

11 Access to water and sanitation

The Millennium Development Goals have important targets for water and sanitation. While the Asia-Pacific region has made some progress, hundreds of millions of people still lack sufficient water, either for personal use or for production.

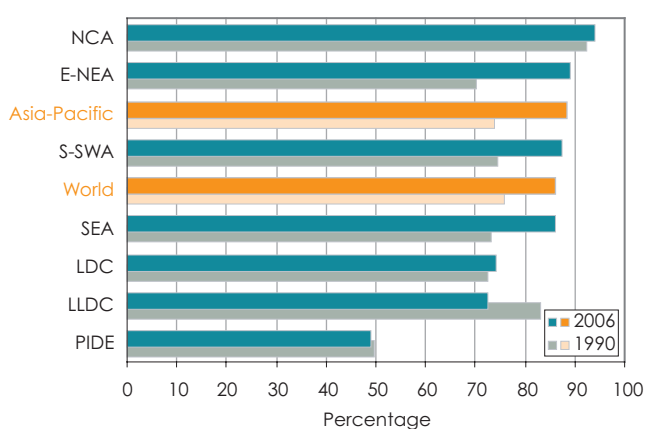
In Asia and the Pacific many more people now benefit from better water supplies. Between 1990 and 2006, the proportion of the region's population with access to improved drinking water sources increased from 74 to 88 per cent, an increase of 1.2 billion people. This places the region ahead of Africa, where the ratio was only 64 per cent, but behind Latin America and Caribbean at 91 per cent and North America and Europe where the proportion was 99 per cent.

The proportion increased in all Asia-Pacific subregions except for the Pacific developing economies. East and North-East Asia made the most impressive gains: between 1970 and 2006 access to improved water sources increased from 70 to almost 90 per cent of the population. China led this surge, particularly in the rural areas where access increased from 55 to 81 per cent. In North and Central Asia access at 94 per cent is almost universal – higher than the averages for both Asia and the Pacific and Latin America and the Caribbean, and for the world. The only exception in that subregion is Tajikistan, which by 2006 had only reached 67 per cent.

Other countries are also lagging. The least developed countries and landlocked developing countries still have access rates of just above 70 per cent, while the Pacific developing economies are even further behind, at 49 per cent. The lowest coverage is in some Pacific islands, like Papua New Guinea with 40 per cent and Fiji with 47 per cent. Many people in South-East Asia also lack access to proper water, particularly those in the Lao People's Democratic Republic where coverage is only 40 per cent, Timor-Leste (38 per cent) and Cambodia (35 per cent).

Figure 11.1

Proportion of total population with access to improved water sources, selected Asia-Pacific groupings, 1990 and 2006



In most parts of the world, access to water is better in urban than rural areas. In Asia and the Pacific in 2006 average access for urban areas was 96 per cent, higher than in Africa where the proportion was 84 per cent, and almost at par with the 97 per cent in Latin America and the Caribbean. However from 1990 the region's urban areas made only modest progress, only 1 percentage point compared with a 19 percentage point gain in the rural areas. In fact, in the least developed countries urban coverage fell: between 1990 and 2006 coverage dropped from 88 to 80 per cent, with a serious impact on the urban poor. This is largely because of rapid urbanization which has spread limited services over a larger population. The urban drop was driven by deteriorating access in many Pacific islands, as well as in Bangladesh, Myanmar and Nepal.

Globally the greatest gains in water availability were in rural areas of Asia and the Pacific: between 1990 and 2006 average access increased from 64 to 84 per cent. All subregions contributed to the increase, except some island States.

Among individual countries, Viet Nam and Georgia stood out – having already achieved their MDG targets. In Viet Nam between 1990 and

11. Access to water and sanitation

Figure 11.2

Proportion of rural and urban populations with access to improved water sources, Asia and the Pacific, 1990, 2000 and 2006

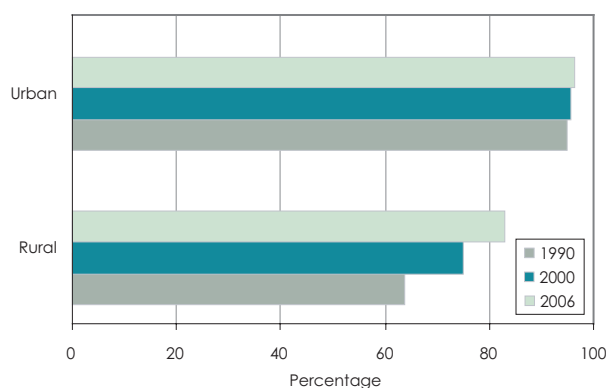


Figure 11.3

Proportion of the urban population with access to improved water sources, selected Asia-Pacific countries, 1990-2006

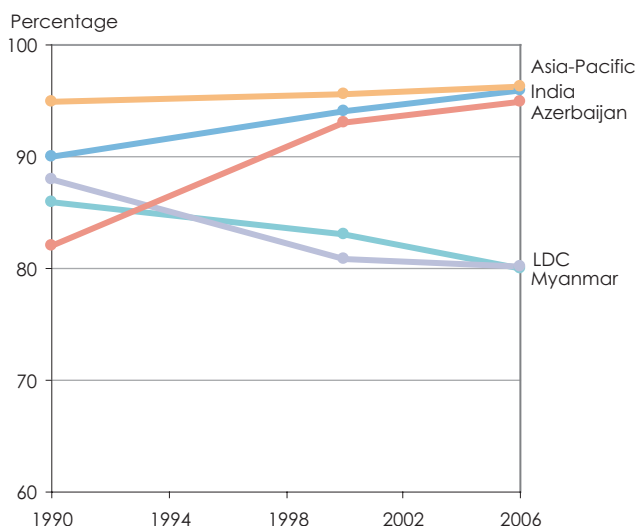


Figure 11.4

Proportion of the rural population with access to improved water sources, selected Asia-Pacific countries, 1990-2006

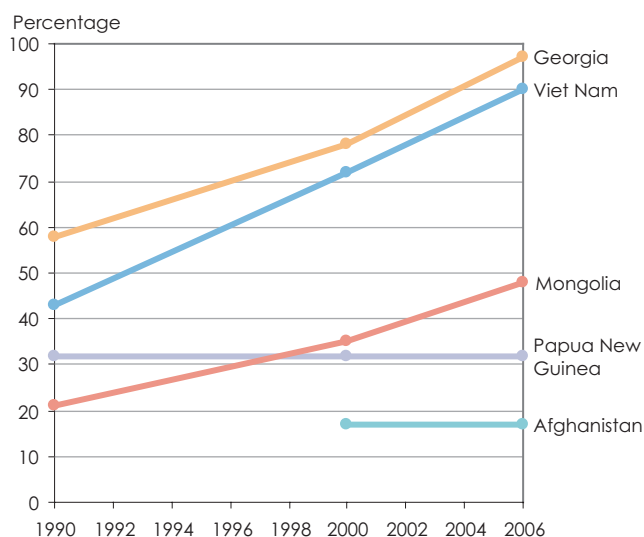
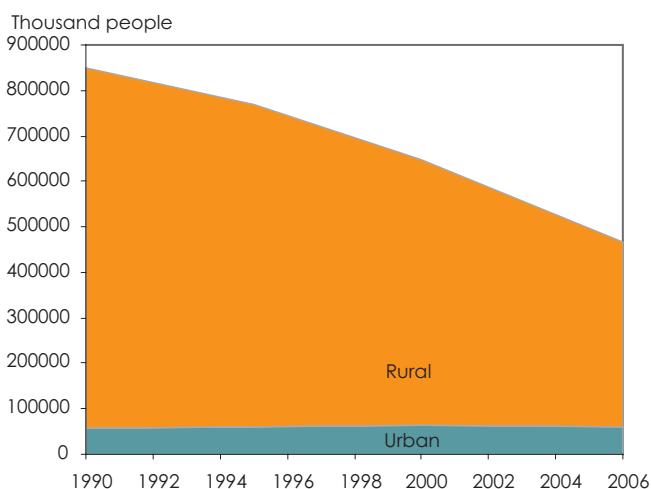


Figure 11.5

Number of people without access to improved water sources, Asia and the Pacific, 1990-2006



2006, coverage in rural areas increased from 43 to 90 per cent. Georgia, also saw a noteworthy increase, from 58 to 97 per cent.

In contrast, the lowest rural access, only 17 per cent, was in conflict-stricken and landlocked Afghanistan. The second lowest rank was in Papua New Guinea where rural access in 2006 was only 32 per cent and showed little sign of improvement. Other Pacific islands are also lagging and some have seen urban access deteriorate. Landlocked Mongolia also has poor access in rural areas: despite more than doubling coverage between 1990 and 2006 it still reached only 48 per cent.

Overall, between 1990 and 2006 rural progress has been better in the middle-income economies – twice as fast as in the low-income economies where the rise was only 11 percentage points. Clearly without greater efforts to extend rural coverage, access could remain low for a long time to come.

Access to clean water is vital for living a long and healthy life. It is no surprise therefore that four out of the five Asia-Pacific countries with low access to improved water sources – Afghanistan, the Lao People's Democratic Republic, Papua New Guinea, Timor-Leste – also have some of the region's lowest life expectancies. On the other hand, countries where life expectancy was greater than 74 years all had 100 per cent access – except for Viet Nam where in 2006 access was 92 per cent.

Sanitation

To help improve sanitation coverage worldwide, the General Assembly, in its resolution 61/192, decided to declare 2008 the International Year of Sanitation. Improved sanitation facilities

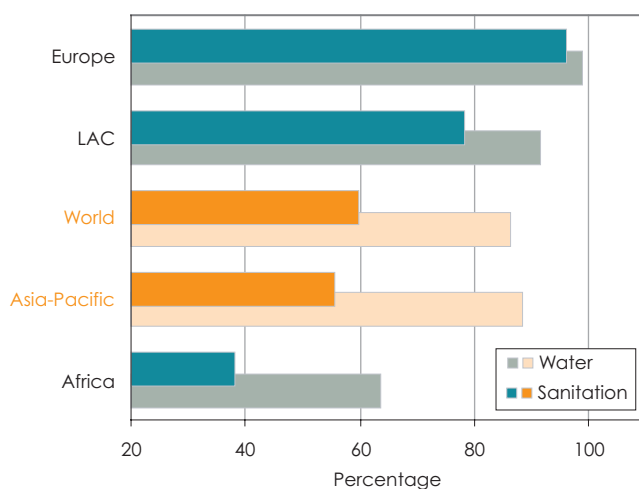
include household toilets or latrines connected to piped sewerage systems and also septic tanks and ventilated improved pit latrines. People without these facilities usually defecate in fields or dispose of faeces in plastic bags, bucket latrines or rivers.

In Asia and the Pacific, 45 per cent of the region's population currently lack access to improved sanitation facilities. The problem is even greater in rural areas, where the proportion without access rises to 56 per cent. Compared with access to improved water sources, the discrepancy between rural and urban areas in access to sanitation is much greater.

Access to sanitation has improved significantly in almost all Asia-Pacific subregions. The region's average access, at 55 per cent higher than in Africa (38 per cent) but is still lower than the global average of 60 per cent and the Latin American and Caribbean average of 78 per cent. Sanitation is much better in the richer countries. In the region's high-income economies just about everyone has access to sanitation. But the situation is much worse in the middle- and low-income economies: in both cases access is only 54 per cent. It may seem surprising that access is the same in both groups, but this is because India, which has low access, has just "graduated" to the group of middle-income economies – thus improving the average for low-income economies but dragging down the average of middle-income economies.

Figure 11.6

Proportion of people with access to improved water sources and sanitation, world regions, 2006



As with other services, access to sanitation varies considerably between subregions. Some of the most rapid progress has been in North-East Asia which between 1990 and 2006 increased access by

18 percentage points, and in South-East Asia where the increase was 15 percentage points.

The situation in South and South-West Asia is more difficult. Although since 1990 the number of people with access increased by 50 per cent this still means that by 2006 average coverage was only 35 per cent. Some countries in the subregion have done better – including Sri Lanka, Turkey, the Maldives and Pakistan. On the other hand access is very low in Nepal, India, Afghanistan and Bangladesh. Nevertheless, even these countries have seen improvements. For example, India improved rural coverage from a mere 4 per cent in 1990 to 18 per cent in 2006. Nepal also achieved noteworthy improvements, while in 1990 only 6 per cent had access to improved sanitation, by 2006 the proportion had risen to one-quarter.

Progress in rural South-East Asia was led by Myanmar, where access to improved sanitation increased 5.4 times and Viet Nam where it increased 2.7 times. Thailand and Malaysia also stood out, achieving access for their rural population, of 96 and 93 per cent respectively. North and Central Asia, already had high levels of rural coverage in 1990, and in 2006 remained comfortably ahead of the regional average.

As with access to water, the Pacific subregion as a whole has since 1990 seen little improvement in sanitation. However, overall access to sanitation is higher than access to water. The Pacific average is driven by Australia and New Zealand, so does not reflect poor coverage the smaller Pacific islands. In fact rural access to improved sanitation in

Figure 11.7

Proportion of the rural population with access to improved sanitation, selected Asian countries, 1990-2006

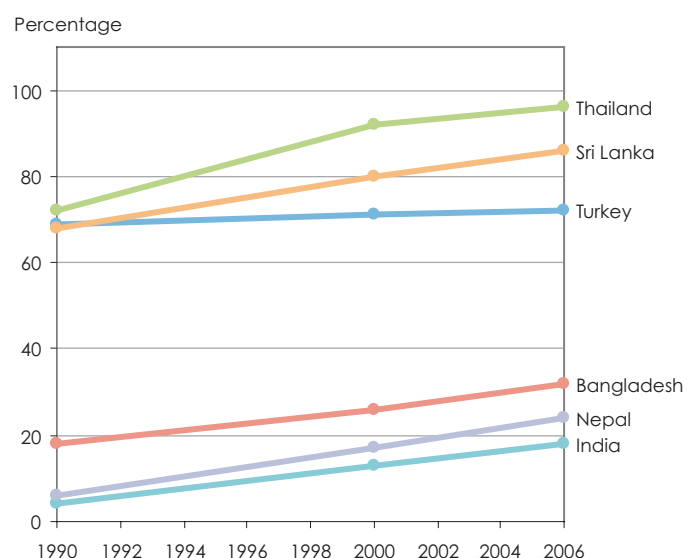
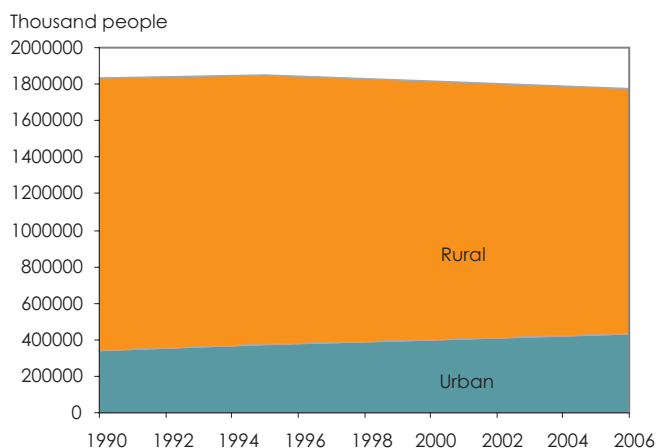


Figure 11.8

People without access to improved sanitation in Asia and the Pacific, 1990-2006



a number of these countries is extremely low – 20 per cent in Kiribati, 18 per cent in the Solomon Islands and only 14 per cent in the Federated States of Micronesia,

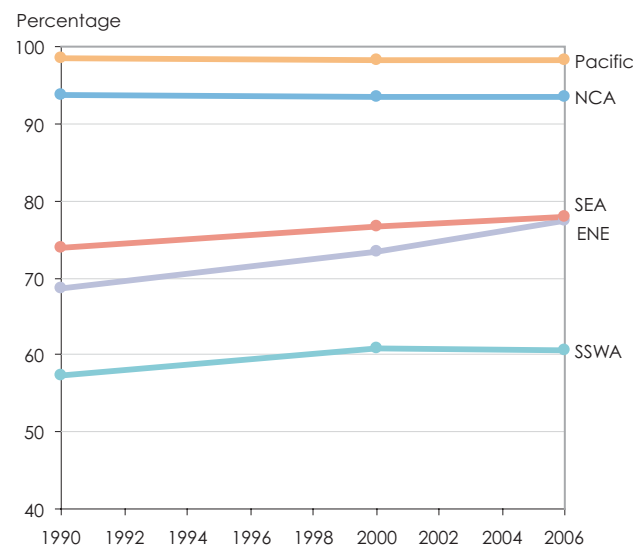
Although providing improved sanitation is easier in urban environments, the region’s urban coverage increased only moderately between 1990 and 2006, from 69 to 74 per cent. This unimpressive performance is largely because of rapid urbanization and an increase in the number of people living in slums. The greatest problems are in landlocked developing countries and Pacific developing economies where since 2000 the percentage of urban population with access to improved sanitation has actually fallen. Some highly populated countries, like Indonesia and Bangladesh, have also recorded worrying urban declines.

Elsewhere there has been significant progress. East and North-East Asian, for example, registered improvements in urban access of nearly ten percentage points. South and South-West Asia

Urban dwellers also experienced a three percentage point increase. North and Central Asia already had very high coverage, over 90 per cent, so the small declines for urban dwellers can be attributed to rapid urbanization.

Figure 11.9

Average urban access to improved sanitation, Asia-Pacific subregions, 1990-2006



Better access to water and sanitation brings enormous development benefits. Many of these are for individuals – by permitting higher school participation, boosting living standards, and saving health care costs. But there are also benefits for society as a whole through a more productive workforce, greater foreign direct investment and improved aesthetics and tourist potential. A recent study of four South-East Asian countries estimated the total economic benefits of achieving universal access to sanitation at between \$5.4 billion and \$27 billion.

Population with access to improved water sources, urban/rural (percentage)

Percentage of the population using improved drinking water sources (including household water connection, public standpipe, borehole, protected dug well, protected spring, rainwater collection and bottled water – if a secondary available source is also improved). Data are disaggregated by urban and rural areas. **Aggregates:** (Total) Averages are calculated using the total population as weight. (Urban) Averages are calculated using the urban population as weight. (Rural) Averages are calculated using the rural population as weight. **Source:** United Nations Millennium Development Goals Indicators (online database, accessed on 8 August 2008).

Population with access to improved water sources (percentage)

Percentage of the population using improved drinking water sources (including household water connection, public standpipe, borehole, protected dug well, protected spring, rainwater collection and bottled water – if

a secondary available source is also improved). **Aggregates:** (Total) Averages are calculated using the total population as weight. (Urban) Averages are calculated using the urban population as weight. (Rural) Averages are calculated using the rural population as weight. **Source:** United Nations Millennium Development Goals Indicators (online database, accessed on 8 August 2008).

Population with access to improved sanitation, urban/rural (percentage)

Proportion of people using an improved sanitation facility (including flush/pour flush toilet or latrine to: piped sewerage, septic tank or pit; a Ventilated Improved Pit (VIP) latrine; a pit latrine with slab or a composting toilet/latrine). Data are disaggregated by between urban and rural areas. **Aggregates:** (Total) Averages are calculated using the total population as weight. (Urban) Averages are calculated using the urban population as weight. (Rural) Averages are calculated using the rural population as weight. **Source:** United Nations Millennium Development Goals Indicators (online database, accessed on 8 August 2008).

11. Access to water and sanitation

11.1 Access to water

	Population with access to improved water sources											
	Rural				Urban				Total			
	1990	1995	2000	2006	Percentage			1990	1995	2000	2006	
	1990	1995	2000	2006	1990	1995	2000	2006	1990	1995	2000	2006
East and North-East Asia	57	65	73	82	98	98	97	98	70	77	82	89
China	55	63	71	81	97	97	97	98	67	74	80	88
DPR Korea		100	100	100	100	100	100	100		100	100	100
Hong Kong, China												
Japan	100	100	100	100	100	100	100	100	100	100	100	100
Macao, China												
Mongolia	21	24	35	48	97	96	93	90	64	65	68	72
Republic of Korea		71	71		97	97	97	97		91	92	
South-East Asia	64	67	73	81	92	92	92	92	73	75	80	86
Brunei Darussalam												
Cambodia		14	33	61		47	60	80		19	38	65
Indonesia	63	65	68	71	92	91	90	89	72	74	77	80
Lao PDR		34	39	53		73	76	86		41	46	60
Malaysia	96	96	96	96	100	100	100	100	98	98	98	99
Myanmar	47	53	66	80	86	85	83	80	57	61	71	80
Philippines	75	79	84	88	92	93	94	96	83	87	90	93
Singapore					100	100	100	100				
Thailand	94	95	96	97	98	98	98	99	95	96	97	98
Timor-Leste			56	56				77			61	62
Viet Nam	43	57	72	90	87	90	94	98	52	64	77	92
South and South-West Asia	68	72	77	84	92	92	94	95	75	78	82	87
Afghanistan		17	17	17		37	37	37		21	21	22
Bangladesh	76	76	77	78	88	87	86	85	78	78	79	80
Bhutan			79	79				98			81	81
India	65	71	77	86	90	92	94	96	71	77	82	89
Iran (Islamic Rep. of)	84	84	84		99	99	99	99	92	93	94	
Maldives	95	93	82	76	100	100	99	98	96	95	87	83
Nepal	70	76	81	88	97	96	95	94	72	78	83	89
Pakistan	81	83	85	87	96	96	95	95	86	87	88	90
Sri Lanka	62	67	73	79	91	93	96	98	67	71	77	82
Turkey	74	80	87	95	92	94	96	98	85	89	93	97
North and Central Asia	84	81	82	84	97	97	99	100	92	92	93	94
Armenia		75	83	96	99	99	99	99		91	93	98
Azerbaijan	51	53	58	59	82	85	93	95	68	70	76	78
Georgia	58	61	78	97	91	92	95	100	76	78	87	99
Kazakhstan	91	91	91	91	99	99	99	99	96	95	96	96
Kyrgyzstan		65	73	83	97	97	98	99		77	82	89
Russian Federation	86	87	88	88	97	98	99	100	94	95	96	97
Tajikistan		42	47	58		91	92	93		56	59	67
Turkmenistan												
Uzbekistan	85	85	83	82	97	97	98	98	90	90	89	88
Pacific	62	61	57	55	99	99	99	98	88	87	85	85
Australia	100	100	100	100	100	100	100	100	100	100	100	100
American Samoa												
Cook Islands	87	87	87	88	99	99	99	98	94	94	95	95
Fiji	51	51	51	51	43	43	43	43	48	47	47	47
French Polynesia	100	100	100	100	100	100	100	100	100	100	100	100
Guam	100	100	100	100	100	100	100	100	100	100	100	100
Kiribati	33	41	50	53	76	77	77	77	48	54	62	65
Marshall Islands	97	97	96		95	89	83		96	92	88	
Micronesia (F.S.)	86	89	92	94	93	94	94	95	88	90	92	94
Nauru												
New Caledonia												
New Zealand	82	82			100	100	100	100	97	97		
Niue	100	100	100	100	100	100	100	100	100	100	100	100
Northern Mariana Is.	100	99	97	97	98	98	98	98	98	98	98	98
Palau	98	97	95	94	73	74	78	79	90	90	90	89
Papua New Guinea	32	32	32	32	88	88	88	88	39	39	39	40
Samoa	89	88	88	87	99	96	92	90	91	90	89	88
Solomon Islands	65	65	65	65	94	94	94	94	69	69	70	70
Tonga	100	100	100	100	100	100	100	100	100	100	100	100
Tuvalu	89	90	91	92	92	93	94	94	90	92	93	93
Vanuatu	53	53	52		93	90	86		61	61	59	
Asia and the Pacific	64	69	75	83	95	95	96	96	74	78	83	88
LLDC	75	61	62	65	96	89	89	88	83	70	71	73
LDC	69	63	67	72	88	82	81	80	72	66	70	74
ASEAN	64	67	73	81	92	92	92	92	73	75	80	86
ECO	81	76	78	79	96	95	95	95	87	84	86	85
SAARC	68	72	77	84	91	92	93	94	73	77	81	87
Central Asia	80	74	76	79	95	95	97	98	87	84	86	88
Pacific island dev. econ.	41	41	40	39	80	80	79	80	50	49	49	49
Low-income	68	68	73	79	93	90	90	90	74	74	78	82
Middle-income	62	68	75	83	94	95	96	97	72	78	83	89
High-income	100	95	95	100	99	99	99	99	100	98	98	100
Other world regions												
Africa	42	44	47	51	86	85	85	84	57	58	61	64
Europe	93	95	96	97	100	100	100	100	98	98	99	99
Latin America & Carib.	61	65	69	73	94	95	96	97	84	87	89	91
North America	94	94	94	95	100	100	100	100	99	99	99	99
Other countries/areas	65	67	69	71	98	97	95	93	88	86	84	83
World	62	67	71	77	95	95	95	96	76	79	82	86

11.2 Access to sanitation

	Population with access to improved sanitation											
	Rural				Urban				Total			
	1990	1995	2000	2006	1990	Percentage			1990	1995	2000	2006
					1995	2000	2006					
East and North-East Asia	46	51	55	61	69	71	73	77	53	57	63	68
China	43	48	53	59	61	65	69	74	48	53	59	65
DPR Korea		60	60			58	58			59	59	
Hong Kong, China												
Japan	100	100	100	100	100	100	100	100	100	100	100	100
Macao, China												
Mongolia		23	26	31		66	65	64		47	48	50
Republic of Korea												
South-East Asia	40	42	51	58	74	75	77	78	49	53	61	67
Brunei Darussalam												
Cambodia		2	9	19		43	51	62		8	16	28
Indonesia	42	40	39	37	73	71	69	67	51	51	52	52
Lao PDR		6	14	38		48	57	87		13	22	48
Malaysia			93	93	95	95	95	95			94	94
Myanmar	15	26	53	81	47	55	74	85	23	34	59	82
Philippines	46	55	64	72	71	75	78	81	58	66	72	78
Singapore					100	100	100	100				
Thailand	72	82	92	96	92	93	94	95	78	85	93	96
Timor-Leste			32	32			64	64			40	41
Viet Nam	21	32	43	56	62	70	78	88	29	40	51	65
South and South-West Asia	11	15	20	24	57	59	61	61	24	28	32	35
Afghanistan		29	27	25		42	43	45		32	30	30
Bangladesh	18	21	26	32	56	54	51	48	26	28	32	36
Bhutan			50	50			71	71			52	52
India	4	8	13	18	44	46	49	52	14	18	23	28
Iran (Islamic Rep. of)	78	78	78	86	86	86	83	83	83			
Maldives		42	42	42	100	100	100	100		57	58	59
Nepal	6	12	17	24	36	39	42	45	9	15	20	27
Pakistan	14	22	30	40	76	80	85	90	33	40	48	58
Sri Lanka	68	74	80	86	85	86	88	89	71	76	81	86
Turkey	69	70	71	72	96	96	96	96	85	86	87	88
North and Central Asia	78	79	80	81	94	93	93	94	89	88	89	89
Armenia		78	79	81	94	94	95	96		89	89	91
Azerbaijan		70	70	70		90	90	90		80	80	80
Georgia	91	91	91	92	96	96	95	94	94	94	93	93
Kazakhstan	96	96	97	98	97	97	97	97	97	97	97	97
Kyrgyzstan		92	93	93		93	93	94		92	93	93
Russian Federation	70	70	70	70	93	93	93	93	87	87	87	87
Tajikistan		81	84	91		88	91	95		83	86	92
Turkmenistan												
Uzbekistan	91	92	93	95	97	97	97	97	93	94	94	96
Pacific	65	63	60	58	99	98	98	98	87	87	86	86
Australia	100	100	100	100	100	100	100	100	100	100	100	100
American Samoa												
Cook Islands	91	92	99	100	100	100	100	100	96	97	100	100
Fiji	55	55	55	55	87	87	87	87	68	70	70	71
French Polynesia	97	97	97	97	99	99	99	99	98	98	98	98
Guam	98	98	98	98	99	99	99	99	99	99	99	99
Kiribati	20	20	20	20	26	34	43	46	22	25	30	33
Marshall Islands	51	54	57		88	90	93		75	77	81	
Micronesia (F.S.)	20	18	16	14	54	56	59	61	29	28	26	25
Nauru												
New Caledonia												
New Zealand	88	88										
Niue	100	100	100	100	100	100	100	100	100	100	100	100
Northern Mariana Is.	78	86	93	96	85	89	92	94	84	89	92	94
Palau	54	53	52	52	76	81	92	96	61	61	65	67
Papua New Guinea	41	41	41	41	67	67	67	67	44	44	44	45
Samoa	98	99	100	100	100	100	100	100	98	99	100	100
Solomon Islands	18	18	18	18	98	98	98	98	29	30	31	32
Tonga	96	96	96	96	98	98	98	98	96	96	96	96
Tuvalu	74	78	81	84	83	87	90	93	78	83	86	89
Vanuatu		42	42			78	78			49	50	
Asia and the Pacific	32	35	39	44	69	70	72	74	44	47	52	55
LLDC ESCAP	52	50	52	54	92	84	82	81	66	61	61	63
LDC ESCAP	16	20	29	38	53	52	55	57	23	27	35	42
ASEAN	40	42	51	58	74	75	77	78	49	53	61	67
ECO	44	48	51	53	88	87	89	91	64	65	68	69
SAARC	8	12	17	23	49	51	54	57	18	22	27	33
Central Asia	93	89	90	92	97	95	95	95	95	92	92	93
Pacific island dev. econ.	44	44	44	43	81	80	80	80	52	52	51	52
Low-income	20	28	36	45	67	68	71	76	31	38	46	54
Middle-income	32	35	39	42	66	68	69	71	42	46	50	54
High-income	100	100	100	100	100	100	100	100	100	100	100	100
Other world regions												
Africa	24	24	26	29	53	53	53	53	33	34	36	38
Europe	92	92	92	91	99	99	98	98	97	96	96	96
Latin America & Carib.	35	41	47	52	81	83	85	86	68	72	75	78
North America	99	99	99	99	100	100	100	100	100	100	100	100
Other countries/areas	39	49	53	59	91	91	91	92	61	70	72	74
World	34	37	41	44	76	77	77	78	51	54	57	60