

A Snapshot of Drinking Water and Sanitation in South-eastern Asia and the Pacific

A regional perspective based on the 2008 Report of the
WHO/UNICEF Joint Monitoring Programme for Water Supply and Sanitation



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Data used in this document are subject to revision.

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A Snapshot of Drinking Water and Sanitation in South-eastern Asia

Introduction

The WHO/UNICEF Joint Monitoring Programme for Water Supply and Sanitation (JMP) is the official United Nations mechanism tasked with monitoring progress towards MDG Target 7c on drinking water and sanitation. JMP publishes updated coverage estimates every two years on the various types of drinking-water sources and sanitation facilities being used worldwide.

Purpose of the Snapshot

This document has been prepared by JMP as a contribution to the World Vision – AusAid Sanitation and Water 2008 Conference, October 27-29, 2008 in Melbourne Australia. It contains a set of drinking water and sanitation coverage estimates for South-eastern Asia and the Pacific based on the most recent JMP estimates (2006).

This document provides an assessment of the population currently using an improved drinking-water source and basic sanitation disaggregated by urban and rural areas. It details regional and country progress towards the Millennium Development Goal (MDG) target for drinking-water supply and sanitation (target 7c) in South-eastern Asia. For half of the 22 countries in the Pacific region there are insufficient data to assess progress towards the MDG drinking water and sanitation targets. This report therefore includes only one page on the island states in the Pacific in addition to the individual country data provided in the back of the report.

The estimates presented in this document are drawn from data collected by national statistics offices and other relevant institutions through national censuses and nationally representative household surveys, including Demographic and Health Surveys (DHS), Multiple Indicator Cluster Surveys (MICS) and World Health Surveys among others.

Definitions of access to drinking water and sanitation

MDG Target 7c calls on countries to "Halve, by 2015, the proportion of people without sustainable access to safe drinking-water and basic sanitation."

The indicators used in this document to assess the proportion of people with sustainable access to safe drinking water and to basic sanitation are the official MDG indicators:

The proportion of population using an improved drinking-water source, urban and rural
The proportion of population using an improved sanitation facility, urban and rural.

An improved drinking-water source is defined as one that, by nature of its construction or through active intervention, is protected from outside contamination, in particular from contamination with fecal matter. To allow for international comparability of estimates, JMP uses the following classification to differentiate between "improved" and "unimproved" drinking-water sources.

Improved drinking water sources	Unimproved drinking water sources
Piped water into dwelling, plot or yard	Unprotected dug well
Public tap/standpipe	Unprotected spring
Tubewell/borehole	Small cart with tank/drum
Protected dug well	Tanker truck
Protected spring	Surface water (river, dam, lake, pond, stream, channel, irrigation channel)
Rainwater	Bottled water ¹

¹ Bottled water is considered to be improved only when the household uses water from another improved source for cooking and personal hygiene; where this information is not available, bottled water is classified on a case-by- case basis.

A Snapshot of Drinking Water and Sanitation in South-eastern Asia

An improved sanitation facility is defined as one that hygienically separates human excreta from human contact. To allow for international comparability of estimates, JMP uses the following classification to differentiate between "improved" and "unimproved" types of sanitation facility

Improved sanitation facilities ²	Unimproved sanitation facilities
Flush or pour-flush to: <ul style="list-style-type: none"> - piped sewer system - septic tank - pit latrine Ventilated improved pit latrine (VIP) Pit latrine with slab Composting toilet	Flush or pour-flush to elsewhere ³ Pit latrine without slab or open pit Bucket Hanging toilet or hanging latrine No facilities or bush or field (open defecation) Public or shared facilities

NB: Only users of "improved" drinking-water sources, and "improved" sanitation facilities are considered by JMP as "having access" as stated in the MDG Target.

Indicator definitions and population estimates used for MDG monitoring sometimes differ from those used by national governments. Hence the coverage estimates presented in this report may differ from those used nationally, even when based on common data sources.

The population estimates presented here and the urban/rural distribution of the population are those estimated by the United Nations Population Division (2006 revision).

The regional analyses presented here is according to the following geographical sub-division:

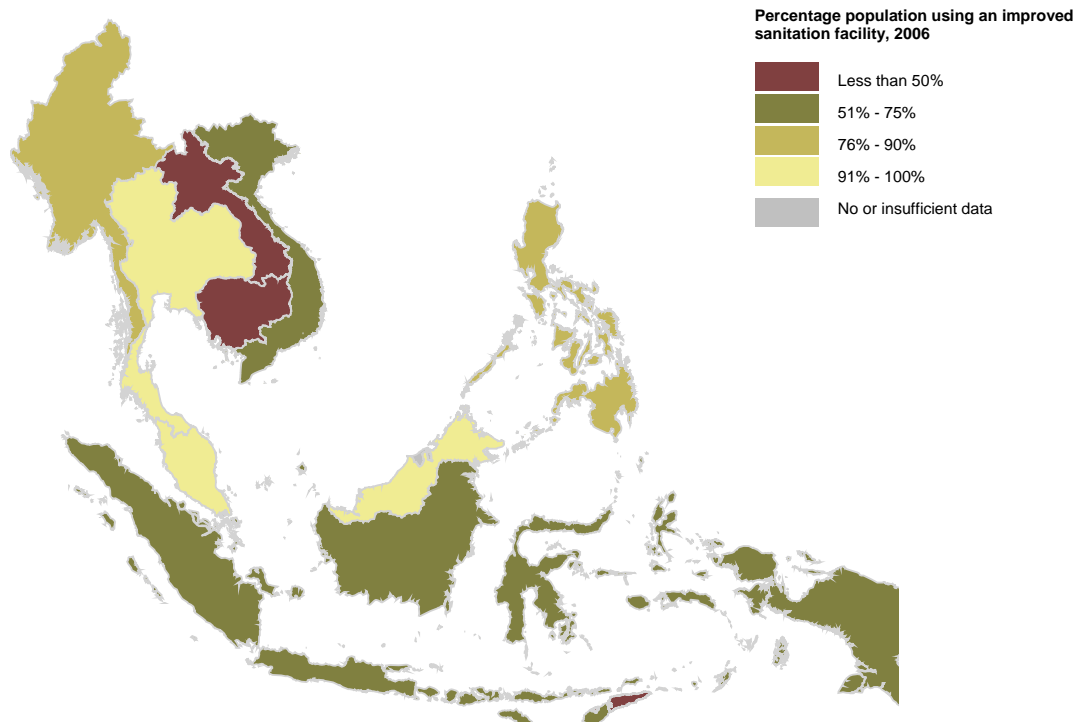
South-eastern Asia	Pacific (Oceania)
Brunei Darussalam Cambodia Indonesia Lao People's Democratic Republic Malaysia Myanmar Philippines Singapore Thailand Timor-Leste Viet Nam	Cook Islands Federated States of Micronesia Fiji French Polynesia Guam Kiribati Marshall Islands Nauru Niue Northern Mariana Islands Palau Papua New Guinea Samoa Solomon Islands Tokelau Tonga Tuvalu Vanuatu Wallis and Futuna Islands

² Only facilities which are not shared or public are considered improved.

³ Excreta are flushed to the street, yard or plot, open sewer, a ditch, a drainage way or other location.

Access to Sanitation – Basic facts and figures

Figure 1: Coverage with improved sanitation facilities, South-eastern Asia, 2006



- 378 million South-eastern Asians had access to improved sanitation facilities in 2006. Coverage increased from 50% in 1990 to 67% in 2006.
- The South-eastern Asian population without access to sanitation decreased by 32 million, from 219 million in 1990 to 187 million in 2006. Increases in coverage outpace population growth.
- The rate at which South-eastern Asians gained access to sanitation, 156 million people since 1990, is sufficient to meet the MDG sanitation target.
- In four of the eleven countries in South-eastern Asia sanitation coverage is less than 60%.

Basic Facts and Figures South-eastern Asia: in percentage

	Population (millions)			Population using improved sanitation			Population using shared sanitation			Population using unimproved* sanitation			Population practising open defecation		
	Urban	Rural	Total	Urban	Rural	Total	Urban	Rural	Total	Urban	Rural	Total	Urban	Rural	Total
1990	139	301	441	74%	40%	50%	8%	4%	5%	6%	21%	17%	12%	35%	28%
2000	206	314	520	77%	51%	61%	9%	5%	6%	3%	15%	11%	11%	29%	22%
2006	253	312	565	78%	58%	67%	8%	5%	7%	4%	13%	8%	10%	24%	18%
2015	326	302	628	-	-	75%**	-	-	-	-	-	-	-	-	-

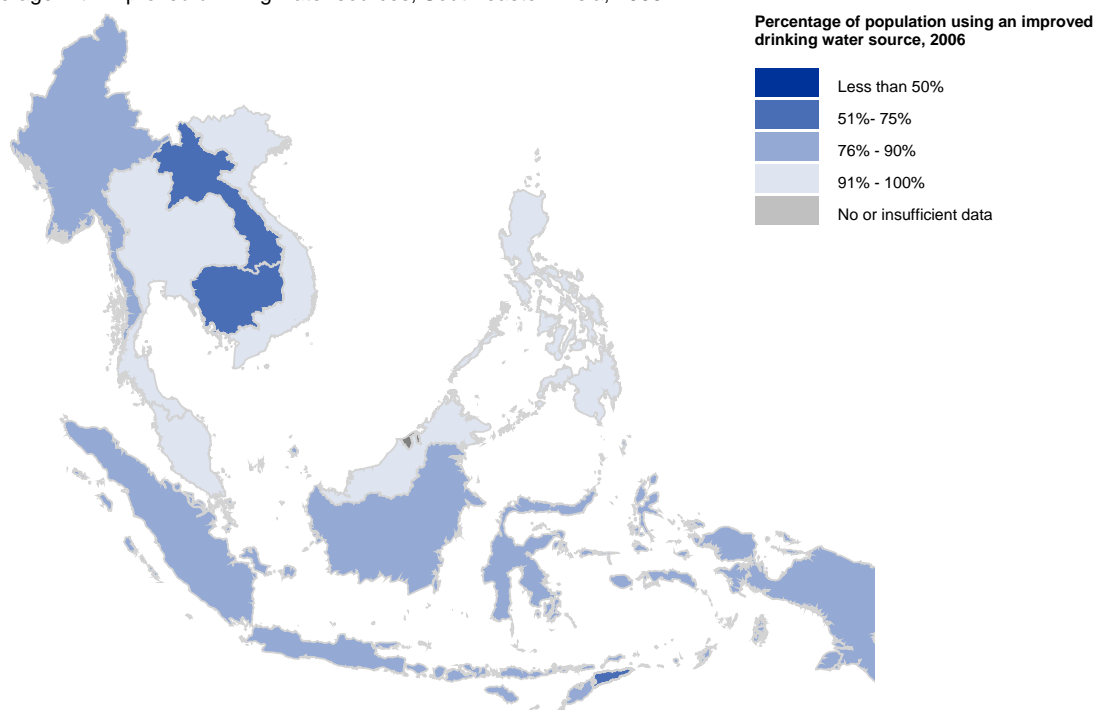
Basic Facts and Figures South-eastern Asia: by population

	Population (millions)			Population using improved sanitation (millions)			Population using shared sanitation (millions)			Population using unimproved* sanitation (millions)			Population practising open defecation (millions)		
	Urban	Rural	Total	Urban	Rural	Total	Urban	Rural	Total	Urban	Rural	Total	Urban	Rural	Total
1990	139	301	441	103	120	222	11	13	24	8	62	72	17	106	123
2000	206	314	520	158	160	318	18	15	33	7	48	55	23	91	114
2006	253	312	565	197	181	378	21	17	38	9	38	47	26	76	102
2015	326	302	628	-	-	471**	-	-	-	-	-	-	-	-	-

* excludes shared facilities and open defecation, ** MDG target

Access to Drinking Water – Basic facts and figures

Figure 2: Coverage with improved drinking water sources, South-eastern Asia, 2006



- 487 million people in South-eastern Asia had access to improved drinking water sources in 2006. Coverage increased from 73% in 1990 to 86% in 2006.
- The South-eastern Asian population without access to improved drinking water sources has decreased by 41 million, from 119 million in 1990 to 78 million in 2006. Increases in coverage outpaced population growth
- The rate at which South-eastern Asians gained access to improved drinking water sources, 165 million people since 1990, has led to the region being very close to reaching the MDG target in 2006, nine years ahead of 2015.
- In only three countries in South-eastern Asia is access to improved drinking water sources less than 75%

Basic Facts and Figures South-eastern Asia: in percentage

	Population (millions)			Drinking water coverage*			Piped connections on premises			Other improved drinking water sources			Unimproved drinking water sources		
	Urban	Rural	Total	Urban	Rural	Total	Urban	Rural	Total	Urban	Rural	Total	Urban	Rural	Total
1990	139	301	441	92%	64%	73%	41%	4%	16%	51%	60%	57%	8%	36%	27%
2000	206	314	520	92%	73%	81%	48%	11%	26%	44%	62%	55%	8%	27%	19%
2006	253	312	565	92%	81%	86%	53%	14%	32%	39%	67%	54%	8%	19%	14%
2015	326	302	628	-	-	87%**	-	-	-	-	-	-	-	-	-

Basic Facts and Figures South-eastern Asia: by population

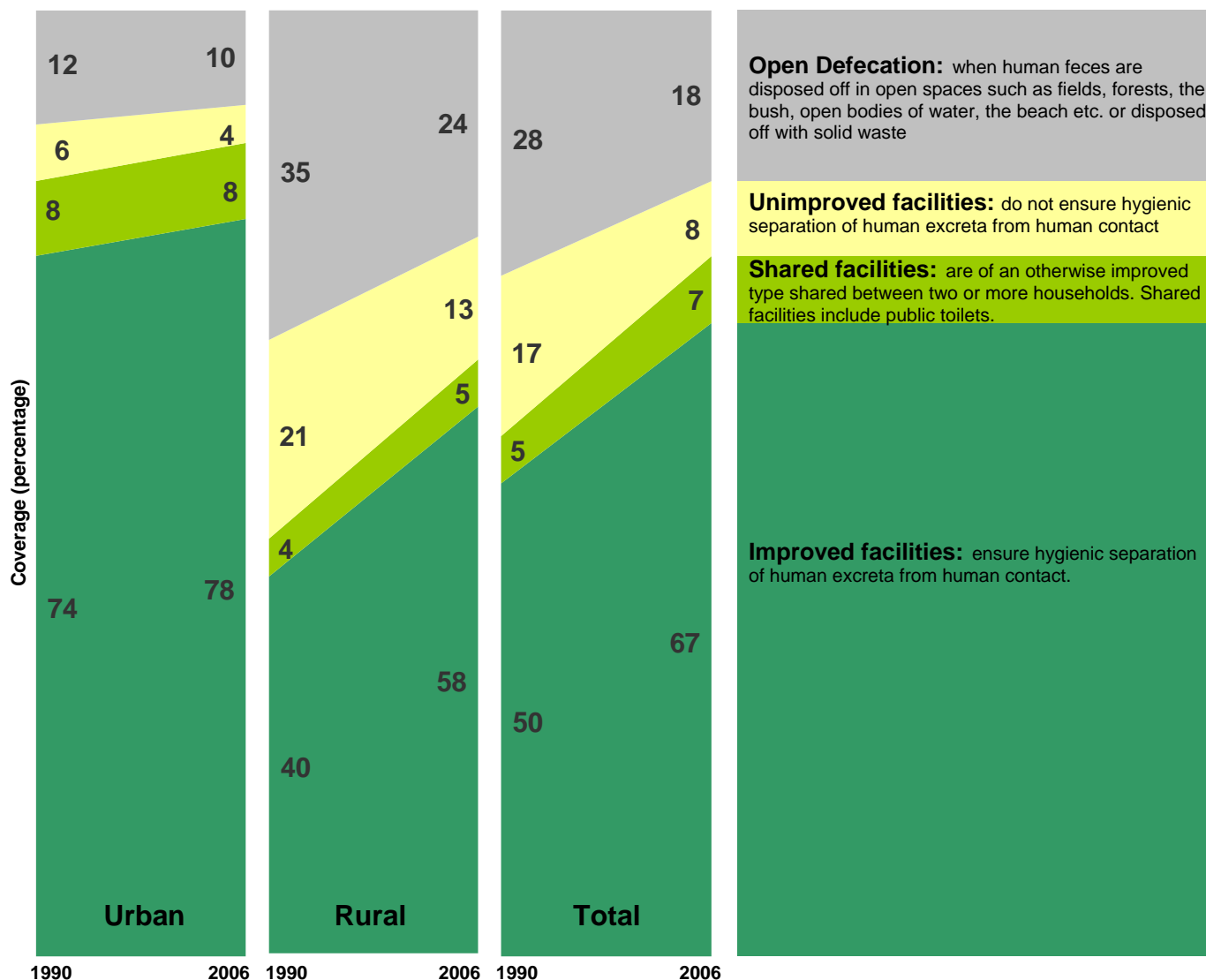
	Population (millions)			Population using improved drinking water sources (millions)			Population using piped water on premises (millions)			Population using other improved drinking water sources (millions)			Population using unimproved drinking water sources (millions)		
	Urban	Rural	Total	Urban	Rural	Total	Urban	Rural	Total	Urban	Rural	Total	Urban	Rural	Total
1990	139	301	441	129	193	322	58	12	69	71	181	253	10	108	119
2000	206	314	520	190	229	419	100	35	135	90	194	284	16	85	101
2006	253	312	565	234	253	487	134	45	178	100	208	309	19	59	78
2015	326	302	628	-	-	546**	-	-	-	-	-	-	-	-	-

* includes piped water on premises and other improved drinking water sources, ** MDG target

Access to Sanitation - the sanitation ladder

Two-thirds of the population in South-eastern Asia use an improved sanitation facility; but almost one in five practises open defecation

Figure 3: Trends in the proportion of population using either an improved, or shared, or unimproved sanitation facility, or practising open defecation, urban, rural & total, 1990 – 2006

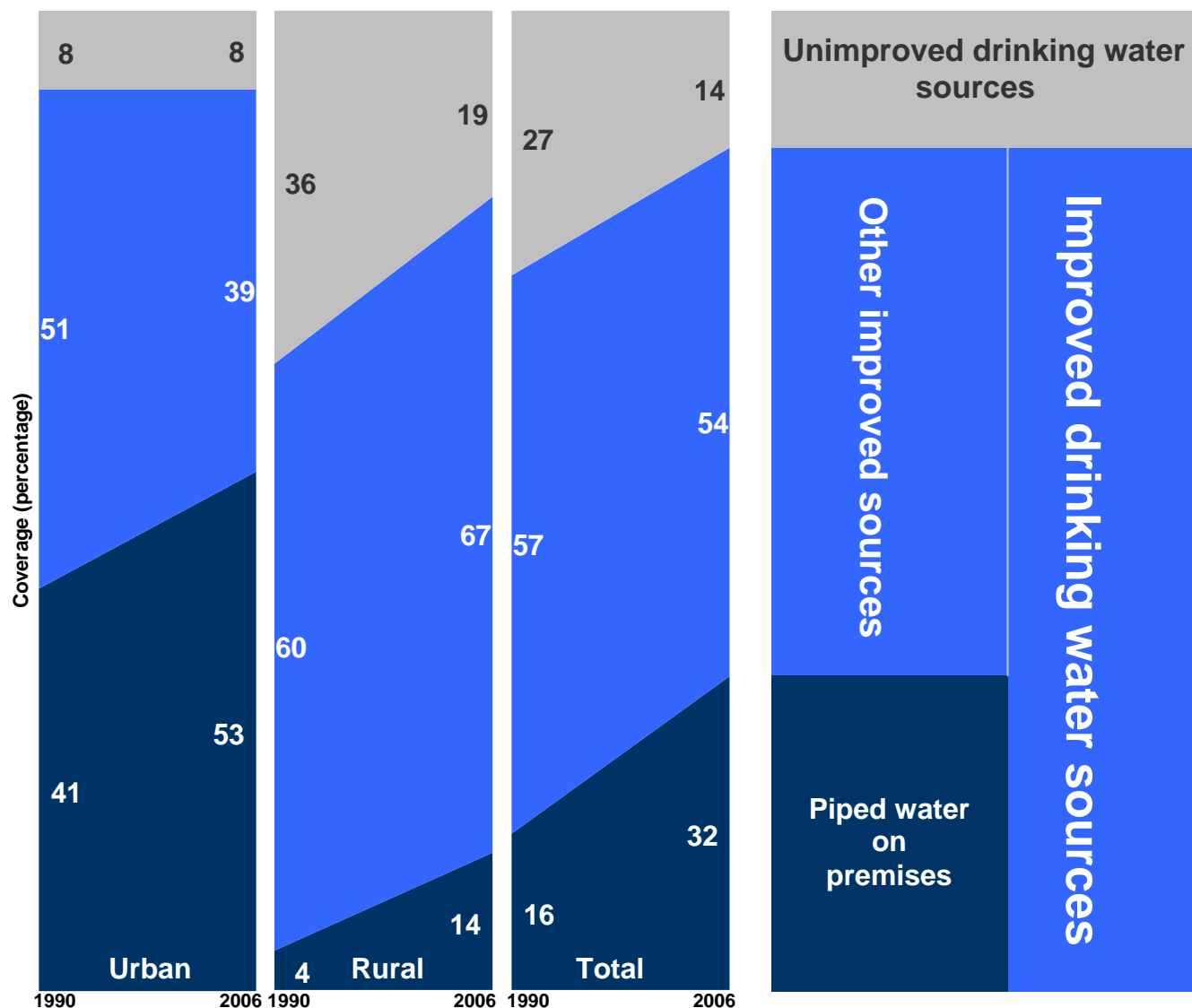


- Whereas only 50 percent of the population in South-eastern Asia used an improved sanitation facility in 1990, in 2006 two thirds of the population (67 per cent) used one.
- The practice of sharing a facility of an otherwise acceptable type is more prevalent in urban areas than in rural areas of South-eastern Asia
- The proportion of the population using an unimproved sanitation facility more than halved from 17% in 1990 to 8 per cent in 2006.
- The practice of open defecation in South-eastern Asia dropped from 28 per cent in 1990, to 18 percent in 2006

Access to Drinking Water - the drinking water ladder

86 per cent of the population in South-eastern Asia uses an improved source as their main source of drinking water

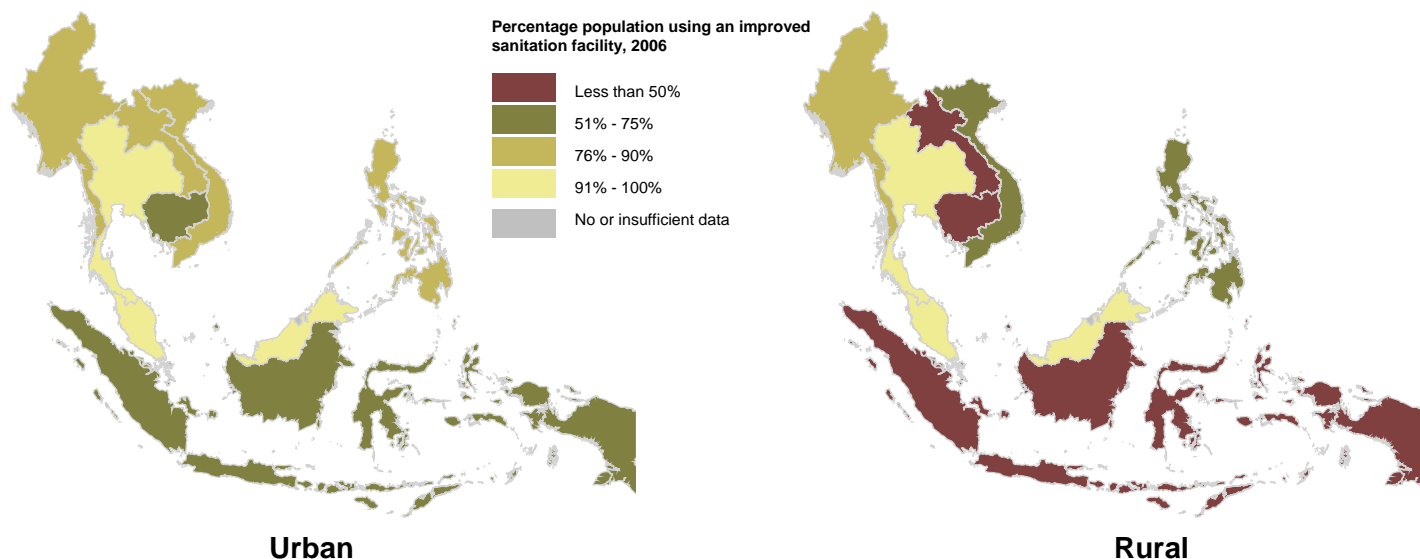
Figure 4: Trends in the proportion of population using either, a piped connection on premises, another improved drinking water source or unimproved drinking water source, urban, rural & total, 1990-2006



- The proportion of the population with a piped drinking water supply into their dwelling, plot or yard has doubled from 16 per cent in 1990 to 32 per cent in 2006.
- The proportion of the population using an unimproved source as their main source of drinking water has almost halved from 27 per cent in 1990 to 14 per cent in 2006.
- The proportion of the urban population that relies on an unimproved source remained steady at 8 percent since 1990.

Disparities in urban and rural sanitation coverage

Figure 5: Urban / Rural disparity in the use of sanitation facilities in South-eastern Asia, 2006



Urban sanitation coverage in South-eastern Asia is 78 per cent

- However, since 1990, the urban population without improved sanitation increased by 20 million people to 56 million
- 21 million people in urban areas share a sanitation facility of an otherwise acceptable type
- 26 million people in urban areas practise open defecation; that is 9 million more than in 1990.

Rural sanitation coverage increased from 40 to 58 per cent

- Since 1990, the rural population with improved sanitation increased by 61 million people.
- 38 million people in rural areas use sanitation facilities which do not meet minimum standards of hygiene
- 76 million people in rural areas do not use any sanitation facility and practise open defecation. That is 30 million less than in 1990.
- 7 out of 10 South-eastern Asians without sanitation facilities live in rural areas

Figure 6: Urban and rural populations who practise open defecation, South-eastern Asia, 1990 & 2006

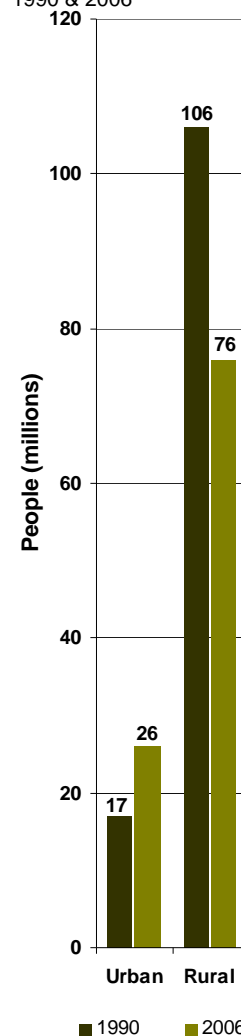
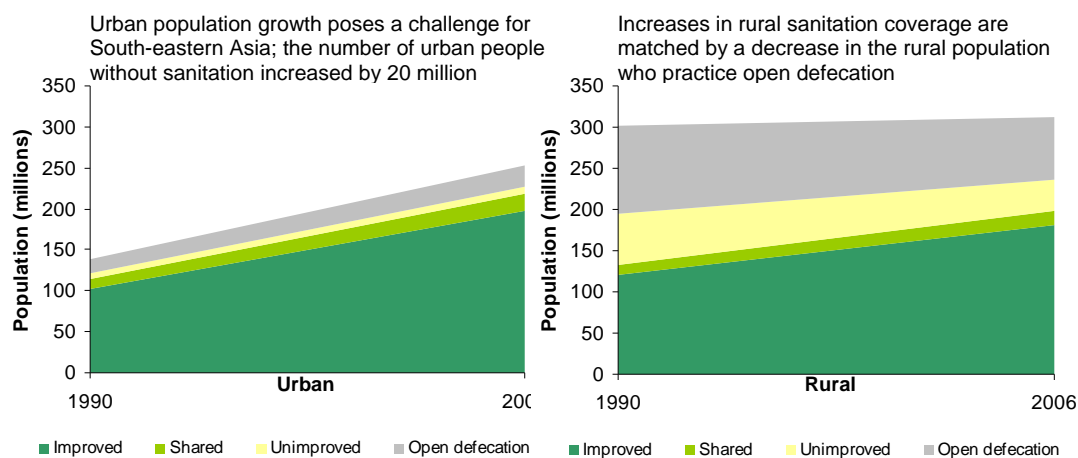
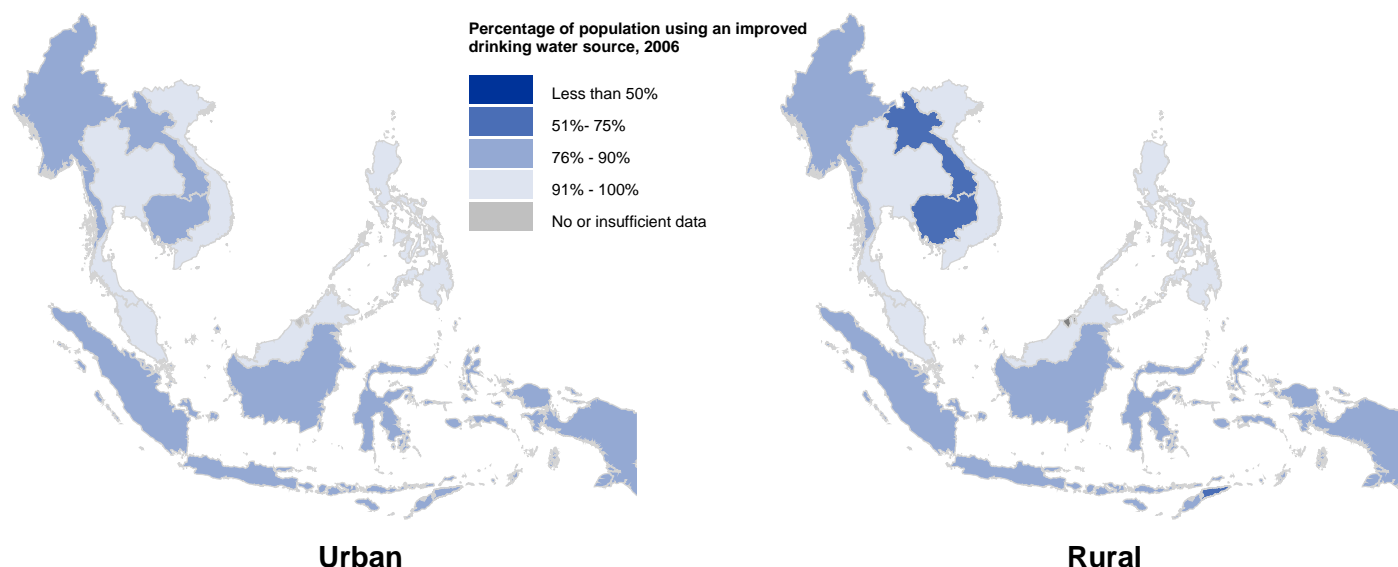


Figure 7: Distribution of urban and rural populations in South-eastern Asia using different sanitation options, 1990-2006



Disparities in urban and rural drinking water coverage

Figure 8: Urban / Rural disparity in the use of improved drinking water sources in South-eastern Asia, 2006



Urban drinking water coverage in South-eastern Asia is 92 per cent

- Since 1990, 105 million people in urban areas have gained access to an improved drinking water source.
- Of the 253 million people in urban areas, 134 million have a piped connection on premises, up by 76 million from 1990.
- Since 1990, the urban population without access to an improved drinking water source increased by 9 million people to 19 million people in 2006

Rural drinking water coverage increased from 64 to 81 per cent

- Since 1990, 60 million people in rural areas gained access to an improved drinking water source
- Of the 312 million people in rural areas, 45 million have a piped connection on premises while 208 million use other improved drinking water sources.
- Since 1990, the rural population without access to improved drinking water sources decreased by 49 million people to 59 million people in 2006
- Three out of four South-eastern Asians without access to an improved drinking

Figure 9: Urban and rural populations without an improved drinking water source, South-eastern Asia, 1990 & 2006

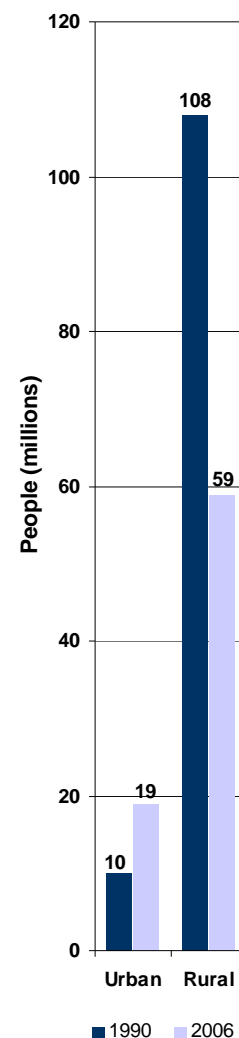
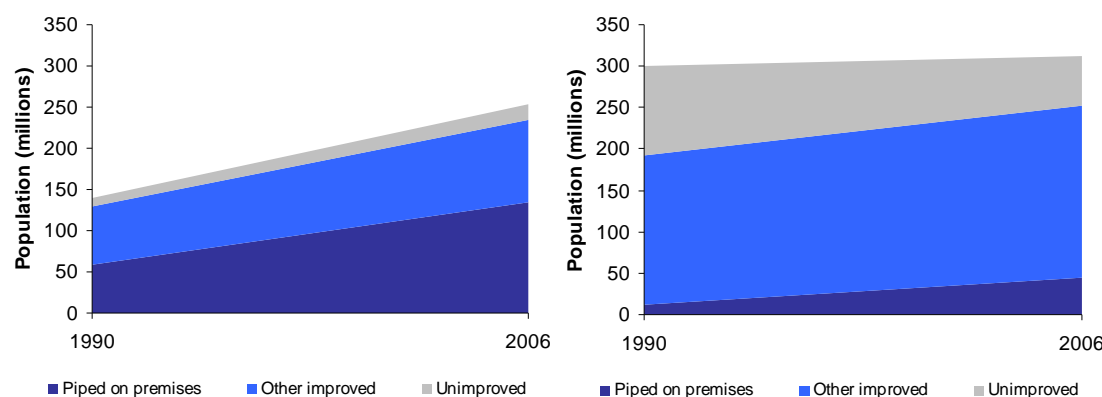
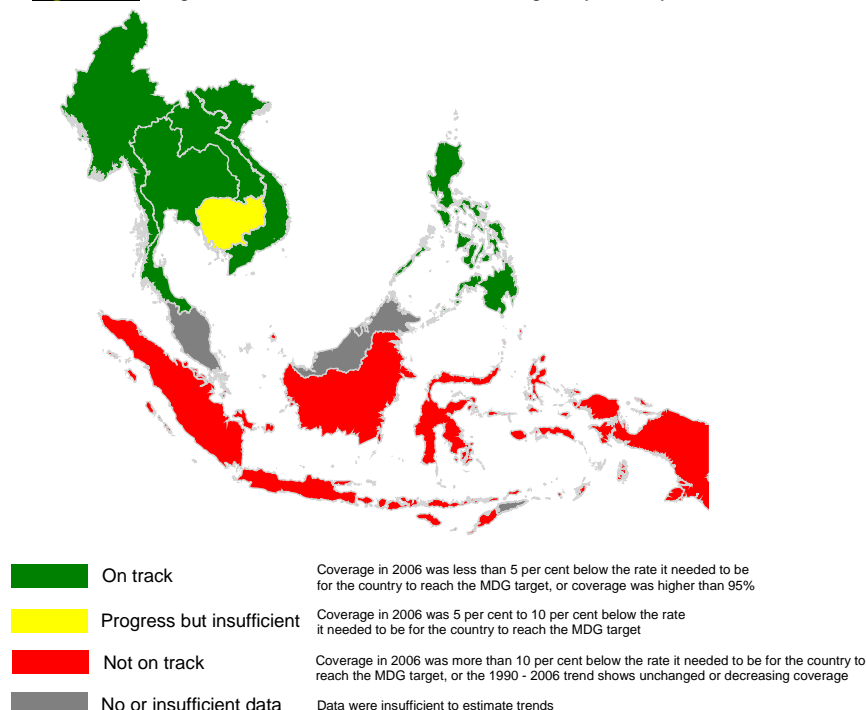


Figure 10: Distribution of urban & rural populations in South-eastern Asia using different drinking water sources, 1990-2006



South-eastern Asia is **on track** to meet the MDG sanitation target

Figure 11: Progress towards the MDG sanitation target, by country, 2006



Note: The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations.

To meet the MDG sanitation target, coverage needs to increase from 67 per cent in 2006 to 75 per cent in 2015

- Three countries in South-eastern Asia have already met the MDG sanitation target, two are on track for doing so, and two are not on track; for four countries there are insufficient data to assess progress towards the target.
- To meet the MDG sanitation target 10.3 million people need to gain access to an improved sanitation facility.
- When the MDG sanitation target is met, 157 million South-eastern Asians will still be without sanitation.

Figure 12: Average number of people that gained or need to gain access to improved sanitation 1990 – 2006 and 2006 - 2015

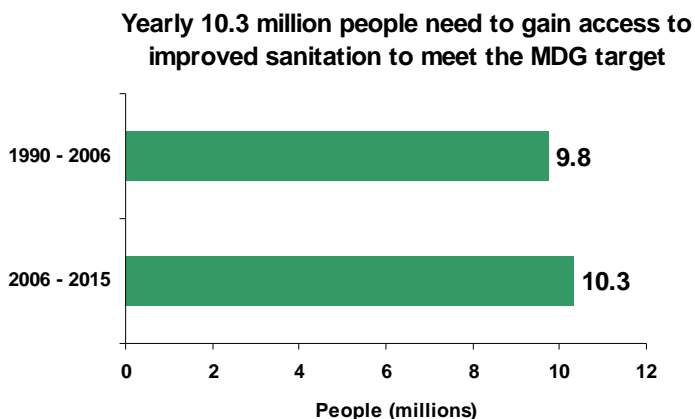
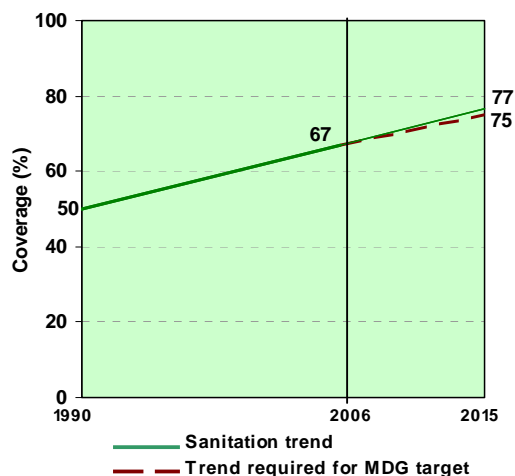
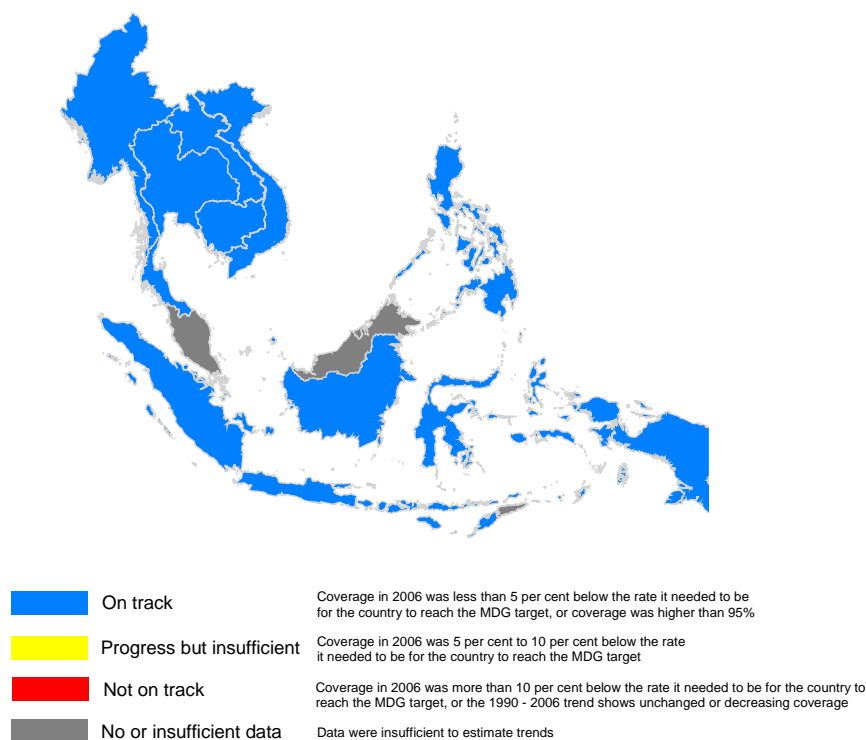


Figure 13: Sanitation coverage trend 1990 – 2015 and coverage trend required to meet the MDG sanitation target, 2006 - 2015



South-eastern Asia is **on track** to meet the MDG drinking water target

Figure 14: Progress towards the MDG drinking water target, by country, 2006



With 86 per cent drinking water coverage, South-eastern Asia has almost met its MDG drinking water target of 87 per cent nine years ahead of 2015

- Five of the 11 countries in South-eastern Asia already have met the MDG drinking water target, while another three are on track for doing so; for four countries there are insufficient data to assess progress towards the MDG drinking water target.
- If current trends continue 93 per cent of the population in South-eastern Asia will use an improved drinking water source in 2015, 44 million people short of universal access.

Figure 15: Average number of people that gained or need to gain access to an improved drinking water source 1990 – 2006 and 2006 - 2015

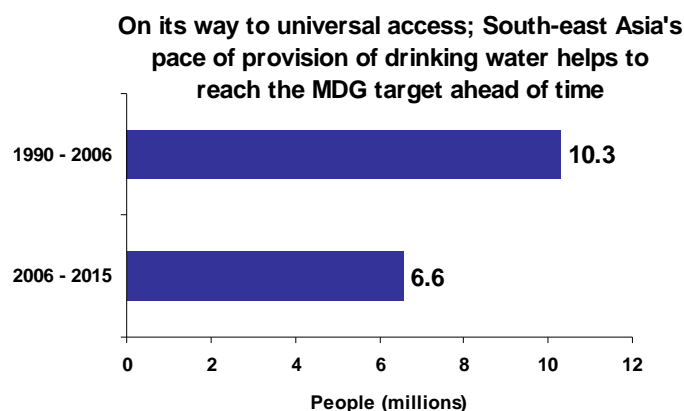
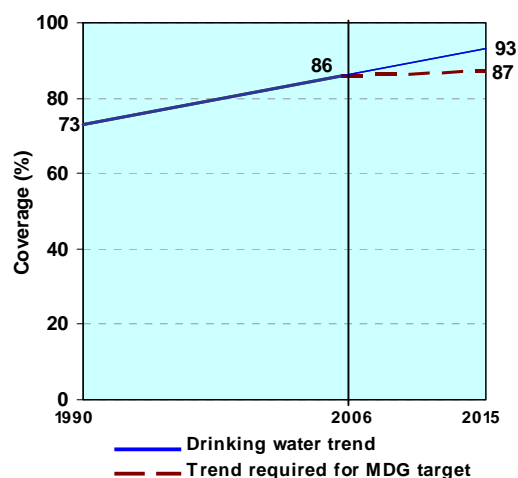


Figure 16: Drinking water coverage trend 1990 – 2015 and coverage trend required to meet the MDG sanitation target, 2006 - 2015



Water and Sanitation in countries in the Pacific

Availability of updated nationally representative data on access to safe drinking water and basic sanitation for the Small Island States located in the Pacific is limited. The JMP has data on file for 17 of the 19 countries in the region, but as is illustrated in the table below, these data are often several years old.

Country	Latest nationally representative survey or census on file	Country	Latest nationally representative survey or census on file
Cook Islands	Census 2001	Palau	Census 2000
Fiji	Reported 1999	Papua New Guinea	DHS 1996*
French Polynesia	Reported 1999	Samoa	Census 2001
Guam	Census 1990	Solomon Islands	Reported 1999
Kiribati	Census 2000	Tokelau	Census 2002
Marshall Islands	Census 1999	Tonga	Census 1986
Federated States of Micronesia	Census 2000	Tuvalu	Census 2002
Niue	Census 2001	Vanuatu	Census 1998
Northern Mariana Islands	Census 2000		

* results of the PNG DHS 2006 were not yet available when the JMP 2008 report was prepared

When available, data often are not sufficiently disaggregated by type of drinking water or sanitation facility. This complicates estimating regional averages for different steps of the drinking water and sanitation ladders. The JMP calculates regional estimates only when data are available covering more than 50 per cent of the regional population. For the Pacific Islands there were not enough data available to estimate urban coverage by piped connections and urban coverage for those sharing a sanitation facility or those practicing open defecation.

Sanitation Basic Facts and Figures Pacific Islands: in percentage

	Population (millions)			Population using improved sanitation			Population using shared sanitation			Population using unimproved* sanitation			Population practising open defecation		
	Urban	Rural	Total	Urban	Rural	Total	Urban	Rural	Total	Urban	Rural	Total	Urban	Rural	Total
1990	1.5	5.0	6.4	80%	44%	52%	-	1%	-	20%	34%	48%	-	21%	-
2000	1.9	6.2	8.1	81%	44%	52%	-	1%	-	19%	35%	48%	-	20%	-
2006	2.2	7.0	9.2	80%	43%	52%	-	1%	-	20%	36%	48%	-	20%	-
2015	2.7	7.9	10.6	-	-	76%**	-	-	-	-	-	-	-	-	-

* Urban and Total estimates for unimproved sanitation include the proportion of the population that shares a facility and the proportion that practices open defecation

** MDG target

Drinking Water Basic Facts and Figures Pacific Islands: in percentage

	Population (millions)			Drinking water coverage*			Piped connections on premises			Other improved drinking water sources			Unimproved drinking water sources		
	Urban	Rural	Total	Urban	Rural	Total	Urban	Rural	Total	Urban	Rural	Total	Urban	Rural	Total
1990	1.5	5.0	6.4	92%	39%	51%	-	7%	-	-	32%	-	8%	61%	49%
2000	1.9	6.2	8.1	-	41%	-	-	9%	-	-	32%	-	-	59%	-
2006	2.2	7.0	9.2	91%	37%	50%	-	6%	-	-	31%	-	9%	63%	50%
2015	2.7	7.9	10.6	-	-	76%**	-	-	-	-	-	-	-	-	-

** MDG target

JMP methodology

The WHO/UNICEF Joint Monitoring Programme for Water Supply and Sanitation (JMP) is the official United Nations mechanism tasked with monitoring progress towards MDG Target 7c on drinking water and sanitation. JMP publishes updated coverage estimates every two years on the various types of drinking- water sources and sanitation facilities used worldwide.

In line with the MDG indicator definition, which stipulates “use of improved facilities” as a proxy for “access to improved facilities”, the JMP measures and reports on the actual use of facilities. It is worth noting that the household surveys on which the JMP relies also measure “use” and not “access” – since access involves many additional criteria other than use. Measurability of many of these criteria at the national scale, which is the scale required by the JMP, poses a huge challenge.

Data sources and MDG data base

The water supply and sanitation coverage estimates presented in this report draw from data collected by national statistics offices and other relevant institutions through nationally-representative household surveys and national censuses. The survey data used are mainly drawn from Demographic and Health Surveys (DHS), Multiple Cluster Indicator Surveys (MICS), World Health Surveys (WHS), Living Standards and Measurements Surveys (LSMS), Core Welfare Indicator Questionnaires (CWIQ), Health and Nutrition Surveys, Household Budget Surveys and Reproductive Health Surveys. JMP estimates are therefore based on nationally generated and owned data, JMP assembles, reviews and assesses these household survey and census data.

Population estimates

The population estimates and the proportion of the population living in urban and rural areas used in this report are those estimated by the United Nations Population Division (2006 revision). These estimates may differ from national population estimates.

Methodology to derive MDG coverage and progress estimates

For each country, survey and census data are plotted on a time scale from 1980 to the present. A linear trend line, based on the least-squares method, is drawn through these data points to estimate coverage for 1990 and 2006. The total coverage estimates are based on the aggregate of the population weighted urban and rural coverage numbers, divided by the total population.

Trend analysis at country level have been made for the following categories:

Drinking water

- Piped water into dwelling, plot or yard
- Improved drinking water sources

Sanitation

- Improved sanitation facilities*
- Open defecation

*The coverage estimates for **improved sanitation facilities** presented in this report are discounted by the proportion of the population that shared an improved type of sanitation facility. This ratio (the proportion of the population that shares a sanitation facility of an otherwise adequate type among two or more households) derived from the latest household survey/census is subsequently subtracted from the trend estimates of improved sanitation facilities. This results in the estimates for **shared sanitation facilities**.

Differences with national coverage estimates

Indicator definitions and population estimates used by the JMP sometimes differ from those used by national governments. Estimates have been computed by JMP to ensure compatibility between countries and over time; thus they are not necessarily the official statistics of the concerned states, which may use alternative rigorous methods.

Current sanitation situation at a glance

Sanitation coverage: Country and regional estimates by type of sanitation facility (1990 and 2006)

Region	Year	Total Population (thousands)	% Urban Population	Urban (%)				Rural (%)				Total (%)			
				Improved	Shared	Unimproved	Open Defecation	Improved	Shared	Unimproved	Open Defecation	Improved	Shared	Unimproved	Open Defecation
Brunei Darussalam	1990	257	66	-	-	-	-	-	-	-	-	-	-	-	-
	2006	382	74	-	-	-	-	-	-	-	-	-	-	-	-
Cambodia	1990	9,698	28	-	-	-	-	-	-	-	-	-	-	-	-
	2006	14,197	36	62	6	1	31	19	4	0	77	28	4	0	68
Indonesia	1990	182,847	31	73	9	0	18	42	6	8	44	51	7	6	36
	2006	228,864	49	67	8	7	18	37	5	19	39	52	6	13	29
Lao People's Democratic Republic	1990	4,076	15	-	-	-	-	-	-	-	-	-	-	-	-
	2006	5,759	21	87	5	2	6	38	1	5	56	48	2	4	46
Malaysia	1990	18,103	50	95	4	1	-	-	-	-	-	-	-	-	-
	2006	26,114	68	95	4	1	-	93	4	3	-	94	4	2	-
Myanmar	1990	40,147	25	47	6	44	3	15	2	55	28	23	3	52	22
	2006	48,379	31	85	10	4	1	81	11	0	8	82	11	1	6
Philippines	1990	61,226	49	71	12	9	8	46	6	24	24	58	9	17	16
	2006	86,264	63	81	13	1	5	72	10	4	14	78	12	2	8
Singapore	1990	3,016	100	100	-	0	0	-	-	-	-	-	-	-	-
	2006	4,382	100	100	-	0	0	-	-	-	-	-	-	-	-
Timor Leste	1990	740	21	-	-	-	-	-	-	-	-	-	-	-	-
	2006	1,114	27	64	4	12	20	32	2	18	48	41	3	16	40
Thailand	1990	54,291	29	92	5	1	2	72	3	1	24	78	4	0	18
	2006	63,444	33	95	5	0	0	96	4	0	0	96	4	0	0
Viet Nam	1990	66,173	20	62	3	17	18	21	1	45	33	29	1	40	30
	2006	86,206	27	88	5	6	1	56	3	25	16	65	4	19	12
Pacific															
Cook Islands	1990	18	58	100	-	0	0	91	-	9	-	96	-	4	-
	2006	14	75	100	-	0	0	100	-	0	0	100	-	0	0
Federated States of Micronesia	1990	96	26	54	-	46	-	20	-	80	-	29	-	71	-
	2006	111	22	61	-	39	-	14	-	86	-	25	-	75	-
Fiji	1990	724	42	87	-	13	-	55	-	45	-	68	-	32	-
	2006	833	51	87	-	13	-	55	-	45	-	71	-	29	-
French Polynesia	1990	195	56	99	-	1	-	97	-	3	-	98	-	2	-
	2006	259	52	99	-	1	-	97	-	3	-	98	-	2	-
Guam	1990	134	91	99	-	1	-	98	-	2	-	99	-	1	-
	2006	171	94	99	-	1	-	98	-	2	-	99	-	1	-
Kiribati	1990	72	35	26	7	26	41	20	2	13	65	22	4	17	57
	2006	94	52	46	13	0	41	20	2	25	53	33	8	12	47
Marshall Islands	1990	47	65	88	-	12	-	51	-	49	-	75	-	25	-
	2006	58	67	-	-	-	-	-	-	-	-	-	-	-	-
Nauru	1990	9	100	-	-	-	-	-	-	-	-	-	-	-	-
	2006	10	100	-	-	-	-	-	-	-	-	-	-	-	-
Niue	1990	2	31	100	-	0	0	100	-	0	0	100	-	0	0
	2006	2	37	100	-	0	0	100	-	0	0	100	-	0	0

Region	Year	Total Population (thousands)	% Urban Population	Urban (%)				Rural (%)				Total (%)			
				Improved	Shared	Unimproved	Open Defecation	Improved	Shared	Unimproved	Open Defecation	Improved	Shared	Unimproved	Open Defecation
Northern Mariana Islands	1990	44	89	85	-	15	-	78	-	22	-	84	-	16	-
	2006	82	95	94	-	6	-	96	-	4	-	94	-	6	-
Palau	1990	15	31	76	-	24	-	54	-	46	-	61	-	39	-
	2006	20	34	96	-	4	-	52	-	48	-	67	-	33	-
Papua New Guinea	1990	4,131	13	67	10	19	4	41	1	38	20	44	2	36	18
	2006	6,202	13	67	10	19	4	41	1	38	20	45	2	35	18
Samoa	1990	161	21	100	-	0	0	98	-	2	-	98	-	2	-
	2006	185	23	100	-	0	0	100	-	0	0	100	-	0	0
Solomon Islands	1990	314	14	98	-	2	-	18	-	82	-	29	-	71	-
	2006	484	17	98	-	2	-	18	-	82	-	32	-	68	-
Tokelau	1990	2	0	-	-	-	-	39	-	61	-	-	-	-	-
	2006	1	0	-	-	-	-	78	-	22	-	-	-	-	-
Tonga	1990	95	23	98	-	2	-	96	-	4	-	96	-	4	-
	2006	100	24	98	-	2	-	96	-	4	-	96	-	4	-
Tuvalu	1990	9	41	83	-	17	-	74	-	26	-	78	-	22	-
	2006	10	58	93	-	7	-	84	-	16	-	89	-	11	-
Vanuatu	1990	149	19	-	-	-	-	-	-	-	-	-	-	-	-
	2006	221	24	-	-	-	-	-	-	-	-	-	-	-	-
Wallis and Futuna Islands	1990	14	0	-	-	-	-	-	-	-	-	-	-	-	-
	2006	15	0	-	-	-	-	-	-	-	-	-	-	-	-
Regional averages															
South-eastern Asia	1990	440,574	32	74	8	6	12	40	4	21	35	50	5	17	28
	2006	565,105	45	78	8	4	10	58	5	13	24	67	7	8	18
Pacific	1990	6,449	23	80	-	20	-	44	1	34	21	52	-	48	-
	2006	9,175	24	80	-	20	-	43	1	36	20	52	-	48	-

Current drinking water situation at a glance

Drinking water coverage: Country and regional estimates by type of drinking water source (1990 and 2006)

Region	Year	Total Population (thousands)	% Urban Population	Urban (%)				Rural (%)				Total (%)			
				Total Improved	Piped connections	Other improved	Un-improved	Total Improved	Piped connections	Other improved	Un-improved	Total Improved	Piped connections	Other Improved	Un-improved
Brunei Darussalam	1990	257	66	-	-	-	-	-	-	-	-	-	-	-	-
	2006	382	74	-	-	-	-	-	-	-	-	-	-	-	-
Cambodia	1990	9,698	13	-	-	-	-	-	-	-	-	-	-	-	-
	2006	14,197	20	80	43	37	20	61	5	56	39	65	13	52	35
Indonesia	1990	182,847	31	92	26	66	8	63	2	61	37	72	9	63	28
	2006	228,864	49	89	34	55	11	71	7	64	29	80	20	60	20
Lao People's Dem. Republic	1990	4,076	15	-	-	-	-	-	-	-	-	-	-	-	-
	2006	5,759	21	86	69	17	14	53	8	45	47	60	21	39	40
Malaysia	1990	18,103	50	100	98	2	0	96	-	-	4	98	-	-	2
	2006	26,114	68	100	98	2	0	96	87	9	4	99	95	4	1
Myanmar	1990	40,147	25	86	18	68	14	47	1	46	53	57	5	52	43
	2006	48,379	31	80	16	64	20	80	2	78	20	80	6	74	20
Philippines	1990	61,226	49	92	37	55	8	75	8	67	25	83	22	61	17
	2006	86,264	63	96	69	27	4	88	24	64	12	93	53	40	7
Singapore	1990	3,016	100	100	100	0	0	-	-	-	-	-	-	-	-
	2006	4,382	100	100	100	0	0	-	-	-	-	-	-	-	-
Thailand	1990	54,291	29	98	78	20	2	94	13	81	6	95	32	63	5
	2006	63,444	33	99	84	15	1	97	35	62	3	98	51	47	2
Timor-Leste	1990	740	21	-	-	-	-	-	-	-	-	-	-	-	-
	2006	1,114	27	77	28	49	23	56	11	45	44	62	16	46	38
Viet Nam	1990	66,173	20	87	38	49	13	43	1	42	57	52	8	44	48
	2006	86,206	27	98	59	39	2	90	8	82	10	92	22	70	8
Pacific															
Cook Islands	1990	18	58	99	-	-	1	87	-	-	13	94	-	-	6
	2006	14	75	98	-	-	2	88	-	-	12	95	-	-	5
Federated States of Micronesia	1990	96	26	93	-	-	7	86	-	-	14	88	-	-	12
	2006	111	22	95	-	-	5	94	-	-	6	94	-	-	6
Fiji	1990	724	42	43	32	11	57	51	7	44	49	48	17	31	52
	2006	833	51	43	32	11	57	51	7	44	49	47	20	27	53
French Polynesia	1990	195	56	100	99	1	0	100	96	4	0	100	98	2	0
	2006	259	52	100	99	1	0	100	96	4	0	100	98	2	0
Guam	1990	134	91	100	-	-	0	100	-	-	0	100	-	-	0
	2006	171	94	100	-	-	0	100	-	-	0	100	-	-	0
Kiribati	1990	72	35	76	46	30	24	33	13	20	67	48	24	24	52
	2006	94	52	77	49	28	23	53	22	31	47	65	36	29	35
Marshall Islands	1990	47	65	95	-	-	5	97	-	-	3	96	-	-	4
	2006	58	67	-	-	-	-	-	-	-	-	-	-	-	-
Nauru	1990	9	100	-	-	-	-	-	-	-	-	-	-	-	-
	2006	10	100	-	-	-	-	-	-	-	-	-	-	-	-
Niue	1990	2	31	100	100	0	0	100	-	-	0	100	-	-	0
	2006	2	37	100	100	0	0	100	-	-	0	100	-	-	0

Region	Year	Total Population (thousands)	% Urban Population	Urban (%)				Rural (%)				Total (%)			
				Total Improved	Piped connections	Other improved	Un-improved	Total Improved	Piped connections	Other improved	Un-improved	Total Improved	Piped connections	Other Improved	Un-improved
Northern Mariana Islands	1990	44	89	98	93	5	2	100	-	-	0	98	-	-	2
	2006	82	95	98	-	-	2	97	-	-	3	98	-	-	2
Palau	1990	15	31	73	-	-	27	98	-	-	2	90	-	-	10
	2006	20	34	79	-	-	21	94	-	-	6	89	-	-	11
Papua New Guinea	1990	4,131	13	88	61	27	12	32	4	28	68	39	11	28	61
	2006	6,202	13	88	61	27	12	32	4	28	68	40	12	28	60
Samoa	1990	161	21	99	-	-	1	89	-	-	11	91	-	-	9
	2006	185	23	90	-	-	10	87	-	-	13	88	-	-	12
Solomon Islands	1990	314	14	94	76	18	6	65	1	64	35	69	11	58	31
	2006	484	17	94	76	18	6	65	1	64	35	70	14	56	30
Tokelau	1990	2	0	-	-	-	-	94	-	-	6	-	-	-	-
	2006	1	0	-	-	-	-	88	-	-	12	-	-	-	-
Tonga	1990	95	23	100	-	-	0	100	-	-	0	100	-	-	0
	2006	100	24	100	-	-	0	100	-	-	0	100	-	-	0
Tuvalu	1990	9	41	92	-	-	8	89	-	-	11	90	-	-	10
	2006	10	58	94	-	-	6	92	-	-	8	93	-	-	7
Vanuatu	1990	149	19	93	80	13	7	53	28	25	47	61	38	23	39
	2006	221	24	-	-	-	-	-	-	-	-	-	-	-	-
Wallis and Futuna Islands	1990	14	0	-	-	-	-	100	99	1	0	-	-	-	-
	2006	15	0	-	-	-	-	100	99	1	0	-	-	-	-
Regional Averages															
South-eastern Asia	1990	440,574	32	92	41	51	8	64	4	60	36	73	16	57	27
	2006	565,105	45	92	53	39	8	81	14	67	19	86	32	54	14
Pacific	1990	6,449	23	92	-	-	8	39	7	32	61	51	-	-	49
	2006	9,175	24	91	-	-	9	37	6	31	63	50	-	-	50

