

Sanitation Coverage: Progress and Prospects

AT FIRST GLANCE, the picture of progress for improved sanitation coverage in Asia and the Pacific might appear to have changed little—stuck at irredeemably low levels that require difficult amounts of financing to launch momentous change by 2015. For many, this impression would seem logical and the result of a historical oversight to improve sanitation coverage despite linking them to water supplies programs and projects. The focus of policy and investments has tended to be on improving water supplies while sanitation coverage has fallen far behind. As of 2002, one third of Asia and the Pacific lacked access to clean water, but one half of the region had no access to the most basic sanitation facilities. A huge proportion of the population is living in conditions that pose high risks to their personal and environmental health.

Taking a closer look, though, substantial changes have been made in securing sanitation coverage between 1990 and 2002. Coverage levels remain low in 2002, yet in many cases, they are respectable improvements upon the 1990 figures (Table 4). In fact, many countries are expanding access to improved sanitation at rates that far exceed their efforts in water supply coverage. Compounded annual increases in access have been as impressive as 27%. Assuming that trends continue and that no major barriers to progress take place in the coming years up to 2015, majority of the countries with complete baseline data will likely meet their respective levels to achieve the Target 10 indicator for improved sanitation in at least their urban or rural areas.

Twelve countries show promise of achieving their sanitation indicator level in both urban and rural areas—Fiji, French Polynesia, Guam, India, Malaysia, Myanmar, Northern Mariana Islands, Pakistan, Sri Lanka, Thailand, Tonga, and Tuvalu. On the other hand, 10 countries are at serious risk of missing their sanitation

indicator levels in both urban and rural areas—Indonesia, Iran, Kazakhstan, Marshall Islands, Micronesia, Nepal, Papua New Guinea, Russian Federation, Turkey, and Uzbekistan.

Meeting the sanitation indicator is only a milestone en route to truly respectable and widespread humanitarian change. MDG target levels by no means represent acceptable levels of coverage. They do, however, represent achievable levels if countries commit the resources and power to accomplish them. As of 2002, less than half of the region's population had access to improved sanitation facilities—nearly 2 billion of the 2.6 billion people unserved worldwide. This total sanitation figure masks dramatic regional disparities between rural and urban populations. In 2002, urban sanitation coverage had reached 76%, while in rural areas the figure was a pitiful 32%. The rates of increase range from 0.1% to 27% (Annex C). It is worth noting that the disproportionate attention urban areas receive for improved sanitation is not without some justification. Urban dwellers face greater health

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Table 4. SANITATION COVERAGE ESTIMATES FOR SUBREGIONS IN ASIA AND THE PACIFIC, 1990 and 2002 (in million)

Subregion	1990								
	Population ^a			Served Population ^b			Unserved Population		
	Total	Urban	Rural	Total	Urban	Rural	Total	Urban	Rural
East and Northeast Asia	1,351	446	905	432	318	106	919	128	799
North and Central Asia	215	140	75	176	128	48	39	12	27
Pacific	27	19	8	24	19	4	3	-	4
South and Southwest Asia	1,232	345	887	283	201	76	949	144	811
Southeast Asia	440	141	299	211	97	117	229	44	182
Totals	3,265	1,091	2,174	1,126	763	351	2,139	328	1,823
Subregion	2002								
	Population ^a			Served Population ^b			Unserved Population		
	Total	Urban	Rural	Total	Urban	Rural	Total	Urban	Rural
East and Northeast Asia	1,502	631	871	751	468	273	751	163	588
North and Central Asia	216	135	81	172	123	50	44	12	32
Pacific	32	23	9	28	23	4	4	-	4
South and Southwest Asia	1,551	481	1,070	605	334	266	946	147	799
Southeast Asia	536	220	316	327	181	163	209	39	170
Totals	3,837	1,490	2,347	1,883	1,129	756	1,954	361	1,593
Increase from 1990 to 2002	572	399	173	757	366	405	(185)	33	(230)

a Breakdown of population was based on data provided by the WHO/UNICEF JMP for Water Supply and Sanitation

b Refer to Annex B for regional percentages of access to water supply; access rates were computed from figures given in the WHO/UNICEF JMP for Water Supply and Sanitation
 Note: Totals may not tally due to rounding.

risks from the combination of widespread pollution from human waste and the extreme densities of many low-income areas in major cities.

The analysis in this chapter follows the same methods used for measuring progress and prospects for the water supply indicator (Endnote 18). In this case, improved sanitation involves better access and safer disposal of excreta through facilities such as septic tanks, simple pit latrines or ventilated improved pit latrines (Box 2).

East and Northeast Asia

With baseline data: CHINA, PEOPLE'S REP. OF
 Without baseline data: CHINA, HONG KONG (SAR) • CHINA, MACAO (SAR) • JAPAN • KOREA, DEM. PEOPLE'S REP. OF • KOREA, REP. OF • MONGOLIA

The PRC is the only country in this subregion (without 100% coverage) to have 1990 baseline data. Mongolia only had baseline data for its water supply coverage, but only sanitation coverage in 2002.

By 2002, the PRC increased its total sanitation access by 67%—the result of a 6% compounded annual rate of expansion. In its urban areas, total coverage grew by 8% (from 23% to 44%) over the 12-year period. The PRC increased rural sanitation coverage by a remarkable 150% from the lowly level of just 7% in 1990 to 29% in

2002. The percentages of increase represent incredible amounts of people. Overall, about 300 million people in the PRC gained access to improved sanitation facilities during this period. Although a markedly lower percentage than rural gains, the 8% growth in urban sanitation coverage is remarkable given the rapid rate of urbanization in the PRC. The 13% annual increase in rural sanitation translates into nearly 174 million rural Chinese gaining access, yet sanitation coverage in rural areas still only reached 29% in 2002. Despite the progress, over 725 million people in the PRC alone remain without access to improved sanitation facilities—over a quarter of all the people without adequate sanitation globally.

North and Central Asia

With baseline data: KAZAKHSTAN • RUSSIAN FEDERATION • UZBEKISTAN
 Without baseline data: ARMENIA • AZERBAIJAN • GEORGIA • KYRGYZ REPUBLIC • TAJIKISTAN • TURKMENISTAN

As with drinking water supplies, North and Central Asia has a long history of providing access to improved sanitation facilities. Unfortunately, this legacy appears to have not continued during the period between 1990 and 2002, with the subre-

gion declining in access to total, urban, and rural improved sanitation facilities.

All countries in the subregion provided information on total, urban, and rural sanitation coverage for 2002. In contrast, there are only three countries with complete baseline data—Kazakhstan, Russia, and Uzbekistan. Armenia and Georgia had baseline data but only for urban sanitation. Not one country with baseline data is projected to meet the sanitation target. In fact, since 1990, no rate of change registers for any of the baseline countries.

The Pacific

With baseline data: COOK ISLANDS • FIJI ISLANDS • FRENCH POLYNESIA • GUAM • KIRIBATI • MARSHALL ISLANDS • MICRONESIA, FED. STATES OF • NORTHERN MARIANA ISLANDS • PALAU • PAPUA NEW GUINEA • SAMOA • TONGA • TUVALU

Without baseline data: AMERICAN SAMOA • AUSTRALIA • NAURU • NEW CALEDONIA • NEW ZEALAND • NIUE • SOLOMON ISLANDS • TOKELAU • VANUATU

Despite some regression, the majority of countries in the subregion are increasing coverage levels in both urban and rural areas, with many on track to meet the Target 10 sanitation indicator in at least their urban or rural areas.

One of the more worrisome states in the entire Asia and Pacific region, if not globally, is Papua New Guinea, where total sanitation coverage remains at only 45%, with only 41% of the rural population having access to improved sanitation facilities. By 2015, roughly half of Papua New Guinea will still be without improved sanitation, according to data trends.

Northern Mariana and Tuvalu will meet the indicator for total coverage if they continue at their past rates of expansion; Kiribati, Solomon Islands, and Palau have been expanding at a feasible rate in urban areas to meet the indicator there, but a greater rate of increase is needed to meet the sanitation indicator in rural areas.

Kiribati is a prime example of the Pacific experience with increasing access to improved sanitation—low coverage levels to build on, uneven progress between urban and rural areas, incredible gains and rates of expansion, yet not at a rate to completely achieve the Target 10 sanitation

indicator by 2015. Kiribati had some of the lowest baseline figures in 1990 in its subregion, as well as the whole of Asia. Total sanitation coverage was just 25% in 1990, with urban coverage at 33% and rural coverage at 21%. Kiribati made far greater progress in its urban areas than rural areas. Urban coverage rose almost 60% at a compounded rate of 5% annually, while rural coverage rose just 5% at 0.4% annually.

South and Southwest Asia

With baseline data: BANGLADESH • INDIA • IRAN, ISLAMIC REPUBLIC OF • NEPAL • PAKISTAN • SRI LANKA • TURKEY
Without baseline data: AFGHANISTAN • BHUTAN • MALDIVES

South and Southwest Asia has the lowest coverage levels for improved sanitation than any other subregion within Asia and Pacific region. Its sanitation coverage level is the same as Sub-Saharan Africa.

Of the countries with baseline data in South and Southwest Asia, five will achieve the Target 10 sanitation indicator in at least urban or rural areas if they continue at their current rate of growth. India, Pakistan, and Sri Lanka will likely achieve the improved sanitation indicator in both urban and rural areas if they continue expanding access at their 1990-2002 rates.

In Pakistan, total coverage has risen from its 1990 level of 38% to 54% in 2002. In urban areas, it is projected to achieve 100% access to improved sanitation. Sri Lanka is the only country in the subregion on course toward 100% total improved sanitation coverage by 2015. Bangladesh will likely achieve the sanitation indicator only in rural areas, yet this is a remarkable feat given that its 6% average annual increase—if continued—will more than double its coverage level by 2015. This means access will be provided to more than 110 million people by the end of the MDG period.

Despite their high coverage rates, Iran and Turkey are not projected to halve the remaining proportion of their people without improved sanitation. Nepal, with lower coverage rates than others in its

Despite some regression, the majority of countries in the (Pacific) subregion are increasing coverage levels in both urban and rural areas....

subregion, will also not improve at rates needed to meet Target 10. Iran figures show no progress in coverage levels and Turkey has been regressing in all coverage levels, which will leave approximately 15 million people without improved sanitation in 2015. Although projections are reserved for countries with baseline data, Afghanistan's total sanitation coverage of only 8% deserves attention. In rural areas of Afghanistan, only 5% of the population had access to improved sanitation in 2002. Few places in the world face such scarce and alarming coverage levels.

Southeast Asia

With baseline data: INDONESIA • PHILIPPINES • THAILAND
• VIET NAM

Without baseline data: BRUNEI DARUSSALAM • CAMBODIA
• LAO PEOPLE'S DEM. REPUBLIC • MALAYSIA • MYANMAR
• SINGAPORE • TIMOR-LESTE

Southeast Asia has significantly expanded access to improved sanitation facilities in both rural and urban areas since 1990. Most baseline countries in this subregion will meet the sanitation indicator of Target 10 in at least urban or rural areas, if they continue to meet their past annual rates of increase. Thailand is progressing at a rate that could provide 100% improved sanitation coverage by 2015, as long as it maintains the expansion rates achieved during the 12-year reporting period. If the Philippines and Viet Nam continue at their 1990-2002 expansion rates, they could provide 100% access to improved sanitation in urban areas.

Making the highest coverage increases of any Southeast Asian country, Viet Nam is quickly overcoming a total coverage level of just 22% in 1990 by posting over 5% average annual rates of increase. In rural areas, however, only 48% is expected

to have access to improved sanitation facilities, despite the country's likely increasing rural coverage at a rate of more than 4% annually. Unlike its poor status for water supply access, the Philippines has made considerable improvements and is on track to meet the Target 10 sanitation indicator in both urban and rural areas, so long as it maintains its past average rates of annual increase.

Indonesia is the only country with baseline data not likely to achieve the Target 10 sanitation indicator in either rural or urban areas. There was some increase in urban coverage levels, but there was no change for rural coverage levels. If Indonesia continues at the rate it has been going since 1990, it will have one of the lowest rural coverage rates in all of Asia and the Pacific, with just 42% of its rural population having access to improved sanitation. Urban coverage rates are headed toward the same conclusion, with only 76% of Indonesia's urban dwellers having access to improved sanitation in 2015, which is also one of the lowest projected sanitation coverage levels in all of Asia and the Pacific.

Projections are not possible for Cambodia, Lao PDR, or Timor-Leste because they lack sufficient data. These low-income countries did have data in 2002, which are the lowest coverage levels in all of Asia and the Pacific. Cambodia had a 16% total coverage level, with urban coverage much higher than rural coverage—53% and 8% respectively. Lao PDR had 24% total improved sanitation coverage, with 61% of its urban populations covered and 14% of its rural populations covered. Timor-Leste had total, urban, and rural coverage rates at 33%, 65% and 30% respectively.

Table 5-A: COVERAGE AND PROJECTIONS for 2015 – URBAN SANITATION (in thousand)

Subregion/Country	Urban Population		Served Urban Population				Projections for 2015			Target 10 Achievement Prospects
	1990	2002	1990 Served Pop.	Coverage (%)	2002 Served Pop.	Coverage (%)	Total Urban Pop.	Served Urban Pop.	Coverage (%)	
East and Northeast Asia										
China, People's Republic of	311,932	492,049	199,637	64	339,514	69	694,139	513,662	74	○
Japan ^a	77,916	100,295	77,916	100	100,295	100	86,114	86,114	100	◆
North and Central Asia										
Armenia ^a	2,375	1,997	2,280	96	1,917	96	1,926	1,588	82	○
Georgia	3,003	2,692	2,883	96	2,584	96	2,425	2,296	95	◆
Kazakhstan	9,581	8,663	8,336	87	7,536	87	8,905	6,757	76	○
Russian Federation	108,253	105,180	100,675	93	97,817	93	99,116	92,178	93	○
Uzbekistan	8,206	9,511	5,990	73	6,943	73	11,359	8,146	72	○
Pacific										
Australia ^a	14,357	17,929	14,357	100	17,929	100	20,593	20,593	100	◆
Cook Islands	10	12	10	100	12	100	14	14	100	◆
Fiji	304	424	301	99	420	99	541	541	100	◆
French Polynesia	109	125	108	99	124	99	155	144	93	◆
Guam	122	158	121	99	156	99	185	185	100	◆
Kiribati	25	40	8	33	24	59	62	58	94	◆
Marshall Islands	29	34	25	88	32	93	70	41	59	○
Micronesia, Fed. States of	25	31	13	53	19	61	35	25	70	○
New Zealand ^a	2,890	3,376	2,890	100	3,376	100	3,654	3,654	100	◆
Niue	0.6	0.7	0.6	100	0.7	100	1	0.8	80	○
Northern Mariana Is.	39	71	33	85	67	94	94	94	100	◆
Palau	11	14	8	72	13	96	14	14	100	◆
Papua New Guinea	535	726	358	67	487	67	1,044	678	65	○
Samoa	34	39	34	100	39	100	49	45	91	○
Solomon Islands	45	74	44	98	73	98	125	125	100	◆
Tonga	31	34	30	98	33	98	38	37	97	◆
Tuvalu	4	5	3	83	5	92	7	7	100	◆
South and Southwest Asia										
Bangladesh	21,880	34,514	15,535	71	25,886	75	53,694	45,007	84	○
India	220,069	293,874	94,630	43	170,447	58	401,341	322,439	80	◆
Iran, Islamic Rep. of	31,754	44,926	27,308	86	38,637	86	60,155	51,733	86	○
Maldives	56	87	56	100	87	100	141	138	98	◆
Nepal	1,676	3,691	1,039	62	2,510	68	6,560	4,920	75	○
Pakistan	34,379	50,970	27,847	81	46,892	92	80,778	80,778	100	◆
Sri Lanka	3,534	3,971	3,146	89	3,892	98	4,635	4,635	100	◆
Turkey	33,980	46,410	32,621	96	43,625	94	59,030	54,308	92	○
Southeast Asia										
Indonesia	56,456	95,538	37,261	66	67,832	71	144,731	109,996	76	○
Malaysia ^b	8,923	15,098	8,387	94	14,796	98	21,016	21,016	100	◆
Myanmar	10,127	14,167	3,949	39	13,600	96	20,981	20,981	100	◆
Philippines	29,941	47,148	18,863	63	38,190	81	66,640	66,640	100	◆
Thailand	15,773	19,902	14,984	95	19,305	97	25,543	25,402	99	◆
Viet Nam	13,215	20,070	6,079	46	16,858	84	30,683	30,683	100	◆

Legend: ◆ = on track ○ = off track

a Does not have complete baseline data

b In the case of Malaysia, JMP data has no coverage rate for 2002. The 98% rural coverage rate for that year was used for urban areas also and a 100% rate was used for 2015.

Note: "On track" means that the country has either a) reached the target, b) exceeded the target, or c) is within 3–5% of the target.

Table 5-B: COVERAGE AND PROJECTIONS for 2015 – RURAL SANITATION (in thousand)

Subregion/Country	Rural Population		Served Rural Population				Projections for 2015			Target 10 Achievement Prospects
	1990	2002	1990 Served Pop.	1990 Coverage (%)	2002 Served Pop.	2002 Coverage (%)	Rural Pop.	Served Rural Pop.	Coverage (%)	
East and Northeast Asia										
China, People's Republic of	843,373	802,818	59,036	7	232,817	29	708,162	361,162	51	◆
Japan ^a	45,621	27,145	45,621	100	27,145	100	41,086	41,086	100	◆
North and Central Asia										
Kazakhstan	7,228	6,806	3,758	52	3,539	52	6,395	3,316	52	○
Russian Federation	40,039	38,902	28,027	70	27,231	70	34,284	26,395	77	○
Uzbekistan	12,309	16,194	5,908	48	7,773	48	19,341	10,463	54	○
Pacific										
Cook Islands	8	6	7	88	6	100	3	3	100	◆
Fiji	420	407	412	98	399	98	359	359	100	◆
French Polynesia	86	116	83	97	112	97	136	136	100	◆
Guam	12	11	12	98	11	98	9	9	100	◆
Kiribati	47	47	10	21	10	22	38	11	29	○
Marshall Islands	15	18	8	51	10	59	31	14	46	○
Micronesia, Fed. States of	71	77	15	21	11	14	65	8	12	○
Niue	1	1	1	100	1	100	1	1	100	◆
Northern Mariana Is.	5	5	4	78	4	96	4	4	100	◆
Palau	5	6	2	54	3	52	7	4	57	○
Papua New Guinea	3,579	4,860	1,467	41	1,993	41	6,156	2,775	45	○
Samoa	126	137	124	98	137	100	151	151	100	◆
Tonga	68	69	66	96	66	96	62	62	100	◆
Tuvalu	5	5	4	74	4	83	4	4	100	◆
South and Southwest Asia										
Afghanistan	11,315	17,656	566	5	883	5	24,673	1,430	6	○
Bangladesh	87,522	109,295	9,627	11	42,625	39	127,706	67,684	53	◆
India ^b	626,349	755,675	6,263	1	136,022	18	845,059	405,628	48	◆
Iran, Islamic Rep. of	24,949	23,144	19,460	78	18,052	78	21,245	16,641	78	○
Nepal	16,949	20,918	1,186	7	4,184	20	25,440	10,685	42	○
Pakistan	76,522	98,941	14,539	19	34,629	35	123,723	88,667	72	◆
Sri Lanka	13,296	14,939	8,509	64	13,296	89	15,965	15,965	100	◆
Turkey	23,613	23,908	15,821	67	14,823	62	23,070	13,813	60	○
Southeast Asia										
Indonesia	125,661	121,593	47,751	38	46,205	38	105,669	44,587	42	○
Malaysia	8,923	8,867	8,744	98	8,690	98	8,584	8,584	100	◆
Myanmar	30,380	34,685	4,557	15	21,851	63	34,819	34,819	100	◆
Philippines	31,163	31,432	14,335	46	19,174	61	29,660	23,432	79	◆
Thailand	38,616	42,291	28,576	74	42,291	100	44,057	44,057	100	◆
Viet Nam	52,859	60,209	8,457	16	15,654	26	64,017	30,500	48	○

Legend: ◆ = on track ○ = off track

a Does not have complete baseline data

b In the case of India, the 1990 coverage rate was 1% and the 2002 rate was 18%, together giving an astounding compound growth rate of coverage of 29% per annum. Instead of this, the rural water supply coverage growth rate of 4% per annum was used here. If the 29% were used the coverage would be over 100 percent several years before 2015.

Note: "On track" means that the country has either a) reached the target, b) exceeded the target, or c) is within 3–5% of the target.