MEETING THE MDG DRINKING WATER AND SANITATION TARGET

THE URBAN AND RURAL CHALLENGE OF THE DECADE

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The world is still on track for reaching the MDG drinking water target, but the trend appears to be deteriorating. On current trends, the world will miss the sanitation target by more than half a billion people.

- Every year, unsafe water, coupled with a lack of basic sanitation, kills at least 1.6 million children under the age of five years – more than eight times the number of people who died in the Asian tsunami of 2004.
- At the beginning of the Water for Life decade, 1.1 billion people did not have access to an improved source of drinking water.
- 84% of the population without access to an improved source of drinking water live in rural areas.
- 2.6 billion people, more than 40% of the world population, do not use a toilet, but defecate in the open or in unsanitary places.

In 2004, more than three out of every five rural people, over 2 billion, did not have access to a basic sanitation facility.

- If the current trend persists, nearly 1.7 billion rural dwellers will still not have access to improved sanitation by 2015.
- In 2004, urban sanitation coverage was more than double the rural sanitation coverage.
- Although 73% of rural dwellers have access to an improved source of drinking water, only 30% have access to piped water in the home.

Keeping up with the population increase is a major challenge for urban areas; maintaining current coverage levels till 2015 requires serving 700 million urban dwellers over the coming decade.

- Migration from rural to urban areas poses a major challenge for city planners; extending basic drinking water and sanitation services to periurban and slum areas to reach the poorest people is of the utmost importance to prevent outbreaks of cholera and other water-related diseases in these often overcrowded places.
- Urban drinking water coverage has remained at 95% since 1990. Urban sanitation coverage has increased by only one percentage point, from 79% to 80%.
- About 770 million and 700 million urban people gained access to improved drinking water and sanitation, respectively, during 1990–2004.

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CONTENTS

FOREWORD

Safe drinking water, sanitation and good hygiene are fundamental to health, survival, growth and development. However, these basic necessities are still a luxury for many of the world's poor people. Over 1.1 billion of our fellow citizens do not use drinking water from improved sources, while 2.6 billion lack basic sanitation. Safe drinking water and basic sanitation are so obviously essential to health that they risk being taken for granted. Efforts to prevent death from diarrhoea or to reduce the burden of such diseases as ascaris, dracunculiasis, hookworm, schistosomiasis and trachoma are doomed to failure unless people have access to safe drinking water and basic sanitation. Lack of basic sanitation indirectly inhibits the learning abilities of millions of school-aged children who are infested with intestinal worms transmitted through inadequate sanitation facilities and poor hygiene.

The Millennium Development Goals (MDGs) have set us on a common course to push back poverty, inequality, hunger and illness. The world has pledged to reduce by half the proportion of people without sustainable access to safe drinking water and basic sanitation. Entering the International Decade for Action, *Water for Life,* 2005–2015, this report looks at the challenge of meeting the MDG target for drinking water and sanitation. Achieving the MDG drinking water and sanitation target poses two major challenges: a rapid pace of urbanization, which requires a major effort even to keep up the current coverage levels; a huge backlog of rural people unserved with basic sanitation and safe drinking water, which calls for an intensive mobilization of resources to reduce the vast coverage gap between urban and rural populations.

Sub-Saharan Africa remains the area of greatest concern. It is a region of the world where, over the period 1990–2004, the number of people without access to drinking water increased by 23% and the number of people without sanitation increased by over 30%. More intensive, effective and concerted action by all stakeholders is needed if the MDG drinking water and sanitation target is to be met in this region.

We call on all countries to set realistic targets, develop achievable action plans, and allocate the financial and human resources needed to bring safe drinking water and basic sanitation to their populations, in a sustainable manner, while protecting the basic needs of poor and vulnerable people. This effort must be made, not only for humanitarian reasons, but also because it is highly cost-effective, reduces health costs enormously, and is directly related to health, equity and economic growth, which are prerequisites for poverty alleviation.

DEFINITIONS AND DATA SOURCES

This report by the WHO/UNICEF Joint Monitoring Programme for Water Supply and Sanitation (JMP) is concerned with the MDG target to halve, by 2015, the proportion of people without sustainable access to safe drinking water and basic sanitation. The indicators of progress towards this target are:

- proportion of population with sustainable access to an improved drinking water source, urban and rural;
- proportion of population with access to improved sanitation, urban and rural.

The proportion of the population with access to safe drinking water is an indicator expressed as the percentage of people using improved drinking water sources or delivery points (listed below). Improved drinking water technologies are more likely to provide safe drinking water than those characterized as unimproved.

Similarly, the proportion of the population with access to basic sanitation is an indicator expressed as the percentage of people using improved sanitation facilities (listed below). Improved sanitation facilities are more likely to prevent human contact with human excreta than unimproved facilities.

These facilities are further defined in the JMP publication *Core questions on drinking water and sanitation for household surveys* (www.wssinfo.org).

Population data including population projections and a breakdown of urban and rural populations are obtained from the United Nations Population Division: *World population prospects: the 2004 revision* (POP/DB/WPP/Rev.2004/2/F1 – February 2005).

Data sources used to calculate the proportion of population using different types of drinking water sources and sanitation facilities are national censuses and nationally representative household surveys. Most of the data points used by the JMP are provided by Demographic and Health Surveys (DHS), Multiple Indicator Cluster Surveys (MICS), Living Standards Measurement Studies (LSMS) and World Health Surveys (WHS).

Other sample surveys contributing to the JMP coverage estimates are:

- Core Welfare Indicator Questionnaires (CWIQ)
- Health and nutrition surveys
- Household budget surveys
- Pan Arab Project for Family Health surveys (PAPFAM)
- Reproductive health surveys.

The estimates presented in this report are based on over 500 nationally representative surveys and censuses conducted over the past 20 years.
Analysis of the data collected by these surveys allows JMP to estimate the drinking water and sanitation coverage figures and hence to derive coverage trends nationally, regionally and globally. The JMP method for deriving coverage estimates can be viewed in greater detail at: http://www.wssinfo.org/pdf/Policies_Procedures_04.pdf.

IMPROVED DRINKING WATER SOURCES

> Piped water into dwelling, plot or yard
> Public tap/standpipe
> Tubewell/borehole
> Protected dug well
> Protected spring
> Rainwater collection

UNIMPROVED DRINKING WATER SOURCES

> Unprotected dug well
> Unprotected spring
> Cart with small tank/drum
> Bottled water [a]
> Tanker-truck
> Surface water (river, dam, lake, pond, stream, canal, irrigation channels)

IMPROVED SANITATION FACILITIES[b]

> Flush or pour–flush to:
  - piped sewer system
  - septic tank
  - pit latrine
> Ventilated improved pit latrine
> Pit latrine with slab
> Composting toilet

UNIMPROVED SANITATION FACILITIES

> Flush or pour–flush to elsewhere [c]
> Pit latrine without slab or open pit
> Bucket
> Hanging toilet or hanging latrine
> No facilities or bush or field

[a] Bottled water is considered improved only when the household uses water from an improved source for cooking and personal hygiene.
[b] Only facilities which are not shared or are not public are considered improved.
[c] Excreta are flushed to the street, yard or plot, open sewer, a ditch, a drainage way or other location.

PURPOSE OF THIS REPORT

This report provides estimates of drinking water and sanitation coverage in 2004, by country and MDG region. It shows how many people have gained access since the MDG baseline year (1990) and identifies the challenges to meet the MDG drinking water and sanitation target over the coming decade. It compares progress towards the target, identifying which regions are on track, which are making progress but where progress is insufficient to reach the target, and which are not on track. With ever changing urban/rural population dynamics, JMP has analysed different challenges for urban and rural areas, including the inequity between urban and rural areas, the emerging challenges of the increasing urban population growth, and the low coverage in rural areas.

The report analyses how access to drinking water and sanitation services is evolving, looking into the trends in urban and rural areas and how these are related to the likelihood of achieving the MDG drinking water and sanitation target. It highlights the efforts to be exerted in rural areas where there are billions of unserved people against a background of almost static population growth, and contrasts this with the efforts required in urban areas where, though coverage is high, rapid urbanization is under way. The report also compares projected coverage in 2015, based on the 1990–2004 trend, with the MDG drinking water and sanitation target.

The statistics presented here were obtained from users of services (rather than providers of services) and thus are not affected by differences in definitions of access from country to country or political influence in presenting coverage data. The JMP data are thus likely to be more reliable and more comparable than data from national official reports. Because of retroactive adjustments to reflect new and more accurate data, coverage figures in previous JMP reports are superseded by those given in this report.

CHALLENGE OF THE *WATER FOR LIFE* DECADE

The challenge for the *Water for Life* decade is threefold: to maintain the gains already made; to push ahead quickly to provide drinking water and sanitation services to the billions of people living in rural areas who have no such services; and to accelerate the successful efforts in urban areas to keep pace with the rising urban population, particularly by focusing on low income and disadvantaged groups.

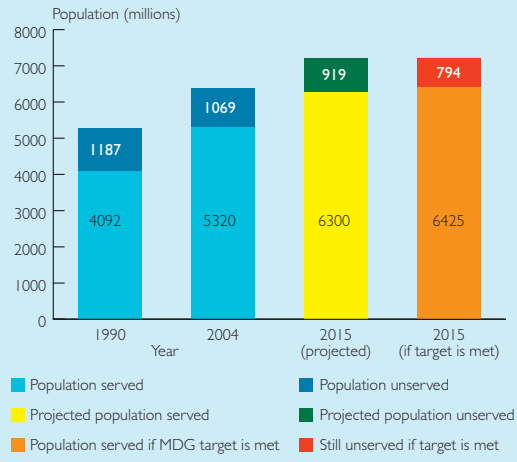
JMP estimates that it requires roughly a doubling of efforts of the past 15 years to reach the MDG sanitation target and a one third increase in efforts to meet the MDG drinking water target. While 1.2 billion people gained access to both improved drinking water sources and improved sanitation from 1990 to 2004, another 1.6 billion need to gain access from 2005 to 2015 to reach the MDG sanitation target and 1.1 billion need to gain access to meet the drinking water target (Figures 1 and 2).

The numbers provided in this report express a blunt reality: business as usual is taking the sector towards a potential non-achievement of the global MDG sanitation target. The world, though making progress, is not on track to achieve the sanitation target. To reach that target means providing services to an additional 450 thousand people a day from 2005 to 2015. This calls for almost doubling the current efforts.

Although the world as a whole is on track to achieve the MDG drinking water target the trend appears to be deteriorating. Reaching that target will require the provision of services to an additional 300 thousand people a day over the next decade, requiring current efforts to be stepped up by almost one third.

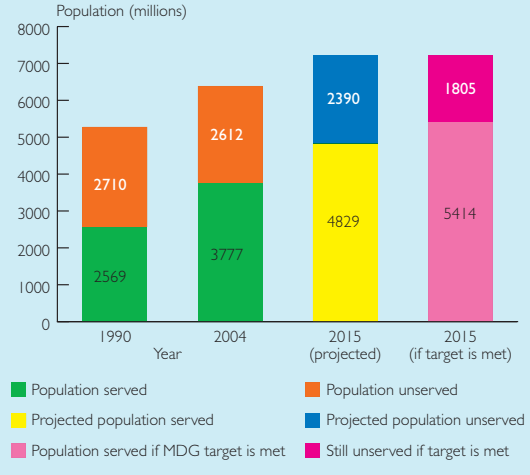
Of course, some regions will reach the drinking water and sanitation target. Others, if the current trend is confirmed, will not. For example, in sub-Saharan Africa, with a 85% increase in urban population from 1990 to 2004, the number of urban dwellers unserved with either safe drinking water or basic sanitation doubled from 1990 to 2004. In rural areas, in 2004, in the same region, the number of people unserved with improved drinking water was five times higher than the number of urban people unserved, and the number unserved with improved sanitation was almost three times the number of urban unserved. With slow progress, low coverage, and a huge disparity between urban

Figure 1
World population with and without access to an improved drinking water source in 1990, 2004 and 2015



> The number of people without an improved drinking water source decreased by only 118 million between 1990 and 2004.

Figure 2
World population with and without access to improved sanitation in 1990, 2004 and 2015



> The number of people without improved sanitation decreased by only 98 million between 1990 and 2004.
> The global MDG sanitation target will be missed by more than half a billion people if the trend 1990–2004 continues up to 2015.

and rural coverage, sub-Saharan Africa is unlikely to reach the MDG target.

To reach the MDG drinking water and sanitation target presents a huge challenge. The numbers speak for themselves. Achieving the target requires the building of the drinking water infrastructure to provide services to an additional 1.1 billion people and sanitation to an additional 1.6 billion people by 2015. It will also require action to prevent current and future infrastructure falling into disrepair as a result of inadequate institutional arrangements, insufficient cost-recovery, poor operation and maintenance, and an overall lack of sound management practices. Progress towards drinking water and sanitation solutions needs to be accelerated and sustained to contribute to breaking the circle of poverty, lack of education, poor housing and ill-health.

The approaches are well-known: the final report of the United Nations Millennium Project Task Force on Water and Sanitation[1] recommends key actions ranging from addressing the huge backlog of access to basic sanitation as compared to drinking water, to institutional, financial, and technological innovation with a special emphasis on meeting the needs of poor households.

Reaching the MDG drinking water and sanitation target requires accelerating the whole cycle of services delivery, comprising policy-making, mobilization of resources (financial and human), planning and design, construction, and operation and maintenance, with a focus on poor and underserved people worldwide. Sector progress has to evolve from advances in fits and starts to a continuous and sustained development process. Considering that two thirds of the time span from the baseline year (1990) to the MDG target has elapsed, business as usual is not enough. The world urgently needs to step up activities, increase effectiveness and accelerate investments if the target is to be met.

[1] United Nations Millennium Project Task Force on Water and Sanitation. *Health, dignity, and development: what will it take?* London, Earthscan, 2005.

DRINKING **WATER** COVERAGE

In 2004, a total of 5.3 billion people (83% of the world's population) used water from improved sources (Figure 5) – up from 4.1 billion (78%) in 1990. But because of population growth, the number of people unserved has not changed substantially since 1990. About one sixth of the world population – a total of 1.1 billion people – remain without access to improved drinking water, and 84% of these live in rural areas.

The global statistics hide a critical situation in some of the developing regions (Figures 3, 4 and 5). In sub-Saharan Africa, despite progress from 49% served in 1990 to 56% served in 2004, a great effort is needed to achieve the target of 75% by 2015.

Table 1
Progress towards the MDG drinking water target for the most populous developing countries

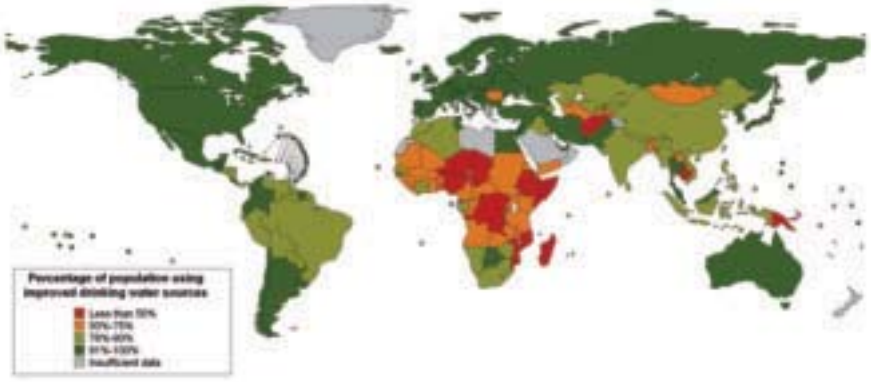
COUNTRIES WITH POPULATION ABOVE 50 MILLION IN 2004[a]	DRINKING WATER COVERAGE (%) 1990	2004 Actual	2004 Required to reach MDG target
CHINA	70	77	79
INDIA	70	86	79
INDONESIA	72	77	80
BRAZIL	83	90	88
PAKISTAN	83	91	88
BANGLADESH	72	74	80
NIGERIA	49	48	65
MEXICO	82	97	87
VIET NAM	65	85	76
PHILIPPINES	87	85	91
ETHIOPIA	23	22	46
EGYPT	94	98	96
TURKEY	85	96	90
IRAN (ISLAMIC REPUBLIC OF)	92	94	94
THAILAND	95	99	97
DEMOCRATIC REPUBLIC OF THE CONGO	43	46	60
MYANMAR	57	78	70

[a] By descending order of population.

> The majority of the most populous counties are on track for reaching the MDG drinking water target.

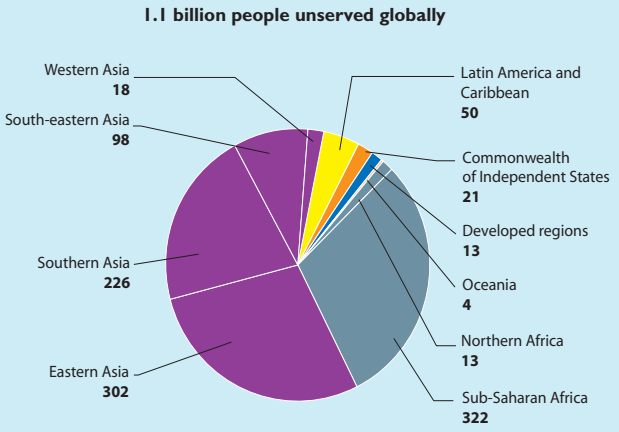
Nearly 80% of the unserved population is concentrated in three regions: sub-Saharan Africa, Eastern Asia and Southern Asia. Coverage is above 78% in all regions except sub-Saharan Africa and Oceania where it amounts to 56% and 50%, respectively (Figure 5). In Latin America and the Caribbean, Northern Africa and Western Asia, coverage is over 90%. Of those in developing regions gaining access to an improved drinking water source from

Figure 3
Coverage with improved drinking water sources in 2004



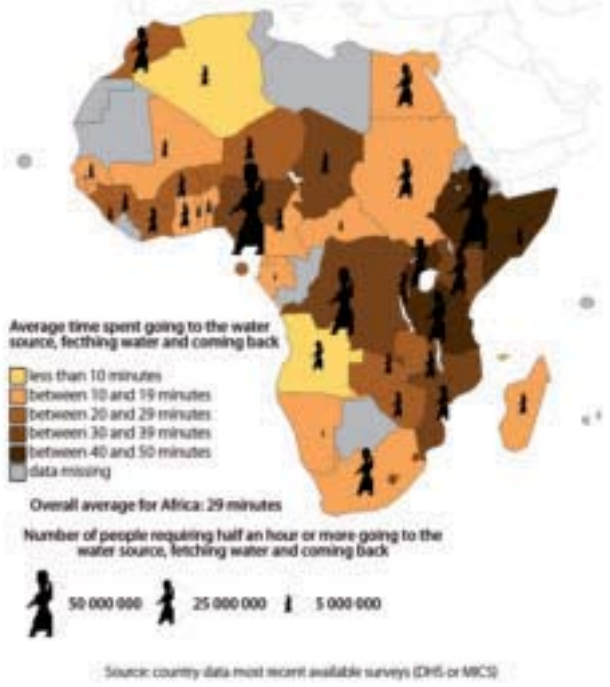
> Sub-Saharan Africa continues to make progress in providing services to the unserved, with a 7 percentage point increase from 1990 to 2004. Yet current coverage levels are extremely low. At the current pace of development, sub-Saharan Africa will fail to reach the MDG drinking water target.

Figure 4
Population (millions) without improved drinking water sources by region in 2004



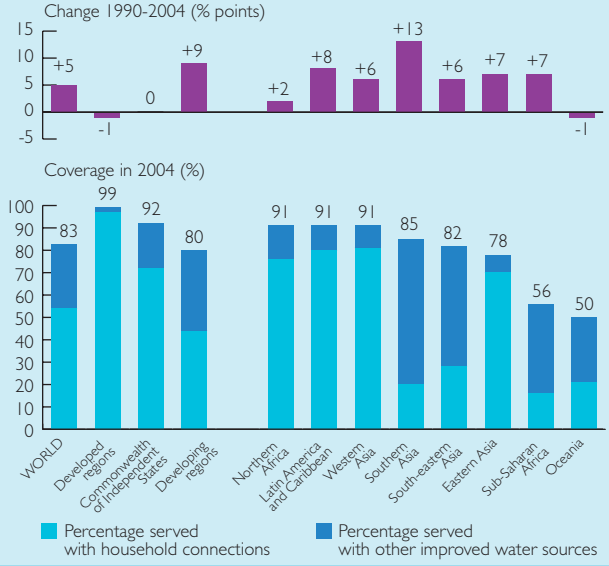
> Nearly 50% of the people worldwide without access to improved drinking water are in Eastern Asia and Southern Asia. Another 30% live in sub-Saharan Africa.

Figure 6
Time spent to fetch water in Africa



> In Africa, millions of women and children travel long distances daily to fetch water (Figure 6). On average, a member of the household (commonly a woman or a child) takes almost half an hour to walk to the water source, fetch water and return. Children's education and gender equity are jeopardized.

Figure 5
Coverage with improved drinking water sources by region in 2004



> While 80% of the developing world population have access to some type of improved drinking water source, only 44% have access through a household connection from a piped system.
> Although access to improved drinking water is currently above 80% in Southern Asia and South-eastern Asia, levels of coverage through household connections are only 20% and 28%, respectively, not much above the level of 16% in sub-Saharan Africa.

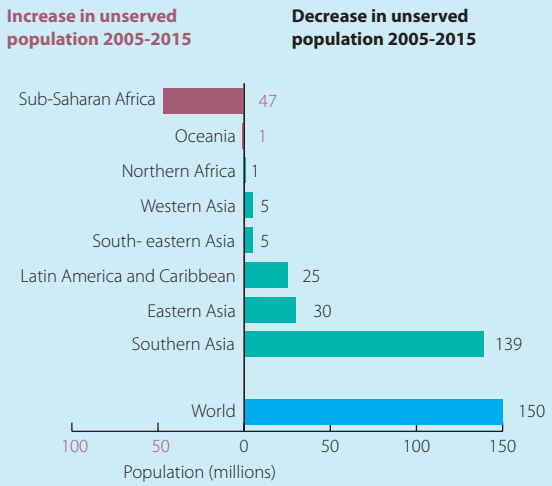
1990 to 2004, about two thirds gained access to a household connection or a yard tap (running water) whereas one third gained access through other types of improved facilities (protected wells, public standpipes, etc.). It appears that developing countries are focusing investment on centralized systems, with piped distribution to users through household connections or yard taps.

Even when improved drinking water sources are accessible, huge efforts are still needed to improve access to services. A household connection, drawing water from a public distribution system, will stimulate greater use of water for hygiene purposes and is proven to yield the greatest health benefits, albeit against the highest per capita cost. In 2004, only 44% of people in the developing world had access to drinking water through a household connection or a yard tap (Figure 5). There are huge disparities between regions: while access to drinking water through a household connection is as low as 16% in sub-Saharan Africa, 20% in Southern Asia, 21% in Oceania and 28% in South-eastern Asia, it is much higher in Eastern Asia (70%), Northern Africa (76%), Latin America and the Caribbean (80%) and Western Asia (81%).

DRINKING WATER TRENDS OVER 2005–2015

Though 1.2 billion people gained access to drinking water from an improved source over the period 1990–2004, the absolute number of people without such access declined by only 118 million, because of population growth. If current trends continue, the unserved population will decrease further by an estimated 150 million by 2015. Despite that improvement, the world will still have over 900 million unserved in 2015, three quarters of whom will be living in rural areas. In sub-Saharan Africa, although access to improved drinking water sources increased by 7% between 1990 and 2004, the actual number of people without access to drinking water from an improved source increased by 60 million. The current coverage trend indicates that by 2015 the number of unserved people in sub-Saharan Africa will grow by a further 47 million (Figure 7).

Figure 7
Projected change in the absolute numbers of people without access to an improved drinking water source 2005–2015, by developing region, if the 1990–2004 coverage trends continue to 2015

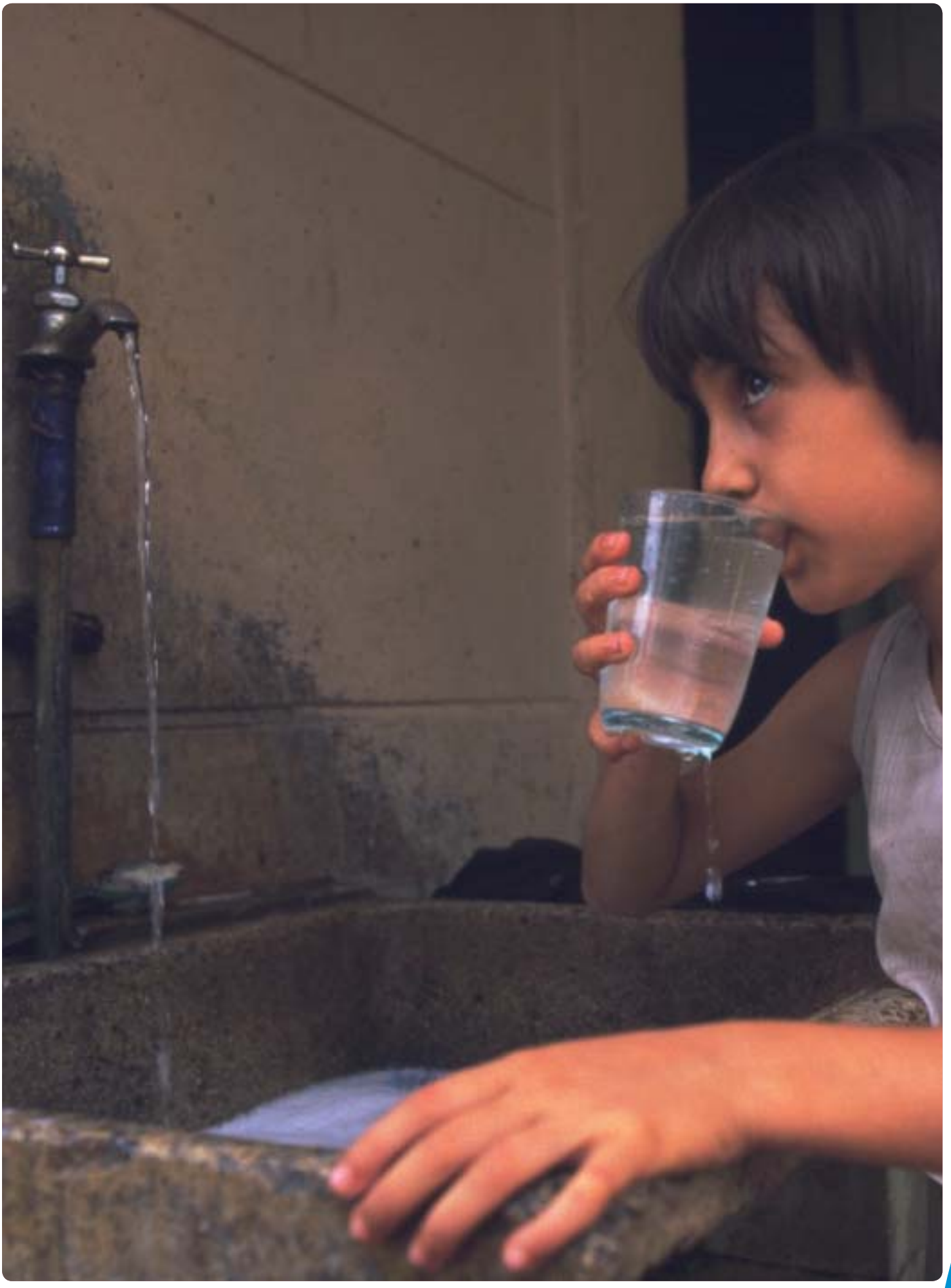


> If current trends continue to 2015, the absolute number of people without an improved drinking water source will decline by 150 million; sub-Saharan Africa will end up with 47 million more unserved than in 2004.

Table 2
Least developed countries that need to more than double their 1990–2004 rate of increase in order to reach the MDG drinking water target by 2015

LEAST DEVELOPED COUNTRIES	AVERAGE ANNUAL INCREASE IN POPULATION SERVED (THOUSANDS) 1990–2004 (actual)	2005–2015 (required)	INCREASE NEEDED BY A FACTOR OF:
ETHIOPIA	319	4 312	13.5
DEMOCRATIC REPUBLIC OF THE CONGO	628	3 009	4.8
NIGER	192	719	3.8
MALDIVES	4	14	3.7
TOGO	76	277	3.7
MADAGASCAR	241	834	3.5
VANUATU	2	8	3.4
MOZAMBIQUE	230	764	3.3
YEMEN	327	1 073	3.3
GUINEA	126	396	3.1
HAITI	89	263	3.0
COMOROS	12	32	2.7
BURUNDI	121	322	2.7
LIBERIA	54	142	2.6
BENIN	147	366	2.5
MALI	235	556	2.4
UGANDA	583	1 349	2.3
ZAMBIA	164	372	2.3
BANGLADESH	1 933	4 160	2.2
MAURITANIA	55	117	2.1
SUDAN	528	1 124	2.1
SAMOA	1	2	2.1
ANGOLA	295	603	2.0
DJIBOUTI	11	23	2.0

> Many least developed countries will have to more than double their efforts in order to reach the MDG drinking water target.



URBAN/RURAL **DISPARITIES IN ACCESS TO DRINKING WATER**

Access to drinking water from an improved source is significantly higher in urban than in rural areas (Figures 8 and 9). In rural areas, in virtually the entire developing world, drinking water coverage from an improved source remains unacceptably low (Figures 9 and 10). Urban drinking water coverage remained the same from 1990 to 2004 at 95%, whereas in rural areas coverage increased to 73% in 2004 from 64% in 1990. In 27 developing countries, less than 50% of the rural population have access to improved drinking water (Figure 9).

Figure 8
Urban coverage of drinking water from an improved source in 2004

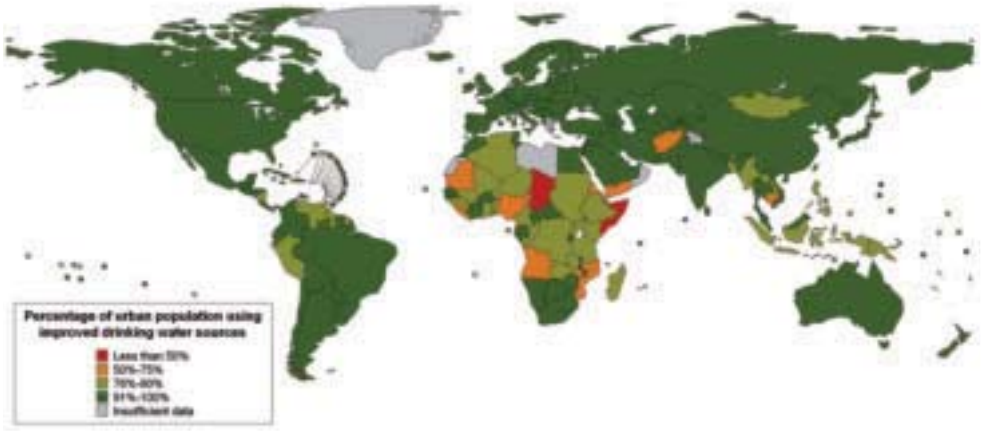


Figure 9
Rural coverage of drinking water from an improved source in 2004

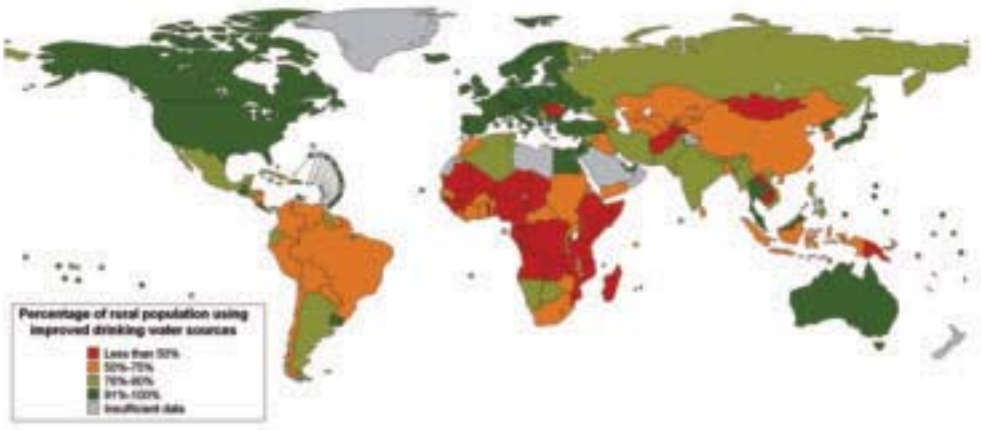
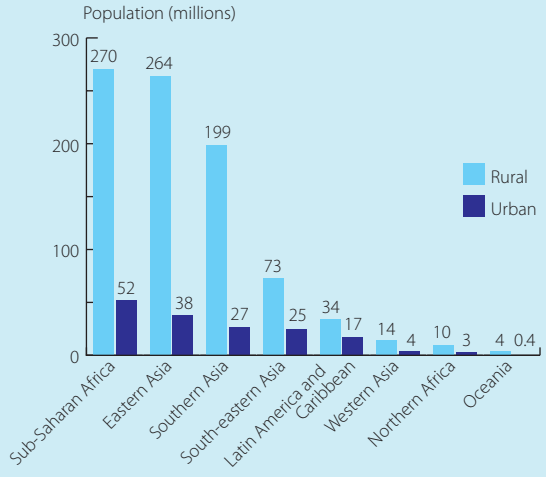
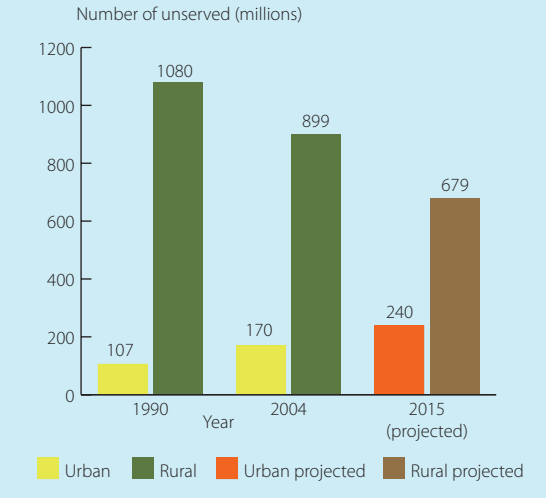


Figure 10
Rural and urban population (millions) without access to an improved drinking water source in 2004 in developing regions



> In developing regions, 84% of the unserved live in rural areas.

Figure 11
Global population (in millions) without access to improved sources of drinking water in urban and rural areas in 1990, 2004 and 2015 (projected based on 1990–2004 trends)



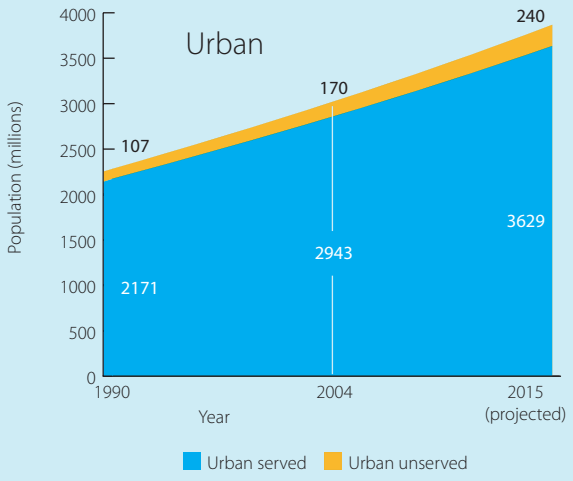
URBAN AND RURAL **DRINKING WATER** IN THE ***WATER FOR LIFE*** DECADE

The world as a whole is on track to meet the MDG drinking water target. This good news masks two serious challenges: the inequity in coverage between rural and urban areas; and accelerating urban population growth in developing regions. And although the world is still on track for reaching the target, the trend appears to be deteriorating.

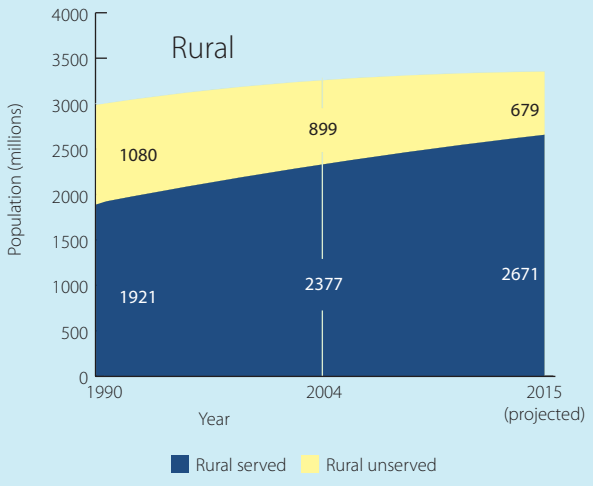
Rural areas still lag far behind urban areas in terms of drinking water coverage from improved sources. Even though rural coverage increased from 64% in 1990 to 73% in 2004, some 900 million people still remain unserved. A continuation of this trend would lead to coverage of 80% by 2015 and to about 300 million people gaining access. Yet, in 2015 about 700 million will still remain unserved. Often living in remote marginalized communities, rural people – many of them women and children – spend hours per day carrying water from far away water sources. In some countries, coverage is declining (Table 3).

The urban challenge is different. Urban coverage with improved drinking water has remained practically unchanged

Figure 12
Trends in coverage: urban and rural population with and without access to an improved drinking water source in 1990, 2004 and 2015 (projected)



> The urban population served with improved drinking water sources saw an increase of nearly 36% from 1990 to 2004. Despite this major effort, the number of urban people unserved is increasing over time.



> Since 1990, there has been an increase of 24% in the number of rural people with access to an improved source of drinking water, and the backlog of rural unserved is decreasing over time. Despite this huge effort, the proportion of the rural population unserved is still exceedingly high (27%).

Table 3
Countries where rural drinking water coverage from improved sources is declining (excluding countries with a population less than 300 000 in 2004)

	RURAL DRINKING WATER COVERAGE IN 1990 (%)	RURAL DRINKING WATER COVERAGE IN 2004 (%)	PERCENTAGE POINT DECLINE 1990–2004
MALDIVES	95	76	19
UZBEKISTAN	91	75	16
ALGERIA	89	80	9
COLOMBIA	78	71	7
ETHIOPIA	15	11	4
YEMEN	68	65	3
MOROCCO	58	56	2
NIGERIA	33	31	2

Table 4
Countries where urban drinking water coverage from improved sources is declining

	URBAN DRINKING WATER COVERAGE IN 1990 (%)	URBAN DRINKING WATER COVERAGE IN 2004 (%)	PERCENTAGE POINT DECLINE 1990–2004
LIBERIA	85	72	13
MARSHALL ISLANDS	95	82	13
NIGERIA	80	67	13
YEMEN	84	71	13
ALGERIA	99	88	11
MOZAMBIQUE	83	72	11
SAMOA	99	90	9
DEMOCRATIC REPUBLIC OF THE CONGO	90	82	8
HAITI	60	52	8
KENYA	91	83	8
PHILIPPINES	95	87	8
SUDAN	85	78	7
VANUATU	93	86	7
CHINA	99	93	6
COMOROS	98	92	6
MYANMAR	86	80	6
BURUNDI	97	92	5
INDONESIA	92	87	5
UZBEKISTAN	99	95	4
MADAGASCAR	80	77	3
MALDIVES	100	98	2
ZIMBABWE	100	98	2

> About 10% of all countries saw their urban drinking water coverage decline by two percentage points or more, since 1990, probably because of huge growth in the urban population.

over the past 15 years at 95%. But this admirable achievement is threatened (Table 4) by predicted urban population growth over 2005–2015 (755 million more people in urban areas, according to the United Nations Population Division). The good news is that –provided the urban coverage trend continues– about 685 million new urban dwellers will gain access over 2005–2015.

Analysing the urban and rural coverage trends (Figure 12), it is clear that most of the effort towards the achievement of the MDG drinking water target will occur in urban areas. Perhaps governments are prioritizing urban development of drinking water because of the appalling hygiene conditions under which many slum dwellers live, which are an affront to human dignity and pose a huge health risk for an already vulnerable population. Increased overcrowding, a continuing absence of sanitary facilities, poor waste disposal and a lack of sufficient quantities of water for basic personal and domestic hygiene all contribute to an ever present risk of outbreaks of epidemic diarrhoeal diseases.

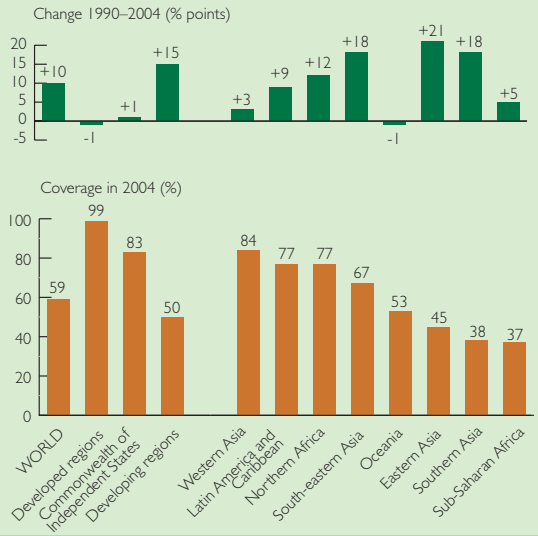
However, rural development of drinking water still lags far behind urban development, so efforts and investments need to be intensified to decrease the backlog of rural people who remain unserved and reduce the huge health risks brought about by the absence of improved drinking water infrastructure in rural areas.

An important aspect must be considered in this analysis: the type of access to improved drinking water. In developing regions, urban coverage is high (92%) and 70% of the urban population has access to piped water within the household. In contrast, in rural areas, only 25% of the population has access to this type of service. The availability of drinking water within the household through a household connection provides a better level of service. For example, it allows the use of drinking water in quantities that would normally fulfill the health and hygiene requirements of the householders. Where a drinking water source is not available within the property and the householders have to walk over 5 minutes to get their water, it is likely that they will not use more than the very basic quantities required for hygiene, drinking and cooking (20 litres per capita per day).

SANITATION COVERAGE

In 2004, only 59% of the world population had access to any type of improved sanitation facility (Figure 13). In other words, 4 out of 10 people around the world have no access to improved sanitation. They are obliged to defecate in the open or use unsanitary facilities, with a serious risk of exposure to sanitation-related diseases. While sanitation coverage has increased from 49% in 1990, a huge effort needs to be made quickly to expand coverage to the MDG target level of 75%. Investing in sanitation infrastructure involves a long project cycle. If the MDG sanitation target is to be achieved, innovative approaches need to be developed to reduce the time span from policy-making to services delivery.

Figure 13
Coverage with improved sanitation by region in 2004



> Over the period 1990–2004, 1.2 billion people gained access to sanitation. However, around 2.6 billion people remained unserved in 2004: not much of an improvement over the 2.7 billion unserved in 1990.

Figure 14
Coverage with improved sanitation in 2004

> Over 80% of the people worldwide without access to improved sanitation are in Southern Asia, Eastern Asia and sub-Saharan Africa.

The global statistics on sanitation hide the dire situation in some developing regions (Figure 14). With an average coverage in developing regions of 50%, only one out of two people has access to some sort of improved sanitation facility. The regions presenting the lowest coverage are sub-Saharan Africa (37%), Southern Asia (38%) and Eastern Asia (45%). Western Asia (84%) has the highest coverage among developing regions. Out of every three persons unserved, two live in Southern Asia or Eastern Asia (Figure 15).

While increasing the number of toilets connected to sewerage systems with functioning sewage treatment plants is important for many urban settings, for rural settings social marketing of a range of design options for on-site sanitation is equally important.

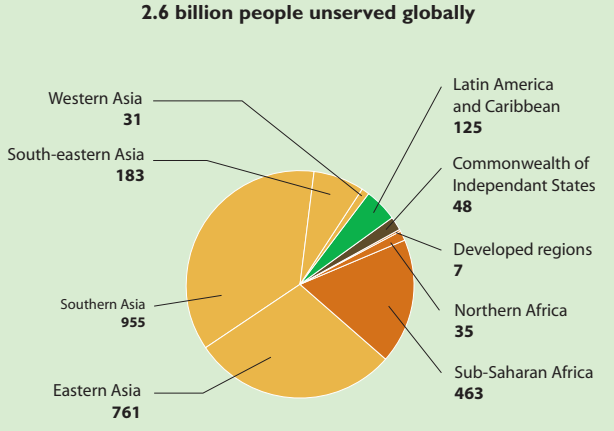
Table 5
Progress towards reaching the MDG sanitation target, countries with population over 50 million, status in 2004

COUNTRIES WITH POPULATION OVER 50 MILLION[a] IN 2004[b]	SANITATION COVERAGE (%)		
		2004	
	1990	Actual	Required to reach MDG target
CHINA	23	44	46
INDIA	14	33	40
INDONESIA	46	55	62
BRAZIL	71	75	80
PAKISTAN	37	59	56
BANGLADESH	20	39	44
NIGERIA	39	44	58
MEXICO	58	79	71
VIET NAM	36	61	55
PHILIPPINES	57	72	70
ETHIOPIA	3	13	32
EGYPT	54	70	68
TURKEY	85	88	90
THAILAND	80	99	86
DEMOCRATIC REPUBLIC OF THE CONGO	16	30	41
MYANMAR	24	77	47

[a] Islamic Republic of Iran not included because of lack of data
[b] By descending order of population.

> Half of the most populous developing countries are on track to reach the MDG sanitation target and most are making progress.

Figure 15
Population (millions) without improved sanitation by region in 2004



MARKETING SANITATION IN ETHIOPIA

Ethiopia is known to have one of the lowest rural sanitation coverage levels in the world. Such low coverage presented a major challenge to the Government and donors on how to scale up implementation at community level so as to ensure the MDG target could be reached and the health status of the population improved.

In 2003, the Government started new approaches to sanitation in the Amhara region, seeking to increase coverage and ensure access to 100% of the population. Amhara region has a population of 19 million, and 90 000 children under 5 years of age die annually from diseases related to water and sanitation. When the project began, sanitation coverage in the region was just 3.8% with approximately 100 latrines being constructed annually in each district. By 2005, the average number of latrines constructed per district was 26 400 per year, 90% of which are in use.

The main reasons for such dramatic increases in coverage were the mobilization methods used. The approach shifted from the production and distribution of latrine slabs to social marketing. Increasing community knowledge and understanding of sanitation and its linkages to health created demand for improved services and resulted in behaviour changes. Working in an integrated manner with local leaders and extension agents, and using schools as the focal points for change helped to increase access and stimulate demand. The project focus was not just on individual behaviour change but on social change of the entire population, resulting in full coverage. Household subsidies were completely removed and appropriate and affordable technologies were introduced, for which people were willing to pay.

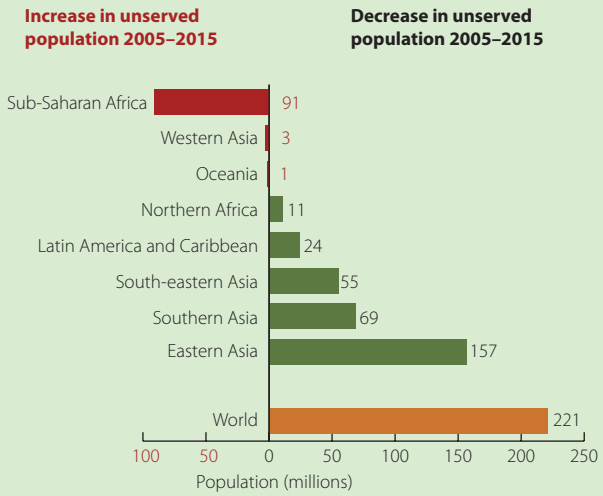
To reach the MDG target, 2.2 million latrines will have to be constructed and used in Amhara region by 2015. If progress continues and expands under the social marketing approach, the MDG target could be reached by 2009.

SANITATION TRENDS OVER THE *WATER FOR LIFE* DECADE

In 2004, 2.6 billion people in the world did not have access to basic sanitation. Of these, 2 billion live in rural areas. Progress over the past 15 years has been relatively limited. Since 1990, the number of people without sanitation has decreased by only 98 million.

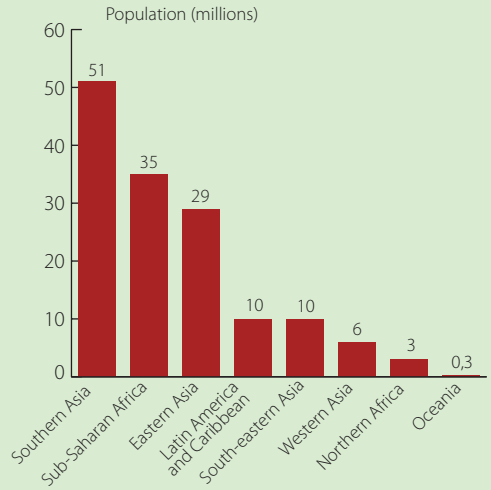
To meet the MDG sanitation target, over 1.6 billion more people need to gain access to improved sanitation over the coming decade, the main challenge being in developing countries (Figure 17). This will reduce the unserved population by 800 million, from 2.6 billion in 2004 to 1.8 billion in 2015.

Figure 16
Absolute change in population without access to improved sanitation 2005–2015, by developing region, when the 1990–2004 coverage trend is projected to 2015



> If current trends continue up to 2015 the absolute number of people without improved sanitation will decline by 221 million.
> However, sub-Saharan Africa will end up with 91 million more unserved than in 2004.

Figure 17
Average population (millions) needing to gain access to improved sanitation annually to meet the MDG target, 2005–2015, by developing region



> To meet the MDG sanitation target over 140 million people in developing regions need to gain access annually.

URBAN/RURAL **DISPARITIES IN ACCESS TO SANITATION**

Globally, urban coverage with improved sanitation crept up from 79% to 80% over 1990–2004. In contrast, rural sanitation coverage – despite increasing 13 percentage points over the same period – remains incredibly low at 39% (Figures 18 and 19).

On one hand, rural coverage consistently lags behind urban coverage. On average, there are over three rural dwellers unserved for every urban dweller unserved. On the other hand, in most developing countries, rural populations are migrating to urban areas, which together with natural urban growth will add to the number of urban unserved. Demographic trends are expected to change over time. From 2007 onwards, the world urban population will be greater than the rural population.

From the baseline in 1990 to the target date in 2015, the number of rural dwellers without access to basic sanitation will decrease, whereas the number of urban residents without access will increase (Figure 20). Yet the relative situation of the rural population in 2015 will still be very unfavourable: the number of unserved rural dwellers will be more than twice the number of unserved urban residents.

Figure 19
Rural coverage with improved sanitation in 2004

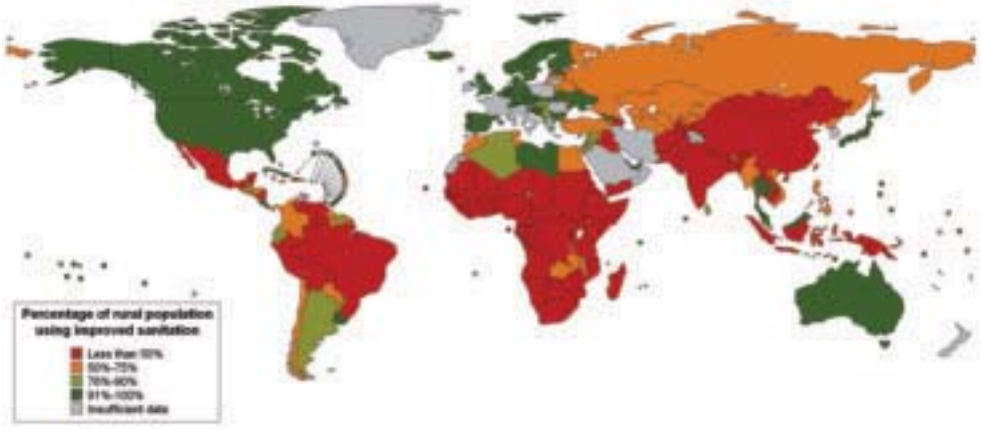
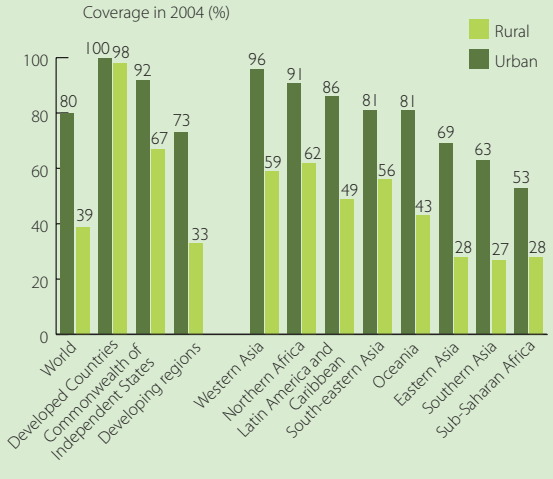
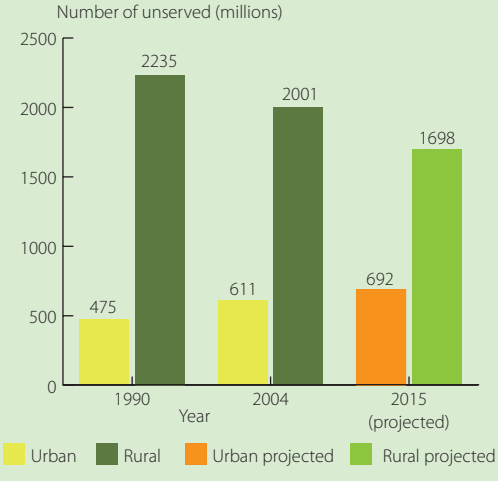


Figure 18
Urban and rural disparities in sanitation by region in 2004



> Globally, rural sanitation coverage is still less than half the urban coverage.

Figure 20
Global population without access to improved sanitation in urban and rural areas in 1990, 2004 and 2015 (projected based on 1990–2004 trends)



URBAN AND RURAL **SANITATION PERSPECTIVES**

The global coverage rate of 59% reached in 2004 for sanitation means that 611 million people in urban areas and a staggering 2 billion in rural areas do not have access to improved sanitation.

In rural areas, coverage with improved sanitation facilities rose from 26% in 1990 to just 39% in 2004. If that trend continues, coverage will have risen to only 49% by 2015. In other words, about half the rural population will still be without basic sanitation in 2015 (Figure 21).

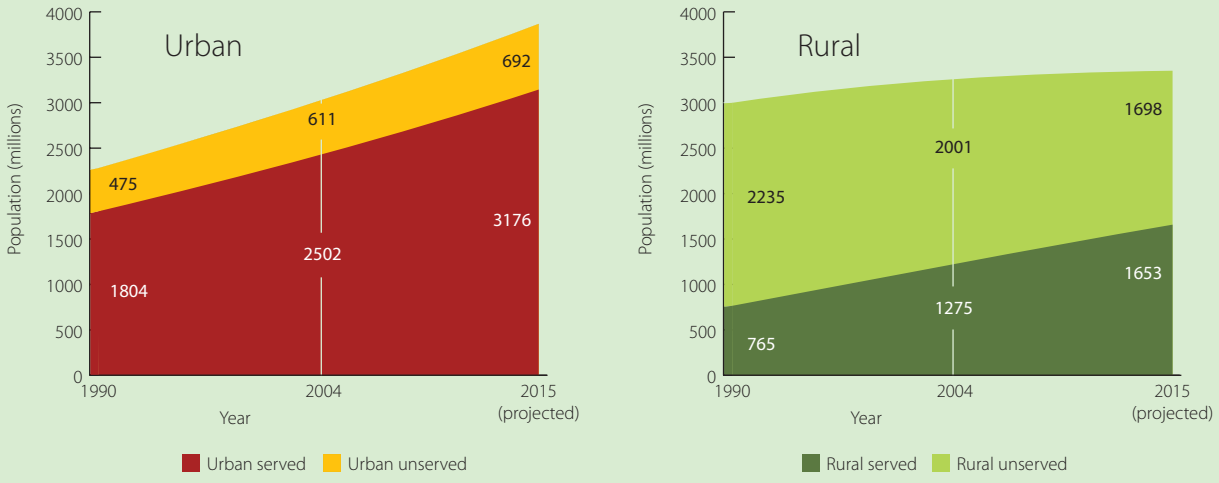
Table 6
Countries with more than a 20% increase in urban population 1990–2004 that managed to decrease the number of urban dwellers without improved sanitation

COUNTRIES	ABSOLUTE DECREASE IN URBAN POPULATION WITHOUT SANITATION 1990–2004 (THOUSANDS)
MEXICO	8 063
VIET NAM	3 889
MYANMAR	3 458
EGYPT	2 964
PAKISTAN	1 882
ECUADOR	815
DOMINICAN REPUBLIC	571
THAILAND	394
SENEGAL	297
CHILE	284
HAITI	140
SYRIAN ARAB REPUBLIC	96
PHILIPPINES	44
HONDURAS	30

SANITATION IN SLUM AREAS

Although the current sample household surveys take urban slum areas into account, the sample sizes of most surveys do not allow an accurate disaggregation of data on slum areas, as distinct from overall urban areas. However, there is evidence that coverage in slum areas is much lower than the average for urban areas. The problem of sanitation in slums is critical and complex because of high population density, poor urban infrastructure, lack of space, lack of secure tenure, and sustained poverty. Communal facilities are used in many slums and obviously provide a better level of sanitation than practices such as open defecation, faeces disposal with solid waste, or the notorious flying toilets. However, where possible, the aim of urban sanitation development should be to provide sustainable solutions, such as small bore sewers and condominial systems with provision for effective wastewater treatment, especially where drinking water is provided through household connections from public distribution systems. Where the above options are not feasible, well-built and well-maintained communal toilets will probably provide an acceptable solution for many urban slums.

Figure 21
Trends in coverage: urban and rural population with and without access to improved sanitation in 1990, 2004 and 2015 (projected)



> Despite an increase of almost 40% in the number of people served with improved sanitation over 1990–2004 the deficit of urban unserved is growing.

> Only 39% of the world rural population have access to any type of improved sanitation facility. Although the deficit is shrinking over time, only 49% of the global rural population will be served in 2015 if the projected trend is confirmed.

> According to current projections, the number of urban dwellers without access to improved sanitation will see an increase of almost 50% from the baseline year (1990) to 2015, while the number of rural dwellers unserved will decrease by about 25%.

In urban areas, projected demographic growth sends out an alert: because of the projected increase in population, if efforts continue at the current rate they will push up coverage rates from 80% in 2004 to only 82% in 2015. This tiny increase in reality translates into 81 million more people in urban areas in 2015 to be added to the 611 million already without basic sanitation in 2004.

Although the urban sanitation challenge is huge, rural sanitation appears to be nobody's concern. With 2 billion unserved in 2004 (two in every three rural citizens are unserved) and a projected 1.7 billion unserved in 2015, rural sanitation requires a massive concentration of effort to reduce substantially the urban/rural disparity in coverage.

MONITORING **DRINKING WATER AND SANITATION**

The WHO/UNICEF Joint Monitoring Programme for Water Supply and Sanitation (JMP) uses household-based information (sample household surveys, national censuses, etc.) to estimate national use of improved drinking water and sanitation services. In the past, coverage data were obtained through questionnaires sent to governments, and governments would provide their estimates based on their own definitions and using information from their water agencies or any other national or international reporting sources. The shift to household surveys has considerably improved the quality and comparability of coverage information.

Proxies for "safe" drinking water and "basic" sanitation

The Millennium Project's Task Force on Water and Sanitation defines safe drinking water as water that is safe to drink and available in sufficient quantities for hygienic purposes. It defines basic sanitation as the lowest-cost option for securing sustainable access to safe, hygienic

SOME PEOPLE USE PUBLIC OR SHARED TOILET FACILITIES. SHOULD JMP COUNT THEM AS HAVING ACCESS TO IMPROVED SANITATION?

JMP figures show that of all sanitary facilities used, most are private, providing ready access to members of a household. In urban areas in developing countries though, many households share a toilet or use a public facility. Usually this proportion is less than 20%, but in Kenya, the Demographic Health Survey 2003 found that over 63% of the urban households shared an improved toilet facility. In Ghana, the World Health Survey 2004 found that 84% of those households that used a covered dry pit latrine, shared the facility.

Increasingly, in poorer urban areas and informal settlements, millions of people have no choice but to rely on public or shared toilets or practise open defecation or defecation into bags or waste materials ("wrap and throw" or "flying toilets"), as there is often no space on the plot where they live for a private facility.

The JMP's concern regarding shared or public facilities are with their cleanliness (which often affects the likelihood of people using such facilities), and with the health risk to their users. It can be argued that the use of a public or shared facility is preferable to open defecation. In some settings, public facilities have been shown to be able to provide clean, safe and affordable shared services.

With increasing urbanization, growing concentrations of people with very low incomes, and greater numbers of tenants and informal settlements, it is likely that more and more urban dwellers will rely on public or shared facilities. Although JMP recognizes that well-maintained public or shared facilities represent an improvement over rudimentary forms of sanitation, the likelihood of poor hygiene and unsustainable use of these facilities, especially by children and women, argues against counting them as improved facilities.

JMP currently does not count shared or public latrines as improved. However, this issue will be further investigated through a joint study by WHO, UNICEF and UN-HABITAT.

and convenient facilities and services for excreta and sullage disposal that provide privacy and dignity while ensuring a clean and healthful living environment both at home and in the neighborhood of users[2].

Although accepted conceptually by consensus among water and sanitation specialists, these definitions pose a challenge in monitoring terms. The "safety" and "quantity" requirements cannot easily be measured through the household surveys used by JMP as the basis for its estimates.

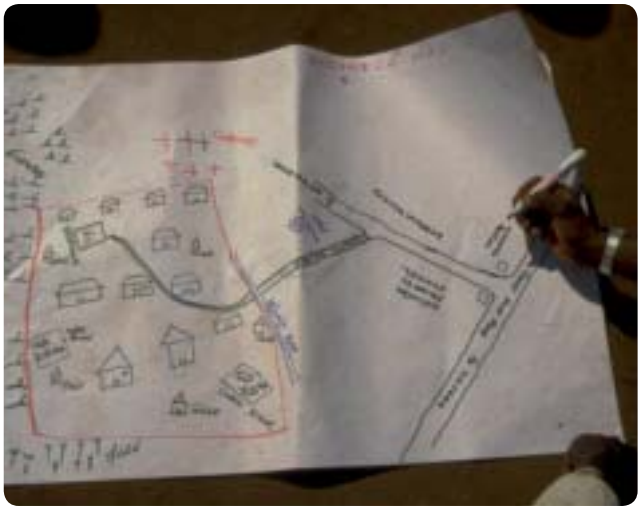
Measuring safety requires not only physical, chemical and microbial testing, but also a sanitary inspection of drinking water sources. Water quality testing would require specialized knowledge on the part of interviewers, adequate testing equipment, and a sophisticated system to analyse and enter the test results into the data set. The work involved cannot easily be addressed by household surveys that cover such areas as health, poverty, and demography, as well as drinking water and sanitation.

To overcome these problems, JMP uses the classification "improved" or "unimproved" (see page 4), which can be attributed on the basis of the information provided by household surveys. Improved drinking water sources are assumed to be more likely to provide safe drinking water than unimproved sources. Similarly, improved sanitation facilities are likely to be more sanitary than unimproved ones. The proportion of the population using *safe* drinking water is likely to be lower than that using *improved* drinking water sources.

Not necessarily all people who have access to improved facilities or sources actually use them. To provide realistic estimates, JMP has therefore adopted *use* as the primary indicator for monitoring progress in both water and sanitation. Current JMP coverage estimates are expressed as the percentage of the population *using* improved drinking water sources and improved sanitation facilities. Details of the method used to estimate coverage are available at http://www.wssinfo.org/pdf/Policies_Procedures_04.pdf. However, this report and previous JMP reports talk about *access*, as this is the term used in

[2] Lenton R, Wright AM, Lewis K. *Health, dignity and development: what will it take?* New York, UNDP, 2005.

MONITORING **DRINKING WATER AND SANITATION**



the formulation of the MDG drinking water and sanitation target and the respective indicators.

The quality of drinking water is of growing concern because of the microbial contamination and hazardous levels of chemicals (such as arsenic and fluoride) that are found in drinking water in many places throughout the world. With the support of the United Kingdom, WHO and UNICEF are in the process of finalizing a pilot study for assessing the drinking water quality provided by different improved drinking-water sources in China, Ethiopia, Jordan, Nicaragua, Nigeria and Tajikistan. Except for the study in China, these studies are nationally representative and will provide an insight into the water quality status of the current coverage figures provided by JMP.

The concept of coverage

The quality of coverage with safe drinking water and basic sanitation depends on various aspects. The following aspects are under study by JMP with a view to improving coverage estimates.

Periurban slums
The national sample surveys, from which JMP derives its national coverage estimates, sometimes provide representative data for a region or province or even a whole city, but the data cannot be broken down to identify the specific needs of locations such as rural villages, small towns or urban slums. Yet such detailed data are needed about the extent of the provision of services in each neighbourhood, for use in planning investments in drinking water and sanitation systems. Sample surveys, even when designed for a particular slum, still only provide a cross-sectional picture of the level of coverage in the entire slum. They will not allow a planner to pinpoint a specific neighbourhood or street and say something meaningful about the level of coverage. While national rural coverage data are not representative of a particular village or district, urban coverage data are not representative of a particular city or small town, let alone a specific neighbourhood or slum area.

Time to source
In rural areas, if people can reach a source of water and get back within 30 minutes, most of them fetch at least enough drinking water to satisfy their basic needs in terms of direct ingestion, cooking and hygiene. When the round trip takes more than 30 minutes, people typically haul less water than they need to meet their basic requirements[3]. As most household surveys include a question on time to source, JMP is studying the possibility of using responses to adjust its coverage estimates to reflect ease of access.

Gender disparities
Up to now, data on water and sanitation have been collected at the household level, not at the individual level, so gender-specific data are not available. In the latest round of MICS surveys undertaken in over 50 countries in 2005 and in the latest DHS surveys, questions have been included on who bears the main responsibility for water collection. This information will provide the numerical evidence base for the claim that women and girls are the main bearers of water.

Household water treatment
Household treatment is recognized to bring about huge health benefits, especially in reducing water-borne diseases. Questions on household water treatment have been included in the main surveys used by JMP, so more information will become available. However, even if people who use an unimproved source treat their water at home, there is no guarantee that they will get a sufficient quantity of water. In other words, although home water treatment is of great health benefit, it does not replace a sustainable drinking-water infrastructure.

[3] Cairncross, 2000

JMP MISSION STATEMENT

The Joint Monitoring Programme for Water Supply and Sanitation, managed by WHO and UNICEF, is the United Nations mechanism for monitoring Millennium Development Goal 7, target 10, which is to halve, by 2015, the proportion of people without sustainable access to safe drinking water and basic sanitation. Achieving this MDG target is critical for sustainable development and the eradication of poverty and hunger.

JMP embraces the principle that monitoring access to drinking water and sanitation is indispensable for promoting the prioritization of the water supply and sanitation needs of the world's most vulnerable and marginalized people.

JMP is guided by the United Nations Millennium Declaration, the Johannesburg Plan of Implementation, the 2005 World Summit Outcome Document, the General Assembly Resolution on the International Decade for Action, *Water for Life*, 2005–2015, and the outcome document of the 13th Session of the United Nations Commission on Sustainable Development.

JMP aims to inform policy-makers and civil society of trends and progress in water supply and sanitation, through the publication and dissemination of annual reports. JMP also responds to requests for data analysis from national and international sector agencies, civil society and the media.

JMP reporting is based on the analysis of data from nationally-representative household surveys. JMP seeks to ensure that data are comparable over time and between countries, by promoting common standards, definitions and methods.

JMP aims to build national capacity for sector monitoring, in a demand-responsive manner, by promoting the use of standard methods, increasing access to sector data, encouraging the use of guides and related tools, and promoting collaboration between developing countries.

JMP seeks to progressively include water quality information in its reporting, so as to more accurately report on the MDG indicator for sustainable access to safe drinking water.

JMP seeks to work in partnership with all major organizations involved in the water supply and sanitation sector, through a technical advisory group. WHO and UNICEF regional and country offices are the first point of contact for national-level activities.

RAPID ASSESSMENT OF DRINKING WATER QUALITY: A SURVEY METHOD

Because current surveys do not provide reliable information on the quality of drinking water, either at the source or in households, JMP reports on the use of "improved" sources of drinking-water. These improved sources meet specific criteria in relation to source protection and water treatment, but they do not necessarily provide safe water.

To evaluate the relationship between improved sources and the quality of drinking water from these sources, WHO and UNICEF have developed the Rapid Assessment of Drinking Water Quality (RADWQ) survey method. RADWQ is a cluster sampling approach (based on UNICEF's Multiple Indicators Cluster Surveys) to select, across a whole country, individual drinking water sources to be tested for relevant microbial, chemical and physical parameters, and inspected to detect risks of contamination.

During 2004–2005, the RADWQ method was tested in six pilot countries: China, Ethiopia, Jordan, Nicaragua, Nigeria, and Tajikistan. The project included: establishment of national steering committees; design of a RADWQ survey; training of field staff with the support of international consultants; collection and testing of water samples; sanitary inspection of drinking water sources; and final data analysis and report writing. The water quality parameters tested, both at the level of the water source and at household level, were thermotolerant coliforms, faecal streptococci, pH, turbidity, appearance, nitrate, fluoride, arsenic, iron, copper, and free and total chlorine.

Pilot project results provided a good snapshot of the quality of drinking water in the six countries. In some cases, RADWQ national investigations on the main parameters relevant to health were able, for example, to identify arsenic-contaminated supplies previously unmapped. Results of the six countries are under analysis, and findings will be compared across countries in a consolidated report.

A primary concern of the RADWQ method is to build capacity at the appropriate national level. This facilitates the establishment of government-driven programmes for recurrent national assessments of drinking water quality, which may contribute substantively to prioritizing effective measures to reduce the risks of contamination of drinking water in zones identified as being of greater vulnerability.

COUNTRY, **REGIONAL** AND **GLOBAL** **DRINKING** WATER **AND** SANITATION COVERAGE, **1990 AND 2004**

Countries, areas and territories	Year	Population			Improved Drinking Water Coverage						Improved Sanitation Coverage		
					Total		Urban		Rural				
		Total (thousands)	Urban (%)	Rural (%)	Total (%)	Household connection (%)	Total (%)	Household connection (%)	Total (%)	Household connection (%)	Total (%)	Urban (%)	Rural (%)
Afghanistan	1990	14 606	18	82	4	1	10	6	3	0	3	7	2
	2004	28 574	24	76	39	4	63	15	31	0	34	49	29
Albania	1990	3 289	36	64	96	--	99	96	94	--	--	99	--
	2004	3 112	44	56	96	69	99	96	94	47	91	99	84
Algeria	1990	25 291	51	49	94	66	99	85	89	46	88	99	77
	2004	32 358	59	41	85	74	88	85	80	58	92	99	82
American Samoa	1990	47	81	19	--	--	--	--	--	--	--	--	--
	2004	63	92	8	--	--	--	--	--	--	--	--	--
Andorra	1990	52	94	6	100	--	100	100	100	--	100	100	100
	2004	67	91	9	100	--	100	100	100	--	100	100	100
Angola	1990	10 532	26	74	36	0	23	1	40	0	29	61	18
	2004	15 490	36	64	53	6	75	15	40	1	31	56	16
Anguilla	1990	9	100	0	--	--	--	--	--	--	99	99	--
	2004	12	100	0	60	45	60	45	--	--	99	99	--
Antigua and Barbuda	1990	63	35	65	--	--	95	--	--	--	--	98	--
	2004	81	38	62	91	84	95	90	89	79	95	98	94
Argentina	1990	32 581	87	13	94	69	97	76	72	22	81	86	45
	2004	38 372	90	10	96	79	98	83	80	45	91	92	83
Armenia	1990	3 545	67	33	--	87	99	97	--	68	--	96	--
	2004	3 026	64	36	92	86	99	97	80	66	83	96	61
Aruba	1990	66	50	50	100	100	100	100	100	100	--	--	--
	2004	98	45	55	100	100	100	100	100	100	--	--	--
Australia	1990	16 873	85	15	100	--	100	--	100	--	100	100	100
	2004	19 942	92	8	100	88	100	--	100	--	100	100	100
Austria	1990	7 729	66	34	100	100	100	100	100	100	100	100	100
	2004	8 171	66	34	100	100	100	100	100	100	100	100	100
Azerbaijan	1990	7 212	54	46	68	43	82	66	51	16	--	--	--
	2004	8 355	50	50	77	47	95	76	59	19	54	73	36
Bahamas	1990	255	84	16	--	--	98	--	--	--	100	100	100
	2004	319	90	10	97	70	98	69	86	80	100	100	100
Bahrain	1990	493	88	12	--	--	100	100	--	--	--	100	--
	2004	716	90	10	--	--	100	100	--	--	--	100	--
Bangladesh [a]	1990	104 047	20	80	72	6	83	28	69	0	20	55	12
	2004	139 215	25	75	74	6	82	24	72	0	39	51	35
Barbados	1990	257	45	55	100	--	100	98	100	--	100	99	100
	2004	269	52	48	100	--	100	100	100	--	100	99	100
Belarus	1990	10 266	66	34	100	--	100	--	100	--	--	--	--
	2004	9 811	71	29	100	71	100	89	100	25	84	93	61

[a] The figures for Bangladesh have been adjusted for arsenic contamination levels on the basis of national surveys conducted and approved by the Government.

Countries, areas and territories	Year	Population			Improved Drinking Water Coverage						Improved Sanitation Coverage		
					Total		Urban		Rural				
		Total (thousands)	Urban (%)	Rural (%)	Total (%)	Household connection (%)	Total (%)	Household connection (%)	Total (%)	Household connection (%)	Total (%)	Urban (%)	Rural (%)
Belgium	1990	9 967	96	4	100	100	100	100	100	90	100	100	100
	2004	10 400	97	3	100	100	100	100	100	100	100	100	100
Belize	1990	186	48	52	--	--	100	92	--	--	--	--	--
	2004	264	48	52	91	81	100	99	82	63	47	71	25
Benin	1990	5 178	34	66	63	7	73	18	57	1	12	32	2
	2004	8 177	45	55	67	12	78	25	57	2	33	59	11
Bermuda	1990	60	100	0	--	--	--	--	--	--	--	--	--
	2004	64	100	0	--	--	--	--	--	--	--	--	--
Bhutan	1990	1 642	5	95	--	--	--	--	--	--	--	--	--
	2004	2 116	9	91	62	--	86	81	60	--	70	65	70
Bolivia	1990	6 669	56	44	72	53	91	78	49	22	33	49	14
	2004	9 009	64	36	85	73	95	90	68	44	46	60	22
Bosnia and Herzegovina	1990	4 308	39	61	97	--	99	95	96	--	--	99	--
	2004	3 909	45	55	97	85	99	95	96	77	95	99	92
Botswana	1990	1 429	42	58	93	24	100	40	88	13	38	61	21
	2004	1 769	52	48	95	46	100	62	90	28	42	57	25
Brazil	1990	149 394	75	25	83	74	93	90	55	28	71	82	37
	2004	183 913	84	16	90	79	96	91	57	17	75	83	37
British Virgin Islands	1990	17	47	53	98	97	98	97	98	97	100	100	100
	2004	22	64	36	98	97	98	97	98	97	100	100	100
Brunei Darussalam	1990	257	66	34	--	--	--	--	--	--	--	--	--
	2004	366	77	23	--	--	--	--	--	--	--	--	--
Bulgaria	1990	8 718	66	34	99	89	100	97	97	72	99	100	96
	2004	7 780	70	30	99	90	100	97	97	72	99	100	96
Burkina Faso	1990	8 532	14	86	38	4	61	24	34	1	7	32	3
	2004	12 822	18	82	61	6	94	31	54	0	13	42	6
Burundi	1990	5 670	6	94	69	3	97	32	67	1	44	42	44
	2004	7 282	10	90	79	5	92	42	77	1	36	47	35
Cambodia	1990	9 738	13	87	--	--	--	--	--	--	--	--	--
	2004	13 798	19	81	41	9	64	36	35	2	17	53	8
Cameroon	1990	11 651	40	60	50	12	77	26	31	2	48	59	40
	2004	16 038	52	48	66	14	86	25	44	2	51	58	43
Canada	1990	27 701	77	23	100	--	100	100	99	--	100	100	99
	2004	31 958	81	19	100	88	100	100	99	--	100	100	99
Cape Verde	1990	355	44	56	--	--	--	--	--	4	--	--	--
	2004	495	57	43	80	25	86	41	73	4	43	61	19
Cayman Islands	1990	26	100	0	--	--	--	--	--	--	--	--	--
	2004	44	100	0	--	--	--	--	--	--	--	--	--
Central African Republic	1990	3 000	37	63	52	2	74	4	39	0	23	34	17
	2004	3 986	43	57	75	4	93	9	61	0	27	47	12

CONTINUED

Countries, areas and territories	Year	Population			Improved Drinking Water Coverage						Improved Sanitation Coverage		
					Total		Urban		Rural				
		Total (thousands)	Urban (%)	Rural (%)	Total (%)	Household connection (%)	Total (%)	Household connection (%)	Total (%)	Household connection (%)	Total (%)	Urban (%)	Rural (%)
Chad	1990	6 055	21	79	19	2	41	10	13	0	7	28	2
	2004	9 448	25	75	42	4	41	10	43	2	9	24	4
Channel Islands	1990	142	32	68	--	--	--	--	--	--	--	--	--
	2004	149	30	70	--	--	--	--	--	--	--	--	--
Chile	1990	13 179	83	17	90	86	98	98	49	25	84	91	52
	2004	16 124	87	13	95	91	100	99	58	38	91	95	62
China	1990	1 155 305	27	73	70	48	99	81	59	36	23	64	7
	2004	1 307 989	40	60	77	69	93	87	67	57	44	69	28
China, Hong Kong SAR	1990	5 704	100	0	--	--	--	--	--	--	--	--	--
	2004	6 963	100	0	--	--	--	--	--	--	--	--	--
China, Macao SAR	1990	372	99	1	--	--	--	--	--	--	--	--	--
	2004	457	99	1	--	--	--	--	--	--	--	--	--
Colombia	1990	34 970	69	31	92	77	98	94	78	41	82	95	52
	2004	44 915	77	23	93	86	99	96	71	51	86	96	54
Comoros	1990	527	28	72	93	31	98	50	91	23	32	62	20
	2004	777	36	64	86	14	92	31	82	4	33	41	29
Congo	1990	2 484	48	52	--	--	--	--	--	4	--	--	--
	2004	3 883	54	46	58	28	84	49	27	4	27	28	25
Congo, Democratic Republic of the	1990	37 764	28	72	43	22	90	79	25	0	16	53	1
	2004	55 853	32	68	46	9	82	27	29	1	30	42	25
Cook Islands	1990	18	61	39	94	--	99	--	87	--	97	100	91
	2004	18	72	28	94	--	98	--	88	--	100	100	100
Costa Rica	1990	3 076	54	46	--	--	100	99	--	--	--	--	97
	2004	4 253	61	39	97	92	100	99	92	81	92	89	97
Côte d'Ivoire	1990	12 657	40	60	69	21	73	47	67	4	21	37	10
	2004	17 872	45	55	84	24	97	48	74	5	37	46	29
Croatia	1990	4 517	54	46	100	--	100	95	100	--	100	100	100
	2004	4 540	59	41	100	83	100	95	100	65	100	100	100
Cuba	1990	10 537	74	26	--	65	95	77	--	31	98	99	95
	2004	11 245	76	24	91	74	95	82	78	49	98	99	95
Cyprus	1990	681	65	35	100	100	100	100	100	100	100	100	100
	2004	826	69	31	100	100	100	100	100	100	100	100	100
Czech Republic	1990	10 306	75	25	100	83	100	97	100	41	99	99	97
	2004	10 229	74	26	100	95	100	97	100	91	98	99	97
Denmark	1990	5 140	85	15	100	100	100	100	100	100	100	100	100
	2004	5 414	85	15	100	100	100	100	100	100	100	100	100
Djibouti	1990	558	75	25	72	32	76	41	59	5	79	88	50
	2004	779	84	16	73	35	76	41	59	5	82	88	50
Dominica	1990	72	68	32	--	--	100	98	--	--	--	--	--
	2004	79	72	28	97	87	100	98	90	58	84	86	75

Countries, areas and territories	Year	Population			Improved Drinking Water Coverage						Improved Sanitation Coverage		
					Total		Urban		Rural				
		Total (thousands)	Urban (%)	Rural (%)	Total (%)	Household connection (%)	Total (%)	Household connection (%)	Total (%)	Household connection (%)	Total (%)	Urban (%)	Rural (%)
Dominican Republic	1990	7 090	55	45	84	63	98	85	66	35	52	60	43
	2004	8 768	60	40	95	80	97	92	91	62	78	81	73
Ecuador	1990	10 272	55	45	73	55	82	74	61	32	63	77	45
	2004	13 040	62	38	94	68	97	82	89	45	89	94	82
Egypt	1990	55 673	43	57	94	61	97	89	92	40	54	70	42
	2004	72 642	42	58	98	85	99	99	97	74	70	86	58
El Salvador	1990	5 110	49	51	67	45	87	74	48	16	51	70	33
	2004	6 762	60	40	84	64	94	81	70	38	62	77	39
Equatorial Guinea	1990	353	35	65	--	4	--	12	--	0	--	--	--
	2004	492	49	51	43	8	45	17	42	0	53	60	46
Eritrea	1990	3 038	16	84	43	6	62	40	39	0	7	44	0
	2004	4 232	20	80	60	9	74	42	57	0	9	32	3
Estonia	1990	1 584	71	29	100	80	100	92	99	51	97	97	96
	2004	1 335	70	30	100	90	100	97	99	73	97	97	96
Ethiopia	1990	51 040	13	87	23	0	81	2	15	0	3	13	2
	2004	75 600	16	84	22	5	81	32	11	0	13	44	7
Faeroe Islands	1990	47	34	66	--	--	--	--	--	--	--	--	--
	2004	47	38	62	--	--	--	--	--	--	--	--	--
Falkland Islands (Malvinas)	1990	2	50	50	--	--	--	--	--	--	--	--	--
	2004	3	100	0	--	--	--	--	--	--	--	--	--
Fiji	1990	724	42	58	--	--	--	--	--	--	68	87	55
	2004	841	52	48	47	20	43	32	51	7	72	87	55
Finland	1990	4 986	61	39	100	92	100	96	100	85	100	100	100
	2004	5 235	61	39	100	97	100	100	100	92	100	100	100
France	1990	56 735	74	26	100	99	100	100	100	95	--	--	--
	2004	60 257	76	24	100	100	100	100	100	100	--	--	--
French Guiana	1990	116	75	25	--	--	--	--	--	--	--	--	--
	2004	183	75	25	84	79	88	83	71	65	78	85	57
French Polynesia	1990	195	56	44	100	98	100	99	100	96	98	99	97
	2004	253	52	48	100	98	100	99	100	96	98	99	97
Gabon	1990	957	68	32	--	--	95	--	--	--	--	--	--
	2004	1 362	85	15	88	45	95	52	47	8	36	37	30
Gambia	1990	936	25	75	--	--	95	--	--	3	--	--	--
	2004	1 478	26	74	82	12	95	39	77	3	53	72	46
Georgia	1990	5 460	55	45	80	50	91	75	67	19	97	99	94
	2004	4 518	52	48	82	57	96	85	67	28	94	96	91
Germany	1990	79 433	85	15	100	100	100	100	100	97	100	100	100
	2004	82 645	88	12	100	100	100	100	100	97	100	100	100
Ghana	1990	15 479	36	64	55	16	86	40	37	2	15	23	10
	2004	21 664	46	54	75	19	88	37	64	4	18	27	11

CONTINUED

Countries, areas and territories	Year	Population			Improved Drinking Water Coverage						Improved Sanitation Coverage		
					Total		Urban		Rural				
		Total (thousands)	Urban (%)	Rural (%)	Total (%)	Household connection (%)	Total (%)	Household connection (%)	Total (%)	Household connection (%)	Total (%)	Urban (%)	Rural (%)
Gibraltar	1990	27	100	0	--	--	--	--	--	--	--	--	--
	2004	28	100	0	--	--	--	--	--	--	--	--	--
Greece	1990	10 160	59	41	--	84	--	91	--	73	--	--	--
	2004	11 098	61	39	--	--	--	--	--	--	--	--	--
Greenland	1990	56	79	21	--	--	--	--	--	--	--	--	--
	2004	57	82	18	--	--	--	--	--	--	--	--	--
Grenada	1990	96	32	68	--	--	97	--	--	--	97	96	97
	2004	102	41	59	95	82	97	93	93	75	96	96	97
Guadeloupe	1990	391	98	2	--	--	98	98	--	--	--	--	--
	2004	445	100	0	98	98	98	98	93	75	64	64	61
Guam	1990	134	91	9	100	--	100	--	100	--	99	99	98
	2004	167	94	6	100	--	100	--	100	--	99	99	98
Guatemala	1990	8 894	41	59	79	49	89	70	72	34	58	73	47
	2004	12 295	47	53	95	76	99	89	92	65	86	90	82
Guinea	1990	6 217	25	75	44	9	74	31	34	1	14	27	10
	2004	9 202	36	64	50	11	78	28	35	1	18	31	11
Guinea-Bissau	1990	1 016	24	76	--	--	--	--	--	0	--	--	--
	2004	1 540	35	65	59	5	79	15	49	0	35	57	23
Guyana	1990	729	33	67	--	--	--	--	--	--	--	--	--
	2004	750	38	62	83	53	83	66	83	45	70	86	60
Haiti	1990	6 867	29	71	47	9	60	27	42	2	24	25	23
	2004	8 407	38	62	54	11	52	24	56	3	30	57	14
Holy See	1990	1	100	0	--	--	--	--	--	--	--	--	--
	2004	1	100	0	--	--	--	--	--	--	--	--	--
Honduras	1990	4 867	40	60	84	58	92	82	79	42	50	77	31
	2004	7 048	46	54	87	75	95	91	81	62	69	87	54
Hungary	1990	10 365	62	38	99	86	100	94	98	73	--	100	--
	2004	10 124	66	34	99	94	100	95	98	91	95	100	85
Iceland	1990	255	91	9	100	100	100	100	100	100	100	100	100
	2004	292	93	7	100	100	100	100	100	100	100	100	100
India	1990	849 415	26	74	70	19	89	53	64	8	14	45	3
	2004	1 087 124	28	72	86	19	95	47	83	8	33	59	22
Indonesia	1990	181 414	31	69	72	10	92	27	63	2	46	65	37
	2004	220 077	47	53	77	17	87	30	69	6	55	73	40
Iran, Islamic Republic of	1990	56 674	56	44	92	84	99	96	84	69	83	86	78
	2004	68 803	67	33	94	--	99	96	84	--	--	--	--
Iraq	1990	18 515	70	30	83	76	97	94	50	33	81	95	48
	2004	28 057	67	33	81	74	97	94	50	33	79	95	48
Ireland	1990	3 515	57	43	--	98	100	99	--	96	--	--	--
	2004	4 080	60	40	--	98	100	99	--	96	--	--	--

Countries, areas and territories	Year	Population			Improved Drinking Water Coverage						Improved Sanitation Coverage		
					Total		Urban		Rural				
		Total (thousands)	Urban (%)	Rural (%)	Total (%)	Household connection (%)	Total (%)	Household connection (%)	Total (%)	Household connection (%)	Total (%)	Urban (%)	Rural (%)
Isle of Man	1990	70	51	49	--	--	--	--	--	--	--	--	--
	2004	77	52	48	--	--	--	--	--	--	--	--	--
Israel	1990	4 514	90	10	100	100	100	100	100	98	--	100	--
	2004	6 601	92	8	100	100	100	100	100	98	--	100	--
Italy	1990	56 719	67	33	--	99	100	100	--	96	--	--	--
	2004	58 033	67	33	--	99	100	100	--	96	--	--	--
Jamaica	1990	2 369	51	49	92	61	98	88	86	33	75	86	64
	2004	2 639	52	48	93	70	98	92	88	46	80	91	69
Japan	1990	123 537	63	37	100	95	100	98	100	91	100	100	100
	2004	127 923	66	34	100	96	100	98	100	91	100	100	100
Jordan	1990	3 254	72	28	97	94	99	97	91	87	93	97	82
	2004	5 561	79	21	97	93	99	96	91	81	93	94	87
Kazakhstan	1990	16 500	57	43	87	62	97	89	73	27	72	87	52
	2004	14 839	56	44	86	62	97	89	73	27	72	87	52
Kenya	1990	23 430	25	75	45	23	91	59	30	11	40	48	37
	2004	33 467	41	59	61	28	83	52	46	12	43	46	41
Kiribati	1990	72	35	65	49	25	76	46	33	13	25	33	21
	2004	97	49	51	65	36	77	49	53	22	40	59	22
Korea, Democratic People's Republic of	1990	19 690	58	42	100	--	100	--	100	--	--	--	--
	2004	22 384	61	39	100	77	100	81	100	71	59	58	60
Korea, Republic of	1990	42 869	74	26	--	--	97	96	--	--	--	--	--
	2004	47 645	81	19	92	85	97	96	71	39	--	--	--
Kuwait	1990	2 143	95	5	--	--	--	--	--	--	--	--	--
	2004	2 606	96	4	--	--	--	--	--	--	--	--	--
Kyrgyzstan	1990	4 395	38	62	78	47	98	79	66	27	60	75	51
	2004	5 204	34	66	77	45	98	79	66	27	59	75	51
Lao People's Democratic Republic	1990	4 132	15	85	--	--	--	--	--	6	--	--	--
	2004	5 792	21	79	51	14	79	44	43	6	30	67	20
Latvia	1990	2 713	70	30	99	--	100	--	96	--	--	--	--
	2004	2 318	66	34	99	81	100	93	96	59	78	82	71
Lebanon	1990	2 741	83	17	100	--	100	100	100	--	--	100	--
	2004	3 540	88	12	100	98	100	100	100	85	98	100	87
Lesotho	1990	1 593	17	83	--	4	--	18	--	1	37	61	32
	2004	1 798	18	82	79	16	92	53	76	8	37	61	32
Liberia	1990	2 136	42	58	55	11	85	21	34	3	39	59	24
	2004	3 241	47	53	61	0	72	1	52	0	27	49	7
Libyan Arab Jamahiriya	1990	4 334	80	20	71	54	72	54	68	55	97	97	96
	2004	5 740	87	13	--	--	--	--	--	--	97	97	96
Liechtenstein	1990	29	21	79	--	--	--	--	--	--	--	--	--
	2004	34	21	79	--	--	--	--	--	--	--	--	--

CONTINUED

Countries, areas and territories	Year	Population			Improved Drinking Water Coverage						Improved Sanitation Coverage		
					Total		Urban		Rural				
		Total (thousands)	Urban (%)	Rural (%)	Total (%)	Household connection (%)	Total (%)	Household connection (%)	Total (%)	Household connection (%)	Total (%)	Urban (%)	Rural (%)
Lithuania	1990	3 698	68	32	--	76	--	89	--	49	--	--	--
	2004	3 443	67	33	--	80	--	92	--	56	--	--	--
Luxembourg	1990	378	86	14	100	100	100	100	100	98	100	100	100
	2004	459	92	8	100	100	100	100	100	98	100	100	100
Macedonia, the former Yugoslav Republic of	1990	1 909	58	42	--	--	--	--	--	--	--	--	--
	2004	2 030	60	40	--	--	--	--	--	--	--	--	--
Madagascar	1990	12 045	24	76	40	7	80	28	27	1	14	27	10
	2004	18 113	27	73	46	6	77	16	35	2	32	48	26
Malawi	1990	9 459	12	88	40	7	90	44	33	2	47	64	45
	2004	12 608	17	83	73	7	98	29	68	2	61	62	61
Malaysia	1990	17 845	50	50	98	--	100	98	96	--	--	95	--
	2004	24 894	64	36	99	94	100	98	96	87	94	95	93
Maldives	1990	216	26	74	96	20	100	77	95	0	--	100	--
	2004	321	29	71	83	22	98	76	76	0	59	100	42
Mali	1990	8 894	24	76	34	2	50	8	29	0	36	50	32
	2004	13 124	33	67	50	11	78	29	36	2	46	59	39
Malta	1990	360	88	12	100	99	100	100	100	96	--	100	--
	2004	400	92	8	100	100	100	100	100	96	--	100	--
Marshall Islands	1990	47	66	34	96	--	95	--	97	--	74	88	51
	2004	60	67	33	87	--	82	--	96	--	82	93	58
Martinique	1990	360	91	9	--	--	--	--	--	--	--	--	--
	2004	394	96	4	--	--	--	--	--	--	--	--	--
Mauritania	1990	2 030	44	56	38	12	32	20	43	5	31	42	22
	2004	2 980	63	37	53	25	59	32	44	13	34	49	8
Mauritius	1990	1 057	40	60	100	100	100	100	100	100	--	95	--
	2004	1 233	44	56	100	100	100	100	100	100	94	95	94
Mexico	1990	84 296	72	28	82	77	89	86	64	52	58	75	13
	2004	105 699	76	24	97	90	100	96	87	72	79	91	41
Micronesia, Federated States of	1990	96	26	74	88	--	93	--	86	--	29	54	20
	2004	110	30	70	94	--	95	--	94	--	28	61	14
Moldova, Republic of	1990	4 364	47	53	--	--	97	--	--	--	--	--	--
	2004	4 218	46	54	92	41	97	78	88	9	68	86	52
Monaco	1990	30	100	0	100	100	100	100	--	--	100	100	--
	2004	35	100	0	100	100	100	100	--	--	100	100	--
Mongolia	1990	2 216	57	43	63	28	87	49	30	1	--	--	--
	2004	2 614	57	43	62	28	87	49	30	1	59	75	37
Montserrat	1990	11	9	91	100	--	100	98	100	--	96	96	96
	2004	4	25	75	100	--	100	98	100	--	96	96	96
Morocco	1990	24 696	48	52	75	41	94	75	58	9	56	87	27
	2004	31 020	58	42	81	57	99	86	56	17	73	88	52

Countries, areas and territories	Year	Population			Improved Drinking Water Coverage						Improved Sanitation Coverage		
					Total		Urban		Rural				
		Total (thousands)	Urban (%)	Rural (%)	Total (%)	Household connection (%)	Total (%)	Household connection (%)	Total (%)	Household connection (%)	Total (%)	Urban (%)	Rural (%)
Mozambique	1990	13 429	21	79	36	8	83	33	24	1	20	49	12
	2004	19 424	37	63	43	8	72	18	26	2	32	53	19
Myanmar	1990	40 753	25	75	57	5	86	18	47	1	24	48	16
	2004	50 004	30	70	78	6	80	16	77	2	77	88	72
Namibia	1990	1 398	27	73	57	29	99	83	42	10	24	70	8
	2004	2 009	33	67	87	48	98	77	81	33	25	50	13
Nauru	1990	9	100	0	--	--	--	--	--	--	--	--	--
	2004	13	100	0	--	--	--	--	--	--	--	--	--
Nepal	1990	19 114	9	91	70	6	95	41	67	3	11	48	7
	2004	26 591	15	85	90	17	96	52	89	11	35	62	30
Netherlands	1990	14 952	60	40	100	98	100	100	100	95	100	100	100
	2004	16 226	66	34	100	100	100	100	100	100	100	100	100
Netherlands Antilles	1990	191	68	32	--	--	--	--	--	--	--	--	--
	2004	181	70	30	--	--	--	--	--	--	--	--	--
New Caledonia	1990	171	60	40	--	--	--	--	--	--	--	--	--
	2004	233	61	39	--	--	--	--	--	--	--	--	--
New Zealand	1990	3 411	85	15	97	--	100	100	82	--	--	--	88
	2004	3 989	86	14	--	--	100	100	--	--	--	--	--
Nicaragua	1990	3 960	53	47	70	53	91	85	46	16	45	64	24
	2004	5 376	58	42	79	60	90	84	63	27	47	56	34
Niger	1990	8 472	16	84	39	3	62	19	35	0	7	35	2
	2004	13 499	23	77	46	8	80	35	36	0	13	43	4
Nigeria	1990	90 557	35	65	49	14	80	32	33	4	39	51	33
	2004	128 709	48	52	48	9	67	15	31	3	44	53	36
Niue	1990	2	50	50	100	--	100	100	100	--	100	100	100
	2004	1	100	0	100	100	100	100	100	80	100	100	100
Northern Mariana Islands	1990	44	89	11	98	--	98	93	100	--	84	85	78
	2004	79	94	6	99	--	98	--	97	35	95	94	96
Norway	1990	4 241	72	28	100	100	100	100	100	100	100	100	100
	2004	4 598	80	20	100	100	100	100	100	100	100	100	100
Occupied Palestinian Territory	1990	2 154	66	34	--	--	94	--	--	--	--	--	--
	2004	3 587	72	28	92	81	94	88	88	64	73	78	61
Oman	1990	1 843	62	38	80	25	85	35	73	8	83	97	61
	2004	2 534	78	22	--	--	--	--	--	--	--	97	--
Pakistan	1990	111 698	31	69	83	25	95	60	78	10	37	82	17
	2004	154 794	34	66	91	27	96	49	89	15	59	92	41
Palau	1990	15	73	27	80	--	73	--	98	--	70	76	54
	2004	20	70	30	85	--	79	--	94	10	83	96	52
Panama	1990	2 411	54	46	90	85	99	96	79	72	71	89	51
	2004	3 175	57	43	90	86	99	96	79	72	73	89	51

CONTINUED

Countries, areas and territories	Year	Population			Improved Drinking Water Coverage						Improved Sanitation Coverage		
					Total		Urban		Rural				
		Total (thousands)	Urban (%)	Rural (%)	Total (%)	Household connection (%)	Total (%)	Household connection (%)	Total (%)	Household connection (%)	Total (%)	Urban (%)	Rural (%)
Papua New Guinea	1990	4 114	13	87	39	11	88	61	32	4	44	67	41
	2004	5 772	13	87	39	12	88	61	32	4	44	67	41
Paraguay	1990	4 219	49	51	62	30	81	60	44	2	58	72	45
	2004	6 017	58	42	86	58	99	82	68	25	80	94	61
Peru	1990	21 753	69	31	74	57	89	75	41	16	52	69	15
	2004	27 562	74	26	83	71	89	82	65	39	63	74	32
Philippines	1990	61 104	49	51	87	24	95	41	80	8	57	66	48
	2004	81 617	62	38	85	45	87	58	82	23	72	80	59
Pitcairn	1990	0	--	--	--	--	--	--	--	--	--	--	--
	2004	0	--	--	--	--	--	--	--	--	--	--	--
Poland	1990	38 111	61	39	--	88	100	97	--	73	--	--	--
	2004	38 559	62	38	--	98	100	99	--	96	--	--	--
Portugal	1990	9 983	47	53	--	72	--	97	--	50	--	--	--
	2004	10 441	55	45	--	92	--	97	--	86	--	--	--
Puerto Rico	1990	3 528	72	28	--	--	--	--	--	--	--	--	--
	2004	3 932	97	3	--	--	--	--	--	--	--	--	--
Qatar	1990	467	89	11	100	--	100	100	100	--	100	100	100
	2004	777	92	8	100	--	100	100	100	--	100	100	100
Réunion	1990	604	81	19	--	--	--	--	--	--	--	--	--
	2004	773	92	8	--	--	--	--	--	--	--	--	--
Romania	1990	23 207	53	47	--	54	--	--	--	--	--	--	--
	2004	21 790	55	45	57	49	91	79	16	13	--	89	--
Russian Federation	1990	148 370	73	27	94	76	97	86	86	49	87	93	70
	2004	143 899	73	27	97	82	100	93	88	52	87	93	70
Rwanda	1990	7 096	5	95	59	1	88	24	57	0	37	49	36
	2004	8 882	20	80	74	8	92	34	69	1	42	56	38
Saint Helena	1990	5	40	60	--	--	--	--	--	--	--	--	--
	2004	5	40	60	--	--	--	--	--	--	--	--	--
Saint Kitts and Nevis	1990	41	34	66	99	--	99	--	99	--	95	96	96
	2004	42	31	69	99	72	99	72	99	72	95	96	96
Saint Lucia	1990	138	27	73	98	--	98	--	98	--	--	--	--
	2004	159	31	69	98	75	98	75	98	75	89	89	89
Saint Vincent and the Grenadines	1990	109	40	60	--	--	--	--	--	--	--	--	96
	2004	118	59	41	--	--	--	--	93	73	--	--	96
Saint-Pierre-et-Miquelon	1990	6	83	17	--	--	--	--	--	--	--	--	--
	2004	6	83	17	--	--	--	--	--	--	--	--	--
Samoa	1990	161	22	78	91	--	99	--	89	--	98	100	98
	2004	184	22	78	88	57	90	74	87	52	100	100	100
San Marino	1990	24	92	8	--	--	--	--	--	--	--	--	--
	2004	28	89	11	--	--	--	--	--	--	--	--	--

Countries, areas and territories	Year	Population			Improved Drinking Water Coverage						Improved Sanitation Coverage		
					Total		Urban		Rural				
		Total (thousands)	Urban (%)	Rural (%)	Total (%)	Household connection (%)	Total (%)	Household connection (%)	Total (%)	Household connection (%)	Total (%)	Urban (%)	Rural (%)
Sao Tome and Principe	1990	117	37	63	--	--	--	--	--	--	--	--	--
	2004	153	38	62	79	25	89	34	73	19	25	32	20
Saudi Arabia	1990	16 379	78	22	90	89	97	97	63	60	--	100	--
	2004	23 950	88	12	--	--	97	97	--	--	--	100	--
Senegal	1990	7 977	40	60	65	22	89	50	49	4	33	53	19
	2004	11 386	50	50	76	46	92	75	60	17	57	79	34
Serbia and Montenegro	1990	10 156	51	49	93	81	99	98	86	64	87	97	77
	2004	10 510	52	48	93	82	99	98	86	64	87	97	77
Seychelles	1990	72	50	50	88	88	100	100	75	75	--	--	100
	2004	80	50	50	88	88	100	100	75	75	--	--	100
Sierra Leone	1990	4 078	30	70	--	--	--	--	--	1	--	--	--
	2004	5 336	40	60	57	12	75	30	46	1	39	53	30
Singapore	1990	3 016	100	0	100	100	100	100	--	--	100	100	--
	2004	4 273	100	0	100	100	100	100	--	--	100	100	--
Slovakia	1990	5 256	56	44	100	95	100	99	99	89	99	100	98
	2004	5 401	58	42	100	96	100	99	99	93	99	100	98
Slovenia	1990	1 926	51	49	--	--	--	--	--	--	--	--	--
	2004	1 967	51	49	--	--	--	--	--	--	--	--	--
Solomon Islands	1990	317	14	86	--	11	--	76	--	1	--	98	--
	2004	466	17	83	70	14	94	76	65	1	31	98	18
Somalia	1990	6 674	29	71	--	1	--	3	--	0	--	--	--
	2004	7 964	35	65	29	1	32	3	27	0	26	48	14
South Africa	1990	36 877	49	51	83	55	98	87	69	24	69	85	53
	2004	47 208	57	43	88	64	99	87	73	32	65	79	46
Spain	1990	39 303	75	25	100	99	100	99	100	99	100	100	100
	2004	42 646	77	23	100	99	100	99	100	99	100	100	100
Sri Lanka	1990	17 786	21	79	68	11	91	36	62	4	69	89	64
	2004	20 570	21	79	79	10	98	32	74	4	91	98	89
Sudan	1990	26 066	27	73	64	34	85	75	57	19	33	53	26
	2004	35 523	40	60	70	26	78	46	64	13	34	50	24
Suriname	1990	402	65	35	--	--	98	--	--	--	--	99	--
	2004	446	77	23	92	81	98	91	73	48	94	99	76
Swaziland	1990	865	23	77	--	--	--	--	--	--	--	--	--
	2004	1 034	24	76	62	23	87	52	54	14	48	59	44
Sweden	1990	8 559	83	17	100	100	100	100	100	100	100	100	100
	2004	9 008	83	17	100	100	100	100	100	100	100	100	100
Switzerland	1990	6 834	68	32	100	100	100	100	100	99	100	100	100
	2004	7 240	68	32	100	100	100	100	100	99	100	100	100
Syrian Arab Republic	1990	12 843	49	51	80	69	94	92	67	46	73	97	50
	2004	18 582	50	50	93	84	98	96	87	72	90	99	81

CONTINUED

Countries, areas and territories	Year	Population			Improved Drinking Water Coverage						Improved Sanitation Coverage		
					Total		Urban		Rural				
		Total (thousands)	Urban (%)	Rural (%)	Total (%)	Household connection (%)	Total (%)	Household connection (%)	Total (%)	Household connection (%)	Total (%)	Urban (%)	Rural (%)
Tajikistan	1990	5 303	32	68	--	--	--	--	--	--	--	--	--
	2004	6 430	24	76	59	34	92	79	48	20	51	70	45
Tanzania, United Republic of	1990	26 231	22	78	46	10	85	33	35	3	47	52	45
	2004	37 627	36	64	62	18	85	43	49	3	47	53	43
Thailand	1990	54 639	29	71	95	28	98	70	94	11	80	95	74
	2004	63 694	32	68	99	38	98	85	100	16	99	98	99
Timor-Leste	1990	740	8	92	--	--	--	--	--	--	--	--	--
	2004	887	8	92	58	12	77	28	56	11	36	66	33
Togo	1990	3 961	29	71	50	4	81	14	37	0	37	71	24
	2004	5 988	36	64	52	4	80	12	36	0	35	71	15
Tokelau	1990	2	0	100	94	0	--	--	94	0	39	--	39
	2004	1	0	100	88	0	--	--	88	0	78	--	78
Tonga	1990	94	31	69	100	--	100	--	100	--	96	98	96
	2004	102	33	67	100	75	100	72	100	76	96	98	96
Trinidad and Tobago	1990	1 215	69	31	92	77	93	81	89	68	100	100	100
	2004	1 301	76	24	91	77	92	80	88	67	100	100	100
Tunisia	1990	8 219	58	42	81	61	95	87	62	26	75	95	47
	2004	9 995	64	36	93	74	99	94	82	38	85	96	65
Turkey	1990	57 300	59	41	85	62	92	70	74	51	85	96	70
	2004	72 220	67	33	96	92	98	96	93	83	88	96	72
Turkmenistan	1990	3 668	45	55	--	--	--	--	--	--	--	--	--
	2004	4 766	46	54	72	53	93	81	54	29	62	77	50
Turks and Caicos Islands	1990	12	42	58	100	--	100	--	100	--	--	98	--
	2004	25	48	52	100	68	100	78	100	60	96	98	94
Tuvalu	1990	9	44	56	89	--	92	--	89	--	78	83	74
	2004	10	60	40	93	--	94	--	92	--	90	93	84
Uganda	1990	17 758	11	89	44	3	80	24	40	0	42	54	41
	2004	27 821	12	88	60	1	87	7	56	0	43	54	41
Ukraine	1990	51 891	67	33	96	--	99	--	90	--	96	98	92
	2004	46 989	67	33	96	76	99	89	91	48	96	98	93
United Arab Emirates	1990	1 868	83	17	100	--	100	--	100	--	97	98	95
	2004	4 284	85	15	100	79	100	80	100	70	98	98	95
United Kingdom	1990	56 761	89	11	100	100	100	100	100	98	--	--	--
	2004	59 479	89	11	100	100	100	100	100	98	--	--	--
United States of America	1990	255 539	75	25	100	100	100	100	100	100	100	100	100
	2004	295 410	80	20	100	100	100	100	100	100	100	100	100
United States Virgin Islands	1990	104	88	12	--	--	--	--	--	--	--	--	--
	2004	112	94	6	--	--	--	--	--	--	--	--	--
Uruguay	1990	3 106	89	11	100	--	100	97	100	--	100	100	99
	2004	3 439	93	7	100	96	100	97	100	84	100	100	99
Uzbekistan	1990	20 515	40	60	94	59	99	88	91	40	51	69	39
	2004	26 209	36	64	82	46	95	83	75	25	67	78	61

Countries, areas and territories	Year	Population			Improved Drinking Water Coverage						Improved Sanitation Coverage		
					Total		Urban		Rural				
		Total (thousands)	Urban (%)	Rural (%)	Total (%)	Household connection (%)	Total (%)	Household connection (%)	Total (%)	Household connection (%)	Total (%)	Urban (%)	Rural (%)
Vanuatu	1990	149	19	81	60	38	93	80	53	28	--	--	--
	2004	207	23	77	60	39	86	74	52	28	50	78	42
Venezuela	1990	19 735	84	16	--	--	--	79	--	--	--	--	--
	2004	26 282	88	12	83	81	85	84	70	61	68	71	48
Viet Nam	1990	66 206	20	80	65	9	90	40	59	1	36	58	30
	2004	83 123	26	74	85	24	99	73	80	6	61	92	50
Wallis and Futuna Islands	1990	14	0	100	100	99	--	--	100	99	--	--	--
	2004	15	0	100	100	99	--	--	100	99	80	--	80
Western Sahara	1990	218	89	11	--	--	--	--	--	--	--	--	--
	2004	330	94	6	--	--	--	--	--	--	--	--	--
Yemen	1990	12 086	21	79	71	35	84	67	68	26	32	82	19
	2004	20 329	26	74	67	23	71	59	65	10	43	86	28
Zambia	1990	8 377	39	61	50	23	86	53	27	3	44	63	31
	2004	11 479	36	64	58	16	90	41	40	2	55	59	52
Zimbabwe	1990	10 565	29	71	78	34	100	97	69	8	50	69	42
	2004	12 936	35	65	81	32	98	81	72	5	53	63	47
World	**1990**	**5 279 513**	**43**	**57**	**78**	**49**	**95**	**80**	**64**	**26**	**49**	**79**	**26**
	2004	**6 389 266**	**49**	**51**	**83**	**54**	**95**	**78**	**73**	**30**	**59**	**80**	**39**
Developed regions	**1990**	**933 678**	**72**	**28**	**100**	**97**	**100**	**99**	**99**	**91**	**100**	**100**	**99**
	2004	**1 002 984**	**75**	**25**	**99**	**97**	**100**	**99**	**95**	**89**	**99**	**100**	**98**
Commonwealth of Independent States	**1990**	**281 489**	**65**	**35**	**92**	**71**	**97**	**86**	**84**	**43**	**82**	**92**	**63**
	2004	**278 264**	**64**	**36**	**92**	**72**	**99**	**90**	**80**	**39**	**83**	**92**	**67**
Developing regions	**1990**	**4 064 346**	**35**	**65**	**71**	**37**	**93**	**70**	**60**	**19**	**35**	**68**	**17**
	2004	**5 108 018**	**43**	**57**	**80**	**44**	**92**	**70**	**70**	**25**	**50**	**73**	**33**
Northern Africa	**1990**	**118 431**	**49**	**51**	**89**	**58**	**95**	**83**	**82**	**34**	**65**	**84**	**47**
	2004	**152 085**	**52**	**48**	**91**	**76**	**96**	**92**	**86**	**59**	**77**	**91**	**62**
Sub-Saharan Africa	**1990**	**517 251**	**28**	**72**	**49**	**16**	**82**	**45**	**36**	**4**	**32**	**52**	**24**
	2004	**734 641**	**36**	**64**	**56**	**16**	**80**	**36**	**42**	**4**	**37**	**53**	**28**
Latin America and Caribbean	**1990**	**443 751**	**71**	**29**	**83**	**70**	**93**	**85**	**60**	**32**	**68**	**81**	**36**
	2004	**553 725**	**77**	**23**	**91**	**80**	**96**	**90**	**73**	**45**	**77**	**86**	**49**
Eastern Asia	**1990**	**1 226 156**	**30**	**70**	**71**	**50**	**99**	**82**	**59**	**36**	**24**	**64**	**7**
	2004	**1 388 052**	**42**	**58**	**78**	**70**	**93**	**87**	**67**	**57**	**45**	**69**	**28**
Southern Asia	**1990**	**1 175 198**	**27**	**73**	**72**	**21**	**90**	**56**	**66**	**9**	**20**	**54**	**8**
	2004	**1 528 108**	**30**	**70**	**85**	**20**	**94**	**50**	**81**	**8**	**38**	**63**	**27**
South-eastern Asia	**1990**	**439 844**	**32**	**68**	**76**	**16**	**93**	**42**	**68**	**4**	**49**	**70**	**40**
	2004	**548 525**	**43**	**57**	**82**	**28**	**89**	**50**	**77**	**11**	**67**	**81**	**56**
Western Asia	**1990**	**137 281**	**62**	**38**	**85**	**68**	**94**	**83**	**70**	**45**	**81**	**97**	**55**
	2004	**194 170**	**66**	**34**	**91**	**81**	**97**	**94**	**79**	**56**	**84**	**96**	**59**
Oceania	**1990**	**6 434**	**23**	**77**	**51**	**21**	**92**	**69**	**39**	**7**	**54**	**80**	**46**
	2004	**8 712**	**25**	**75**	**50**	**21**	**80**	**57**	**40**	**9**	**53**	**81**	**43**

REACHING THE MDG **DRINKING WATER** AND SANITATION TARGET: REGIONAL AND GLOBAL STATUS IN **1990 AND 2004,** AND EFFORTS REQUIRED IN **2005–2015**

	Population		Drinking water							Sanitation						
			Coverage (%)		Required coverage to be on track to reach MDG target (%)	MDG target (%) (Halving the proportion of unserved)	Average annual increase (millions)		Progress towards the MDG target [b]	Coverage (%)		Required coverage to be on track to reach MDG target (%)	MDG target (%) (Halving the proportion of unserved)	Average annual increase (millions)		Progress towards the MDG target [b]
	Total (thousands)	Urban (%)					in population served	required to reach MDG target [a]						in population served	required to reach MDG target [a]	
World, regions	2015	2015	1990	2004	2004	2015	1990–2004	2005–2015	1990–2004	1990	2004	2004	2015	1990–2004	2005–2015	1990–2004
Developing regions	5 902 147	49	71	80	80	86	78.2	100.2	On track	35	50	55	68	76.2	146.3	Making progress but insufficient
Northern Africa	181 096	56	89	91	93	95	2.3	3.3	On track	65	77	76	83	2.7	3.3	On track
Sub-Saharan Africa	934 261	43	49	56	65	75	10.5	28.8	Not on track	32	37	52	66	7.1	34.5	Not on track
Latin America and Caribbean	634 103	81	83	91	88	92	8.9	8.0	On track	68	77	78	84	8.6	10.4	On track
Eastern Asia	1 476 616	51	71	78	80	86	14.2	18.4	On track	24	45	47	62	22.2	28.8	On track
Southern Asia	1 801 401	34	72	85	80	86	30.5	24.7	On track	20	38	44	60	22.1	50.8	Making progress but insufficient
South-eastern Asia	623 400	51	76	82	83	88	7.8	9.8	On track	49	67	65	75	9.9	10.2	On track
Western Asia	240 871	69	85	91	90	93	4.0	4.8	On track	81	84	87	91	3.5	5.6	On track
Oceania	10 399	26	51	50	66	76	0.1	0.4	Not on track	54	53	68	77	0.1	0.3	Not on track
Commonwealth of Independent States	272 596	64	92	92	94	96	-0.2	0.5	On track	82	83	87	91	0.0	1.8	On track
Developed regions	1 044 682	78	100	99	100	100	3.9	5.5	On track	100	99	100	100	4.4	4.8	On track
WORLD	7 219 425	54	78	83	85	89	81.9	110.5	On track	49	59	65	75	80.5	163.7	Making progress but insufficient

[a] Regional values do not add up to totals.

[b] On track: coverage is within 5% of the coverage required to be on track in 2004 .

Making progress but insufficient to reach the target: coverage in ascending trend and between 5% and 10% (inclusive) of the coverage required to be on track in 2004.

Not on track: coverage is over 10% below the coverage required to be on track in 2004.

MDG **REGIONAL GROUPINGS**

Figure 22
MDG regional groupings used in presenting the JMP estimates

> In charting the progress towards the Millennium Development Goals, the United Nations has classified the world's countries into three regions: developed regions, developing regions and countries in the Commonwealth of Independent States. The developing regions are further divided into subregions (Figure 22).