

PROGRESS ON SANITATION AND DRINKING-WATER

2010 UPDATE



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INTRODUCTION

This report by the WHO/UNICEF Joint Monitoring Programme for Water Supply and Sanitation (JMP) confirms that advances continue to be made towards greater access to safe drinking-water. Progress in relation to access to basic sanitation is however insufficient to achieve the Millennium Development Goal (MDG) target to halve, by 2015, the proportion of people without sustainable access to safe drinking-water and basic sanitation.

PURPOSE AND SCOPE OF THIS REPORT

This report describes the status and trends with respect to the use of safe drinking-water and basic sanitation, and progress made towards the MDG drinking-water and sanitation target.

As the world approaches 2015, it becomes increasingly important to identify who are being left behind and to focus on the challenges of addressing their needs. This report presents some striking disparities: the gap between progress in providing access to drinking-water versus sanitation; the divide between urban and rural populations in terms of the services provided; differences in the way different regions are performing, bearing in mind that they started from different baselines; and disparities between different socioeconomic strata in society.

Each JMP report assesses the situation and trends anew and so this JMP report supersedes previous reports. The information presented in this report includes data from household surveys and censuses completed during the period 2007-2008. It also incorporates datasets from earlier surveys and censuses that have become available to JMP since the publication of the previous JMP report in 2008. In total, data from around 300 surveys and censuses covering the period 1985 - 2008, has been added to the JMP database.

The updated estimates for 2008, 2000 and 1990 are given in the statistical table starting on page 38. This table for the first time shows the number of people who gained access to improved sanitation and drinking-water sources in the period 1990-2008.

It is important to note that the data in this report do not yet reflect the efforts of the International Year of Sanitation 2008, which mobilized renewed support around the world to stop the practice of open defecation and to promote the use of latrines and toilets

A NEW STRATEGY FOR JMP

A new JMP strategy was formulated by WHO and UNICEF, with support from a newly created Strategic Advisory Group to better position JMP to address the monitoring challenges in the run up to the MDG target year of 2015 and beyond.

The JMP vision contained in this strategy is to accelerate progress towards universal sustainable access to safe water and basic sanitation by 2025, including the achievement of the MDG target by 2015 as a key milestone.

The four strategic priority areas of activity proposed for the 2010-2015 period are:

- maintaining the integrity of the JMP database and ensuring accurate global estimates;
- · disseminating data to stakeholders;
- fulfilling JMP's normative role in developing and validating target indicators;
- enhancing interaction between countries and JMP.

With this strategy, JMP is well placed to provide a platform for developing post-2015 targets and associated meaningful and measurable indicators.

FUTURE CHALLENGES

We all recognize the vital importance of sanitation and water to human health and well-being, and their role as an engine of development. The question is how to accelerate progress towards achieving the MDG target, and how to go beyond it in order to ultimately achieve the vision of universal access.

The estimates that JMP publishes every two years help policy-makers, donors, governmental and nongovernmental agencies decide what needs to be done and where to focus their efforts. With each successive report, a clearer picture emerges of the current use of improved sanitation facilities and improved sources of drinking-water throughout the world.

Data collection and analysis are, however, not ends in themselves. The estimates and trends must be an impetus for action. With this in mind, JMP constantly seeks to provide more accurate and detailed information, to see where there is most catching-up to be done, where there are vulnerabilities, or where progress is starting to falter.

INTRODUCTION

Better decision-making to speed progress requires a greater disaggregation and a higher resolution in the datasets. JMP faces methodological challenges of analysing data from over 200 different countries and territories, of adhering to common indicators so that estimates are comparable globally, and of accommodating new or previously unavailable data.

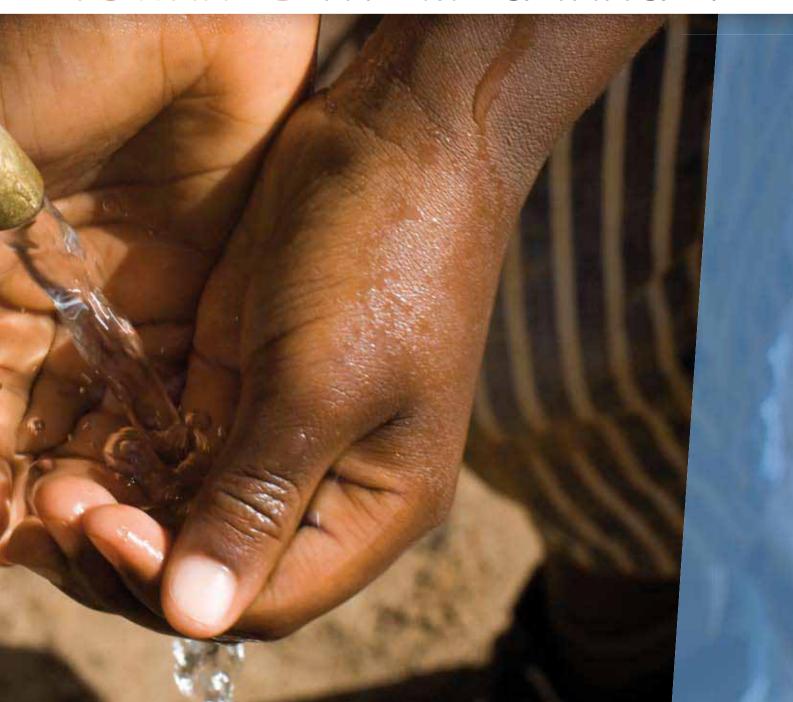
The present report documents how much the world has changed in terms of the use of improved sanitation facilities and improved sources of drinking-water. The practice of open defecation is declining, but still too many people have no access to any kind of sanitation facilities. Piped water is reaching ever more households, but not yet all and often not reliably so. The challenge of assessing the safety of drinking-water from improved sources also needs to be addressed.







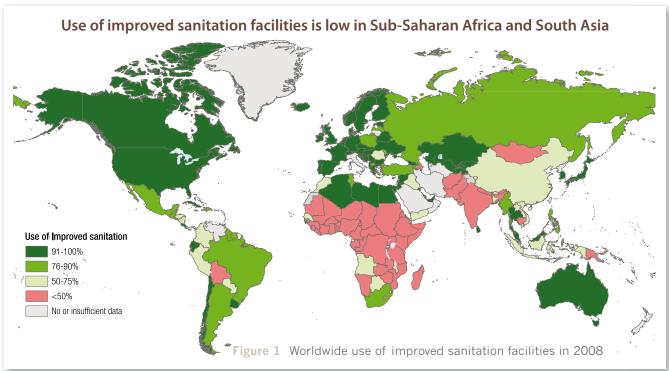
STATUS AND PROGRESS TOWARDS THE MDG TARGET

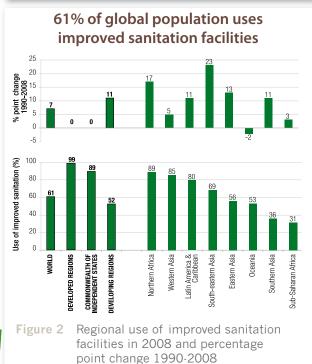


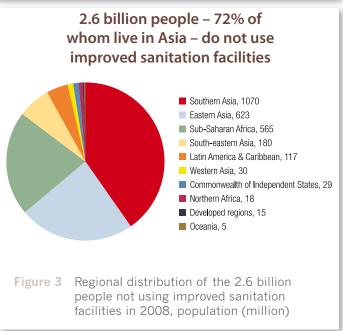
BILLIONS WITHOUT IMPROVED SANITATION

2.6 BILLION PEOPLE DO NOT USE IMPROVED SANITATION

Improved sanitation facilities are used by less than two thirds of the world population. The global picture masks great disparities between regions. Virtually the entire population of the developed regions uses improved facilities, but in developing regions only around half the population uses improved sanitation. There are also disparities in progress since 1990. Notable increases in the use of improved sanitation have been made in Northern Africa, South-eastern Asia and Eastern Asia, whereas there has been no progress in the Commonwealth of Independent States and a decline in Oceania. Among the 2.6 billion people in the world who do not use improved sanitation facilities, by far the greatest number are in Southern Asia, but there are also large numbers in Eastern Asia and Sub-Saharan Africa.



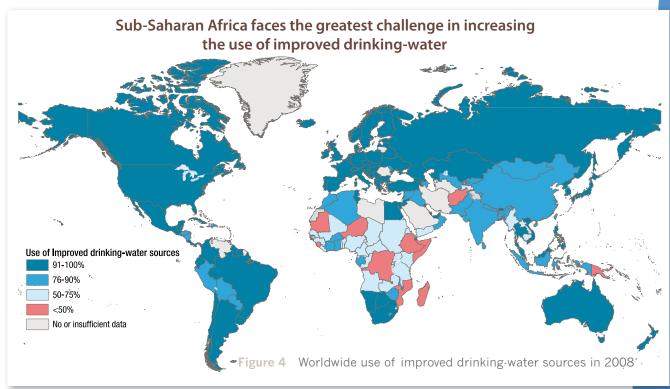


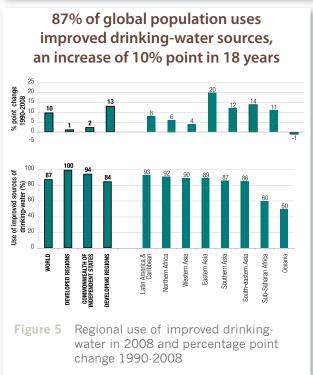


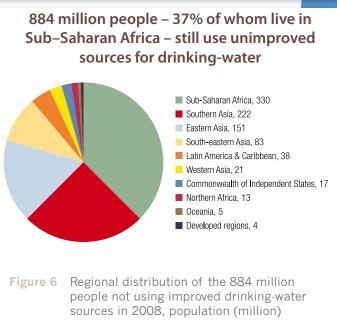
MILLIONS WITHOUT IMPROVED SOURCES OF DRINKING-WATER

884 MILLION PEOPLE DO NOT USE IMPROVED SOURCES OF DRINKING-WATER

The use of improved sources of drinking-water is high globally, with 87% of the world population and 84% of the people in developing regions getting their drinking-water from such sources. Even so, 884 million people in the world still do not get their drinking-water from improved sources, almost all of them in developing regions. Sub-Saharan Africa accounts for over a third of that number, and is lagging behind in progress towards the MDG target, with only 60% of the population using improved sources of drinking-water despite an increase of 11 percentage points since 1990.

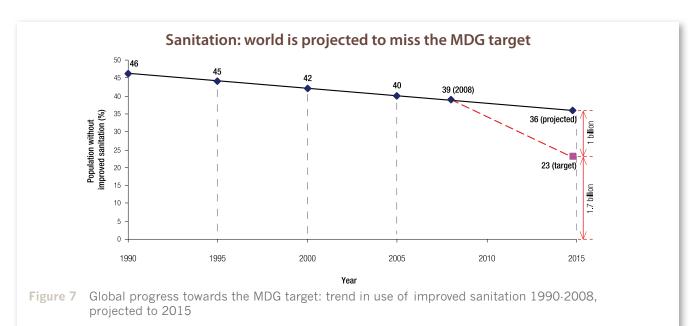


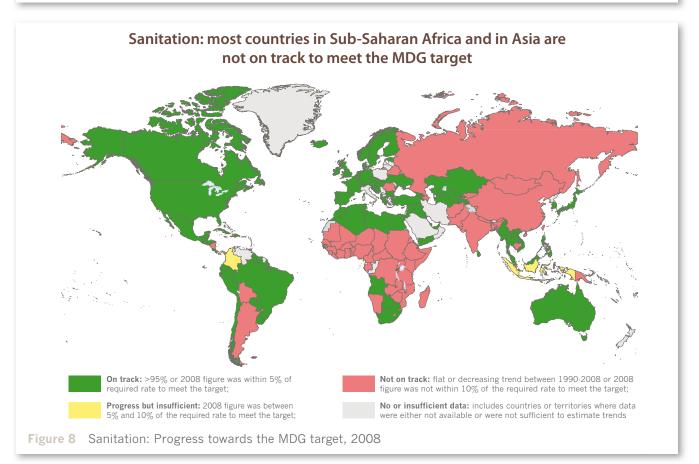




SANITATION: WORLD OFF TRACK FOR MDG TARGET

At the current rate of progress, the world will miss the MDG target by 13 percentage points. Unless huge efforts are made, the proportion of people without access to basic sanitation will not be halved by 2015. Even if we meet the MDG target, there will still be 1.7 billion people without access to basic sanitation. If the trend remains as currently projected, an additional billion people who should have benefited from MDG progress will miss out, and by 2015 there will be 2.7 billion people without access to basic sanitation.





DRINKING-WATER: WORLD ON TRACK FOR MDG TARGET

At the current rate of progress, the world is expected to exceed the MDG target of halving the proportion of the population without sustainable access to safe drinking-water. Even so, 672 million people will still lack access to improved drinking-water sources in 2015. For monitoring purposes, the use of improved drinking-water sources has been equated to access to safe drinking-water, but not all improved sources in actual fact provide drinking-water that is safe. The challenge of measuring water quality is addressed on page 31.

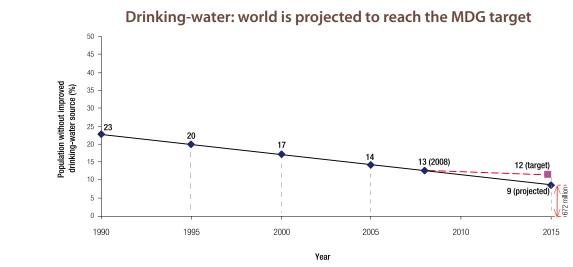
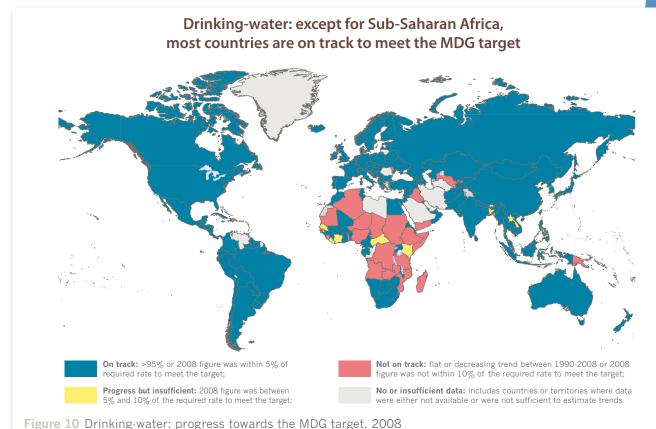


Figure 9 Global progress towards the MDG target: trend in use of improved drinking-water sources 1990-2008, projected to 2015

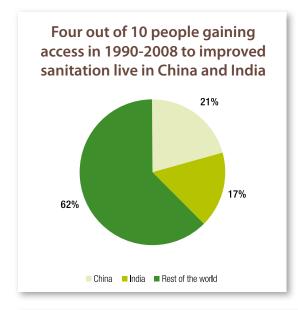


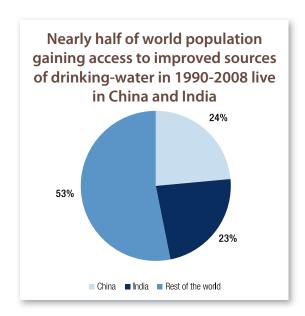
CHALLENGE: GLOBAL TREND HEAVILY INFLUENCED BY PROGRESS IN LARGE POPULOUS COUNTRIES

Global estimates of access and use hinge significantly on progress made in large, populous countries.

China and India are home to more than a third of the world population. Both countries have made considerable progress. In China, 89% of the population of 1.3 billion use drinking-water from improved sources, up from 67% in 1990. In India, 88% of the population of 1.2 billion use drinking-water from such sources, as compared to 72% in 1990. China and India together account for a 47% share, of the 1.8 billion people that gained access to improved drinking-water sources between 1990 and 2008. This share is almost equally distributed between the two countries. Obviously, these two countries heavily influence the global trend. Therefore, the ability to reach the MDG target is highly dependent on the performance of these two countries.

For sanitation, even with the increase between 1990 and 2008 in the proportion of the population using improved sanitation facilities in China (from 41% to 55%) and India (from 18% to 31%), the world is not on track to meet the sanitation target. This is despite the fact that 475 million people gained access to improved sanitation in these two countries alone, a 38% share of the 1.3 billion people that gained access globally.









Open defecation

Open defecation: Open defecation: when human faeces are disposed of in fields, forests, bushes, open bodies of water, beaches or other open spaces or disposed of with solid waste.

GLOBAL AND REGIONAL TRENDS

SANITATION LADDER:

Unimproved facilities

Unimproved sanitation facilities: do not ensure hygienic separation of human excreta from human contact. Unimproved facilities include pit latrines without a slab or platform, hanging latrines and bucket latrines.

Shared

Shared sanitation facilities: Sanitation facilities of an otherwise acceptable type shared between two or more households. Only facilities that are not shared or not public are considered improved.

Improved

Improved sanitation facilities: ensure hygienic separation of human excreta from human contact. They are use of the following facilities:

- Flush/pour flush to:

 piped sewer system
 septic tank
 - septic tank
 pit latrine

Ventilated improved pit (VIP)

- atrine Pit latrine with slak
 - Pit latrine with slal
 Composting toilet

IMPROVED SANITATION

UNIMPROVED SANITATION

2008 Western Asia Eastern Asia 1990 2008 Northern 066 2008 South-eastern 990 2008 Sub-Saharan 22 1990 2008 Southern Asia 0661 2008 DEVELOPING REGIONS 1990 2008 WORLD 066

Figure 11 Proportion of the population using an improved, shared or unimproved sanitation facility or practising open defecation, by MDG region, in 1990 and 2008

Irends in sanitation practices can more easily be assessed by taking a disaggregated view of the use of the different sanitation facilities and the practice of open defecation, as categorized in the sidebar. The proportion of the population using improved sanitation facilities is increasing in all the developing regions. Southern Asia and Sub-Saharan Africa are the only regions where less than half the population use improved sanitation facilities.

Africa and Eastern Asia and 3% in Western Asia. In five of the seven developing regions for which data are available, Open defecation is still most widely practised in Southern Asia and Sub-Saharan Africa · by 44% and 27% of the population, respectively. In contrast, open defecation is now practised by only 4% of the population in Northern Open defecation is declining in all regions and has decreased worldwide from 25% in 1990 to 17% in 2008. ess than 15% of the population practises open defecation.1

No separate charts are provided for Latin America and the Caribbean, Oceania, the Commonwealth of Independent States, or for developed regions because of insufficient data.

GLOBAL AND REGIONAL TRENDS DRINKING-WATER LADDER:

Unimproved

sources, an increase of 1.8 billion people since 1990. About 3.8 billion people (57% of the global population) get Today 87% of the world's population, a total of 5.9 billion people worldwide, uses drinking-water from improved their drinking-water from a piped connection that provides running water into their dwelling, plot or yard. All regions of the world have succeeded in reducing the proportion of the population using unimproved sources for drinking-water. Progress has been greatest in Eastern Asia, where the use of unimproved sources has declined by 20 percentage points.

progress in the use of other improved drinking-water sources, in all regions except for Sub-Saharan Africa, Southern All regions except for the Commonwealth of Independent States have seen progress in the use of piped water on premises. Moreover, the rate of increase in the use of piped water on premises has been faster than the rate of Asia and CIS.

Other improved

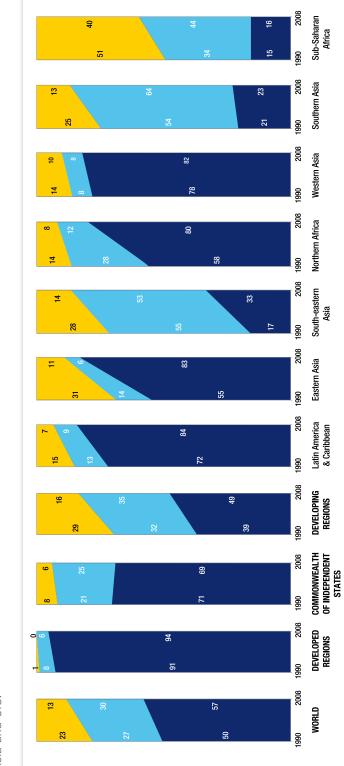


Figure 12 Proportion of the population using piped drinking-water on premises, other improved drinking-water source or an unimproved source, by MDG region, in 1990 and 2008

DRINKING-WATER LADDER

connection located inside the

Piped water on premises:

Piped household water

user's dwelling, plot or yard.

UNIMPROVED DRINKING-WATER

urface water (river, dam, lake

cart with small tank/drum,

IMPROVED DRINKING-WATER

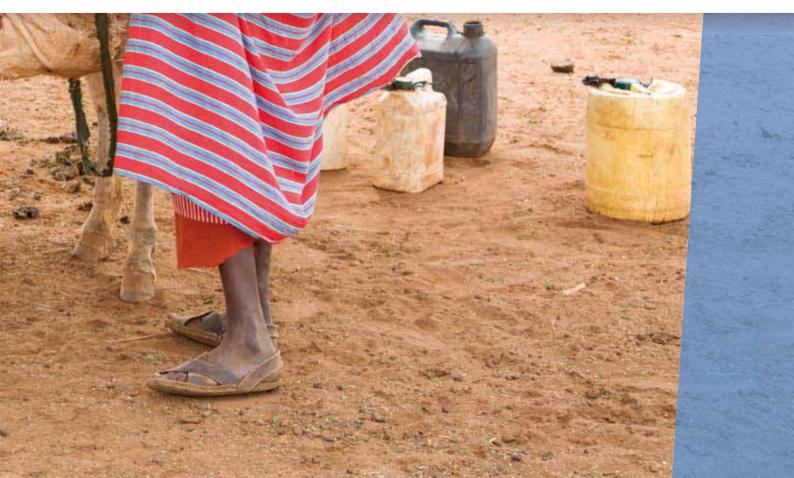
Piped into dwelling,

plot or yard



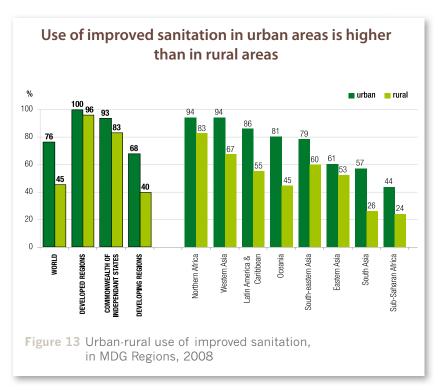


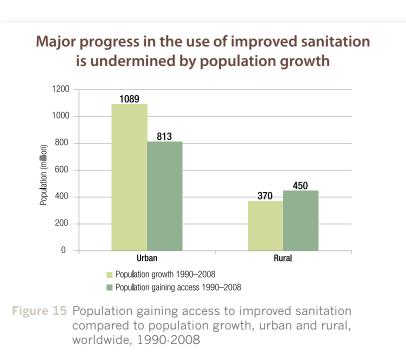
URBAN-RURAL DISPARITIES

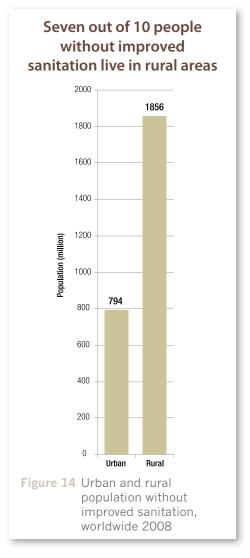


SANITATION: URBAN-RURAL DISPARITIES

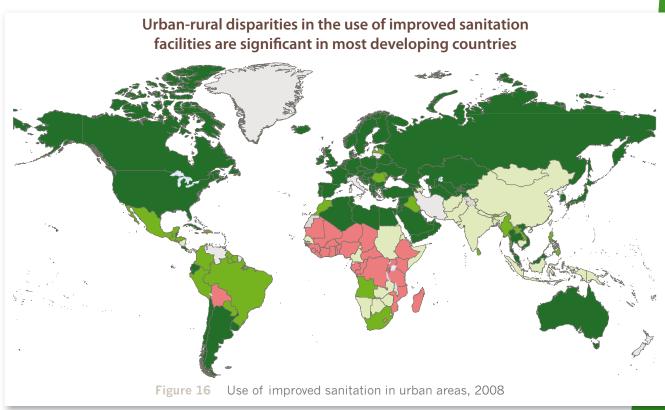
The use of improved sanitation facilities is particularly low in Sub-Saharan Africa at 31% overall – even so, the disparity between urban and rural areas is striking. Disparities are also particularly apparent in Latin America & Caribbean, Southern Asia and Oceania. The majority of the population in Sub-Saharan Africa, Southern Asia and Oceania live in rural areas, so these disparities are important in terms of the numbers of people concerned.

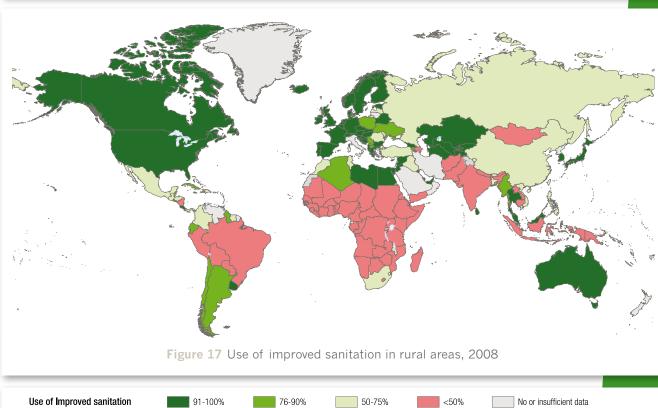






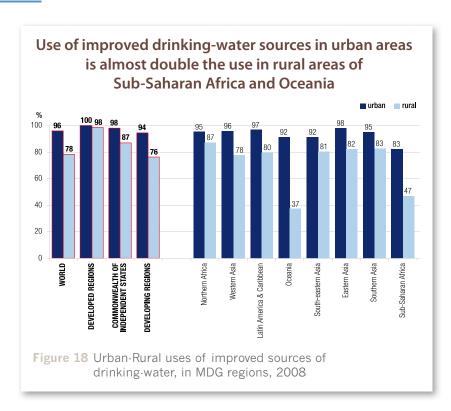
There are significant disparities between rural and urban areas in regard to sanitation. Rural areas continue to have a lower percentage of population using improved sanitation and a higher number of people without improved facilities. Of the approximately 1.3 billion people who gained access to improved sanitation during the period 1990-2008, 64% live in urban areas. However urban areas, though better served than rural areas, are struggling to keep up with the growth of the urban population.

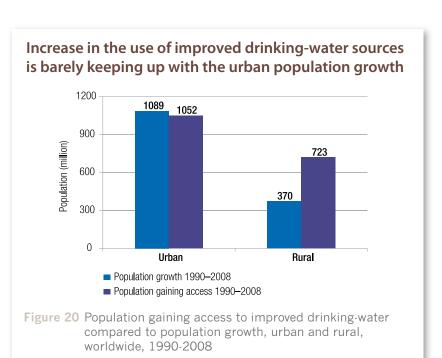


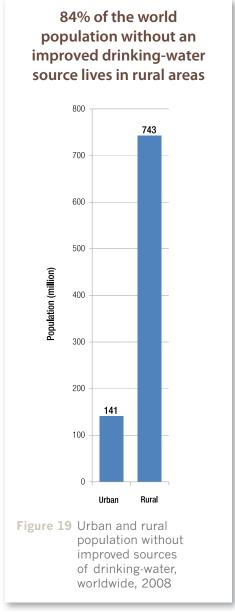


DRINKING-WATER: URBAN-RURAL DISPARITIES

Worldwide, 87% of the population gets their drinking-water from improved sources, and the corresponding figure for developing regions is also high at 84%. While 94% of the urban population of developing regions uses improved sources, it is only 76% of rural populations.

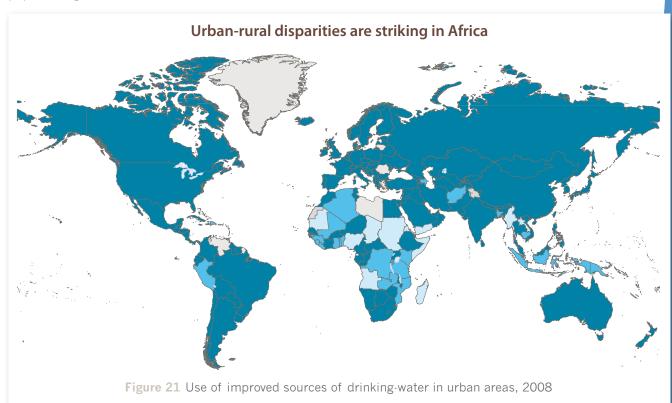


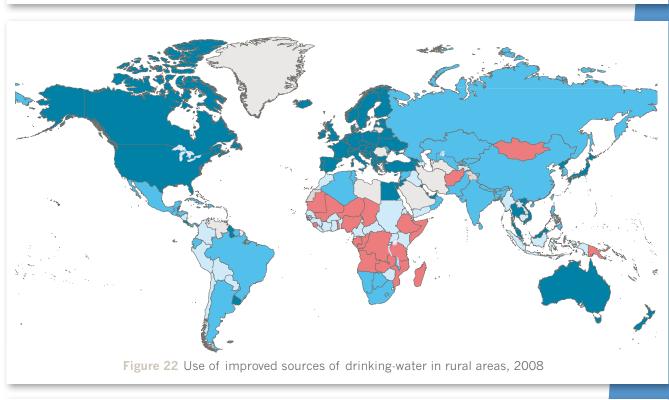




Use of Improved drinking-water sources

The rural population without access to an improved drinking-water source is over five times greater than that in urban areas. Of almost 1.8 billion people gaining access to improved drinking-water in the period 1990-2008, 59% live in urban areas. The urban-rural disparities are particularly striking in Sub-Saharan Africa, but are also visible in Asia and Latin America. In urban areas, however, the increase in coverage is barely keeping pace with population growth.





50-75%

<50%

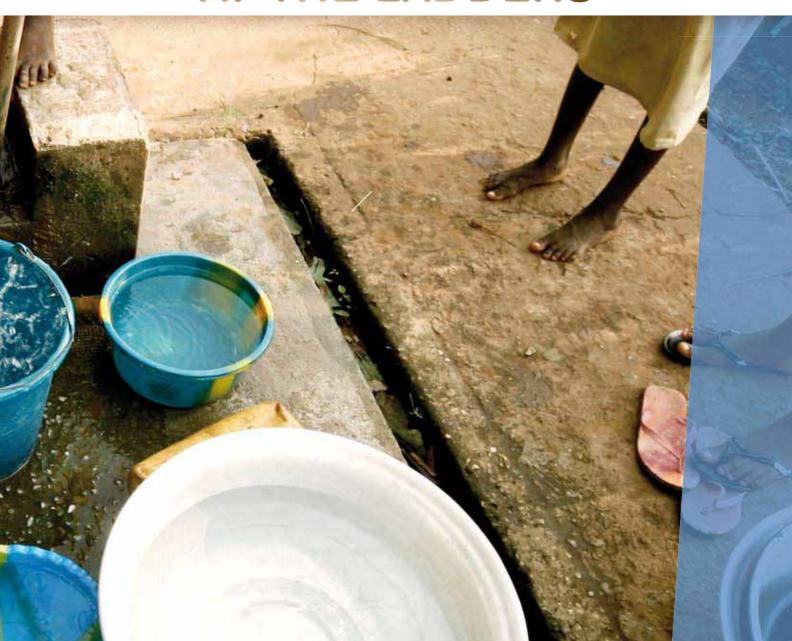
91-100%

No or insufficient data





A CLOSER LOOK AT THE LADDERS

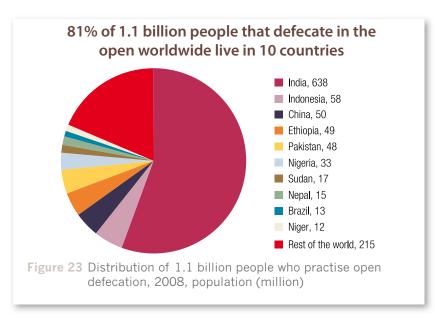


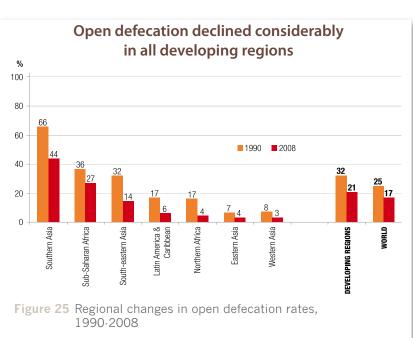
OPEN DEFECATION

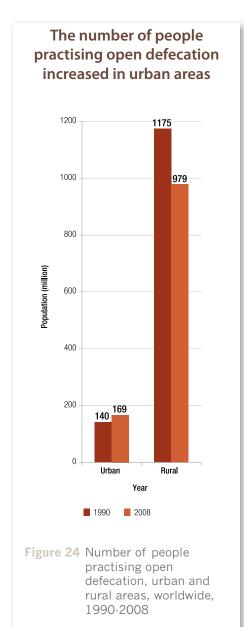
1.1 BILLION PEOPLE STILL DEFECATE IN THE OPEN

By far the great majority of people practising open defecation live in rural areas, but this number is declining. However, partly because of rapid increases in the urban population, a growing number of people in urban areas defecate in the open.

The proportion of the world population that practises open defecation declined by almost one third from 25% in 1990 to 17% in 2008. A decline in open defecation rates was recorded in all regions. In Sub-Saharan Africa, open defecation rates fell by 25 per cent. In absolute numbers, the population practising open defecation increased, however, from 188 million in 1990 to 224 million in 2008. In Southern Asia, home to 64% of the world population that defecate in the open, the practice decreased the most – from 66% in 1990 to 44% in 2008.







SHARED AND UNIMPROVED SANITATION FACILITIES

751 MILLION PEOPLE SHARE THEIR SANITATION FACILITIES

Shared sanitation facilities as defined for MDG monitoring purposes are facilities of an otherwise improved type that are either public or shared between two or more households. Sharing of improved sanitation facilities is most prevalent in urban areas. Often densely populated urban areas do not have sufficient space to construct private sanitation facilities and people rely on public or shared facilities. Among the different regions, using a shared facility is most common in urban Sub-Saharan Africa (31%), and particularly in Ghana. In 1990, 249 million people in urban areas used shared facilities as compared with 145 million in rural areas. Those numbers have now almost doubled to 497 million in urban areas and risen to 254 million in rural areas, representing a worldwide increase of 4%.

Table 1 Urban, rural and total use of shared sanitation for the countries where shared sanitation rate in urban areas in 2008 is 35% or more

Use of Shared sanitation, 2008 (%)		
Urban	Rural	TOTAL
70	38	54
56	22	26
51	18	25
47	18	29
44	16	34
44	6	22
42	24	27
42	6	18
40	15	24
38	14	26
36	25	34
35	3	11
	URBAN 70 56 51 47 44 44 42 42 40 38 36	URBAN RURAL 70 38 56 22 51 18 47 18 44 16 44 6 42 24 42 6 40 15 38 14 36 25

Shared sanitation increased almost two fold but remains considerably higher among urban users

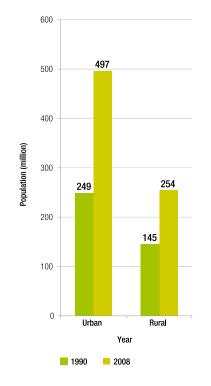


Figure 26 Number of people sharing sanitation facilities, urban and rural areas, 1990-2008

A TENTH OF THE WORLD POPULATION USES UNIMPROVED SANITATION FACILITIES

Unimproved sanitation facilities are unsatisfactory in terms of public health, although existing facilities may be upgraded in various ways to prevent human contact with excreta.

Globally the proportion of the rural population using unimproved sanitation facilities is more than fourfold that in urban areas. This is despite the decrease in the use of unimproved sanitation facilities in rural areas of the developing regions from 23% in 1990 to 20% in 2008.

Use of unimproved sanitation facilities is much higher in rural areas than in the urban areas.

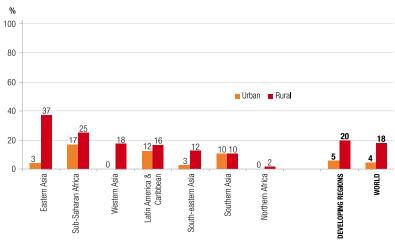


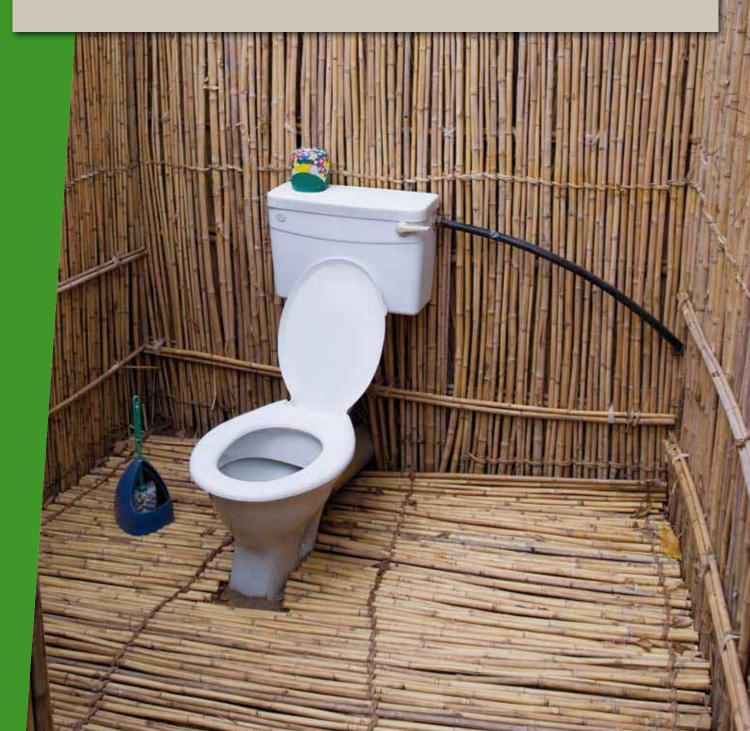
Figure 27 Urban-rural disparities in the use of unimproved sanitation facilities, MDG regions, 2008

CHALLENGE: ARE SHALLOW-PITS AND DRY-LATRINES IMPROVED OR NOT?

Classifying the different types of sanitation facilities, covered by household surveys and censuses, as "improved" or "unimproved" has been an ongoing challenge for JMP. The impact on national rates of access to improved sanitation could be substantial, especially when the facility type is used by a large proportion of the population. When this concerns a large country such as China, the impact on the global estimates could be considerable.

Chinese authorities distinguish harmless sanitary latrines and sanitary latrines and they both meet the MDG criteria for an improved sanitation facility that hygienically separates human waste from human contact. Sanitary latrines are defined by the Chinese Sanitation Authority as those structures which have walls, roofs, seepage-free and leakage free storage tanks, furnished with airtight covers, with a clean latrine room, free from flies and maggots, odourless, and in which faeces are collected in a timely manner and are treated so as to be harmless.

According to survey and census data, in rural areas of China the use of sanitary latrines has gradually increased to 25% in 2008, while the proportion of the rural population that uses another type of sanitation facility, labelled by different surveys as a dry latrine, dry toilet, shallow pit, covered pit or non-covered pit has gradually decreased from 84% in 1991 to 68% in 2008. Though these facilities do not meet the national criteria for a sanitary latrine, it is likely that some meet the MDG criteria for an improved sanitation facility. However without specific information about these facilities, it is a challenge to classify them as either improved or unimproved. The fact that a large proportion of the Chinese population uses these types of facilities has a significant impact on the number of people with or without access to an improved sanitation facility.



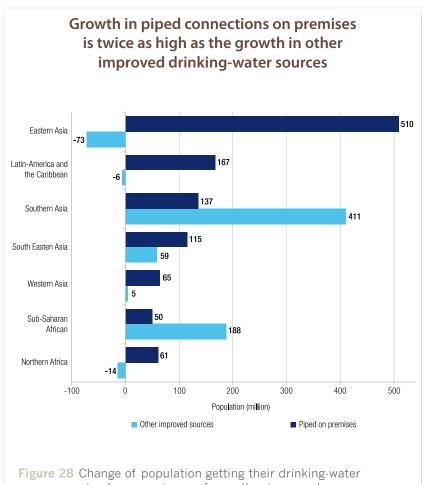
PIPED WATER ON PREMISES AND OTHER IMPROVED SOURCES OF DRINKING-WATER

INVESTMENTS IN PIPED CONNECTIONS ON PREMISES DRIVE PROGRESS IN MOST REGIONS

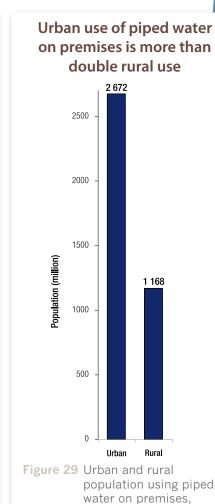
Between 1990 and 2008, more than 1.2 billion people worldwide gained access to a piped connection on premises. This is more than twice the population that gained access to other improved drinking-water sources. In Eastern Asia, Latin America & Caribbean and Northern Africa progress was exclusively the result of increases in piped connections on premises. Since 1990, 510 million in Eastern Asia, 167 million in Latin America & Caribbean and 61 million in Northern Africa gained access to a piped connection on premises. The number of people relying on other improved sources in those regions actually declined, respectively, by 73 million, 6 million and 14 million.

In Sub-Saharan Africa, growth in the population gaining access to other improved sources was 3.5 times higher than the growth in the population with piped connections on premises. In South Asia it was three times higher.

In developing regions, while 73% of the urban population uses piped water from a household connection, only 31% of rural inhabitants have access to household piped water supplies. In Sub-Saharan Africa, only 5% of the rural population gets water piped to premises. In contrast, in urban areas of Sub-Saharan Africa, 35% of urban dwellers use water piped to the household.



piped on premises or from other improved sources, by MDG region, 1990-2008



worldwide, 2008



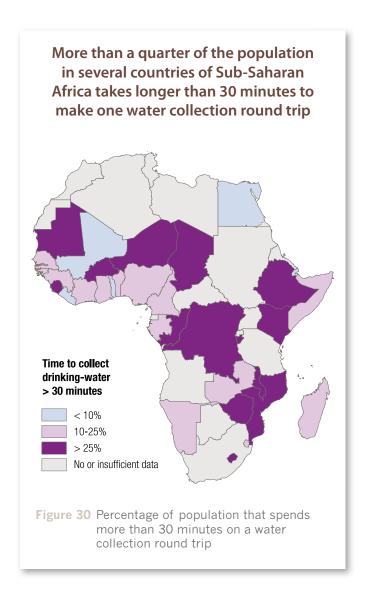


ADDITIONAL PERSPECTIVES



TIME TO COLLECT DRINKING-WATER

Research has shown that those spending more than half an hour per round trip progressively collect less water, and eventually fail to meet their families' minimum daily drinking-water needs.² Additionally, the economic costs of having to make multiple trips per day to collect drinking-water are enormous.³



An analysis of MICS and DHS surveys conducted over the past four years shows that water collection trips of over 30 minutes are most prevalent in Africa⁴ as well as in arid countries outside of Africa, such as Mongolia and Yemen.

In various countries, most notably in Eastern Africa, more than a quarter of the population spends more than half an hour per round trip to collect water.

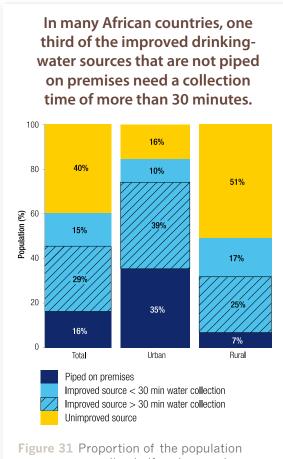


Figure 31 Proportion of the population spending half an hour or less, or more than half an hour, to collect water from an improved source, or using water from an unimproved source, Sub-Saharan Africa

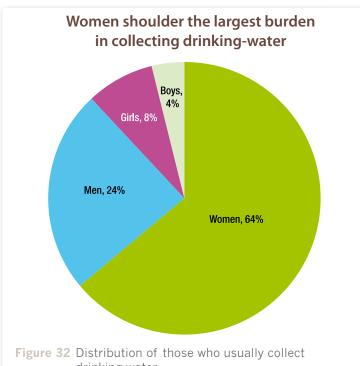
² Hutton G, Haller L, Evaluations of the costs and benefits of water and sanitation improvements at the global level. Geneva, World Health Organization, 2004.

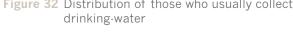
³ Howard G and Bartram J, *Domestic water quantity, service level and health.* Geneva, World Health Organization, 2003.

⁴ MICS and DHS surveys from 24 countries in Sub-Saharan Africa, 2005-2008.

COLLECTION OF DRINKING-WATER: GENDER DISPARITIES

For families without a drinking-water source on the premises, it is usually women who go to the source to collect drinking-water. Surveys from 45 developing countries⁵ show that this is the case in almost two thirds of households. while in almost a quarter of households it is men who usually collect the water. In 12% of households, however, children carry the main responsibility for collecting water, with girls under 15 years of age being twice as likely to carry this responsibility as boys under the age of 15 years. The real burden on children is likely to be higher because, in many households the water collection burden is shared, and children – though not the main person responsible – often make several roundtrips carrying water.







MICS and DHS surveys from 45 developing countries, 2005-2008.

SOCIOECONOMIC DISPARITIES: SUB-SAHARAN AFRICA

The richest 20 % of the population in Sub-Saharan Africa is almost five times as likely to use an improved sanitation facility than the poorest quintile.⁶ The poorest 20% is around 16 times more likely to practise open defecation than the richest quintile. Still, even among the richest quintile, 4% practises open defecation.

The richest quintile of the population in Sub-Saharan Africa is more than twice as likely as the poorest quintile to use an improved drinking-water source. The benefits of piped water on premises are enjoyed only by the wealthiest.

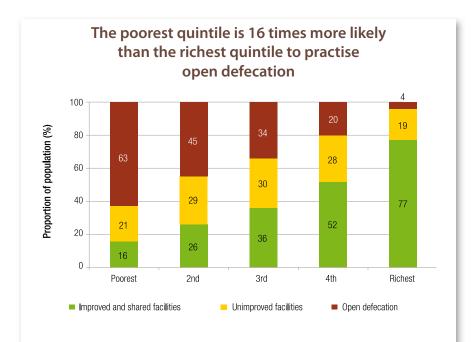
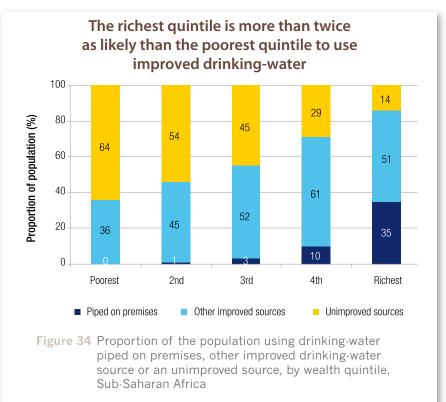


Figure 33 Proportion of the population using an improved, shared or unimproved sanitation facility or practicing open defecation, by wealth quintile, Sub-Saharan Africa





⁶ MICS and DHS surveys from 33 countries in Sub-Saharan Africa, 2004-2009.

CHALLENGE: MEASURING WATER QUALITY

Water quality remains an elusive indicator in the global monitoring activities of JMP. The measurement of water safety indicators at the household level has to date been beset by technical and logistical difficulties and by high cost.

How can the safety of drinking-water be monitored globally? What definitions would be meaningful and assist decision-makers in the process of improving the drinking-water situation in the world? How do new concepts in assessing and managing risks to water safety apply in the JMP context? What research and development efforts are needed to come up with a rapid, reliable and cost-effective way of measuring water quality indicators locally and reporting on them at the global level? These are some of the questions to be addressed by a JMP task force.

The MDG target refers to sustainable access to safe drinking-water and basic sanitation. But what does "safe" mean? The WHO *Drinking-water quality guidelines* provides specific values for indicators of microbial contamination and chemical hazards, but allows countries to adapt guideline values to their own socioeconomic contexts. The third edition of the guidelines shifts the emphasis away from single-

point water quality testing to a system of integrated risk assessment and incremental risk management.

In the past decade, WHO and UNICEF have tested the option of directly measuring water quality in a number of pilot countries, using a method for the rapid assessment of drinkingwater quality (RADWQ).

This RADWQ project (see below) demonstrated the technical feasibility of such measurements, notwithstanding the established weaknesses of using *E.coli* or thermotolerant coliforms as indicators of microbial safety. It also showed that such a periodic water quality survey at a global level was economically not viable. Apart from affordability, there is also the question of opportunity cost: how many people could be provided with access to water and sanitation using the resources that would be needed to carry out water quality surveys?

Any new target set beyond 2015 will have to address water quality, which will have to be measured or estimated in a meaningful and cost-effective manner. Technological advances and innovative survey methods will be needed to provide the tools for rapid, reliable and cheap measurement, to be carried out on a large scale. Within countries, regulatory frameworks will need to be developed, along with the capacity to implement and independently appraise Water Safety Plans as a standard feature of ensuring sustainable access to safe drinking-water.

Pilot survey: rapid assessment of drinking-water quality (RADWQ)

Drinking-water is considered safe if it meets certain microbiological and chemical standards. To evaluate the quality of drinking-water from improved sources, WHO and UNICEF have developed a rapid assessment method, which has already been used for a pilot study in eight countries (Bangladesh, China, Ethiopia, India, Jordan, Nicaragua, Nigeria and Tajikistan).

The rapid assessment of drinking-water quality (RADWQ) survey method for the pilot study was based, for each country, on a randomly selected sample of 1600 water supplies and 160 households. Field test kits were used for microbiological and chemical testing of water quality and to assess sanitary risks in households.

Microbiological compliance with WHO guidelines varied between countries. On average, compliance was close to 90% for piped water sources, and between 40% and 70% for other improved sources.

Source: RADWQ final country reports (Geneva, World Health Organization and UNICEF, forthcoming).





JMP METHOD



JMP METHOD EXPLAINED

DEFINING ACCESS TO SANITATION AND DRINKING-WATER

MDG Target 7c calls on countries to halve, by 2015, the proportion of people without sustainable access to safe drinking-water and basic sanitation. In order to estimate access to basic sanitation and to safe water JMP is required to use two MDG indicators:

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

Because definitions of improved sanitation facilities and drinking-water sources can vary widely within and among countries and regions, and because JMP is mandated to report at global level and across time, JMP has defined a set of categories for "improved" and "unimproved" sanitation facilities and drinking-water sources that are used to analyse the national data on which the MDG trends and estimates are based.

An improved sanitation facility is one that hygienically separates human excreta from human contact. An improved drinking-water source is one that by the nature of its construction adequately protects the source from outside contamination, in particular with faecal matter.

Use of the following facilities:

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

Use of the following facilities:

- Flush or pour-flush to elsewhere (that is, not to piped sewer system, septic tank or pit latrine)
- Pit latrine without slab/open pit
- Bucket
- · Hanging toilet or hanging latrine

Shared facilities of any type

No facilities, bush or field

IMPROVED DRINKING-WATER

Use of the following sources:

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

Use of the following sources:

- Unprotected dug well
- Unprotected spring
- · Cart with small tank or drum
- Tanker truck
- Surface water (river, dam, lake, pond, stream, canal, irrigation channel)
- Bottled water⁷

UNIMPROVED DRINKING-WATER

These categories and the population estimates (including the proportion of the population living in urban and rural areas) used in this report are those estimated by the United Nations Population Division, 2008 revision. The estimates used by JMP may differ from those used by national governments. Estimates in this report may therefore differ from national estimates.

DATA COLLECTION: GATHERING MOMENTUM

The first JMP report provided a global picture of access to safe drinking-water and basic sanitation. Also, as the database has grown, JMP has been able to offer more reliable estimates. Because all the estimates are revised for each report, the reports are not comparable.

Since the 2008 report, more than 300 datasets, a record number, has been added to the JMP database. To complement data directly from countries, for the first time, International Household Survey Network (IHSN), supplied JMP with data from 100 household surveys.

Currently the JMP database includes 729 nationally representative household surveys and 152 Censuses. Almost all of these come from developing regions and to a lesser extent from the Commonwealth of Independent States. Since a census in many developed countries is no longer used to collect information on water and sanitation, the JMP largely relies on administratively reported data for the developed countries. The JMP database currently includes 318 administratively reported data for developed countries.

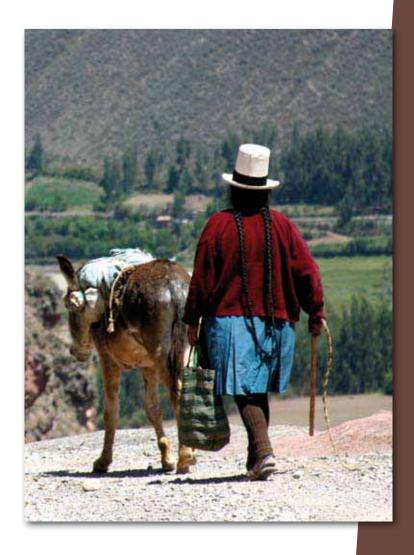
⁷ Bottled water is considered to be improved only when the household uses drinking-water from an improved source for cooking and personal hygiene; where this information is not available, bottled water is classified on a case-by- case basis.

DERIVING MDG PROGRESS ESTIMATES

For each country, survey and census data are plotted on a timescale from 1980 to the present. A linear trend line, based on the least-squares method, is drawn through these data points to provide estimates for 1990, 1995, 2000, 2005 and 2008 (wherever possible). The total estimates are population weighted average of the urban and rural numbers.

Sanitation trend analyses at country level are made for improved sanitation facilities and open defecation. The 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 (proportion of the population that shares an improved sanitation facility between two or more households) derived from average of all available ratios from household surveys and censuses is subsequently subtracted from the trend estimates of improved sanitation facilities, and this gives the estimates for shared sanitation facilities.

Drinking-water trend analysis at the country level is carried out for the following categories: piped water into dwelling, plot or yard; and improved sources of drinking-water.



Challenge: dealing with a moving baseline

The MDG target sets the proportion of people in 1990 without access to safe drinking-water and basic sanitation as the baseline to be halved by 2015. To capture the concept of access as a measurable indicator, JMP monitors progress to the MDG target on the basis of estimates of the proportion of the population using an improved drinking-water source and an improved sanitation facility, respectively.

The 1990 baseline was estimated for the first JMP report using the data available at that time. However, as the monitoring exercise has continued to gather momentum, an increasing number of new data sources become available each year. From a methodological standpoint, JMP takes the view that the estimates in each successive report should be as accurate as possible. This means using all the available data – not only estimating access for the most recent year, but also recalculating the estimates for earlier years if more data have come to light. Consequently, these new estimates may affect the baseline values, the trends, and the projections for 2015, the target year.

The advantage of this method is that each report presents the most accurate and detailed picture of the current situation and of progress made since 1990. The disadvantage is that reports are not comparable from one year to the next.

CHALLENGE: COMPARING AND RECONCILING DIFFERENT COUNTRY ESTIMATES

At country level, differences may be observed in the figures on the use of drinking-water sources and sanitation facilities presented by different agencies. Often there are also differences between these national estimates and those at the MDG level. At the origin of these discrepancies lies the issue of institutional fragmentation. Responsibilities for rural drinking-water and sanitation may be with different national bodies, who may each apply their own monitoring definitions, methods and procedures. The same is true, often at the municipal level, for urban drinking-water and sanitation. What is the nature of these different approaches? Can definitions be harmonized? Is it possible to align numbers so discrepancies can be reduced? Can barriers between sectoral institutions be overcome in the area of monitoring? Ultimately, can national monitoring of sanitation and drinking-water be fitted into a common framework?

This challenge has been addressed by JMP over the past two years in collaboration with a small number of countries. The first results of these data reconciliation and alignment processes are enlightening and promising.

DIFFERENT ACTORS IN CHARGE OF MONITORING

At national level, it is common for different line-ministries to monitor national access to drinking-water and sanitation. The National Statistics Office (NSO) is usually responsible overall for all national data, however individual line-ministries responsible for actual service provision often have their own monitoring mechanisms. Where NSOs largely rely on household surveys and census data, line-ministries often track progress based on recorded outputs of the sector.

MEASURING DIFFERENT ASPECTS

Line ministries responsible for water supply and sanitation often measure the provision of drinking-

water supply and sanitation facilities and/or the number of service connections. NSOs tend to use household surveys and censuses to measure the actual use of drinking-water and sanitation facilities by household members. This difference is important as a service once provided may no longer be operational, or simply may not be used for various reasons.

Using different definitions of access

NSOs and different line-ministries may use different definitions of access and these, in turn, may differ from the definitions used for the MDG coverage estimates. Understanding the differences in definitions is key to the process of comparing national and MDG coverage estimates.

How coverage is measured for MDG monitoring

Since the MDG targets are based on the use of improved sanitation and drinking-water facilities, the JMP relies on nationally representative household surveys and censuses usually conducted by NSOs. In order to be able to compare coverage rates and progress among countries, standard definitions of access are used across all countries (see definitions on page 34).

RECONCILING JMP AND COUNTRY ESTIMATES

Over the past two years, JMP has worked with a number of pilot countries to:

- develop a common understanding of monitoring methods;
- explore the possibility of harmonizing or aligning monitoring approaches;
- encourage greater collaboration among national agencies, and between national agencies and JMP.

Once definitions are clarified at national level, it is possible to make national and JMP definitions correspond better. The JMP objective is to ensure comparability between countries. Efforts by JMP to reconcile data have advanced understanding of the different approaches taken by countries. However, it is not within the JMP's mandate or capacity to carry out such a process in every country. JMP is therefore collaborating with other country-based organizations to pursue this task.



STATISTICAL TABLE



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		entag opula	e urban tion	20 24 27	33 36 40	66 70 73	96 97 97	47 48 52	34 38 41	16 25 35	56 62 66	39 43 47	42 53 60	75 81 86	50 57 61	66 71 75	66 69 71	14 17 20
P	opula	tion (thousand)	115 632 140 767 160 000	260 252 255	10 260 10 054 9 679	9 933 10 193 10 590	190 252 301	4 795 6 659 8 662	549 561 687	6 671 8 317 9 694	4 308 3 694 3 773	1 352 1 723 1 921	149 570 174 174 191 972	17 21 23	257 333 392	8 819 8 006 7 593	8 814 11 676 15 234
		Yea	r	1990 2000 2008	1990 2000 2008	1990 2000 2008	1990 2000 2008	1990 2000 2008	1990 2000 2008	1990 2000 2008	1990 2000 2008	1990 2000 2008	1990 2000 2008	1990 2000 2008	1990 2000 2008	1990 2000 2008	1990 2000 2008	1990 2000 2008
Coi	untry,	area	or territory	Bangladesh	Barbados	Belarus	Belgium	Belize	Benin	Bhutan	Bolivia (Plurinational State of)	Bosnia and Herzegovina	Botswana	Brazil	British Virgin Islands	Brunei Darussalam	Bulgaria	Burkina Faso

ac	cess to drinkir	impro	e who gained ved sources r 1990-2008 nd)	1 837	5 491	8 000	5 558	1	1	1 209	3 137	4 260	425 096	12 192	247	1	ı
		ι	Inimproved	30 78 78 78	65 39	36 26	000	_ 17 16	1 / 5	42 37 33	62 55 50	10 6 4	33 20 11	12 9 8	13 8 5	30 29	1 21 0
	a	_	Other improved	67 68 66	33 39 45	39 51 59	13	- 56 46	26 3	55 60 65	36 42 45	94ε	13 9	2 / 8	71 67 65	- 44 44	1 1 1
ES	Total	Improved	Piped	ω49	2 7 16	11 13 15	87	27	37 67 92	m m 0	0 w ro	84 90 93	54 71 83	86 84 84	16 25 30	- 26 28	1 1 1
USE OF DRINKING-WATER SOURCES (PERCENTAGE OF POPULATION)		_ <u>=</u>	Total improved	70 72 72	35 46 61	50 64 74	100	83 84	93	58 63 67	38 45 50	90 94 96	67 80 89	88 91 92	87 92 95	_ 70 71	94
ER S		U	Inimproved	28 83	67 58 44	69 57 49		20 18	<u> </u>	53 51 49	64 59 56	52 34 25	44 30 18	32 29 27	17 8 3	99	13
-WAT	<u>a</u>	_	Other improved	69 70	33 40 51	29 41 48	61	_ 71 55	4 4 4 2 4 5	47 49 51	36 41 43	26 27 28	14 11 9	9 14 17	73 75 76	31 31	1 1 1
KING GE O	Rural	Improved	Piped		0 7 5	0 0 0	1 88 1	9	Z Z Z	000	0 0 1	22 39 47	42 59 73	59 57 56	10 17 21	ΙΜΜ	1 1 1
SRINE		_ <u>=</u>	Total improved	68 70 71	33 42 56	31 43 51	66 66 66	80 82	Z Z Z	47 49 51	36 41 44	48 66 75	56 70 82	68 71 73	83 92 97	34 8	87
OF I		ι	Inimproved	3 11 17	48 36 19	23 14 8	000	14 15	1 / 2	22 15 8	52 40 33		m 0 0	1 1 2	2 / 6	רטט	7 1 7
USE (P	an	_	Other improved	65 48 36	35 31 26	52 61 67	000	44 39	26 3	70 78 86	38 46 50	0 1 2	11 6	0 4 元	67 48 38	52 52	1 1 1
	Urban	Improved	Piped	32 41 47	17 33 55	25 25 25	100	42	37 67 92	8 / 9	10 14 17	97 98 99	86 92 96	98 95 94	31 45 53	43 43	1 1 1
		트	Total improved	97 89 83	52 64 81	77 86 92	100	86	93	78 85 92	48 60 67	66 66	97 98 98	86 66 66	98 93 91	95	66 86
	ess to	improve	e who gained ed sanitation housand)	1214	3 351	3 222	5 558	1	28	1 153	616	5 052	267 319	10 730	163	1	က
		ed	Open Defecation	e ∨ -	84 74 64	13 8 5	000	53 42	1 1 1	35 27 20	79 71 65	1 2 2	V 9 4	16 10 7	1 1 0	۱۵۵	100
	Total	Unimproved	Unimproved facilitites	4 4 8 7 7 4 7 4 7 4 8 9 7 4 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	12 0 21	27 32 35	000	1 0 4	4 4 4	48 39 28	10 15 17	11 6 3	41 30 24	7 7 2	81 69 62	36 37	4 0 0
s c	ē	ā	Shared	യവവ	2 7 20	13 13	1 1 1	1 1 1	1 1 1	6 12 18	0 / 5	1 1 1	11 15 17	11 11 12	1 2 2	25 25	1 1 1
ACILITIES OLATION)			Improved	44 45 46	9 17 29	47 47 74	100	45 54	96 96	11 22 34	9 / 6	84 92 96	41 49 55	68 72 74	17 28 36	30	96 100 100
FACII PUL/		pə	Open Defecation	2 3	89 82 75	21 15 10	1 1 1	- 74 56	<u> </u>	49 40 31	93 87 83	r 4 s	0 0 0	30 22 22	0 1 2	18	1 10
ION F PO	.	Unimprov	Unimproved facilitites	4 4 4 6 4 9	3 O D	36 42 47		1 8 9	A A A	44 36 27	m v x	45 25 15	47 41 38	11 15 18	86 74 68	37	6 10
VITA1 GE O	Rural	, ,	Shared	444	1 2 4	∞ ∞ ∞	1 1 1	1 1 1	A A A	28 17	2 4 2	1 1 1	9 / 8	4 rv rv	7 2 7	_ 16 16	1 1 1
FSAI			Improved	44 45 46	10	35 35 35	66 66 66 66	24 38	Z Z Z	16 28	0 m 4	48 71 83	38 46 52	43 50 55	23 30	29 29	91 99 100
USE OF SANITATION FACILITIES (PERCENTAGE OF POPULATION)		pə	Open Defecation	1 1 2	48 37 22	1 1 2	000	35 33	1 1 1	10 6	26 20 16	1 2	ഉവത	4 0 0	0 0 1	1 0 0	0 0 0
<u>ات ٿا</u>	an	Unimproved	Unimproved facilitites	40 33 27	900	13 20 26	000	1 - 2	4 4 4	57 44 30	38 40 42	7 7 1	24 12 6	040	64 56 46	36 36	0 0 0
	Urban	, ,	Shared	18 20 22	9 7 5	20 19 17	1 1 1	1 1 1	1 1 1	12 18 24	16 18 19	1 1 1	25 28 30	14 14 15	0 0 0	31	1 1 1
			Improved	41 46 49	38 50 67	65 60 56	100	- 64 65	9 8 8	21 32 43	20 22 23	91 96 98	48 55 58	80 81	34 42 50	31	100
	Perc	entage opula	e urban tion	6 8 10	13 17 22	41 50 57	77 79 80	44 53 60	100	37 38 39	21 23 27	88 88 88	27 36 43	68 72 74	78 78 78 78 78	54 58 61	57 65 71
Po			housand)	5 681 6 473 8 074	9 690 12 760 14 562	12 233 15 865 19 088	27 701 30 687 33 259	354 439 499	26 40 56	2 928 3 746 4 339	6 105 8 402 10 914	13 191 15 419 16 804	1 142 090 1 266 954 1 337 411	33 204 39 773 45 012	438 552 661	2 446 3 036 3 615	18 18 20
		Year		1990 2000 2008	1990 2000 2008	1990 2000 2008	1990 2000 2008	1990 2000 2008	1990 2000 2008	1990 2000 2008	1990 2000 2008	1990 2000 2008	1990 2000 2008	1990 2000 2008	1990 2000 2008	1990 2000 2008	1990 2000 2008
Соі	ıntry,	area (or territory	Burundi	Cambodia	Cameroon	Canada	Cape Verde	Cayman Islands	Central African Republic	Chad	Chile	China	Colombia	Comoros	Congo	Cook Islands

ac	cess to drinkir	impro	e who gained ved sources r 1990-2008 nd)	1 521	6889		1 851	182	16	3 676	12 901	318	350		2 071	5 272	28 706	1 393
		ι	Jnimproved	3 2 7	22 22	1	18 10 6	000	000	000	55 56 54	000	23 16 8	ا ی ا	13	28 14 6	10 1	26 18 13
	a		Other improved	11 5	54 47 40	11 11	18 19 19	000	ى ي ا	23	30 32 37	0 1 1	20 19 20	25	15 15 14	25 13 6	29 18 7	31 26 22
ES (Total	Improved	Piped	82 90 96	22 31 40	1 & &	64 71 75	100	95	77	12 0	100	57 65 72	70	73 72 72	47 73 88	61 78 92	43 56 65
DURC		<u> =</u>	Total improved	93 95 97	76 78 80	1 6 6	82 90 94	100	100	100	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	100	77 84 92	95	888	72 86 94	06	74 82 87
ER SC		l	Jnimproved	11 11	33 33	l m m	47 27 11	000	000	000	73 73 72	000	31 39 48	1 ∞ 1	24 20 16	38 22 12	14 2	42 32 24
WAT F POI	a	_	Other improved	15 8 2	62 57 54	20 2	23 35	000	١٥٥	29	27 26 26	000	50 49 49	1 43	90 00	38 23 14	47 28 11	39 34 34
KING GE 0	Rural	Improved	Piped	71 81 89	10 14	- 77 77	30 44 2	100	91	71	0 1 0	100	12 3	1 49	46 50 54	24 55 74	39 65 87	14 29 42
USE OF DRINKING-WATER SOURCES (PERCENTAGE OF POPULATION)		<u> =</u>	Total improved	86 89 91	67 68	97	53 73 89	100	100	100	27 27 28	100	69 61 52	92	76 80 84	62 78 88	93	58 68 76
OF C		l	Jnimproved	0	10 8 7	100	V 2 4	000	000	000	10 15 20	000	20 12 2	4	2 8 2	10 0 8	4 -1 0	10 8 6
USE (F	an	_	Other improved	L 0 0	41 33 26	144	16 15 14	000	ოოო	19	39 47 57	0 1 1	11 13	18 1	497	15	9 4 1	18 16 14
	Urban	Improved	Piped	92 97 100	49 59 67	1 96 96	77 80 82	100	97	81	51 38 23	100	69 75 82	78	86 86 80	66 85 96	90 92	72 76 80
		_ <u>=</u>	Total improved	99 99 100	90 92 93	100	93 95 96	100	100	100	85 80	100	08 88 8	1 96 1	98 92 87	81 91 97	96 99 100	90 92 94
	ess to	improv	e who gained ed sanitation housand)	1 430	2 214	'	1 727	182	*W	1	11 448	318	106	'	2 878	5 311	35 030	1 339
		pə	Open Defecation	0 1 2	36 32 27	100	0 0 0	000	000	1 1 1	18 10 10	000	20 14 8	17	117	21 11 3	11 5 0	19 11 6
	豆	Unimproved	Unimproved facilitites	1 0 1	29 30 32	100	12 5	000	000	41	61 51 41	000	8 18 32	1 2 1	9 % 0	∞ m ∨	13 1	0 0
s c	Total	'n	Shared	4 4 4	15 16 18	1	9 / /	1 1 1	0 0 0	1 1 1	12 19 26	1 1 1	0 7 4	1 1 1	11	0 m m	4 4 7	6 7
ACILITIES ULATION)			Improved	93 95 95	20 22 23	066	80 86 91	100	100 98 98	59	9 16 23	100	66 63 56	81	73 79 83	69 83 92	72 86 94	75 83 87
		red	Open Defecation	4 0 0	56 52 48	1	9 12 0	000	000	1 1 1	23	000	47 53 61	14	20 13	39 22 9	17	34 22 12
F PO	Rural	Unimproved	Unimproved facilitites	1 0 0	28 28 29	100	20 10 4	000	000	1 40	69 56 41	000	2 13 28	1 2 1	& O O	11 5	22	0 0
NITA'	₹	'n	Shared	4 4 4	10 12	1	10 12 13	1 1 1	0 m m	1 1 1	13 22	1 1 1	9 4 1	1 1 1	11 12 13	0 m 4	4 72 9	დ 4 დ
USE OF SANITATION F			Improved	91 94 96	8 10 11	1 88 88	64 73 81	100	98 97 97	1 09	4 13 23	100	45 30 10	1 88 1	61 69 74	48 70 84	57 79 92	62 74 83
ISE O		yed	Open Defecation	1 -1 0	200	100	1 1 0	000	000	1 1 1	70 4 0	000	11 6 0	18 1	m m N	V & O	4 0 0	m m N
	Urban	Unimproved	Unimproved facilitites	1 0 1	31 33 35	100	8 4 -	000	000	42	39 42 42	000	10 20 32	101	1 2 2	1 2 2	000	1 0 1
	ร้	้	Shared	444	25 24 24	1	വവവ	1 1 1	0	1 1 1	8 8 8	1 1 1	വവ	1 1 1	10	0 m m	ოოო	∞ ∞ ∞
			Improved	94 95 95	37	1 66	98 6 6	100	100	1 28 1	23	100	73 69 63	1 08 1	83	86 92 96	91 95 97	88 88 88
		entago opula	e urban tion	51 59 63	44 49 49	54 56 57	73 76 76	69 70	75 74 73	58 60 63	28 30 34	85 85 87	76 83 87	68 71 73	55 62 69	55 60 66	4 4 4 8 8 8	49 58 61
P			housand)	3 078 3 931 4 519	12 610 17 281 20 591	4 517 4 505 4 423	10 587 11 087 11 205	681 787 862	10 303 10 224 10 319	20 143 22 859 23 819	37 016 50 829 64 257	5 140 5 335 5 458	560 730 849	69 68 67	7 374 8 830 9 953	10 278 12 310 13 481	57 785 70 174 81 527	5 330 5 945 6 134
		Yea	r	1990 2000 2008	1990 2000 2008	1990 2000 2008	1990 2000 2008	1990 2000 2008	1990 2000 2008	1990 2000 2008	1990 2000 2008	1990 2000 2008	1990 2000 2008	1990 2000 2008	1990 2000 2008	1990 2000 2008	1990 2000 2008	1990 2000 2008
Соі	ıntry,	area	or territory	Costa Rica	Côte d'Ivoire	Croatia	Cuba	Cyprus	Czech Republic	Democratic People's Republic of Korea	rtic of		Djibouti	Dominica	Dominican Republic	Ecuador	Egypt	El Salvador

ac	cess to drinkin	impro	e who gained ved sources r 1990-2008 nd)		1 647	**	22 461	ı	318	5 194	1	70	1	865	**	2 831	11 065	1 383
		U	Inimproved	57	57 46 39	0 0 0	83 72 62	1 1 1	000	000	16	000	_ 15 13	26 16 8	19 11 2	000	46 29 18	4 1 0
	<u></u>	_	Other improved	37	37 47 52	12 8	16 24 31	1 1 1	∞ 4 l	100	ا کی ا	0 0 0	- 44 - 44	65 59	28 25 25	1 1 1	38 54 65	4 1 0
ES	Total	Improved	Piped	491	9 / 6	86 86 90	1 4 V	19	96	99 100 100	79	86 86 86 86	- 43 843	22 33	53 61 73	66 66 66	16 17 17	92 98 100
TION		트	Total improved	1 4 3	43 54 61	8 8 8	17 28 38	1 1 1	100	100	1 84 1	100	85	74 84 92	81 89 98	100	54 71 82	96 99 100
ER SC		U	Inimproved	1 28 1	61 50 43	m m m	92 82 74	1 1 1	000	000	29	000	53 59	33 23 14	20 4	000	63 26 26	8 2 -1
WATI	<u></u>		Other improved	142	39 50 57	46 32 22	8 18 26	1 1 1	15	0 1 2	191	4 4 4	39 31	67 74 81	47 46 45	ოოო	35 55 71	33
KING.	Rural	Improved	Piped	000	000	51 65 75	000	1 / 1	92	95 99 100	65 1	96 96	10	0 8 0	19 34 51	97	0 m m	82 95 99
USE OF DRINKING-WATER SOURCES (PERCENTAGE OF POPULATION)		트	Total improved	1 42	39 50 57	97	8 18 26	1 1 1	100	100	71	100	- 47 41	67 77 86	96	100	37 58 74	98 68 69
OF D		U	Inimproved	55	29 38		23	∞	000	000	12 -	000	ى ي ا	15	9 % 0	000	16	0 0 0
USE (P	an		Other improved	29 -	22 28 32 32	V 4 0	67 62 58	61	4 1 0	000	ا کا ا		- 43 46	61 50 41	11 8	000	43 60	000
	Urban	Improved	Piped	12 16	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	92 95 97	10 26 40	32	96 99 100	100	1 83 1	66 66 66	- 52 49	24 41 55	81 86 92	100	41 35 30	99 100 100
		트	Total improved	45	62 70 74	6666	77 88 98		100		1 & 1	100	95	85 91 96	94 97 100	100	88 90	99 100 100
	ess to i	improv	e who gained ed sanitation housand)	'	406	1	7 754	1	318	5 194	1	69	'	1	* V	2 831	1 988	1 059
		þ	Open Defecation	1 1 1	89 87 85	100	92 77 60	1 1 1	000	000	1 1 1	1 1 1	ı m ⊓	ı ت 4		000	22 21 20	n 2 a
	-	Unimproved	Unimproved facilitites	1 64	1 2 2	100	10 21	1 1 1	000	000	22 1	0 0 0	24 32	13.	1 0 0	000	42 27 13	0 0 1
,, <u> </u>	Total	Ü	Shared	1 1 1	1 1 1	חטו	w 12 V	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	37 34	_ 19 21	0 0 0	1 1 1	29 43 54	1 1 1
ACILITIES ULATION)			Improved	51	9 11 14	95	4 8 7 1 2 8	1 1 1	100	100	78	86 86 86 86	38	63	96 95	100	7 9 13	98
FACILITIES PULATION)		þa	Open Defecation	1 1 1	100 97 96	100	99 86 71	1 1 1	000	000	1 1 1	1 1 1	1 12 7	167	0 0 0	000	28 31 34	8 4 0
ION F PO	<u>ia</u>	Unimproved	Unimproved facilitites	1 1 1	0 -1 0	100	0 8 6	1 1 1	000	000	1 43	ოოო	- 41 43	_ 17 14	0 m 4	000	47 33 21	0 0 1
AITAT GE O	Rural	U	Shared	1 1 1	1 1 1	1 9 9	0 1 0	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	24 25	13		1 1 1	21 31 38	1 1 1
USE OF SANITATION F. (PERCENTAGE OF POP			Improved	46	0 0 4	94 9	- L 0	1 1 1	100	100	57	97	30	61	95 94 93	100	4 2 /	92 96 97
SE O		pa	Open Defecation	1 1 1	32 38 41	100	47 26 8	1 1 1	000	000	1 1 1	1 1 1	1 2 1	1	000	000	111	000
J &	an	Unimproved	Unimproved facilitites	1 1 1	10 8 7	100	7 18 29	∞4 1	000	000	15		21 30	1 0 4	0 1 1	000	34 18 5	0 1 1
	Urban	5	Shared	1 1 1	1 1 1	144	25 30 34	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	- 40 36	25 27	ოოო	1 1 1	44 58 70	1 1 1
			Improved	09	58 54 52	- 96 96	21 26 29	96	001	100	8 1	66	37	65	96 96	100	11 15 18	99
		entage opula	e urban	35 39	16 18 21	71 69 69	13 15 17	42 48 52	61 63	74 76 77	75 75 76	56 52 52	69 80 85	38 49 57	53 53	73 73 74	36 44 50	59 60 61
Po			housand)	379 529 659	3 158 3 657 4 927	1 567 1 370 1 341	48 292 65 515 80 713	724 802 844	4 986 5 173 5 304	56 842 59 128 62 036	116 165 220	195 236 266	926 1 233 1 448	896 1 302 1 660	5 460 4 745 4 307	79 433 82 075 82 264	14 968 19 529 23 351	10 161 10 942 11 137
		Year	,	1990 2000 2008	1990 2000 2008	1990 2000 2008	1990 2000 2008	1990 2000 2008	1990 2000 2008	1990 2000 2008	1990 2000 2008	1990 2000 2008	1990 2000 2008	1990 2000 2008	1990 2000 2008	1990 2000 2008	1990 2000 2008	1990 2000 2008
Coı	ıntry,	area (or territory	Equatorial Guinea	Eritrea	Estonia	Ethiopia	ifi	Finland	France	French Guiana	French Polynesia	Gabon	Gambia	Georgia	Germany	Ghana	Greece

a	ccess to drinkin	impro	e who gained wed sources r 1990-2008 ind)		76	42	5 559	3 785			2 881	2 765	62	61	418 886	55 933		9 132
			Unimproved	191	181	000	11 11 6	48 38 29	45 39	11 6	53 45 37	28 20 14	4 1 0	000	28 19 12	29 23 20	6 / 1	19 20 21
	-	77.	Other improved	13	101	1 1 1	33 22 13	46 55 61	50 52	29	38 45 51	4 8 8	10 7 6	000	53 61 66	62 61 57	<u> </u>	Ιωπ
ES)	Total	Improved	Piped	- 81	1 86 1	1 1 1	49 67 81	6 7 10	0 22 10	60	10	58 72 83	86 92 94	100	19 20 22	9 16 23	86	- 74 76
SOURCES LATION)		=	Total improved	94	1 86 1	100	82 89 94	52 62 71	55 61	89	47 55 63	72 80 86	96 99 100	100	72 81 88	71 77 80	91 93 -	81 80 79
ER SO			Jnimproved		1 / 1	000	25 16 10	62 39	63 55 49	13	59 51 45	41 31 23	0 N O	000	34 24 16	38 33 29	17	56 51 45
-WAT F POI	<u>6</u>		Other improved	18 1	1 8 1	1 1 1	40 31 22	38 51 60	37 45 50	33	39 46 51	17 10 5	19 12 7	000	58 67 73	60 62 63	14	12 6
KING GE 0	Rural	Improved	Piped	75	75	1 1 1	35 53 68	0 0 1	0 0 1	54	0 m 4	42 59 72	72 86 93	100	8 9 11	8 21 7	69 I	37 49
USE OF DRINKING-WATER SOURCE (PERCENTAGE OF POPULATION)		=	Total improved	1 86	93	100	75 84 90	38 51 61	37 45 51	87	41 49 55	59 69 77	98	100	66 76 84	62 67 71	8 8 N	44 49 55
OF C			Jnimproved	ოოო	0 0 0	000	o ro 0	13	21 17	1 / 2	333	0 / 0	0 0 0	000	10 7 4	8 10 11	0 0 0	ოსი
USE (P	an	_	Other improved	141	000	1 1 1	23 12 3	66 63	- 61 56	18	35 43 50	041	4 დ დ	000	38 43 48	68 59 52	0 0 0	l w ⊓
	Urban	Improved	Piped	1 8 1	8 8 8	1 1 1	8 8 8 95	21 24 26	6 18 27	75	27 24 21	88 89 94	94 95 95	100	52 50 48	24 31 37	96 96	92
		<u>=</u>	Total improved	97 97 97	86 86	100	95	88 89	79	93	62 67 71	93	98 100 100	100	98	92 89	86 88	97 95 91
	cess to	improv	e who gained ed sanitation thousand)	7	1	41	5 294	1 315	1	1	-169	3 040	* V	61	211 049	59 682	'	-
		ed	Open Defecation	1 1 1	1 1 1	1 1 1	23 13 7	41 30 22	38		47 40 30	39 24 12	000	000	74 63 54	39 31 26	1 1 1	122
	Total	Unimproved	Unimproved facilitites	ოოო	1 1 1		8 9 8	4 4 1 4 1	- 42 46	111	6 39	12 10 9	000	000	2 4 9	21 16 12	17	10
s S	မ	- 5	Shared	1 1 1	1 1 1	1 1 1	4 4 4	9 18 18	100	۱၈၈	21 18 14	8 / 2	1 1 1	1 1 1	989	7 9 10	1 1 1	_ 16 17
ACILITIES ULATION)			Improved	97 97 97	1 1 1	6666	65 74 81	9 15 19	_ 18 21	_ 79 81	26 22 17	44 59 71	100	100	18 25 31	33 44 52	883	- 69 73
FACI PUL/		/ed	Open Defecation	1 1 1	1 1 1	1 1 1	35 22 11	54 42 33	53 43	7 1 2	62 56 49	38 22	000	000	90 79 69	48 42 36	1 1 1	15 5
TION PC	Rural	Unimproved	Unimproved facilitites	m m m	1 1 1	0 0 0	13 14	36 44 50	1 4 8	14 10	20 35	11	000	000	0 4 0	23 19 17	22 -	21 17
NITA (GE 0	2	ų	Shared	1 1 1	1 1 1	1 1 1	0 0 0	4 10 0	100	1 ∞ ∞	12 9	N 4 ω	1 1 1	1 1 1	1 8 4	7 9 11	1 1 1	10 12
USE OF SANITATION F			Improved	97 97 97	1 1 1	8 8 8	51 63 73	9 11	1 / 6	77 80	19 10	28 47 62	100	100	7 14 21	22 30 36	78	- 54 66
JSE C		ved	Open Defecation	1 1 1	1 1 1	1 1 1	12 m 22	9 8 1	140	1 1 0	10 0	111	000	000	28 22 18	18 17 16	1 1 1	100
=	Urban	Unimproved	Unimproved facilitites	4 4 4	חשט		4 m V	53 37 23	- 46 41	140	21 43	12 9 7	000	000	4 9 /	16 12 8	14 14	ממו
	ă	Ď	Shared	1 1 1	1 1 1	1 1 1	~ ~ ~	23 33 42	1 / 8		35 24 24			1 1 1	19 20 21	∞ ∞ o	1 1 1	19 19
			Improved	96 96 96	94	6 6 6	87 89	18 27 34	43 - 49	85 85	3 4 4 2 4 4 2 4 4	68 75 80	1000	1000	49 52 54	58 63 67	86	_ 76 76
		entag opula	e urban tion	32 31 31	6 8 8 6 8 8	93 93	41 45 49	28 31 34	30 30	30 28 28	29 36 47	0 4 4 4 8 4 8 4 8 4 8 4 8 4 8 4 8 4 8 4	65 65 68	91 92 92	26 28 29	31 42 52	56 64 68	70 68 67
P			thousand)	96 101 101	386 429 464	134 155 176	8 910 11 231 13 686	6 147 8 384 9 833		749 756 763	7 108 8 648 9 876	4 901 6 230 7 319	10 365 10 215 10 012	255 281 315	862 162 1 042 590 1 181 412	177 385 205 280 227 345	56 733 66 903 73 312	18 079 24 652 30 096
		Yea	r	1990 2000 2008	1990 2000 2008	1990 2000 2008	1990 2000 2008	1990 2000 2008	1990 2000 2008	1990 2000 2008	1990 2000 2008	1990 2000 2008	1990 2000 2008	1990 2000 2008	1990 2000 2008	1990 2000 2008	1990 2000 2008	1990 2000 2008
Coi	untry,	area	or territory	Grenada	Guadeloupe	Guam	Guatemala	Guinea	Guinea-Bissau	Guyana	Haiti	Honduras	Hungary	Iceland	India	Indonesia	Iran (Islamic Republic of)	Iraq

ac	cess to drinkin	impro	e who gained ved sources r 1990-2008 nd)	922	2 538	2 606	347	4 102	2 734	*V	12 795	1	768	1		* V	1 219	765
		Ų	Inimproved	000	000	000	r r 9	000	w 4 4	4 4 ro	57 48 41	38 1		18 10	- 52 43		000	39 26 15
	JE		Other improved	000	000	- 0 0	32 27 24	V 4 V	2 8 12	33 36 37	24 34 40	23	1 1 1	34 36	36 37	_ 17 17	101	57 64 66
ES	Total	Improved	Piped	100 100 100	100	99 100 100	61 66 70	96 98	95 93	63 58 58	19 18 19	33	1 1 1	44 48 54	- 12 20	82 82	1 86 1	100
LION		트	Total improved	100 100 100	100	100	93 94	100	96	96 96 95	43 52 59	48 62	6666	82	- 48 57	66 66	100	61 74 85
ER SC		Ĺ	Inimproved	000	000	000	112	000	თთთ	8 6 0	68 57 48	67 50		27 15	- 60 49	4 4 4	000	43 31 19
WATE POF	-		Other improved		0 0 0	4 0 0	55 47 42	4 6 5	4 6 21	64 65 66	22 32 40	20 - 20 -	1 1 1	- 43 51	35 47	37	15	56 66 76
CING-	Rural	Improved	Piped	66 66 66	8 8 8 8 8 8	96 100 100	33 41 47	86 91 95	87 82 79	28 24 24	10 11 12	13	1 1 1	25 30 34	١ ت 4	59 59	85 1	2 3 1
USE OF DRINKING-WATER SOURCES (PERCENTAGE OF POPULATION)		트	Total improved	100 100 100	100 100 100	100	8 8 8	100	91	92 91 90	32 43 52	33	66	73	- 40 51	96 96	100	57 69 81
OF D ERCE		L	Inimproved	000	000	000	0 0 0	000	- 2 2		9 13	23		1 2 2	23 - 28	000	000	3 8
USE (P	<u>=</u>		Other improved	000	000	000	0 % V	n 2 u	- C 4	8 17 17	38 38 39	29	1 1 1	23 16 10	42 17	-	000	69 38 38
	Urban	Improved	Piped	100 100 100	100	100	90 91	97 98 99	98 96 94	91 87 82	57 49 44	46	1 1 1	75 82 89	35 55	93	100	19 39 59
		₫	Total improved	100 100 100	100			100	66 86	6666	91 87 83	76	6666	86 86 66	77	100	100	88 92 97
	ess to i	improve	e who gained ed sanitation housand)	913	2 538	'	285	4 102	1	*W	5 925	'	776	1	'	1	1	82
		þe	Open Defecation	000	000	1 1 1	000	000	100	- 0 0	14 15 15	57 49	000	100	- 49 38	100	1 1 1	45 40 40
	a	Unimproved	Unimproved facilitites		000	1 1 1	w 4 w	000	100		40 34 29	13	000	144	1 80 9	_ 12 12	101	16 20 20
s c	Total	E	Shared	1 1 1	1 1 1	1 1 1	1 1 1 1 1 4 1 4 1 4 1 4 1 4 1 4 1 4 1 4	1 1 1	1 0 0	0 0 0	20 22 25	4 72 1	1 1 1	l m m	100	10	1 1 1	9
ACILITIES ULATION)			Improved	66 66	100	1 1 1	83 83	100	1 8 86	96 97 97	26 29 31	33	100	93	26 53	- 78 78	1 86	32 29 29
FACILITIES PULATION)		pə	Open Defecation	000	000	1 1 1	0 0 1	000	1 0 0	0 1 2	17 18 18	65 55	000	100	_ 75 52	100	1 1 1	51 51 51
ION F PO	<u>'a</u>	Unimprove	Unimproved facilitites	2 2 2	000	1 1 1	നവ	000	1 11 0	0 1 1	41 36 32	12 21 _	000	ى يى ا	1 ∞ ∞	26 26 26	13	13 17 21
VITAT GE O	Rural	E	Shared	1 1 1	1 1 1	1 1 1	12 12 12	1 1 1	1		15 16 18	001	1 1 1	1 0 0	1 2	l m m	1 1 1	4 4 %
USE OF SANITATION F. (PERCENTAGE OF POP			Improved	86 86 86 86	100	1 1 1	83 84 84	100	- 96 97	97	27 30 32	21 22 _	100	93	_ 16 38	71 71	87	32 28 25
SE O		pa	Open Defecation	000	000	1 1 1	- 0 0	000	000	000	m m 0	41	000	000	26 6	100	000	0 00 00
¬ &	an	Unimproved	Unimproved facilitites	000	000	1 1 1	7 2 7	000	000	100	23 28	16	000		Ι ω ო	רטט	000	37 27 17
	Urban	5	Shared	1 1 1	1 1 1	1 1 1	16 16 16	1 1 1	0 0 0	m m m	45 48 51	∠ 6 I	1 1 1	വവവ	1 4 5	13	1 1 1	25 30 35
			Improved	100 100 100	100	1 1 1	82 82 82	100	8 8 8	96 97 97	24 26 27	36 47	100	9 8 8	- 62 86	82	1000	29 35 40
		entage opula	e urban	57 59 61	90 91 92	67 68 68	49 52 53	63 65 66	72 78 78	56 58 58	18 20 22	35 43 50	8 6 8 8 8 8	38 35 36	15 22 31	69 89 68	83 86 87	14 20 25
Po		-	housand)	3 515 3 804 4 437		56 998 57 116 59 604	2 364 2 568 2 708	123 191 126 706 127 293	3 254 4 853 6 136	16 530 14 957 15 521	23 433 31 441 38 765	72 84 97	2 143 2 228 2 919	4 395 4 955 5 414	4 207 5 403 6 205	2 663 2 374 2 259	2 974 3 772 4 194	1 602 1 889 2 049
		Year	,	1990 2000 2008	1990 2000 2008	1990 2000 2008	1990 2000 2008	1990 2000 2008	1990 2000 2008	1990 2000 2008	1990 2000 2008	1990 2000 2008	1990 2000 2008	1990 2000 2008	1990 2000 2008	1990 2000 2008	1990 2000 2008	1990 2000 2008
Cou	ıntry,	area (or territory	Ireland	Israel	Italy	Jamaica	Japan	Jordan	Kazakhstan	Kenya	Kiribati	Kuwait	Kyrgyzstan	Lao People's Democratic Republic	Latvia	Lebanon	Lesotho

a	cess to drinkir	impro	e who gained ved sources r 1990-2008 nd)	1 323			66	4 341	960 8	11 083	84	4 605	47	12		979	221	31 149
		ι	Jnimproved	42 35 32	46 -	1 1 1	000	69 63 59	60 37 20	12 3	10 0	71 56 44	000	ତ ପ ପ	1 1 1	70 60 51		15 10 6
	<u>e</u>	-	Other improved	47 58 66	1 1 1	1 1 1	000	25 30 34	33 56 73	16 8 3	78 72 54	25 36 44	000	1 1 8	1 1 1	24 25 27	000	8 / /
ES	Total	Improved	Piped	11 7 2	1 1 1	76 80 -	100	9	~ ~ ~	72 89 97	12 19 37	4 8 12	100	1 1 1	1 1 1	6 15 22	66 66	77 83 87
DURG		_=	Total improved	58 65 68	54 54	1 1 1	100	31 37 41	40 63 80	88 97 100	90	29 44 56	100	95 95 94	1 1 1	30 40 49	66 66	85 90 94
ER S		ι	Jnimproved	66 56 49	45 -	1 1 1	000	84 76 71	67 42 23	18 7	13 14	78 66 56	000	1 2 3	1 1 1	74 63 53		36 23 13
-WAT F PO	<u>6</u>	_	Other improved	31 42 51	1 1 1	1 1 1	000	16 22 25	31 56 75	23 13 8	87 87 84	22 33 43	000	ı ı 66	1 1 1	26 29 33	000	14 15 15
KING GE 0	Rural	Improved	Piped	m 0 0	1 1 1	49 55	8 8 8	0 0 4	000	59 80 91	000	0 1	98 100 100	110	1 1 1	0 8 41	66 66	50 62 72
USE OF DRINKING-WATER SOURCES (PERCENTAGE OF POPULATION)		_=	Total improved	34 44 51	55 55	1 1 1	100	16 24 29	33 58 77	82 93 99	87 87 86	22 34 44	98 100 100	97 98 99	1 1 1	26 37 47	66 66	64 77 87
OF I		ι	Jnimproved	14 18 21	46 1	1 1 1	000	22 27 29	10 7	0	0 0 1	46 31 19	000	9 / 8	000	64 55 48	000	o r 4
USE	an	_	Other improved	65 71 76	1 1 1	1 1 1	000	53 54 57	45 59 69	8 4 1	53 4	37 43 47	000	16		21 19 18	000	9 2 4
	Urban	Improved	Piped	21 11 3	1 1 1	92	100	25 19 14	45 34 26	86 95 99	47 68 95	17 26 34	100	1 1 1	o o o	15 26 34	100 100 100	88 90 92
		_=	Total improved	86 82 79	54 54	1 1 1	100	78 73 71	90	94 99 100	100	54 69 81	100	94 93 92	100	36 45 52	100	94 95 96
	cess to	improv	e who gained ed sanitation housand)	407	1 872	1	66	1 200	4 344	10 727	150	2 324	47	13	1	518	203	37 226
		/ed	Open Defecation	44 46 49	1 1 1	1 1 1	000	65 45 32	31 19 9	0 7 2	22 14 2	29 21 16	000	14	1 1 1	44 49 53	000	23 12 4
	Total	Unimproved	Unimproved facilitites	29 22 14	ოოო	1 1 1	000	14 27 37	V V 8	0 7 8	0 2 0	33 32 30	000	26 19 1	1 1 1	34 22 11	2 2 2	70 4 0
s S	P	- 5	Shared	16 18 20	1 1 1	1 1 1	1 1 1	13 18 20	20 24 27	ε 4 4	1 1 1	12 15 18	1 1 1	10 12 12	1 1 1	6 8 10	7 7 7	0 & 0
ACILITIES ULATION)			Improved	11 14 17	97 97 97	1 1 1	100	8 10 11	42 50 56	84 92 96	69 81 98	26 32 36	100	64 69 73	1 1 1	16 21 26	91 91 91	66 76 85
FACI PUL/		/ed	Open Defecation	68 73 77	1 1 1	1 1 1	000	77 54 38	35 22 11	6 4 1	30 19 4	36 28 21	000	35 1	1 1 1	58 68 79	000	54 31 12
TION PC	Rural	Unimproved	Unimproved facilitites	18 12 7	4 4 4	1 1 1	000	24 35	r r 8	V 8 0	12 7 0	31 32 33	000	110	1 1 1	31 19 8	ოოო	0 0 4
NITA (GE 0	æ	ņ	Shared	11 11 12	1 1 1	1 1 1	1 1 1	9 17 17	17 21 24	ω44	1 1 1	12 17 17 17 17 17 17 17 17 17 17 17 17 17	1 1 1	9 11 12	1 1 1	ω44	<u> </u>	7 12 16
USE OF SANITATION F			Improved	w 4 4	96 96	1 1 1	100	6 8 10	41 50 57	81 90 95	58 74 96	23 28 32	100	41 48 53	1 1 1	დ თ თ	06 6	30 51 68
JSE C		ved	Open Defecation	15 23 30	1 1 1	1 1 1	000	25 21 18	4 m U	0 11	000	444	000	4	1 1 1	23 20 16	000	10 8
=	Urban	Unimproved	Unimproved facilitites	43 30 20	m m m	1 1 1	000	35 37 39	დ 4 დ	7 0	000	40 32 26	000	1 1	1 9 5	38 28 16	000	4 2 1
	Ď	'n	Shared	21 24 25	1 1 1	1 1 1	1 1 1	26 27 28	41 42 42	4 4 4	1 1 1	20 23 25	1 1 1	11 12 12	1 1 1	10 18 18	<u> </u>	9 / /
			Improved	21 23 25	97	1 1 1	1000	14 15 15	51	98	100	36 41 45	1000	83	94	29 38 50	693	8 8 8
		entago opula	e urban tion	45 54 60	76 76 78	68 67 67	81 84 82	24 27 29	12 15 19	50 62 70	26 28 38	23 32 32	90 92 94	65 66 68	86 86 86 86	40 41 41	44 43 42	71 75 77
Р	opula	tion (1	housand)	2 167 2 824 3 793		3 698 3 501 3 321	382 437 481	11 273 15 275 19 111	9 451 11 831 14 846	18 103 23 274 27 014	216 272 305	8 655 10 523 12 706	360 389 407	47 52 61	359 385 403	1 988 2 604 3 215	1 056 1 195 1 280	83 404 99 531 108 555
		Yea	r	1990 2000 2008	1990 2000 2008	1990 2000 2008	1990 2000 2008	1990 2000 2008	1990 2000 2008	1990 2000 2008	1990 2000 2008	1990 2000 2008	1990 2000 2008	1990 2000 2008	1990 2000 2008	1990 2000 2008	1990 2000 2008	1990 2000 2008
Coi	untry,	area	or territory	Liberia	Libyan Arab Jamahiriya	Lithuania	Luxembourg	Madagascar	Malawi	Malaysia	Maldives	Mali	Malta	Marshall Islands	Martinique	Mauritania	Mauritius	Mexico

ac	cess to drinkin	impro	e who gained ved sources r 1990-2008 nd)	1	m	722		*V	7 243	5 644	11 908	1 053	1	10 833	1 575	844	1 755	4 292
		L	Inimproved	11 8 -	000	42 34 24	1 0 0	000	26 22 19	64 58 53	43 34 29	36 19 8	10	24 17 12	000	000	26 20 15	65 58 52
	<u>–</u>	_	Other improved	1 1 1	000	28 42 57	13 13	8 8 8 85 85	35 28 23	31 35 39	52 60 65	31 42 48	1 1 1	68 70 71	000	000	22 23 23	32 36 41
ES	Total	Improved	Piped	1 1 1	100 100 100	30 24 19	855	12 11 15	38 20 28	2 / 8	0 0 2	33 44	1 1 1	8 13 17	98 100 100	100 100 100	52 57 62	7 0 3
LION		≞	Total improved	89 92 -	100	58 66 76	1 88 88	100	74 78 81	36 42 47	57 66 71	64 81 92	1 1 06	76 83 88	100	100 100 100	74 80 85	35 42 48
ER SC		Ĺ	Inimproved	13	<u> </u>	73 63 51	144	000	45 40 40	74 73 71	53 40 31	49 28 12	4 4 4 2 2 2	26 19 13	000	000	46 38 32	69 65 61
WATE POF	-		Other improved	1 1 1	4 4 4 2 2 2	27 36 47	30	8 8 8	50 45 41	25 26 28	46 58 67	37 51 61	4 4 4 2 2 2	69 73	0 0 2	000	36 39 41	31 38 38
CING-	Rural	Improved	Piped	1 1 1	<u> </u>	0 1 0	99	000	13		7 7 7	14 21 27	₹ ₹ ₹	5 8 10	95 100 100	100	18 23 27	1 1 0
USE OF DRINKING-WATER SOURCES (PERCENTAGE OF POPULATION)		트	Total improved	87 92 -	\$ \$ \$	27 37 49											54 62 68	31 35 39
OF D ERCE		L	Inimproved	5 6 7	000	19 3	100	000	0 4 0	27 25 23	13 20 25		1 0 1	4 9 /	000	000	N U 8	22 4
USE (P	u.		Other improved	1 1 1	000	29 46 65	100	0 0 0	20 10 10	51 54 57	63 60 60	17 22 27	1 1 1	53 46 41	000	000	0 0 0	36 59 59
	Urban	Improved	Piped	1 1 1	100 100 100	52 42 32	1 88 8	8 8 8 8 8 8	74 82 88	22 21 20	19 17 15	82 77 72	1 1 1	43 48 52	100	100 100 100	88 83	21 30 37
		≞	Total improved	93 94 95	100	81 88 97	100	100	96	73 75 77	87 80 75	6666	1 1 06	96 94 93	100	100	92 95 98	57 78 96
	ess to i	mprove	e who gained ed sanitation housand)	1	ო	'	'	* N	8 660	2 315	1	349	'	6 829	1 575	1	1 168	928
		pa	Open Defecation	1 1 1	000	- 16 13	100	1 1 1	38 24 17	65 55 42	10	63 57 53	1 1 1	80 64 52	000	1 1 1	23 16 11	88 79 79
	<u>'a</u>	Unimproved	Unimproved facilitites	71 74 -	000	۱۵۵	ى يا	4 4 4	1 2 4	22 28 38	_ 16 7	വയ	- 26	ଦେଥଥ	000	1 1 1	28 29 29	8 ~ 9
s c	Total	5	Shared	1 1 1	1 1 1	27	l m m	1 1 1	10 10	0 m m	- 11	ဖထတ	- 23	4 8 11	1 1 1	1 1 1	9 / 8	w 4 0
ACILITIES ULATION)			Improved	29 26 -	100	- 49 50	92	96 96	53 64 69	11 14 17	- 65 81	25 29 33	50	11 23 31	100	1 1 1	43 48 52	0 / 0
FACILITIES PULATION)		pə	Open Defecation	1 1 1	A A A	36 26	1	1 1 1	69 38 38	74 68 59	- 14 1	83 77 73	A A A	85 71 60	000	1 1 1	44 31 21	95 93 91
NOL F PO	ra	Unimproved	Unimproved facilitites	80 84 -	A A A	18	10	4 4 4	1 2 4	21 27 36	19	9 / 9	A A A	0 2 2	000	12	26 32 36	0 m m
NITA1	Rural	5 5	Shared	1 1 1	A A A	20 24	l m m	1 1 1	ഉവത		- 8 11	0 m 4	¥ ¥ ž	7 22	1 1 1	1 1 1	4 0 9	7 - 1
USE OF SANITATION F. (PERCENTAGE OF POP			Improved	20 16 -	Z Z Z	26	1 88 88	96 96	27 43 52	444	- 59 79	9 13 17	4 4 4 2 2 2	8 19 27	100	8 I I	26 32 37	0 π 4
SE O		pə	Open Defecation	1 1 1	000	10%	100	1 1 1	0 7 2	32 25 14	1 11 0	11 15 18	1 1	30 22 15	000	1 1 1	4 4 4	22 28
D &	an	Unimproved	Unimproved facilitites	45 41 -	000	1 0 0	1	4 4 4	0 0 8	25 31 41	1 % 4	വവവ	- 26	044	000	1 1 1	29 27 24	41 31 21
	Urban	ā	Shared	1 1 1	1 1 1	32	l m m	1 1 1	14 14 14	~ ~ ~	10	18 17 17	23	24 27 30	1 1 1	1 1 1	00 00 O	14 20 25
			Improved	55 59	100	- 66 64	96	96 96	81 82 83	36 37 38	81 86	66 63 60	50	41 47 51	100	1 1 1	59 61 63	19 27 34
		ntage pula	urban tion	26 22 22	100 100 100	57 57 57	48 59 60	13 11 15	48 53 56	21 31 37	25 28 33	28 32 37	100	9 13 17	69 77 82	85 86 87	52 55 57	15 16 16
Po			housand)	96 107 110	29 32 33	2 216 2 389 2 641	587 661 622	11 5	24 808 28 827 31 606	13 543 18 249 22 383	40 844 46 610 49 563	1 417 1 824 2 130	01 01		14 953 15 915 16 528	3 386 3 868 4 230	4 138 5 101 5 667	7 904 11 031 14 704
		Year		1990 2000 2008	1990 2000 2008	1990 2000 2008	1990 2000 2008	1990 2000 2008	1990 2000 2008	1990 2000 2008	1990 2000 2008	1990 2000 2008	1990 2000 2008	1990 2000 2008	1990 2000 2008	1990 2000 2008	1990 2000 2008	1990 2000 2008
Cou	ıntry,	area (or territory	Micronesia (Federated States of)	Monaco	Mongolia	Montenegro	Montserrat	Morocco	Mozambique	Myanmar	Namibia	Nauru	Nepal	Netherlands	New Zealand	Nicaragua	Niger

a	ccess to drinkir	o impro	e who gained ved sources r 1990-2008 nd)	41 954	A N	41	525	776	29 690		1 134	1 003	3 155	7 314	29 778	*V	066	'
		ı	Jnimproved	53 47 42	000	0 0 0	000	20 17 12	17 10	19 17 -	16 10 7	59 61 60	48 14	25 21 18	16 12 9	000	7 1 1	1 1 1
	<u></u>	_	Other improved	33 52	1 1 1	1 1 1	000	59 47 34	62 59 57	1 1 1	4 m 4	28 29 30	23 23 21	20 16 12	60 51 43	12 5	o 0 0	1 1 1
ES	Total	Improved	Piped	14 10 9	1 1 1	1 1 1	100	21 36 54	24 29 33	1 1 1	87 88	10	29 51 65	55 63 70	24 37 48	98	99	1 1 1
SOURCES LATION)		트	Total improved	47 53 58	100	8 8 8	100	88 83	88 88 90	83	93	41 39 40	52 74 86	75 79 82	84 88 91	100	96 66	1 1 1
ER SC		ı	Jnimproved	70 64 58	000	0 m m	000	28 23 23	19 13	1 21 2	34 23 17	68 67	75 49 34	55 46 39	24 18 13	000	9 7 0	1 1 1
WATI	<u>-</u>		Other improved	26 34 40	20 -	1 1 1	000	63 59	72 70 67	1 1 1	0 rv 4	28 30 30	25 30 31	28 30 26 28	68 64 62	27 11 4	14 0	1 1 1
KING-	Rural	Improved	Piped	4 0 0	1 80 1	1 1 1	100	6 11 18	9 15 20	1 1 1	60 72 79	4 m m	0 21 35	15 26 35	8 18 25	73 89 96	80 95 100	1 1 1
USE OF DRINKING-WATER SOURCE (PERCENTAGE OF POPULATION)		I ≞	Total improved	30 36 42	100	100 97 97	100	72 74 77	81 85 87	98	66 77 83	32 32 33	25 51 66	45 54 61	76 82 87	100	94 98 100	1 1 1
OF C		ı	Jnimproved	21 23 25	000	0 0 0	000	13 18	4 ت ت	27 22 -	w w	11 12 13	19	10 10	<u> </u>	000	7 - 1	1 1 1
USE (P	an	_	Other improved	47 57 64	1 1 1	1 1 1	000	55 41 24	39 40	1 1 1	0 0 4	28 30 30	22 17 14	111	53 42 33	r - 1	0 1 3	1 1 1
	Urban	Improved	Piped	32 20 11	1 1 1	1 1 1	100	29 46 68	57 56 55	1 1 1	97 93	61 59 57	59 75 85	73 79 84	40 51 60	97 99 99	98 99	1 1 1
		I ≞	Total improved	79 77 75	100	8 8 8	100	84 87 92	96 95	73	99 97	888	81 92 99	88 00 0	93	100	86 66 60	1 1 1
	cess to	improv	e who gained ed sanitation housand)	12 373	*W	'	525	1	47 211	1	946	1 018	2 794	7 850	32 457	'	1 496	1
		ed	Open Defecation	25 23 22	000	1 1 1	000	12	51 38 27	1 1 1	12 7 5	14 15 16	e	34 20 10	16 11 8	1 1 1	7 2 0	1 1 1
	Total	Unimproved	Unimproved facilitites	12 17 20	000	16	000	m 0/1	18 21 23	31 20 _	22 19 17	39 39 39	59 39 26	6 12 15	15 6 1	_ 10 10	0 0	1 1 1
s S	P	- 5	Shared	26 26 26	1 1 1	1 1 1	1 1 1	1 1 1	w 4 r	1 1 1	დ თ თ	1 1 1	1 2 8	9 9 7	11 14 15	1 1 1	1 1 1	1 1 1
ACILITIES ULATION)			Improved	37 34 32	100	92	1000	85	28 37 45	69	58 69 69	47 46 45	37 58 70	54 62 68	58 69 76	- 06 - 06	92 98 100	1 1 1
FACI PUL/		/ed	Open Defecation	34 32 31	000	1 1 1	000	32	71 54 40	1 1 1	25 17 13	16 17 18	4 2 1	74 50 31	23 18 14	1 1 1	12 4 0	1 1 1
TION PF PO	Rural	Unimproved	Unimproved facilitites	12 20 27	000	22 7	000	<u></u>	20 23 26	46 1	31 32 31	45 41 41	81 67 58	9 21 30	22 11 3	20 20 20	0 0	1 1 1
NITA (GE 0	æ	'n	Shared	18 16 14	1 1 1	1 1 1	1 1 1	1 1 1	2 3 1	1 1 1	4 4 10	1 1 1	0 0 1	1 0 8	9 12 14	1 1 1	1 1 1	1 1 1
USE OF SANITATION F			Improved	36 32 28	100	78 93 96	100	61	20 8	54 52	40 47 51	42 42 41	15 31 40	16 27 36	46 59 69	80 80	87 96 100	1 1 1
JSE C		ved	Open Defecation	8 0 1 2 1 2 2	000	1 1 1	000	001	2 9 2	1 1 1	7 7 7	w 4 ro		16	894	1 1 1	0 1 2	1 1 1
] =	Urban	Unimproved	Unimproved facilitites	11 13 14	000	15	000	m	14 16 17	24 8 4	13	19 21 24	35 16 5	0 7 2	∞ m O	444	0 0 1	1 1 1
	'n	Ď	Shared	42 40 38	1 1 1	1 1 1	1 1 1		999					∞ ∞ σ		1 1 1	1 1 1	1 1 1
			Improved	39 37 36	1000	92	100	97	72 72 72	76 92 96	73 74 75	78 75 71	61 79 90	77 81	76 88	96 96	99 100	1 1 1
		entag opula	e urban tion	35 43 48	31 34 40	0000	72 76 77	66 72 72	33 33 36	07 07 07 07	54 66 73	13	49 55 60	69 71 71	49 59 65	61 62 61	48 54 59	72 95 98
P	opula	tion (thousand)	97 338 124 842 151 212	000	44 69 85	4 241 4 484 4 767	1 843 2 402 2 785	115 776 148 132 176 952	15 19 20	2 413 2 951 3 399	4 131 5 388 6 577	4 250 5 350 6 238	21 776 26 004 28 837	62 427 77 689 90 348	38 111 38 433 38 104	9 979 10 226 10 677	3 528 3 819 3 965
		Yea	r	1990 2000 2008	1990 2000 2008	1990 2000 2008	1990 2000 2008	1990 2000 2008	1990 2000 2008	1990 2000 2008	1990 2000 2008	1990 2000 2008	1990 2000 2008	1990 2000 2008	1990 2000 2008	1990 2000 2008	1990 2000 2008	1990 2000 2008
Coi	untry,	area	or territory	Nigeria	Niue	Northern Mariana Islands	Norway	Oman	Pakistan	Palau	Panama	Papua New Guinea	Paraguay	Peru	Philippines	Poland	Portugal	Puerto Rico

ac	cess to drinkin	impro	e who gained ved sources r 1990-2008 nd)	813	1			*W	1 456	10	31	1	1				3 828	
		L	Inimproved	000	1 / 2	8 10	1 1 1	V 2 4	32 33 35		0 0 0	1 1 1	9 11 -	1 1 1	21 11	11	39 35 31	I
	-		Other improved	1 1 1	1 9 15	52 50	1 1 1	17	66 64 61	27	23 -	1 1 1	32	1 1 1	- 56 63	- 1 1	42 35 31	19 18
ES	Total	Improved	Piped	1 1 1	87 93	1 40 4	47 55 61	76 77 78	0 m 4	72	75	1 1 1	57	1 1 1	23 26	88	19 38 38	80
URC		트	Total improved	100 100 100	1 8 8 8	92	1 1 1	93 95 96	68 67 65	66 66	8 8 8	1 1 1	91 89	1 1 1	79	68 1 1	61 65 69	1 66
R SO		L	Inimproved	000	25 12	12 15	1 1 1	19 11	38 38		0 0 0		111	1 1 1	30	37	57 52 48	1 2 2
NATE	_		Other	1 1 1	29 24	79	1 1 1	36 44 49	66 64 61	27	23 -	20 -	36 .	1 1 1	- 56 70	m I I	0440	35
ING-	Rural	Improved	Piped	1 1 1	- 46 64	1 9 1	3 16 26	45 42 40	0 0 1	72	75	73	1 2 2	1 1 1	14 18	09	12 8 3	0 8 8
USE OF DRINKING-WATER SOURCES (PERCENTAGE OF POPULATION)		<u>Ē</u>	Total	100	75	888 1	1 1 1	81 86 89	66 64 62	66 66	8 8 8	1 80	88 8 88 1	1 1 1	70 88	63	43 52	1 8 8 8 8 8
OF D		L	improved Inimproved	000	m 0 0	ı ω 4	1 1 1	0 0 0	4 15 23		0 0 0	1 1 1	∞ I	1 1 1	- 11	ოოო	10 8	I
USE (PE	e e		Other	1 1 1		- 19 17		11 8 9			23 1	1 1 1		1 1 1		000		100
	Urban	Improved	improved Piped	1 1 1	96 97 99				32 22 15		75	1 1 1		1 1 1			45 61 74	97
		lmp	Total	100 100 100	97 98 100	- 96	1 1 1		96 85 77		8 8 8	1 1 1	99	1 1 1	- 88 89 89	97 97 97	88 90 92	66
	ess to	improv	improved e who gained ed sanitation housand)	813	5 169	'	* V	*V	3 605	10	'	'	21	'	'	'	3 363	1
		<u> </u>	Open Defecation	000	000	100	000	1 1 1	3 2 7	1 1 1	1 1 1	1 1 1	100	1 1 1	_ 71 55	1 1 1	39 28 19	100
	-	Unimproved	Unimproved facilitites	000	000	15	27 26 26	133	67 49 35	4 4 4	11 -	1 1 1	000	1 1 1	- 15	1 1 1	13 16	ا لا لا
,, <u> </u>	Total	Ü	Shared	1 1 1	1 1 1	1 9 9	0 0 0	1 1 1	m v x	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	144	1 1 1	10 17 14	I m m
ACILITIES ULATION)			Improved	100	100	79 79	71 72 72 72	87	23 40 54	96	1 68 1	1 1 1	98 100 100	1 1 1	21 26	1 1 1	38 45 51	92
FACILITIES PULATION)		þe	Open Defecation	000	000	100	000	1 1 1	2 2 7	1 1 1	1 1 1	1 1 1	100	1 1 1	- 78 64	1 1 1	58 43 31	100
ION F PO	a	Unimprovec	Unimproved facilitites	000	000	21	47 45 45	30 30	69 51 36	4 4 4	111 -	4 4 4	000	1 1 1	33	1 1 1	14 18 21	١٥٥
AITAT GE O	Rural	U	Shared	1 1 1	1 1 1	ממו		1 1 1	0 4 0	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	140	1 1 1	9 8 10	I m m
USE OF SANITATION F. (PERCENTAGE OF POP			Improved	100	100	- 47 47	52 54 54	0 0 0 0	22 40 55	96	1 68 1	96 96	98 100 100	1 1 1	_ 15 19	1 1 1	22 31 38	1 & &
SE O		þa	Open Defecation	000	000	100	000	1 1 1	1 2 3	1 1 1	1 1 1	1 1 1	000	1 1 1	- 65 49	000	0 U Q	100
⊃ 	an	Unimproved	Unimproved facilitites	000	000	1 ∞ ∞	0 0 0	~ ~ ~	50 40 31	4 4 4	111	1 1 1	000	1 1 1	- 4 17	000	12 11 10	I
	Urban	5	Shared	1 1 1	1 1 1		ოოო	1 1 1	12 15 18	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 4 4	1 1 1	17 18 19	I m m
			Improved	100	9 9 9	85	8 8 8	93	35 43 50	96 96	1 68 1	1 1 1	100	1 1 1	27	100	65 66 69	96
		entage opula	e urban	92 95 96	74 80 81	47 45 42	53 54	73 73 73	5 14 18	35 33 35	28 28 28	44 47	21 22 23	90 93 94	44 53 61	77 80 82	39 41 42	50 51 52
Po		-	housand)		42 983 46 429 48 152	4 364 4 100 3 633	23 207 22 138 21 361	148 065 146 670 141 394	7 150 7 958 9 721	41 46 51	138 157 170	107	161 177 179	24 27 31	116 140 160	16 259 20 808 25 201	7 538 9 902 12 211	9 569 10 134 9 839
		Year	,	1990 2000 2008	1990 2000 2008	1990 2000 2008	1990 2000 2008	1990 2000 2008	1990 2000 2008	1990 2000 2008	1990 2000 2008	1990 2000 2008	1990 2000 2008	1990 2000 2008	1990 2000 2008	1990 2000 2008	1990 2000 2008	1990 2000 2008
Соі	ıntry,	area (or territory	Qatar	Republic of Korea	Republic of Moldova	Romania	Russian Federation	Rwanda	Saint Kitts and Nevis	Saint Lucia	Saint Vincent and the Grenadines	Samoa	San Marino	Sao Tome and Principe	Saudi Arabia	Senegal	Serbia

ac	cess to drinkir	impro	e who gained ved sources r 1990-2008 nd)				1 599	1	89	ı	1	14 699	5 647	6 470	5 959	1		646	827
		ı	Jnimproved	1 1	ı	45 51	000	100	001	31	- F 5	7 1 7 6	000	33 10	35 39 43	101	45 31	000	000
	_	_	Other improved	1 1	ı	1 44 43	000	100	000	57	- 20	24 24 24		56 59 62	31 29 29	12 23	32 37	000	000
ES)	Total	Improved	Piped	1 1	1	111	100	95 94 94	100	13	1 W Q	56 62 67	6 6 6	11 21 28	32 28 28	- 79 70	23	100	100
DURC		≛	Total improved	1 1	1	- 55 49	100	100	100	70	23	83 89 16	100	67 80 90	65 61 57	93	55 69	100	100
ER SO		ı	Jnimproved	1 1	ı	- 24 74	₹ ₹ ₹	100		351	1 88 2	34 29 29	000	38 23 12	45 48	27 19	54 39	000	000
-WAT F PO	<u>6</u>	_	Other improved	1 1	ı	42 25	₹ ₹ ₹	1 00 00	000	1 49 1	17	41 43 46	000	56 62 66	8 8 8	24 36	33 40	000	
KING GE 0	Rural	Improved	Piped	1 1	1	1 2 1	g g g	89 92 94	6 6 6	1 ↔ 1	100	28 S	100	6 15 22	19 16 14	49 45	_ 13 21	100	66 66 66
USE OF DRINKING-WATER SOURCES (PERCENTAGE OF POPULATION)		<u>=</u>	Total improved	1 1	1	- 44 26	4 4 4 2 2 2	100	6 6 6 6 6 6	65	17	66 71 78	100	62 77 88	58 55 52	73	- 46 61	100	100
OF I		ı	Jnimproved	- 16	0	25 14	000	100	000	101	64	2 0 0 -	000	0 50 0	15 27 36	n 0 m	14 8	000	000
USE	Urban	~	Other improved	100	0	- 47 71	000	140	000	18	27	13		54 42 33	9 13 17	5 7 19	28 25	000	000
	ž	Improved	Piped	- 88	100	28 15	100	100 96 94	100	76	101	85 87 89	6 6 6	37 53 65	76 60 47	94 91 78	- 58 67	100	100 100 100
		=	Total improved	- 84	100	75 86	100	100	100	94	36	8 8 6	100	91 95 98	85 73 64	99 98 97	- 86 92	100	100
	ess to	improv	e who gained ed sanitation :housand)	'		1	1 629	144	88	'	' 	12 890	5 647	6 152	4 847	'	'	646	827
		,ed	Open Defecation	1 1	ı	24 - 24	100	000	000	1 1 1	52	13 10 8	000	14 7 1	38 41 41	عوا	_ 22 16	000	000
	Total	Unimproved	Unimproved facilitites	1 1	ı	42 34	0 0	000	000	1 69	- 11 0	0 00 10	000	13	28 26 25	1	1 00 00	000	000
s S	₽ P	Ď	Shared	1 1	1	23	1 1 1	000	1 1 1	1 1 1	151	0 0 0	1 1 1	w 4 4	1 1 1	100	21 23	1 1 1	1 1 1
ACILITIES ULATION)			Improved	1 1	1	111	99 100	100	100	31	22	69 73 77	100	70 82 91	34 8 8	83	49 55	100	100
FACI		ved	Open Defecation	1 1	I	34 - 38	4 4 4 2 2 2	000	000	1 1 1	72	24 21 21 21 21 21 21 21 21 21 21 21 21 21	000	16 8 1	48 54 58	22 2 2	28 21	000	000
TION OF PC	Rural	Unimproved	Unimproved facilitites	1 1	1	48 40	₹ ₹ ₹	00-	000	82 1	Ισα	10 00	000	15 8 4	29 26 24	100	1 & 0	000	000
NITA AGE (æ	ā	Shared	1 1	1	13 - 18	<u> </u>	000	1 1 1	1 1 1	١٥٧	0000	1 1 1	0 m m	1 1 1	111	18 20	1 1 1	1 1 1
USE OF SANITATION F. (PERCENTAGE OF POP			Improved	1 1	1	0 21 1	ZZZZ	100	100	18	10	58 61 65	100	67 81 92	23 20 18	65	- 46 53	100	100
JSE (ved	Open Defecation	1	-	1 0 4	100	000	000	1 1 1	13	0 0 0 0	000	4 m v	15 20 20	000	1 % 0	000	000
	Urban	Unimproved	Unimproved facilitites	۱۳۷۱	7	32	- 0 0	000	000	0 0 0	16	8 9 4	000	4 π π	27 27 25		1 0 10	000	000
	ā		Shared	1 1		41 47			1 1 1			8 0 0 0				000	31	1 1 1	1 1 1
			Improved	94	97	21 24	100	100	100	8 8 8	45	82 82 84 8	100	88	58	888		100	100
		entag opula	e urban tion	49 51	26	38 33	100	56	50 51 48	14 16 18	33	52 57 61					23 23 25	83 85 85	73 73 73
Po	opula	tion (thousand)	72 81	9	4 084 4 228 5 560	3 016 4 018 4 615	5 256 5 379 5 400	1 927 1 985 2 015	314 416 511	6 596 7 394	36 745 44 872 49 668	38 839 40 264 44 486	17 290 18 767 20 061	27 091 34 904 41 348	407 467 515		8 559 8 860 9 205	
		Yea	r	1990	2008	1990 2000 2008	1990 2000 2008	1990 2000 2008	1990 2000 2008	1990 2000 2008	2000	1990 2000 2000 2008	1990 2000 2008	1990 2000 2008	1990 2000 2008	1990 2000 2008	1990 2000 2008	1990 2000 2008	1990 2000 2008
Соі	ıntry,	area	or territory	Seychelles		Sierra Leone	Singapore	Slovakia	Slovenia	Solomon Islands	Somalia	South Africa	Spain	Sri Lanka	Sudan	Suriname	Swaziland	Sweden	Switzerland

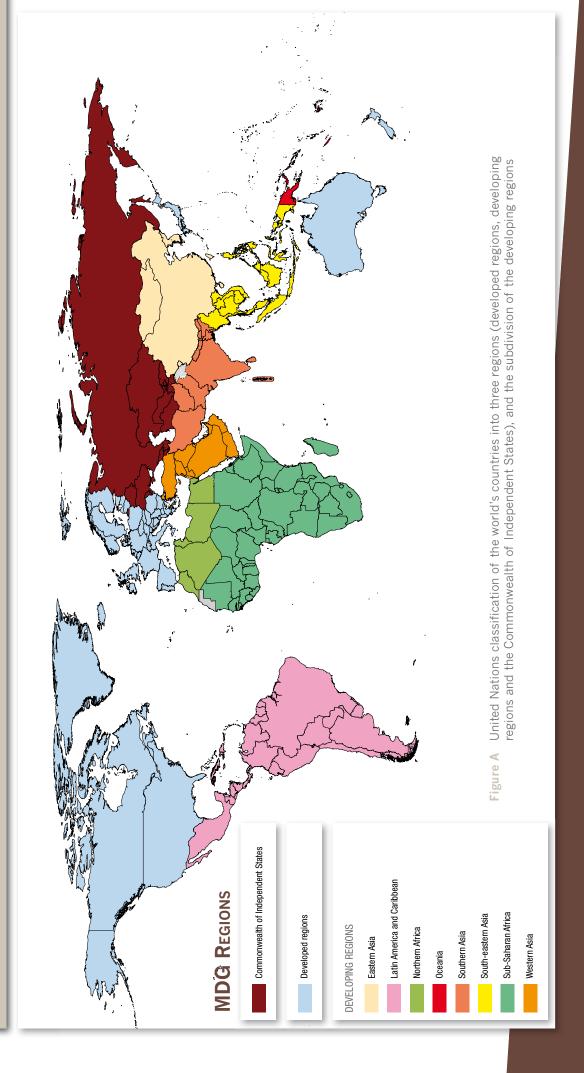
Number of people who gained access to improved sources of drinking-water 1990-2008 (thousand)			8 079		14 466			1 951	0	1	181	2 905	25 502	1	21	2	13 586	
USE OF DRINKING-WATER SOURCES (PERCENTAGE OF POPULATION)		U	Inimproved	15 13 11	1 40 8	040	100	- 48 31	51 45 40	10 7 3	100	12 9 6	19 10 6	15 7 1	17	000	10 6 3	57 43 33
	al	-5	Other improved	13 10 6	25 30	58 50 44	1 ∞ ∞	37 53	45 50 54	1 1 1	25	19 18 18	20 20 18	തവത	30 -	32	110	42 55 64
	Total	Improved	Piped	72 77 83	35 40	33 46 54	92	15 16	4 2 9	1 1 1	75	69 73 76	61 70 76	76 88 96	53	1 89 1	_ _ 76	3 2 1
		≞	Total improved	85 87 89	60 70	91 96 98	100	52 69	49 55 60	90	100	91	81 90 94	85 93 99	1 83 1	100	90 94 97	43 57 67
		Ų	Inimproved	25 21 16	51 39	11 5	I	53 37	64 61 59	10 7 3	100	12 9 7	38 23 16	27 15 4	1 8 1	000	11 7 3	61 47 36
	a		Other improved	24 20 13	29 36	75 66 59	_ 15 15	36 52	36 39 40	1 1 1	24	20 19 19	0444	11 4	1 43	1 40	110	33 63
KING GE O	Rural	Improved	Piped	51 59 71	20 25	14 29 39	- 84 84	111	0 0 1	1 1 1	76	68 71 74	33	54 74 92	29	1 09 1	_ _ 97	0 0 1
RINI		Ξ	Total improved	75 79 84	- 49 61	89 95 98	1 66 66	47	36 39 41	90	100	91	62 77 84	73 85 96	72	100	89 93 97	39 53 64
OF		L	Inimproved	4 5 9	1 & 0	1 2 3	100	31 14	21 17 13	₹ ₹ ₹	100	اء کا ھ	1 2 2	9 m O	ოოო	000	N 22 00	22 15 9
USE (P	an	_	Other improved	n 2 3	11	19 16 14	144	41 58	65 70 75	<u> </u>	1 8 1	11 01	200	m 0 0	16	22	1 1 1	69 71 72
	Urban	Improved	Piped	6 6 6 8 8 8	78	78 82 85	- 96 96	28 28	14 13	<u> </u>	72	85 88	89 92 94	91 95 98	81	78	- 26	14
		<u>=</u>	Total improved	96 95 94	92	97 98 99	100	- 69 86	79 83 87	A A A	100	92 95 98	98	94 97 100	97	100	92 95 98	78 85 91
	Number of people who gained access to improved sanitation 1990-2008 (thousand)			9 819	1	19 353	'	'	265	0	6	93	2 565	19 410	1 348	'	-1	8 280
		þa	Open Defecation	10 0	l	16 3	100	- 44 43	59 57 55	1 1 1	1 1 1	000	21 10 5	0 1 2		1 1 1	וונ	25 17 10
	Total	Unimproved	Unimproved facilitites	m 0 0	1 9 7	000	1 9 5	22 4	3 11	59 37 7	4 4 4	0 1 1	1 2 9	13		141	20 17 11	14 15 16
s c		5	Shared	4 4 4	ΙΜΜ	444	199	100	25 23 22	1 1 1	1 1 1	~ ~ ~	4 4 4	1 2 2	1 1 1	1 1 1	1 1 1	22 24 26
ACILITIES ULATION)			Improved		90	80 93 96	1 88 89	32	13 12 12	41 63 93	96 96	93 92 92	74 81 85	84 87 90	8 8 8	1 96 1	83 83 84	39 44 48
	ra	Unimproved	Open Defecation	19 10 0	1 2 1	23 4 0	1	52 52	74 76 78	1 1 1	1 1 1	000	46 25 14	- n 2		1 1 1		28 19 11
TION F PO			Unimproved facilitites	O 30 22	1 9 7	000	10	22 6	2 9 13	59 37 7	4 4 4	0 1 1	11 14	27 23 21	0 0 0	101	24 21 12	14
NITA1	Rural	5	Shared	4 ប ប	l m m	ω44	- / /	1 2	16 10 6	1 1 1	1 1 1	<u></u>	9 / 8	0 m m	1 1 1	1 1 1	1 1 1	18 20 22
USE OF SANITATION F. (PERCENTAGE OF POP			Improved		89 46	74 92 96	82 82	25 40	യ വ യ	41 63 93	96 96	93 92 92	44 57 64	66 71 75	97	94	76 79 81	45 45 49
ISE O		ed	Open Defecation	000	000	2 1 0	100	_ 21 19	24 23 23	Z Z Z Z Z Z	1 1 1	000	0 1 3	000	000	1 1 1	1 2	4 0 0
コモ 	Urban	Unimproved	Unimproved facilitites	0 1 2	n 2 a	000	l m m	20 0	മയവ	Z Z Z	0 0 0	0	0 0 0	n 2 a		0 0 0	13	0 V 4
	2	-5	Shared	4 4 4	4 4 4	ນຂ	ى يا	1 4 12	46 45 44	Z Z Z	1 1 1	<u> </u>	0 0 0	7 2 7	1 1 1	1 1 1	1 1 1	52 54 56
		Improved		94 95 96	93	93 94 95	92	- 55 76	25 24 24	Z Z Z	8 8 8	93 92 92	95 96	96 96 97	6666	98 86 86 86	86 87 88	35 37 38
Percentage urban population				49 52 54	32 26 26	29 31 33	58 63 67	21 24 27	30 37 42	000	23 23 25	9 11 13	58 63 67	59 65 69	45 46 49	43 43 74	41 46 49	11 12 13
Population (thousand)				12 721 16 511 21 227	5 303 6 173 6 836	56 673 62 347 67 386	1 909 2 012 2 041	740 815 1 098	3 926 5 247 6 459	1 2 2	95	1 219 1 295 1 333	8 215 9 452 10 169	56 086 66 460 73 914	3 668 4 502 5 044	12 19 33		17 731 24 433 31 657
		Year		1990 2000 2008	1990 2000 2008	1990 2000 2008	1990 2000 2008	1990 2000 2008	1990 2000 2008	1990 2000 2008	1990 2000 2008	1990 2000 2008	1990 2000 2008	1990 2000 2008	1990 2000 2008	1990 2000 2008	1990 2000 2008	1990 2000 2008
Соі	ıntry,	area (or territory	Syrian Arab Republic	Tajikistan	Thailand	The Former Yugoslav Republic of Macedonia	Timor-Leste	Togo	Tokelau	Tonga	Trinidad and Tobago	Tunisia	Turkey	Turkmenistan	Turks and Caicos Islands	Tuvalu	Uganda

a	cess to drinkir	impro	e who gained ved sources r 1990-2008 nd)	'	2 618	3 993	8 941	56 233	364	5 193	107		43 227	0	1	1	3 696	2 060
			Jnimproved	1 m N	000	000	45 46 46		4 0 0	10 11 13	43 28 17	10 8 -	42 21 6	000	1 / 6	35 I	51 46 40	22 20 18
	Total		Other improved	- 19 31	22 _	000	48 46 46	15	V 4 0	33 37 39	20 31 39	10	49 63 72	20 20 19	12	34 ¹	23 46 49	46 45 46
ES)		Improved	Piped	- 78 67	78 78 78	100	<u>~</u> ∞ ∞	88 88 88	89 46 88	57 52 48	37 41 44	85	9 16 22	80 81 81	81 78	31 28	20 15 14	32 35 36
SOURCES LATION)		Ē	Total improved	- 97 98	100	100	55 54 54	6666	96 98 100	90 89 78	57 72 83	90	58 79 94	100	93 91	65 62	49 54 60	78 80 82
	al_		Jnimproved	1 w m	000	000	55 55 55	999	21 0	15 17 19	51 34 21	29	49 8	000	12	41	54 7 7 8	30 78 78
WAT F POI			Other improved	- 42 72	1 0° 0°	0 0 0	45 43 42	8 4 8	29 15 8	48 51 55	22 35 46	27 24 _	51 69 83	20 20 19	24 27	39 40	22 35 45	63 65 67
KING GE 0	Rural	Improved	Piped	50 25	- 02 20 70	8 8 8	1 0 8	46 46 46	50 73 92	37 32 26	27 31 33	44 50 -	0 10 0	80 80 81	- 64 64	20 17		7 9 2
USE OF DRINKING-WATER (PERCENTAGE OF POPU)		Ξ	Total improved	92	100	100	46 45 45	94 94 94	79 88 100	83 83 81	49 66 79	71 74 -	51 74 92	100	- 88 91	59 57	23 36 46	70 71 72
OF		Unimproved		2	000	000	6 14 20	000	0 1 2	m 01 01	0 ∠ 4	7 9	12 6	<u> </u>	0 12 0	18 28	11 12 13	
USI	Urban	7	Other improved	6 7 11	1 8 8	000	60 58 57	ოოო	4 m 0	111	12 14 17	ا ي و	43 43	4 4 4 2 2 2	- 7 7	19	46 50	5 8 11
		Improved	Piped	93 92 87	1 08 8	100	34 28 23	97	94 96 98	86 85 85	79 79 79	87	45 51 56	ZZZ ZZZ	88 8	63 54	49 42 37	94 91 88
		Ē	Total improved	66 6 60 6	100	100	94 86 80	100	98	98	93	93	88 46 99	Z Z Z	100 95 91	82 72	88	66 66
	Number of people who gained access to improved sanitation 1990-2008 (thousand)			* V	2 539	3 993	4 087	56 801	426	9 958	1	1	42 135	0	1	9 701	2 545	985
	Total	hed	Open Defecation	000	000	1 1 1	9 11 13	101	0 % 2	000	100	10	42 21 6	444	1 1 0	33 25	27 22 18	34 29 25
		Unimproved	Unimproved facilitites	0 0 0	000	000	44 42 40	000	0	16 0	- 44 29	∞ < 1	21 19 15	000	10	37 28 20	13 18 19	0 % /
s S		ס	Shared	ოოო	ოოო	1 1 1	23 23	1 1 1	000	1 1 1	13	1 1 1	0 m 4	1 1 1	1 1 1	3 2 1	13 4	23 24 24
ACILITIES ULATION)		Improved		95	97	100	24 24 24	100	96	91	41 52	88	35 57 75	96 96	1 68 68	18 37 52	46 47 49	44 44 44
	Rural	oved	Open Defecation	000	000	1 1 1	10 14 17	1 1 1	15 8 0	000	I m m	41 40	46 25 8	444	1 0 0	43 43 35	42 33 26	48 43 39
TION OF PC		Unimproved	Unimproved facilitites	0 22 22	000	000	44 43 41		0	24 13 0	51 36	14 6	23 22 21	000	14 16	34 8	14 19 22	0 12 0
USE OF SANITATION F		Ď	Shared				23 21 21			1 1 1	10 13		0 m 4			3 2 1	∞ ∞ o	15 15 15
JF SA ENT		Improved		91	95	100	23 22 21 21	666	88 0 6	76 87 100	36 48	45 -	29 50 67	96	8 4 4 8	21 33	36 40 43	37 37 37
JSE (ved	Open Defecation	000	000	1 1 1	m 0 0	000	4 0 0	000	100	4 r 1	26 10 0	ZZZZ	1 11 0	94 κ	m 01 01	0 1 2
	Urban	Unimproved	Unimproved facilitites		000	000	45 41 36	000	110	0 % 22	18 - 5	L 2 1	10	ZZZZ	1 ∞ 0	29 13	11 15 17	7 1 1
	Ď	ā	Shared				25 28 30		000		25 1		w 4 r			. 7 7		
	Improved				8 8 8	100	27 29 32	100	95 97 100	95	57	68	61 79 94	Z Z Z	91	64 81 94	9 62	58 57 56
	Percentage urban population				79 78 78 78	68 80 60	19 22 25	75 79 82	89 91 92	40 37 37	19 22 25	90	20 24 28			21 26 31		29 34 37
Population (thousand)				51 583 48 870 45 992		57 237 58 907 61 231	25 455 34 131 42 484	254 865 287 842 311 666	3 110 3 321 3 349	20 515 24 776 27 191	149 190 234	19 741 24 408 28 121	66 247 78 663 87 096	14 15 15	2 154 3 149 4 147	12 314 18 182 22 917	7 910 10 467 12 620	10 461 12 455 12 463
		Yea	r	1990 2000 2008	1990 2000 2008	1990 2000 2008	1990 2000 2008	1990 2000 2008	1990 2000 2008	1990 2000 2008	1990 2000 2008	1990 2000 2008	1990 2000 2008					1990 2000 2008
Coi	untry,	area	or territory	Ukraine	United Arab Emirates	United Kingdom of Great Britain and Northern Ireland		United States of America	Uruguay	Uzbekistan	Vanuatu	Venezuela (Bolivarian Republic of)		Wallis and Futuna Islands	West Bank and Gaza Strip	Yemen	Zambia	Zimbabwe

Number of people who gained access to improved sources of drinking-water 1990-2008 (thousand)			237 812	47 100	436 981	547 433	174 442	70 234	1 506	161 513	432	97 029	1 677 021		1 774 482		
		ι	Jnimproved	51 45 40	11 8	31 19 11	25 19 13	28 20 14	12 10	48 50	15 10 7	8 / 9	1 0 0	29 21 16	23	17	13
USE OF DRINKING-WATER SOURCES (PERCENTAGE OF POPULATION)	a		Other improved	34 40 44	28 19 12	14 10 6	54 59 64	55 54 53	∞ σ ∞	29 32 31	13 10 9	21 22 25	8 / 9	32 34 35	27	59	30
	Total	Improved	Piped	15 15 16	58 70 80	55 71 83	21 22 23	17 26 33	78 79 82	22 20 19	72 80 84	71 71 69	91 93 94	39 45 49	20	24	22
		Ē	Total improved	49 55 60	86 89 92	69 81 89	75 81 87	72 80 86	88 90 90	51 52 50	85 90 93	92 93 94	99 100 100	71 79 84	77	83	87
ER SC		Ų	Jnimproved	64 58 53	22 17 13	44 81	31 24 17	37 28 19	28 30	63 62	37 28 20	18 16 13	000	40 31 24	36	53	22
WATI F POI	-		Other improved	32 38 45	45 32 19	11 110	60 66 72	57 61 65	15 20 17	32 31	27 24 22	43 54	24 21 17	39 42 45	37	40	4
KING.	Rural	Improved	Piped	4 4 ω	33 51 68	42 59 73	9 10 11	6 11 16	55 54 61	V 8 9	36 48 58	39 37 33	77 81	21 27 31	27	31	34
RINTA		트	Total improved	36 42 47	78 83 87	56 70 82	69 76 83	63 72 81	70 74 78 78	38 40 37	63 72 80	84 87	86 86	92 92	64	71	78
OF D		U	Jnimproved	17 18 17	0 0 0	m 0 0	0 L 20	∞ ∞ ∞	4 4 4	∞ ∞ ∞	ω 4 ω	0 0 0	000	V 9 9	2	4	4
USE (P	u a		Other improved	04 4 84	8 U 4	10 8	36 40 44	51 45 40	m 4 w	25 35	200	0 6 8	000	22 22 21	15	16	17
	Urban	Improved	Piped	43 38 35	86 89 91	87 92 96	55 53 51	41 47 52	6 9 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	67 57	87 90 92	88 88 06	8 8 8	71 72 73	80	80	79
		Ē	Total improved	8 8 8 83 83	94 94 95	97 98 98	91 93 95	92	96 96	92 92 92	95 96 97	86 86 88 86	100	93 94 94	92	96	96
	Number of people who gained access to improved sanitation 1990-2008 (thousand)			114 344	58 899	275 865	305 467	192 941	69 478	1 535	154 409	* V	93 166	1 172 937		1 263 547	
	Total	pe	Open Defecation	36 32 27	17 9	V 72 4	66 54 44	32 21 14	ω ω m	4 T T T T T T T T T T T T T T T T T T T	17 11 6	1 1 1	000	32 26 21	25	21	17
		Unimproved	Unimproved facilitites	20 21 22	1 2 6	38 29 22	10	16 12 8	10 7	45 47 47	14 14 14 14	1111		18 15 14	14	11	11
\ \(\alpha\)			Shared	16 18 20	0 0 2	12 15 18	7 9 10	0 & 0	0 0 0	1 1 1	1 1 1	1 1 1	1 1 1	9 11 13	7	10	11
ACILITIES ULATION)			Improved	28 29 31	72 83 89	43 51 56	25 31 36	46 59 69	82 85	55 53	69 75 80	8 8 8 8 8	66	41 48 52	54	28	61
FACILITIES PULATION)	Rural	Unimproved	Open Defecation	47 43 38	29 17 9	0 0 V	81 69 58	41 29 20	15	17	43 31 20	101	100	32 38	39	34	59
NON PON PON PON PON PON PON PON PON PON			Unimproved facilitites	22 23 25	12 6	46 40 37	3 9 10	15	26 21 18	37 40 37	12 14 16	21 20 16	044	23 20 20	20	19	18
AITAT GE 0			Shared	10 13	4 12 0	9 / 8	യവയ	8 / 2	0 4 10	1 1 1	9 / 6	1 1 1	1 1 1	8 / 2	Ŋ	9	∞
FSAN		Improved		21 23 24	55 72 83	39 47 53	13 20 26	36 49 60	53 60 67	46 43 45	39 48 55	79 80 83	96	28 35 40	36	41	45
USE OF SANITATION F		pa	Open Defecation	11 10 8	m -1 О	ഉവത	23 18 14	13	000	1 1 1	040	1 1 1	000	10 8 7	9	9	2
] ¬ 🖰	an	Unimproved	Unimproved facilitites	17 17 17	000	19 9	3 10	10 7 3	е п о	15 15 19	13	9 / /	000	0 V G	9	4	4
	Urban	Ü	Shared	29 30 31	000	25 28 30	18 19 19	8 6 0	0 9	1 1 1	1 1 1	1 1 1	1 1 1	16 18 20	11	13	15
	Improved		43 44 44	91 93 94	53 58 61	56 58 57	69 74 79	98	85 85 81	81 84 86	94 93	100	65 67 68	77	77	9/	
	Percentage urban population			28 33 37	49 51 53	30 38 45	26 29 31	32 40 47	61 65 67	24 23 23	71 75 79	65 64 64	71 74 75	35 40 44	43	47	20
	population			961 693 436	675 621 466	509 739 532	043 960 746	591 193 626	850 394 991	449 121 633	310 228 102	899 998 820	073 273 520	387 948 533	359	219	872
Population (thousand)				517 674 822	120 144 164	1 213 1 345 1 419		439 517 575	135 174 207			280 280 276	933 985 1 028	4 076 4 848 5 444	5 290	6 115	8 6 749 872
		Year	r 	1990 2000 2008	1990 2000 2008	1990 2000 2008	1990 2000 2008	1990 2000 2008	1990 2000 2008	1990 2000 2008		1990 2000 2008	1990 2000 2008	1990 2000 2008	1990	2000	2008
		regio he Wo	ns and rld	Sub-Saharan Africa	Northern Africa	Eastern Asia	Southern Asia	South Eastern Asia	Western Asia	Oceania	Latin America and the Caribbean	Commonwealth of independent states	Developed regions	Developing regions		World	

"NA" represents data not applicable, and "-" represents data not available at the time of publication. * Shown as NA because of negative gain in access as a result of negative population growth.

MILLENNIUM DEVELOPMENT GOALS: REGIONAL GROUPINGS



ANNEX B GLOBAL AND REGIONAL SANITATION LADDERS: URBAN AND RURAL

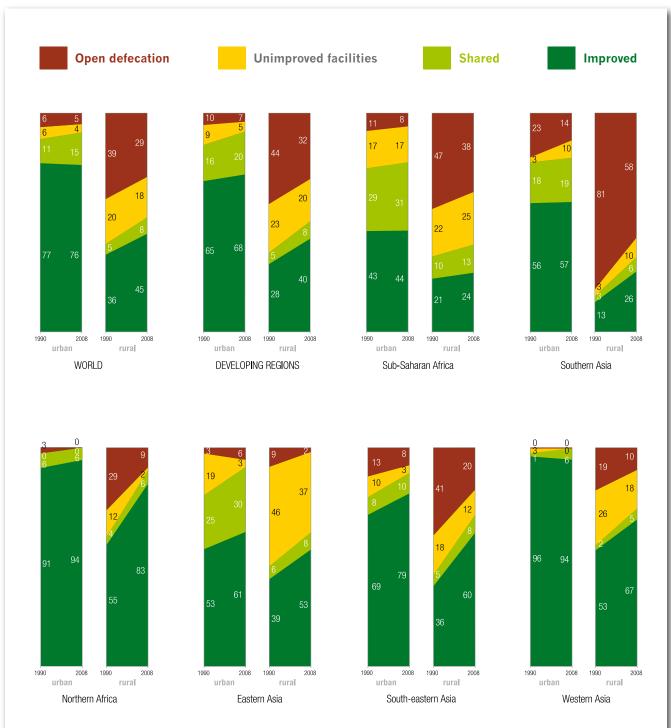


Figure B Urban and rural proportion of the population using an improved, shared or unimproved sanitation facility or practising Open defecation, by MDG region, in 1990 and 2008

ANNEX C GLOBAL AND REGIONAL DRINKING-WATER LADDERS: URBAN AND RURAL



Figure C Urban and rural proportion of the population using a piped water connection, other improved drinking-water sources or an unimproved source, by MDG region, in 1990 and 2008



WITH ONLY FIVE YEARS TO GO UNTIL THE MDG TARGET DATE

2.6 billion people do not use improved sanitation

- Although 1.3 billion people have gained access to improved sanitation since 1990, the world is likely to miss the MDG sanitation target by a billion people.
- Open defecation rates have decreased from 25% in 1990 to 17% in 2008. Worldwide, 1.1 billion people practise open defecation, a decline of 167 million since 1990.
- With only 45% of the rural population using improved sanitation, rural areas lag far behind urban areas, where the rate is 76%.
- Seven out of ten people without improved sanitation live in rural areas, but the number of people in urban areas without improved sanitation is increasing because of rapid growth in urban populations.

884 million people do not use an improved source of drinking-water

- The world is on track to meet the MDG drinking-water target. In developing regions, 84% of the population uses an improved source of drinking-water.
- In urban areas the use of improved sources of drinking-water has been maintained at 96% since 2000, with over 1 billion more people now using such a source than in 1990. However, this increase is barely keeping up with urban population growth.
- The number of people living in rural areas who do not use an improved source of drinkingwater is over five times the number living in urban areas.
- Worldwide, 37% of people not using an improved source of drinking-water live in Sub-Saharan Africa.





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