Table 3. Access to Safe Drinking Water by Country, 1970 to 2002 (2006 Update)

Description

Safe drinking water is one of the most basic human requirements and one of the Millennium Development Goals (MDGs) by 2015 is to reduce by half the proportion of people unable to reach or afford safe drinking water. As a result, estimates of access to safe drinking water are a cornerstone of most international assessments of progress, or lack thereof, toward solving global and regional water problems.

Data are given here for the percent of urban, rural, and total populations, by country, with access to safe drinking water for 1970, 1975, 1980, 1985, 1990, 1994, 2000, and 2002—the most recent year for which data are available. The World Health Organization (WHO) collected the data presented here over various periods. Most of the data presented were drawn from responses by national governments to WHO questionnaires. Participants in data collection include the Joint Monitoring Programme (JMP) of WHO, the United Nations Children's Fund, and the Water Supply and Sanitation Collaborative Council, which has continued sector monitoring and aims to support and strengthen the monitoring efforts of individual countries.

The most recent data (WHO 2000, 2002) reflect a significant change in definition. Data are now reported for populations without access to "improved" water supply. The forty largest countries in the developing world account for 90 percent of population in these regions. As a result, WHO spent extra effort to collect comprehensive data for these countries. According to WHO, the following technologies were included in the assessment as representing "improved" water supply: Household connection; Public standpipe; Borehole; Protected dug well; Protected spring; Rainwater collection.

In comparison, "unimproved" drinking water sources refers to unprotected well; unprotected spring; rivers or ponds; vendor-provided water; bottled water; tanker truck water

Limitations

A review of water and sanitation coverage data from the 1980s and 1990s shows that the definition of safe, or improved, water supply and sanitation facilities differs from one country to another and for a given country over time. Indeed, some of the data from individual countries often showed rapid and implausible changes in the level of coverage from one assessment to the next. This indicates that some of the data are also unreliable, irrespective of the definition used. Countries used their own definitions of "rural" and "urban."

For the 1996 data, two-thirds of the countries reporting indicated how they defined "access." At the time, the definition most commonly centered on walking distance or time from household to water source, such as a public standpipe, which varied from 50 to 2,000 meters and 5 to 30 minutes. Definitions sometimes included considerations of quantity, with the acceptable limit ranging from 15 to 50 liters per capita per day. The WHO considers safe drinking water to be treated surface water or untreated water from protected springs, boreholes, and wells.

The 2000 and 2002 WHO Assessments attempts to shift from gathering information from water providers only to include consumer-based information. The current approach uses household surveys in an effort to assess the actual use of facilities. "Reasonable access" was broadly defined as the availability of at least 20 liters per person per day from a source within one kilometer of the user's dwelling. A drawback of this approach is that household surveys are not conducted regularly in many countries. Thus, direct comparisons between countries, and across time within the same

country, are difficult. Direct comparisons are additionally complicated by the fact that these data hide disparities between regions and socioeconomic classes.

Access to water, as reported by WHO, does not imply that the level of service or quality of water is "adequate" or "safe." The assessment questionnaire did not include any methodology for discounting coverage figures to allow for intermittence or poor quality of the water supplies. However, the instructions stated that piped systems should not be considered "functioning" unless they were operating at over 50 percent capacity on a daily basis; and that hand pumps should not be considered functioning unless they were operating for at least 70 percent of the time with a lag between breakdown and repair not exceeding two weeks. These aspects were taken into consideration when estimating coverage for countries for which national surveys had not been conducted. More details of the methods used, and their limitations, can be found at http://www.who.int/docstore/water_sanitation_health/Globassessment/GlobalTOC.htm.

Fraction of Population with Access to Safe Drinking Water																								
	URBAN								RURAL								TOTAL							
Region and Country	1970	1975	1980	1985	1990	1994	2000	2002	1970	1975	1980	1985	1990	1994	2000	2002	1970	1975	1980	1985	1990	1994	2000	2002
AFRICA	66	68	69	77																				
Algeria	84	100		85			88	92		61		55			94	80		77		68			94	87
Angola			85	87	73	69	34	70			10	15	20	15	40	40			26	33	35	32	38	50
Benin	83	100	26	80	73	41	74	79	20	20	15	34	43	53	55	60	29	34	18	50	54	50	63	68
Botswana	71	95		84	100		100	100	26	39		46	88			90	29	45		53	91			95
Burkina Faso	35	50	27	43			84	82	10	23	31	69	70			44	12	25	31	67		78		51
Burundi	77		90	98	92	92	96	90			20	21	43	49		78			23	25	45	52		79
Cameroon	77			43	42		82	84	21			24	45		42	41	32			32	44		62	63
Cape Verde			100	83		70	64	86			21	50		34	89	73			25	52		51	74	80
Central African Republic				13	19	18	80	93					26	18	43	61					23	18	60	75
Chad	47	43				48	31	40	24	23				17	26	32	27	26				24	27	34
Comoros							98	90							95	96							96	94
Congo	63	81	42				71	72	6	9	7				17	17	27	38	20				51	46
Congo, Democratic Rep.	33	38		52	68	37	89	83	4	12		21	24	23	26	29	11	19		32	36	27	45	46
Cote D'Ivoire	98				57	59	90	98	29				80	81	65	74	44				71	72	77	84
Djibouti			50	50		77	100	82			20	20		100	100	67			43	45		90	100	80
Egypt	94		88		95	82	96	100	93		64		86	50	94	97	93		84		90	64	95	98
Equatorial Guinea			47		65	88	45	45					18	100	42	42					32	95	43	44
Eritrea							63	72							42	54							46	57
Ethiopia	61	58		69			77	81		1		9			13	11	6	8		16			24	22
Gabon							73	95							55	47							70	87
Gambia	97		85	97	100		80	95	3			50	48		53	77	12			59	60	76	62	82
Ghana	86	86	72	93	63	70	87	93		14	33	39		49	49	68	35	35	45	56	21	56	64	79
Guinea	68	69	69	41	100	61	72	78			2	12	37	62	36	38		14	15	18	53	62	48	51
Guinea-Bissau			18	17		38	29	79			8	22		57	55	49			10	21		53	49	59

Kenya	100	100	85			67	87	89	2	4	15			49	31	46	15	17	26			53	49	62
Lesotho	100	65	37	65		14	98	88	1	14	11	30		64	88	74	3	17	15	36		52	91	76
Liberia	100			100		58		72	6			23		8		52	15			53		30		62
Libya	100	100	100				72	72	42	82	90				68	68	58	87	96				72	72
Madagascar	67	76	80	81		83	85	75	1	14	7	17		10	31	34	11	25	21	31		29	47	45
Malawi			77	97		52	95	96			37	50		44	44	62			41	56		45	57	67
Mali	29		37	46	41	36	74	76				10	4	38	61	35				16	13	37	65	48
Mauritania	98		80	73		84	34	63	10		85			69	40	45	17		84			76	37	56
Mauritius	100	100	100	100	100	95	100	100	29	22	98	100	100	100	100	100	61	60	99	100	100	98	100	100
Morocco	92		100	100	100	98	100	99	28			25	18	14	58	56	51			59	56	52	82	80
Mozambique				38		17	86	76				9		40	43	24				15		32	60	42
Namibia					90	87	100	98					37	42	67	72					52	57	77	80
Niger	37	36	41	35	98	46	70	80	19	26	32	49	45	55	56	36	20	27	33	47	56	53	59	46
Nigeria				100	100	63	81	72				20	22	26	39	49				38	49	39	57	60
Reunion																								
Rwanda	81	84	48	79	84		60	92	66	68	55	48	67		40	69	67	68	55	50	68		41	73
Sao Tome and Principe								89				45				73				45				79
Senegal	87	56	77	79	65	82	92	90			25	38	26	28	65	54			43	53	42	50	78	72
Seychelles								100				95				75				95				87
Sierra Leone	75		50	68	80	58	23	75	1		2	7	20	21	31	46	12		14	24	39	34	28	57
Somalia	17	77		58				32	14	22		22				27	15	38		34				29
South Africa							92	98							80	73						70	86	87
Sudan	61	96	100			66	86	78	13	43	31			45	69	64	19	50	51			50	75	69
Swaziland		83		100		41		87		29		7		44		42		37		31		43		52
Tanzania	61	88		90			80	92	9	36		42			42	62	13	39		53			54	73
Togo	100	49	70	100		74	85	80	5	10	31	41		58	38	36	17	16	38	54		63	54	51
Tunisia	92	93	100	100		100		94	17		17	31		89		60	49		60	70		99		82
Uganda	88	100		37	60	47	72	87	17	29		18	30	32	46	52	22	35		20	33	34	50	56
Zambia	70	86		76		64	88	90	22	16		41		27	48	36	37	42		58		43	64	55
Zimbabwe					95		100	100				32	80		77	74					84		85	83
NORTH & CENTRAL																								
AMERICA & CARIBBEAN																								
Anguilla																								
Antigua and Barbuda								95								89								91
Aruba								100								100								100
Bahamas	100	100	100	100	98		99	98	12	13			75		86	86	65	65	100	100	90		96	97
Barbados	95	100	99	100	100		100	100	100	100	98	99	100		100	100	98	100	99	99	100		100	100
Belize			99	100	95	96	83	100			36	26	53	82	69	82			68	64	74	89	76	91

British Virgin Islands					100			98					100			98								98
Canada							100	100							99	99							100	100
Cayman Islands			100	98																				
Costa Rica	98	100	100	100		85	98	100	59	56	82	83		99	98	92	74	72	90	91		92	98	97
Cuba	82	96			100	96	99	95	15				91	85	82	78	56				98	93	95	91
Dominican Republic	72	88	85	85	82	74	83	98	14	27	34	33	45	67	70	85	37	55	60	62	67	71	79	93
Dominica							100	100							100	90							100	97
El Salvador	71	89	67	68	87	78	88	91	20	28	40	40	15	37	61	68	40	53	50	51	47	55	74	82
Grenada	100	100					97	97	47	77					93	93							94	95
Guadeloupe							94	98							94	93							94	98
Guatemala	88	85	90	72	92		97	99	12	14	18	14	43		88	92	38	39	46	37	62		92	95
Haiti		46	51	59	56	37	46	91		3	8	30	35	23	45	59		12	19	38	41	28	46	71
Honduras	99	99	93	56	85	81	97	99	10	13	40	45	48	53	82	82	34	41	59	49	64	65	90	90
Jamaica	100	100	55	99			81	98	48	79	46	93			59	87	62	86	51	96			71	93
Martinique																								
Mexico	71	70	90	99	94	91	94	97	29	49	40	47		62	63	72	54	62	73	83	69	83	86	91
Montserrat								100								100								100
Netherlands Antilles																								
Nicaragua	58	100	67	76		81	95	93	16	14	6	11		27	59	65	35	56	39	48		61	79	81
Panama	100	100	100	100			88	99	41	54	62	64			86	79	69	77	81	82		83	87	91
Puerto Rico																								
St Kitts								99								99								99
St Lucia								98								98								98
St Vincent																								
Trinidad/Tobago	100	79	100	100	100			92	95	100	93	95	88			88	96	93	97	98	96		86	91
Turks/Caicos Islands				87				100				68				100				77				100
United States of America							100	100							100	100							100	100
United States Virgin Islands																								
SOUTH AMERICA																								
Argentina	69	76	61	63			85	97	12	26	17	17			30		56	66	54	56			79	
Bolivia	92	81	69	75	76	78	93	95	2	6	10	13	30	22	55	68	33	34	36	43	53	55	79	85
Brazil	78	87	83	85	95	85	95	96	28		51	56	61	31	54	58	55		72	77	87	72	87	89
Chile	67	78	100	98		94	99	100	13	28	17	29		37	66	59	56	70	84	87		85	94	95
Colombia	88	86	93	100	87	88	98	99	28	33	73	76	82	48	73	71	63	64	86		86	76	91	92
Ecuador	76	67	79	81	63	82	81	92	7	8	20	31	44	55	51	77	34	36	50	57	55	70	71	86
Falkland Islands (Malvinas)																								
French Guiana							88	88							71	71							84	84

Guyana	100	100	100	100	100	90	98	83	63	75	60	65	71	45	91	83	75	84	72	76	81	61	94	83
Paraguay	22	25	39	53	61		95	100	5	5	9	8	9		58	62	11	13	21	28	34		79	83
Peru	58	72	68	73	68	74	87	87	8	15	18	17	24	24	51	66	35	47	50	55	55	60	77	81
Suriname			100	71			94	98			79	94			96	73			88	83			95	92
Uruguay	100	100	96	95	100		98	98	59	87	2	27			93	93	92	98	81	85	89		98	98
Venezuela	92		93	93		80	88	85	38		53	65	36	75	58	70	75		86	89		79	84	83
ASIA																								
Afghanistan	18	40	28	38	40	39	19	19	1	5	8	17	19	5	11	11	3	9	8	17	23	12	13	13
Armenia								99								80								92
Azerbaijan								95								59								77
Bahrain	100	100		100	100			100	94	100		100	0				99	100		100				
Bangladesh	13	22	26	24	39	100	99	82	47	61	40	49	89	97	97	72	45	56	39	46	81	97	97	75
Bhutan			50		60	75	86	86			5	19	30	54	60	60			7		32	64	62	62
Brunei Darus			100								95													
Cambodia							53	58							25	29							30	34
China					87	93	94	92					68	89	66	68					73	90	75	77
Cyprus	100	94		100	100		100	100	92	96		100	100		100	100	95	95		100	100		100	100
East Timor								73								51								52
Gaza Strip																								
Georgia								90								61								76
Hong Kong			100		100						95		96								100			
India	60	80	77	76	86	85	92	96	6	18	31	50	69	79	86	82	17	31	42	56	73	81	88	86
Indonesia	10	41	35	43	35	78	91	89	1	4	19	36	33	54	65	69	3	11	23	38	34	62	76	78
Iran	68	76	82		100	89	99	98	11	30	50		75	77	89	83	35	51	66		89	83	95	93
Iraq	83	100		100	93		96	97	7	11	54	54	41		48	50	51	66		86	78	44	85	81
Israel								100								100								100
Japan								100								100								100
Jordan	98		100	100	100		100	91	59		65	88	97		84	91	77		86	96	99	89	96	91
Kazakhstan							98	96							82	72							91	86
Korea DPR							100	100							100	100							100	100
Korea Rep	84	95	86	90	100		97	97	38	33	61	48	76		71	71	58	66	75	75	93		92	92
Kuwait	60	100	86	97							100						51	89	87					
Kyrgyzstan							98	98							66	66							77	76
Laos	97	100	28		47	40	59	66	39	32	20		25	39	100	38	48	41	21		29	39	90	43
Lebanon						100	100	100						100	100	100						100	100	100
Macau																								
Malaysia	100	100	90	96	96			96	1	6	49	76	66		94	94	29	34	63	84	79			95
Maldives			11	58	77	98	100	99			3	12	68	86	100	78			2	21		89	100	84
Mongolia					100		77	87					58		30	30					82		60	62

Myanmar (Burma)	35	31	38	36	79	36	88	95	13	14	15	24	72	39	60	74	18	17	21	27	74	38	68	80
Nepal	53	85	83	70	66	66	85	93		5	7	25	34	41	80	82	2	8	11	28	38	44	81	84
Oman		100		90			41	81		48		49			30	72		52		53		63	39	79
Pakistan	77	75	72	83	82	77	96	95	4	5	20	27	42	52	84	87	21	25	35	44	55	60	88	90
Philippines	67	82	49	49	93	93	92	90	20	31	43	54	72	77	80	77	36	50	45	52	81	85	87	85
Qatar	100	100	76		100			100	75	83	43					100	95	97	71					100
Saudi Arabia	100	97	92	100			100	97	37	56	87	88			64		49	64	90	94			95	
Singapore			100	100	100		100	100											100	100	100		100	100
Sri Lanka	46	36	65	82	80	43	91	99	14	13	18	29	55	47	80	72	21	19	28	40	60	46	83	78
Syria	98		98			92	94	94	50		54			78	64	64	71		74			85	80	79
Tajikistan								93								47								58
Thailand	60	69	65	56			89	95	10	16	63	66	85		77	80	17	25	63	64			80	85
Turkey			95				82	96			62				84	87			76				83	93
Turkmenistan								93								54								71
United Arab Emirates			95								81								92					
Uzbekistan							96	97							78	84							85	89
Vietnam				70	47	53	81	93			32	39	33	32	50	67				45	36	36	56	73
Yemen A R	45		100	100			85	74	2		18	25			64	68	4		31	40			69	69
Yemen Dem	88		85				85		43		25				64		57		52				69	
OCEANIA																								
American Samoa							100								100								100	
Australia							100	100							100	100							100	100
Cook Islands			100	99	100		100	98				88	100		100	88				92			100	95
Fiji	78	89	94		96	100	43		15	56	66		69	100	51		37	69	77		80	100	47	
French Polyneisa					100		100	100					18		100	100							100	100
Guam								100								100								100
Kiribati			93		91		82	77			25		63		25	53							47	64
Marshall Islands					100			80					45			95								85
Micronesia						100		95					38	100		94						100		94
Nauru																								
New Caledonia																								
New Zealand							100	100																
Niue					0	100	100	100				100	100	100	100	100						100	100	100
Northern Mariana Islands					100			98					0			97								98
Palau					100		100	79					97		20	94							79	84
Papua New Guinea	44	30	55	95	94	84	88	88	72	19	10	15	20	17	32	32	70	20	16	26	32	28	42	39
Pitcairn																								
Samoa	86	100	97		100		95	91		23	94		77		100	88	17	43					99	88
Solomon Islands			96		82		94	94			45		58		65	65					62		71	70

Tokelau						100						100		100		89						100		
Tonga	100	100	86	99	92	100	100	100	53	71	70	99	98	100	100	100	63	83	17	99	96	100	100	100
Tuvalu				100		100	100	94				100		95	100	92						98	100	93
Vanuatu			65	95			63	85			53	54			94	52				64			88	60
Wallis and Futuna Islands																								
Western Samoa			97	75							94	67								69				
EUROPE																								
Albania								99								95								97
Hungary								100								98								99
Netherlands								100								99								100
Republic of Moldova								97								88								92
Romania								91								16								57
Russian Federation								99								88								96
Serbia and Montenegro								99								86								93
Ukraine								100								94								98
Sources:	UNEP 1989; WRI 1988	UNEP 1989; WRI 1988	UNEP 1989; WRI 1988	UNEP 1989; WRI 1988	UNEP 1993	WHO 1996	WHO 2000	WHO/UNICEF 2004	UNEP 1989; WRI 1988	UNEP 1989; WRI 1988	UNEP 1989; WRI 1988	UNEP 1989; WRI 1988	UNEP 1993	WHO 1996	WHO 2000	WHO/UNICEF 2004	UNEP 1989; WRI 1988	UNEP 1989; WRI 1988	UNEP 1989; WRI 1988	UNEP 1989; WRI 1988	Calculated from UNEP 1993	WHO 1996	WHO 2000	WHO/UNICEF 2004

The UN considers all European countries, except those shown, to have 100 percent water supply and sanitation coverage.

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