

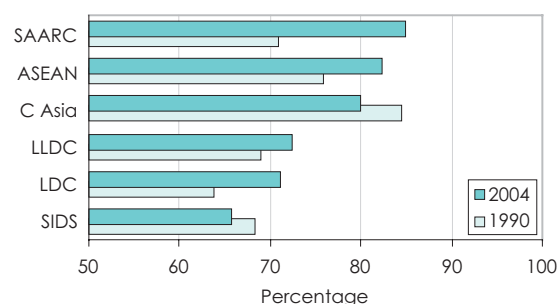
10. Access to water and sanitation

Every year, millions of children miss out on school because they have to fetch water over long distances. Moreover, nearly a fifth of the world's child deaths are related to a lack of access to proper water and sanitation facilities (UNDP, 2006).

Access to improved drinking water sources has increased in Asia and the Pacific, from 75 per cent in 1990 to 83 per cent in 2004. Latin America and the Caribbean has the highest access rate among the developing regions of the world, 91 per cent, and Africa has the lowest, 61 per cent. All of the North American population has access to improved water sources, but in Europe this is only so for 80 per cent of the population.

Among Asian and Pacific country groupings, over 80 per cent of the populations of SAARC, ASEAN and Central Asian countries have access to improved water sources. The least developed countries and landlocked developing countries have access rates of just above 70 per cent, while the small island developing States lag behind, with only 66 per cent of the population with access to improved water sources.

Figure 10.1 Proportion of total population with access to improved water sources for selected Asian and Pacific country/area groupings, 1990 and 2004

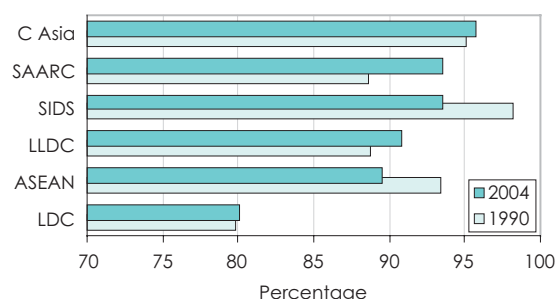


In North America and Europe, the urban populations have complete access to improved water sources; in Latin America and the Caribbean, access is close to complete. Asia and the Pacific, with a rate of 94 per cent, falls short of full access and has, in fact, regressed slightly since 1990, when 95 per cent of its population had access to improved sources of water.

Access to safe water in urban Asia and the Pacific is not uniform. The proportion of the urban population with access in the Central Asian countries and SAARC countries increased from 89 per cent in 1990 to 94 per cent in 2004, while in ASEAN countries and small island developing

States, it decreased by 4 percentage points over the same period.

Figure 10.2 Proportion of urban population with access to improved water sources for selected Asian and Pacific country/area groupings, 1990 and 2004



Urbanization and the increase in the number of people living in slums are largely responsible for this phenomenon. Countries with high access rates in the 1990s, such as China, Indonesia and the Philippines, have all recorded a fall in the proportion of the urban population with access to improved sources of water.

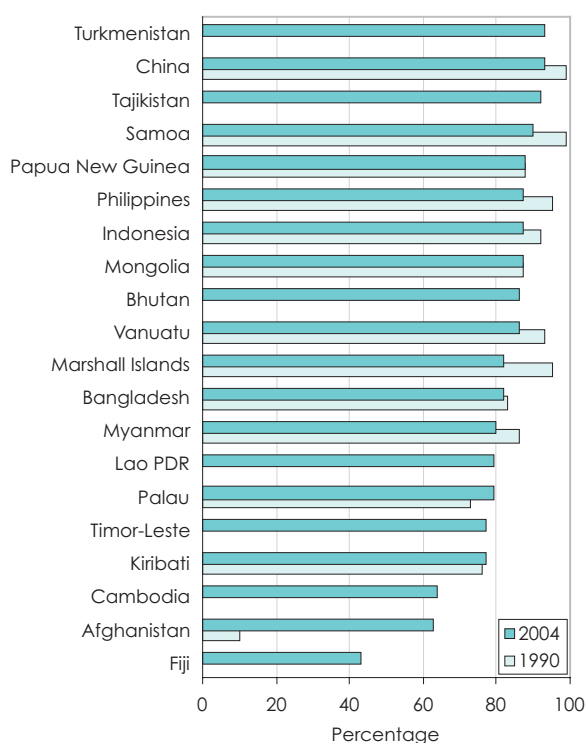
Increased urbanization has pushed access rates down in increasingly industrialized middle-income countries, while low-income countries have made significant progress in absolute but not relative terms. Afghanistan has increased the proportion of the population living in cities with access to water six-fold since 1990, to 63 per cent.

Access to improved sources of water in rural areas, on the other hand, has steadily improved in the Asian and Pacific region. Between 1990 and 2004, access in the region increased by 11 percentage points, to 76 per cent. Latin America and the Caribbean experienced the highest percentage point increase among world regions, by 13 percentage points. Despite this increase, it still has a lower rural access rate than Asia and the Pacific, at 73 per cent.

Within Asia and the Pacific, not only do SAARC countries have the highest level of access to water in rural areas, but they have also recorded the largest increase in coverage, by 16 percentage points. Currently, access in rural areas of SAARC countries is 81 per cent, compared with 77 per cent in ASEAN countries.

Central Asia is the only subregion in Asia and the Pacific with a declining trend in rural access to improved water sources, its rate having fallen from 77 to 68 per cent between 1990 and 2004. Access

Figure 10.3 The 20 Asian and Pacific countries/areas with the lowest access to improved water sources in urban areas, 1990 and 2004



in small island developing States in the latter year, however, was at 42 per cent, lower than that of Africa, at 48 per cent. Five of the 20 countries with the lowest rural water access rates in Asia and the Pacific are small island developing States.

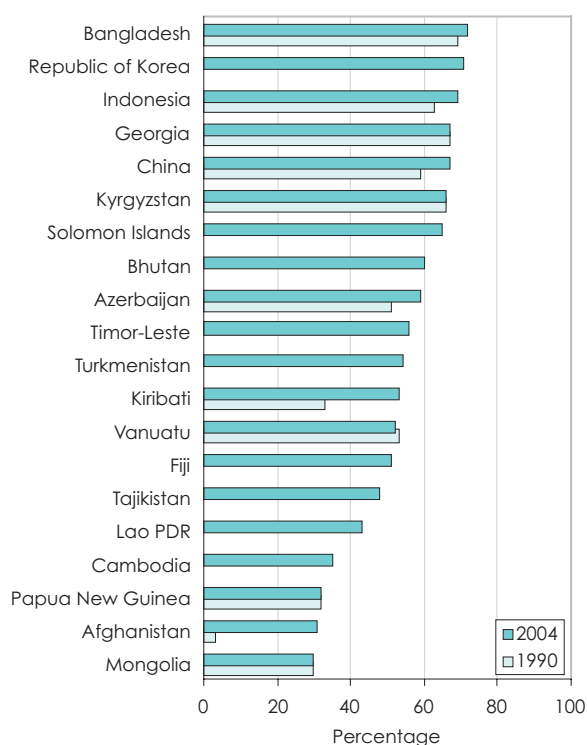
Even though ASEAN countries have the second highest access in rural areas, Cambodia and the Lao People's Democratic Republic still rank among the bottom five countries in the Asian and Pacific region, with access of about 40 per cent.

The rapid progress in the region with regard to increasing access to water in rural areas has come hand in hand with an impressive increase in access to sanitation facilities. The importance of improved sanitation facilities is vital for a healthy life. According to some estimates, improving sanitation can lead to a 30 per cent reduction in child mortality (UNDP, 2006).

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. The access rate discrepancy between rural and urban areas is thus higher in comparison with access to improved water sources.

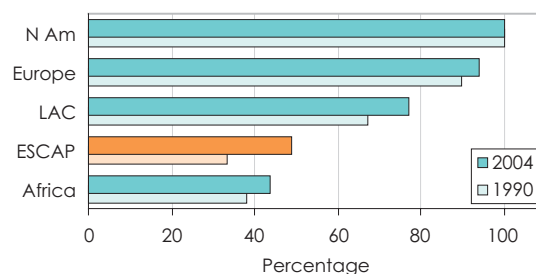
The proportion of the total population with access to improved sanitation has increased in

Figure 10.4 The 20 Asian and Pacific countries/areas with the lowest access to improved water sources in rural areas, 1990 and 2004



all regions between 1990 and 2004, except for North America, which has had universal access throughout this period. Between 1990 and 2004, the Asian and Pacific region augmented total access by 15 percentage points, which is the highest increase among all developing regions. Half the population of Asia and the Pacific has access to improved sanitation, which is higher than the 44 per cent of Africa, but lower than the 77 per cent of Latin America and the Caribbean.

Figure 10.5 Access to improved sanitation facilities in regions of the world, 1990 and 2004

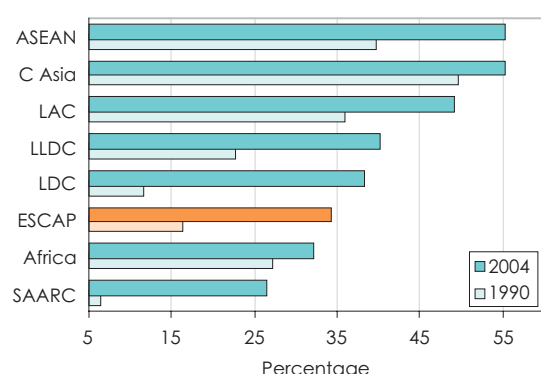


The Asian and Pacific region has more than doubled the proportion of the rural population with access to improved sanitation facilities, from 16 to 34 per cent, between 1990 and 2004. It nevertheless remains close to that of Africa, at 32 per cent, the lowest coverage in the world. Latin America and

the Caribbean records higher access, at 49 per cent. The proportions of the urban population with access to improved sanitation in these three regions are 62 per cent in Africa, 74 per cent in Asia and the Pacific and 86 per cent in Latin America and the Caribbean.

SAARC countries, at 27 per cent, lag behind Africa despite a significant increase in rural coverage. Central Asian and ASEAN countries are the most advanced country groupings in this regard, with 55 per cent of the rural populations having access to improved sanitation.

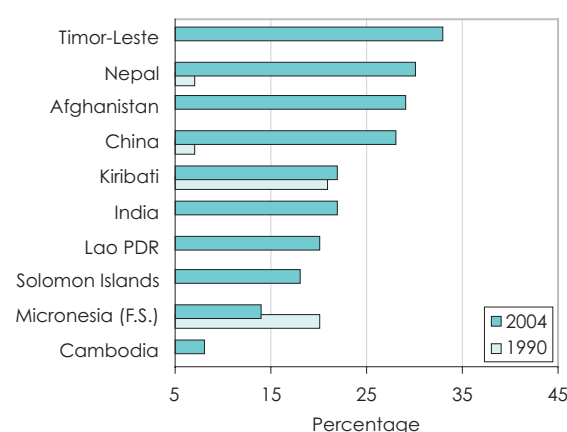
Figure 10.6 Access to improved sanitation in rural areas of selected Asian and Pacific country/area groupings, Latin America and Africa, 1990 and 2004



For countries with trend data available that are situated at the bottom of the access rankings, the increase in access to improved facilities has been quite significant. Afghanistan, Bangladesh, India and Nepal have more than doubled the proportion of the rural population's access to improved sanitation facilities, considerably moving the SAARC average up. China has steadily increased access to improved sanitation facilities in rural areas, although it is still only 28 per cent. Access in rural Cambodia remain very low, only 8 per cent, and there is no trend data.

In terms of access to improved sanitation facilities in urban areas, the Asian and Pacific region has also made slow progress except for SAARC countries, which increased coverage from 50 per cent in 1990 to 63 in 2004. The small island developing States, despite a declining trend, have the highest proportion of the urban population with access to improved sanitation, at 93 per cent.

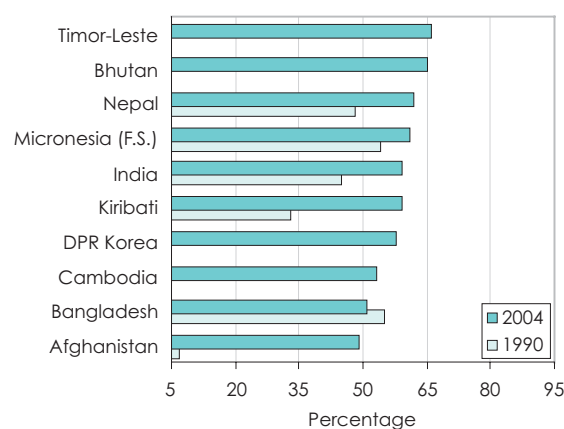
Figure 10.7 The 10 Asian and Pacific countries/areas with the lowest access to improved sanitation facilities in rural areas, 1990 and 2004



ASEAN and Central Asian countries follow the small island developing States with 81 per cent coverage in urban areas.

As in the case of rural coverage, improved access to sanitation in the urban areas of Afghanistan, India and Nepal have moved the SAARC average upwards. Bangladesh, on the other hand, has experienced a setback, with a fall from 55 per cent in 1990 to 51 per cent in 2004. With this figure, Bangladesh has the lowest proportion of urban population with access to improved sanitation in Asia and the Pacific. Cambodia, with 53 per cent, has slightly better urban access than Bangladesh. The Democratic People's Republic of Korea provides 58 per cent of its urban population with access to improved sanitation, while India and Kiribati have a comparable level of urban coverage, at 59 per cent.

Figure 10.8 The 10 Asian and Pacific countries/areas with the lowest access to improved sanitation facilities in urban areas, 1990 and 2004



Rural population with access to improved water sources (percentage): The proportion of the population in rural areas having access to improved drinking water sources (including household water connection, public standpipe, borehole, protected dug well, protected spring, rainwater collection and bottled water — if an available secondary source is also improved). Expressed as a percentage of the total rural population. *Aggregates:* Averages are calculated using the rural population as weight. *Source:* United Nations Millennium Development Goals Indicators (online database, accessed in September 2007).

Urban population with access to improved water sources (percentage): The proportion of population in urban areas having access to 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). Expressed as a percentage of total urban population. *Aggregates:* Averages are calculated using the urban population as weight. *Source:* United Nations Millennium Development Goals Indicators (online database, accessed in September 2007).

Total population with access to improved water sources (percentage): The proportion of the total population having access to improved drinking water sources, which include household water connection, public stand pipe, borehole, protected dug well, protected spring, rainwater collection and bottled water. Expressed as a percentage of the total population. *Aggregates:* Averages are calculated using the total population as weight. *Source:* Calculated by ESCAP using

data from United Nations Millennium Development Goals Indicators (online database, accessed in September 2007).

Rural population with access to improved sanitation (percentage): The proportion of population in rural areas using improved sanitation facilities, which include flush to piped sewer system, flush to septic tank, flush and pour flush to pit, and flush and pour flush to elsewhere. Expressed as a percentage of the total rural population. *Aggregates:* Averages are calculated using the rural population as weight. *Source:* United Nations Millennium Development Goals Indicators (online database, accessed in September 2007).

Urban population with access to improved sanitation (percentage): The proportion of population in urban areas using improved sanitation facilities, which include flush to piped sewer system, flush to septic tank, flush and pour flush to pit, and flush and pour flush to elsewhere. Expressed as a percentage of the total urban population. *Aggregates:* Averages are calculated using the urban population as weight. *Source:* United Nations Millennium Development Goals Indicators (online database, accessed in September 2007).

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10.1 Access to water and sanitation

	Population with access to improved water sources						Population with access to improved sanitation					
	Rural		Urban Percentage		Total		Rural		Urban Percentage		Total	
	1990	2004	1990	2004	1990	2004	1990	2004	1990	2004	1990	2004
East and North-East Asia												
China	59	67	99	93	70	77	7	28	64	69	23	44
DPR Korea	100	100	100	100	100	100		60		58		59
Hong Kong, China												
Macao, China												
Mongolia	30	30	87	87	63	62		37		75		59
Republic of Korea		71	97	97	72	92						
South-East Asia												
Brunei Darussalam												
Cambodia		35		64		41		8		53		17
Indonesia	63	69	92	87	72	77	37	40	65	73	46	55
Lao PDR		43		79		50		20		67		30
Malaysia	96	96	100	100	98	99		93	95	95	47	94
Myanmar	47	77	86	80	57	78	16	72	48	88	24	77
Philippines	80	82	95	87	87	85	48	59	66	80	57	72
Singapore			100	100	100	100			100	100	100	100
Thailand	94	100	98	98	95	99	74	99	95	98	80	99
Timor-Leste		56		77		61		33		66		42
Viet Nam	59	80	90	99	65	85	30	50	58	92	36	61
South and South-West Asia												
Afghanistan	3	31	10	63	4	38	2	29	7	49	3	34
Bangladesh	69	72	83	82	72	74	12	35	55	51	21	39
Bhutan		60		86		63		70		65		69
India	64	83	89	95	70	86	3	22	45	59	14	33
Iran (Islamic Rep. of)	84	84	99	99	92	94	78		86		83	
Maldives	95	76	100	98	96	82		42	100	100	26	59
Nepal	67	89	95	96	69	90	7	30	48	62	11	35
Pakistan	78	89	95	96	83	91	17	41	82	92	37	59
Sri Lanka	62	74	91	98	67	78	64	89	89	98	68	90
Turkey	74	93	92	98	85	96	70	72	96	96	85	88
North and Central Asia												
Armenia		80	99	99	67	92		61	96	96	65	83
Azerbaijan	51	59	82	95	68	78		36		73		55
Georgia	67	67	91	96	80	82	94	91	99	96	97	94
Kazakhstan	73	73	97	97	87	87	52	52	87	87	72	72
Kyrgyzstan	66	66	98	98	78	77	51	51	75	75	60	60
Russian Federation	86	88	97	100	94	97	70	70	93	93	87	87
Tajikistan		48		92		59		45		70		51
Turkmenistan		54		93		72		50		77		62
Uzbekistan	91	75	99	95	94	82	39	61	69	78	51	67
Pacific												
American Samoa												
Cook Islands	87	88	99	98			91	100	100	100		
Fiji		51		43		47	55	55	87	87	68	71
French Polynesia	100	100	100	100	100	100	97	99	99	97	98	98
Guam	100	100	100	100	100	100	98	99	99	98	99	98
Kiribati	33	53	76	77			21	22	33	59		
Marshall Islands	97	96	95	82			51	58	88	93		
Micronesia (F.S.)	86	94	93	95	88	94	20	14	54	61	29	24
Nauru												
New Caledonia												
Niue	100	100	100	100			100	100	100	100		
Northern Mariana Is.	100	97	98	98			78	94	85	96		
Palau	98	94	73	79			54	52	76	96		
Papua New Guinea	32	32	88	88	39	39	41	41	67	67	44	44
Samoa	89	87	99	90	91	88	98	100	100	100	98	100
Solomon Islands		65		94		70		18	98	98	13	31
Tonga	100	100	100	100	100	100	96	96	98	98	96	96
Tuvalu	89	92	92	94			74	84	83	93		
Vanuatu	53	52	93	86	60	60		42		78		50
ESCAP Developed Economies												
Australia	100	100	100	100	100	100	100	100	100	100	100	100
Japan	100	100	100	100	100	100	100	100	100	100	100	100
New Zealand	82		100	100	97	86	88					
ESCAP	65	76	95	94	75	83	16	34	70	74	34	49
LLDC	59	63	89	91	69	72	23	40	71	74	39	51
LDC	60	68	80	80	64	71	12	38	50	60	19	44
SIDS		42	98	94	68	66		42	95	93	67	65
ASEAN	68	77	93	89	76	82	40	55	70	81	48	66
SAARC	65	81	89	94	71	85	6	27	50	63	17	37
Central Asia	77	68	95	96	84	80	50	55	83	81	65	67
Low-income	65	80	89	93	71	84	8	29	51	65	19	39
Middle-income	63	71	97	94	75	81	20	37	74	76	39	53
High-income	100	95	99	99	94	98	100	100	100	100	98	97
Africa	43	48	86	84	56	61	27	32	62	62	38	44
Latin America & Carib.	60	73	93	96	82	91	36	49	81	86	67	77
North America	100	100	100	100	100	100	100	100	100	100	100	100
Europe		91	100	100	89	80						
Other Asia-Pacific	66		96	96	84	82			97	96	73	65
World		73		95		83		39		80		59