

## ENVIRONMENTAL INDICATORS and SELECTED TIME SERIES

### Water resources: Year 1990

last update: June 2007

	Precipitation (1)	Actual evapotranspiration (2)	Internal flow (3) = (1) - (2)	Actual external inflow of surface and ground waters (4)	Total renewable fresh water resources (5) = (3) + (4)	Renewable freshwater resources per capita
	<i>mio m<sup>3</sup></i>	<i>mio m<sup>3</sup></i>	<i>mio m<sup>3</sup></i>	<i>mio m<sup>3</sup></i>	<i>mio m<sup>3</sup></i>	<i>m<sup>3</sup>/person</i>
Albania	28 385	...	...	...	...	...
Algeria	76 160	...	...	...	...	...
Andorra	540 <sup>1</sup>	172	368	0	368	...
Armenia	15 258	...	...	...	...	...
Azerbaijan	41 998	33 184	8 814	17 896	26 710	3 714
Barbados	706	706	...	...	...	...
Belarus	151 963	91 344	60 619	30 200 <sup>2</sup>	90 819	8 847
Bermuda	6	...	...	...	...	...
Bosnia and Herzegovina	64 000	27 576	36 424	...	...	...
Botswana	184	...	...	7 591 <sup>3</sup>	...	...
Brunei Darussalam	14 190	12 282 <sup>4</sup>	...	...	...	...
Burkina Faso	676	1 724	...	...	...	...
Chile	1 152 225	211 975	940 250	...	...	...
China, Hong Kong SAR	2 248	1 005	1 242	...	...	...
China, Macao SAR	32	...	...	...	...	...
Cote d'Ivoire	420 000 <sup>5</sup>	...	...	...	...	...
Cuba	149 467	...	...	0	...	...
Cyprus	1 711	1 369	342	0	342	503
Czech Republic	46 064	36 470	9 594	400	9 994	970
Denmark	42 580	24 220	18 360	...	...	...
Dominica	...	...	...	0	...	...
Dominican Republic	68 869	...	...	...	...	...
Egypt	...	...	...	54 733	...	...
Estonia	35 996	22 034	13 962	13 234	27 196	17 168
Finland	201 000	113 000	88 000	2 500	90 500	18 149
France	391 169	293 017	98 152	...	...	...
Gambia	7 016	11 714	- 4 698 <sup>6</sup>	5 110	412	440
Georgia	72 584	25 209	47 375	7 679 <sup>7</sup>	55 054	10 083
Germany	273 000	169 000	104 000	61 000	162 000	2 039
Hungary	44 552	39 444	5 108	73 100	78 208	7 546
Ireland	78 410	32 985	45 425	1 293	46 983	13 368
Israel	6 200	...	...	...	...	...
Italy	296 000	132 000	164 000	8 000	172 000	3 032
Jamaica	21 212	11 945	9 267	0	9 267	3 912
Jordan	7 609 <sup>8</sup>	...	...	...	...	...
Kyrgyzstan	...	11 360	...	30 958	...	...
Latvia	54 578	26 987	27 591	27 106	54 697	20 158
Lithuania	52 877	32 523	20 354	9 833	30 187	8 074

Luxembourg	2 332	1 329	1 003	798	1 801	4 770
Maldives	486	...	...	...	...	...
Malta	190	120	70	0	70	195
Mauritius	3 202	961	2 241	0	2 241	2 121
Monaco	1	...	...	...	...	...
Netherlands	24 940	21 080	3 860	67 420	71 280	4 767
Panama	189 232	82 759	106 473	...	...	...
Paraguay	738 641	451 165	287 477	...	...	...
Poland	203 125	165 133	37 992	5 345	43 337	1 137
Portugal	65 317	...	...	...	...	...
Republic of Moldova	12 998	...	600	6 980	7 580	1 737
Romania	113 000	91 351	21 649	932	22 581	973
Serbia	37 580 <sup>9</sup>	31 320 <sup>9</sup>	6 260 <sup>9</sup>	106 982 <sup>9</sup>	113 242 <sup>9</sup>	11 151 <sup>9</sup>
Singapore	1 174	817	357	0	357	118
Slovakia	36 826	20 889	15 937	55 773	71 710	13 643
Slovenia	22 622	15 500	7 122	11 349	18 471	9 632
Spain	350 914	238 334	112 580	0	112 580	2 864
Sweden	328 020	148 000	180 020	...	180 020 <sup>10</sup>	21 033
Switzerland	57 466	25 114	32 352	12 462	44 815	6 558
The Former Yugoslav Rep. of Macedonia	13 860	...	...	432 <sup>11</sup>	...	...
Tunisia	49 920	44 138	5 782	...	5 782 <sup>10</sup>	705
United Kingdom	295 387	125 234	179 446	3 103	182 549	3 216
Venezuela	1 630 569	980 174	650 396	...	...	...
Yemen	...	...	...	0	...	...
Zimbabwe	244 264	12 260	232 004	2 503	234 507	22 405

*Sources:*

UNSD/UNEP 2001, 2004 and 2006 questionnaires on Environment statistics, Water section  
 OECD/Eurostat 2004 questionnaire on Environment statistics, Water section

*Footnotes:*

- 1 Data refer to average of 3 meteorological stations.
- 2 Data only includes surface water. Groundwater is excluded.
- 3 Data refer to Inflow from Namibia and Zimbabwe.
- 4 Data are "Evaporation" and Not "Actual Evapotranspiration".
- 5 1991 figure.
- 6 The numbers are negative because evapotranspiration covers both waters from precipitations and external inflow of waters. Whereas precipitations covers waters from rains that fall within the National territory.
- 7 Data refer to the sum of inflows from Armenia and Turkey.
- 8 Winter (rainy season).
- 9 Data refer to the Republic of Serbia without the territory of Kosovo Province.
- 10 As annual inflow is not available for separate years, 'Total resources' are calculated as 'precipitation - evapotranspiration'.
- 11 Excluding groundwaters.

**Definitions & Technical notes:**

**Precipitation** refers to the total volume of atmospheric wet deposition (rain, snow, hail, dew, etc) falling on the territory of the country over one year, in millions of cubic metres.

**Actual evapotranspiration** is the total actual volume of evaporation from the ground, wetlands and natural water bodies and transpiration of plants. According to the definition of this concept in Hydrology, the evapotranspiration generated by all human interventions is excluded, except unirrigated agriculture and forestry.

**Internal flow** is the total volume of river run-off and ground water generated in natural conditions, exclusively by precipitation within the country. The internal flow is equal to precipitation less actual evapotranspiration and can be calculated or measured.

**Actual external inflow of surface and ground waters** refers to the total volume of actual flow of rivers and groundwater, coming from neighbouring countries.

**Total renewable fresh water resources** = Internal flow + Actual external inflow of surface and groundwaters.

### Data Quality:

Countrywide precipitation is usually calculated on the basis of measurements at a selected number of measuring stations within the country. Data is considered to be fairly reliable.

Internal flow is the fresh water generated in the country and is usually calculated by subtracting natural evapotranspiration from precipitation. The reliability of the data depends essentially on the estimation method for evapotranspiration.

For most countries, actual external inflow of surface and ground water contains only the surface water flow, since ground water flows are often not well known. Surface water flows of inflowing rivers should be measured at the border. Dry countries in particular, tend to have reliable data.