

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, leading to reductions in terms of freshwater quantities.

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: low river flows, water shortages, salinisation of freshwater bodies in coastal areas, human health problems, loss of wetlands, desertification and reduced food production.

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, while water used for hydroelectricity generation (which is considered an in situ use) is excluded.

Comparability

Definitions and estimation methods employed by countries to compile data on water abstractions and supply may vary considerably and may have changed 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.

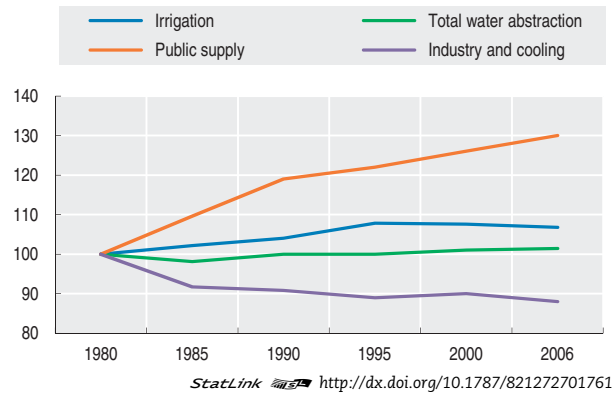
Overview

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 stabilizing 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.

Water abstractions in OECD countries

Year 1980 = 100



Sources

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Further information

Analytical publications

- OECD, WHO (2003), *Assessing Microbial Safety of Drinking Water: Improving Approaches and Methods*, OECD, Paris.
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- OECD (2008), *OECD Insights: Sustainable Development: Linking Economy, Society, Environment*, OECD, Paris.
- OECD (2009), *Managing Water for All: An OECD Perspective on Pricing and Financing*, OECD, Paris.

Web sites

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

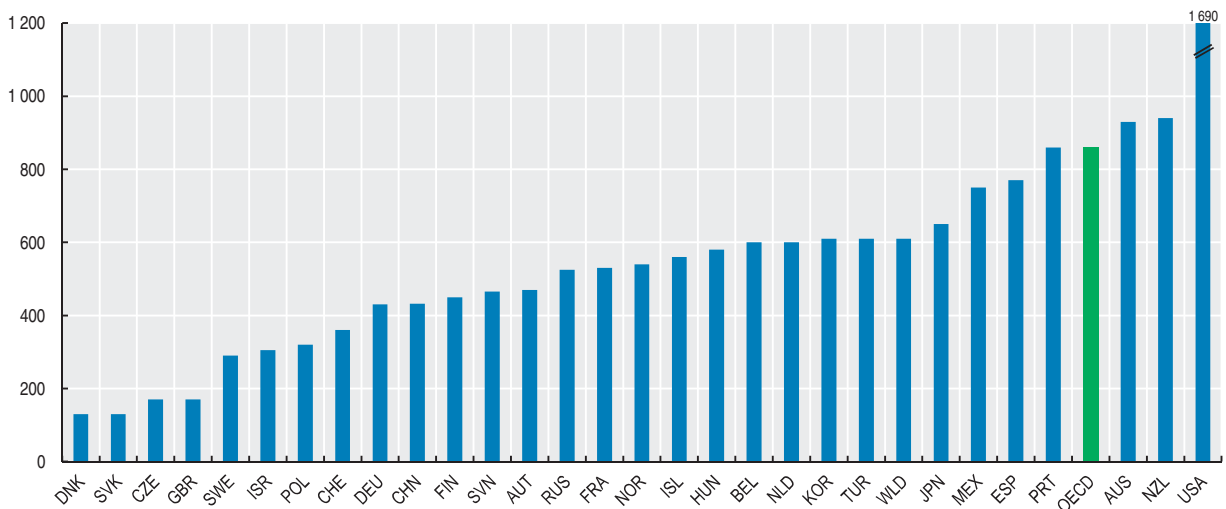


Water abstractions

	Total gross abstractions Million m ³						Per capita abstractions m ³ /capita
	1980	1985	1990	1995	2000	2007 or latest available year	2007 or latest available year
Australia	10 900	14 600	..	24 070	21 705	18 765	930
Austria	3 340	3 580	3 805	3 450	3 670	3 815	470
Belgium	..	..	..	8 240	7 535	6 390	600
Canada	37 595	42 385	45 095	42 215	..	..	..
Czech Republic	3 255	3 335	3 305	2 495	1 920	1 705	170
Denmark	1 205	..	1 260	885	725	680	130
Finland	3 700	4 000	2 340	2 350	2 345	2 320	450
France	30 970	34 885	39 325	..	32 715	32 550	530
Germany	42 205	..	47 875	43 375	40 590	35 555	430
Greece	5 040	5 495	7 835	8 695	..	..	..
Hungary	4 805	6 265	6 295	..	6 620	5 820	580
Iceland	110	110	165	165	165	165	560
Ireland	1 070	..	..	1 175	..	..	..
Italy	..	..	..	..	41 980	..	..
Japan	85 990	87 210	88 905	88 880	86 970	83 415	650
Korea	17 510	18 580	20 570	23 670	26 020	29 165	610
Luxembourg	..	65	60	55	60	..	..
Mexico	56 005	..	..	73 670	..	78 900	750
Netherlands	9 200	9 350	7 985	6 505	8 915	9 780	600
New Zealand	..	..	..	..	2 510	3 925	940
Norway	..	2 025	..	2 420	2 350	2 475	540
Poland	15 130	16 410	15 165	12 925	11 995	12 025	320
Portugal	10 500	..	8 600	10 850	8 810	9 150	860
Slovak Republic	2 230	2 060	2 115	1 385	1 170	690	130
Spain	39 920	46 250	36 900	33 290	37 070	33 760	770
Sweden	4 105	2 970	2 970	2 725	2 690	2 630	290
Switzerland	2 590	2 645	2 665	2 570	2 565	2 660	360
Turkey	16 200	19 400	28 075	33 480	43 650	42 377	610
United Kingdom	13 515	11 535	12 050	9 550	11 200	9 270	170
United States	517 720	467 335	468 620	470 515	476 800	..	1 690
OECD total	991 400	972 400	986 700	994 100	1 005 300	998 900	860
China	..	..	..	..	..	563 300	432
Israel	..	..	..	..	..	2 199	305
Russian Federation	113 178	117 273	111 100	91 921	80 784	74 633	525
Slovenia	..	..	..	..	..	935	465
World	..	..	..	..	..	..	610

 StatLink <http://dx.doi.org/10.1887/825886642723>

Water abstractions

 m³/capita, 2007 or latest available year

 StatLink <http://dx.doi.org/10.1787/821246523012>



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