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 in terms of quantity.

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 the quantity and quality of water resources. 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.

Mine water and drainage water are included. Water used for hydroelectricity generation is an in situ use and is excluded.

Comparability

It should be borne in mind that the definitions and estimation methods employed by member countries may vary considerably and may have changed over time. In general, data availability and quality is best for abstractions for public supply, representing about 15% of the total water abstracted in OECD countries.

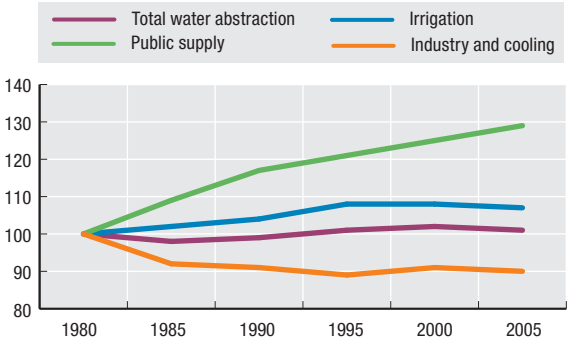
Long-term trends

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

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

Water abstractions in OECD countries

Year 1980 = 100



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Water abstractions

	Total gross abstractions Million m^3						Per capita abstractions m^3/capita
	1980	1985	1990	1995	2000	2006 or latest available year	2006 or latest available year
Australia	10 900	14 600	..	24 071	21 703	18 767	930
Austria	3 342	3 580	3 807	3 449	3 668	3 816	470
Belgium	..	..	..	8 221	7 538	6 654	640
Canada	37 594	42 383	45 096	42 214	..	..	..
Czech Republic	3 622	3 679	3 623	2 743	1 918	1 936	190
Denmark	1 205	..	1 261	887	726	680	130
Finland	3 700	4 000	2 347	2 586	2 346	2 319	450
France	30 972	34 887	39 323	40 671 |	32 715	33 715	560
Germany	42 206	41 216 |	47 873	43 374	40 590	35 557	430
Greece	5 040	5 496	7 030	8 695	..	..	..
Hungary	4 805	6 267	6 293	5 976 |	6 621	5 818	580
Iceland	108	112	167	165	163	165	560
Ireland	1 070	..	..	1 176	..	..	..
Italy	..	..	..	..	41 982	..	..
Japan	85 991	87 209	88 906	88 881	86 972	83 538	650
Korea	17 510	18 580	20 570	23 670	26 020	29 163	610
Luxembourg	..	67	59	57	60	..	..
Mexico	56 003	..	..	73 672	70 428 |	77 322	740
Netherlands	9 198	9 349	7 984	6 507	8 915	10 325	630
New Zealand	..	..	..	..	2 512	3 926	950
Norway	..	2 025	..	2 420	2 348	2 476	540
Poland	15 131	16 409	15 164	12 924	11 994	11 522	300
Portugal	10 500	..	8 600	10 849	8 808	..	860
Slovak Republic	2 232	2 061	2 116	1 386	1 171	763	140
Spain	39 920	46 250	36 900	33 288	37 071	38 158	890
Sweden	4 106	2 970	2 968	2 725	2 688	2 676	300
Switzerland	2 589	2 646	2 665	2 571	2 564	2 507	340
Turkey	16 200	19 400	28 073	33 482	43 650	44 849	620
United Kingdom	13 514	11 533	12 052	12 117	15 022	12 990	240
United States	517 720	467 335	468 620	470 514	476 800	..	1 690
OECD total	991 800	974 200	985 500	995 800	1 009 100	1 008 000	870
China	..	..	..	..	..	563 298	432
World	..	..	..	..	..	3 830 000	610

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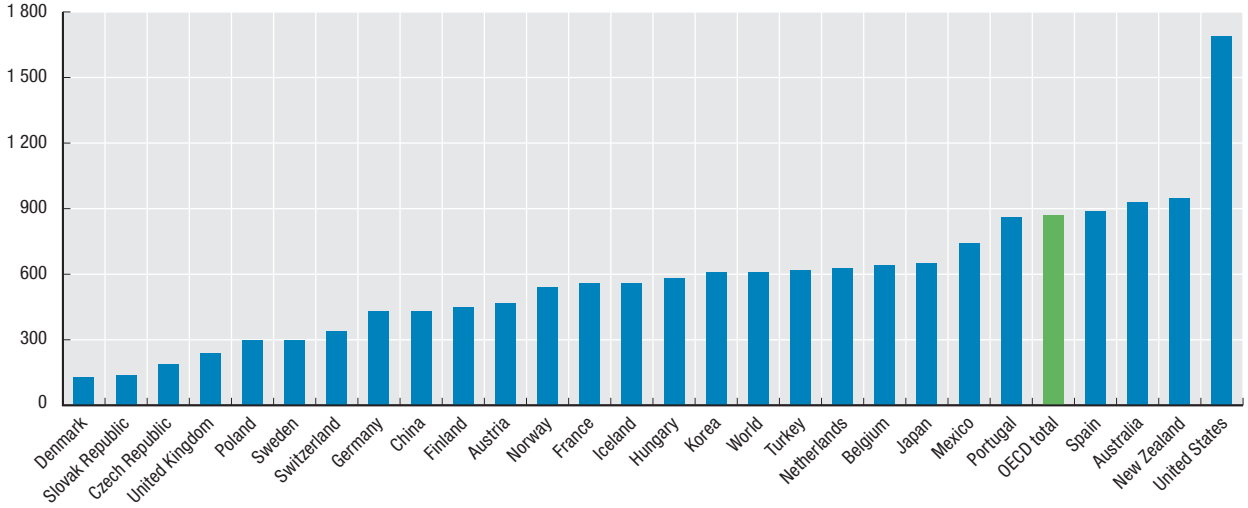
Water abstractions

m^3 per capita, 2006 or latest available year



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