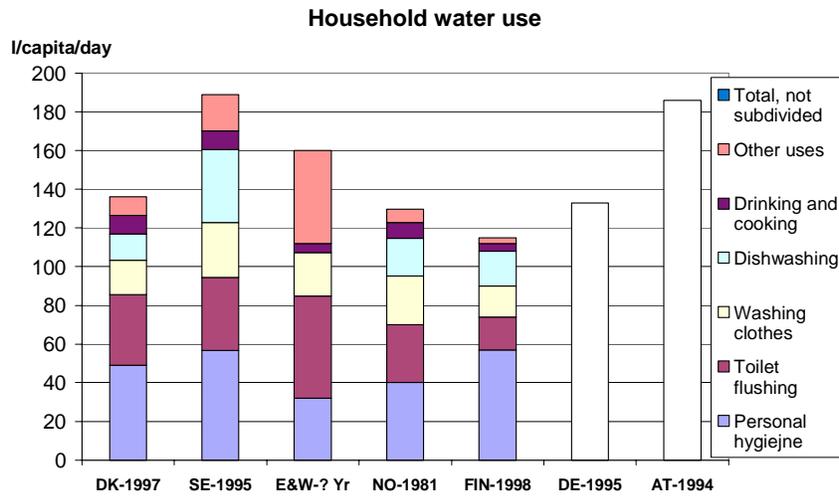




**Indicator Fact Sheet Signals 2001 – Chapter Households**

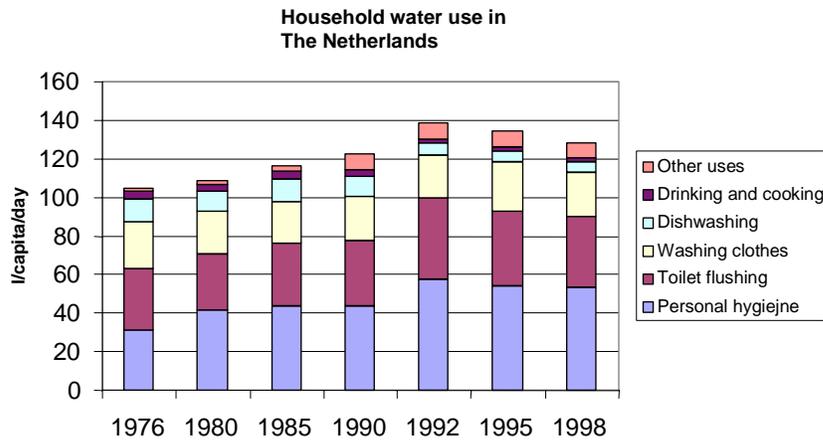
**YIR01HH07 Household water consumption**



Household water consumption by type of uses.

Source: National SOE Reports

Note: There are few data for water consumption per household. The data used in this indicator are for consumption per capita, for all household purposes and for particular uses such as washing clothes or flushing toilets



Trend in household water consumption by type of use in the Netherlands

Source: based on information from RIVM, Milieucompendium 1999.

**Key messages**

⊖ Household water consumption generally increased during the 1980s, reflecting increases in number of households, more household appliances and changing lifestyles. The increase slowed and in some countries was even reversed during the 1990s.

**Results and assessment (level of the indicator)**

Relevance of the indicator for describing developments in the environment

Excessive use, including by households, of water in areas with over-abstraction can result in serious problems, such as low river flows, water shortages, salinisation of freshwater bodies in coastal areas, human health problems, loss of wetlands, desertification and reduced food production.

Improvement in the efficiency of water use is a key issue if the increasing demand for water is to be met in the long term. Reducing losses, using more efficient technologies and recycling, as well as setting the right price of water are all part of the solution - if consumers do not have to pay the full cost of water, they tend to use it inefficiently.

Policy relevance and policy references

Many national policies on water resources focus on Public Water Supply (PWS), including household water use, and water savings. At the EU level there has been no general policy in relation to water consumption. However, the overall purpose of the proposed Framework Water Directive (COM(97) 49 final) is to establish a framework which:

- prevents further deterioration and protects and enhances the status of aquatic ecosystems, and provides the water needs of terrestrial ecosystems;
- promotes sustainable water consumption based on long-term protection of water resources, and thereby contributes to the provision of a supply of water of the quality and in the quantities needed for the sustainable use of these resources.

The proposal requires the attainment of good surface water and groundwater status. The former will require the consideration and control of freshwater flows and levels in rivers, lakes, estuaries and coastal waters so that good ecological quality can be achieved and maintained. Good groundwater status will only be achieved when there is no over-exploitation of aquifers or adverse impacts on inter-connected aquatic and terrestrial ecosystems. Thus, on adaptation of this proposal, the control and management of water quantity will for the first time be a legal requirement across the EU.

Assessment

Households account for about 10 % of total water consumption in the whole of the EU. The figure may be significantly higher in urban areas and areas with poor water resources. On the basis of information from four countries, about one third of this is for personal hygiene, one third for washing clothes and dishwashing, 25 to 30 % for flushing toilets and only about 5 % for drinking and cooking.

Average consumption for all household purposes in the EEA is about 150 litres per capita. Household water consumption generally increased during the 1980s, reflecting changes in number of households, household appliances and lifestyles. Per capita consumption generally increased during the 1980s, reflecting increases in the number of appliances, particularly washing machines and dishwashers, changes in lifestyle and the reductions in average household size. This trend was arrested and in some countries even reversed during the 1990s. In the Netherlands, for example, consumption increased from 105 litres/capita/day in the mid-1970s to a maximum of 138 in 1992 and then fell to 128 in 1998. The more favourable trend may be the result of the use of showers rather than baths and growing penetration of low-flush toilets. Another factor may be steep increases in many countries in the price of water (including wastewater treatment), for example in France from 1.37 EURO per m<sup>3</sup> in 1990 to 2.29 EURO in 1997, and in Denmark from 1.47 EURO in 1988 to 4.02 EURO today.



Table 1: Trend in household water consumption (l/day/cap). Source National SoE reports and contacts.

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	
Austria	185					187				189	192	188	197	190	186					
Denmark						193	193	193	192	192	182	173	172	164	158	147	149	143	138	
Germany	137					142					145	139	136	136	134	132				
The Netherlands	109					117					123		138			134				128
England & Wales													140	142	144	153	148	149		
France						120					119	118	115	113	113					
Average	144					152					152			147						

Table 2: Development in water consumption by type of uses in the Netherlands (l/day/cap).

Source RIVM, Milieucompendium 1999

	1976	1980	1985	1990	1992	1995	1998	1998%	%1980
Personal hygiene	30.9	41.6	43.6	43.7	57.4	53.8	53.6	41.9%	32.5%
Toilet flushing	32	29	32.7	34	42.3	39	36.2	28.3%	22.7%
Washing clothes	24.1	22	21.6	22.7	22.5	25.5	23.1	18.0%	17.2%
Dishwashing	11.9	10.4	11.6	10.2	5.8	5.8	5.7	4.5%	8.1%
Drinking and cooking	4	4	4	4	2	2	1.7	1.3%	3.1%
Other uses	2	2	3	8	8.2	8.2	7.7	6.0%	1.6%

Table 3: Household water consumption by type of uses (l/day/cap). Source National SoE reports.

	DK-1997	SE-1995	E&W-	NO-1981	FIN-1998	DE-1995	AT-1994
Personal hygiene	49	57	32	40	57		
Toilet flushing	37	38	53	30	17		
Washing clothes	18	28	22	25	16		
Dishwashing	14	38	0	20	18		
Drinking and cooking	10	9	5	8	4		
Other uses	19	19	48	7	3		
Total	136	189	160	130	116	133	186

**Meta data**Technical information

## 1. Data source

Based on information from National State of the Environment Reports

The Netherlands: RIVM, Milieucompendium 1999: [A6.4 Huishoudelijk waterverbruik per hoofd van de bevolking](#), 1976-1998

England &amp; Wales: DETR Indicators for sustainable development D07 (Environment Agency/Ofwat)

Sweden: Statistiska Centralbyrån MIR Rapport 2000:6 & [www.smn.environ.se](http://www.smn.environ.se)

Denmark: Danske Vandværkers Forening og Danmarks Statistik

Austria: Umweltdaten 1997;

Germany: Water Resources in Germany &amp; Umweltdaten 1998;

France: IFEN (communication to EEA)

Finland: Etelämäki 1999. *Veden käyttö Suomessa*. Suomen ympäristö 305. Finnish Environment Institute. Finland

## 2. Description of data

Based on information from national state of the environment reports. There are no international collections of data on household water consumption; OECD/Eurostat collect information on public water supply including both households and small and medium sized enterprises.

## 3. Geographical coverage

Selected EEA countries

4. Temporal coverage

Trend information from the 1980s to the mid-1990s.

5. Methodology and frequency of data collection

Based on information from national state of the environment reports. Many countries report in their SoE or Statistical environmental Compendiums information on households water consumption every 2-4 years.

6. Methodology of data manipulation

The information are from the different sources and has been harmonised by grouping the different use categories e.g. putting water used for shower, bath and hand washing into the category personnel hygiene.

Qualitative information

7. Strength and weakness (at data level)

The data illustrate household water consumption for different purposes, and can indicate if households are using the resource more sparingly. The total environmental impact by water consumption will depend on the availability of water resource in a region and the total abstraction by different users.

8. Reliability, accuracy, robustness, uncertainty (at data level)

The data may not be fully comparable between countries, e.g. a difference in litres used for personnel hygiene may not be real. However, they all together indicate the proportion used for different activities.

9. Further work required (for data level and indicator level)

Supplementary information about the water consumption of household appliances i.e. washing machines and dishwasher as well as information on change in habits e.g. taking shower instead of a bath could be relevant.