such as household own-abstractions from private wells or nearby surface water, are normally unknown unless estimated using water use coefficients. Use coefficients are calculated based on existing household data from surveys, or other records that can approximate average water use by resident households that aren't connected to the water supply industry. Detailed guidance and international standards for developing and implementing household water use coefficients are needed in order to improve the availability of comparable data on actual household freshwater use volumes following the definition in the UNSD/UNEP Questionnaire and the IRWS.

Households' water use per capita is calculated by dividing total water use in the community by the respective number of inhabitants. The indicator is based on data submitted by associations, enterprises and organizations supplying households with water and by local public administration bodies.

Household water use = water delivered to households by the water supply industry (ISIC 36) + water directly abstracted by households from freshwater resources + water received by households from other sources

Reality: data on household water use usually equal to water supplied by the water supply industry.

This does not cover own abstraction and supply from other sources, BUT it covers water supplied by the water supply industry to users other than households.

b) Internationally agreed methodologies and standards: International Recommendations for Water Statistics, United Nations 2010

Data sources and reporting

In EECCA countries, data collection on freshwater use are based on annual data reported to state statistical services. In many countries, data on household water use are still frequently collected by the government branch dealing with housing and municipal services. WHO has been collecting estimates of national average figures from governments as part of its water supply and sanitation monitoring activities.

References at the international level

- Convention on the Protection and Use of Transboundary Watercourses and International Lakes (1992)
- AQUASTAT – FAO global information system on water and agriculture
- Eurostat, *Environment Statistics: Pocketbook*
- <http://www.unece.org/env/water/links/link.htm>
- <http://www.unece.org/env/water/pdf/waterconr.pdf>
- <http://europa.eu.int/comm/eurostat>
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- <http://unstats.un.org/unsd/environment/questionnaire2004.htm/>
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- <http://www.euro.who.int/ehindicators/>