

WATER CONSUMPTION

Freshwater resources are of major environmental and economic importance. Their distribution varies widely among and within countries. In arid regions, freshwater resources may at times be limited to the extent that demand for water can be met only by going beyond sustainable use.

Freshwater abstractions, particularly for public water supplies, irrigation, industrial processes and cooling of electric power plants, exert a major pressure on water resources, with significant implications for their quantity and quality. Main concerns relate to the inefficient use of water and to its environmental and socio-economic consequences.

Definition

Water abstractions refer to freshwater taken from ground or surface water sources, either permanently or temporarily, and conveyed to the place of use. If the water is returned to a surface water source, abstraction of the same water by the downstream user is counted again in compiling total abstractions: this may lead to double counting.

Mine water and drainage water are included, whereas water used for hydroelectricity generation (which is considered an *in situ* use) is normally excluded.

Comparability

Definitions and estimation methods employed by countries to compile data on water abstractions and supply may vary considerably and change over time. In general, data availability and quality are best for water abstractions for public supply, which represent about 15% of the total water abstracted in OECD countries. The OECD totals are

Overview

Most OECD countries increased their total water abstractions over the 1960s and 1970s in response to higher demand by the agricultural and energy sectors. However, since the 1980s, some countries have succeeded in stabilising their total water abstractions through more efficient irrigation techniques, the decline of water-intensive industries (*e.g.* mining, steel), the increased use of cleaner production technologies and reduced losses in pipe networks. More recently, this stabilisation of water abstractions has partly reflected the consequences of droughts (with population growth continuing to drive increases in public supply).

At world level, it is estimated that, over the last century, the growth in water demand was more than double the rate of population growth, with agriculture being the largest user of water.

OECD Secretariat's estimates based on linear interpolations to fill missing values and exclude Chile. Data for the United Kingdom refers only to England and Wales.

Please note that breaks in time series exist for the Czech Republic, Estonia, France, Germany, Hungary, Ireland, Luxembourg, Mexico, Norway, Slovenia, Turkey and the United Kingdom.

Sources

- OECD (2013), *OECD Environment Statistics* (Database).

Further information

Analytical publications

- Love, P. (2013), *Water*, OECD Insights, OECD Publishing.
- OECD (2013), *Managing Water for Green Growth*, Green Growth Studies, OECD Publishing.
- OECD (2013), *OECD Compendium of Agri-environmental Indicators*, OECD Publishing.
- OECD (2013), *OECD Studies on Water*, OECD Publishing.
- OECD (2013), *Scaling-Up Finance Mechanisms for Biodiversity*, OECD Publishing.
- OECD (2013), *Water and Green Growth*, *OECD Green Growth Studies*, OECD publishing.
- OECD (2012), *OECD Environmental Outlook*, OECD Publishing.
- OECD (2009), *Managing Water for All: An OECD Perspective on Pricing and Financing*, OECD Studies on Water, OECD Publishing.

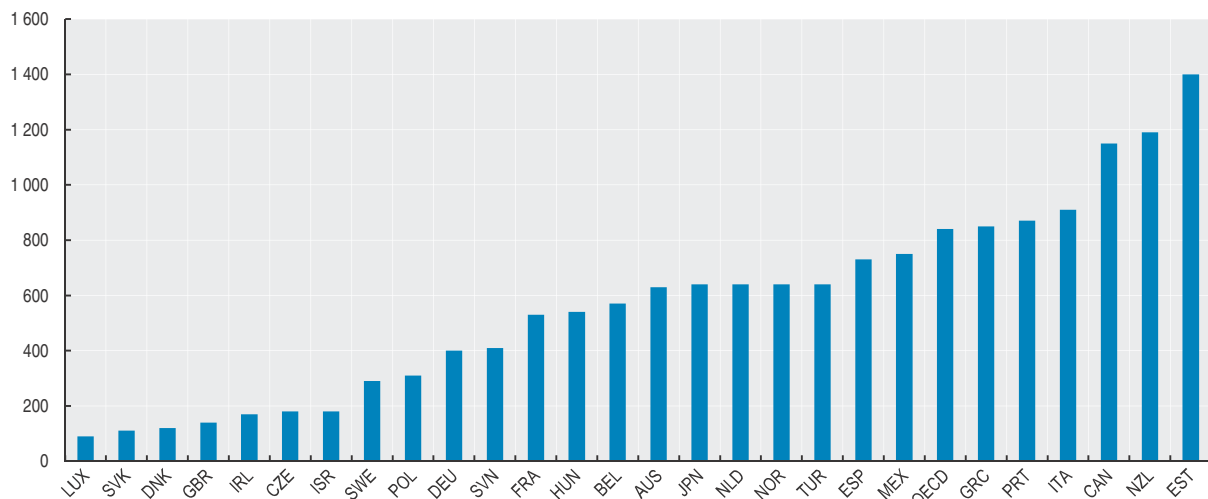
Websites

- Environmental Indicators, Modelling and Outlooks, www.oecd.org/env/indicators-modelling-outlooks.
- The Water Challenge: OECD's Response, www.oecd.org/water.



Water abstractions

	Water abstractions per capita m ³ per capita						Total abstractions Millions m ³					
	1985	1990	1995	2000	2005	2011 or latest available year	1985	1990	1995	2000	2005	2011 or latest available year
Australia	920	..	1 330	1 140	950	630	14 600	..	24 071	22 196	19 336	14 060
Austria	470	490	430	..	..	..	3 580	3 807	3 449	..	..	..
Belgium	..	..	810	740	610	570	..	..	8 251	7 536	6 389	6 176
Canada	1 620	1 610	1 610	..	1 300	1 150	42 342	43 888	47 250	..	41 955	38 801
Chile	..	..	..	..	..	..	..	..	..	..	..	..
Czech Republic	360	350	270	190	190	180	3 679	3 623	2 743	1 918	1 949	1 887
Denmark	330	250	170	140	120	120	1 705	1 261	887	726	644	660
Estonia	..	2 050	1 240	1 070	1 170	1 400	..	3 215	1 780	1 471	1 578	1 874
Finland	820	470	510	450	1 250	..	4 000	2 347	2 586	2 346	6 562	..
France	630	660	710	550	550	530	34 887	37 687	40 671	32 715	33 872	33 110
Germany	530	600	530	460	430	400	41 216	47 873	43 374	38 006	35 557	32 716
Greece	550	770	730	910	870	850	5 496	7 862	7 788	9 924	9 654	9 539
Hungary	590	610	580	650	490	540	6 267	6 293	5 976	6 621	4 929	5 432
Iceland	460	660	620	580	560	..	112	167	165	163	165	..
Ireland	..	..	330	..	190	170	..	..	1 176	..	799	730
Israel	..	380	330	270	250	180	..	1 780	1 812	1 727	1 728	1 340
Italy	..	..	..	740	..	910	..	..	..	41 982	..	53 751
Japan	720	720	710	690	650	640	87 209	88 906	88 881	86 972	83 427	81 454
Korea	460	480	520	560	610	..	18 580	20 570	23 670	26 020	29 198	..
Luxembourg	180	160	140	140	..	90	67	59	57	60	..	48
Mexico	..	..	800	720	740	750	..	..	73 672	70 428	76 508	81 588
Netherlands	640	530	420	560	700	640	9 349	7 984	6 507	8 915	11 453	10 668
New Zealand	..	..	..	820	1 170	1 190	..	..	..	3 140	4 908	5 201
Norway	490	..	550	530	620	640	2 025	..	2 420	2 348	2 864	3 026
Poland	440	400	340	310	300	310	16 409	15 164	12 924	11 994	11 522	11 911
Portugal	200	730	..	1 100	870	870	2 003	7 288	..	11 136	9 151	9 151
Slovak Republic	400	400	260	220	170	110	2 061	2 116	1 386	1 171	907	593
Slovenia	..	..	..	450	460	410	..	..	..	899	924	850
Spain	1 200	1 180	850	910	820	730	46 250	45 845	33 288	36 525	35 664	33 544
Sweden	360	350	310	300	290	290	2 970	2 968	2 725	2 688	2 631	2 690
Switzerland	410	400	370	360	340	..	2 646	2 665	2 571	2 564	2 507	..
Turkey	390	510	560	680	650	640	19 400	28 073	33 482	43 650	44 684	46 956
United Kingdom	230	240	190	210	190	140	11 533	12 052	9 549	11 174	10 323	7 682
United States	1 950	1 850	1 750	1 710	1 630	..	464 737	462 250	466 118	482 558	482 972	..
EU 28	..	..	..	..	..	..	..	..	..	..	..	..
OECD	970	950	920	900	880	840	976 118	997 679	1 002 960	1 020 275	1 025 868	1 021 801
Brazil	..	..	..	..	..	..	..	..	..	..	..	..
China	..	..	..	..	..	..	..	..	..	..	..	..
India	..	..	..	..	..	..	..	..	..	..	..	..
Indonesia	..	..	..	..	..	..	..	..	..	..	..	..
Russian Federation	..	..	..	..	..	..	..	..	..	..	..	..
South Africa	..	..	..	..	..	..	..	..	..	..	..	..

StatLink <http://dx.doi.org/10.1787/888933028463>Water abstractions
m³/capita, 2011 or latest available yearStatLink <http://dx.doi.org/10.1787/888933026050>



From:
OECD Factbook 2014
Economic, Environmental and Social Statistics

Access the complete publication at:
<https://doi.org/10.1787/factbook-2014-en>

Please cite this chapter as:

OECD (2014), "Water consumption", in *OECD Factbook 2014: Economic, Environmental and Social Statistics*, OECD Publishing, Paris.

DOI: <https://doi.org/10.1787/factbook-2014-68-en>

This work is published under the responsibility of the Secretary-General of the OECD. The opinions expressed and arguments employed herein do not necessarily reflect the official views of OECD member countries.

This document and any map included herein are without prejudice to the status of or sovereignty over any territory, to the delimitation of international frontiers and boundaries and to the name of any territory, city or area.

You can copy, download or print OECD content for your own use, and you can include excerpts from OECD publications, databases and multimedia products in your own documents, presentations, blogs, websites and teaching materials, provided that suitable acknowledgment of OECD as source and copyright owner is given. All requests for public or commercial use and translation rights should be submitted to rights@oecd.org. Requests for permission to photocopy portions of this material for public or commercial use shall be addressed directly to the Copyright Clearance Center (CCC) at info@copyright.com or the Centre français d'exploitation du droit de copie (CFC) at contact@cfcopies.com.