

# Progress on **Drinking Water** and **Sanitation**

**2012**  
UPDATE



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# Progress on Drinking Water and Sanitation **2012** UPDATE





# Foreword

Since the adoption of the Millennium Development Goals, the WHO/UNICEF Joint Monitoring Programme for Water Supply and Sanitation has reported on progress towards achieving Target 7c: reducing by half the proportion of people without sustainable access to safe drinking water and basic sanitation. This report contains the welcome announcement that, as of 2010, the target for drinking water has been met.

Since 1990, more than 2 billion people have gained access to improved drinking water sources. This achievement is a testament to the commitment of Government leaders, public and private sector entities, communities and individuals who saw the target not as a dream, but as a vital step towards improving health and well-being.

Of course, much work remains to be done. There are still 780 million people without access to an improved drinking water source. And even though 1.8 billion people have gained access to improved sanitation since 1990, the world remains off track for the sanitation target. It is essential to accelerate progress in the remaining time before the MDG deadline, and I commend those who are participating in the Sustainable Sanitation: Five Year Drive to 2015.

This report outlines the challenges that remain. Some regions, particularly sub-Saharan Africa, are lagging behind. Many rural dwellers and the poor often miss out on improvements to drinking water and sanitation. And the burden of poor water supply falls most heavily on girls and women. Reducing these disparities must be a priority.

The recognition by the UN General Assembly, in 2010, of water and sanitation as a human right provides additional political impetus towards the ultimate goal of providing everyone with access to these vital services. Many countries and agencies have joined hands in the Sanitation and Water for All partnership. Such collective efforts offer real promise and I urge all partners to contribute.

I commend this report to all those working towards universal access to safe water and sanitation. Achieving the MDG drinking water target is a major step, but ultimately, only one step on a long journey that we have yet to finish. Let us use this success to invest our mission for sustainable, equitable development with renewed vigour so we can create the future we want.



Ban Ki-moon  
*Secretary-General, United Nations*

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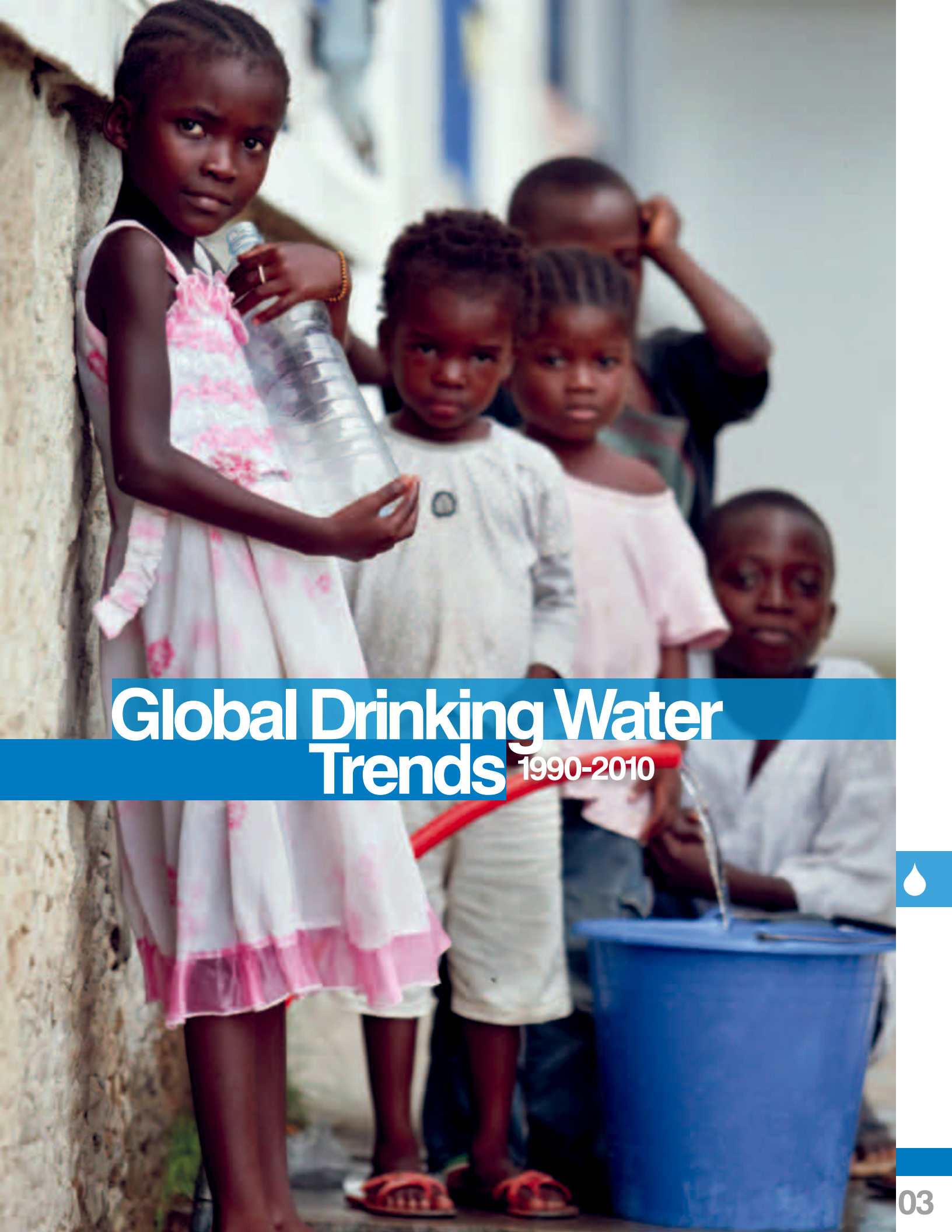
# Looking Forward, Looking Back

**The WHO/UNICEF Joint Monitoring Programme for Water Supply and Sanitation, known as the JMP**, reports every two years on access to drinking water and sanitation worldwide and on progress towards related targets under Millennium Development Goal 7. This 2012 report is based on data gathered from household surveys and censuses, including both recent and older data sets that have come to the attention of the JMP. The estimates presented here describe the situation as of end-2010 and supersede those of the JMP update published in March 2010.

The report brings welcome news: The MDG drinking water target, which calls for halving the proportion of the population without sustainable access to safe drinking water between 1990 and 2015, was met in 2010, five years ahead of schedule. However, the report also shows why the job is far from finished. Many still lack safe drinking water, and the world is unlikely to meet the MDG sanitation target. Continued efforts are needed to reduce urban-rural disparities and inequities associated with poverty; to dramatically increase coverage in countries in sub-Saharan Africa and Oceania; to promote global monitoring of drinking water quality; to bring sanitation 'on track'; and to look beyond the MDG target towards universal coverage.

Still, much has been achieved. As this progress report shows, over 2 billion people gained access to improved water sources and 1.8 billion people gained access to improved sanitation facilities between 1990 and 2010. This is impressive, particularly when the gains of countries that started at a low baseline and faced high population growth are considered. Indeed, much of the progress of the last 20 years has been in the context of rapid population growth, and this is why some of the news in this report is sobering. Over 780 million people are still without access to improved sources of drinking water and 2.5 billion lack improved sanitation. If current trends continue, these numbers will remain unacceptably high in 2015: 605 million people will be without an improved drinking water source and 2.4 billion people will lack access to improved sanitation facilities.

As we approach the 2015 target date for the MDGs, WHO and UNICEF are addressing current monitoring challenges and those that lie ahead. The safety and reliability of drinking water supplies and the sustainability of both water supply sources and sanitation facilities are not addressed by the current set of indicators used to track progress. Accordingly, this report details work under way to refine both indicators and methods of monitoring, as part of the 2010-2015 JMP strategy. It also discusses the beginnings of a process to develop new water, sanitation and hygiene goals, targets and indicators beyond 2015, in alignment with the human right to water and sanitation and the mandate of the UN Special Rapporteur on the Human Right to Water and Sanitation.



# Global Drinking Water Trends 1990-2010







## Progress Towards the MDG Target

The MDG drinking water target has been reached: Over 2 billion people gained access to improved water sources from 1990 to 2010, and the proportion of the global population still using unimproved sources is estimated at only 11 per cent (Figure 1). This is less than half of the 24 per cent estimated for 1990. Almost 6.1 billion people, 89 per cent of the world's population, were using an improved water source in 2010. The drinking water target has thus become one of the first MDG targets to be met.

While this tremendous achievement should be applauded, a great deal of work remains:

**First, huge disparities exist.** While coverage of improved water supply sources is 90 per cent or more in Latin America and the Caribbean, Northern Africa and large parts of Asia, it is only 61 per cent in sub-Saharan Africa. Coverage in the developing world overall stands at 86 per cent, but it is only 63 per cent in countries designated as 'least developed'. Similar disparities are found within countries – between the rich and poor and between those living in rural and urban areas. These inequities are explored later in this report.

**Second, complete information about drinking water safety is not available for global monitoring.** Systematically testing the microbial and chemical

quality of water at the national level in all countries is prohibitively expensive and logistically complicated; therefore, a proxy indicator for water quality was agreed upon for MDG monitoring. This proxy measures the proportion of the population using 'improved' drinking water sources, defined as those that, by the nature of their construction, are protected from outside contamination, particularly faecal matter. However, some of these sources may not be adequately maintained and therefore may not actually provide 'safe' drinking water. As a result, it is likely that the number of people using safe water supplies has been over-estimated (see Box 1).

The MDG drinking water target has been met

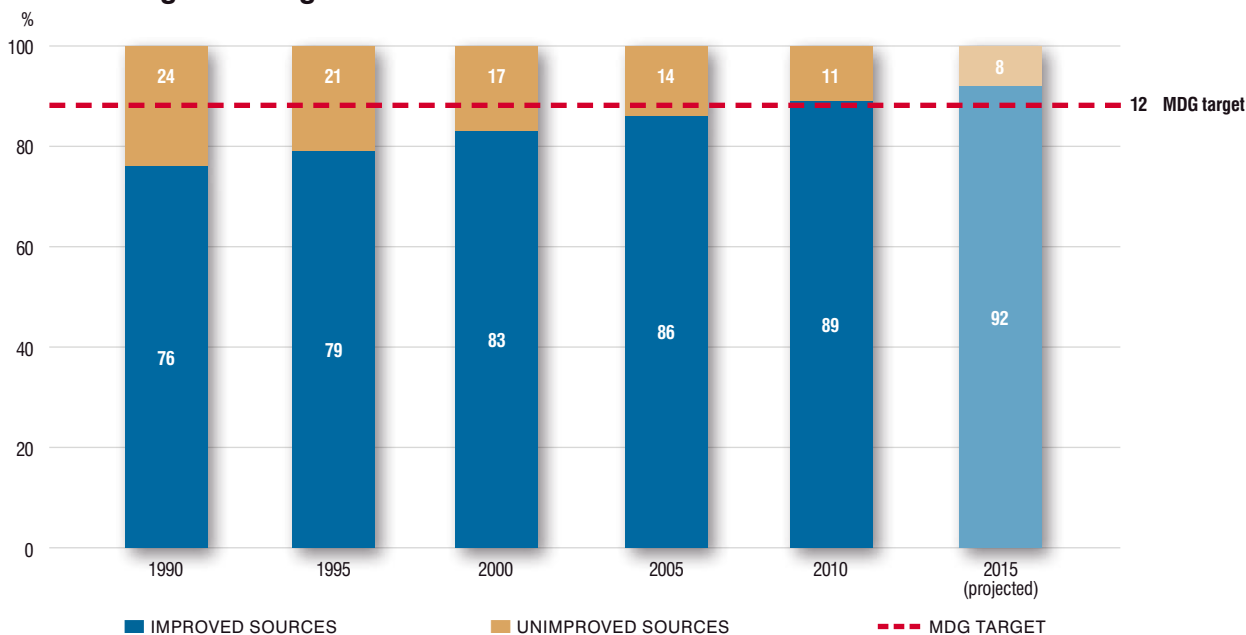
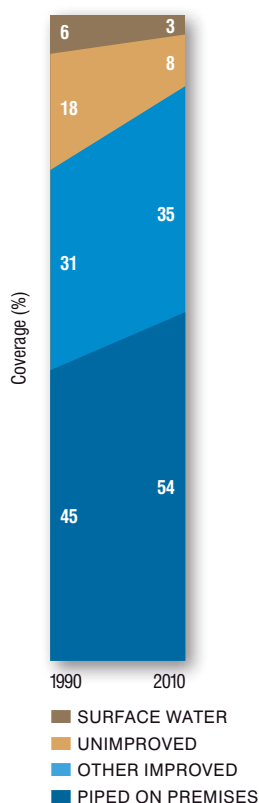


FIGURE 1 Trends in global drinking water coverage, 1990-2010, projected to 2015

**Finally, more than 780 million people remain unserved.** Although the MDG drinking water target has been met, it only calls for halving the proportion of people without safe drinking water. More than one tenth of the global population still relied on unimproved drinking water sources in 2010.

Figure 2 illustrates the global trend in the use of drinking water sources, disaggregated by category. The last two decades have seen impressive increases in the use of both piped connections to a dwelling, plot or yard and other improved sources, such as protected dug wells, boreholes, rainwater collection and standpipes.

**Drinking water coverage increased from 76 per cent in 1990 to 89 per cent in 2010**



**FIGURE 2**

Trend in the proportion of the global population using piped drinking water on premises, other improved drinking water sources, unimproved sources and surface water, 1990-2010

## BOX 1

### Monitoring the global targets for drinking water and sanitation: Challenges and achievements

In the two decades that WHO and UNICEF have been tracking progress in water and sanitation, advances have been made in the availability and quality of data and the methods used to measure them:

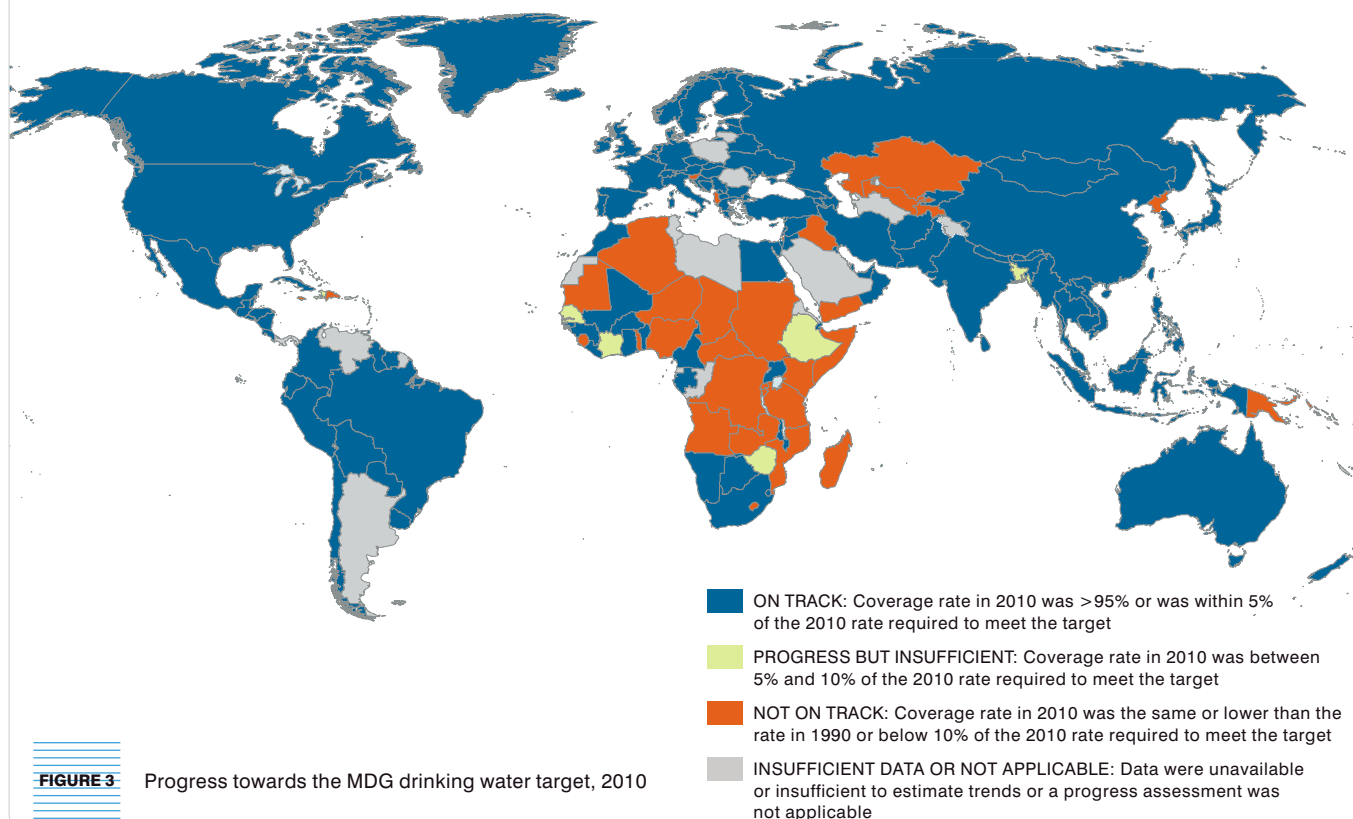
- **A shift from provider- to user-based data:** Initially the JMP relied almost exclusively on government data, which were largely drawn from water-utility companies and line ministries and were based on the number of facilities constructed. The figures did not reflect facilities that had fallen into disrepair or were constructed by others outside of government-supported programmes. A key improvement in the mid-1990s was a shift to user-based data, collected through household surveys and population censuses, which more accurately reflect actual use of water and sanitation facilities by individual households.
- **More standardized data:** Lack of comparability of data on drinking water sources and sanitation facilities among countries and over time has posed a huge challenge to global monitoring. In response, WHO and UNICEF assisted the major household surveys to incorporate harmonized questions into their questionnaires, and in 2006 they published 'Core Questions on Drinking Water and Sanitation for Household Surveys' to encourage their more widespread use. This increased standardization has greatly enhanced the comparability of data.
- **Increased availability of data:** The late 1990s saw an unprecedented increase in the availability of household survey data, largely due to the implementation of the UNICEF-supported Multiple Indicator Cluster Survey (MICS) and the Demographic and Health Survey (DHS), initiated by the United States Agency for International Development (USAID).
- **Expanded JMP database:** In 2000, some 220 sources of data could be found in the JMP database; this current update reflects more than 1,400 sources.
- **Greater disaggregation of data:** The introduction of drinking water and sanitation 'ladders' has allowed categories such as 'piped drinking water on premises' and 'open defecation' to be highlighted.

Still, data limitations abound. One major information gap is the safety of drinking water supplies. Since cost-effective, periodic and standardized water quality testing was not possible on a global scale when the MDG target was formulated, and since nationally representative information on water safety was not available for the period following the baseline year (1990), WHO and UNICEF were obliged to use a proxy for 'sustainable access to safe drinking water', as specified in the MDG target. The agreed proxy was 'use of an improved water source', where 'improved' was determined by the type of technology a household reported as their primary source. An improved source is one that, through technological intervention, increases the likelihood that it provides safe water.

To date it has remained impractical to obtain water quality data at the national level for all countries. The main international household surveys – MICS and DHS – are piloting the inclusion of a water-quality module that will include testing for the presence of *E. coli*. This is made feasible in part by the availability of new, rapid, low-cost water quality testing kits. If successful, it could lead to further evolution in monitoring and pave the way for a future drinking water target that includes a measure of water quality.

Similarly, a proxy for sustainable access to basic sanitation is the use of improved sanitation facilities. Measuring the actual sustainability of both water and sanitation facilities remains an area that could benefit from further attention. For a more detailed discussion of these issues, see section on 'Data Limitations', on page 34.

## Sub-Saharan Africa and Oceania are not on track to meet the MDG drinking water target



For the first time, data on the use of unimproved sources have been disaggregated into two categories: surface water and other unimproved sources. The latter includes unprotected dug wells, unprotected springs and water delivered by cart or tanker. Surface water includes water collected directly from rivers, lakes, ponds, irrigation channels and other surface sources. The use of surface water stands at a surprisingly high 3 per cent of the global population, or 187 million people. Most of these people – 94 per cent – are rural inhabitants, and they are concentrated in sub-Saharan Africa. In fact, 19 per cent of rural dwellers in sub-Saharan Africa and 39 per cent of rural residents in Oceania rely on surface water for drinking and cooking.<sup>1</sup>

The MDGs are global goals with associated global targets. These have been translated into targets at the

national level. The same methodology that is used to determine progress at the global level can be applied to individual countries, using JMP estimates to assess whether a country is on- or off-track in meeting its targets. The results are illustrated in Figure 3, which shows that the majority of countries lagging behind on the drinking water target are in sub-Saharan Africa. In fact, only 19 out of 50 countries in that region are on track to meet the target by 2015.

Figure 4 shows the number of people who have gained access to an improved drinking water source since 1990. The progress of India and China not only dominates their respective regions, but represents nearly half of the global progress towards the drinking water target. If only the developing world is considered, China and India represent more than half of the people who have gained access. This is not

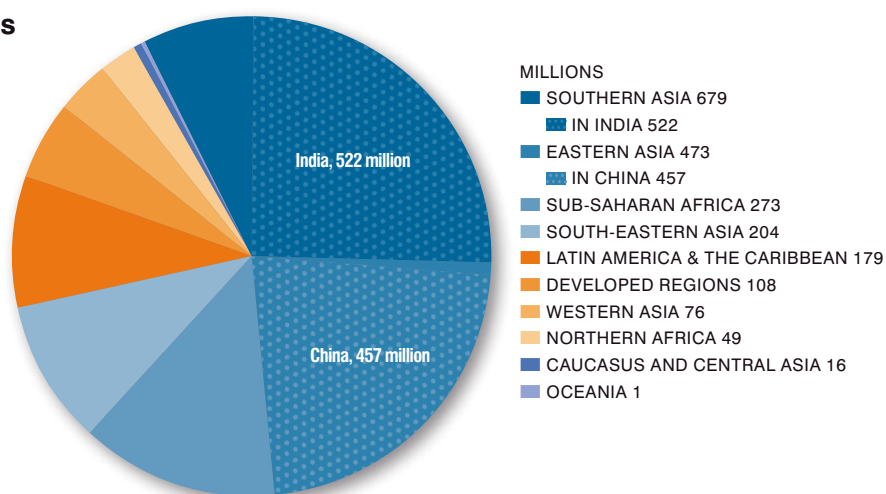
surprising, however, since the inhabitants of these two countries represent 46 per cent of the developing world's population.

Wide variations are found in the rate at which regions have improved coverage. In general, regions in which coverage was already high have made more modest gains, rising by only a few percentage points over 20 years. Of note are the impressive gains in Eastern Asia, which added 23 percentage points, and the small decline in coverage in the Caucasus and Central Asia<sup>2</sup> and in Oceania (Figure 5).

<sup>1</sup> It should be kept in mind throughout this report that data from Oceania are limited. Each of the small island states in the region has a very small number of data points, many of which date back several years, making it difficult to prepare robust estimates for 2010.

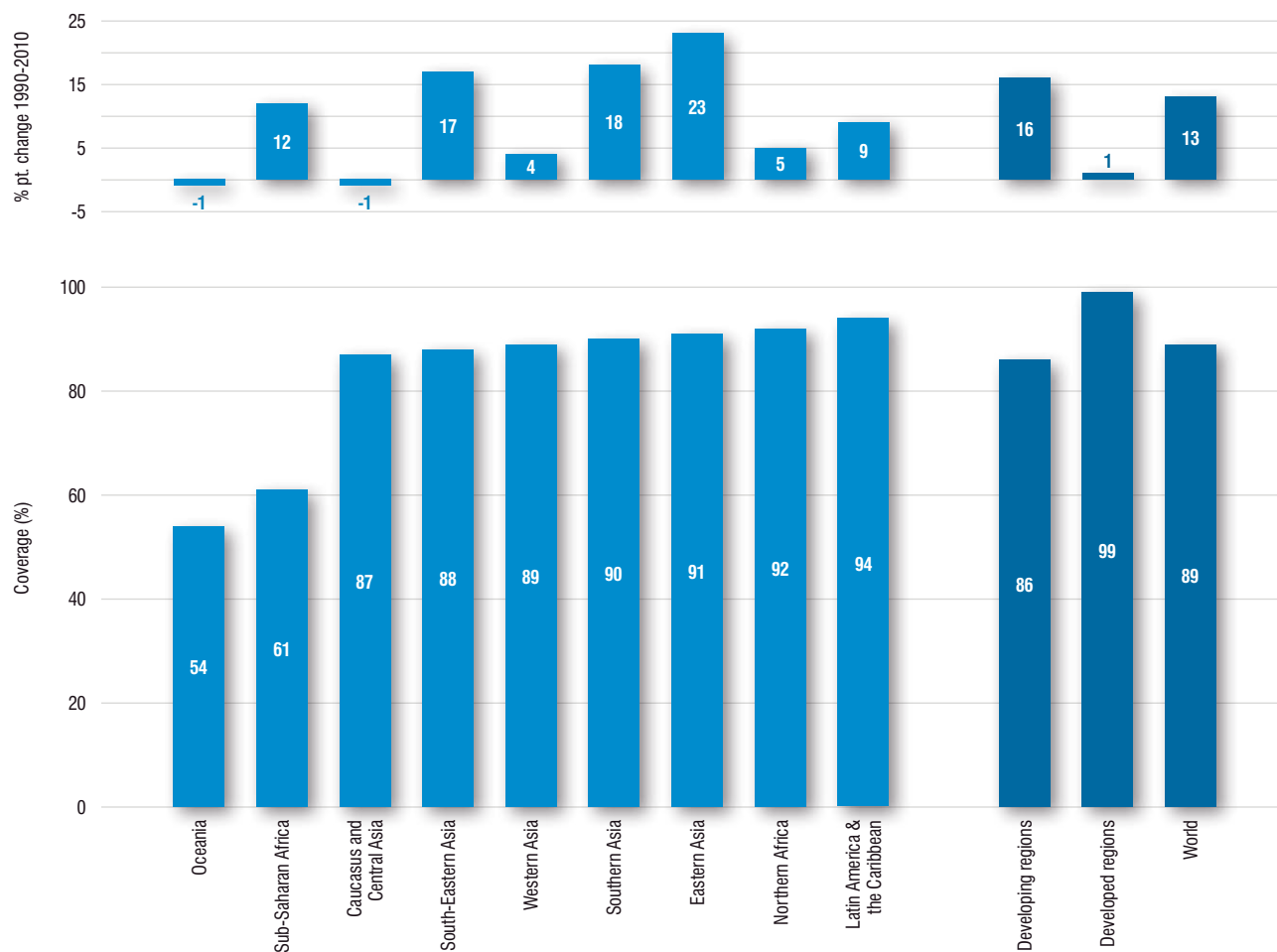
<sup>2</sup> The Caucasus and Central Asia is a newly formed MDG region, replacing the Commonwealth of Independent States (which included the Russian Federation, Ukraine and Belarus). The new region is composed of Armenia, Azerbaijan, Georgia, Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan.

**Almost half of the two billion people who have gained access to drinking water since 1990 live in China or India**



**FIGURE 4** Number of people who gained access to improved drinking water sources from 1990 to 2010 by MDG region (millions)

**Since 1990, drinking water coverage in the developing world has increased by 16 percentage points**



**FIGURE 5** Use of improved drinking water sources by MDG region in 2010, and percentage-point change 1990-2010





## Regional Trends

Figure 6 shows trends in the use of different types of water sources from 1990 to 2010, by MDG regions. Two clear groupings emerge. The first is a set of regions in which the use of piped water to a dwelling, plot or yard is low (30 per cent or less). It includes sub-Saharan Africa, Oceania, Southern Asia and South-Eastern Asia. Although gains in the use of piped water on premises have been made in these regions, progress is mostly in the 'other improved' category of water sources. Of note is the fact that 65 per cent of the population in Southern Asia are using other improved sources rather than piped water on premises.

The second group consists of Eastern Asia, Northern Africa, Western Asia and Latin America and the Caribbean, where at least 70 per cent of the population are using piped water on premises. Eastern Asia (dominated by China) has seen a dramatic increase in piped water supplies since 1990, gaining 35 percentage points in coverage in this category in 20 years; 562 million new users have been added during a period in which the world as a whole added only 9 percentage points. Eastern Asia is also the region with the most dramatic increase in the use of improved drinking water sources overall, starting at 68 per cent

in 1990 and moving to 91 per cent coverage in 2010. This represents a 23 percentage-point increase, far higher than any other region.

Significant proportions of the population in Oceania and sub-Saharan Africa are still using surface water.

Countries that still have less than 50 per cent coverage in water supply are almost all in sub-Saharan Africa (Figure 7).

Figure 8 shows the number of people without improved water sources in the 10 countries with the largest unserved populations. Though they are on track to reach the target, China and India

Access to piped water supplies on premises varies widely among regions

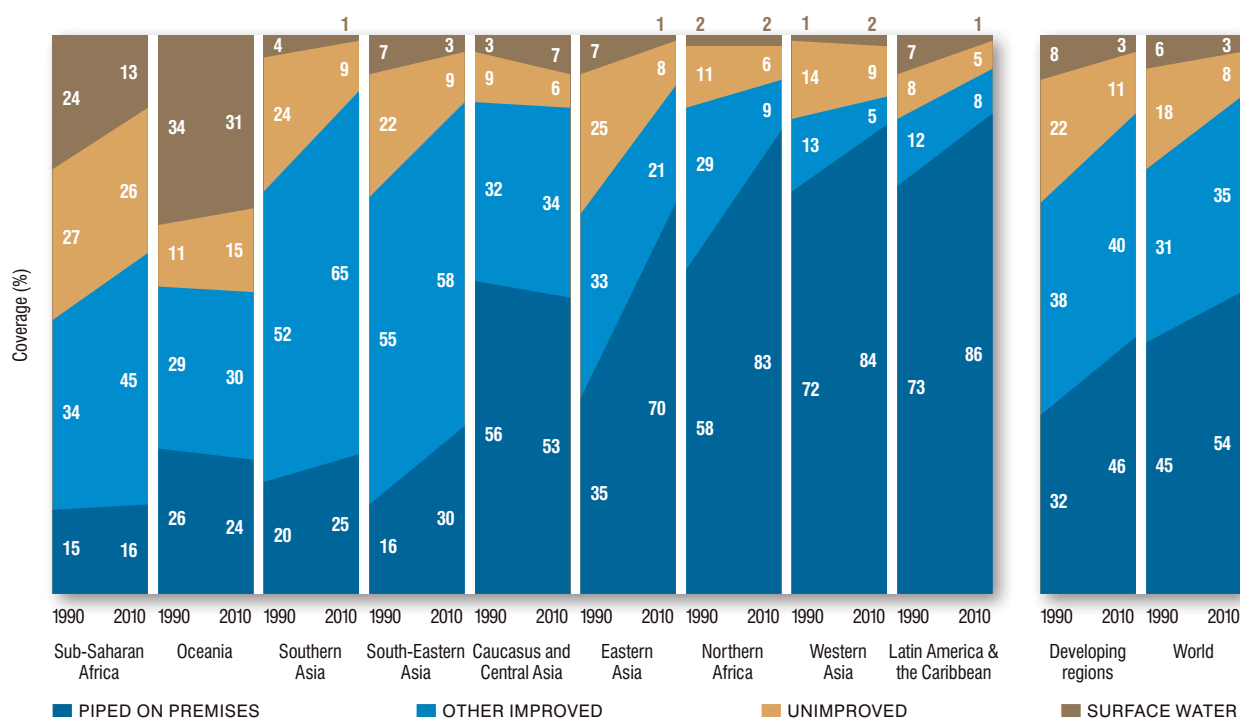
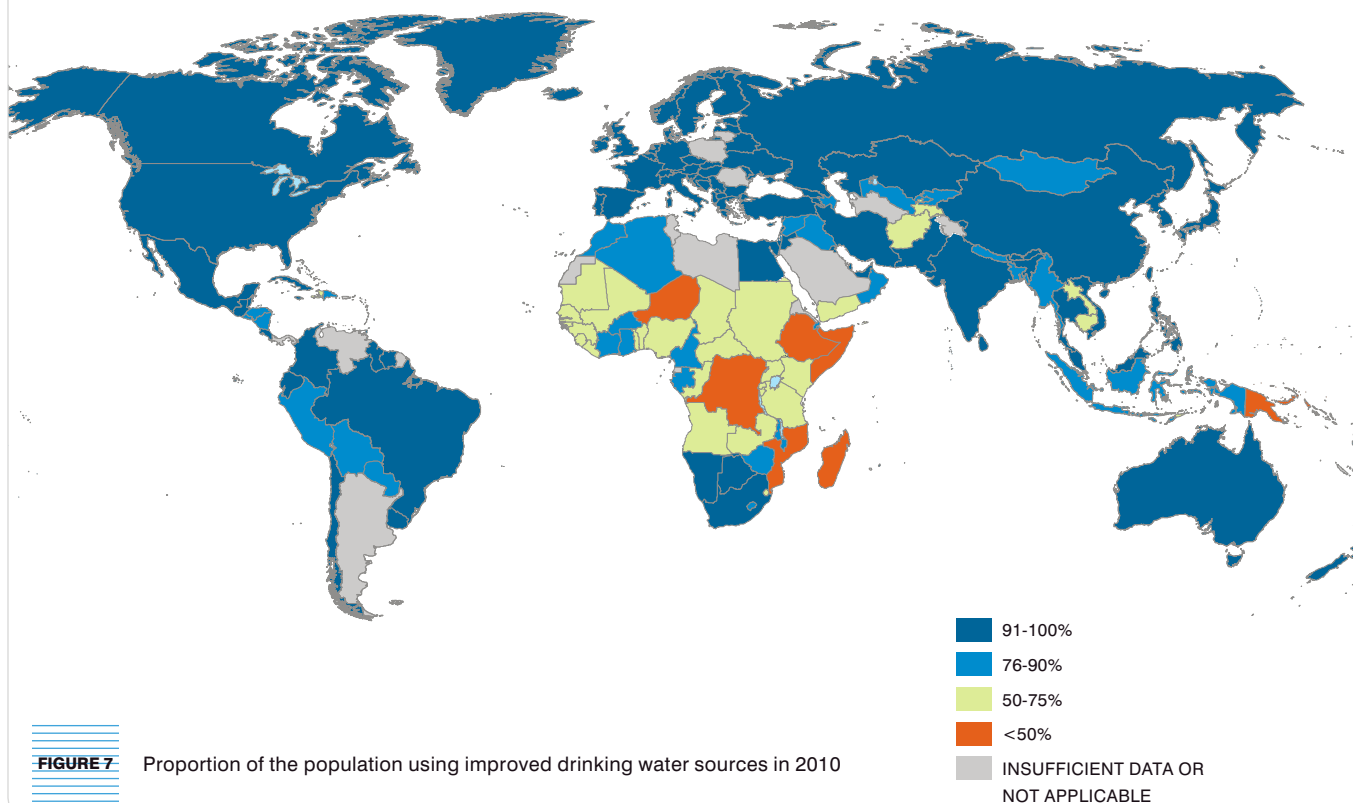


FIGURE 6 Drinking water coverage trends by developing regions, 1990-2010

## Sub-Saharan Africa has the lowest drinking water coverage of any region

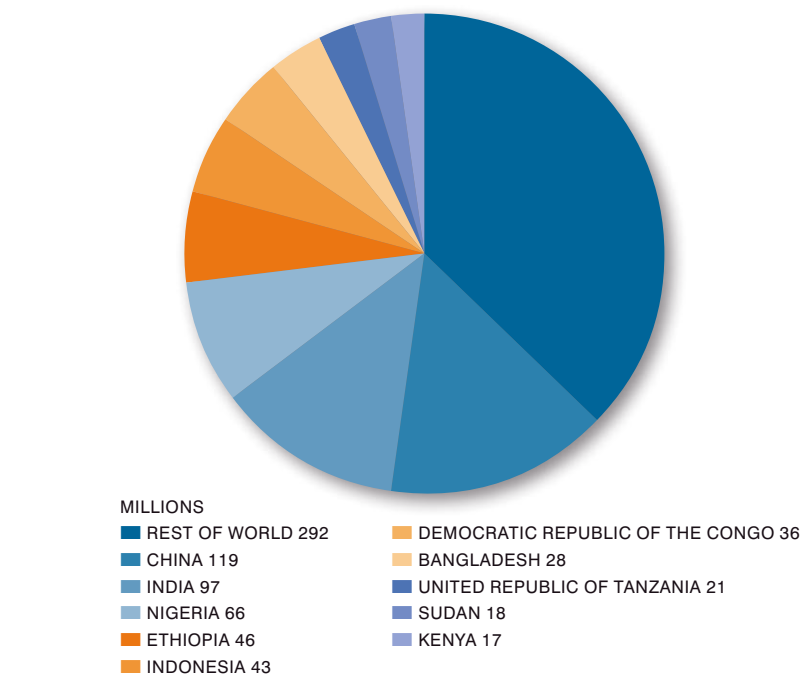


combined are still home to 216 million people without access to improved water supplies. This represents 28 per cent of the global population that remains unserved.

The last two decades have seen major shifts in the proportion of the global population using various types of drinking water sources (Tables 1 and 2).<sup>3</sup> The biggest change has been the increase in piped water supplies on premises, which were used by 54 per cent of people worldwide in 2010 – up from 45 per cent in 1990. In rural areas, the use of piped water on premises grew even faster – from 18 per cent in 1990 to 29 per cent in 2010. Over the same period, reliance on surface water was halved, from 10 per cent to 5 per cent in rural areas and from 6 per cent to 3 per cent for

<sup>3</sup> This is discussed in more detail in the 2011 UNICEF and WHO thematic report entitled *Drinking Water: Equity, Safety and Sustainability*.

## Ten countries are home to two thirds of the global population without an improved drinking water source



**FIGURE 8** Ten countries with the largest population without access to an improved drinking water source in 2010, population without access (millions)

the total population. In urban areas, the proportion of people using piped water on premises remained almost the same in percentage terms, but the massive increases in urban populations during this time meant that the absolute number of urban dwellers using water piped to their homes grew by a billion, from 1.8 billion to 2.8 billion.

The number of people relying on tanker trucks and small vendors for drinking water has almost doubled over the same 20-year period, from

44 million to 85 million (this category does not count as 'improved', due to concerns over water quality). The number of people using bottled water to meet their drinking water needs also increased, rising more than sixfold – from 37 million in 1990 to 228 million in 2010. A large majority of bottled-water users live in urban areas, and most are also users of piped water on premises. Bottled water is considered 'improved' only when the household also uses water

from an improved source for cooking and personal hygiene.

The number of people using boreholes (which are usually handpump-operated) grew from 1 billion in 1990 to 1.3 billion in 2010. Eighty per cent of borehole users, almost a billion people, are in rural areas. While boreholes offer significant advantages over dug wells in terms of water quality, many boreholes with handpumps still impose a considerable burden on users in terms of the time and effort needed to collect the water.

**Global trends in the use of different drinking water sources (percentage)**

Facility type	Urban (%)		Rural (%)		Total (%)	
	1990	2010	1990	2010	1990	2010
Piped on premises	81	80	18	29	45	54
Public taps	5	6	6	8	5	7
Boreholes	6	8	29	30	19	18
Rainwater	0	0	1	2	1	1
Dug wells	5	4	27	19	18	12
Springs	1	1	8	6	5	4
Tanker trucks and small cart with drum	1	1	1	1	1	1
Surface water	1	0	10	5	6	3
Bottled water*	1	6	0	1	1	3

\*Survey data show that most people who use bottled water as their main source of drinking water also have piped water on premises as a secondary source. Bottled-water users are counted under the category 'piped on premises' in the table above.

**TABLE 1** Proportion of the population by types of drinking water sources by urban or rural areas, 1990 and 2010 (per cent)

**Global trends in the use of different drinking water sources (population)**

Facility type	Urban (millions)		Rural (millions)		Total (millions)	
	1990	2010	1990	2010	1990	2010
Piped on premises	1,820	2,763	538	973	2,358	3,737
Public taps	120	205	168	260	288	465
Boreholes	138	255	878	996	1,016	1,251
Rainwater	6	13	41	76	47	89
Dug wells	111	151	843	656	954	807
Springs	15	33	235	221	250	254
Tanker trucks and small cart with drum	24	42	20	43	44	85
Surface water	17	11	313	175	331	187
Bottled water*	26	192	11	36	37	228

\*Survey data show that most people who use bottled water as their main source of drinking water also have piped water on premises as a secondary source. Bottled-water users are counted under the category 'piped on premises' in the table above.

**TABLE 2** World population by types of drinking water sources by urban or rural areas, 1990 and 2010 (millions)



## An Alternative Indicator of Progress

Assessing progress towards the MDG target alone creates an incomplete picture, since countries that started out with low baseline coverage have had to work much harder to halve the proportion of the population without water and sanitation. Added to this is the challenge of rapid population growth, which can easily mean that any gains in people served are overtaken by population growth. Moreover, it is the poorest countries that are often characterized by a combination of low baseline coverage and high population growth. This means that countries may be making significant progress in the absolute number of people served, but still be persistently ‘off track’.

In response, the JMP has developed an alternative indicator that represents the proportion of the current population that has gained access over the period from 1995 to the most recent update, in this case 2010. It is thus the percentage of people living in a country today who have gained access in the last 15 years.<sup>4</sup> This indicator can be used to assess a country’s performance irrespective of whether it started out with high or low baseline coverage.

The indicator is expressed as:

***the increase since 1995 in the number of people with access as a proportion of the current (2010) population.***

	Population in 2010 (millions)	Water supply coverage in 2010 (%)	Population that gained access to improved sources of drinking water since 1995	MDG progress	Proportion of 2010 population that gained access to improved drinking water sources since 1995 (%)
Malawi	14.9	83	7.2	On track	48.4
Burkina Faso	16.5	79	7.5	On track	45.5
Liberia	4.0	73	1.7	On track	42.8
Ghana	24.4	86	10.3	On track	42.3
Namibia	2.3	93	0.9	On track	40.6
Gambia	1.7	89	0.7	On track	37.7
Rwanda	10.6	65	3.3	Not on track	30.7
Sierra Leone	5.9	55	1.6	Not on track	27.0
Togo	6.0	61	1.6	Not on track	26.1
<b>Sub-Saharan Africa</b>	<b>856</b>	<b>61</b>	<b>221</b>	<b>Not on track</b>	<b>25.8</b>

**TABLE 3**

Selected countries in sub-Saharan Africa that have performed above the regional average in terms of the proportion of their 2010 population that gained access to improved drinking water sources since 1995

Table 3 shows selected countries in sub-Saharan Africa that have performed above the regional average of nearly 26 per cent. Some countries have made remarkable progress in providing large proportions of their population with access to improved drinking water sources, and this is true even of countries that are off track in terms of MDG progress. Rwanda and Sierra Leone, for instance, both experienced conflict during the period 1995 to 2010, but have nevertheless shown greater progress than that suggested by the regional average. In Rwanda, more than 30 per cent of the population have gained access to improved drinking water sources since 1995; this represents over 3 million people. Even countries that have not reported such good progress are noteworthy in terms of the number of people served.

The Democratic Republic of the Congo has provided improved water sources for only about 16 per cent of its population since 1995; still, this represents more than 10 million people. It is remarkable that sub-Saharan Africa has outstripped Eastern Asia in terms of the proportion of the current population that have gained access in the last 15 years.

Afghanistan also shows stunning progress when viewed in this way. The country has provided almost half its population (more than 15 million people) with access to improved water sources during a turbulent 15-year period, far surpassing the Southern Asian regional average of 30.9 per cent.

<sup>4</sup> Although using population with access figures for 1990 would be ideal, 1995 is used instead since the JMP had drinking water coverage estimates for 191 countries for 1995, as opposed to only 157 countries for 1990.





In Figure 9, data used to track progress towards the MDG drinking water target are disaggregated by rural and urban areas. The results show stark disparities between urban and rural coverage, illustrating the challenges in equitable achievement of the MDGs.

An estimated 96 per cent of the urban population globally used an improved water supply source in 2010, compared to 81 per cent of the rural population. This means that 653 million rural dwellers lacked improved sources of drinking water.

Similarly, 80 per cent of the world's urban population had piped water connections, compared to only 29 per cent of people in rural areas.

In urban areas, the rate of increase in piped water on premises has stagnated over the last 20 years. The rate of increase has been higher in rural areas, but coverage remains low.

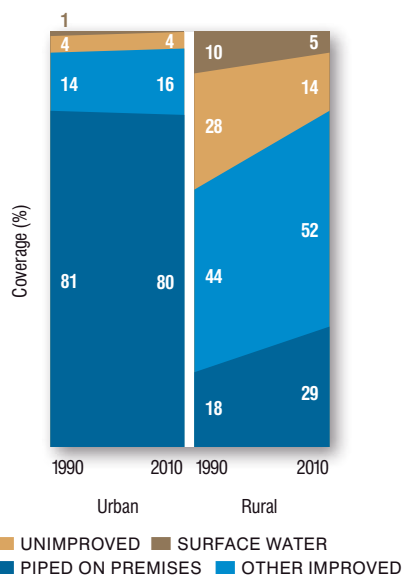
Figure 10 shows the significant increase in the urban population that gained access to improved water sources between 1990 and 2010 – well over a billion people. However, the number of urban dwellers using unimproved sources actually increased, from 109 million to 130 million. This must be viewed in relation to the massive growth in the urban population over the same time period – rising from 2.3 billion to 3.5 billion people. By contrast, in rural areas, the number of people using

unimproved sources decreased from 1.1 billion to 653 million, during a time of more modest population growth. Though the ratio has improved since 1990, the number of people in rural areas using an unimproved water source in 2010 was still five times greater than in urban areas.

Figures 11 and 12 show that while many countries have less than 50 per cent coverage of drinking water in rural areas, no country has less than 50 per cent coverage in urban areas.

The figures in the Annex on page 56 illustrate urban-rural disparities in drinking water coverage in developing regions.

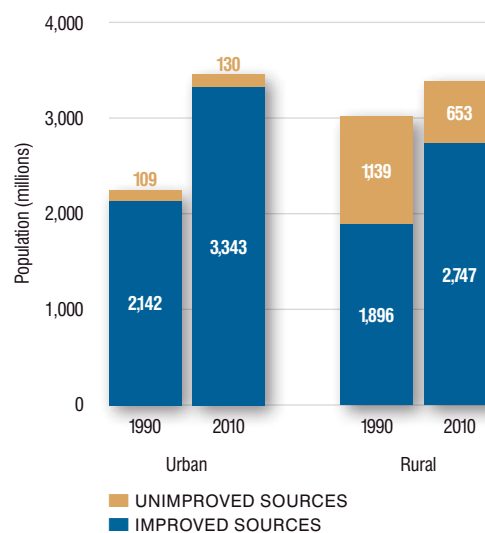
**Piped water on premises is a convenience enjoyed largely by urban populations**



**FIGURE 9**

Drinking water coverage trends by urban and rural areas, 1990-2010

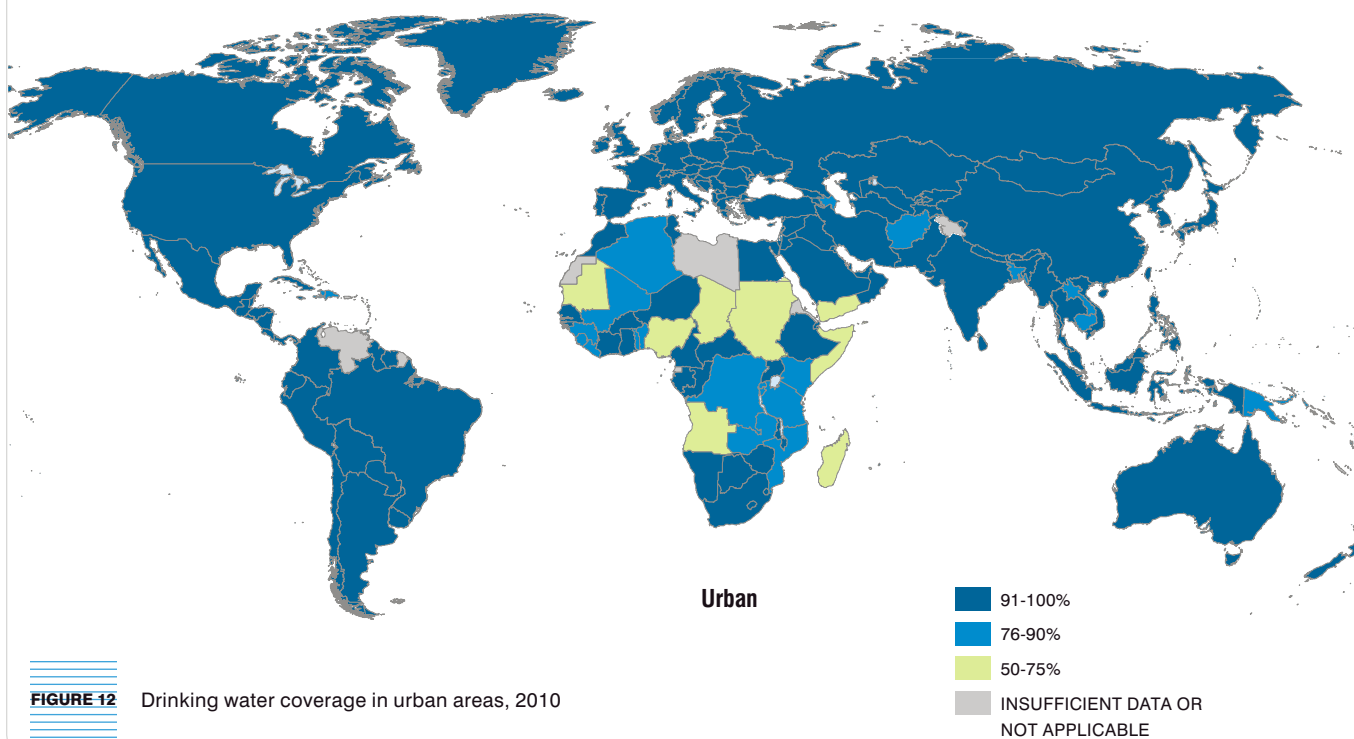
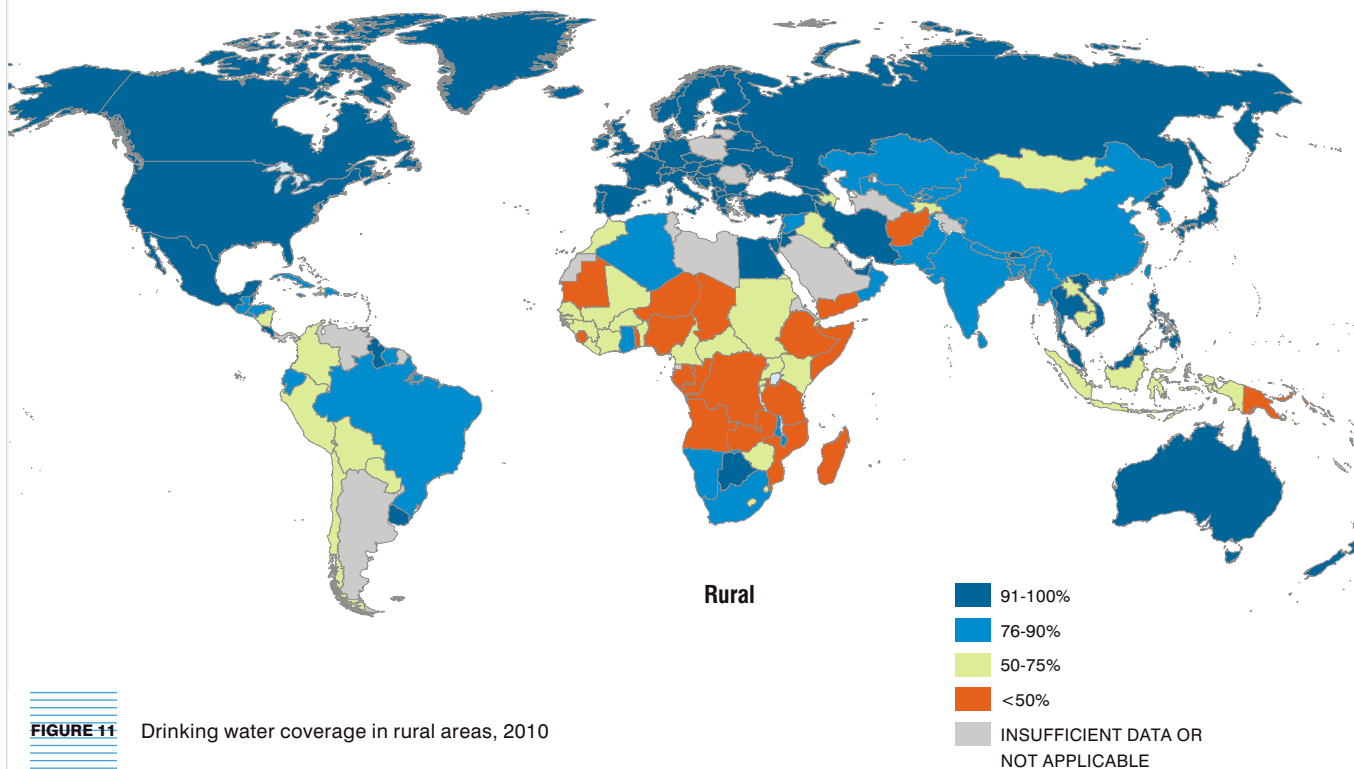
**1.2 billion people in urban areas gained access to an improved drinking water source between 1990 and 2010**



**FIGURE 10**

Population using improved and unimproved sources of drinking water by urban and rural areas, 1990-2010 (millions)

## Most people without an improved drinking water source live in rural areas



A close-up photograph of several children looking intently at a public water tap. One child's hands are shown turning the tap handle. The background is slightly blurred, showing a public facility setting.

# Global Sanitation Trends 1990-2010

## Progress Towards the MDG Target

Though it is unlikely that the world will meet the MDG sanitation target by 2015, encouraging progress is being made. Globally, 63 per cent of the population use improved sanitation facilities, an increase of almost 1.8 billion people since 1990 (Figure 13). This means that we are within 10 per cent of being 'on track'. At current rates of progress, we will reach 67 per cent coverage in 2015, better than previous projections but still far from the 75 per cent needed to reach the target. Unless the pace of change in the sanitation sector can be accelerated, the MDG target may not be reached until 2026. In 2010, an estimated 2.5 billion people were still without improved sanitation.

Figure 14 shows that 15 per cent of the population still practise open defecation, defined as defecation in fields, forests, bushes, bodies of water or other open spaces. This represents 1.1 billion people. Though the proportion of people practising open defecation is decreasing, the absolute number has remained at over one billion for several years, due to population growth.

Many countries are off track in meeting the MDG sanitation target, including much of sub-Saharan Africa and several of the most populous countries in Asia (Figure 15).

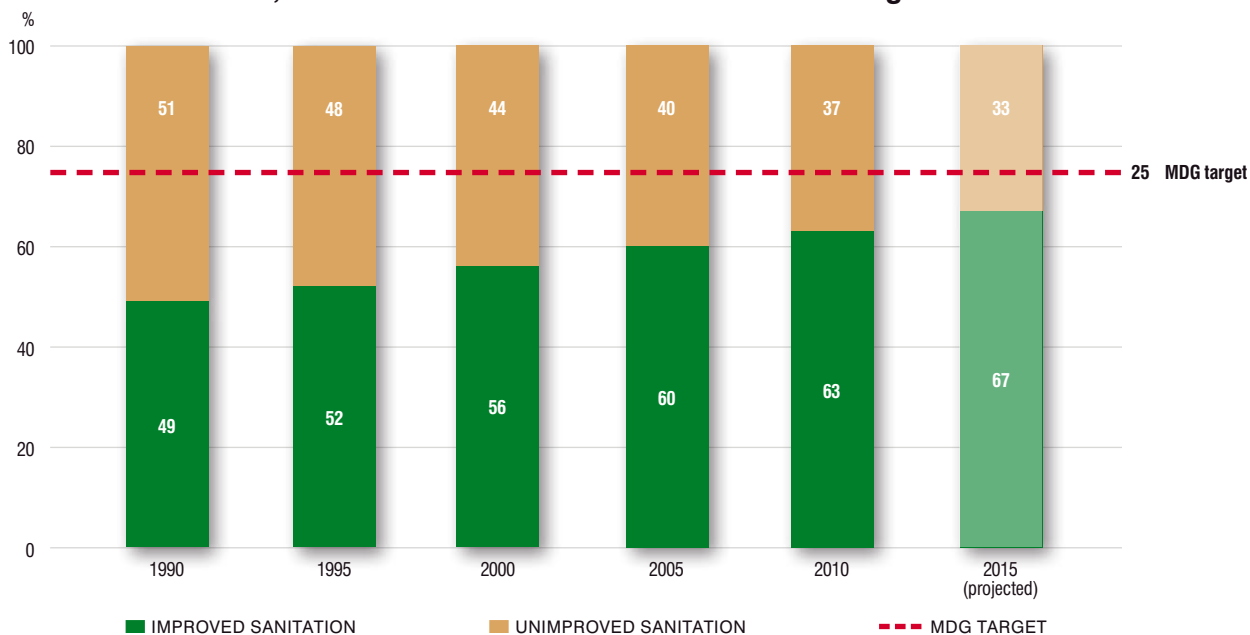
Variation in the rate at which regions have increased access to improved sanitation facilities is striking (Figure 16).

Eastern Asia added 39 percentage points in coverage between 1990 and 2010. Unlike drinking water, no regions have experienced decreases in coverage.

Figure 17 represents the number of people who gained access to improved sanitation facilities since 1990, by MDG region.

Progress in China and India is highlighted, since these two countries represent such a large proportion of their regional populations. While China has contributed to more than 95 per cent of the progress in Eastern Asia, the same is not true for India in Southern Asia. Together, China and India contributed just under half of the global progress towards the MDG target in sanitation.

**If current trends continue, the world will not meet the MDG sanitation target**

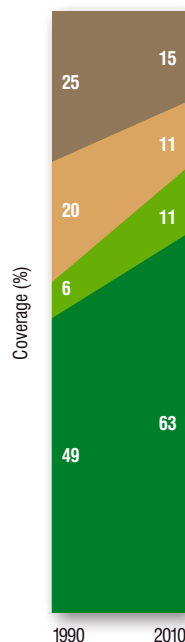


**FIGURE 13** Trends in global sanitation coverage 1990-2010, projected to 2015





## Sanitation coverage increased from 49 per cent in 1990 to 63 per cent in 2010

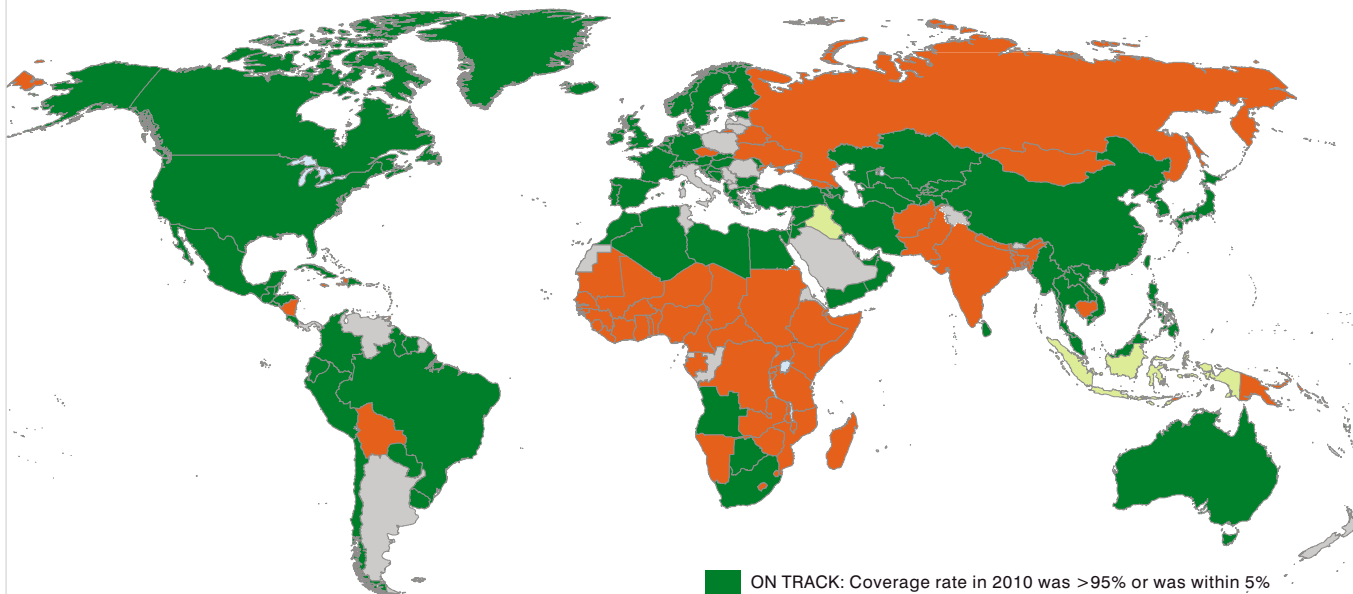


IMPROVED SHARED UNIMPROVED OPEN DEFECATION

FIGURE 14

Trend in the proportion of the global population using improved, shared or unimproved sanitation or practising open defecation, 1990-2010

## The world is not on track to meet the MDG sanitation target



**ON TRACK:** Coverage rate in 2010 was >95% or was within 5% of the 2010 rate required to meet the target

**PROGRESS BUT INSUFFICIENT:** Coverage rate in 2010 was between 5% and 10% of the 2010 rate required to meet the target

**NOT ON TRACK:** Coverage rate in 2010 was the same or lower than the rate in 1990 or below 10% of the 2010 rate required to meet the target

**INSUFFICIENT DATA OR NOT APPLICABLE:** Data were unavailable or insufficient to estimate trends or a progress assessment was not applicable

FIGURE 15

Progress towards the MDG sanitation target, 2010

Since 1990, sanitation coverage has increased by 20 percentage points in developing regions

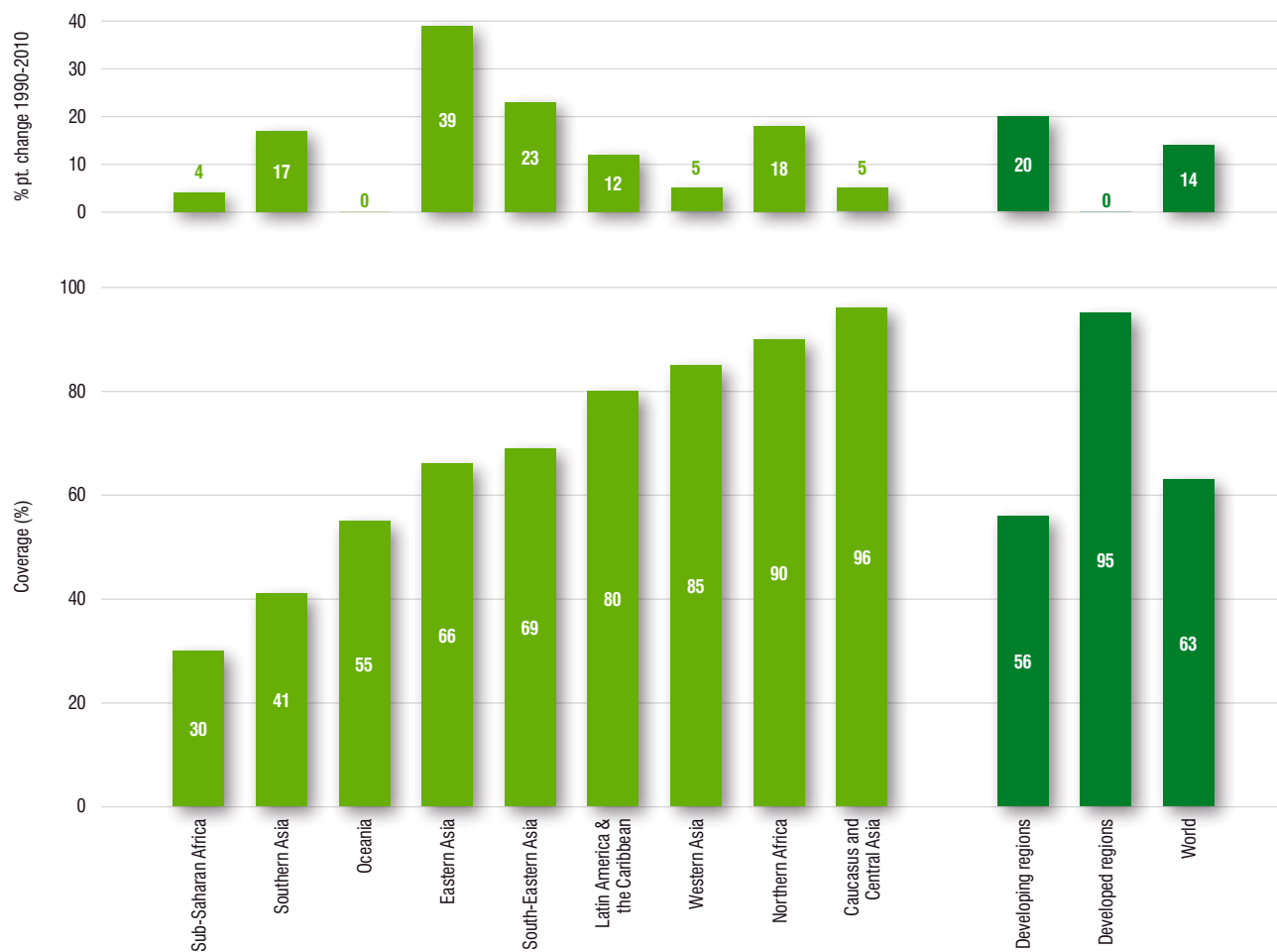


FIGURE 16

Use of improved sanitation facilities by MDG region in 2010, and percentage-point change 1990-2010

Four out of 10 people who have gained access to improved sanitation since 1990 live in China or India

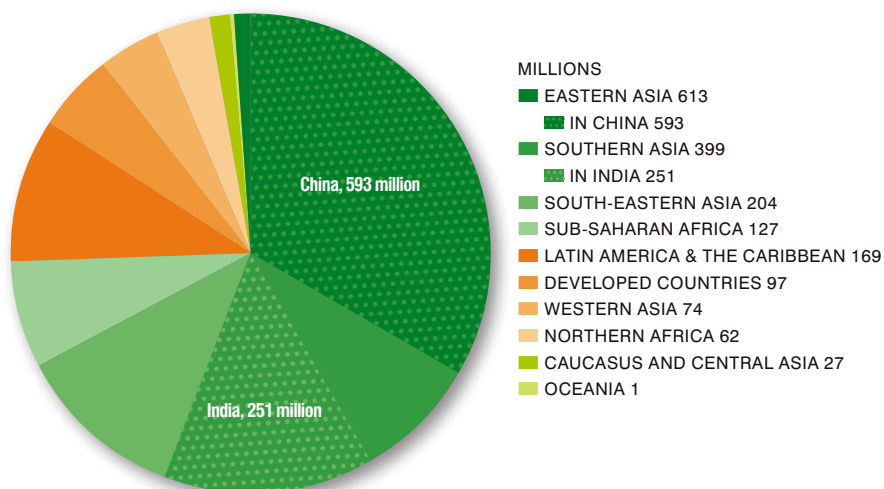


FIGURE 17

Number of people who gained access to improved sanitation from 1990 to 2010, by MDG region (millions)



## Regional Trends

Trends in sanitation coverage by region show marked differences, as illustrated in Figure 18. Southern Asia and sub-Saharan Africa still struggle with low coverage (41 per cent and 30 per cent, respectively). However, the two regions differ significantly from one another in the proportions of populations using facilities other than those classified as 'improved'. In sub-Saharan Africa, 45 per cent of the population use either shared or unimproved facilities, and an estimated 25 per cent practise open defecation. In Southern Asia, the proportion of the population using shared or unimproved facilities is much lower,

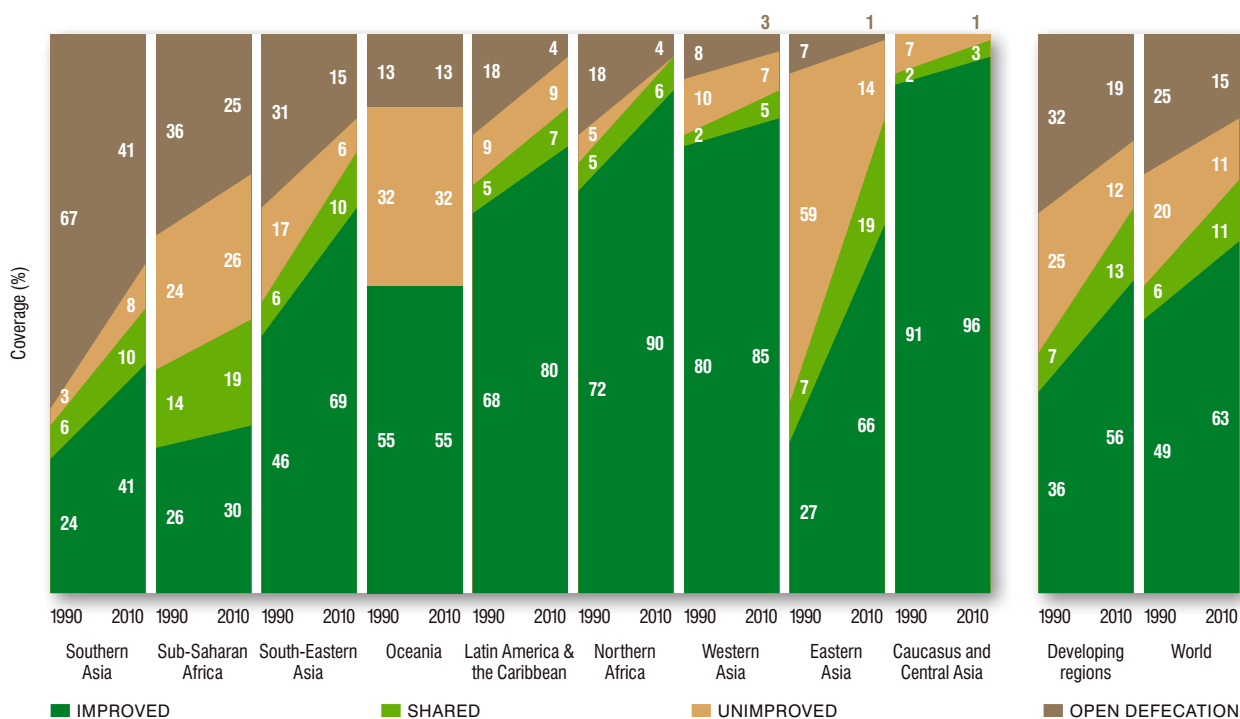
and open defecation is the highest of any region. Although the number of people resorting to open defecation in Southern Asia has decreased by 110 million people since 1990, it is still practised by 41 per cent of the region's population, representing 692 million people.

Sub-Saharan African has not made the same progress in reducing open defecation. In fact, it has decreased by only 11 per cent since 1990. With population growth, this means that the number of people practising open defecation has actually increased by 33 million. That said, sub-Saharan

Africa has the highest proportion of people using some sort of unimproved sanitation of any region (these are facilities that fall short of being 'improved' and are either unimproved, shared or public). This proportion is growing, suggesting that the demand for sanitation is on the rise.

Far more countries have sanitation coverage of less than 50 per cent than water coverage of less than 50 per cent. As with water, most of the countries with low sanitation coverage are in sub-Saharan Africa (Figure 19). However, several populous countries in Southern Asia also have low rates of improved sanitation.

### Sanitation coverage is improving in almost every developing region



**FIGURE 18** Sanitation coverage trends by developing region, 1990-2010

**In many countries of sub-Saharan Africa and Southern Asia, sanitation coverage is below 50 per cent**

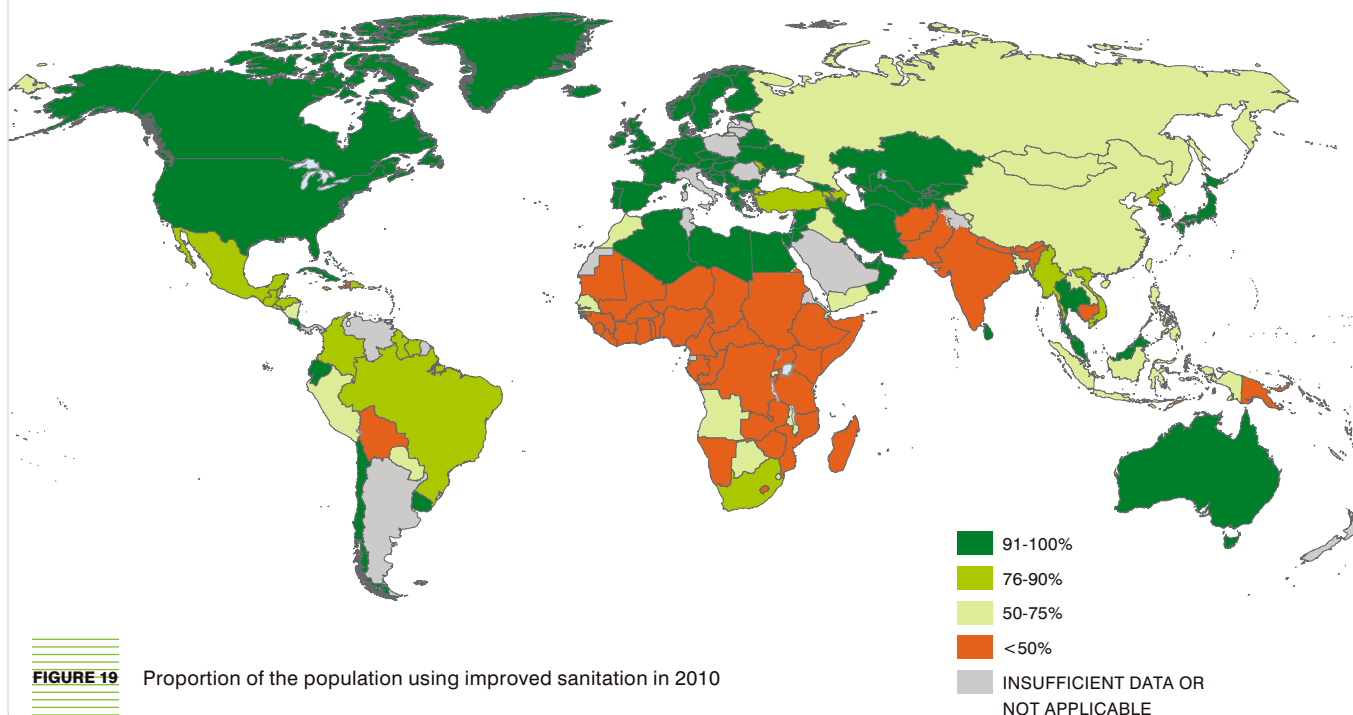
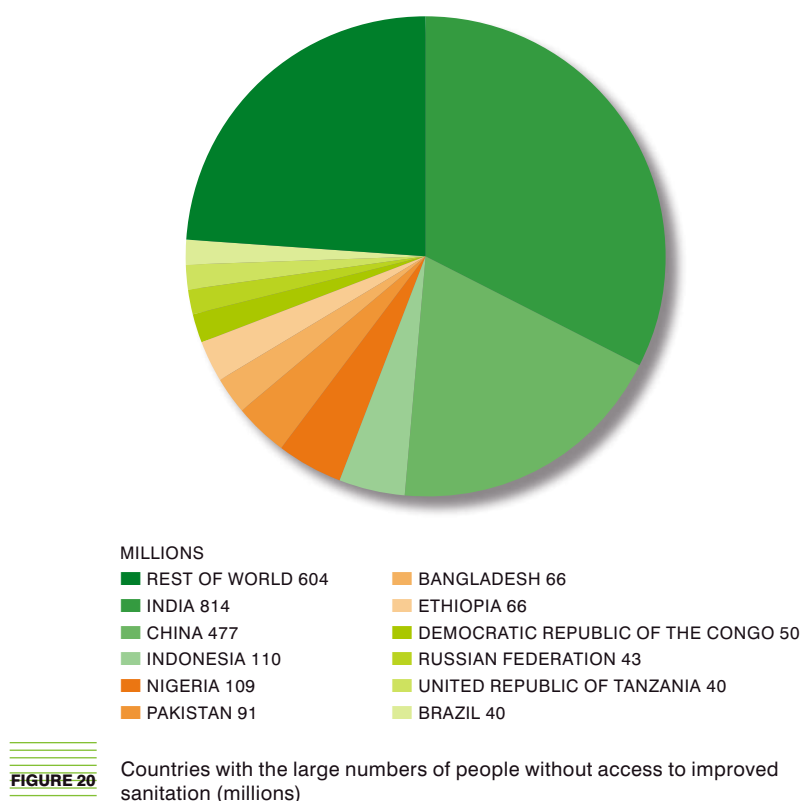


Figure 20 shows the 11 countries that make up more than three quarters (76 per cent) of the global population without improved sanitation facilities. One third of the 2.5 billion people without improved sanitation live in India.

Despite significant and encouraging declines in open defecation since 1990, 1.1 billion people – 15 per cent of the world's population – still resort to the practice.

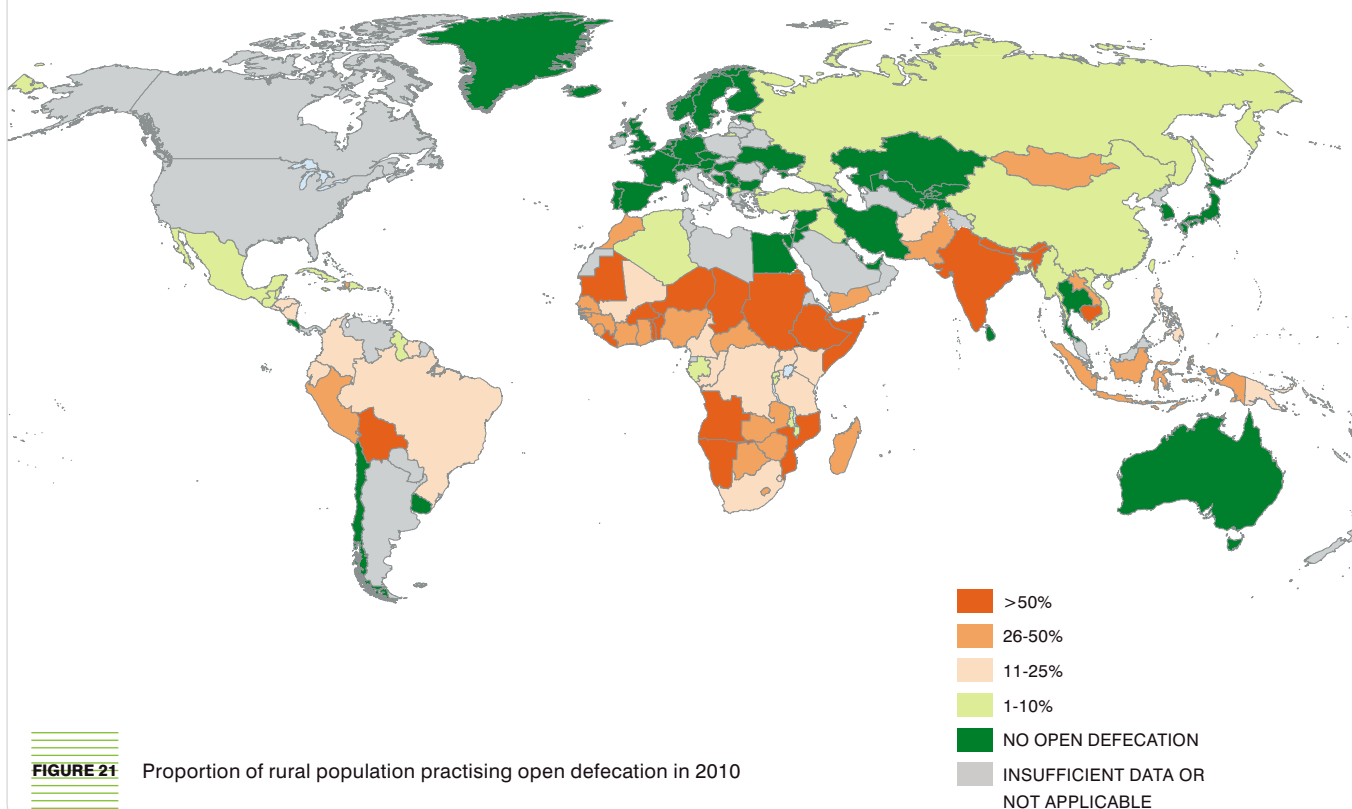
The majority of those practising open defecation (949 million) live in rural areas. Open defecation in rural areas persists in every region of the developing world, even among those who have otherwise reached high levels of improved sanitation use (Figure 21). For instance, the proportion of rural dwellers still practising open defecation is 9 per cent in Northern Africa and 17 per cent in Latin America and the Caribbean. Open defecation is highest in rural areas of Southern Asia, where it is practised by 55 per cent of the population.

**More than half of the 2.5 billion people without improved sanitation live in India or China**

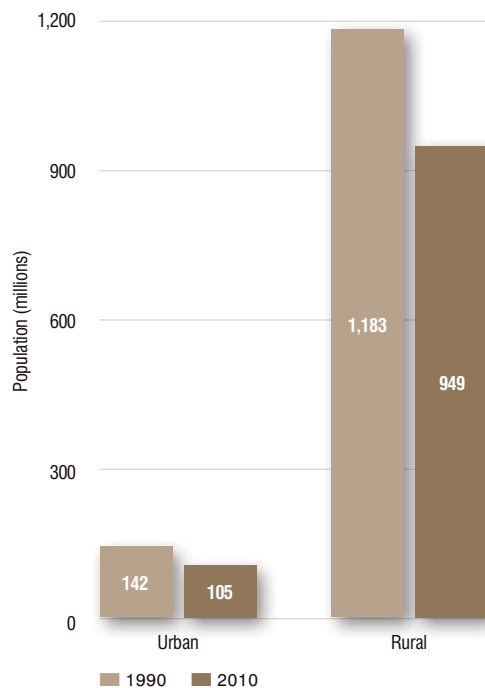




## Open defecation is still practised by a majority of the rural population in 19 countries

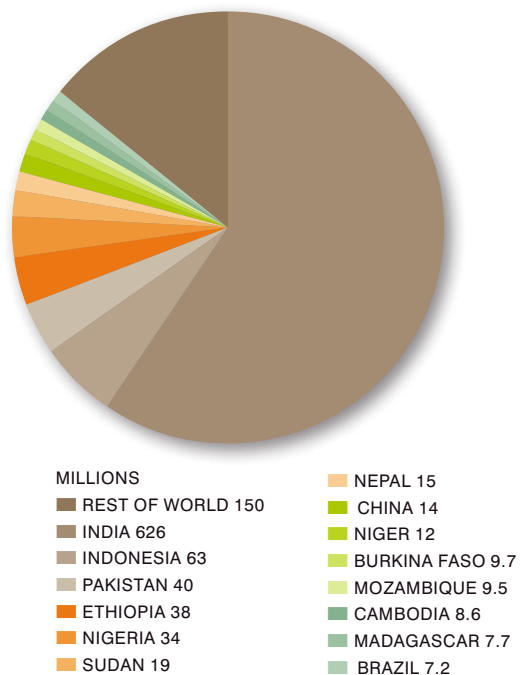


## Open defecation is largely a rural practice



**FIGURE 22** Population practising open defecation by urban and rural areas, 1990-2010 (millions)

## Nearly 60 per cent of those practising open defecation live in India



**FIGURE 23** Countries with the largest numbers of people practising open defecation (millions)

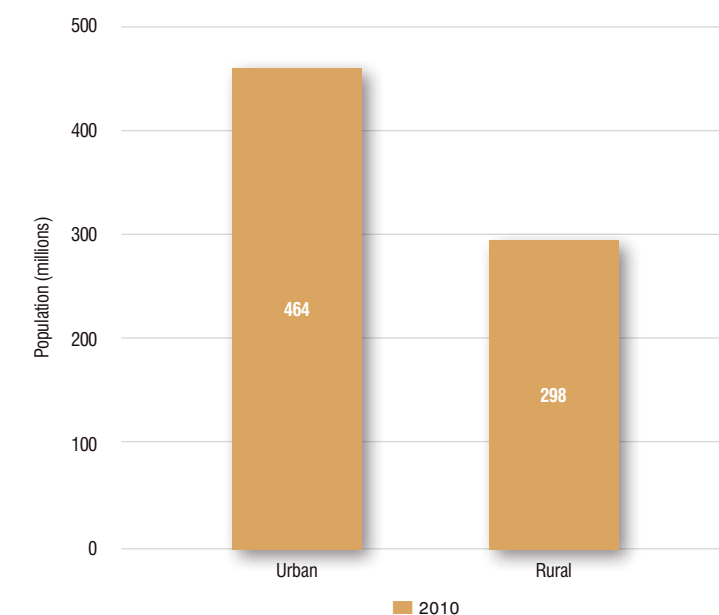
Open defecation is, however, decreasing in all regions, in both urban and rural areas (Figure 22). About 234 million fewer rural dwellers were practising open defecation in 2010 than in 1990. Those that continue to do so tend to be concentrated in a few countries, including India, where 626 million people practise open defecation (59 per cent of the global total) (Figure 23).

Shared sanitation is defined as sanitation facilities of an otherwise acceptable type that are shared between two or more households, including public toilets.

Sanitation facilities that are shared among households, whether fully public or accessible only to some, are not considered improved according to the definition used for the MDG indicator. The reason stems from concerns that shared facilities are unacceptable both in terms of cleanliness (toilets may not be hygienic and fully separate human waste from contact with users) and accessibility (facilities may not be available at night, or used by children, for instance). However, it is also recognized that, globally, the number of people using shared sanitation is growing: The number of users has increased by 425 million since 1990 – increasing from 6 per cent of the global population to 11 per cent in 20 years. In many countries, particularly in crowded urban areas, shared sanitation is the only viable option for those wishing to avoid open defecation; in rural areas, families often keep costs down by sharing latrines between one or more households with family ties. A JMP task force on sanitation is exploring the issue of shared sanitation as part of its mandate.

Shared sanitation is predominantly an urban phenomenon, and over 60 per cent of people using this type of facility live in urban areas (Figure 24).

### The majority of people who rely on shared or public sanitation facilities live in urban areas



**FIGURE 24** Population sharing sanitation facilities by urban and rural areas, 2010 (millions)

### Countries where more than a quarter of the population rely on shared or public sanitation facilities

	Improved (%)	Shared (%)	Unimproved (%)	Open defecation (%)
Ghana	14	58	9	19
Bolivia	27	36	14	23
Congo	18	34	40	8
Gabon	33	34	32	1
Malawi	51	33	8	8
Nauru	65	31	4	0
Mongolia	51	28	9	12
Democratic Republic of the Congo	24	27	40	9
Kenya	32	27	27	14
Sierra Leone	13	27	32	28
Zimbabwe	40	27	6	27
Bhutan	44	26	26	4
Bangladesh	56	25	15	4
Liberia	18	25	12	45
Nigeria	31	25	22	22

**TABLE 4** Proportion of the population using improved, shared or unimproved sanitation facilities or practising open defecation in countries where the rate of shared sanitation use is 25 per cent or more (per cent)

The use of shared sanitation is most evident in sub-Saharan Africa and Eastern Asia, and is particularly

common in certain sub-Saharan African countries, including Ghana, Congo and Gabon (Table 4).



## An Alternative Indicator of Progress

As with water, an alternative indicator has been developed to measure progress in sanitation, representing the proportion of the current population that gained access between 1995 and 2010. This indicator reveals that even among some countries that remain off track, achievements can be striking. Table 5 shows that sub-Saharan Africa as a whole has provided improved sanitation for an average of 12 per cent of its current population since 1995. However, several individual countries have achieved proportions over 20 per cent, notably Angola, Rwanda, Cape Verde, Gambia, Botswana and Malawi. The Democratic Republic of the Congo is remarkable for having added 10 million new users of improved sanitation facilities.

Countries in sub-Saharan Africa that performed above the regional average on sanitation

	Population in 2010 (millions)	Sanitation coverage in 2010 (%)	Population that gained access to sanitation since 1995 (millions)	MDG progress	Proportion of 2010 population that gained access to sanitation since 1995 (%)
Angola	19.1	58	6.8	On track	35.9
Rwanda	10.6	55	3.6	Not on track	33.7
Cape Verde	0.5	61	0.2	On track	32.3
Gambia	1.7	68	0.5	Progress but insufficient	28.5
Botswana	2.0	62	0.5	On track	25.8
Malawi	14.9	51	3.4	Not on track	22.8
Democratic Republic of the Congo	66.0	24	10.7	Not on track	16.3
<b>Sub-Saharan Africa</b>	<b>856</b>	<b>30</b>	<b>105</b>	<b>Not on track</b>	<b>12.2</b>

TABLE 5

Selected countries in sub-Saharan Africa that have performed above the regional average in terms of the proportion of their 2010 population that gained access to improved sanitation facilities since 1995





## Urban-Rural Disparities

The disparities in rural and urban sanitation are even more pronounced than those in drinking water supply. Globally, 79 per cent of the urban population use an improved sanitation facility, compared to 47 per cent of the rural population (Figure 25). In rural areas, 1.8 billion people lack access to improved sanitation, representing 72 per cent of the global total of those unserved. However, a great deal of progress has been made in rural areas since 1990: 724 million rural dwellers have gained access to improved sanitation while the

number of people unserved in urban areas has grown by 183 million.

A significant number of rural dwellers have moved away from open defecation, doing so at a higher rate than urban dwellers. In 2010, 105 million people practised open defecation in urban areas, representing 3 per cent of the urban population.

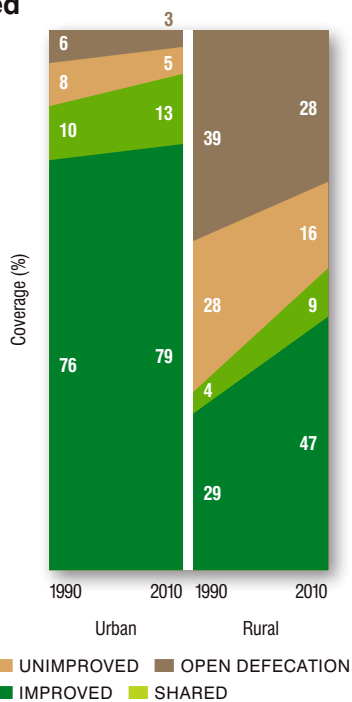
As with drinking water, the number of urban residents using unimproved facilities increased from 1990 to 2010, at a time of rapid growth in urban areas. The number of people using unimproved facilities in rural

areas decreased, but in 2010 was still two and a half times that of urban areas (Figure 26).

Large parts of the developing world have sanitation coverage of 50 per cent or less in rural areas, including much of sub-Saharan Africa and several populous countries in Southern Asia. The number of countries with less than 50 per cent coverage in urban areas is much lower (Figures 27 and 28).

The figures in the Annex on page 56 illustrate urban-rural disparities in sanitation coverage in developing regions.

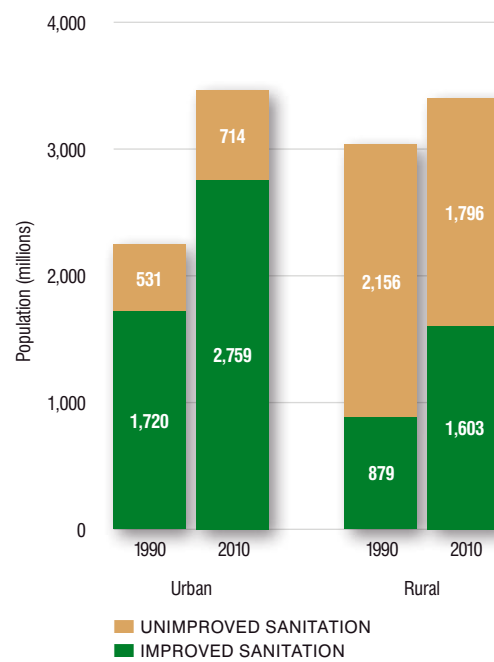
**Urban-rural disparities in sanitation have decreased**



**FIGURE 25**

Sanitation coverage trends by urban and rural areas, 1990-2010

**Despite progress, disparities in sanitation coverage between urban and rural areas persist**

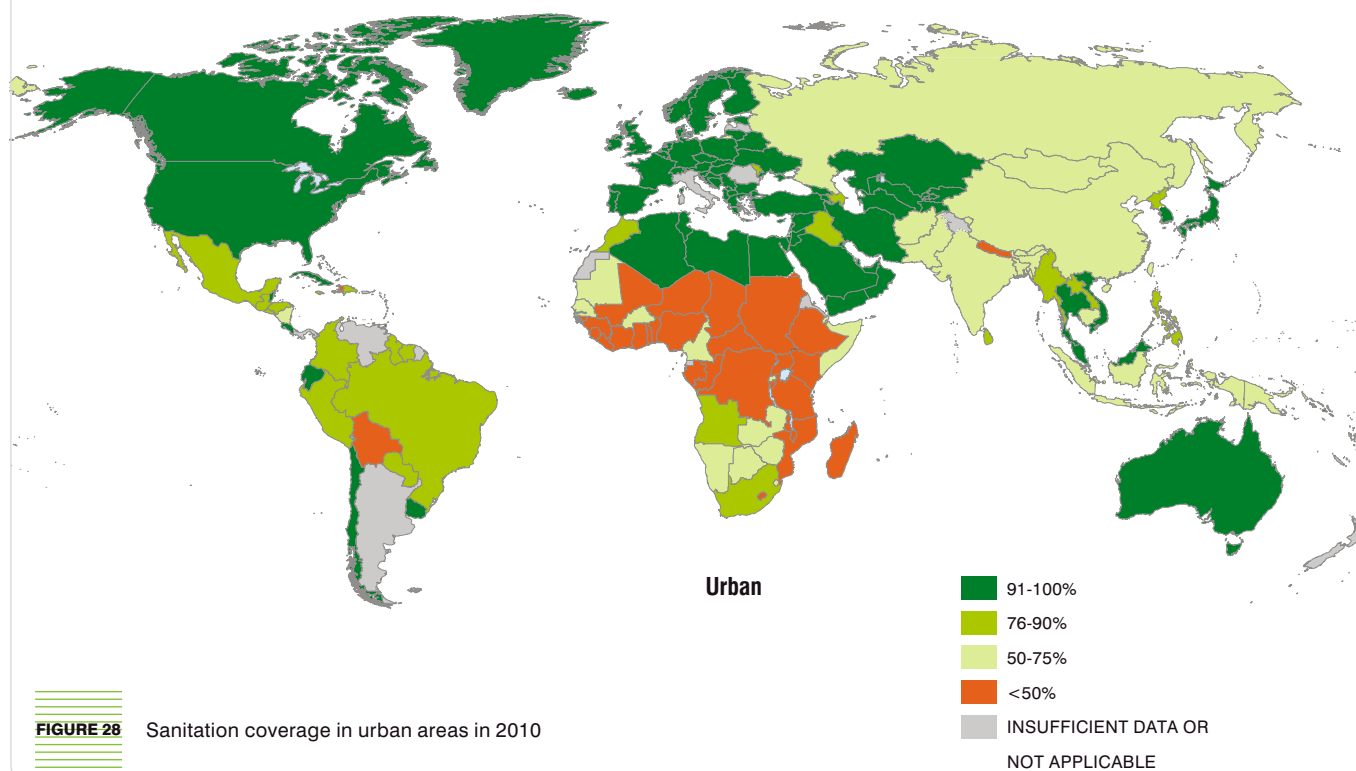
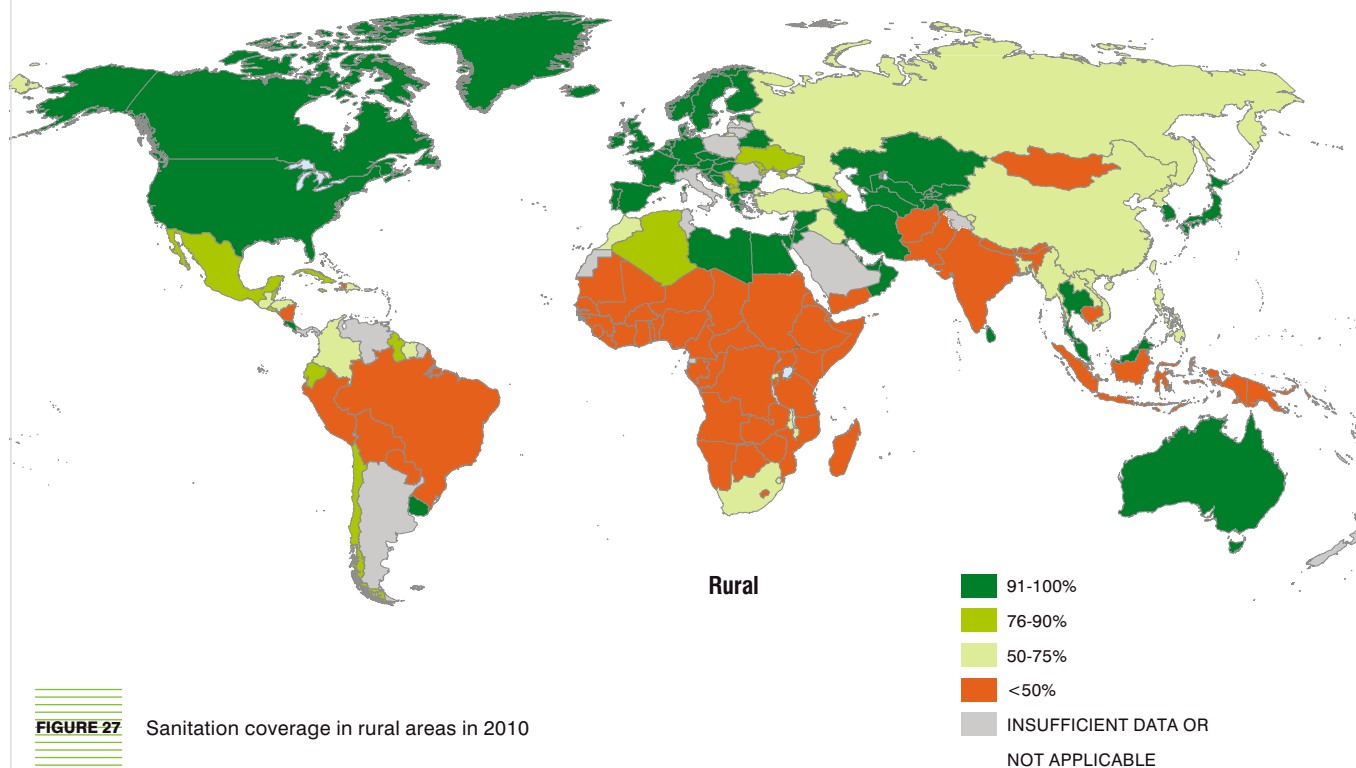


**FIGURE 26**

Population using improved or unimproved sanitation by urban and rural areas, 1990-2010 (millions)



## Sanitation coverage is much lower in rural than in urban areas



## BOX 2

## Progress in water & sanitation combined

For the first time, an analysis has been carried out of the proportion of people who use both improved water sources and improved sanitation facilities, and those who use neither. Using data from 59 countries, it was found that five out of six users of improved sanitation also use improved water sources, but it is less likely that users of improved water also use improved sanitation. Only half the population of the 59 countries use both. A quarter use improved drinking water only, and 9 per cent use improved sanitation only. A remaining 16 per cent use neither improved drinking water sources nor improved sanitation facilities (Figure 29).

## Most of those using an improved drinking water source also use improved sanitation

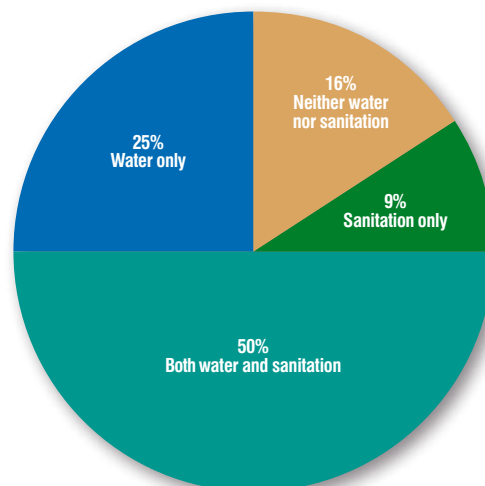
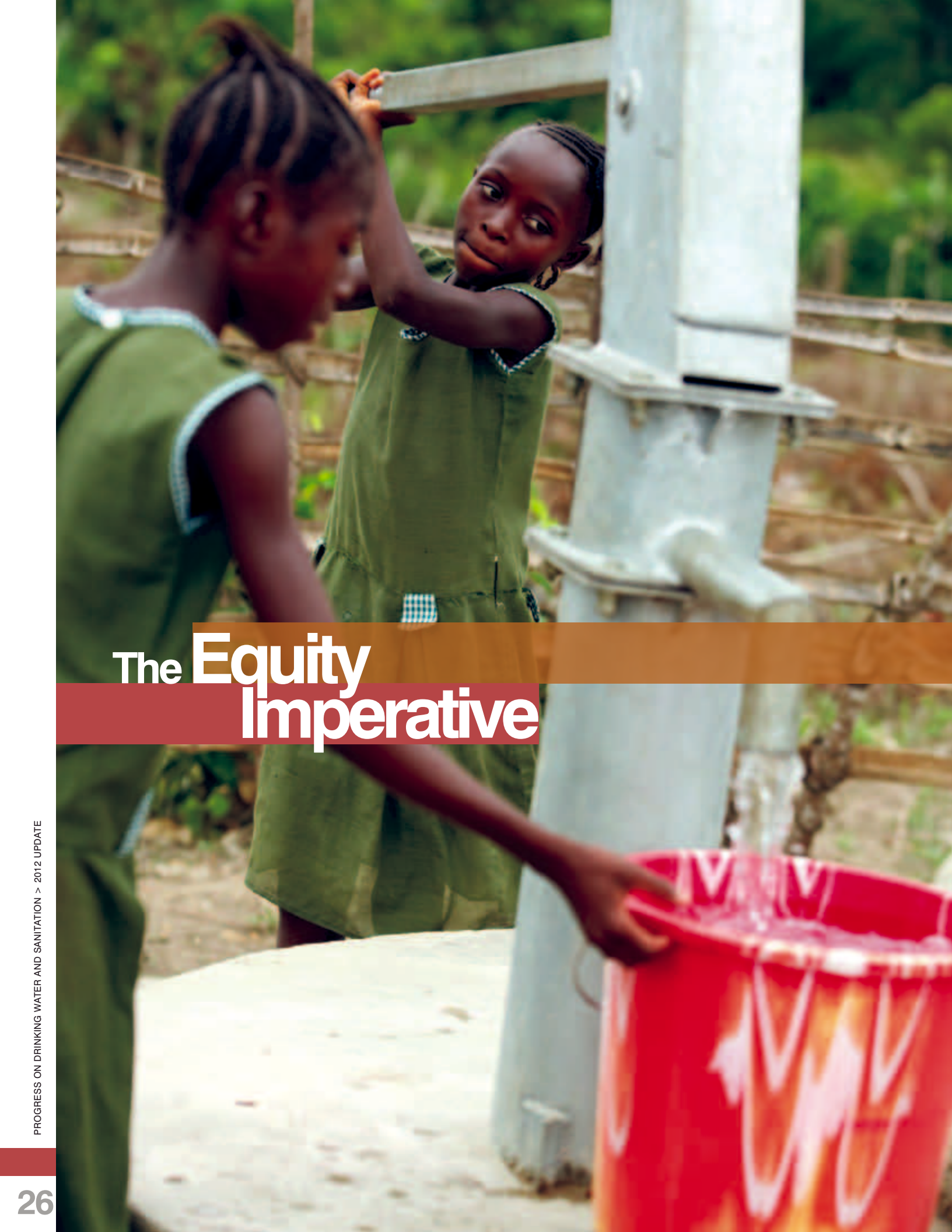


FIGURE 29

Proportion of the population in 59 developing countries using both improved drinking water sources and improved sanitation (per cent)





# The Equity Imperative





# Looking Beyond Averages

Global averages mask disparities in the way water and sanitation services are distributed. The disaggregation of data by urban and rural areas, presented earlier in this report, offers some insight into where these disparities are most acute.

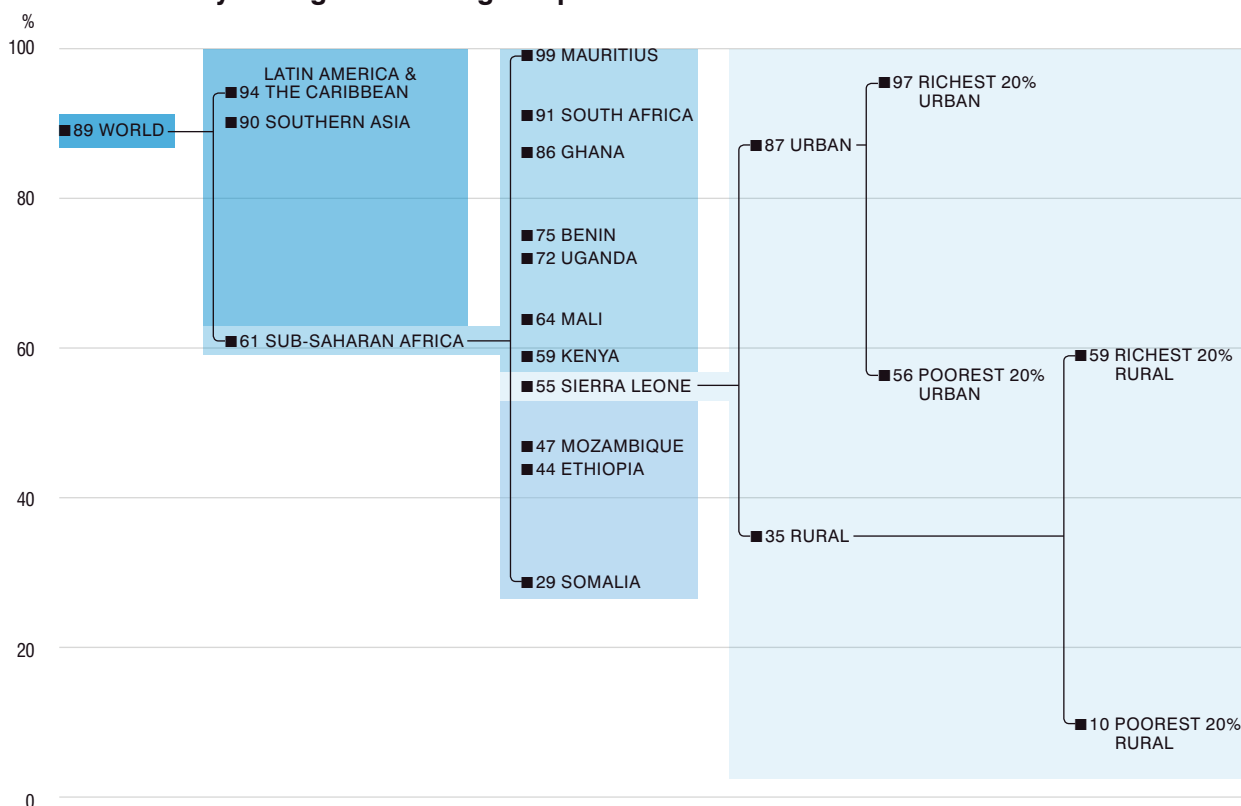
Data available for 2010 have also been analysed by alternative country groupings (least developed countries), gender and the burden of water collection, and by wealth quintiles,<sup>5</sup> shedding light on other inequities.

An ‘equity tree’, for example, based on wealth quintiles, tells a dramatic story that regional or national averages fail to reveal. Figure 30 shows the wide variation in drinking water coverage among countries in sub-Saharan Africa. Sierra Leone’s coverage of 55 per cent is slightly below the regional average of 61 per cent, but when coverage is examined by rural and urban access, we find that rural access is much lower than urban access. Splitting out the urban and rural data

for Sierra Leone by the first and fifth wealth quintile – the richest and poorest 20 per cent of the population – reveals huge disparities. The richest quintile of the urban population enjoys almost universal access, compared to only 10 per cent of the poorest quintile in rural areas.

<sup>5</sup> The household surveys that the JMP relies on for its data allow for the classification of households by wealth, based on an asset index. This makes it possible to determine whether improvements in water and sanitation have been distributed equitably across populations in the various wealth quintiles.

**Regional and country averages mask huge disparities**



**FIGURE 30** Drinking water coverage in selected countries in sub-Saharan Africa and urban/rural coverage among poorest and richest households in Sierra Leone (per cent)  
Source: JMP 2012, and Sierra Leone DHS, 2008





## The Equity Imperative

# Water & Sanitation Use in Least Developed Countries

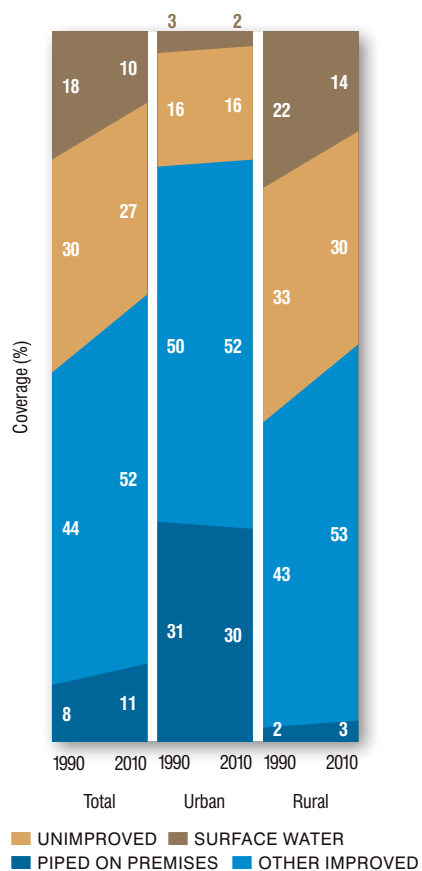
In the 48 countries designated as the least developed by the United Nations, the majority of people have not benefited from investment in water and sanitation. In those countries, 1 in 4 people practise open defecation and 1 in 10 use surface water for drinking and household use. The numbers are even higher in rural areas, where 14 per cent of people rely on surface water sources, and almost

a third practise open defecation (Figures 31 and 32).

Data from least developed countries also present a discouraging picture in terms of piped water connections. While 54 per cent of the global population use piped water on premises, it is a convenience enjoyed by only 11 per cent of the people living in least developed countries and 3 per cent of their

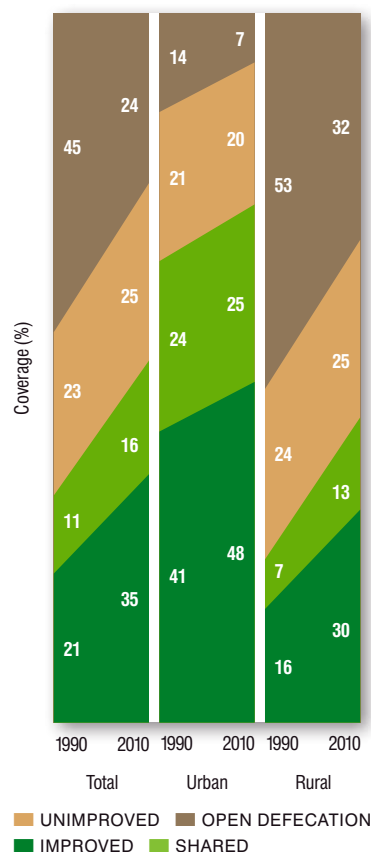
rural populations. These countries clearly have many residents who are using a combination of surface water and open defecation and are thus excluded from any of the benefits of water and sanitation improvements. This is in contrast with Southern Asia, for instance, where the rural open defecation rate is much higher (55 per cent), but the use of surface water in rural areas is very low (2 per cent).

**Ten per cent of the population in least developed countries rely on surface water**



**FIGURE 31** Trends in the use of piped water on premises, improved drinking water sources and surface water in least developed countries by urban and rural areas, 1990-2010

**Open defecation is practised by nearly a quarter of the population in least developed countries**



**FIGURE 32** Trends in the use of improved, unimproved and shared sanitation facilities and open defecation in least developed countries by urban and rural areas, 1990-2010



## The Equity Imperative

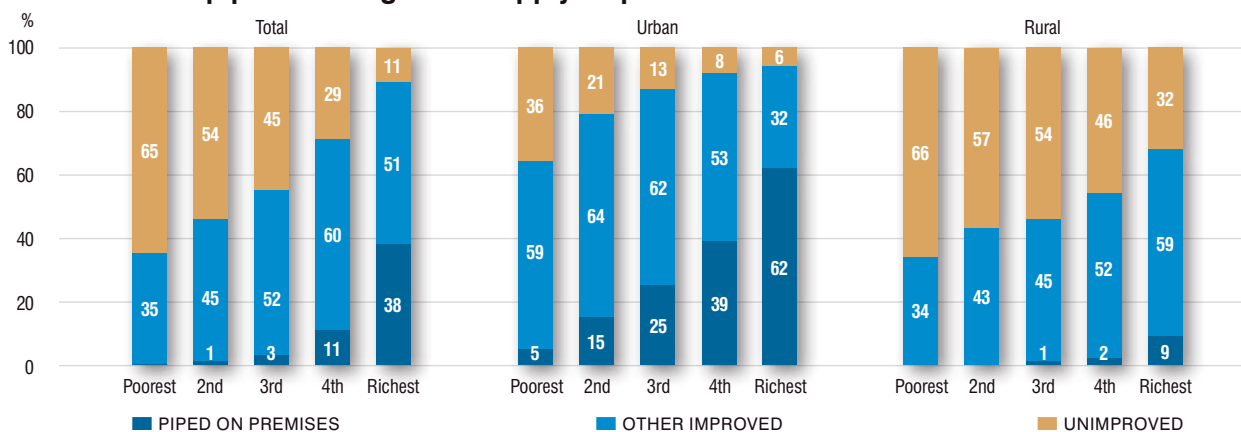
# Water & Sanitation Use by Wealth Quintiles

An analysis of data from 35 countries in sub-Saharan Africa (representing 84 per cent of the region's population) shows significant differences between the poorest and richest

fifths of the population in both rural and urban areas. Over 90 per cent of the richest quintile in urban areas use improved sanitation and improved water sources, and over 60 per cent

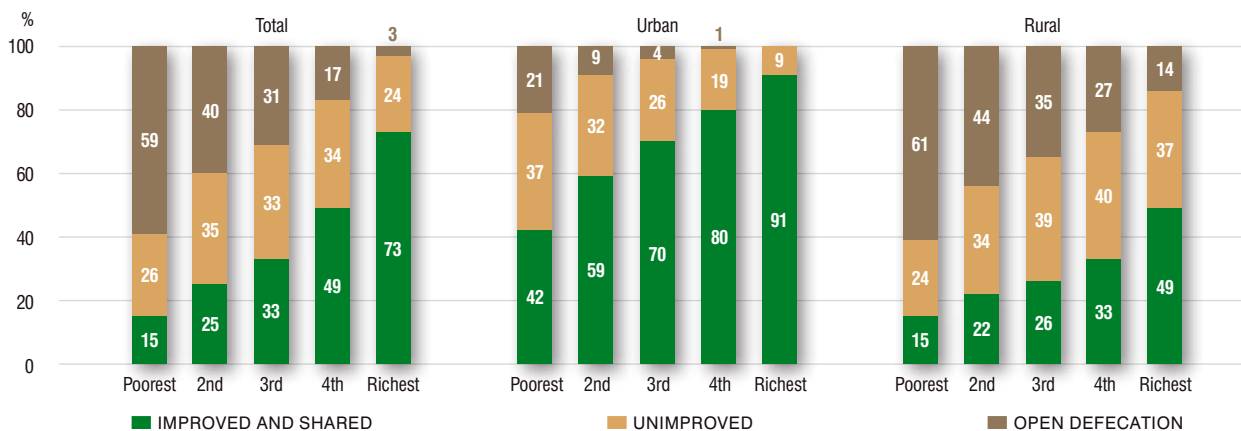
have piped water on premises. However, in the poorest rural quintile, piped water is non-existent, and open defecation is practised by over 60 per cent of households (Figures 33 and 34).

### The poorest 60 per cent of the population in sub-Saharan Africa are largely denied the comforts and health benefits of a piped drinking water supply on premises



**FIGURE 33** Sub-Saharan Africa: Drinking water coverage by wealth quintiles and urban or rural areas, based on population-weighted averages from 35 countries  
**Source:** MICS and DHS surveys from 35 countries in sub-Saharan Africa, 2004-2009

### In sub-Saharan Africa, access to sanitation is highly correlated with wealth and residence in urban areas



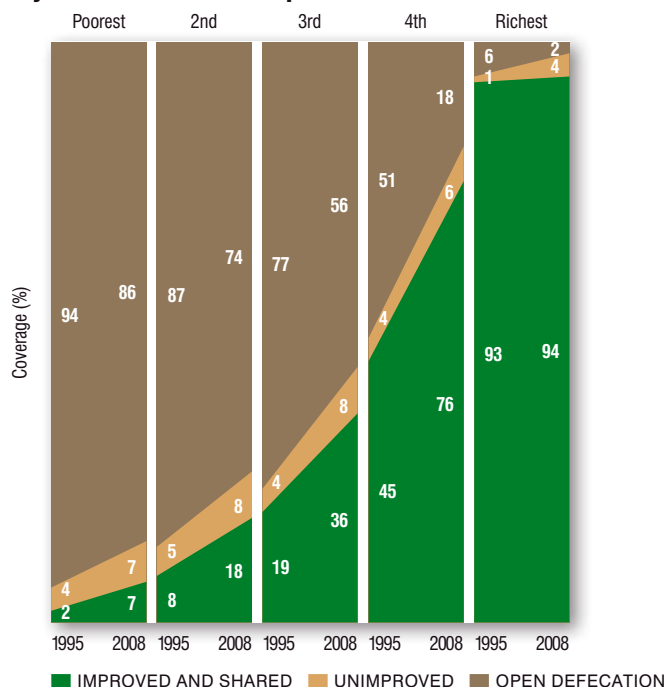
**FIGURE 34** Sub-Saharan Africa: Sanitation coverage by wealth quintiles and urban or rural areas, based on population-weighted averages from 35 countries (per cent)  
**Source:** MICS and DHS surveys from 35 countries in sub-Saharan Africa, 2004-2009

The availability of additional data for some countries in Southern Asia enables us not only to examine sanitation use according to wealth quintiles, but also to look at trends over time. Such an analysis was undertaken for the period 1995 to 2008 for three countries in Southern Asia, which represent 82 per cent of the region's population. It shows that, as in sub-Saharan Africa, improvements in sanitation are strongly correlated with wealth, and that the richest households have benefited disproportionately.<sup>6</sup> The trend data also show that sanitation coverage in the two poorest quintiles has shown little change over the 13-year period; 4 out of 5 people in these two quintiles practise open defecation. The most progress was seen in the fourth wealthiest quintile, while the richest fifth of the population has maintained its very high coverage (Figure 35).

In the same three countries, drinking water trends by wealth quintile show a strikingly different pattern. Major gains in coverage have been seen in all five quintiles. However, in the poorest quintiles, improvements have been almost entirely in the 'other improved' category, namely wells and handpumps. Piped water on premises is only used to a significant degree among households in the fourth and fifth quintiles. Still, among the richest 20 per cent, piped water is supplied to only 60 per cent of households, and little improvement has been seen since 1990 (Figure 36).

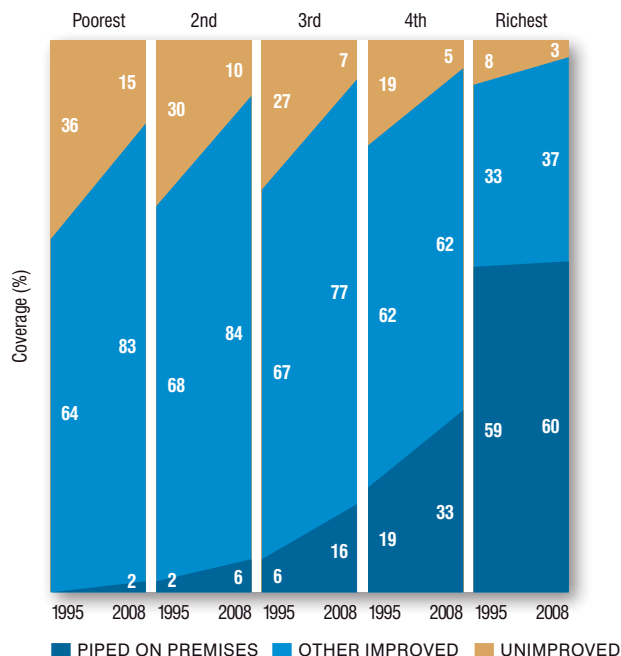
<sup>6</sup> Figures 33 through 36 are weighted-averages of each of the quintiles of the countries represented. Therefore, the lowest quintile does not represent the poorest 20 per cent of the entire population of the region. It should be noted that the asset index used to classify households into wealth quintiles has not been adjusted to remove drinking water or sanitation variables.

### The poorest 40 per cent of the population in Southern Asia have barely benefited from improvements in sanitation



**FIGURE 35** Southern Asia: Sanitation coverage trends by wealth quintiles, based on population-weighted averages from three countries, 1995-2008  
**Source:** India: National Family Health Survey 1993, 1999, 2006; Bangladesh: DHS 1993, 1997, 2000, 2004, 2007; Nepal: DHS 1996, 2001, 2006

### In contrast to sanitation, improvements in drinking water supply have been equitably distributed among poor and wealthier populations in Southern Asia



**FIGURE 36** Southern Asia: Drinking water coverage trends by wealth quintiles, based on population-weighted averages from three countries, 1995-2008  
**Source:** India: National Family Health Survey 1993, 1999, 2006; Bangladesh: DHS 1993, 1997, 2000, 2004, 2007; Nepal: DHS 1996, 2001, 2006



## The Equity Imperative

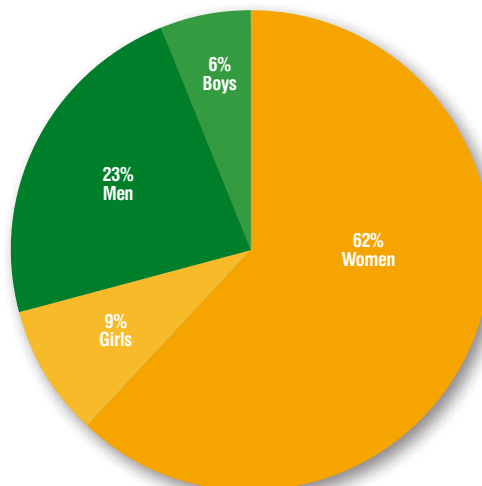
# Gender and the Burden of Collecting Water

An analysis of data from 25 countries in sub-Saharan Africa, representing 48 per cent of the region's population, reveals that women and girls bear primary responsibility for water collection, at considerable cost in terms of their time.

Only a quarter of the population in these countries had water on their premises in 2010, meaning that in 75 per cent of households, water had to be collected from a source some distance from the dwelling. In 71 per cent of all households without water on the premises, women or girls are mainly responsible for water collection. In 29 per cent of households, men or boys assume this task (Figure 37).

Further analysis shows that the mean time of one round-trip to collect water is approximately 30 minutes for both women and men, and is only slightly lower for children (28 minutes). Each household requires at least one trip per day, but may, in fact, require several trips. The time and energy devoted to water collection is considerable, even based on a one trip per day minimum. In these 25 countries, it is estimated that women spend a combined total of at least 16 million hours each day collecting drinking water; men spend 6 million hours; and children, 4 million hours.

**Women bear the main responsibility for collecting water in sub-Saharan Africa**



**FIGURE 37**

Distribution of the water collection burden among women, children under age 15 and men in households without piped water on premises, 25 countries in sub-Saharan Africa, 2006-2009 (per cent)

**Source:** MICS and DHS surveys from 25 sub-Saharan African countries





A close-up photograph of a woman with dark, curly hair, wearing a vibrant, multi-colored patterned headscarf and a matching shawl. She is focused on pouring clear water from a metal pot with a rope handle into a yellow plastic container. The background is a bright, slightly hazy outdoor setting with a blue sky and some distant structures. The text 'JMP Methodology and What Lies Ahead' is overlaid in white on a semi-transparent grey banner across the middle of the image.

# JMP Methodology and What Lies Ahead

## JMP Estimates

The WHO/UNICEF Joint Monitoring Programme for Water Supply and Sanitation is tasked with providing estimates that are comparable among countries and across time. Because definitions of ‘improved’ sanitation facilities and drinking water sources can vary widely among countries, the JMP has established a standard set of categories that are used to analyse national data on which the MDG trends and estimates are based (Table 6).

The population data used in this report, including the proportion of the population living in urban and rural areas, are those established by the United Nations Population Division, 2010 Revision.

The definitions and data sources used by the JMP are often different from those used by national governments. Estimates in this report may therefore differ from national estimates.

According to the JMP, an improved drinking water source is one that, by the nature of its construction, adequately protects the source from outside contamination, particularly faecal matter. An improved sanitation facility is one that hygienically separates human excreta from human contact. The coverage estimates for improved sanitation facilities presented in this report are discounted by the proportion of the population that shared an improved type of sanitation facility. The ratio (the proportion of the population that shares a sanitation facility of an otherwise improved type) derived from the latest household survey or census is subtracted from the trend estimates of improved sanitation facilities.

For each country, the JMP estimates are based on fitting a regression line to a series of data points from household surveys and censuses. Because the regression involves retrofitting

	Drinking Water	Sanitation
<b>Improved</b>	Use of: <ul style="list-style-type: none"> <li>■ Piped water into dwelling, yard or plot</li> <li>■ Public tap or standpipe</li> <li>■ Tubewell or borehole</li> <li>■ Protected spring</li> <li>■ Protected dug well</li> <li>■ Rainwater collection</li> </ul>	Use of: <ul style="list-style-type: none"> <li>■ Flush or pour-flush to:               <ul style="list-style-type: none"> <li>– Piped sewer system</li> <li>– Septic tank</li> <li>– Pit latrine</li> </ul> </li> <li>■ Ventilated improved pit (VIP) latrine</li> <li>■ Pit latrine with slab</li> <li>■ Composting toilet</li> </ul>
<b>Unimproved</b>	Use of: <ul style="list-style-type: none"> <li>■ Unprotected dug well</li> <li>■ Unprotected spring</li> <li>■ Cart with small tank or drum</li> <li>■ Tanker truck</li> <li>■ Surface water (river, dam, lake, pond, stream, canal, irrigation channel)</li> <li>■ Bottled water (considered to be improved only when the household uses drinking water from an improved source for cooking and personal hygiene)</li> </ul>	Use of: <ul style="list-style-type: none"> <li>■ Flush or pour-flush to elsewhere (that is, not to piped sewer system, septic tank or pit latrine)</li> <li>■ Pit latrine without slab, or open pit</li> <li>■ Bucket</li> <li>■ Hanging toilet or hanging latrine</li> <li>■ Shared or public facilities of any type</li> <li>■ No facilities, bush or field (open defecation)</li> </ul>

TABLE 6

Definitions of improved and unimproved drinking water sources and sanitation facilities

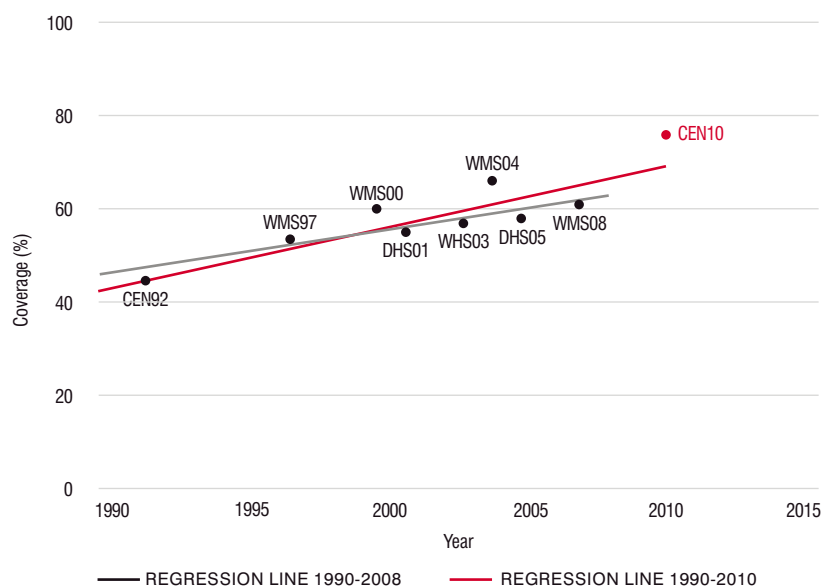


FIGURE 38

Examples of a JMP country file with regression lines

the entire time series, estimates may differ from and may not be comparable to earlier estimates for the same reference year (including the 1990 baseline year), due to the addition of newly available data or the addition

of missing data from the past. Figure 38 shows the impact of adding data from a recent census (denoted in red as CEN10) to a file with eight previous data points. The red line will be used to determine the 2010 estimate and

re-estimate coverage in the entire 1990 to 2010 period.

Questions are often raised about the appropriateness of using a linear trend line. It can be argued that other types of curve-fitting procedures might better reflect the progression of coverage over time. However, the paucity of data points in many countries makes the use of more complex procedures inconsistent with good statistical practice. When MDG monitoring commenced, linear regression was deemed the best method for the limited number and often poorly comparable data on file (some countries had as few as two data points for many years), especially given the relatively short time frame of the MDGs – 25 years is only a fraction of the time needed to go from no access to full coverage. Unfortunately, the current use of linear regression to derive estimates does not allow rapid changes in coverage to be captured. The increased availability of more comparable data now allows for the exploration of more sophisticated modelling in preparation for a new, post-2015 drinking water target.

## Growth of the JMP Database

Since 2000, the JMP has steadily increased the number of data points per country. This report is based on data from more than 1,100 surveys and censuses from developing countries and 300 reports from developed countries, covering the period 1980 to 2010. This is a fivefold increase in data sources since the JMP report in 2000. Most of these surveys are from the developing world, since few household surveys are conducted in the developed world, and censuses in the developed world rarely collect information about access to drinking water and sanitation. For the developed countries, the JMP relies on reports submitted by governments.

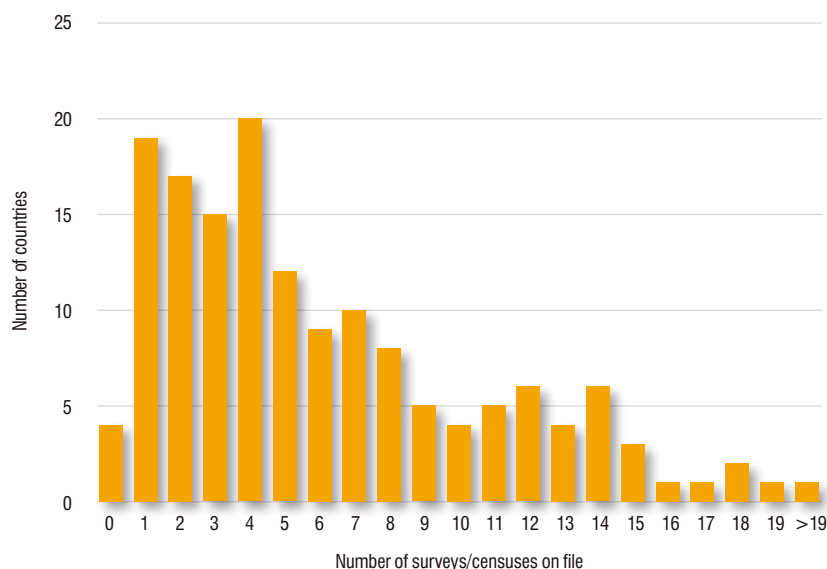
On average, the JMP has six surveys or censuses on file for each of the 153 countries in the developing world (Figure 39). The median number of surveys is five. The countries with fewer than five surveys on file represent just 10 per cent of the developing world population, and the

four developing countries for which there are no data points represent just 0.01 per cent. For the other countries, the average number of surveys on file is nine and the median is eight. This increase in data points over time has greatly increased the accuracy of the estimates prepared by the JMP.

## Data Limitations

The current JMP method of monitoring assesses progress solely on the basis of the types of facilities used. It does not take into account other important parameters, such as drinking water quality, the availability of adequate quantities of water for domestic use, the number of service hours available, the distance to a water source or sanitation facility, or the time household members spend on access and use of sources and facilities. The JMP has had access to limited data on some of these questions, either through household surveys or other data, such as the 'Rapid Assessment of Drinking Water Quality' studies, which the JMP commissioned between 2002 and 2008. Though these partial data sets are sometimes reported on in updates, they are seldom robust enough to draw conclusions on a global scale. (For more information on water quality, see the 2011 UNICEF and WHO thematic report, *Drinking Water: Equity, Safety and Sustainability*.)

While there is broad agreement that the reliability and sustained functioning of water and sanitation systems should somehow be captured, there are no broadly agreed-upon standards against which these should be measured. Indeed, 'sustainable access', a term used in the MDG target, has not been adequately defined in measurable terms, particularly since sustainability involves so many dimensions.



**FIGURE 39** Number of surveys and censuses in the JMP database



The JMP intends to explore how best to comprehensively monitor these important aspects of the existing MDG target. It is also interested in examining other issues, such as the impact of seasonality on access, the adequacy of particular sanitation options in high-density urban areas, and safe disposal and treatment of pit latrine contents and sewerage. Other issues should also be monitored, including social obstacles to access for certain population groups, affordability and participation in water and sanitation governance, but may best be undertaken by other monitoring mechanisms. For instance, the Global Assessment and Analysis of Sanitation and Water Supply (GLAAS) is a new monitoring platform that tracks investments and aid targeting water and sanitation. As such, it complements the JMP, and the JMP and GLAAS coordinate closely.

## Data Reconciliation

The JMP has been proactive in holding in-country workshops to explain the methodology behind the JMP biennial reports. This has proved helpful in increasing understanding of what the JMP is actually measuring – that is, the use of improved drinking water sources and sanitation facilities, rather than verifying whether the infrastructure exists. This is important for ensuring the quality of the data being collected in a country and in building trust with national partners.

Recent efforts to reconcile such discrepancies have been initiated by the JMP and partners such as WaterAid in a number of countries in Asia and Africa. These reconciliation processes have brought together senior staff from national statistics offices and relevant line ministries to assess discrepancies among national data sources and also discrepancies

between these sources and the international estimates generated by the JMP. In most countries, this has led to an increased awareness of the need to use standard definitions of access and data collection methods across line ministries and among different national monitoring mechanisms. This represents a major step forward in reconciling national data. The catalytic role of the JMP in this process – sharing its experiences in global monitoring to promote the strengthening of national monitoring – is becoming increasingly important. The process has allowed the JMP to fill important data gaps with survey and census data that it did not yet have on file. It has also helped to identify additional household surveys that are nationally representative and that the JMP is able to use.

## JMP Task Forces

Three JMP technical task force meetings have been convened by WHO and UNICEF over the past two years:

**The Sanitation and Methodology Task Force** examined the issue of the ‘floating baseline’ (the fact that the coverage estimate for 1990 changes every time new data are added and the trendline re-drawn). It also explored alternative estimation methods, discussed ways to make sanitation estimates more accurate, and considered the proposal for an alternative indicator of performance (discussed on pages 11 and 22). In addition, the task force is reviewing the definition of ‘pit latrine with slab’, since the current definition includes parameters that are not measured by household surveys. The task force will oversee the commissioning of research to assess differences in health outcomes between the use of individual household facilities and shared or public facilities.

**The Water Quality Task Force** explored options for including water-quality measurement in future JMP reporting. The task force considered recent research on new field-based, low-cost water-quality test kits for measuring *E. coli*, which was determined to be the most promising water-quality indicator for global monitoring. MICS and DHS have agreed to pilot a new water-quality module using these new kits, though ways must still be found to keep related costs manageable. The task force also recommended that a second round of updated ‘Rapid Assessment of Drinking-Water Quality’ studies be carried out. In addition, the feasibility of using drinking-water regulator data and of strengthening the role of such data in global monitoring will be explored.

**The Urban Task Force** looked into challenges specific to monitoring coverage in urban areas and to the role that the JMP can play in assessing progress in these settings. The task force reviewed the characteristics of urban settings, determined what aspects of water supply and sanitation need to be measured for global monitoring, agreed how measurements can be carried out, and reviewed the linkages between monitoring at municipal, subnational, national and global levels. The task force recommended the use of innovative methods such as remote sensing to add a spatial element to global monitoring.

## Looking Beyond 2015

Since 2000, the JMP has been the official instrument for measuring progress towards the MDG drinking water and sanitation target. In 2010 the JMP launched a new strategy, which defined its goals in the lead-up to 2015. One of the objectives of the strategy was to establish the JMP as a



platform for the development of post-2015 targets and indicators for safe drinking water and basic sanitation.

In looking beyond 2015, the strategy proposes a highly interactive process, starting with an initial scoping exercise, followed by discussions with researchers, practitioners and data-collection experts, facilitated by the JMP. This was to be followed by a series of consultations with stakeholders.

Initial discussions brought to light several shortcomings of the current MDG target: It requires a halving of the proportion of those without access, leaving many unserved. Furthermore, it incorporates concepts that are difficult to measure (the sustainability of access and the safety of drinking water have yet to be fully addressed). Previous global targets for universal access, such as those set during the Water Decade 1980-1990, proved elusive. However, it was also acknowledged that recent recognition of safe drinking water and sanitation as a human right could open the door to a new approach to setting future targets and indicators (Box 3). It was around this premise that the first stakeholder consultation was organized – in Berlin, in May 2011.

Despite the many criticisms of the current indicators of access and the system to monitor them, the participants at the Berlin consultation concurred that an altogether new monitoring system was unnecessary, since it would be too difficult to implement and would ultimately be counter-productive. Rather, it was agreed that the existing system can and should be improved to address the concerns raised during the consultation and in previous forums. The preferred option, according to attendees, would be to find a way of recalibrating existing targets, using a range of basic versus more advanced indicators based on

the technology category or service ladder concept. This would reflect, where feasible, the human rights criteria described in Box 3. A number of expectations for indicators were identified during the consultation, including that they should be measurable, comparable, policy-relevant, time-bound, and inexpensive to collect. It was determined that two linked types of monitoring would be needed to meet different needs at different levels:

**For monitoring future global development targets:** to keep basic access as the centrepiece of global targets, with special attention to human rights criteria, and to ensure consistency with current monitoring; to explore the inclusion of more water supply and sanitation indicators and different standards for rural and urban areas; and to propose indicators for capturing the equity and non-discrimination dimensions.

**For more detailed sector and human rights monitoring:** to expand the set of indicators using a number of service-level and human rights criteria. Indicators would be monitored partly by strengthening the existing national water sector monitoring infrastructure and operations in rural and urban subsectors, and through additional human rights monitoring. Non-discrimination and equity would become central components of monitoring.

The participants also agreed that attainment of universal coverage through at least basic access to both drinking water and sanitation services should be reflected in future targets.

Full details of the Berlin consultation are available on the JMP website: [www.wssinfo.org](http://www.wssinfo.org)

#### BOX 3

### Water and sanitation are human rights

On 28 July 2010, the UN General Assembly recognized that safe and clean drinking water and sanitation are human rights, essential to the full enjoyment of life and all other human rights. Subsequently, at its 15th session in September 2010, the UN Human Rights Council affirmed that the right to water and sanitation is derived from the right to an adequate standard of living and inextricably related to the right to the highest attainable standard of physical and mental health, as well as to the right to life and human dignity. The combined effect of the two resolutions was to anchor the right to water and sanitation in the framework of the right to an adequate standard of living, making it legally binding like any other of the rights inscribed in UN treaties.

Fundamental to the human rights framework is the concept of *progressive realization*: Governments cannot solve the drinking water and sanitation situation overnight, but they must make tangible progress towards the realization of this right. Human rights principles also define various characteristics against which the enjoyment of the right can be assessed, namely: availability, safety, acceptability, accessibility, affordability, participation, non-discrimination and accountability. A distinctive feature of the human rights framework is the principle of non-discrimination. This requires looking beyond average attainment and disaggregating data sets to determine whether any sort of discrimination is occurring.

This is a complex set of issues. However, if recognition of the human right to safe and clean drinking water and sanitation is to have any meaning, future targets and monitoring systems must endeavour to take these various aspects into account.

# Statistical Tables



Country, Area or Territory	Year	Population (x 1,000)	Percentage Urban Population	USE OF SANITATION FACILITIES (percentage of population)												Proportion of the 2010 population that gained access since 1995 (%)
				Urban				Rural				National				
				Improved	Unimproved			Improved	Unimproved			Improved	Unimproved			
					Shared	Other Unimproved	Open Defecation		Shared	Other Unimproved	Open Defecation		Shared	Other Unimproved	Open Defecation	
Afghanistan	1990 2000 2010	13,032 22,856 31,412	18 20 23	— 46 60	— — —	— 43 38	— 11 2	— 28 30	— — —	— 39 48	— 33 22	— 32 37	— — —	— 39 46	— 29 17	19
Albania	1990 2000 2010	3,289 3,072 3,204	36 42 52	94 95 95	4 4 4	2 1 1	— 76 93	66 76 93	5 6 7	29 18 0	— 84 0	76 84 94	5 5 5	19 11 1	— — 0	17
Algeria	1990 2000 2010	25,299 30,534 35,468	52 60 66	99 99 98	— — —	1 0 1	— 1 1	77 82 88	— — —	23 4 2	— 14 10	88 92 95	— — —	12 2 1	— 6 4	23
American Samoa	1990 2000 2010	47 58 68	81 89 93	— — —	— — —	— — —	— — —	— — —	— — —	— — —	— — —	— — —	— — —	— — —	— — —	—
Andorra	1990 2000 2010	53 65 85	95 92 88	100 100 100	— — —	0 0 0	0 0 0	100 100 100	— — —	0 0 0	0 0 0	100 100 100	— — —	0 0 0	0 0 0	24
Angola	1990 2000 2010	10,335 13,926 19,082	37 49 59	67 75 85	— — —	8 8 9	25 17 6	6 11 19	— — —	17 22 30	77 67 51	29 42 58	— — —	13 15 17	58 43 25	36
Anguilla	1990 2000 2010	8 11 15	100 100 100	— 94 —	— — —	— 4 —	— 2 —	NA NA NA	NA NA NA	NA NA NA	NA NA NA	— 94 —	— — —	— 4 —	— 2 —	—
Antigua and Barbuda	1990 2000 2010	62 78 89	35 32 30	— 98 98	— — —	— 2 2	— — —	— 94 —	— — —	— 6 —	— — —	— 95 —	— — —	— 5 —	— — —	—
Argentina	1990 2000 2010	32,642 36,931 40,412	87 90 92	93 92 —	— — —	7 8 —	— — —	73 77 —	— — —	27 23 —	— — —	90 91 —	— — —	10 9 —	— — —	—
Armenia	1990 2000 2010	3,545 3,076 3,092	67 65 64	95 95 95	4 4 4	1 1 1	— 0 0	— 77 80	— 3 3	— 20 17	— 0 0	— 89 90	— 4 4	— 7 6	— 0 0	NA*
Aruba	1990 2000 2010	62 90 107	50 47 47	— — —	— — —	— — —	— — —	— — —	— — —	— — —	— — —	— — —	— — —	— — —	— — —	—
Australia	1990 2000 2010	17,096 19,164 22,268	85 87 89	100 100 100	— — —	0 0 0	0 0 0	100 100 100	— — —	0 0 0	0 0 0	100 100 100	— — —	0 0 0	0 0 0	19
Austria	1990 2000 2010	7,671 8,005 8,394	66 66 68	100 100 100	0 0 0	0 0 0	0 0 0	100 100 100	0 0 0	0 0 0	0 0 0	100 100 100	0 0 0	0 0 0	0 0 0	5
Azerbaijan	1990 2000 2010	7,212 8,111 9,188	54 51 52	— 73 86	— 9 11	— 18 3	— 0 0	— 50 78	— 2 3	— 48 18	— 0 1	— 62 82	— 6 7	— 32 11	— 0 0	34
Bahamas	1990 2000 2010	256 298 343	80 82 84	100 100 100	— — —	0 0 0	0 0 0	100 100 100	— — —	0 0 0	0 0 0	100 100 100	— — —	0 0 0	0 0 0	18
Bahrain	1990 2000 2010	493 638 1,262	88 88 89	100 100 100	— — —	0 0 0	0 0 0	— — —	— — —	— — —	— — —	— — —	— — —	— — —	— — —	—
Bangladesh	1990 2000 2010	105,256 129,592 148,692	20 24 28	58 58 57	27 26 26	8 11 15	7 5 2	34 43 55	16 20 25	11 13 15	39 24 5	39 47 56	18 21 25	10 12 15	33 20 4	23
Barbados	1990 2000 2010	260 268 273	33 38 44	100 100 100	— — —	0 0 0	0 0 0	100 100 100	— — —	0 0 0	0 0 0	100 100 100	— — —	0 0 0	0 0 0	4
Belarus	1990 2000 2010	10,260 10,058 9,595	66 70 75	91 91 91	8 8 8	1 1 1	— — —	96 96 97	2 2 2	2 2 1	— — —	93 93 93	6 6 6	1 1 1	— — —	NA*
Belgium	1990 2000 2010	9,949 10,176 10,712	96 97 97	100 100 100	0 0 0	0 0 0	0 0 0	100 100 100	0 0 0	0 0 0	0 0 0	100 100 100	0 0 0	0 0 0	0 0 0	6
Belize	1990 2000 2010	190 251 312	47 48 52	77 85 93	6 6 7	13 7 0	4 2 0	77 82 87	6 7 6	7 5 3	10 7 3	77 83 90	6 6 7	10 6 2	7 5 1	33
Benin	1990 2000 2010	4,773 6,518 8,850	34 38 42	14 19 25	20 28 36	14 13 11	52 40 28	0 3 5	1 6 12	3 4 6	96 87 77	5 9 13	8 14 22	6 8 9	81 69 56	9
Bermuda	1990 2000 2010	60 63 65	100 100 100	— — —	— — —	— — —	— — —	— — —	— — —	— — —	— — —	— — —	— — —	— — —	— — —	—
Bhutan	1990 2000 2010	559 571 726	16 25 35	— 66 73	— 19 21	— 10 5	— 5 1	— 30 29	— 28 28	— 30 38	— 12 5	— 39 44	— 26 26	— 25 26	— 10 4	—
Bolivia (Plurinational State of)	1990 2000 2010	6,658 8,307 9,930	56 62 67	28 31 35	36 41 46	14 12 11	22 16 8	6 8 10	10 14 17	15 16 19	69 62 54	18 22 27	24 31 36	15 13 14	43 34 23	11
Bosnia and Herzegovina	1990 2000 2010	4,308 3,694 3,760	39 43 49	98 98 99	0 0 1	2 2 0	— 0 0	93 93 92	— 1 1	— 5 7	1 1 0	— 95 95	— 1 1	— 3 4	— 1 0	11



Country, Area or Territory	Year	USE OF DRINKING WATER SOURCES (percentage of population)														Proportion of the 2010 population that gained access since 1995 (%)	
		Urban					Rural					National					
		Improved			Unimproved		Improved			Unimproved		Improved			Unimproved		
		Total Improved	Piped on Premises	Other Improved	Unimproved	Surface Water	Total Improved	Piped on Premises	Other Improved	Unimproved	Surface Water	Total Improved	Piped on Premises	Other Improved	Unimproved		Surface Water
Afghanistan	1990	–	–	–	–	–	1	0	1	99	–	–	–	–	–	–	49
	2000	36	10	26	54	10	18	0	18	43	39	22	2	20	45		
	2010	78	16	62	17	5	42	0	42	47	11	50	4	46	40		
Albania	1990	100	97	3	0	0	96	–	–	4	–	97	–	–	3	–	-1
	2000	100	96	4	0	0	96	48	48	2	2	98	68	30	1	1	
	2010	96	91	5	4	0	94	67	27	6	0	95	79	16	5	0	
Algeria	1990	100	87	13	0	0	88	48	40	10	2	94	68	26	5	1	9
	2000	93	84	9	7	0	84	52	32	15	1	89	71	18	11	0	
	2010	85	80	5	15	–	79	56	23	21	–	83	72	11	17	–	
American Samoa	1990	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	2000	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
	2010	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
Andorra	1990	100	100	0	0	0	100	100	0	0	0	100	100	0	0	0	24
	2000	100	100	0	0	0	100	100	0	0	0	100	100	0	0	0	
	2010	100	100	0	0	0	100	100	0	0	0	100	100	0	0	0	
Angola	1990	46	15	31	51	3	40	0	40	27	33	42	6	36	36	22	24
	2000	52	23	29	45	3	40	1	39	24	36	46	12	34	34	20	
	2010	60	34	26	38	2	38	2	36	21	41	51	21	30	31	18	
Anguilla	1990	–	–	–	–	–	NA	NA	NA	NA	NA	–	–	–	–	–	–
	2000	60	45	15	40	–	NA	NA	NA	NA	NA	60	45	15	40	–	
	2010	–	–	–	–	–	NA	NA	NA	NA	NA	–	–	–	–	–	
Antigua and Barbuda	1990	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	2000	95	73	22	5	–	89	82	7	11	–	91	79	12	9	–	
	2010	95	–	–	5	–	–	–	–	–	–	–	–	–	–	–	
Argentina	1990	97	76	21	3	0	72	22	50	15	13	94	69	25	4	2	–
	2000	98	81	17	2	0	78	39	39	15	7	96	77	19	3	1	
	2010	98	–	–	2	–	–	–	–	–	–	–	–	–	–	–	
Armenia	1990	98	95	3	2	–	–	56	–	–	–	–	82	–	–	–	4
	2000	98	96	2	2	0	81	68	13	19	0	92	86	6	8	0	
	2010	99	98	1	1	–	97	83	14	3	–	98	93	5	2	–	
Aruba	1990	100	100	0	0	0	100	100	0	0	0	100	100	0	0	0	25
	2000	100	100	0	0	0	100	100	0	0	0	100	100	0	0	0	
	2010	100	100	0	0	0	100	100	0	0	0	100	100	0	0	0	
Australia	1990	100	–	–	0	0	100	–	–	0	0	100	–	–	0	0	19
	2000	100	–	–	0	0	100	–	–	0	0	100	–	–	0	0	
	2010	100	–	–	0	0	100	–	–	0	0	100	–	–	0	0	
Austria	1990	100	100	0	0	0	100	100	0	0	0	100	100	0	0	0	5
	2000	100	100	0	0	0	100	100	0	0	0	100	100	0	0	0	
	2010	100	100	0	0	0	100	100	0	0	0	100	100	0	0	0	
Azerbaijan	1990	88	67	21	12	–	49	17	32	51	–	70	44	26	30	–	20
	2000	88	72	16	11	1	59	18	41	24	17	74	46	28	17	9	
	2010	88	78	10	10	2	71	20	51	13	16	80	50	30	11	9	
Bahamas	1990	98	–	–	2	–	–	–	–	–	–	–	–	–	–	–	–
	2000	98	69	29	2	–	86	80	6	14	–	96	71	25	4	–	
	2010	98	–	–	2	–	–	–	–	–	–	–	–	–	–	–	
Bahrain	1990	100	100	0	0	0	–	–	–	–	–	–	–	–	–	–	–
	2000	100	100	0	0	0	–	–	–	–	–	–	–	–	–	–	
	2010	100	100	0	0	0	–	–	–	–	–	–	–	–	–	–	
Bangladesh †	1990	87	26	61	13	0	75	0	75	21	4	77	5	72	20	3	20
	2000	86	23	63	14	0	77	0	77	20	3	79	5	74	19	2	
	2010	85	20	65	15	0	80	1	79	18	2	81	6	75	18	1	
Barbados	1990	100	98	2	0	0	100	–	–	0	0	100	–	–	0	0	4
	2000	100	100	0	0	0	100	–	–	0	0	100	–	–	0	0	
	2010	100	100	0	0	0	100	–	–	0	0	100	–	–	0	0	
Belarus	1990	100	–	–	0	0	99	–	–	1	–	100	–	–	0	0	NA*
	2000	100	89	11	0	0	99	30	69	1	–	100	71	29	0	0	
	2010	100	95	5	0	0	99	72	27	1	–	100	89	11	0	0	
Belgium	1990	100	100	0	0	0	100	96	4	0	0	100	100	0	0	0	6
	2000	100	100	0	0	0	100	99	1	0	0	100	100	0	0	0	
	2010	100	100	0	0	0	100	100	0	0	0	100	100	0	0	0	
Belize	1990	89	75	14	11	0	61	21	40	27	12	74	47	27	20	6	42
	2000	93	81	12	7	0	80	44	36	14	6	86	62	24	11	3	
	2010	98	87	11	2	0	99	68	31	1	0	98	78	20	2	0	
Benin	1990	72	16	56	19	9	49	0	49	22	29	57	6	51	21	22	35
	2000	78	23	55	17	5	59	2	57	23	18	66	10	56	21	13	
	2010	84	31	53	14	2	68	4	64	25	7	75	15	60	20	5	
Bermuda	1990	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	2000	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
	2010	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
Bhutan	1990	99	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–
	2000	99	81	18	0	1	82	45	37	5	13	86	54	32	4	10	
	2010	100	81	19	0	0	94	44	50	1	5	96	57	39	1	3	
Bolivia (Plurinational State of)	1990	92	78	14	7	1	43	14	29	15	42	70	50	20	11	19	31
	2000	94	87	7	5	1	57	33	24	12	31	80	66	14	8	12	
	2010	96	95	1	4	0	71	51	20	9	20	88	80	8	5	7	
Bosnia and Herzegovina	1990	99	96	3	1	–	96	–	–	4	–	97	–	–	3	–	13
	2000	99	96	3	1	0	96	77	19	4	0	97	85	12	3	0	
	2010	100	94	6	0	0	98	71	27	2	0	99	82	17	1	0	



Country, Area or Territory	Year	Population (x 1,000)	Percentage Urban Population	USE OF SANITATION FACILITIES (percentage of population)												Proportion of the 2010 population that gained access since 1995 (%)
				Urban				Rural				National				
				Improved	Unimproved			Improved	Unimproved			Improved	Unimproved			
					Shared	Other Unimproved	Open Defecation		Shared	Other Unimproved	Open Defecation		Shared	Other Unimproved	Open Defecation	
Botswana	1990 2000 2010	1,382 1,758 2,007	42 53 61	61 69 75	5 6 6	22 19 18	12 6 1	22 32 41	6 8 11	19 15 10	53 45 38	38 52 62	6 7 8	20 17 15	36 24 15	26
Brazil	1990 2000 2010	149,650 174,425 194,946	74 81 87	80 82 85	1 1 1	13 14 13	6 3 1	33 38 44	0 1 1	20 27 34	47 34 21	68 74 79	1 1 1	14 16 16	17 9 4	21
British Virgin Islands	1990 2000 2010	16 20 23	38 39 41	100 100 100	– – –	0 0 0	0 0 0	100 100 100	– – –	0 0 0	0 0 0	100 100 100	– – –	0 0 0	0 0 0	26
Brunei Darussalam	1990 2000 2010	252 327 399	66 71 76	– – –	– – –	– – –	– – –	– – –	– – –	– – –	– – –	– – –	– – –	– – –	– – –	–
Bulgaria	1990 2000 2010	8,819 8,006 7,494	66 69 71	100 100 100	– – –	0 0 0	0 0 0	98 100 100	– – –	2 0 0	– 0 0	99 100 100	– – –	1 0 0	– 0 0	NA*
Burkina Faso	1990 2000 2010	9,324 12,294 16,469	14 18 26	43 46 50	32 34 37	13 10 4	12 10 9	2 4 6	3 6 10	6 7 8	89 83 76	8 11 17	7 11 17	7 8 7	78 70 59	11
Burundi	1990 2000 2010	5,602 6,374 8,383	6 8 11	41 46 49	18 20 22	40 33 27	1 2 2	44 45 46	4 4 4	49 49 49	3 2 1	44 45 46	5 5 6	48 48 47	3 2 1	14
Cambodia	1990 2000 2010	9,532 12,447 14,138	13 17 20	36 50 73	5 7 10	10 6 2	49 37 15	5 10 20	1 2 4	5 6 4	89 82 72	9 17 31	2 3 5	5 6 3	84 74 61	23
Cameroon	1990 2000 2010	12,181 15,678 19,599	41 50 58	63 61 58	20 19 18	15 19 23	2 1 1	37 37 36	8 8 8	38 40 44	17 15 12	48 49 49	13 13 14	28 30 31	11 8 6	14
Canada	1990 2000 2010	27,701 30,667 34,017	77 79 81	100 100 100	– – –	0 0 0	0 0 0	99 99 99	– – –	1 1 1	– – –	100 100 100	– – –	0 0 0	0 0 0	14
Cape Verde	1990 2000 2010	348 437 496	44 53 61	– 61 73	– – –	– 12 8	– 27 19	– 25 43	– – –	– 17 14	– 58 43	– 44 61	– – –	– 15 11	– 41 28	32
Cayman Islands	1990 2000 2010	26 40 56	100 100 100	96 96 96	– – –	4 4 4	– – –	NA NA NA	NA NA NA	NA NA NA	NA NA NA	96 96 96	– – –	4 4 4	– – –	41
Central African Republic	1990 2000 2010	2,935 3,702 4,401	37 38 39	21 32 43	12 18 24	57 44 30	10 6 3	5 16 28	2 8 14	44 36 27	49 40 31	11 22 34	6 12 18	48 39 28	35 27 20	23
Chad	1990 2000 2010	6,011 8,222 11,227	21 23 28	21 26 30	12 15 18	42 39 37	25 20 15	4 5 6	1 1 1	2 7 13	93 87 80	8 10 13	3 4 6	10 15 19	79 71 62	7
Channel Islands	1990 2000 2010	140 145 153	31 30 31	– – –	– – –	– – –	– – –	– – –	– – –	– – –	– – –	– – –	– – –	– – –	– – –	–
Chile	1990 2000 2010	13,188 15,420 17,114	83 86 89	91 96 98	– – –	4 2 2	5 2 0	48 71 83	– – –	47 25 17	5 4 0	84 92 96	– – –	11 6 4	5 2 0	23
China	1990 2000 2010	1,145,195 1,269,117 1,341,335	26 36 47	48 61 74	15 20 24	34 18 2	3 1 0	15 35 56	4 9 14	72 51 28	9 5 2	24 44 64	7 13 19	62 39 16	7 4 1	34
Colombia	1990 2000 2010	33,203 39,764 46,295	68 72 75	79 81 82	14 14 15	4 2 1	3 3 2	40 52 63	4 5 6	14 12 11	42 31 20	67 73 77	11 11 13	7 5 4	15 11 6	22
Comoros	1990 2000 2010	438 562 735	28 28 28	34 42 50	2 2 3	64 56 46	0 23 1	11 23 30	1 2 2	88 74 67	0 1 1	17 28 36	1 2 2	82 69 61	0 1 1	21
Congo	1990 2000 2010	2,389 3,136 4,043	54 58 62	– 21 20	– 42 39	– 35 38	– 2 3	– 18 15	– 30 25	– 34 43	– 18 17	– 20 18	– 37 34	– 34 40	– 9 8	–
Cook Islands	1990 2000 2010	18 18 20	58 65 75	100 100 100	– – –	0 0 0	0 0 0	91 99 100	– – –	9 1 0	– – 0	96 100 100	– – –	4 0 0	– 0 0	10
Costa Rica	1990 2000 2010	3,070 3,919 4,659	51 59 64	94 95 95	4 4 4	1 0 1	1 1 0	91 94 96	4 4 4	1 0 0	4 2 0	93 95 95	4 4 4	1 0 1	2 1 0	26
Côte d'Ivoire	1990 2000 2010	12,518 16,582 19,738	40 44 51	38 37 36	25 24 23	31 33 35	6 6 6	8 10 11	8 10 12	28 27 27	56 53 50	20 22 24	15 16 18	29 29 30	36 33 28	8
Croatia	1990 2000 2010	4,517 4,506 4,403	54 56 58	99 99 99	1 1 1	0 0 0	0 0 0	98 98 98	1 1 1	1 0 1	– 1 –	99 99 99	1 1 1	0 0 0	0 0 0	NA*
Cuba	1990 2000 2010	10,570 11,104 11,258	73 76 75	86 90 94	5 5 5	9 4 1	– 1 0	64 73 81	10 12 13	26 10 4	– 5 2	80 86 91	6 7 7	14 5 2	– 2 0	10
Cyprus	1990 2000 2010	767 943 1,104	67 69 70	100 100 100	– – –	0 0 0	0 0 0	100 100 100	– – –	0 0 0	0 0 0	100 100 100	– – –	0 0 0	0 0 0	23

Country, Area or Territory	Year	USE OF DRINKING WATER SOURCES (percentage of population)															Proportion of the 2010 population that gained access since 1995 (%)
		Urban					Rural					National					
		Improved			Unimproved		Improved			Unimproved		Improved			Unimproved		
		Total Improved	Piped on Premises	Other Improved	Unimproved	Surface Water	Total Improved	Piped on Premises	Other Improved	Unimproved	Surface Water	Total Improved	Piped on Premises	Other Improved	Unimproved	Surface Water	
Botswana	1990	100	38	62	0	0	88	13	75	3	9	93	23	70	2	5	22
	2000	99	63	36	1	0	90	25	65	4	6	95	45	50	2	3	
	2010	99	85	14	1	0	92	36	56	4	4	96	66	30	2	2	
Brazil	1990	96	93	3	4	0	68	40	28	17	15	89	79	10	7	4	22
	2000	98	94	4	2	0	77	53	24	16	7	94	86	8	5	1	
	2010	100	96	4	0	0	85	65	20	13	2	98	92	6	2	0	
British Virgin Islands	1990	98	97	1	2	–	98	97	1	2	–	98	97	1	2	–	17
	2000	98	97	1	2	–	98	97	1	2	–	98	97	1	2	–	
	2010	98	97	1	2	–	98	97	1	2	–	98	97	1	2	–	
Brunei Darussalam	1990	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	2000	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
	2010	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
Bulgaria	1990	100	96	4	0	0	99	69	30	1	–	100	87	13	0	0	NA*
	2000	100	97	3	0	0	100	77	23	0	0	100	91	9	0	0	
	2010	100	98	2	0	0	100	–	–	0	0	100	–	–	0	0	
Burkina Faso	1990	75	12	63	24	1	38	0	38	52	10	43	2	41	48	9	46
	2000	85	17	68	15	0	55	0	55	38	7	60	3	57	34	6	
	2010	95	23	72	5	0	73	0	73	22	5	79	6	73	17	4	
Burundi	1990	97	32	65	3	0	68	1	67	25	7	70	3	67	23	7	21
	2000	89	41	48	6	5	70	1	69	16	14	72	4	68	15	13	
	2010	83	47	36	9	8	71	1	70	10	19	72	6	66	10	18	
Cambodia	1990	48	15	33	30	22	29	0	29	36	35	31	2	29	36	33	37
	2000	63	33	30	22	15	40	2	38	31	29	44	7	37	29	27	
	2010	87	63	24	9	4	58	5	53	22	20	64	17	47	19	17	
Cameroon	1990	76	23	53	11	13	31	2	29	17	52	49	11	38	15	36	37
	2000	86	25	61	8	6	42	2	40	18	40	64	13	51	13	23	
	2010	95	26	69	4	1	52	3	49	18	30	77	16	61	10	13	
Canada	1990	100	100	0	0	0	99	–	–	1	–	100	–	–	0	0	14
	2000	100	100	0	0	0	99	38	61	1	–	100	87	13	0	0	
	2010	100	100	0	0	0	99	–	–	1	–	100	–	–	0	0	
Cape Verde	1990	–	–	–	–	–	–	0	–	–	–	–	–	–	–	–	24
	2000	84	42	42	16	0	81	8	73	18	1	83	26	57	17	0	
	2010	90	58	32	10	0	85	40	45	15	0	88	51	37	12	0	
Cayman Islands	1990	–	37	–	–	–	NA	NA	NA	NA	NA	–	37	–	–	–	43
	2000	93	67	26	7	–	NA	NA	NA	NA	NA	93	67	26	7	–	
	2010	96	95	1	4	–	NA	NA	NA	NA	NA	96	95	1	4	–	
Central African Republic	1990	78	8	70	20	2	47	0	47	34	19	58	3	55	29	13	21
	2000	85	7	78	14	1	49	0	49	38	13	63	3	60	29	8	
	2010	92	6	86	7	1	51	0	51	43	6	67	2	65	29	4	
Chad	1990	49	7	42	48	3	37	0	37	47	16	39	1	38	48	13	25
	2000	60	15	45	38	2	41	0	41	49	10	45	4	41	47	8	
	2010	70	23	47	30	0	44	1	43	51	5	51	7	44	45	4	
Channel Islands	1990	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	2000	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
	2010	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
Chile	1990	99	97	2	1	0	48	22	26	25	27	90	84	6	5	5	19
	2000	99	98	1	1	0	66	39	27	15	19	94	90	4	3	3	
	2010	99	99	0	1	0	75	47	28	25	0	96	93	3	4	0	
China	1990	97	92	5	2	1	56	12	44	34	10	67	33	34	25	8	25
	2000	98	93	5	1	1	70	28	42	24	6	80	51	29	16	4	
	2010	98	95	3	2	0	85	45	40	13	2	91	68	23	8	1	
Colombia	1990	98	98	0	2	0	69	58	11	16	15	89	85	4	6	5	22
	2000	99	95	4	1	0	71	58	13	11	18	91	85	6	4	5	
	2010	99	92	7	1	0	72	58	14	8	20	92	84	8	3	5	
Comoros	1990	98	31	67	1	1	83	10	73	7	10	87	16	71	6	7	35
	2000	93	45	48	6	1	92	17	75	5	3	92	25	67	6	2	
	2010	91	53	38	9	0	97	21	76	3	0	95	30	65	5	0	
Congo	1990	95	–	–	5	–	–	4	–	–	–	–	–	–	–	–	–
	2000	95	46	49	4	1	36	4	32	52	12	70	28	42	24	6	
	2010	95	36	59	5	0	32	2	30	39	29	71	23	48	18	11	
Cook Islands	1990	99	–	–	1	–	87	–	–	13	–	94	–	–	6	–	–
	2000	99	–	–	1	–	87	–	–	13	–	95	–	–	5	–	
	2010	98	–	–	2	–	–	–	–	–	–	–	–	–	–	–	
Costa Rica	1990	99	92	7	1	0	86	71	15	6	8	93	82	11	3	4	27
	2000	99	97	2	1	0	89	81	8	4	7	95	90	5	2	3	
	2010	100	100	0	0	0	91	91	0	4	5	97	97	0	1	2	
Côte d'Ivoire	1990	90	50	40	10	0	67	5	62	17	16	76	23	53	14	10	22
	2000	91	57	34	9	0	67	10	57	23	10	77	30	47	17	6	
	2010	91	64	27	8	1	68	16	52	28	4	80	40	40	18	2	
Croatia	1990	100	96	4	0	0	97	–	–	3	–	99	–	–	1	–	NA*
	2000	100	96	4	0	0	97	77	20	2	1	99	88	11	1	0	
	2010	100	96	4	0	0	97	–	–	3	–	99	–	–	1	–	
Cuba	1990	93	77	16	7	–	53	30	23	47	–	82	64	18	18	–	11
	2000	95	80	15	5	0	73	44	29	25	2	90	71	19	10	0	
	2010	96	82	14	4	0	89	54	35	9	2	94	75	19	6	0	
Cyprus	1990	100	100	0	0	0	100	100	0	0	0	100	100	0	0	0	23
	2000	100	100	0	0	0	100	100	0	0	0	100	100	0	0	0	
	2010	100	100	0	0	0	100	100	0	0	0	100	100	0	0	0	

Country, Area or Territory	Year	Population (x 1,000)	Percentage Urban Population	USE OF SANITATION FACILITIES (percentage of population)												Proportion of the 2010 population that gained access since 1995 (%)
				Urban				Rural				National				
				Improved	Unimproved			Improved	Unimproved			Improved	Unimproved			
					Shared	Other Unimproved	Open Defecation		Shared	Other Unimproved	Open Defecation		Shared	Other Unimproved	Open Defecation	
Czech Republic	1990 2000 2010	10,303 10,243 10,493	75 74 74	100 99 99	0 1 1	0 0 0	0 0 0	98 97 97	2 3 3	0 0 0	0 0 0	100 98 98	0 2 2	0 0 0	0 0 0	1
Democratic People's Republic of Korea	1990 2000 2010	20,143 22,894 24,346	58 59 60	— 65 86	— 5 6	— 30 8	— — —	— 55 71	— 2 3	— 43 26	— — —	— 61 80	— 4 5	— 35 15	— — —	32
Democratic Republic of the Congo	1990 2000 2010	36,406 49,626 65,966	28 30 35	23 23 24	32 33 33	40 40 42	5 4 1	4 13 24	4 13 23	69 56 40	23 18 13	9 16 24	12 19 27	61 51 40	18 14 9	16
Denmark	1990 2000 2010	5,141 5,340 5,550	85 85 87	100 100 100	0 0 0	0 0 0	0 0 0	100 100 100	0 0 0	0 0 0	0 0 0	100 100 100	0 0 0	0 0 0	0 0 0	6
Djibouti	1990 2000 2010	562 732 889	76 76 76	73 69 63	6 5 5	10 20 32	11 6 0	45 30 10	6 4 1	2 13 28	47 53 61	66 60 50	6 5 4	8 18 32	20 17 14	5
Dominica	1990 2000 2010	71 70 68	68 67 67	— 80 —	— — —	— 2 —	— 18 —	— 84 —	— — —	— 2 —	— 14 —	— 81 —	— — —	— 2 —	— 17 —	—
Dominican Republic	1990 2000 2010	7,195 8,592 9,927	55 62 69	83 85 87	9 10 10	5 2 1	3 3 2	61 68 75	11 12 13	8 7 5	20 13 7	73 78 83	10 11 11	6 4 2	11 7 4	23
Ecuador	1990 2000 2010	10,261 12,345 14,465	55 60 67	86 92 96	2 3 3	5 2 0	7 3 1	48 70 84	2 3 4	11 5 0	39 22 12	69 83 92	2 3 3	8 3 0	21 11 5	32
Egypt	1990 2000 2010	56,843 67,648 81,121	43 43 43	91 95 97	3 3 3	5 1 0	1 1 0	57 79 93	4 5 7	22 9 0	17 7 0	72 86 95	4 4 5	14 6 0	10 4 0	35
El Salvador	1990 2000 2010	5,333 5,940 6,193	49 59 64	88 89 89	8 8 8	1 0 1	3 3 2	62 74 83	3 4 5	1 0 0	34 22 12	75 83 87	5 6 7	1 0 0	19 11 6	14
Equatorial Guinea	1990 2000 2010	374 520 700	35 39 40	— 92 —	— — —	— 8 —	— — —	— 87 —	— — —	— 13 —	— — —	— 89 —	— — —	— 11 —	— — —	—
Eritrea	1990 2000 2010	3,158 3,668 5,254	16 18 22	58 54 —	— — —	10 8 —	32 38 —	0 2 4	— — —	0 1 96	100 97 —	9 11 —	— — —	2 2 —	89 87 —	—
Estonia	1990 2000 2010	1,568 1,371 1,341	71 69 69	96 96 96	4 4 4	0 0 0	0 0 0	94 94 94	6 6 6	0 0 0	0 0 0	95 95 95	5 5 5	0 0 0	0 0 0	NA*
Ethiopia	1990 2000 2010	48,333 65,578 82,950	13 15 17	20 24 29	27 33 40	11 16 22	42 27 9	1 6 19	0 2 6	0 7 22	99 85 53	3 9 21	3 7 12	1 8 21	93 76 46	18
Faeroe Islands	1990 2000 2010	48 46 49	31 36 40	— — —	— — —	— — —	— — —	— — —	— — —	— — —	— — —	— — —	— — —	— — —	— — —	—
Falkland Islands (Malvinas)	1990 2000 2010	2 3 3	74 68 74	— — —	— — —	— — —	— — —	— — —	— — —	— — —	— — —	— — —	— — —	— — —	— — —	—
Fiji	1990 2000 2010	728 812 861	42 48 52	90 92 94	— — —	10 8 6	0 0 0	40 59 71	— — —	52 37 28	8 4 1	61 75 83	— — —	34 23 17	5 2 0	22
Finland	1990 2000 2010	4,986 5,173 5,365	79 82 85	100 100 100	— — —	0 0 0	0 0 0	100 100 100	— — —	0 0 0	0 0 0	100 100 100	— — —	0 0 0	0 0 0	5
France	1990 2000 2010	56,708 59,048 62,787	74 77 85	100 100 100	0 0 0	0 0 0	0 0 0	100 100 100	0 0 0	0 0 0	0 0 0	100 100 100	0 0 0	0 0 0	0 0 0	8
French Guiana	1990 2000 2010	117 165 231	75 75 76	— 85 —	— — —	— 15 —	— 57 —	— — —	— — —	— 43 —	— — —	— 78 —	— — —	— 22 —	— — —	—
French Polynesia	1990 2000 2010	195 238 271	56 52 51	99 99 99	— — —	1 1 1	— — —	97 97 97	— — —	3 3 3	— — —	98 98 98	— — —	2 2 2	— — —	20
Gabon	1990 2000 2010	929 1,235 1,505	69 80 86	— 37 33	— 40 36	— 21 30	— 2 1	— 30 30	— 24 25	— 41 43	— 5 2	— 36 33	— 37 34	— 24 32	— 3 1	7
Gambia	1990 2000 2010	966 1,297 1,728	38 49 58	— 67 70	— 24 25	— 8 5	— 1 0	— 60 65	— 14 15	— 18 15	— 8 5	— 63 68	— 19 21	— 13 9	— 5 2	29
Georgia	1990 2000 2010	5,460 4,746 4,352	55 53 53	97 96 96	3 3 3	0 1 1	0 0 —	95 94 93	1 1 1	4 3 6	— 2 —	96 95 95	2 2 2	2 2 3	— 1 —	NA*
Germany	1990 2000 2010	79,098 82,349 82,302	73 73 74	100 100 100	0 0 0	0 0 0	0 0 0	100 100 100	0 0 0	0 0 0	0 0 0	100 100 100	0 0 0	0 0 0	0 0 0	0
Ghana	1990 2000 2010	14,793 19,165 24,392	36 44 51	12 16 19	44 59 73	33 16 2	11 9 6	4 6 8	20 31 43	47 32 16	29 31 33	7 10 14	29 43 58	42 26 9	22 21 19	8

Country, Area or Territory	Year	USE OF DRINKING WATER SOURCES (percentage of population)															Proportion of the 2010 population that gained access since 1995 (%)
		Urban					Rural					National					
		Improved			Unimproved		Improved			Unimproved		Improved			Unimproved		
		Total Improved	Piped on Premises	Other Improved	Unimproved	Surface Water	Total Improved	Piped on Premises	Other Improved	Unimproved	Surface Water	Total Improved	Piped on Premises	Other Improved	Unimproved	Surface Water	
Czech Republic	1990	100	97	3	0	0	100	—	—	0	0	100	—	—	0	0	2
	2000	100	97	3	0	0	100	91	9	0	0	100	95	5	0	0	
	2010	100	97	3	0	0	100	—	—	0	0	100	—	—	0	0	
Democratic People's Republic of Korea	1990	100	—	—	0	0	100	—	—	0	0	100	—	—	0	0	9
	2000	100	81	19	0	0	99	72	27	1	—	100	77	23	0	0	
	2010	99	93	6	0	1	97	80	17	0	3	98	88	10	0	2	
Democratic Republic of the Congo	1990	90	51	39	10	0	27	0	27	40	33	45	14	31	31	24	16
	2000	85	38	47	13	2	27	1	26	43	30	44	12	32	34	22	
	2010	79	21	58	17	4	27	2	25	47	26	45	9	36	37	18	
Denmark	1990	100	100	0	0	0	100	100	0	0	0	100	100	0	0	0	6
	2000	100	100	0	0	0	100	100	0	0	0	100	100	0	0	0	
	2010	100	100	0	0	0	100	100	0	0	0	100	100	0	0	0	
Djibouti	1990	80	67	13	20	—	70	18	52	30	—	78	55	23	22	—	33
	2000	88	73	15	12	0	63	11	52	32	5	82	58	24	17	1	
	2010	99	79	20	1	0	54	1	53	41	5	88	60	28	11	1	
Dominica	1990	96	—	—	4	—	—	—	—	—	—	—	—	—	—	—	—
	2000	96	78	18	4	—	92	49	43	8	—	95	68	27	5	—	
	2010	96	—	—	4	—	—	—	—	—	—	—	—	—	—	—	
Dominican Republic	1990	98	94	4	2	0	76	46	30	3	21	88	73	15	3	9	16
	2000	92	86	6	8	0	80	50	30	10	10	87	72	15	9	4	
	2010	87	80	7	13	0	84	55	29	16	0	86	72	14	14	0	
Ecuador	1990	81	66	15	14	5	62	24	38	5	33	72	47	25	10	18	31
	2000	90	83	7	9	1	79	55	24	7	14	86	72	14	8	6	
	2010	96	93	3	4	0	89	73	16	9	2	94	86	8	6	0	
Egypt	1990	96	90	6	4	0	90	39	51	7	3	93	61	32	5	2	27
	2000	98	95	3	2	0	95	66	29	4	1	96	78	18	3	1	
	2010	100	100	0	0	0	99	93	6	1	0	99	96	3	1	0	
El Salvador	1990	90	72	18	9	1	58	14	44	21	21	74	43	31	15	11	15
	2000	92	76	16	7	1	68	29	39	16	16	82	57	25	11	7	
	2010	94	80	14	6	0	76	42	34	12	12	88	66	22	8	4	
Equatorial Guinea	1990	—	—	—	—	—	—	1	—	—	—	—	4	—	—	—	—
	2000	66	10	56	26	8	42	1	41	5	53	51	4	47	13	36	
	2010	—	—	—	—	—	—	1	—	—	—	—	5	—	—	—	
Eritrea	1990	62	40	22	37	1	39	0	39	34	27	43	6	37	34	23	—
	2000	70	42	28	30	0	50	0	50	37	13	54	7	47	35	11	
	2010	—	—	—	—	—	—	0	—	—	—	—	—	—	—	—	
Estonia	1990	99	92	7	1	—	97	51	46	3	—	98	80	18	2	—	NA*
	2000	99	95	4	1	0	97	65	32	3	0	98	86	12	2	0	
	2010	99	97	2	1	—	97	—	—	3	—	98	—	—	2	—	
Ethiopia	1990	79	9	70	11	10	5	0	5	39	56	14	1	13	36	50	31
	2000	87	26	61	7	6	19	0	19	40	41	29	4	25	35	36	
	2010	97	46	51	3	0	34	1	33	43	23	44	8	36	37	19	
Faeroe Islands	1990	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	2000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	2010	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Falkland Islands (Malvinas)	1990	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	2000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	2010	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Fiji	1990	94	92	2	6	0	77	38	39	18	5	84	60	24	13	3	18
	2000	98	95	3	2	0	88	55	33	8	4	93	74	19	5	2	
	2010	100	97	3	0	0	95	66	29	2	3	98	82	16	1	1	
Finland	1990	100	96	4	0	0	100	85	15	0	0	100	94	6	0	0	5
	2000	100	99	1	0	0	100	92	8	0	0	100	98	2	0	0	
	2010	100	100	0	0	0	100	96	4	0	0	100	99	1	0	0	
France	1990	100	100	0	0	0	100	95	5	0	0	100	99	1	0	0	8
	2000	100	100	0	0	0	100	99	1	0	0	100	100	0	0	0	
	2010	100	100	0	0	0	100	100	0	0	0	100	100	0	0	0	
French Guiana	1990	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	2000	88	83	5	12	—	71	65	6	29	—	84	79	5	16	—	
	2010	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
French Polynesia	1990	100	99	1	0	0	100	96	4	0	0	100	98	2	0	0	20
	2000	100	99	1	0	0	100	96	4	0	0	100	98	2	0	0	
	2010	100	99	1	0	0	100	96	4	0	0	100	98	2	0	0	
Gabon	1990	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	27
	2000	95	52	43	3	2	47	8	39	18	35	85	43	42	6	9	
	2010	95	49	46	1	4	41	10	31	13	46	87	44	43	3	10	
Gambia	1990	86	25	61	14	0	67	0	67	33	0	74	10	64	26	0	38
	2000	90	40	50	10	0	77	3	74	23	0	83	21	62	17	0	
	2010	92	51	41	8	0	85	5	80	15	0	89	32	57	11	0	
Georgia	1990	94	81	13	6	—	66	19	47	34	—	81	53	28	19	—	2
	2000	97	86	11	3	0	80	34	46	20	0	89	61	28	11	0	
	2010	100	92	8	0	0	96	51	45	4	0	98	73	25	2	0	
Germany	1990	100	100	0	0	0	100	97	3	0	0	100	99	1	0	0	0
	2000	100	100	0	0	0	100	99	1	0	0	100	100	0	0	0	
	2010	100	100	0	0	0	100	100	0	0	0	100	100	0	0	0	
Ghana	1990	84	41	43	7	9	36	2	34	11	53	53	16	37	10	37	42
	2000	87	37	50	9	4	58	3	55	10	32	71	18	53	9	20	
	2010	91	33	58	9	0	80	3	77	9	11	86	18	68	9	5	



Country, Area or Territory	Year	Population (x 1,000)	Percentage Urban Population	USE OF SANITATION FACILITIES (percentage of population)												Proportion of the 2010 population that gained access since 1995 (%)
				Urban				Rural				National				
				Improved	Unimproved			Improved	Unimproved			Improved	Unimproved			
					Shared	Other Unimproved	Open Defecation		Shared	Other Unimproved	Open Defecation		Shared	Other Unimproved	Open Defecation	
Greece	1990 2000 2010	10,161 10,987 11,359	59 60 61	100 99 99	– – –	0 1 1	0 0 –	93 96 97	– – –	0 0 3	7 4 –	97 98 98	– – –	0 0 2	3 2 –	7
Greenland	1990 2000 2010	56 56 57	80 82 84	100 100 100	0 0 0	0 0 0	0 0 0	100 100 100	0 0 0	0 0 0	0 0 0	100 100 100	0 0 0	0 0 0	0 0 0	2
Grenada	1990 2000 2010	96 102 104	33 36 39	96 96 96	– – –	4 4 4	– – –	97 97 97	– – –	3 3 3	– – –	97 97 97	– – –	3 3 3	– – –	4
Guadeloupe	1990 2000 2010	386 427 461	99 98 98	– 94 95	– – –	– 6 5	– – –	– – –	– – –	– – –	– – –	– – –	– – –	– – –	– – –	–
Guam	1990 2000 2010	134 155 180	91 93 93	99 99 99	– – –	1 1 1	– – –	98 98 98	– – –	2 2 2	– – –	99 99 99	– – –	1 1 1	– – –	19
Guatemala	1990 2000 2010	8,923 11,237 14,389	41 45 49	81 85 87	9 9 10	5 3 1	5 3 2	48 60 70	4 5 6	13 14 14	35 21 10	62 71 78	6 7 8	9 9 8	23 13 6	32
Guinea	1990 2000 2010	5,759 8,344 9,982	28 31 35	19 26 32	23 32 40	52 39 27	6 3 1	6 9 11	4 5 6	35 44 53	55 42 30	10 14 18	9 13 18	40 43 44	41 30 20	9
Guinea-Bissau	1990 2000 2010	1,017 1,241 1,515	28 30 30	– 36 44	– 13 16	– 47 38	– 4 2	4 5 9	1 1 2	95 41 46	– 53 43	– 14 20	– 5 6	– 43 43	– 38 31	10
Guyana	1990 2000 2010	725 733 754	30 29 29	– 86 88	– 8 8	– 5 4	– 1 0	– 76 82	– 8 9	– 15 8	– 1 1	– 79 84	– 8 9	– 12 6	– 1 1	8
Haiti	1990 2000 2010	7,125 8,645 9,993	29 36 52	44 34 24	44 35 24	0 20 43	12 11 9	19 15 10	12 9 6	7 20 35	62 56 49	26 22 17	21 18 15	5 20 40	48 40 28	-3
Honduras	1990 2000 2010	4,889 6,218 7,601	40 45 52	71 78 85	6 7 7	14 10 7	9 5 1	36 53 69	1 2 2	15 13 12	48 32 17	50 64 77	3 4 5	15 12 9	32 20 9	35
Hungary	1990 2000 2010	10,376 10,211 9,984	66 65 68	100 100 100	0 0 0	0 0 0	0 0 0	100 100 100	0 0 0	0 0 0	0 0 0	100 100 100	0 0 0	0 0 0	0 0 0	NA*
Iceland	1990 2000 2010	255 281 320	91 92 93	100 100 100	0 0 0	0 0 0	0 0 0	100 100 100	0 0 0	0 0 0	0 0 0	100 100 100	0 0 0	0 0 0	0 0 0	17
India	1990 2000 2010	873,785 1,053,898 1,224,614	26 28 30	51 55 58	17 18 19	4 5 9	28 22 14	7 14 23	1 3 4	1 4 6	91 79 67	18 25 34	5 7 9	2 5 6	75 63 51	17
Indonesia	1990 2000 2010	184,346 213,395 239,871	31 42 44	56 64 73	8 9 10	17 11 3	19 16 14	21 30 39	6 9 12	25 19 13	48 42 36	32 44 54	7 9 11	22 16 9	39 31 26	22
Iran (Islamic Republic of)	1990 2000 2010	54,871 65,342 73,974	56 64 71	83 92 100	– – –	17 8 0	– 0 0	74 86 100	– – –	26 13 0	– 1 0	79 90 100	– – –	21 10 0	– 0 0	33
Iraq	1990 2000 2010	17,374 23,857 31,672	70 68 66	– 76 76	– 19 19	– 5 5	– 0 0	– 54 67	– 10 12	– 19 17	– 17 4	– 69 73	– 16 17	– 10 9	– 5 1	30
Ireland	1990 2000 2010	3,531 3,804 4,470	57 59 62	100 100 100	– – –	0 0 0	0 0 0	98 98 98	– – –	2 2 2	– – –	99 99 99	– – –	1 1 1	– – –	19
Isle of Man	1990 2000 2010	70 77 83	52 52 51	– – –	– – –	– – –	– – –	– – –	– – –	– – –	– – –	– – –	– – –	– – –	– – –	–
Israel	1990 2000 2010	4,500 6,015 7,418	90 91 92	100 100 100	– – –	0 0 0	0 0 0	100 100 100	– – –	0 0 0	0 0 0	100 100 100	– – –	0 0 0	0 0 0	28
Italy	1990 2000 2010	56,832 56,986 60,551	67 67 68	– – –	– – –	– – –	– – –	– – –	– – –	– – –	– – –	– – –	– – –	– – –	– – –	–
Jamaica	1990 2000 2010	2,365 2,582 2,741	49 52 52	78 78 78	20 20 20	1 1 1	1 81 82	81 82 82	14 14 14	4 3 3	1 1 1	80 80 80	17 17 17	2 2 2	1 1 1	9
Japan	1990 2000 2010	122,251 125,720 126,536	63 65 67	100 100 100	0 0 0	0 0 0	0 0 0	100 100 100	0 0 0	0 0 0	0 0 0	100 100 100	0 0 0	0 0 0	0 0 0	2
Jordan	1990 2000 2010	3,416 4,827 6,187	72 78 79	98 98 98	2 2 2	0 0 0	0 0 0	95 96 98	1 1 1	4 1 1	– 2 0	97 98 98	2 2 2	1 0 0	– 0 0	29
Kazakhstan	1990 2000 2010	16,530 14,957 16,026	56 56 59	96 97 97	3 3 3	1 0 0	0 0 0	97 97 98	1 1 1	0 1 1	2 1 0	96 97 97	2 2 2	1 1 1	1 0 0	2
Kenya	1990 2000 2010	23,447 31,254 40,513	18 20 22	27 30 32	42 45 48	28 22 18	3 2 3	25 28 32	16 19 21	42 35 29	17 18 18	25 28 32	21 24 27	40 33 27	14 15 14	14

Country, Area or Territory	Year	USE OF DRINKING WATER SOURCES (percentage of population)															Proportion of the 2010 population that gained access since 1995 (%)
		Urban					Rural					National					
		Improved			Unimproved		Improved			Unimproved		Improved			Unimproved		
		Total Improved	Piped on Premises	Other Improved	Unimproved	Surface Water	Total Improved	Piped on Premises	Other Improved	Unimproved	Surface Water	Total Improved	Piped on Premises	Other Improved	Unimproved	Surface Water	
Greece	1990	99	99	0	1	–	92	82	10	8	–	96	92	4	4	–	8
	2000	100	100	0	0	0	98	95	3	2	–	99	98	1	1	–	
	2010	100	100	0	0	0	99	99	0	1	–	100	100	0	0	0	
Greenland	1990	100	100	0	0	0	100	100	0	0	0	100	100	0	0	0	2
	2000	100	100	0	0	0	100	100	0	0	0	100	100	0	0	0	
	2010	100	100	0	0	0	100	100	0	0	0	100	100	0	0	0	
Grenada	1990	97	–	–	3	–	–	–	–	–	–	–	–	–	–	–	–
	2000	97	93	4	3	–	93	75	18	7	–	94	81	13	6	–	
	2010	97	–	–	3	–	–	–	–	–	–	–	–	–	–	–	
Guadeloupe	1990	98	98	0	2	–	–	–	–	–	–	–	–	–	–	–	–
	2000	98	98	0	2	–	93	75	18	7	–	98	98	0	2	–	
	2010	98	98	0	2	–	–	–	–	–	–	–	–	–	–	–	
Guam	1990	100	–	–	0	0	100	–	–	0	0	100	–	–	0	0	19
	2000	100	–	–	0	0	100	–	–	0	0	100	–	–	0	0	
	2010	100	–	–	0	0	100	–	–	0	0	100	–	–	0	0	
Guatemala	1990	91	68	23	7	2	74	34	40	7	19	81	48	33	7	12	34
	2000	95	83	12	4	1	81	54	27	7	12	87	67	20	6	7	
	2010	98	96	2	2	0	87	69	18	7	6	92	82	10	5	3	
Guinea	1990	87	21	66	5	8	37	0	37	9	54	51	6	45	8	41	30
	2000	88	25	63	9	3	52	0	52	15	33	63	8	55	13	24	
	2010	90	29	61	10	0	65	1	64	21	14	74	11	63	17	9	
Guinea-Bissau	1990	45	14	31	55	0	32	0	32	63	5	36	4	32	60	4	32
	2000	68	13	55	32	0	43	0	43	53	4	50	4	46	47	3	
	2010	91	11	80	8	1	53	0	53	44	3	64	3	61	34	2	
Guyana	1990	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	9
	2000	94	74	20	5	1	87	56	31	7	6	89	61	28	6	5	
	2010	98	79	19	2	0	93	59	34	2	5	94	65	29	2	4	
Haiti	1990	84	27	57	12	4	49	2	47	35	16	59	9	50	28	13	21
	2000	84	21	63	12	4	50	3	47	31	19	62	9	53	24	14	
	2010	85	15	70	11	4	51	4	47	28	21	69	10	59	19	12	
Honduras	1990	96	85	11	4	0	62	42	20	37	1	76	59	17	23	1	29
	2000	95	90	5	5	0	71	59	12	28	1	82	73	9	17	1	
	2010	95	95	0	5	0	79	74	5	19	2	87	85	2	12	1	
Hungary	1990	98	94	4	2	–	91	72	19	9	–	96	86	10	4	–	NA*
	2000	100	95	5	0	0	98	86	12	2	0	99	92	7	1	0	
	2010	100	95	5	0	0	100	–	–	0	0	100	–	–	0	0	
Iceland	1990	100	100	0	0	0	100	100	0	0	0	100	100	0	0	0	17
	2000	100	100	0	0	0	100	100	0	0	0	100	100	0	0	0	
	2010	100	100	0	0	0	100	100	0	0	0	100	100	0	0	0	
India	1990	88	49	39	11	1	63	7	56	33	4	69	18	51	28	3	33
	2000	93	49	44	7	0	77	10	67	21	2	81	21	60	18	1	
	2010	97	48	49	3	0	90	12	78	9	1	92	23	69	7	1	
Indonesia	1990	91	25	66	8	1	61	2	59	32	7	70	9	61	25	5	20
	2000	91	31	60	8	1	68	5	63	26	6	78	16	62	18	4	
	2010	92	36	56	8	0	74	8	66	22	4	82	20	62	16	2	
Iran (Islamic Republic of)	1990	98	97	1	2	0	80	65	15	16	4	90	83	7	8	2	22
	2000	98	96	2	2	0	85	76	9	13	2	93	89	4	6	1	
	2010	97	96	1	3	0	92	88	4	8	0	96	94	2	4	0	
Iraq	1990	97	–	–	3	–	44	–	–	56	–	81	–	–	19	–	28
	2000	95	92	3	3	2	49	37	12	16	35	80	74	6	7	13	
	2010	91	89	2	7	2	56	50	6	27	17	79	76	3	14	7	
Ireland	1990	100	100	0	0	0	100	99	1	0	0	100	100	0	0	0	19
	2000	100	100	0	0	0	100	99	1	0	0	100	100	0	0	0	
	2010	100	100	0	0	0	100	99	1	0	0	100	100	0	0	0	
Isle of Man	1990	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	2000	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
	2010	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
Israel	1990	100	100	0	0	0	100	98	2	0	0	100	100	0	0	0	28
	2000	100	100	0	0	0	100	98	2	0	0	100	100	0	0	0	
	2010	100	100	0	0	0	100	98	2	0	0	100	100	0	0	0	
Italy	1990	100	100	0	0	0	100	96	4	0	0	100	99	1	0	0	6
	2000	100	100	0	0	0	100	100	0	0	0	100	100	0	0	0	
	2010	100	100	0	0	0	100	100	0	0	0	100	100	0	0	0	
Jamaica	1990	98	89	9	2	0	88	34	54	1	11	93	61	32	1	6	10
	2000	98	90	8	2	0	88	42	46	5	7	93	67	26	4	3	
	2010	98	91	7	2	0	88	47	41	8	4	93	70	23	5	2	
Japan	1990	100	97	3	0	0	100	86	14	0	0	100	93	7	0	0	2
	2000	100	98	2	0	0	100	91	9	0	0	100	96	4	0	0	
	2010	100	99	1	0	0	100	95	5	0	0	100	98	2	0	0	
Jordan	1990	99	98	1	1	0	90	87	3	9	1	97	95	2	3	0	28
	2000	98	96	2	2	–	91	83	8	9	–	96	93	3	4	–	
	2010	98	93	5	2	–	92	79	13	8	–	97	90	7	3	–	
Kazakhstan	1990	99	91	8	1	0	92	28	64	5	3	96	63	33	3	1	0
	2000	99	87	12	1	0	91	26	65	6	3	96	60	36	3	1	
	2010	99	82	17	1	0	90	24	66	7	3	95	58	37	4	1	
Kenya	1990	92	56	36	4	4	33	10	23	18	49	44	18	26	15	41	26
	2000	87	50	37	9	4	43	11	32	18	39	52	19	33	16	32	
	2010	82	45	37	14	4	52	12	40	18	30	59	19	40	17	24	

Country, Area or Territory	Year	Population (x 1,000)	Percentage Urban Population	USE OF SANITATION FACILITIES (percentage of population)												Proportion of the 2010 population that gained access since 1995 (%)
				Urban				Rural				National				
				Improved	Unimproved			Improved	Unimproved			Improved	Unimproved			
					Shared	Other Unimproved	Open Defecation		Shared	Other Unimproved	Open Defecation		Shared	Other Unimproved	Open Defecation	
Kiribati	1990 2000 2010	72 84 100	35 43 44	36 47 –	7 9 –	16 3 –	41 41 –	21 22 –	2 2 –	12 21 –	65 55 –	26 33 –	4 5 –	13 13 –	57 49 –	–
Kuwait	1990 2000 2010	2,088 1,941 2,737	98 98 98	100 100 100	– – –	0 0 0	0 0 0	100 100 100	– – –	0 0 0	0 0 0	100 100 100	– – –	0 0 0	0 0 0	41
Kyrgyzstan	1990 2000 2010	4,395 4,955 5,334	38 35 35	94 94 94	5 5 5	1 1 1	– 0 0	– 93 93	– 2 2	– 5 5	– 0 0	– 93 93	– 3 3	– 4 4	– 0 0	13
Lao People's Democratic Republic	1990 2000 2010	4,192 5,317 6,201	15 22 33	– 64 89	– 4 5	– 8 3	– 24 3	– 15 50	– 0 1	– 9 8	– 76 41	– 26 63	– 1 2	– 8 7	– 65 28	50
Latvia	1990 2000 2010	2,664 2,385 2,252	69 68 68	– 82 –	– 13 –	– 5 –	– 0 –	– 71 –	– 3 –	– 26 –	– 0 –	– 78 –	– 10 –	– 12 –	– 0 –	–
Lebanon	1990 2000 2010	2,948 3,742 4,228	83 86 87	100 100 100	– – –	0 0 0	0 0 0	– 87 –	– – –	– 13 –	– – –	– 98 –	– – –	– 2 –	– – –	–
Lesotho	1990 2000 2010	1,639 1,964 2,171	14 20 27	– 37 32	– 34 30	– 18 32	– 11 6	– 22 24	– 3 4	– 22 23	– 53 49	– 25 26	– 9 11	– 21 26	– 45 37	6
Liberia	1990 2000 2010	2,127 2,847 3,994	41 44 48	– 23 29	– 23 30	– 29 16	– 25 25	– 3 7	– 8 21	– 9 8	– 80 64	– 12 18	– 15 25	– 17 12	– 56 45	12
Libya	1990 2000 2010	4,334 5,231 6,355	76 76 78	97 97 97	– – –	3 3 3	– – –	96 96 96	– – –	4 4 4	– – –	97 97 97	– – –	3 3 3	– – –	24
Liechtenstein	1990 2000 2010	29 33 36	17 15 14	– – –	– – –	– – –	– – –	– – –	– – –	– – –	– – –	– – –	– – –	– – –	– – –	–
Lithuania	1990 2000 2010	3,696 3,500 3,324	68 67 67	95 95 95	– – –	5 5 5	– – –	– 69 –	– – –	– 31 –	– – –	– 86 –	– – –	– 14 –	– – –	–
Luxembourg	1990 2000 2010	381 435 507	81 84 85	100 100 100	0 0 0	0 0 0	0 0 0	100 100 100	0 0 0	0 0 0	0 0 0	100 100 100	0 0 0	0 0 0	0 0 0	20
Madagascar	1990 2000 2010	11,281 15,364 20,714	24 27 30	15 18 21	21 24 28	41 37 32	23 21 19	7 10 12	9 12 14	18 22 29	66 56 45	9 12 15	12 15 18	23 26 30	56 47 37	8
Malawi	1990 2000 2010	9,381 11,229 14,901	12 15 20	48 49 49	43 44 44	5 4 5	4 3 2	38 45 51	22 26 30	6 7 9	34 22 10	39 46 51	24 29 33	6 6 8	31 19 8	23
Malaysia	1990 2000 2010	18,209 23,415 28,401	50 62 72	88 94 96	4 4 4	7 1 0	1 1 0	81 90 95	3 4 4	7 2 1	9 4 –	84 92 96	3 4 4	8 2 0	5 2 0	31
Maldives	1990 2000 2010	219 273 316	26 28 40	98 98 98	2 2 2	0 0 0	0 0 0	58 72 97	1 1 2	10 8 1	31 19 0	68 79 97	1 1 2	8 6 1	23 14 0	43
Mali	1990 2000 2010	8,673 11,295 15,370	23 28 36	33 34 35	36 37 38	26 25 23	5 4 4	10 12 14	6 7 9	47 53 57	37 28 20	15 18 22	13 16 19	42 45 45	30 21 14	11
Malta	1990 2000 2010	368 397 417	90 92 95	100 100 100	0 0 0	0 0 0	0 0 0	100 100 100	0 0 0	0 0 0	0 0 0	100 100 100	0 0 0	0 0 0	0 0 0	7
Marshall Islands	1990 2000 2010	47 52 54	65 68 72	77 80 83	11 12 12	12 8 1	– – 4	41 48 53	9 11 12	50 41 0	– – 35	64 70 75	10 12 12	26 18 0	– – 13	11
Martinique	1990 2000 2010	359 385 406	86 90 89	– 94 95	– – –	– 6 5	– – –	– – –	– – –	– – –	– – –	– – –	– – –	– – –	– – –	–
Mauritania	1990 2000 2010	1,996 2,643 3,460	40 40 41	29 38 51	10 14 18	38 28 16	23 20 15	8 9 9	3 4 4	31 19 6	58 68 81	16 21 26	6 8 10	34 22 10	44 49 54	15
Mauritius	1990 2000 2010	1,060 1,196 1,299	44 43 42	91 91 91	8 8 8	1 1 1	0 0 0	88 88 88	9 9 9	3 3 3	0 0 0	89 89 89	9 9 9	2 2 2	0 0 0	11
Mayotte	1990 2000 2010	92 149 204	36 48 50	– – –	– – –	– – –	– – –	– – –	– – –	– – –	– – –	– – –	– – –	– – –	– – –	–
Mexico	1990 2000 2010	84,307 99,960 113,423	71 75 78	76 81 87	10 10 11	4 4 2	10 5 0	34 56 79	4 7 10	11 8 5	51 29 6	64 75 85	8 9 11	6 5 3	22 11 1	28
Micronesia (Federated States of)	1990 2000 2010	96 107 111	26 22 23	55 59 –	– – –	45 41 –	– – –	20 16 –	– – –	80 84 –	– – –	29 26 –	– – –	71 74 –	– – –	–
Monaco	1990 2000 2010	31 35 35	100 100 100	100 100 100	0 0 0	0 0 0	0 0 0	NA NA NA	NA NA NA	NA NA NA	NA NA NA	100 100 100	0 0 0	0 0 0	0 0 0	6

Country, Area or Territory	Year	USE OF DRINKING WATER SOURCES (percentage of population)														Proportion of the 2010 population that gained access since 1995 (%)	
		Urban					Rural					National					
		Improved			Unimproved		Improved			Unimproved		Improved			Unimproved		
		Total Improved	Piped on Premises	Other Improved	Unimproved	Surface Water	Total Improved	Piped on Premises	Other Improved	Unimproved	Surface Water	Total Improved	Piped on Premises	Other Improved	Unimproved		Surface Water
Kiribati	1990 2000 2010	76 77 –	46 48 –	30 29 –	24 23 –	– – –	33 50 –	13 21 –	20 29 –	67 50 –	– – –	48 62 –	25 33 –	23 29 –	52 38 –	– – –	–
Kuwait	1990 2000 2010	99 99 99	– – –	– – –	1 1 1	– – –	99 99 99	– – –	– – –	1 1 1	– – –	99 99 99	– – –	– – –	1 1 1	– – –	40
Kyrgyzstan	1990 2000 2010	98 98 99	75 82 89	23 16 10	2 1 1	– 1 0	– 73 85	25 30 34	– 43 51	– 4 4	– 23 11	– 82 90	44 48 53	– 34 37	– 3 3	– 15 7	23
Lao People's Democratic Republic	1990 2000 2010	– 75 77	– 37 55	– 38 22	– 20 20	– 5 3	– 37 62	– 5 3	– 32 59	– 29 21	– 34 17	– 45 67	– 12 20	– 33 47	– 27 21	– 28 12	36
Latvia	1990 2000 2010	100 100 100	– 93 –	– 7 –	0 0 0	0 0 0	96 96 96	– 59 –	– 37 –	4 4 4	– 0 –	99 99 99	– 82 –	– 17 –	1 1 1	– 0 –	NA*
Lebanon	1990 2000 2010	100 100 100	100 100 100	0 0 0	0 0 0	0 0 0	100 100 100	– 85 –	– 15 –	0 0 0	0 0 0	100 100 100	– 98 –	– 2 –	0 0 0	0 0 0	18
Lesotho	1990 2000 2010	95 94 91	25 39 63	70 55 28	5 6 9	0 0 0	78 76 73	2 3 4	76 73 69	20 23 26	2 1 1	80 80 78	5 10 20	75 70 58	18 19 21	2 1 1	12
Liberia	1990 2000 2010	– 74 88	3 4 8	– 70 80	– 26 11	– – 1	– 50 60	– 1 1	– 49 59	– 50 17	– – 23	– 61 73	2 2 4	– 59 69	– 39 15	– – 12	43
Libya	1990 2000 2010	54 54 –	– – –	– – –	46 46 –	– – –	55 55 –	– – –	– – –	45 45 –	– – –	54 54 –	– – –	– – –	46 46 –	– – –	–
Liechtenstein	1990 2000 2010	– – –	– – –	– – –	– – –	– – –	– – –	– – –	– – –	– – –	– – –	– – –	– – –	– – –	– – –	– – –	–
Lithuania	1990 2000 2010	98 98 98	89 93 95	9 5 3	2 2 2	– – –	– 81 –	49 57 –	– 24 –	– 19 –	– – –	– 92 –	76 81 –	– 11 –	– 8 –	– – –	–
Luxembourg	1990 2000 2010	100 100 100	100 100 100	0 0 0	0 0 0	0 0 0	100 100 100	98 98 98	2 2 2	0 0 0	0 0 0	100 100 100	100 100 100	0 0 0	0 0 0	0 0 0	20
Madagascar	1990 2000 2010	75 75 74	24 19 14	51 56 60	16 13 11	9 12 15	15 24 34	1 2 3	14 22 31	36 31 25	49 45 41	29 38 46	6 7 6	23 31 40	31 26 21	40 36 33	25
Malawi	1990 2000 2010	91 93 95	42 35 28	49 58 67	5 5 5	4 2 0	35 57 80	2 2 2	33 55 78	45 31 16	20 12 4	41 62 83	7 7 7	34 55 76	41 28 14	18 10 3	48
Malaysia	1990 2000 2010	94 99 100	86 95 99	8 4 1	6 1 0	– 0 0	82 93 99	59 80 –	23 13 –	18 5 1	– 2 –	88 97 100	72 89 –	16 8 –	12 2 0	– 1 0	32
Maldives	1990 2000 2010	100 100 100	50 67 96	50 33 4	0 0 0	0 0 0	91 93 97	0 0 1	91 93 96	9 7 3	– – –	93 95 98	13 19 39	80 76 59	7 5 2	– – –	25
Mali	1990 2000 2010	53 70 87	17 26 35	36 44 52	45 29 13	2 1 0	20 36 51	0 1 1	20 35 50	70 57 46	10 7 3	28 46 64	4 8 13	24 38 51	64 49 34	8 5 2	40
Malta	1990 2000 2010	100 100 100	100 100 100	0 0 0	0 0 0	0 0 0	98 100 100	98 100 100	0 0 0	2 0 0	– 0 0	100 100 100	100 100 100	0 0 0	0 0 0	0 0 0	7
Marshall Islands	1990 2000 2010	94 93 92	1 1 1	93 92 91	6 7 8	– – –	97 98 99	0 0 0	97 98 99	3 2 1	– – –	95 95 94	1 1 1	94 94 93	5 5 6	– – –	4
Martinique	1990 2000 2010	100 100 100	99 99 99	1 1 1	0 0 0	0 0 0	– – –	– – –	– – –	– – –	– – –	– – –	– – –	– – –	– – –	– – –	–
Mauritania	1990 2000 2010	36 45 52	15 26 35	21 19 17	63 54 48	1 1 0	26 37 48	0 8 14	26 29 34	65 56 46	9 7 6	30 40 50	6 15 23	24 25 27	64 55 46	6 5 4	26
Mauritius	1990 2000 2010	100 100 100	100 100 100	0 0 0	0 0 0	0 0 0	99 99 99	99 99 99	0 0 0	1 1 1	0 0 0	99 99 99	99 99 99	0 0 0	1 1 1	0 0 0	12
Mayotte	1990 2000 2010	– – –	– – –	– – –	– – –	– – –	– – –	– – –	– – –	– – –	– – –	– – –	– – –	– – –	– – –	– – –	–
Mexico	1990 2000 2010	93 95 97	88 91 93	5 4 4	3 3 3	4 2 0	64 77 91	50 62 74	14 15 17	0 6 9	36 17 0	85 90 96	77 84 89	8 6 7	2 4 4	13 6 0	24
Micronesia (Federated States of)	1990 2000 2010	93 94 –	– – –	– – –	7 6 –	– – –	87 92 –	– – –	– – –	13 8 –	– – –	89 92 –	– – –	– – –	11 8 –	– – –	–
Monaco	1990 2000 2010	100 100 100	100 100 100	0 0 0	0 0 0	0 0 0	NA NA NA	NA NA NA	NA NA NA	NA NA NA	NA NA NA	100 100 100	100 100 100	0 0 0	0 0 0	0 0 0	6



Country, Area or Territory	Year	Population (x 1,000)	Percentage Urban Population	USE OF SANITATION FACILITIES (percentage of population)												Proportion of the 2010 population that gained access since 1995 (%)
				Urban				Rural				National				
				Improved	Unimproved			Improved	Unimproved			Improved	Unimproved			
					Shared	Other Unimproved	Open Defecation		Shared	Other Unimproved	Open Defecation		Shared	Other Unimproved	Open Defecation	
Mongolia	1990 2000 2010	2,193 2,411 2,756	57 57 62	— 65 64	— 32 31	— 3 2	— 0 3	— 28 29	— 21 22	— 15 23	— 36 26	— 49 51	— 27 28	— 8 9	— 16 12	9
Montenegro	1990 2000 2010	609 633 631	48 59 61	— 92 92	— 3 3	— 5 5	— 0 0	— 87 87	— 3 3	— 10 10	— 0 0	— 90 90	— 3 3	— 7 7	— 0 0	—
Montserrat	1990 2000 2010	11 5 6	13 11 14	96 96 96	— — —	4 4 4	— — —	96 96 96	— — —	4 4 4	— — —	96 96 96	— — —	4 4 4	— — —	NA*
Morocco	1990 2000 2010	24,781 28,793 31,951	48 53 58	81 82 83	14 14 14	0 2 3	5 2 0	27 43 52	3 5 6	2 2 4	68 50 38	53 64 70	8 10 11	1 2 3	38 24 16	21
Mozambique	1990 2000 2010	13,547 18,201 23,391	21 31 38	36 37 38	7 7 8	26 31 41	31 25 13	4 4 5	1 1 1	21 27 36	74 68 58	11 14 18	2 3 4	22 28 37	65 55 41	9
Myanmar	1990 2000 2010	39,268 44,958 47,963	25 28 34	— 79 83	— 12 12	— 7 4	— 2 1	— 56 73	— 10 14	— 18 5	— 16 8	— 62 76	— 11 13	— 15 5	— 12 6	28
Namibia	1990 2000 2010	1,415 1,896 2,283	28 32 38	62 60 57	22 21 20	5 4 4	11 15 19	9 13 17	2 3 4	6 7 7	83 77 72	24 28 32	8 9 10	5 6 6	63 57 52	13
Nauru	1990 2000 2010	9 10 10	100 100 100	66 66 65	31 31 31	3 1 4	— 2 0	NA NA NA	NA NA NA	NA NA NA	NA NA NA	66 66 65	31 31 31	3 1 4	— 2 0	0
Nepal	1990 2000 2010	19,081 24,401 29,959	9 13 19	37 42 48	28 32 36	5 4 3	30 22 13	7 17 27	2 6 9	6 6 7	85 71 57	10 20 31	4 9 14	6 7 6	80 64 49	20
Netherlands	1990 2000 2010	14,892 15,863 16,613	69 77 83	100 100 100	0 0 0	0 0 0	0 0 0	100 100 100	0 0 0	0 0 0	0 0 0	100 100 100	0 0 0	0 0 0	0 0 0	7
Netherlands Antilles	1990 2000 2010	191 180 201	86 90 93	— — —	— — —	— — —	— — —	— — —	— — —	— — —	— — —	— — —	— — —	— — —	— — —	—
New Caledonia	1990 2000 2010	170 212 251	60 59 57	— — —	— — —	— — —	— — —	— — —	— — —	— — —	— — —	— — —	— — —	— — —	— — —	—
New Zealand	1990 2000 2010	3,398 3,858 4,368	85 86 86	— — —	— — —	— — —	— — —	88 — —	— — —	12 — —	— — —	— — —	— — —	— — —	— — —	—
Nicaragua	1990 2000 2010	4,121 5,074 5,788	52 55 57	59 61 63	8 8 9	29 27 24	4 4 4	26 32 37	4 5 6	25 32 37	45 31 20	43 48 52	6 7 8	27 29 29	24 16 11	15
Niger	1990 2000 2010	7,788 10,922 15,512	15 16 17	19 27 34	14 20 25	41 31 21	26 22 20	2 3 4	1 1 2	2 3 3	95 93 91	5 7 9	3 4 6	8 7 6	84 82 79	6
Nigeria	1990 2000 2010	97,552 123,689 158,423	35 43 50	39 37 35	42 40 38	11 13 15	8 10 12	36 32 27	18 16 13	12 20 29	34 32 31	37 34 31	26 26 25	12 17 22	25 23 22	6
Niue	1990 2000 2010	2 2 1	31 33 38	100 100 100	— — —	0 0 0	0 0 0	100 100 100	— — —	0 0 0	0 0 0	100 100 100	— — —	0 0 0	0 0 0	0
Northern Mariana Islands	1990 2000 2010	44 68 61	90 90 91	85 92 —	— 8 —	15 — —	— — —	78 93 96	— — —	22 7 4	— — —	84 92 —	— — —	16 8 —	— — —	—
Norway	1990 2000 2010	4,241 4,491 4,883	72 76 79	100 100 100	0 0 0	0 0 0	0 0 0	100 100 100	0 0 0	0 0 0	0 0 0	100 100 100	0 0 0	0 0 0	0 0 0	11
Occupied Palestinian Territory	1990 2000 2010	2,081 3,199 4,039	68 72 74	91 91 92	5 5 5	4 3 2	— 1 1	— 83 92	— 6 7	— 7 0	— 4 1	— 89 92	— 5 6	— 4 1	— 2 1	—
Oman	1990 2000 2010	1,868 2,264 2,782	66 72 73	96 98 100	— — —	2 0 0	2 2 0	55 71 95	— — —	13 0 5	32 29 —	82 90 99	— — —	6 0 1	12 10 —	30
Pakistan	1990 2000 2010	111,845 144,522 173,593	31 33 36	72 72 72	6 6 6	14 16 18	8 6 4	7 20 34	1 4 6	20 23 26	72 53 34	27 37 48	3 5 6	18 21 23	52 37 23	24
Palau	1990 2000 2010	15 19 20	70 70 83	78 91 100	— — —	22 9 0	— — 0	36 68 100	— — —	64 32 0	— — 0	65 84 100	— — —	35 16 0	— — 0	39
Panama	1990 2000 2010	2,416 2,956 3,517	54 66 75	73 74 —	11 11 —	14 14 —	2 1 —	40 47 —	4 4 —	32 32 —	24 17 —	58 65 —	8 9 —	22 20 —	12 6 —	—
Papua New Guinea	1990 2000 2010	4,158 5,379 6,858	15 13 13	78 75 71	— — —	19 21 24	3 4 5	42 42 41	— — —	42 41 41	16 17 18	47 46 45	— — —	39 39 39	14 15 16	12
Paraguay	1990 2000 2010	4,244 5,344 6,455	49 55 61	61 79 90	3 4 4	35 16 6	1 31 —	15 0 40	0 1 1	81 67 59	4 2 —	37 58 71	1 2 3	59 39 26	3 1 —	35

Country, Area or Territory	Year	USE OF DRINKING WATER SOURCES (percentage of population)															Proportion of the 2010 population that gained access since 1995 (%)
		Urban					Rural					National					
		Improved			Unimproved		Improved			Unimproved		Improved			Unimproved		
		Total Improved	Piped on Premises	Other Improved	Unimproved	Surface Water	Total Improved	Piped on Premises	Other Improved	Unimproved	Surface Water	Total Improved	Piped on Premises	Other Improved	Unimproved	Surface Water	
Mongolia	1990 2000 2010	74 86 100	53 42 26	21 44 74	20 11 0	6 3 0	27 37 53	0 1 2	27 36 51	18 20 23	55 43 24	54 65 82	30 24 17	24 41 65	19 15 9	27 20 9	36
Montenegro	1990 2000 2010	99 99 99	98 98 98	1 1 1	1 1 1	– 0 0	96 96 96	– 70 70	– 26 26	4 4 4	– 0 0	97 98 98	– 86 87	– 12 11	3 2 2	– 0 0	NA*
Montserrat	1990 2000 2010	100 100 100	98 98 98	2 2 2	0 0 0	0 0 0	100 100 100	0 0 0	100 100 100	0 0 0	0 0 0	100 100 100	12 11 14	88 89 86	0 0 0	0 0 0	NA*
Morocco	1990 2000 2010	93 96 98	74 82 89	19 14 9	7 4 2	0 0 0	54 58 61	4 12 19	50 46 42	41 27 16	5 15 23	73 78 83	38 49 60	35 29 23	24 15 7	3 7 10	19
Mozambique	1990 2000 2010	73 75 77	22 21 19	51 54 58	24 21 19	3 4 4	26 27 29	1 1 1	25 26 28	41 47 55	33 26 16	36 42 47	5 7 8	31 35 39	37 39 42	27 19 11	21
Myanmar	1990 2000 2010	80 85 93	17 18 19	63 67 74	20 6 5	– 9 2	48 60 78	1 2 3	47 58 75	52 16 14	– 24 8	56 67 83	5 6 8	51 61 75	44 13 11	– 20 6	31
Namibia	1990 2000 2010	99 99 99	82 77 72	17 22 27	1 1 1	0 0 0	51 72 90	14 21 28	37 51 62	35 15 0	14 13 10	64 81 93	33 39 45	31 42 48	26 10 0	10 9 7	41
Nauru	1990 2000 2010	98 98 88	– – –	– – –	2 2 12	– – –	NA NA NA	NA NA NA	NA NA NA	NA NA NA	NA NA NA	98 98 88	– – –	– – –	2 2 12	– – –	-10
Nepal	1990 2000 2010	96 94 93	43 48 53	53 46 40	2 3 4	2 3 3	74 81 88	5 8 10	69 73 78	13 10 6	13 9 6	76 83 89	8 13 18	68 70 71	12 9 6	12 8 5	31
Netherlands	1990 2000 2010	100 100 100	100 100 100	0 0 0	0 0 0	0 0 0	100 100 100	95 100 100	5 0 0	0 0 0	0 0 0	100 100 100	98 100 100	2 0 0	0 0 0	0 0 0	7
Netherlands Antilles	1990 2000 2010	– – –	– – –	– – –	– – –	– – –	– – –	– – –	– – –	– – –	– – –	– – –	– – –	– – –	– – –	– – –	–
New Caledonia	1990 2000 2010	– – –	– – –	– – –	– – –	– – –	– – –	– – –	– – –	– – –	– – –	– – –	– – –	– – –	– – –	– – –	–
New Zealand	1990 2000 2010	100 100 100	100 100 100	0 0 0	0 0 0	0 0 0	100 100 100	100 100 100	0 0 0	0 0 0	0 0 0	100 100 100	100 100 100	0 0 0	0 0 0	0 0 0	16
Nicaragua	1990 2000 2010	92 95 98	82 86 89	10 9 9	7 4 2	1 1 0	54 62 68	17 24 29	37 38 39	30 27 25	16 11 7	74 80 85	51 58 63	23 22 22	18 14 12	8 6 3	23
Niger	1990 2000 2010	57 78 100	21 30 39	36 48 61	42 22 0	1 0 0	31 35 39	0 1 2	31 34 37	66 62 58	3 3 3	35 42 49	3 6 8	32 36 41	62 55 49	3 3 2	27
Nigeria	1990 2000 2010	79 77 74	32 20 8	47 57 66	17 19 21	4 4 5	30 36 43	4 2 1	26 34 42	29 33 35	41 31 22	47 53 58	14 10 4	33 43 54	25 27 28	28 20 14	23
Niue	1990 2000 2010	100 100 100	– – –	– – –	0 0 0	0 0 0	100 100 100	– 80 –	– 20 –	0 0 0	0 0 0	100 100 100	– – –	– – –	0 0 0	0 0 0	0
Northern Mariana Islands	1990 2000 2010	98 98 98	– – –	– – –	2 2 2	– – –	100 97 97	– – –	– – –	0 3 3	0 – –	98 98 98	– – –	– – –	2 2 2	– – –	7
Norway	1990 2000 2010	100 100 100	100 100 100	0 0 0	0 0 0	0 0 0	100 100 100	100 100 100	0 0 0	0 0 0	0 0 0	100 100 100	100 100 100	0 0 0	0 0 0	0 0 0	11
Occupied Palestinian Territory	1990 2000 2010	100 95 86	– 87 78	– 8 8	0 4 14	0 1 –	– 86 81	– 64 67	– 22 14	– 11 19	– 3 –	– 92 85	– 81 75	– 11 10	– 6 15	– 2 –	22
Oman	1990 2000 2010	84 87 93	27 49 82	57 38 11	12 9 7	4 7 –	72 74 78	4 15 31	68 59 47	18 16 22	10 10 –	80 83 89	19 39 68	61 44 21	14 11 11	6 6 –	24
Pakistan	1990 2000 2010	95 96 96	56 57 58	39 39 38	4 4 4	1 0 0	81 85 89	8 15 23	73 70 66	8 7 6	11 8 5	85 89 92	23 29 36	62 60 56	7 6 5	8 5 3	28
Palau	1990 2000 2010	73 78 83	38 40 43	35 38 40	27 22 17	– – –	96 96 96	40 40 40	56 56 56	4 4 4	– – –	80 83 85	39 40 43	41 43 42	20 17 15	– – –	15
Panama	1990 2000 2010	99 97 97	97 95 –	2 2 –	1 3 3	0 0 –	66 77 –	60 72 –	6 5 –	23 12 –	11 11 –	84 90 –	80 87 –	4 3 –	11 6 –	5 4 –	–
Papua New Guinea	1990 2000 2010	89 88 87	61 59 57	28 29 30	4 7 11	7 5 2	32 32 33	4 3 3	28 29 30	17 20 22	51 48 45	41 39 40	13 10 10	28 29 30	15 19 20	44 42 40	12
Paraguay	1990 2000 2010	81 92 99	59 75 85	22 17 14	18 8 1	1 0 0	25 51 66	0 21 35	25 30 31	63 42 30	12 7 4	52 74 86	29 51 66	23 23 20	41 23 12	7 3 2	39

Country, Area or Territory	Year	Population (x 1,000)	Percentage Urban Population	USE OF SANITATION FACILITIES (percentage of population)												Proportion of the 2010 population that gained access since 1995 (%)		
				Urban					Rural					National				
				Improved	Unimproved			Improved	Unimproved			Improved	Unimproved					
					Shared	Other Unimproved	Open Defecation		Shared	Other Unimproved	Open Defecation		Shared	Other Unimproved	Open Defecation			
Peru	1990 2000 2010	21,686 25,862 29,077	69 73 77	71 76 81	8 8 9	5 8 9	16 8 1	17 27 37	2 20 3	7 51 32	74 63 28	54 66 71	6 11 8	6 11 14	34 20 7	23		
Philippines	1990 2000 2010	61,629 77,310 93,261	49 48 49	69 74 79	15 16 17	8 4 1	8 6 3	45 57 69	10 13 16	22 12 3	23 18 12	57 65 74	12 14 16	15 9 2	16 12 8	28		
Poland	1990 2000 2010	38,056 38,302 38,277	61 62 61	96 96 96	- - -	4 4 4	- - -	- 80 -	- - -	- 20 -	- - -	- 90 -	- - -	- 10 -	- - -	-		
Portugal	1990 2000 2010	9,925 10,336 10,676	48 54 61	97 99 100	- - -	3 1 0	- - 0	87 97 100	- - -	13 3 0	- - 0	92 98 100	- - -	8 2 0	- - 0	10		
Puerto Rico	1990 2000 2010	3,529 3,814 3,749	72 95 99	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	-		
Qatar	1990 2000 2010	474 591 1,759	92 95 96	100 100 100	- - -	0 0 0	0 0 0	100 100 100	- - -	0 0 0	0 0 0	100 100 100	- - -	0 0 0	0 0 0	71		
Republic of Korea	1990 2000 2010	42,980 45,988 48,184	74 80 83	100 100 100	- - -	0 0 0	0 0 0	100 100 100	- - -	0 0 0	0 0 0	100 100 100	- - -	0 0 0	0 0 0	7		
Republic of Moldova	1990 2000 2010	4,364 4,107 3,573	47 45 47	- 87 89	- 7 7	- 6 4	- 0 -	- 72 82	- 4 5	- 24 13	- 0 -	- 79 85	- 5 6	- 16 9	- 0 -	NA*		
Réunion	1990 2000 2010	612 739 846	81 90 94	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	-		
Romania	1990 2000 2010	23,207 22,192 21,486	53 53 57	88 88 -	3 3 -	9 9 -	- - -	52 54 -	1 1 -	47 45 -	- - -	71 72 -	2 2 -	27 26 -	- - -	-		
Russian Federation	1990 2000 2010	148,244 146,758 142,958	73 73 73	80 77 74	16 15 15	4 8 10	- - 1	58 59 59	11 11 11	31 30 29	- - 1	74 72 70	15 14 14	11 14 15	- - 1	NA*		
Rwanda	1990 2000 2010	7,110 8,098 10,624	5 14 19	69 60 52	24 21 18	4 17 29	3 2 1	34 45 56	4 5 6	55 45 35	7 5 3	36 47 55	5 7 8	52 41 34	7 5 3	34		
Saint Kitts and Nevis	1990 2000 2010	41 46 52	35 33 32	96 96 96	- - -	4 4 4	- - -	96 96 96	- - -	4 4 4	- - -	96 96 96	- - -	4 4 4	- - -	17		
Saint Lucia	1990 2000 2010	138 157 174	29 28 28	67 69 71	3 3 3	24 20 17	6 8 9	54 59 63	4 4 4	31 27 25	11 10 8	58 62 65	4 4 4	28 25 23	10 9 8	15		
Saint Vincent and the Grenadines	1990 2000 2010	107 108 109	41 45 49	- - -	- - -	- - -	- - -	96 96 96	- - -	4 4 4	- - -	- - -	- - -	- - -	- - -	-		
Samoa	1990 2000 2010	161 177 183	21 22 20	100 99 98	- - -	0 1 2	0 0 0	99 98 98	- - -	1 2 2	- - 0	99 98 98	- - -	1 2 2	- - 0	7		
San Marino	1990 2000 2010	24 27 32	90 93 94	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	-		
Sao Tome and Principe	1990 2000 2010	116 141 165	44 53 62	- 27 30	- 4 4	- 4 17	- 65 49	- 15 19	- 4 5	- 3 12	- 78 64	- 21 26	- 4 4	- 4 15	- 71 55	10		
Saudi Arabia	1990 2000 2010	16,139 20,045 27,448	77 80 82	100 100 100	- - -	0 0 0	0 0 0	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	-		
Senegal	1990 2000 2010	7,242 9,506 12,434	39 40 42	62 66 70	17 18 19	12 11 9	9 5 2	22 31 39	6 8 10	15 19 23	57 42 28	38 45 52	10 12 14	14 16 17	38 27 17	25		
Serbia	1990 2000 2010	9,569 10,134 9,856	50 53 56	96 96 96	3 3 3	1 1 1	- 0 0	- 88 88	- 3 3	- 9 9	- 0 0	- 92 92	- 3 3	- 5 5	- 0 0	-		
Seychelles	1990 2000 2010	71 79 87	49 51 55	- 94 98	- - -	- 5 2	- 1 -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	-		
Sierra Leone	1990 2000 2010	3,982 4,143 5,868	33 36 38	22 22 23	42 44 45	35 30 25	1 7 4	5 5 6	15 16 16	55 46 37	25 33 41	11 11 13	24 26 27	48 40 32	17 23 28	5		
Singapore	1990 2000 2010	3,017 3,919 5,086	100 100 100	99 100 100	- - -	1 0 0	- 0 0	NA NA NA	NA NA NA	NA NA NA	NA NA NA	99 100 100	- - -	1 0 0	- 0 0	32		
Slovakia	1990 2000 2010	5,270 5,405 5,462	56 56 55	100 100 100	0 0 0	0 0 0	0 0 0	100 100 99	0 0 0	0 0 1	0 0 -	100 100 100	0 0 0	0 0 0	0 0 0	1		
Slovenia	1990 2000 2010	1,927 1,985 2,030	50 51 50	100 100 100	0 0 0	0 0 0	0 0 0	100 100 100	0 0 0	0 0 0	0 0 0	100 100 100	0 0 0	0 0 0	0 0 0	3		

Country, Area or Territory	Year	USE OF DRINKING WATER SOURCES (percentage of population)															Proportion of the 2010 population that gained access since 1995 (%)
		Urban					Rural					National					
		Improved			Unimproved		Improved			Unimproved		Improved			Unimproved		
		Total Improved	Piped on Premises	Other Improved	Unimproved	Surface Water	Total Improved	Piped on Premises	Other Improved	Unimproved	Surface Water	Total Improved	Piped on Premises	Other Improved	Unimproved	Surface Water	
Peru	1990	88	74	14	11	1	45	13	32	28	27	75	55	20	16	9	21
	2000	90	78	12	9	1	55	29	26	23	22	81	65	16	12	7	
	2010	91	83	8	8	1	65	46	19	19	16	85	74	11	11	4	
Philippines	1990	93	40	53	6	1	77	9	68	21	2	85	24	61	13	2	28
	2000	93	50	43	7	0	85	17	68	14	1	89	33	56	10	1	
	2010	93	61	32	7	0	92	25	67	7	1	92	43	49	7	1	
Poland	1990	100	97	3	0	0	—	73	—	—	—	—	88	—	—	—	—
	2000	100	99	1	0	0	—	89	—	—	—	—	95	—	—	—	
	2010	100	99	1	0	0	—	96	—	—	—	—	98	—	—	—	
Portugal	1990	98	95	3	2	—	94	80	14	6	-	96	87	9	4	—	7
	2000	99	98	1	1	—	98	95	3	2	-	99	97	2	1	—	
	2010	99	99	0	1	—	100	100	0	0	0	99	99	0	1	—	
Puerto Rico	1990	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	2000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	2010	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Qatar	1990	100	—	—	0	0	100	—	—	0	0	100	—	—	0	0	71
	2000	100	—	—	0	0	100	—	—	0	0	100	—	—	0	0	
	2010	100	—	—	0	0	100	—	—	0	0	100	—	—	0	0	
Republic of Korea	1990	97	96	1	3	—	—	—	—	—	—	—	—	—	—	—	14
	2000	98	97	1	2	—	75	46	29	25	—	93	87	6	7	—	
	2010	100	99	1	0	0	88	64	24	12	—	98	93	5	2	—	
Republic of Moldova	1990	98	—	—	2	—	—	0	—	—	—	—	—	—	—	—	NA*
	2000	99	77	22	1	0	89	2	87	11	0	93	35	58	7	0	
	2010	99	84	15	1	—	93	16	77	7	—	96	48	48	4	—	
Réunion	1990	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	2000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	2010	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Romania	1990	93	88	5	7	—	55	13	42	45	—	75	53	22	25	—	—
	2000	97	90	7	3	—	70	21	49	30	—	84	58	26	16	—	
	2010	99	92	7	1	—	—	28	—	—	—	—	65	—	—	—	
Russian Federation	1990	98	88	10	2	0	80	37	43	19	1	93	74	19	7	0	NA*
	2000	98	90	8	2	0	86	46	40	12	2	95	78	17	4	1	
	2010	99	91	8	1	0	92	55	37	8	—	97	81	16	3	—	
Rwanda	1990	95	33	62	1	4	64	0	64	12	24	66	2	64	11	23	31
	2000	86	23	63	7	7	63	0	63	17	20	66	3	63	16	18	
	2010	76	13	63	14	10	63	1	62	21	16	65	3	62	20	15	
Saint Kitts and Nevis	1990	99	—	—	1	—	99	—	—	1	—	99	—	—	1	—	19
	2000	99	72	27	1	—	99	72	27	1	—	99	72	27	1	—	
	2010	99	—	—	1	—	99	—	—	1	—	99	—	—	1	—	
Saint Lucia	1990	96	83	13	4	—	93	70	23	7	—	94	74	20	6	—	17
	2000	97	84	13	3	—	94	68	26	6	—	95	72	23	5	—	
	2010	98	85	13	2	—	95	67	28	5	—	96	72	24	4	—	
Saint Vincent and the Grenadines	1990	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	2000	—	—	—	—	—	93	73	20	7	—	—	—	—	—	—	
	2010	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Samoa	1990	97	85	12	3	—	87	72	15	13	—	89	75	14	11	—	13
	2000	96	85	11	4	—	91	76	15	9	—	92	78	14	8	—	
	2010	96	84	12	3	1	96	80	16	3	1	96	81	15	3	1	
San Marino	1990	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	2000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	2010	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Sao Tome and Principe	1990	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	31
	2000	86	31	55	4	10	70	14	56	7	23	79	23	56	5	16	
	2010	89	32	57	9	2	88	18	70	8	4	89	27	62	8	3	
Saudi Arabia	1990	97	97	0	3	—	63	60	3	37	—	89	88	1	11	—	—
	2000	97	97	0	3	—	—	—	—	—	—	—	—	—	—	—	
	2010	97	97	0	3	—	—	—	—	—	—	—	—	—	—	—	
Senegal	1990	88	46	42	12	0	43	3	40	55	2	61	20	41	38	1	29
	2000	90	60	30	10	0	49	8	41	49	2	66	29	37	33	1	
	2010	93	75	18	6	1	56	13	43	42	2	72	39	33	26	2	
Serbia	1990	99	97	2	1	—	98	—	—	2	—	99	—	—	1	—	NA*
	2000	99	97	2	1	—	98	63	35	2	—	99	81	18	1	—	
	2010	99	97	2	1	0	98	63	35	2	0	99	82	17	1	0	
Seychelles	1990	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	2000	84	84	0	0	16	—	—	—	—	—	—	—	—	—	—	
	2010	100	100	0	0	0	—	—	—	—	—	—	—	—	—	—	
Sierra Leone	1990	63	19	44	29	8	26	2	24	29	45	38	8	30	29	33	27
	2000	75	19	56	18	7	30	1	29	23	47	46	7	39	21	33	
	2010	87	19	68	7	6	35	1	34	16	49	55	8	47	13	32	
Singapore	1990	100	100	0	0	0	NA	NA	NA	NA	NA	100	100	0	0	0	32
	2000	100	100	0	0	0	NA	NA	NA	NA	NA	100	100	0	0	0	
	2010	100	100	0	0	0	NA	NA	NA	NA	NA	100	100	0	0	0	
Slovakia	1990	100	100	0	0	0	100	89	11	0	0	100	95	5	0	0	2
	2000	100	96	4	0	0	100	92	8	0	0	100	94	6	0	0	
	2010	100	—	—	0	0	100	—	—	0	0	100	—	—	0	0	
Slovenia	1990	100	100	0	0	0	99	99	0	1	—	100	100	0	0	0	3
	2000	100	100	0	0	0	99	99	0	1	—	100	100	0	0	0	
	2010	100	100	0	0	0	99	99	0	1	—	99	99	0	1	—	



Country, Area or Territory	Year	Population (x 1,000)	Percentage Urban Population	USE OF SANITATION FACILITIES (percentage of population)												Proportion of the 2010 population that gained access since 1995 (%)
				Urban				Rural				National				
				Improved	Unimproved			Improved	Unimproved			Improved	Unimproved			
					Shared	Other Unimproved	Open Defecation		Shared	Other Unimproved	Open Defecation		Shared	Other Unimproved	Open Defecation	
Solomon Islands	1990 2000 2010	310 409 538	14 16 19	98 98 98	– – –	2 2 2	– – –	– 18 –	– – –	– 82 –	– – –	– 31 –	– – –	– 69 –	– – –	–
Somalia	1990 2000 2010	6,599 7,399 9,331	30 33 37	– 45 52	– 26 30	– 16 15	– 13 3	– 10 6	– 9 6	– 9 5	– 72 83	– 22 23	– 15 15	– 11 9	– 52 53	8
South Africa	1990 2000 2010	36,794 44,760 50,133	52 57 62	82 84 86	8 8 9	8 6 3	2 2 2	60 63 67	6 7 7	9 9 9	25 21 17	71 75 79	7 8 8	9 7 5	13 10 8	19
Spain	1990 2000 2010	38,889 40,288 46,077	75 76 77	100 100 100	0 0 0	0 0 0	0 0 0	100 100 100	0 0 0	0 0 0	0 0 0	100 100 100	0 0 0	0 0 0	0 0 0	14
Sri Lanka	1990 2000 2010	17,337 18,745 20,860	19 16 14	85 87 88	7 7 7	4 3 3	4 3 2	67 81 93	2 3 3	15 8 4	16 8 0	70 82 92	3 4 4	13 7 4	14 7 0	26
Sudan	1990 2000 2010	26,494 34,188 43,552	27 33 40	51 48 44	12 11 11	27 26 25	10 15 20	18 16 14	5 5 4	29 25 23	48 54 59	27 27 26	7 7 7	28 25 24	38 41 43	8
Suriname	1990 2000 2010	407 467 525	60 65 69	90 90 90	9 9 9	1 1 1	– 0 0	– 65 66	– 11 11	– 2 3	– 22 20	– 81 83	– 10 10	– 1 1	– 8 6	16
Swaziland	1990 2000 2010	863 1,064 1,186	23 23 21	62 63 64	29 29 30	9 6 4	– 2 2	44 49 55	15 16 18	41 6 8	– 29 19	48 52 57	18 19 21	34 6 7	– 23 15	17
Sweden	1990 2000 2010	8,559 8,860 9,380	83 84 85	100 100 100	0 0 0	0 0 0	0 0 0	100 100 100	0 0 0	0 0 0	0 0 0	100 100 100	0 0 0	0 0 0	0 0 0	6
Switzerland	1990 2000 2010	6,674 7,168 7,664	73 73 74	100 100 100	0 0 0	0 0 0	0 0 0	100 100 100	0 0 0	0 0 0	0 0 0	100 100 100	0 0 0	0 0 0	0 0 0	8
Syrian Arab Republic	1990 2000 2010	12,324 15,989 20,411	49 52 56	95 95 96	4 4 4	1 1 0	0 0 0	75 81 93	4 5 5	4 4 2	17 10 0	85 88 95	4 4 4	2 3 1	9 5 0	35
Tajikistan	1990 2000 2010	5,303 6,173 6,879	32 26 26	93 93 95	4 4 4	3 2 1	– 1 0	– 89 94	– 3 3	– 6 3	– 2 0	– 90 94	– 3 3	– 5 3	– 2 0	20
Thailand	1990 2000 2010	57,072 63,155 69,122	29 31 34	94 95 95	5 5 5	0 0 0	1 0 0	80 93 96	3 4 4	0 0 0	17 3 0	84 94 96	4 4 4	0 0 0	12 2 0	19
The former Yugoslav Republic of Macedonia	1990 2000 2010	1,909 2,009 2,061	58 59 59	92 92 92	5 5 5	3 3 3	– 0 0	– 82 82	– 7 7	– 10 10	– 1 1	– 88 88	– 6 6	– 6 6	– 0 0	–
Timor-Leste	1990 2000 2010	743 830 1,124	21 24 28	– 56 73	– 9 11	– 12 3	– 23 13	– 33 37	– 4 4	– 9 16	– 54 43	– 39 47	– 5 6	– 10 12	– 46 35	19
Togo	1990 2000 2010	3,666 4,794 6,028	30 37 43	26 26 26	44 44 43	5 8 11	25 22 20	8 5 3	15 11 6	3 10 17	74 74 74	13 13 13	24 23 22	4 9 14	59 55 51	4
Tokelau	1990 2000 2010	2 2 1	0 0 0	NA NA NA	NA NA NA	NA NA NA	NA NA NA	41 63 93	– – –	59 37 7	– – –	41 63 93	– – –	59 37 7	– – –	0
Tonga	1990 2000 2010	95 98 104	23 23 23	98 98 98	– – –	2 2 2	– – –	96 96 96	– – –	4 4 4	– – –	96 96 96	– – –	4 4 4	– – –	8
Trinidad and Tobago	1990 2000 2010	1,215 1,292 1,341	9 11 14	93 92 92	7 7 7	0 1 1	0 – –	93 92 92	7 7 7	0 1 1	0 – –	93 92 92	7 7 7	0 1 1	0 – –	5
Tunisia	1990 2000 2010	8,215 9,456 10,481	58 63 67	95 95 96	2 2 2	0 2 2	3 1 –	44 57 –	6 7 7	1 7 –	49 29 –	74 81 –	4 4 –	0 4 –	22 11 –	–
Turkey	1990 2000 2010	54,130 63,628 72,752	59 65 70	96 96 97	1 2 2	3 2 1	0 0 0	66 71 75	2 3 3	27 23 21	5 3 1	84 87 90	1 2 2	13 10 8	2 1 0	21
Turkmenistan	1990 2000 2010	3,668 4,501 5,042	45 46 50	99 99 99	– – –	1 1 1	– 0 –	97 97 97	– – –	3 2 3	– 1 –	98 98 98	– – –	2 1 2	– 1 –	17
Turks and Caicos Islands	1990 2000 2010	12 19 38	74 85 93	98 98 98	– – –	2 2 2	– – –	– 94 –	– – –	– 6 –	– – –	– 97 –	– – –	– 3 –	– – –	–
Tuvalu	1990 2000 2010	9 9 10	41 46 50	86 87 88	– – –	14 13 10	– – 2	76 79 81	– – –	24 21 12	– – 7	80 83 85	– – –	20 17 11	– – 4	10
Uganda	1990 2000 2010	17,700 24,213 33,425	11 12 13	32 33 34	48 49 50	17 16 15	3 2 1	26 30 34	12 14 15	40 40 40	22 16 11	27 30 34	16 18 20	37 38 36	20 14 10	16
Ukraine	1990 2000 2010	51,645 48,892 45,448	67 67 69	97 97 96	2 2 2	1 1 2	– 0 2	– 91 89	– 4 4	– 5 7	0 0 0	– 95 94	– 3 3	– 2 3	– 0 0	NA*

Country, Area or Territory	Year	USE OF DRINKING WATER SOURCES (percentage of population)															Proportion of the 2010 population that gained access since 1995 (%)
		Urban					Rural					National					
		Improved			Unimproved		Improved			Unimproved		Improved			Unimproved		
		Total Improved	Piped on Premises	Other Improved	Unimproved	Surface Water	Total Improved	Piped on Premises	Other Improved	Unimproved	Surface Water	Total Improved	Piped on Premises	Other Improved	Unimproved	Surface Water	
Solomon Islands	1990	—	76	—	—	—	—	1	—	—	—	—	11	—	—	—	—
	2000	94	76	18	6	—	65	1	64	35	—	70	13	57	30	—	
	2010	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	
Somalia	1990	—	0	—	—	—	—	0	—	—	—	—	0	—	—	—	16
	2000	35	12	23	59	6	15	0	15	56	29	22	4	18	57	21	
	2010	66	53	13	30	4	7	0	7	52	41	29	20	9	44	27	
South Africa	1990	98	86	12	2	0	66	23	43	7	27	83	56	27	4	13	22
	2000	98	87	11	2	0	71	28	43	8	21	86	62	24	5	9	
	2010	99	89	10	1	0	79	36	43	11	10	91	69	22	5	4	
Spain	1990	100	99	1	0	0	100	100	0	0	0	100	99	1	0	0	14
	2000	100	99	1	0	0	100	100	0	0	0	100	99	1	0	0	
	2010	100	99	1	0	0	100	100	0	0	0	100	99	1	0	0	
Sri Lanka	1990	91	37	54	9	0	62	6	56	29	9	67	12	55	26	7	27
	2000	95	53	42	5	0	77	15	62	18	5	80	21	59	16	4	
	2010	99	67	32	1	0	90	23	67	8	2	91	29	62	7	2	
Sudan	1990	84	76	8	13	3	58	19	39	32	10	65	34	31	27	8	14
	2000	76	62	14	21	3	55	16	39	33	12	62	31	31	29	9	
	2010	67	47	20	31	2	52	12	40	35	13	58	26	32	33	9	
Suriname	1990	99	—	—	1	—	—	—	—	—	—	—	—	—	—	—	18
	2000	98	91	7	2	0	73	49	24	6	21	89	76	13	4	7	
	2010	97	78	19	3	0	81	45	36	0	19	92	68	24	2	6	
Swaziland	1990	87	67	20	5	8	25	4	21	18	57	39	18	21	15	46	36
	2000	88	70	18	6	6	41	13	28	18	41	52	26	26	15	33	
	2010	91	74	17	6	3	65	25	40	17	18	71	35	36	14	15	
Sweden	1990	100	100	0	0	0	100	100	0	0	0	100	100	0	0	0	6
	2000	100	100	0	0	0	100	100	0	0	0	100	100	0	0	0	
	2010	100	100	0	0	0	100	100	0	0	0	100	100	0	0	0	
Switzerland	1990	100	100	0	0	0	100	99	1	0	0	100	100	0	0	0	8
	2000	100	100	0	0	0	100	99	1	0	0	100	100	0	0	0	
	2010	100	100	0	0	0	100	99	1	0	0	100	100	0	0	0	
Syrian Arab Republic	1990	97	94	3	3	—	75	49	26	25	—	86	71	15	14	—	30
	2000	95	93	2	5	0	79	60	19	20	1	87	77	10	13	0	
	2010	93	92	1	7	0	86	77	9	13	1	90	85	5	10	0	
Tajikistan	1990	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	12
	2000	93	77	16	3	4	50	18	32	14	36	61	34	27	11	28	
	2010	92	83	9	2	6	54	25	29	2	44	64	40	24	2	34	
Thailand	1990	96	74	22	4	0	82	10	72	16	2	86	29	57	13	1	19
	2000	97	77	20	3	0	90	22	68	9	1	92	39	53	7	1	
	2010	97	80	17	3	0	95	31	64	5	0	96	48	48	4	0	
The former Yugoslav Republic of Macedonia	1990	100	96	4	0	0	99	—	—	1	—	100	—	—	0	0	5
	2000	100	96	4	0	0	99	84	15	1	—	100	91	9	0	0	
	2010	100	96	4	0	0	99	84	15	1	—	100	91	9	0	0	
Timor-Leste	1990	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	29
	2000	69	24	45	28	3	49	11	38	42	9	54	14	40	38	8	
	2010	91	45	46	9	0	60	12	48	38	2	69	21	48	30	1	
Togo	1990	79	14	65	20	1	36	0	36	37	27	49	4	45	32	19	26
	2000	84	13	71	15	1	38	0	38	33	29	55	5	50	26	19	
	2010	89	12	77	10	1	40	1	39	30	30	61	6	55	22	17	
Tokelau	1990	NA	NA	NA	NA	NA	90	—	—	10	—	90	—	—	10	—	0
	2000	NA	NA	NA	NA	NA	93	—	—	7	—	93	—	—	7	—	
	2010	NA	NA	NA	NA	NA	97	—	—	3	—	97	—	—	3	—	
Tonga	1990	100	-	-	0	0	100	-	-	0	0	100	-	-	0	0	8
	2000	100	72	28	0	0	100	76	24	0	0	100	75	25	0	0	
	2010	100	-	-	0	0	100	-	-	0	0	100	-	-	0	0	
Trinidad and Tobago	1990	92	81	11	5	3	88	68	20	10	2	88	69	19	10	2	9
	2000	95	85	10	5	—	91	71	20	9	—	91	73	18	9	—	
	2010	98	88	10	2	—	93	74	19	7	—	94	76	18	6	—	
Tunisia	1990	95	89	6	5	0	62	22	40	36	2	81	61	20	18	1	—
	2000	98	92	6	2	0	77	33	44	21	2	90	70	20	9	1	
	2010	99	—	—	1	—	—	—	—	—	—	—	—	—	—	—	
Turkey	1990	94	91	3	6	0	73	51	22	26	1	85	75	10	15	0	28
	2000	97	95	2	3	0	85	73	12	14	1	93	87	6	7	0	
	2010	100	99	1	0	0	99	97	2	1	0	100	98	2	0	0	
Turkmenistan	1990	97	—	—	3	—	—	—	—	—	—	—	—	—	—	—	—
	2000	97	81	16	2	1	72	29	43	8	20	83	53	30	6	11	
	2010	97	—	—	3	—	—	—	—	—	—	—	—	—	—	—	
Turks and Caicos Islands	1990	100	—	—	0	0	100	—	—	0	0	100	—	—	0	0	63
	2000	100	78	22	0	0	100	60	40	0	0	100	75	25	0	0	
	2010	100	—	—	0	0	100	—	—	0	0	100	—	—	0	0	
Tuvalu	1990	92	92	0	8	—	89	89	0	11	—	90	90	0	10	—	10
	2000	95	95	0	5	—	93	93	0	7	—	94	94	0	6	—	
	2010	98	97	1	2	—	97	97	0	3	—	98	97	1	2	—	
Uganda	1990	78	8	70	19	3	39	0	39	38	23	43	1	42	36	21	40
	2000	86	14	72	12	2	54	1	53	28	18	58	3	55	26	16	
	2010	95	20	75	3	2	68	1	67	18	14	72	4	68	16	12	
Ukraine	1990	100	—	—	0	0	—	—	—	—	—	—	—	—	—	—	NA*
	2000	99	92	7	1	0	92	50	42	8	0	97	78	19	3	0	
	2010	98	86	12	2	0	98	22	76	2	0	98	66	32	2	0	

Country, Area or Territory	Year	Population (x 1,000)	Percentage Urban Population	USE OF SANITATION FACILITIES (percentage of population)												Proportion of the 2010 population that gained access since 1995 (%)
				Urban				Rural				National				
				Improved	Unimproved			Improved	Unimproved			Improved	Unimproved			
					Shared	Other Unimproved	Open Defecation		Shared	Other Unimproved	Open Defecation		Shared	Other Unimproved	Open Defecation	
United Arab Emirates	1990 2000 2010	1,809 3,033 7,512	79 80 84	98 98 98	2 2 2	0 0 0	0 0 0	95 95 95	5 5 5	0 0 0	0 0 0	97 97 98	3 3 2	0 0 0	0 0 0	67
United Kingdom	1990 2000 2010	57,214 58,874 62,036	78 79 80	100 100 100	0 0 0	0 0 0	0 0 0	100 100 100	0 0 0	0 0 0	0 0 0	100 100 100	0 0 0	0 0 0	0 0 0	7
United Republic of Tanzania	1990 2000 2010	25,479 34,038 44,841	19 22 26	10 15 20	10 15 20	78 68 58	2 2 2	6 7 7	4 4 4	80 76 73	10 13 16	7 9 10	5 6 8	80 74 70	8 11 12	5
United States	1990 2000 2010	253,339 282,496 310,384	75 79 82	100 100 100	– – –	0 0 0	0 0 0	99 99 99	– – –	1 1 1	– – –	100 100 100	– – –	0 0 0	0 0 0	14
United States Virgin Islands	1990 2000 2010	103 109 109	88 93 95	– – –	– – –	– – –	– – –	– – –	– – –	– – –	– – –	– – –	– – –	– – –	– – –	–
Uruguay	1990 2000 2010	3,109 3,319 3,369	89 91 92	95 97 100	0 0 0	1 1 0	4 2 0	83 90 99	1 1 1	1 1 0	15 8 0	94 96 100	0 0 0	1 1 0	5 3 0	10
Uzbekistan	1990 2000 2010	20,515 24,776 27,445	40 37 36	95 97 100	– – –	5 3 0	0 0 0	76 87 100	– – –	24 13 0	0 0 0	84 91 100	– – –	16 9 0	0 0 0	29
Vanuatu	1990 2000 2010	147 185 240	19 22 26	– 54 64	– 28 33	– 18 3	– 0 0	– 38 54	– 10 15	– 50 29	– 2 2	– 41 57	– 14 20	– 43 22	– 2 1	– 31
Venezuela (Bolivarian Republic of)	1990 2000 2010	19,685 24,348 28,980	84 90 93	89 93 –	– – –	7 2 –	4 5 –	45 54 –	– – –	14 6 –	41 40 –	82 89 –	– – –	8 2 –	10 9 –	–
Viet Nam	1990 2000 2010	67,102 78,758 87,848	20 24 30	63 78 94	4 4 5	10 8 1	23 10 0	30 49 68	2 3 4	25 23 22	43 25 6	37 56 76	2 3 4	22 20 16	39 21 4	37
Western Sahara	1990 2000 2010	221 315 531	86 84 82	– – –	– – –	– – –	– – –	– – –	– – –	– – –	– – –	– – –	– – –	– – –	– – –	–
Yemen	1990 2000 2010	11,948 17,723 24,053	21 26 32	70 82 93	1 2 2	23 12 3	6 4 2	12 24 34	1 2 3	33 32 32	54 42 31	24 39 53	1 2 3	31 27 22	44 32 22	33
Zambia	1990 2000 2010	7,860 10,202 13,089	39 35 36	61 59 57	25 24 24	12 15 17	2 2 2	37 40 43	7 8 8	16 19 22	40 33 27	46 47 48	14 14 14	15 17 20	25 22 18	16
Zimbabwe	1990 2000 2010	10,469 12,509 12,571	29 34 38	54 53 52	45 45 44	0 1 2	1 1 2	35 34 32	18 17 16	0 5 10	47 44 42	41 40 40	26 26 27	0 5 6	33 29 27	2
Sub-Saharan Africa	1990 2000 2010	515,588 669,118 856,323	28 33 37	43 43 43	28 29 31	19 19 18	10 9 8	19 21 23	9 10 12	26 27 30	46 42 35	26 28 30	14 16 19	24 24 26	36 32 25	12
Northern Africa	1990 2000 2010	119,694 141,978 165,907	49 51 54	91 93 94	6 6 6	1 0 0	2 1 0	55 72 85	4 5 6	8 5 0	33 18 9	72 83 90	5 6 6	5 2 0	18 9 4	28
Eastern Asia	1990 2000 2010	1,216,665 1,347,625 1,424,218	29 38 49	53 64 76	15 20 24	29 15 0	3 1 0	16 36 57	4 9 14	71 50 27	9 5 2	27 47 66	7 13 19	59 37 14	7 3 1	33
Southern Asia	1990 2000 2010	1,195,985 1,460,201 1,704,146	26 29 32	57 61 64	16 17 18	3 5 8	24 17 10	12 20 30	3 5 6	2 8 9	83 67 55	24 32 41	6 8 10	3 7 8	67 53 41	19
South-Eastern Asia	1990 2000 2010	445,361 523,831 593,415	32 38 42	68 74 82	9 9 10	10 7 1	13 10 7	36 49 60	5 7 10	20 15 9	39 29 21	46 58 69	6 8 10	17 12 6	31 22 15	26
Western Asia	1990 2000 2010	127,092 161,478 206,841	61 64 67	96 93 94	2 6 6	2 1 0	0 0 0	55 60 67	2 4 5	24 20 19	19 16 9	80 81 85	2 5 5	10 8 7	8 6 3	30
Oceania	1990 2000 2010	6,459 8,093 9,943	24 24 23	85 84 84	– – –	12 13 13	3 3 3	45 44 46	– – –	39 40 38	16 16 16	55 54 55	– – –	32 33 32	13 13 13	16
Latin American & the Caribbean	1990 2000 2010	443,032 521,429 590,082	70 75 80	80 83 84	6 6 7	7 7 8	7 4 1	38 49 60	3 5 6	14 16 17	45 30 17	68 75 80	5 6 7	9 9 9	18 10 4	21
Caucasus and Central Asia	1990 2000 2010	66,627 71,294 77,358	48 45 45	96 93 96	3 5 4	1 2 0	0 0 0	86 86 95	1 2 2	12 11 3	1 1 0	91 90 96	2 3 3	7 7 1	0 0 0	17
Developing regions	1990 2000 2010	4,136,502 4,905,047 5,628,233	35 40 45	65 69 73	13 15 17	12 9 6	10 7 4	21 32 43	4 7 9	31 24 17	44 37 31	36 47 56	7 10 13	25 18 12	32 25 19	23
Developed regions	1990 2000 2010	1,149,637 1,195,733 1,244,386	71 73 75	97 96 96	3 4 3	0 0 1	0 0 0	91 91 93	3 3 3	6 6 4	0 0 0	95 95 95	4 3 3	1 2 2	0 0 0	6
World	1990 2000 2010	5,286,139 6,100,780 6,872,619	43 46 51	76 77 79	10 11 13	8 7 5	6 5 3	29 38 47	4 7 9	28 22 16	39 33 28	49 56 63	6 9 11	20 15 11	25 20 15	20

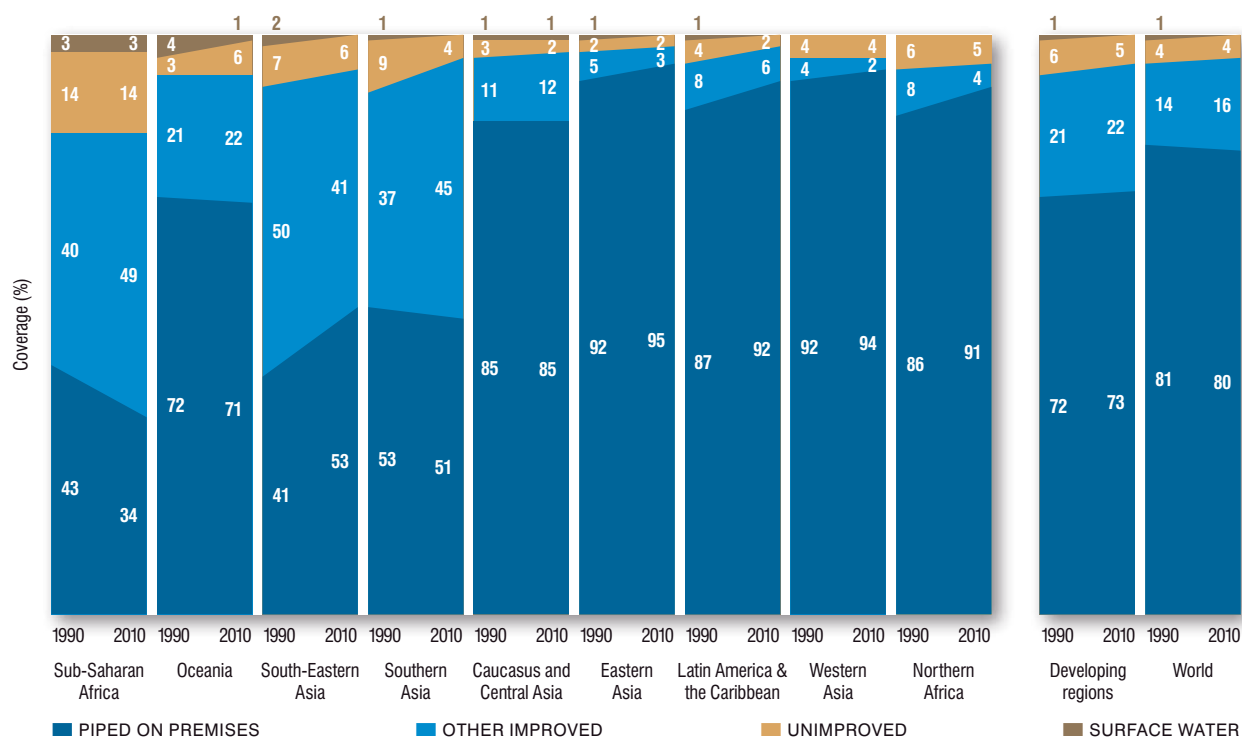
Country, Area or Territory	Year	USE OF DRINKING WATER SOURCES (percentage of population)															Proportion of the 2010 population that gained access since 1995 (%)
		Urban					Rural					National					
		Improved			Unimproved		Improved			Unimproved		Improved			Unimproved		
		Total Improved	Piped on Premises	Other Improved	Unimproved	Surface Water	Total Improved	Piped on Premises	Other Improved	Unimproved	Surface Water	Total Improved	Piped on Premises	Other Improved	Unimproved	Surface Water	
United Arab Emirates	1990	100	—	—	0	0	100	—	—	0	0	100	—	—	0	0	69
	2000	100	80	20	0	0	100	70	30	0	0	100	78	22	0	0	
	2010	100	—	—	0	0	100	—	—	0	0	100	—	—	0	0	
United Kingdom	1990	100	100	0	0	0	100	98	2	0	0	100	100	0	0	0	7
	2000	100	100	0	0	0	100	98	2	0	0	100	100	0	0	0	
	2010	100	100	0	0	0	100	98	2	0	0	100	100	0	0	0	
United Republic of Tanzania	1990	94	35	59	3	3	46	1	45	29	25	55	7	48	24	21	16
	2000	86	28	58	11	3	45	2	43	32	23	54	8	46	27	19	
	2010	79	22	57	18	3	44	3	41	36	20	53	8	45	31	16	
United States	1990	100	97	3	0	0	94	46	48	6	—	99	84	15	1	—	14
	2000	100	97	3	0	0	94	46	48	6	—	99	85	14	1	—	
	2010	100	97	3	0	0	94	46	48	6	—	99	85	14	1	—	
United States Virgin Islands	1990	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	2000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	2010	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Uruguay	1990	98	94	4	2	—	79	50	29	21	—	96	89	7	4	—	8
	2000	99	96	3	1	0	88	73	15	11	1	98	94	4	2	0	
	2010	100	98	2	0	0	100	—	—	0	0	100	98	—	0	0	
Uzbekistan	1990	97	86	11	1	2	85	37	48	8	7	90	57	33	5	5	12
	2000	98	86	12	1	1	83	32	51	11	6	89	52	37	7	4	
	2010	98	85	13	1	1	81	26	55	14	5	87	47	40	9	4	
Vanuatu	1990	94	79	15	6	—	55	27	28	45	—	62	37	25	38	—	41
	2000	96	65	31	4	0	71	22	49	21	8	76	31	45	18	6	
	2010	98	52	46	2	0	87	17	70	5	8	90	26	64	4	6	
Venezuela (Bolivarian Republic of)	1990	93	87	6	7	—	71	44	27	29	—	90	80	10	10	—	—
	2000	94	89	5	5	1	74	50	24	10	16	92	85	7	5	3	
	2010	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Viet Nam	1990	88	44	44	5	7	49	0	49	32	19	57	9	48	26	17	38
	2000	94	51	43	2	4	71	4	67	16	13	77	16	61	12	11	
	2010	99	59	40	1	0	93	8	85	2	5	95	23	72	2	3	
Western Sahara	1990	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	2000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	2010	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Yemen	1990	96	84	12	3	1	59	12	47	34	7	67	27	40	27	6	15
	2000	83	77	6	16	1	52	20	32	41	7	60	35	25	35	5	
	2010	72	71	1	27	1	47	26	21	47	6	55	40	15	41	4	
Zambia	1990	89	49	40	10	1	23	1	22	45	32	49	20	29	31	20	26
	2000	88	42	46	11	1	36	1	35	37	27	54	15	39	28	18	
	2010	87	36	51	11	2	46	1	45	32	22	61	13	48	24	15	
Zimbabwe	1990	99	96	3	1	0	71	8	63	17	12	79	34	45	12	9	6
	2000	99	89	10	1	0	70	6	64	20	10	80	34	46	13	7	
	2010	98	82	16	2	0	69	4	65	22	9	80	34	46	14	6	
Sub-Saharan Africa	1990	83	43	40	14	3	36	4	32	31	33	49	15	34	27	24	26
	2000	82	39	43	15	3	42	4	38	32	26	55	15	40	27	18	
	2010	83	34	49	14	3	49	5	44	32	19	61	16	45	26	13	
Northern Africa	1990	94	86	8	6	0	80	32	48	17	3	87	58	29	11	2	23
	2000	94	89	5	6	0	84	51	33	12	4	89	70	19	9	2	
	2010	95	91	4	5	0	89	73	16	6	5	92	83	9	6	2	
Eastern Asia	1990	97	92	5	2	1	56	12	44	34	10	68	35	33	25	7	24
	2000	98	93	5	1	1	70	29	41	24	6	81	53	28	15	4	
	2010	98	95	3	2	0	85	46	39	13	2	91	70	21	8	1	
Southern Asia	1990	90	53	37	9	1	66	8	58	29	5	72	20	52	24	4	31
	2000	93	52	41	7	0	77	11	66	20	3	82	23	59	15	3	
	2010	96	51	45	4	0	88	13	75	10	2	90	25	65	9	1	
South-Eastern Asia	1990	91	41	50	7	2	62	5	57	29	9	71	16	55	22	7	26
	2000	92	46	46	6	2	72	10	62	19	9	80	24	56	14	6	
	2010	94	53	41	6	0	83	13	70	13	4	88	30	58	9	3	
Western Asia	1990	96	92	4	4	0	68	43	25	29	3	85	72	13	14	1	29
	2000	96	93	3	3	1	72	53	19	21	7	87	78	9	10	3	
	2010	96	94	2	4	0	76	65	11	19	5	89	84	5	9	2	
Oceania	1990	93	72	21	3	4	42	11	31	14	44	55	26	29	11	34	13
	2000	93	72	21	4	3	44	12	32	14	42	55	26	29	12	33	
	2010	93	71	22	6	1	42	10	32	19	39	54	24	30	15	31	
Latin American & the Caribbean	1990	95	87	8	4	1	64	37	27	15	21	85	73	12	8	7	22
	2000	96	90	6	3	1	73	50	23	14	13	91	80	11	5	4	
	2010	98	92	6	2	0	81	61	20	13	6	94	86	8	5	1	
Caucasus and Central Asia	1990	96	85	11	3	1	80	31	49	14	6	88	56	32	9	3	11
	2000	97	84	13	2	1	76	29	47	12	12	85	53	32	8	7	
	2010	97	85	12	2	1	80	28	52	9	11	87	53	34	6	7	
Developing regions	1990	93	72	21	6	1	59	11	48	29	12	70	32	38	22	8	26
	2000	94	72	22	5	1	69	19	50	22	9	79	40	39	15	6	
	2010	95	73	22	5	0	79	24	55	15	6	86	46	40	11	3	
Developed regions	1990	100	97	3	0	0	94	69	25	6	0	98	89	9	2	0	6
	2000	100	97	3	0	0	95	72	23	5	0	98	90	8	2	0	
	2010	100	97	3	0	0	97	74	23	3	0	99	92	7	1	0	
World	1990	95	81	14	4	1	62	18	44	28	10	76	45	31	18	6	23
	2000	96	80	16	3	1	72	24	48	20	8	83	50	33	12	5	
	2010	96	80	16	4	0	81	29	52	14	5	89	54	35	8	3	

'NA' represents data not applicable. A dash (-) represents data not available at the time of publication. \* Shown as NA for countries with a declining population over the period 1990-2010

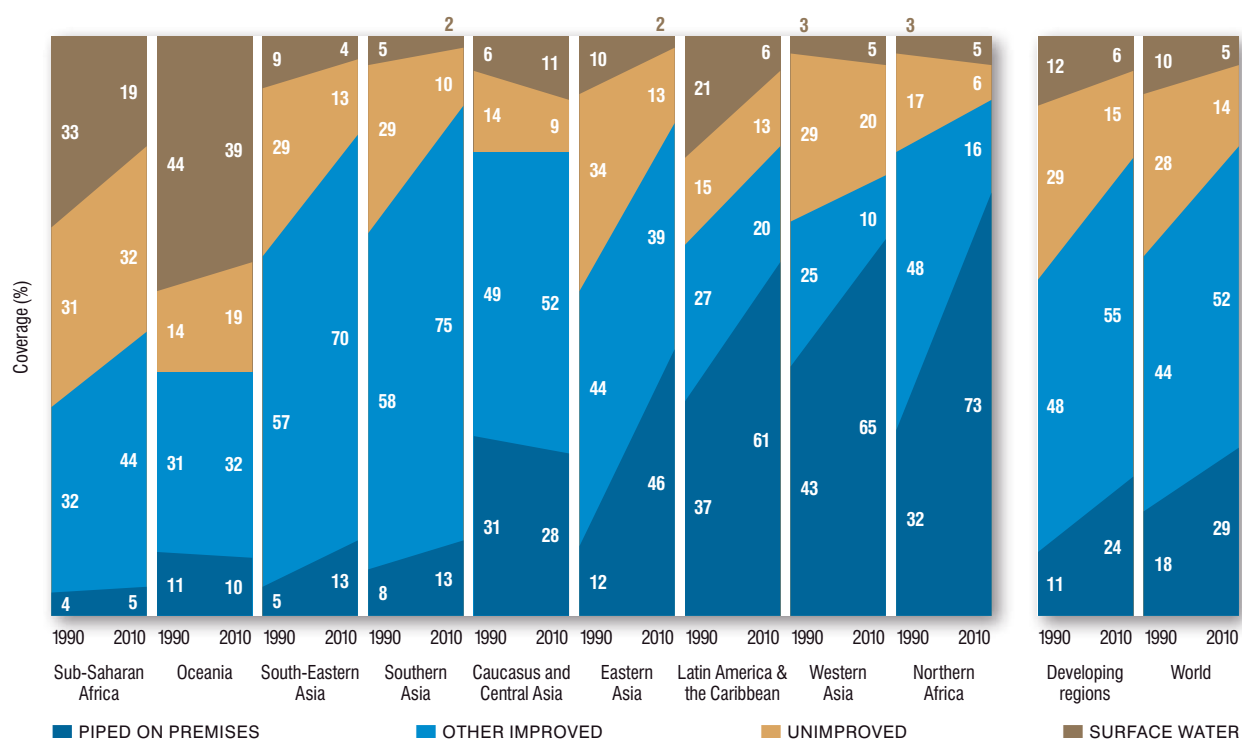
† The drinking water estimates for Bangladesh have been adjusted for arsenic contamination levels based on national surveys conducted and approved by the government.



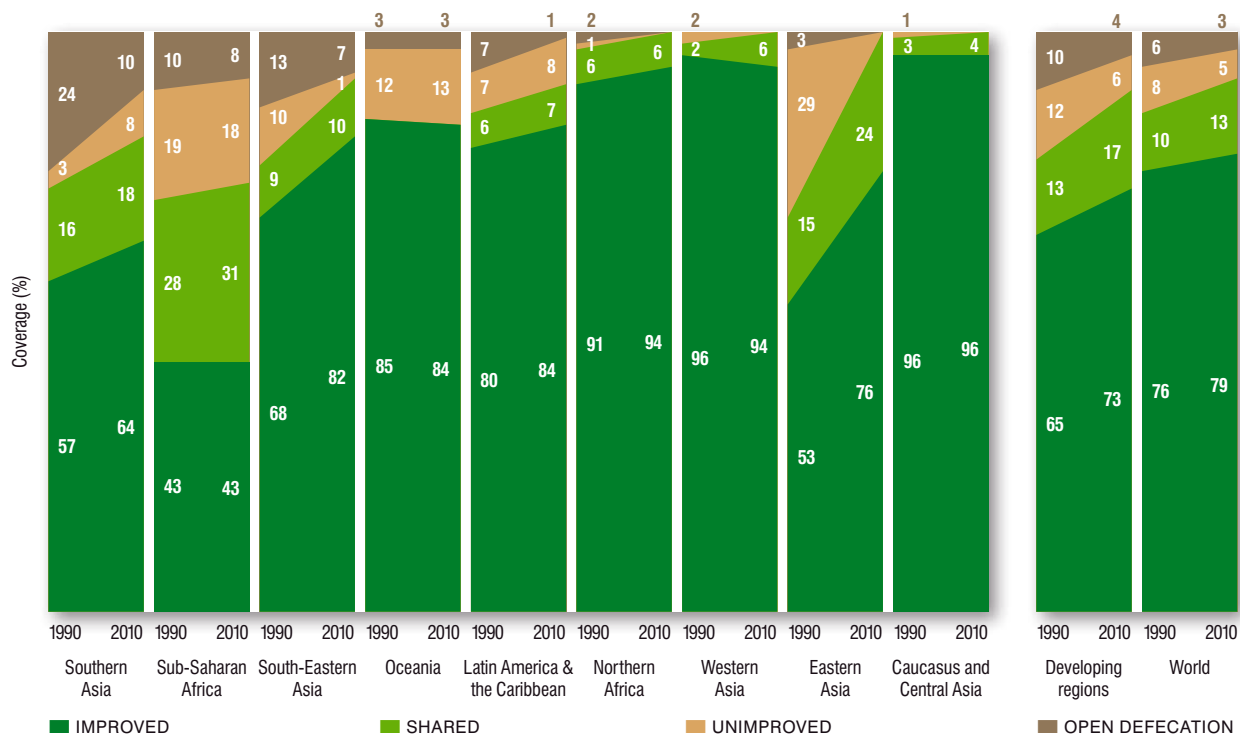
## Annex: Trends in Urban and Rural Water & Sanitation Coverage by Developing Regions



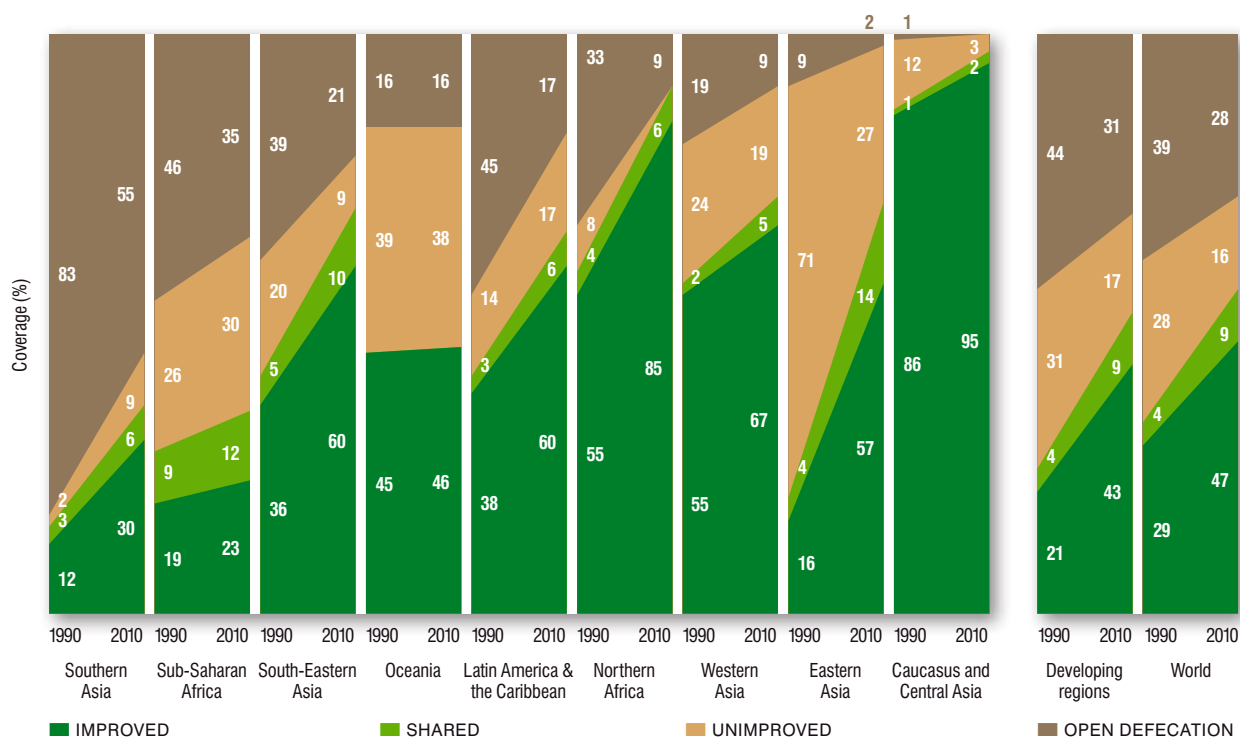
**FIGURE 40** Trends in urban drinking water coverage by developing regions, 1990-2010



**FIGURE 41** Trends in rural drinking water coverage by developing regions, 1990-2010

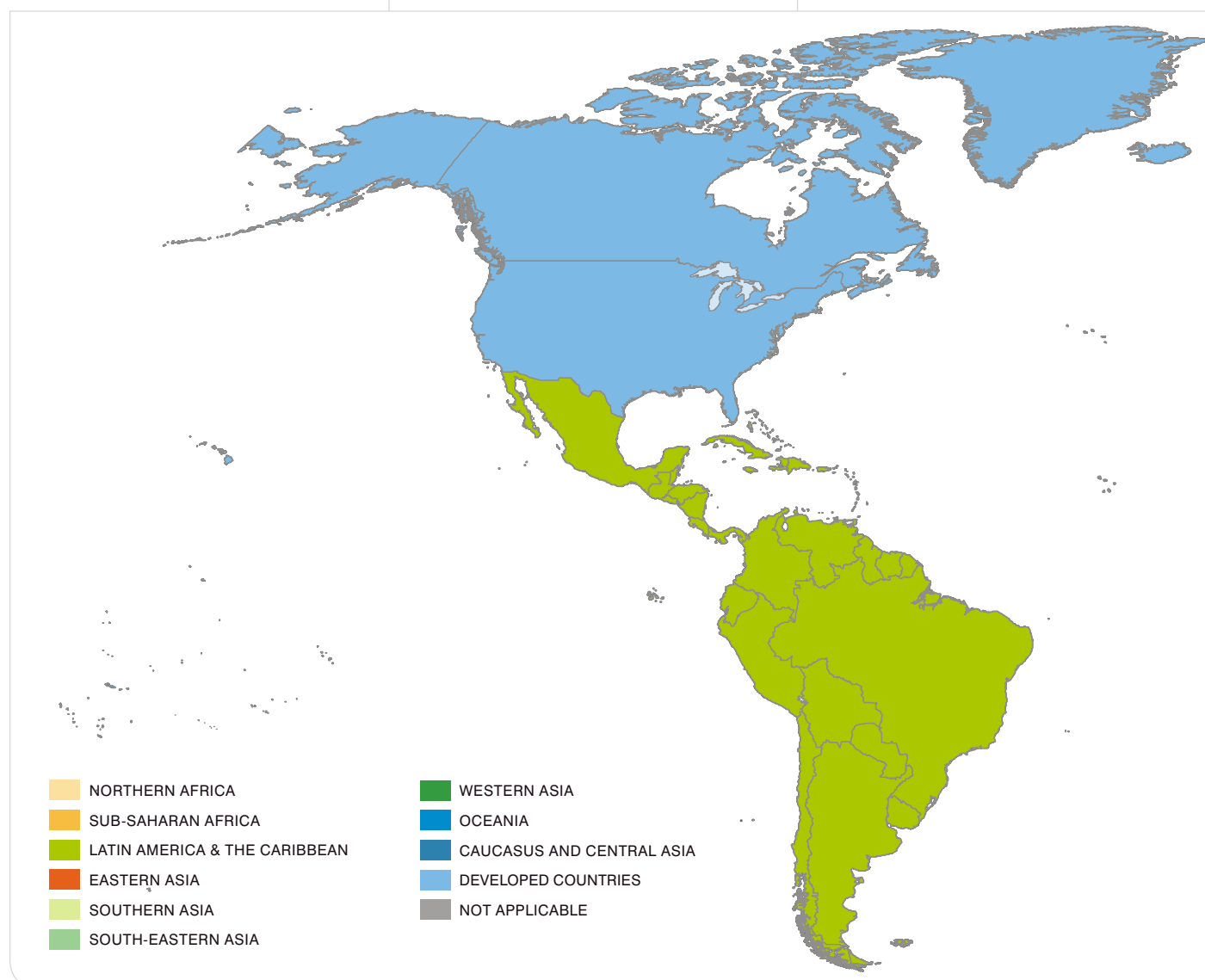


**FIGURE 42** Trends in urban sanitation coverage by developing regions, 1990-2010



**FIGURE 43** Trends in rural sanitation coverage by developing regions, 1990-2010

## Millennium Development Goals: Regional Groupings



### Developed Regions

Albania, Andorra, Australia, Austria, Belarus, Belgium, Bermuda, Bosnia and Herzegovina, Bulgaria, Canada, Channel Islands, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Faeroe Islands, Finland, France, Germany, Greece, Greenland, Hungary, Iceland, Ireland, Isle of Man, Israel, Italy, Japan, Latvia, Liechtenstein, Lithuania, Luxembourg, Malta, Monaco, Montenegro, Netherlands, New Zealand, Norway, Poland, Portugal, Republic of Moldova, Romania, Russian Federation, San Marino, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, The former Yugoslav Republic of Macedonia, Ukraine, United Kingdom of Great Britain and Northern Ireland, United States of America

### Developing Regions

#### ■ NORTHERN AFRICA

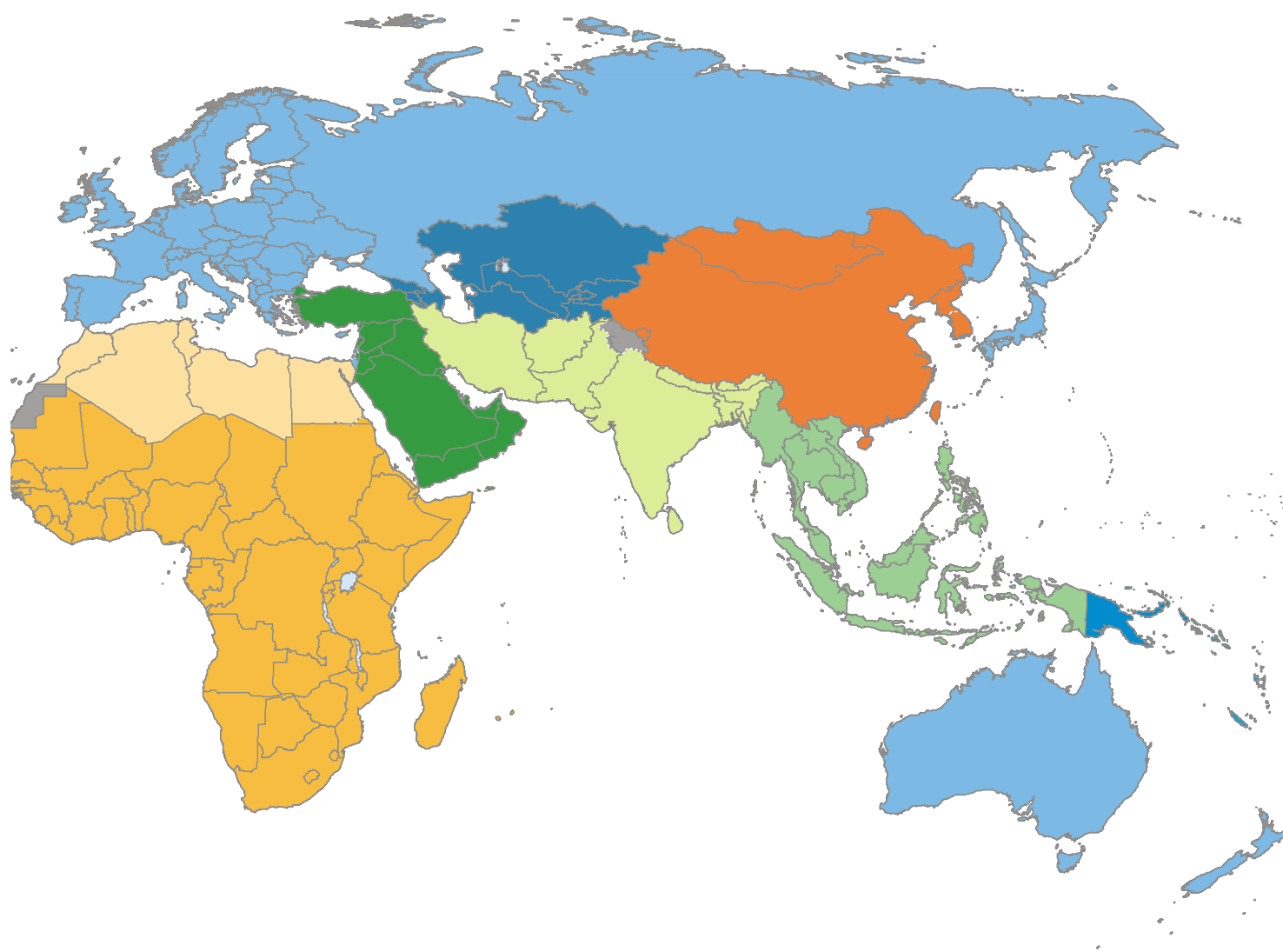
Algeria, Egypt, Libya, Morocco, Tunisia, Western Sahara

#### ■ SUB-SAHARAN AFRICA

Angola, Benin, Botswana, Burkina Faso, Burundi, Cameroon, Cape Verde, Central African Republic, Chad, Comoros, Congo, Côte d'Ivoire, Democratic Republic of the Congo, Djibouti, Equatorial Guinea, Eritrea, Ethiopia, Gabon, Gambia, Ghana, Guinea, Guinea-Bissau, Kenya, Lesotho, Liberia, Madagascar, Malawi, Mali, Mauritania, Mauritius, Mayotte, Mozambique, Namibia, Niger, Nigeria, Réunion, Rwanda, Sao Tome and Principe, Senegal, Seychelles, Sierra Leone, Somalia, South Africa, Sudan, Swaziland, Togo, Uganda, United Republic of Tanzania, Zambia, Zimbabwe

#### ■ LATIN AMERICA & THE CARIBBEAN

Anguilla, Antigua and Barbuda, Argentina, Aruba, Bahamas, Barbados, Belize, Bolivia (Plurinational State of), Brazil, British Virgin Islands, Cayman Islands, Chile, Colombia, Costa Rica, Cuba, Dominica, Dominican Republic, Ecuador, El Salvador, Falkland Islands (Malvinas), French Guiana, Grenada, Guadeloupe, Guatemala, Guyana, Haiti, Honduras, Jamaica, Martinique, Mexico, Montserrat, Netherlands Antilles, Nicaragua, Panama, Paraguay, Peru, Puerto Rico, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines, Suriname, Trinidad and Tobago, Turks and Caicos Islands, United States Virgin Islands, Uruguay, Venezuela (Bolivarian Republic of)



#### ■ CAUCASUS AND CENTRAL ASIA

Armenia, Azerbaijan, Georgia, Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, Uzbekistan

#### ■ EASTERN ASIA

China, Democratic People's Republic of Korea, Mongolia, Republic of Korea

#### ■ SOUTHERN ASIA

Afghanistan, Bangladesh, Bhutan, India, Iran (Islamic Republic of), Maldives, Nepal, Pakistan, Sri Lanka

#### ■ SOUTH-EASTERN ASIA

Brunei Darussalam, Cambodia, Indonesia, Lao People's Democratic Republic, Malaysia, Myanmar, Philippines, Singapore, Thailand, Timor-Leste, Viet Nam

#### ■ WESTERN ASIA

Bahrain, Iraq, Jordan, Kuwait, Lebanon, Occupied Palestinian Territory, Oman, Qatar, Saudi Arabia, Syrian Arab Republic, Turkey, United Arab Emirates, Yemen

#### ■ OCEANIA

American Samoa, Cook Islands, Fiji, French Polynesia, Guam, Kiribati, Marshall Islands, Micronesia (Federated States of), Nauru, New Caledonia, Niue, Northern Mariana Islands, Palau, Papua New Guinea, Samoa, Solomon Islands, Tokelau, Tonga, Tuvalu, Vanuatu

#### ■ LEAST DEVELOPED COUNTRIES

Afghanistan, Angola, Bangladesh, Benin, Bhutan, Burkina Faso, Burundi, Cambodia, Central African Republic, Chad, Comoros,

Democratic Republic of the Congo, Djibouti, Equatorial Guinea, Eritrea, Ethiopia, Gambia, Guinea, Guinea-Bissau, Haiti, Kiribati, Lao People's Democratic Republic, Lesotho, Liberia, Madagascar, Malawi, Mali, Mauritania, Mozambique, Myanmar, Nepal, Niger, Rwanda, Samoa, Sao Tome and Principe, Senegal, Sierra Leone, Solomon Islands, Somalia, Sudan, Timor-Leste, Togo, Tuvalu, Uganda, United Republic of Tanzania, Vanuatu, Yemen, Zambia





UN-Water is the United Nations inter-agency coordination mechanism for all freshwater related issues. Established in 2003, UN-Water fosters greater cooperation and information sharing among UN entities and relevant stakeholders.

UN-Water monitors and reports on the state, utilization and management of the world's freshwater resources and on the situation of sanitation through a series of interconnected and complementary publications that, together, provide a comprehensive picture and, individually, provide a more in-depth analysis of specific issues or geographic areas.

#### PERIODIC REPORTS:

**World Water Development Report (WWDR)** is coordinated by the World Water Assessment Programme (WWAP) on behalf of UN-Water and published every three years. It provides a global strategic outlook on the state of freshwater resources, trends in use of the resource base in the various sectors (inter alia, agriculture, industry, energy) and management options in different settings and situation (inter alia, in the context of urbanization, natural disasters, and impacts of global climate change). It also includes regional assessments.

- ✓ Strategic outlook
- ✓ State, uses and management of water resources
- ✓ Global
- ✓ Regional assessments
- ✓ Triennial (4th edition)

**Global Analysis and Assessment of Sanitation and Drinking-Water (GLAAS)** is produced every two years by the World Health Organization (WHO) on behalf of UN-Water. It provides a global update on the policy frameworks, institutional arrangements, human resource base, and international and national finance streams in support of sanitation and drinking water. It is a substantive input into the activities of Sanitation and Water for All (SWA).

- ✓ Strategic outlook
- ✓ Water supply and sanitation
- ✓ Global
- ✓ Regional assessments
- ✓ Biennial (since 2008)

**The progress report of the WHO/UNICEF Joint Monitoring Programme for Water Supply and Sanitation (JMP)** is produced every two years. The JMP is affiliated with UN-Water and presents the results of the global monitoring of progress towards MDG 7 target C: to halve, by 2015, the proportion of the population without sustainable access to safe drinking water and basic sanitation. Monitoring draws on the findings of household surveys and censuses usually supported by national statistics bureaus in accordance with international criteria.

- ✓ Status and trends
- ✓ Water supply and sanitation
- ✓ Global
- ✓ Regional and national assessments
- ✓ Biennial (since 1990)

#### IN THE YEARS 2012-2013 UN-WATER ALSO PUBLISHES:

**2012**

**UN-Water Report on Integrated Approaches in the Development, Management and Use of Water Resources** is produced by UN-Water for the Rio+20 Summit (UNCSD 2012). A similar status report was produced in 2008 for UNCSD. The report assesses the status and progress of the management of water resources in UN Member States and reports on the outcomes and impacts of improved water resources management.

**2013**

**UN-Water Country Briefs** pilot project. They provide a strategic outlook on the critical importance of investments in water for human and economic development at country level.

**More Information on UN-Water Reports at [www.unwater.org/documents.html](http://www.unwater.org/documents.html)**



## The MDG drinking water target has been reached.

- An estimated 89 per cent of the global population now use improved drinking water sources. Despite this enormous accomplishment, 780 million people remain unserved.
- Four out of 10 people without access to improved drinking water live in sub-Saharan Africa. While coverage of improved water supply sources is 90 per cent or more in Latin America and the Caribbean, Northern Africa and large parts of Asia, it is only 61 per cent in sub-Saharan Africa.
- The number of people in rural areas using unimproved water sources is five times greater than in urban areas. Eight out of 10 people living in urban areas have piped water connections on their premises, compared to only 3 in 10 people in rural areas.
- In sub-Saharan Africa, almost 90 per cent of the population in the richest quintile use improved drinking water sources, compared to only 35 per cent of people in the poorest quintile.

## The world is unlikely to meet the MDG sanitation target by 2015.

- Globally, 63 per cent of the population use improved sanitation facilities. Since 1990, 1.8 billion people have gained access to improved sanitation.
- An estimated 2.5 billion people are still without improved sanitation; almost three quarters of them live in rural areas.
- In urban areas, 8 out of 10 people use an improved sanitation facility, compared to only half of the rural population. However, the number of people without improved sanitation in urban areas has grown by 183 million since 1990, during a time of rapid urbanization.
- The number of people resorting to open defecation globally has decreased by 271 million since 1990. Still, open defecation is practised by 1.1 billion people – 15 per cent of the global population.



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