

PROGRESS ON SANITATION AND DRINKING-WATER

2010 UPDATE



World Health Organization



No. 7 ASTR

WHO Library Cataloguing-in-Publication Data

Progress on Sanitation and Drinking-water: 2010 Update.

1. Drinking-water supply. 2. Sanitation. 3. Millennium Development Goals. 4. MDG monitoring. 5. Open defecation.

I. WHO/UNICEF Joint Monitoring Programme for Water Supply and Sanitation. ISBN 978 92 4 156395 6 (NLM classification: WA 670)

© World Health Organization and UNICEF 2010

All rights reserved. Publications of the World Health Organization can be obtained from WHO Press, World Health Organization, 20 Avenue Appia, 1211 Geneva 27, Switzerland (tel: +41 22 791 3264; fax: +41 22 791 4857; email: bookorders@who.int).

The World Health Organization and UNICEF welcome requests for permission to reproduce or translate their publications — whether for sale or for noncommercial distribution. Applications and enquiries should be addressed to WHO, Office of Publications, at the above address (fax: +41 22 791 4806; email: permissions@who.int) or to UNICEF, Division of Communication, 3 United Nations Plaza, New York 10017, United States of America (fax: +1 212 303 7985; e-mail: nyhqdoc.permit@unicef.org).

The designations employed and the presentation of the material in this publication do not imply the expression of any opinion whatsoever on the part of the World Health Organization or UNICEF concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted lines on maps represent approximate border lines for which there may not yet be full agreement.

The mention of specific companies or of certain manufacturers' products does not imply that they are endorsed or recommended by the World Health Organization or UNICEF in preference to others of a similar nature that are not mentioned. Errors and omissions excepted, the names of proprietary products are distinguished by initial capital letters.

The World Health Organization and UNICEF do not warrant that the information contained in this publication is complete and correct and shall not be liable for any damages incurred as a result of its use.

Printed in France

Design: www.paprika-annecy.com

Photo credit: Cover: iStockphoto/Klaas Lingbeek-van Kranen, WaterAid/Abir Abdullah, WaterAid/Juthika Howlader; plV: fotolia/TMAX; p3: Rifat Hossain; pp4-5: iStockphoto/Claudia Dewald; p10: iStockphoto/Anantha Vardhan; p11: WaterAid/ Abir Abdullah; pp14-15: iStockphoto/Britta Kasholm-Tengve; pp20-21: iStockphoto/Raido Väljamaa; p24: iStockphoto/Gabriela Schaufelberger; pp26-27: iStockphoto/Christoph Achenbach; p29: WHO; p30: iStockphoto/Sean Warren; pp32-33: iStockphoto/ Tjui Tjioe; p35: fotolia/Garrett Hoffman; p37: iStockphoto/Bart Coenders; Back cover: Thierry Helsens.

PROGRESS ON SANITATION AND DRINKING-WATER

2010 UPDATE







CONTENTS

TRODUCTION	2

STATUS AND PROGRESS TOWARDS THE MDG TARGET

Billions without improved sanitation	6
Millions without improved sources of drinking-water	
Sanitation: world off track for MDG target	
Drinking-water: world on track for MDG target	
Sanitation ladder: global and regional trends	
Drinking-water ladder: global and regional trends	

URBAN-RURAL DISPARITIES

Sanitation: urban-rural disparities	
Drinking-water: urban-rural disparities	

A CLOSER LOOK AT THE LADDERS

Open defecation	2
Shared and unimproved sanitation facilities	3
Piped water on premises and other improved sources of drinking-water	5

ADDITIONAL PERSPECTIVES

Time to collect drinking-water	28
Collection of drinking-water: gender disparities	
Socioeconomic disparities: Sub-Saharan Africa	

JMP METHOD

ЛР method explained

STATISTICAL TABLE

Progress on sanitation and drinking-water: country, regional and	
global estimates for 1990, 2000 and 2008	

ANNEXES

Annex A	Millennium Development Goals: regional groupings	.53
Annex B	Global and regional sanitation ladders: urban and rural	.54
Annex C	Global and regional drinking-water ladders: urban and rural	.55

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. 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

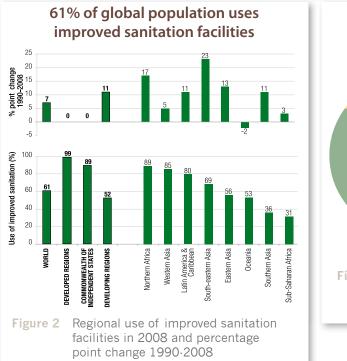


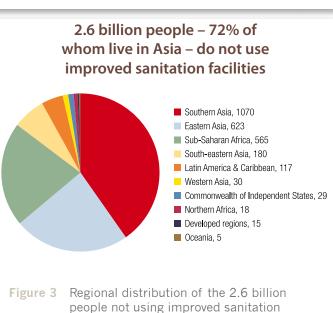
BILLIONS WITHOUT IMPROVED SANITATION

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.





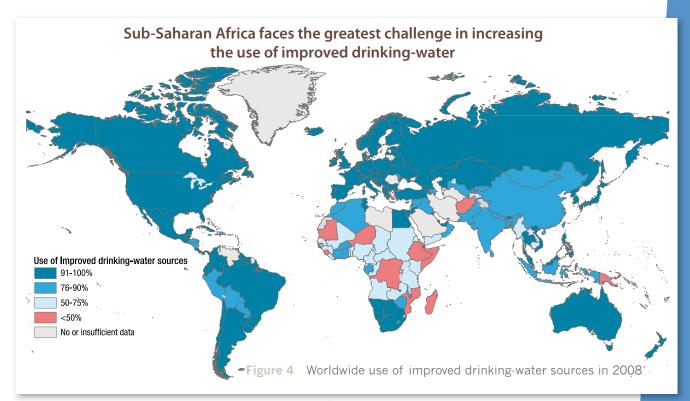


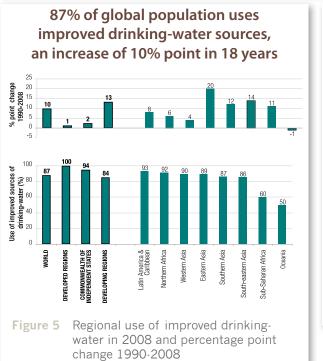
facilities in 2008, population (million)

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.







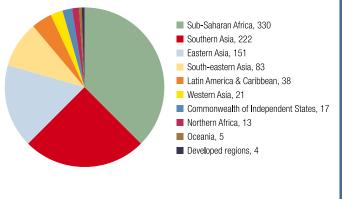
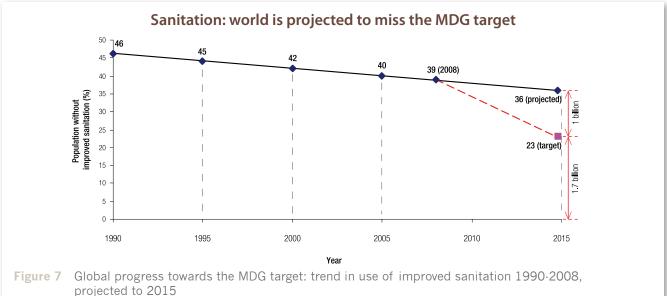


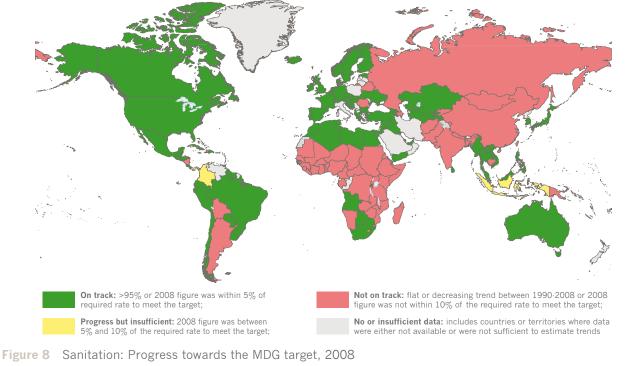
Figure 6 Regional distribution of the 884 million people not using improved drinking-water sources in 2008, population (million)

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.

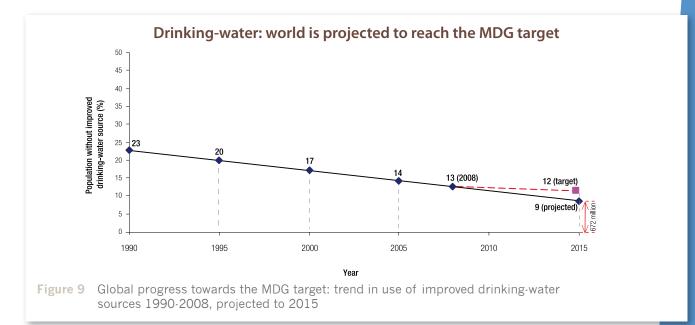


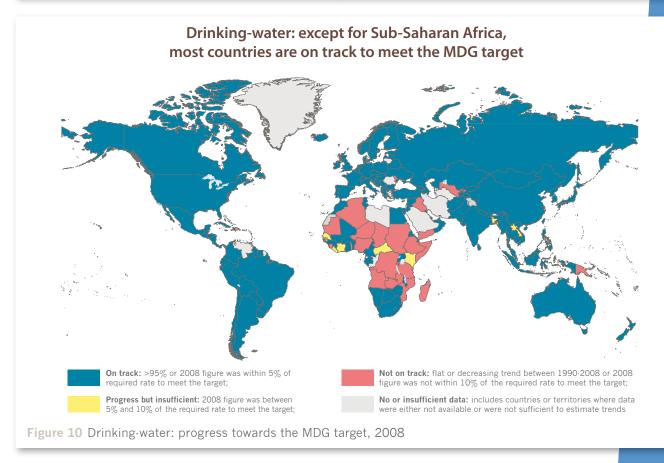




DRINKING-WATER: WORLD ON TRACK FOR MDG TARGET

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.



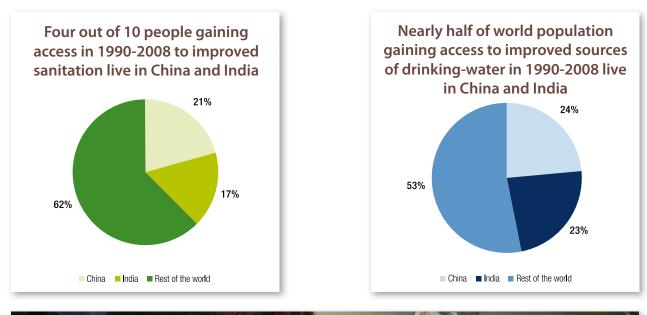


CHALLENGE: GLOBAL TREND HEAVILY INFLUENCED BY PROGRESS IN LARGE POPULOUS COUNTRIES

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: 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.

Unimproved facilities

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

UNIMPROVED SANITATION

Shared

Shared sanitation facilities: Sanitation facilities of an otherwise acceptable type shared between two or more nouseholds. Only facilities th are not shared or not public

Improved

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

Flush/pour flush to:

 piped sewer system
 septic tank

IMPROVED SANITATION

- pit latrine
 Ventilated improved pit (VIP)
 - Pit latrine with slab
 - Composting toilet

SANITATION LADDER

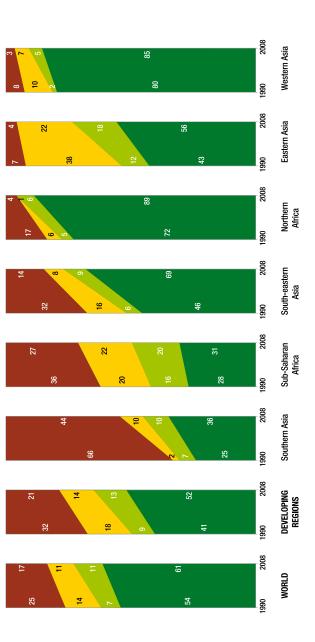


Figure 11 Proportion of the population using an improved, shared or unimproved sanitation facility or practising open defecation, by MDG region, in 1990 and 2008 Trends in sanitation practices can more easily be assessed by taking a disaggregated view of the use of the different sanitation facilities 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. -

DRINKING-WATER LADDER: GLOBAL AND REGIONAL TRENDS	Today 87% of the world's population, a total of 5.9 billion people worldwide, uses drinking-water from improved sources, an increase of 1.8 billion people since 1990. About 3.8 billion people (57% of the global population) get 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.	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 progress in the use of other improved drinking-water sources, in all regions except for Sub-Saharan Africa, Southern Asia and CIS.		20 20 20 20 20 20 20 20 20 20	2008 1990 2008 1990 2008 1990 2008 1990 astern Northern Africa Western Asia Southern Asia Sub-Saha Africa s, other improved drinking-water	source or an unimproved source, by MUG region, in 1990 and 2008
Unimproved	Unimproved drinking-water sources: Unprotected dug well, unprotected spring, cart with small Lank/drum, surface water (river, dam, lake, pond, stream, canal, irrigation channels), and bottled water.	Other improved	Other improved drinking- water sources: Public taps or standpipes, tube wells or boreholes, protected dug wells, protected springs or rainwater collection.	Piped into dwelling, plot or yard	Piped water on premises: Piped household water connection located inside the user's dwelling, plot or yard.	
UNIMPROV	ED DRINKING-WATE	R	IMPROVED	DRINKING-WATER		

DRINKING-WATER LADDER



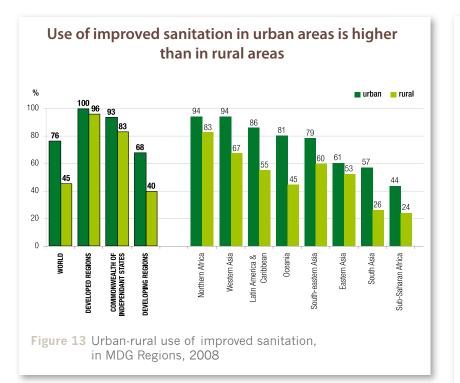


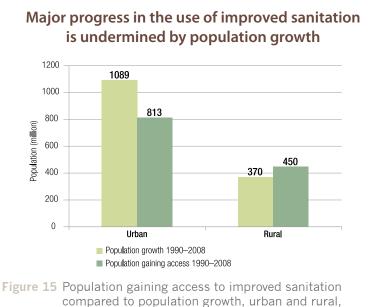
URBAN-RURAL DISPARITIES



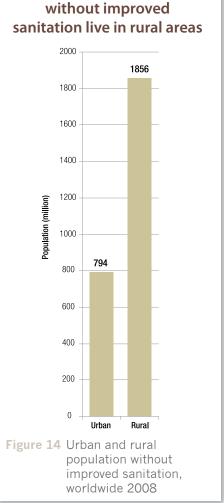
SANITATION: URBAN-RURAL DISPARITIES

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.





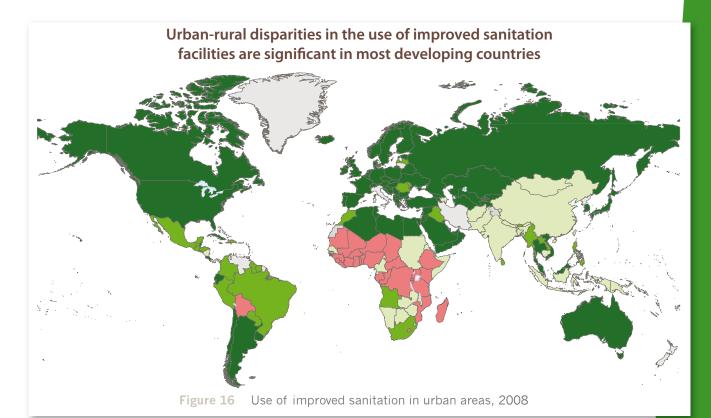
worldwide, 1990-2008

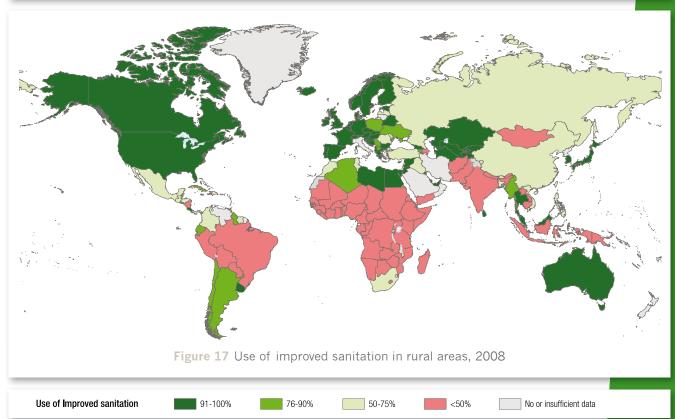


Seven out of 10 people

SANITATION: URBAN-RURAL DISPARITIES

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.

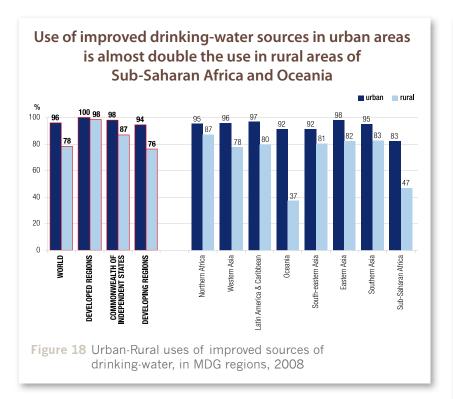


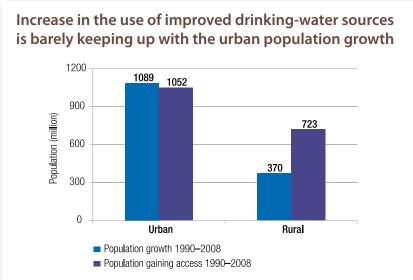


17

DRINKING-WATER: URBAN-RURAL DISPARITIES

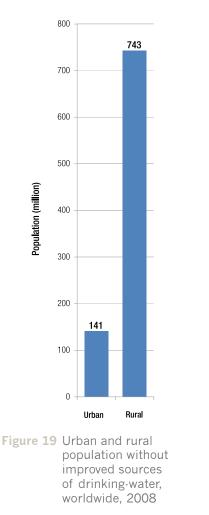
Worldwide, 87% of the population gets their drinking-water from improved sources, and the corresponding figure for developing regions is also high at 84%. While 94% of the urban population of developing regions uses improved sources, it is only 76% of rural populations.





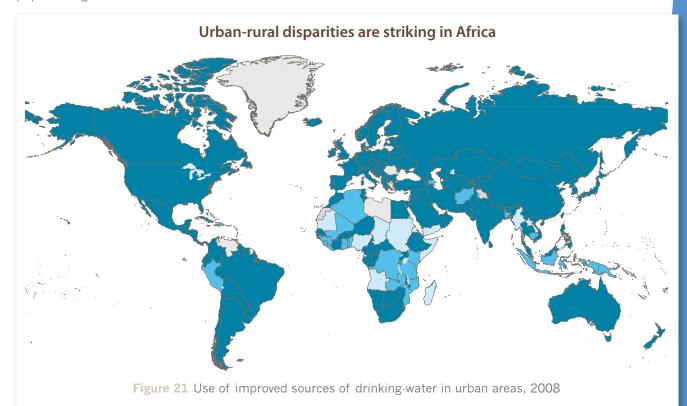


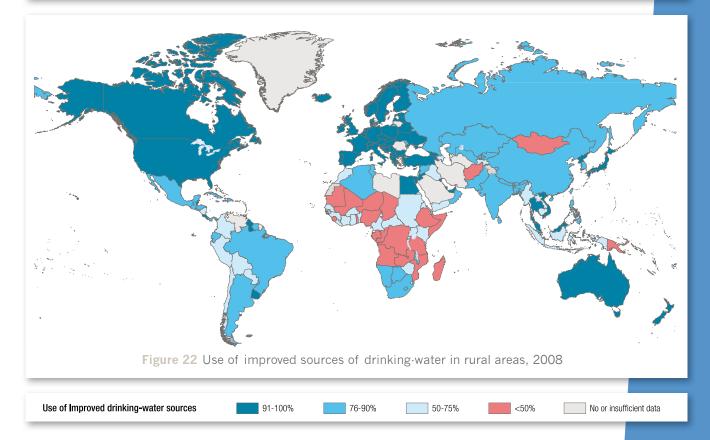
84% of the world population without an improved drinking-water source lives in rural areas



DRINKING-WATER: URBAN-RURAL DISPARITIES

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.









A CLOSER LOOK AT THE LADDERS

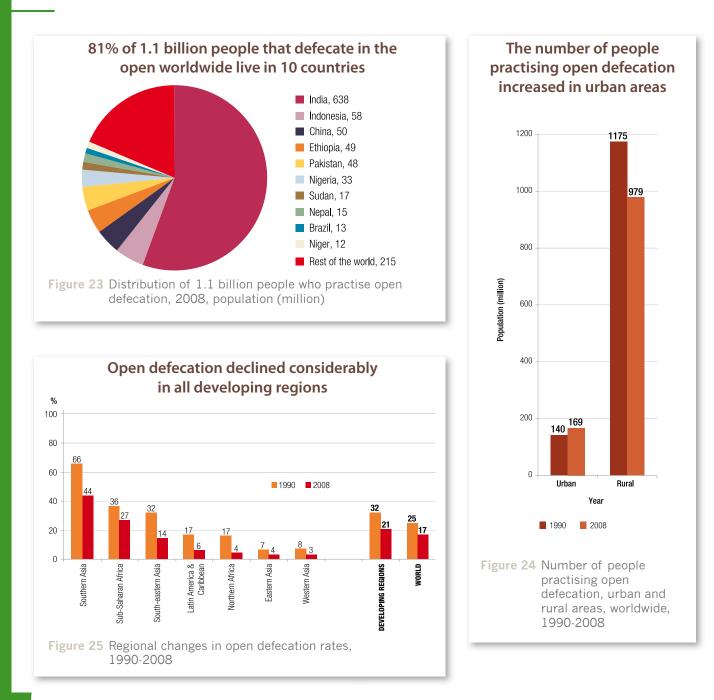


OPEN DEFECATION

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.



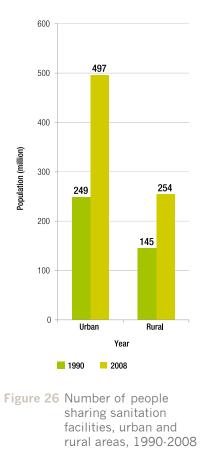
SHARED AND UNIMPROVED SANITATION FACILITIES

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%.

countries w	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 SH	ARED SANITATION,	2008 (%)			
COUNTRY	Urban	RURAL	TOTAL			
Ghana	70	38	54			
Uganda	56	22	26			
Kenya	51	18	25			
Sierra Leone	47	18	29			
Bolivia	44	16	34			
Togo	44	6	22			
Malawi	42	24	27			
Guinea	42	6	18			
Zimbabwe	40	15	24			
Nigeria	38	14	26			
Gabon	36	25	34			
Lesotho	35	3	11			

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

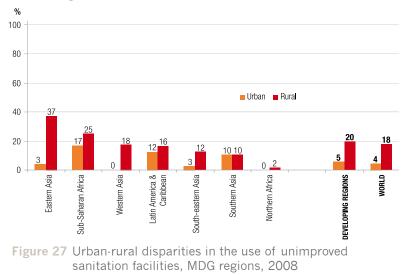


A TENTH OF THE WORLD POPULATION USES UNIMPROVED SANITATION FACILITIES

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.



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.



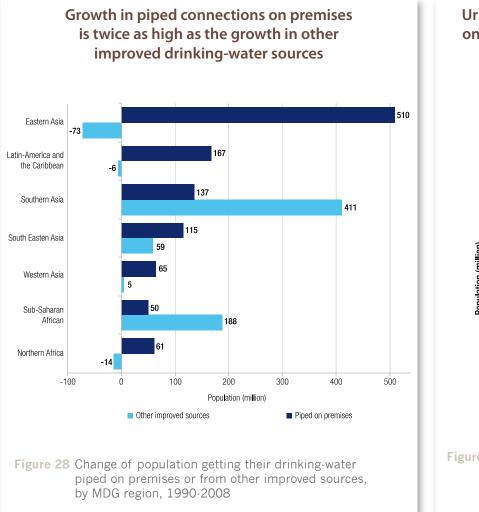
PIPED WATER ON PREMISES AND OTHER IMPROVED SOURCES OF DRINKING-WATER

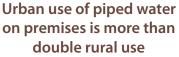
INVESTMENTS IN PIPED CONNECTIONS ON PREMISES DRIVE PROGRESS IN MOST REGIONS

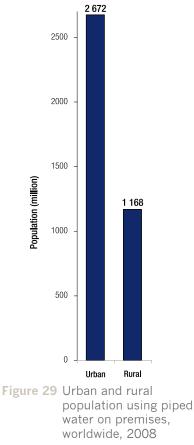
Between 1990 and 2008, more than 1.2 billion people worldwide gained access to a piped connection on premises. This is more than twice the population that gained access to other improved drinking-water sources. In Eastern Asia, Latin America & Caribbean and Northern Africa progress was exclusively the 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.









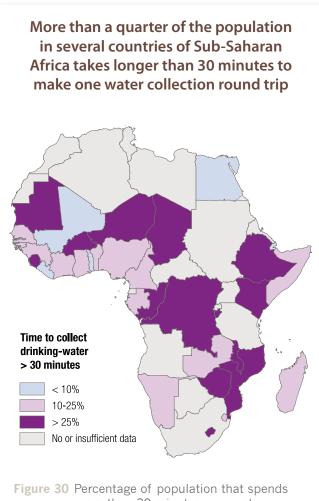


ADDITIONAL PERSPECTIVES



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



more than 30 minutes on a water collection round trip

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.

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.

> In many African countries, one third of the improved drinkingwater sources that are not piped on premises need a collection time of more than 30 minutes.

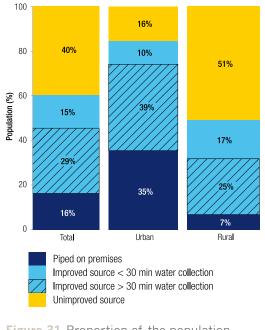


Figure 31 Proportion of the population spending half an hour or less, or more than half an hour, to collect water from an improved source, or using water from an unimproved source, Sub-Saharan Africa

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 guarter 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.

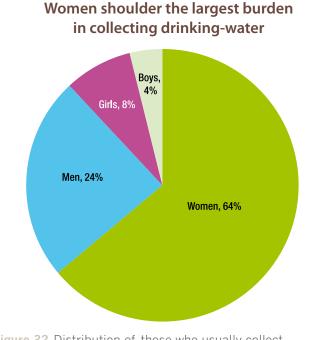


Figure 32 Distribution of those who usually collect drinking-water



5 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.

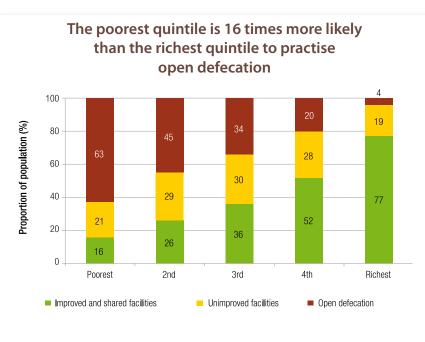


Figure 33 Proportion of the population using an improved, shared or unimproved sanitation facility or practicing open defecation, by wealth quintile, Sub-Saharan Africa

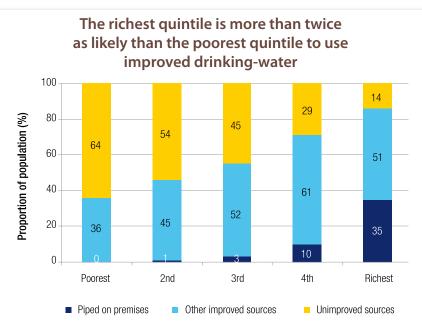


Figure 34 Proportion of the population using drinking-water piped on premises, other improved drinking-water source or an unimproved source, by wealth quintile, Sub-Saharan Africa



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 drinkingwater 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 singlepoint 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:	Use of the following facilities:	
IMPROVED SANITATION	 Flush or pour-flush to: piped sewer system septic tank pit latrine Ventilated improved pit (VIP) latrine Pit latrine with slab Composting toilet 	 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 	UNIMPROVED SANITATION
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 lineministries 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



a	cess to drinkin	o impro	e who gained ved sources r 1990-2008 rd)	1	I	4 764	32	5 172	I	1	8 139	I	42	3 983	667	1 936	I	I
	,		Jnimproved	- 79 52	I ന ന	6 11 17	000	64 59 50	1 04 1	ിതി	04 ω	4	000	000	000	30 26 20	4	1 1 1
	-		Other improved	19 - 14	11 31 ₋	26 18 11	1 1 1	36 35 30	15 -	12 -	25 19 17	၊ က တ	000	1 1 1	000	26 28 30	25	1 1 1
ES	Total	Improved	Piped	104	80 I	68 71 72	1 1	20 0 0	451	- 79	69 77 80	84 85 87	$100 \\ 100 $	1 1 1	$100 \\ 100 $	5 4 4 5 0	71	1 1 1
DURC		<u>=</u>	Total improved	21 21 48	- 6 76	94 83 83	100 100	36 41 50	1 0 1	91	94 96	- 60 96	100 100	100 100	100 100	70 74 80	96	1 1 1
ER S(ι	Jnimproved	83 - 61	ו שט מו	12 16 21	000	60 60 62	A N A A N A	11	22 22 20	- ¹ -	000	000	000	51 41 29	14	1 1 1
-WAT F PO	la	-7	Other improved	17 - 39	52 - 16	23 23 40	1 1 1	40 39 37	A A A A A A		50 39 35	19 - 23	000	1 1 1	000	32 41 51	۱۰۵۱	1 1 1
KING GE O	Rural	Improved	Piped	100	1 8 1 8 1 8 1 8 1 8 1 1 1 1 1 1 1 1 1 1	52 52 56	1 1 1	0	A N N N N N	82	22 39 45	59 64 70	100 100	1 1 1	100 100	17 18 20	80 1	1 1 1
DRIN		=	Total improved	39	95 98	88 84 79	100 100	40 38 38	N N N N N N	1 6 I	72 78 80	1 8 8 93 1	100 100	100 100	100 100	49 59 71	86 1	1 1 1
USE OF DRINKING-WATER SOURCES (PERCENTAGE OF POPULATION)		ι	Jnimproved	64 ₋ 22	004	0 15	000	70 57 40	1 04 1	വവവ	$\omega \omega \omega$	0 n n	000	000	000	12 12	~ ~ ~	000
USI I)	Urban	Ţ	Other improved	26 62	ი ო ს	13 13	000	29 31 26	15 -	22	21 17 15	n ω ⊢	000	1 1 1	000	21 16 10	29 -	000
	-	Improved	Piped	10 16	98 97 91	87 84 80	$100 \\ 100 $	12 1 34	4 5 1	73	76 81 83	96 96 97	100 100	1 1 1	$100 \\ 100 $	67 72 78	- 69 - 1	100 100
		-	Total improved	- 36 78	100 100 96	100 93 85	100 100 100	30 43 60	1 09	95 95 95	97 98 98	6 6 8 6 6 8	100 100	100 100	100 100 100	88888	8 8 8 8 8 8	100 100
	cess to	improv	e who gained ed sanitation housand)			10 406	32	7 606	9		6 647			3 983	667		82	1
		red	Open Defecation	- 28 16	1 1 1	トの4	000	61 44 23	1 1 1	1 1 1	1 1 1	000	1 1 1	000	000	101	000	1 1 1
	Total	Unimproved	Unimproved facilitites	40 47	101	1 5 2	000	14 16 20		ן טין	10 9 10	- ~ 9	1 1 1	000	000	51 44	000	1 1 1
s T	To	μIJ	Shared	1 1 1	1		1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	44	1 1 1	1 1 1	1 1 1	l r0 4	1 1 1	1 1 1
CILITIES ILATION)			Improved	32 - 37	- 06 86	88 92 95	100 100	25 40 57	6 6 6 6 6 6	95 -	90 91 90	1 8 0 1 08	1 1 1	100 100	100 100	44 ₋ 45	100 100	1 1 1
FACI		ved	Open Defecation	32 32	1 1 1	15 14	000	77 67 53	A N N A N N	1 1 1	1 1 1	000	1 1 1	000	000	1001	000	1 1 1
DF PC	Rural	Unimproved	Unimproved facilitites	40 - 50	141	0 4 0	000	17 22 29	A A A A A A	IOI	23 23	20 17	1 1 1	000	000	75 48	000	1 1 1
NITA AGE (æ	5	Shared	1 1 1	1				A N N N N N		1 1 1				1 1 1		1 1 1	1 1 1
USE OF SANITATION FACILITIES (PERCENTAGE OF POPULATION)			Improved	28 - 30		77 82 88									100 100		100 100 100	
USE (PER		oved	Open Defecation	11 - 2		0 1 1												
	Irban	Unimproved	Unimproved facilitites	43 - 1 88 88		-101											000	
	Shared		Shared															
<u> </u>	Improved Percentage urban			46 60		66 6 86									100 100		100 100 100	
	Percentage urban population					65 65 65												
P	Population (thousand) Year			12 580 20 536 27 208	3 289 3 068 3 143	25 283 30 506 34 373	53 84 66 84	10 661 14 280 18 021	8 11 15	62 77 87	32 498 36 939 39 883	3 545 3 076 3 077	63 91 105	17 091 19 171 21 074	7 671 8 005 8 337	7 212 8 121 8 731	256 305 338	493 650 776
	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	1990 2000 2008	1990 2000 2008	1990 2000 2008	1990 2000 2008
Со	untry,	area	or territory	Afghanistan	Albania	Algeria	Andorra	Angola	Anguilla	Antigua and Barbuda	Argentina	Armenia	Aruba	Australia	Austria	Azerbaijan	Bahamas	Bahrain

ac	ccess to drinkin	o impro	e who gained ved sources r 1990-2008 ind)	37 807	NA*	NA*	657	155	3 811	1	3 668	1	568	54 590	Q	1	NA*	7 964
			Unimproved	22 21 20	000	000	000	25 11 1	44 34 25	۱ on co	30 21 14	∣ m ⊣	201	12 9 J	20 20 20	1 1 1	000	59 40 24
	a		Other improved	72 73 74	1 1 1	28 - 11	000	28 28 25	49 56 63	- 37 35	20 13	12 - 17	69 33 33	10 6 6 10		1 1 1	12	39 57 72
) ES	Total	Improved	Piped	مەم	1 1 1	71 89	$100 \\ 100 $	47 61 74	10 12 12	54 57	50 66 77	85 82 82	24 44 62	78 87 91	97 97	1 1 1	8 8 1 8 8 1	≤ 0 ≤ 4
DURC		Ē	Total improved	78 79 80	100 100	100 100	100 100	75 89 99	56 66 75	91 92	70 79 86	- 99	93 94 95	88 93 97	8 8 8 8 8	1 1 1	100 100	41 60 76
ER SI		,	Unimproved	24 23	000		000	37 17 0	53 41 31	12	58 44 33	140	12 11 10	35 25 16	~ ~ ~	1 1 1	0 0	64 45 28
-WAT F POI	a	Ð	Other improved	76 77 78	1 1 1	- 69 27	4 - 0	43 41 39	47 57 67	43 - 43	28 23 20	_ 19 27	75 64 55	30 25 22		1 1 1	27 28 -	36 55 72
KING GE O	Rural	Improved	Piped	000	1 1 1	30 72	96 99 100	20 42 61	0 0 0	45 45	14 33 47	_ 77 71	13 25 35	35 50 62	97 97 97	1 1 1	72 72 -	000
USE OF DRINKING-WATER SOURCES (PERCENTAGE OF POPULATION)		5	Total improved	76 77 78	100 100	66 6 6 6 6 6	100 100	63 83 100	47 59 69	1 & & &	42 56 67	- 96 98	88 8 0 89 0	65 75 84	8 8 8 8	1 1 1	99 100 100	36 55 72
ERC		L.	Unimproved	12 15	000	000	000	11 15	28 22 16		∞ 0 4	1 -1 0	0 1 1	4 M H	~ ~ ~	1 1 1	000	27 15 5
USI (F	pan	U	Other improved	60 61	000	11 ⁻	000	12 13 12	53 55 58	18 - 1 18 - 1	14 7 2	I M O	61 38 19	4 N M		1 1 1	444	61 68 74
	Urban	Improved	Piped	28 26 24	98 100 100	89 95	100 100	77 82 87	19 23 26	81 - 83 - 83 - 83 - 83 - 83 - 83 - 83 -	78 87 93	96 94	39 61 80	92 95 96	97 97 97	1 1 1	96 96	12 17 21
		Ľ	Total improved	88 86 85	100 100	100 100	100 100	89 95 99	72 78 84	- 66 66	92 94 96	- 99 100	100 99 99	96 97 99	88888	1 1 1	100 100	73 85 95
	cess to	improv	e who gained ed sanitation thousand)	39 704	NA*	1	657	130	800		1 156		999	50 374	Q	1	NA*	1 147
		ved	Open Defecation	33 20	000	1 1 1	000	н и о	80 69 80 60 67 80	ത ത	53 35 21	0	36 24 16	13 10	000	1 1 1	100	79 71 64
	Total	Unimproved	Unimproved facilitites	10 13 15	000		000	11 2 7	► 8 8	26 26	20 11 2 20	- ω 4	22 19 15	18 15 13	000	1 1 1	- 0 0	11 14 15
s 🗲	P	5	Shared	18 21 25	1 1 1	100	1 1 1	907	20 14 8	1 1 1	26 31 34						1 1 1	
USE OF SANITATION FACILITIES (PERCENTAGE OF POPULATION)			Improved	39 46 53	100 100 100	93 I 93	100 100	74 82 90	5 9 12	65 65	19 23 25	95 95	36 50 60	69 75 80	100 100		99 100 100	6 8 11
FACI		ved	Open Defecation	24 8 8	000		000	12	95 87 80	111	20 83 20 83							
TION DF PC	Rural	Unimproved	Unimproved facilitites	10 13 16	000	101	000	202	ω40	35 - 35	15 25 25				000	1 1 1	000	9 8 0 10
USE OF SANITATION FA (PERCENTAGE OF POPL	ž	5	Shared	16 20 24		100		997			10 11 16		9 8 11 11			1 1 1		√ 0 10
SF SA			Improved		100 100			I< 00 00			ဖထတ		20 31 39				10 10	
USE (PERC		ved	Open Defecation	м сл – Л	000				10 4 m			100					000	
	Urban	Unimproved	Unimproved facilitites	12 15	000			17 8 0			10 2 16	- 0 -					000	
	Ξ	Э	Shared	20 26 26				402			41 38 41 44							0 0
			Improved	59 57 56	100 100	91	100 100	73 84 93	14 19 24	87 87	29 32 34	- 86 99	58 67 74	81 84 87	100 100		100 100	28 31 33
		entago 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	42 53 60	75 81 86	50 57 61	66 71 75	66 69 71	14 17 20
P	opula	tion (I	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		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		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
Соц	untry,	area	or territory	Bangladesh	Barbados	Belarus	Belgium	Belize	Benin	Bhutan	Bolivia (Plurinational State of)	ina	Botswana	Brazil	British Virgin Islands	Brunei Darussalam	Bulgaria	Burkina Faso

ac	cess to drinkin	o improv	e who gained ved sources ⁄ 1990-2008 nd)	1 837	5 491	8 009	5 558	I	I	1 209	3 137	4 260	425 096	12 192	247	I.	1
		U	Inimproved	58 83 30 58 53	65 54 39	50 36 26	000	17 16	1 2 2	42 37 33	62 55 50	10 4 6 1	33 20 11	12 8 9	13 5 8 5	30 - 29	ا ی ی
	al	-	Other improved	67 68 66	33 39 45	39 51 59	13 -	56 46	26 - 3	55 60 65	36 42 45	04 ω	13 13	0 7 00	71 67 65	4 4 1 4 4	1 1 1
) ES	Total	Improved	Piped	ω40	16 J 2	11 13 15	87 -	27 - 38	37 67 92	$\omega \omega \omega$	0 M D	84 90 33	54 71 83	86 84 84	16 25 30	26 - 28	1 1 1
DURC		<u> </u>	Total improved	70 72 72	35 46 61	50 64 74	100 100	83 - 83	93 95	58 63 67	38 45 50	90 94 96	67 80 89	88 91 92	87 92 95	_ 70 71	94 95 -
ER S		U	Inimproved	29 % %	67 58 44	69 57 49		20 - 18	N N N	53 51 49	64 59 56	52 34 25	18 30 44 18	32 29 27	17 8 3	966 I	13 13
-WAT F PO	al	-	Other improved	67 69 70	33 51	29 41 88	61	71 55	A A A V A A	47 49 51	36 41 43	26 27 28	$\begin{smallmatrix}&1\\1\\1\end{smallmatrix}$	9 11 14 0	73 75 76	31 - 33 - 33 - 33 - 33 - 33 - 33 - 33 -	1 1 1
KING GE O	Rural	Improved	Piped		0 0 0	01 01 M	1 <u>8</u> 1	- 9 27	A A A	000	001	22 39 47	42 59 73	59 57 56	10 17 21	I M M	1 1 1
ENTA		<u> </u>	Total improved	68 70 71	33 42 56	31 43 51	66 66 66 66 66 66	80 [–] 82	N N N	47 49 51	36 41 44	48 66 75	56 70 82	68 71 73	83 92 97	34 ₋ 34 ₋	87 87 -
USE OF DRINKING-WATER SOURCES (PERCENTAGE OF POPULATION)		U	Inimproved	11 3 11 3	48 36 19	23 14 8	000	14 15	- L 2	22 15 8	52 40 33		$\omega \otimes \omega$	0 1 1	0 N D O	ى ى ا	0
USE	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 0	11 6 1	04 n	67 48 38	52 - 52	1 1 1
	Urban	Improved	Piped	32 41 47	17 33 55	25 25 25	100 100	42 - 46	37 67 92	8 ~ 9	10 14 17	97 98 99	86 92 96	95 95	31 45 53	4 4 4 1 0 1	1 1 1
		<u> </u>	Total improved	97 89 83	52 64 81	77 86 92	100 100	86 I 85	93 95	78 85 92	48 60 67	66 6 6 6 6 6	97 98 98	8 6 6 8 6 6	98 93 91	95 95	66 66 86
Nu acc	ess to	improve	e who gained ed sanitation housand)	1 214	3 351	3 222	5 558		28	1 153	616	5 052	267 319	10 730	163		m
		/ed	Open Defecation	μνω	84 74 64	13 8 5	000	53 42	1 1 1	35 27 20	79 71 65	ы о н	r 0 4	16 10 7	0	100	100
	Total	Unimproved	Unimproved facilitites	48 48 47	עסט	27 32 35	000	N 4	444	48 39 28	10 15 17	11 6 3	41 30 24	2 N N	81 69 62	36 37	4 0 0
s Ţ	T 0	μIJ	Shared	ഗവവ	0 M D	13 13 13	1 1 1	1 1 1	1 1 1	6 12 18	9 7 2	1 1 1	11 15 17	11 11 12	0 0 1	25 25	1 1 1
ACILITIES ULATION)			Improved	44 45 46	9 17 29	44 74 74 74	100 100	45 54	96 96	11 22 34	9 1 0	84 92 96	41 49 55	68 72 74	17 28 36	30 [–] 30 –	96 100 100
USE OF SANITATION FACILITIES (PERCENTAGE OF POPULATION)		ved	Open Defecation	m Ω ⊓	89 82 75	21 15 10	111	74 56	A N N	49 40 31	93 87 83	► 4 Ø	0 0 0	42 30 22	0 1 0	- 18 18	1 10
TION DF PC	Rural	Unimprovec	Unimproved facilitites	4 4 4 9 4 9	n o n	36 42 47		0 10 1	A N N	44 36 27	ოსდ	45 25 15	47 41 38	11 15 18	86 74 68	37 37	0 1 0
USE OF SANITATION FI (PERCENTAGE OF POP	ĸ	5	Shared	444	0 4	ထထထ	1 1 1	1 1 1	A A A A A A	⊂ ∞ ¹	0 4 D	1 1 1	8 7 9	4 ഗ ഗ	0 0 H	16 16	1 1 1
DF SA			Improved	45 46 46	10 18 18	35 35 35	6 6 6 6 6 6	24 38	A N N A N N	5 16 28	0 M 4	48 71 83	38 46 52	43 50 55	11 23 30	29 29	91 99 100
JSE (ved	Open Defecation	N	48 22 33	0	000	33 [–] 33	1 1 1	0 0 m	26 20 16	ы 0 н	ഗവന	4 N N	001	100	0 0 0
	Urban	Unimproved	Unimproved facilitites	40 33 27	୶୰୶	13 20 26	000	1 1 0	444	57 30 44 30	86 4 38 42 4 38	401	24 12 6	040	56 46 64	36 1 36 1	0 0 0
	Ŀ	5	Shared	18 20 22	5000	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 15 15	0 0 M	31 - 33 - 33 - 33 - 33 - 33 - 33 - 33 -	1 1 1
			Improved	41 46 49	38 50 67	65 60 56	100 100	64 65	8 8 8 8 8 8 8 8	21 32 43	22 23 23	91 96 98	55 58 58	80 81 81	34 50 50	31 31 31	100 100 100
		entage opulat	e urban tion	6 8 10	13 17 22	41 50 57	77 79 80	44 53 60	100 100	37 38 39	21 23 27	88 86 88 88	27 36 43	68 72 74	28 82 28 58	54 58 61	57 65 71
P	opula	tion (t	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
Соц	untry,	area	or territory	Burundi	Cambodia	Cameroon	Canada	Cape Verde	Cayman Islands	Central African Republic	Chad	Chile	China	Colombia	Comoros	Congo	Cook Islands

ac	ccess to drinkir	o impro	e who gained ved sources r 1990-2008 nd)	1 521	6 889	1	1 851	182	16	3 676	12 901	318	350	1	2 071	5 272	28 706	1 393
			Jnimproved	n n u	22 22 20	1	18 10 6	000	000	000	55 56 54	000	23 16 8	ا ی ا	12 13 14	28 14 6	10 1 4 1	26 18 13
	0		Other improved	$11 \\ 5 \\ 1$	54 47 40	11 1	18 19	000	ى كى ا	1 23 1	30 32 37	0	20 20	25	15 15 14	25 13 6	29 18 7	31 26 22
ES	Total	Improved	Piped	82 96 96	22 31 40	1 8 8 8	64 71 75	100 100	95 95	- 77 	14 12 9	100	57 65 72	70	73 72 72	47 73 88	61 78 92	43 56 65
DURC		Ē	Total improved	93 95 97	76 78 80	66	82 94	100 100	100 100	100 100	45 44 46	100 100	77 84 92	95 -	88 87 86	72 86 94	06 96	74 82 87
ER SC PULA		U	Jnimproved	11 11 9	33 33 33	I M M	47 27 11	000	000	000	73 73 72	000	31 39 48	1 co 1	24 20 16	38 22 12	14 1 2 2	42 32 24
-WAT F POI	평	77	Other improved	2 8 ¹ 5	62 57 54	20 1	23 29 35	000	1 o o	- 29 -	27 26 26	000	50 49 49	43 -	0 0 0 0 0 0 0	38 23 14	47 28 11	44 39 34
OF DRINKING-WATER SOURCES ERCENTAGE OF POPULATION)	Rural	Improved	Piped	71 81 89	10 1 14 1	- 77 77	30 54 54	100 100	91 91	71 	0 1 0	100 100	19 12	49	46 50 54	24 55 74	39 65 87	14 29 42
		E	Total improved	86 89 91	67 67 68	- 97 97	53 73 89	100 100	100 100	100 100	27 27 28	100 100	69 61 52	92	76 80 84	62 78 88	86 93 98	58 68 76
SE OF DRINKING-WATER SOURCE (PERCENTAGE OF POPULATION)		L.	Jnimproved	0	10 8 7	100	ΓΩ4	000	000	000	10 15 20	000	20 20 20	4	13 æ 2	0 თ ო 1	4 - 0	0 8 0
USE (PI	an	T	Other improved	r 20	41 33 26	4 4	16 15 14	000	ოოო	19	39 47 57	0	11 13 16	18	4 0 ト	15 1 1	04 -	18 16
	Urban	Improved	Piped	92 97 100	49 59 67	- 96 96	77 80 82	100 100	97 97 97	81 - 8	51 38 23	100	69 75 82	78	94 80 80 80	66 85 96	90 95 99	72 76 80
		Ē	Total improved	99 99 100	92 0 93 0 93	100 - 100 - 100	93 95 96	100 100	100 100	100 100	8 8 90 8 8	100 100	8 8 8 8 8 8	1 96 1	98 92 87	81 91 97	96 99 100	92 92 44
	cess to	improv	e who gained ed sanitation housand)	1 430	2 214		1 727	182	NA*		11 448	318	106		2 878	5 311	35 030	1 339
		ved	Open Defecation	0 1 0	36 32 27	100	0 0 0	000	000	1 1 1	18 11 10	000	20 14 8	17 -	11 7 4	21 11 3	11 5 0	11 11 6
	Total	Unimproved	Unimproved facilitites	-01	29 30 32	100	12 2 2	000	000	41	61 51 41	000	18 32	$ \circ $	ωwα	0 m cv	13 13	0 0
s Ç	To	5	Shared	444	15 16 18		9 ~ ~	1 1 1	0 0 0	1 1 1	12 19 26	1 1 1	დ ი 4	1 1 1	10 11 11	<2 m m	44 W	465
CILITIES JLATION)			Improved		20 22 23		80 86 91						66 63 56		73 79 83			
) FAC		ved	Open Defecation	4 0 0	56 52 48		אטט	000	000	1 1 1	23 18	000	47 53 61		20 13 7			
TION DF PC	Rural	Unimproved	Unimproved facilitites		5 8 28 5 8 8		10 20 10 4	000	000	1 0 1	69 56	000	13 2 28 2	101	000	а с 11 12 1	5 0 2 7 0 2	- 0 0
USE OF SANITATION FACILITIES (PERCENTAGE OF POPULATION)	æ	Ξ	Shared	_	10 8 1 10 8										11 12 13			
OF S/			Improved	91 94 96			64 73 81				-		45 30 10		61 69 74			
USE (oved	Open Defecation	0									11 6 0		ωωα			
	Urban	Unimproved	Unimproved facilitites	-0-	ოოო										ы 70 сл			
	Σ	5	Shared	_	25 24 24										0 10 10			
			Improved	94 95 95	37 37 36	' 6 6 	86 94 94	100 100	10C 99	1 28 1	23 23 23	100 100	73 69 63	8	83 85 87	92 96	91 95 97	8888
		entage opula	e urban tion		4 4 4 0 4 6										60 00 00 00 00 00 00 00 00 00 00 00 00 0			
P	opula	tion (t	thousand)	ω ω 4	12 610 17 281 20 591		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
		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	1990 2000 2008	1990 2000 2008
Соі	untry,	area	or territory	Costa Rica	Côte d'Ivoire	Croatia	Cuba	Cyprus	Czech Republic	Democratic People's Republic of Korea	Democratic Republic of the Congo	Denmark	Djibouti	Dominica	Dominican Republic	Ecuador	Egypt	El Salvador

a	ccess to drinkin	o impro	e who gained ved sources r 1990-2008 nd)	1	1 647	*AN	22 461	I	318	5 194	I	70	I	865	NA*	2 831	11 065	1 383
		ι	Jnimproved	57 -	57 46 39	~ ~ ~	83 72 62	1 1 1	000	000	- 16 -	000	15 13 13	26 16 8	19 11 2	000	46 29 18	4 - 0
	a	σ	Other improved	37	37 47 52	12 12 8	16 24 31	1 1 1	0 4 I	- 0 0	ו מו	200	42 ₋	65 62 59	28 25 25		38 54 65	4 - 0
ES	Total	Improved	Piped	40	9 ~ 6	80 80 00 00	-1 4 M	19	92 96	99 100 100	- 79 -	86 89 88 88 88	43 - 43	22 33 33	53 61 73	66 6 6 6	16 17 17	92 98 100
OURC		=	Total improved	43	43 54 61	8 8 8 8 8 8 8 8 8	17 28 38	1 1 1	100 100	100 100 100	84 -	100 100	85 87	74 84 92	81 89 98	100 100 100	54 71 82	96 99 100
ER S		U	Jnimproved	1 28 1	61 50 43	ოოო	92 82 74	1 1 1	000	000	29	000	53 - 59	33 23 14	20 34 20 4	000	63 42 26	- 1 0 0
-WAT F PO	a		Other improved	1 2 1	39 50	46 32 22	8 18 26	1 1 1	15 1 8	0 1 2	101	444	39 - 31 -	67 74 81	47 46 45	ოოო	35 55 71	10 m 0
KING GE O	Rural	Improved	Piped	000	000	51 65 75	000	~	85 92 1	95 99 100	65	96 96 96	1 8 1	οωυ	19 34 51	97 97	ოო	82 95 99
OF DRINKING-WATER SOURCES ERCENTAGE OF POPULATION)		=	Total improved	+ 7 2	39 50 57	97 97	8 18 26	1 1 1	100 100	100 100	71	100 100	47 41	67 77 86	96 96 96	100 100	37 58 74	92 98 8 99
SE OF DRINKING-WATER SOURCE (PERCENTAGE OF POPULATION)		L.	Jnimproved	55	20 30 38 50 30 38		23 12 23	00 M I	000	000	12	000	പവ	15 4 9 5	ဖကဝ	000	16 12 10	- 0 0
USE (PE	an		Other improved	59	32 82 52 33 58 53	► 4 0	67 58 58	61 -	4 - 0	000	ו מו ו		43 ₋ 46	61 50 41	13 11 8	000	43 53 60	000
	Urban	Improved	Piped	12 16	4 4 4 0 7 7 4 0	92 95 97	10 26 40	32	96 99 100	$100 \\ 100 \\ 100$	83 1	66 6 6 6 6 6	52 49	24 41 55	81 86 92	$\begin{smallmatrix}&1\\1\\0\\0\end{smallmatrix}$	41 35 30	99 100 100
		=	Total improved	45	62 70 74	6 6 6 6 6 6	77 88 98	92 93	100 100	100 100	1 00 1	100 100	95 95	85 91 96	94 97 100	100 100	84 88 90	99 100 100
	cess to	improv	e who gained ed sanitation housand)	'	406	1	7 754	I	318	5 194	1	69	1	I	NA*	2 831	1 988	1 059
		/ed	Open Defecation	1 1 1	89 87 85	100	92 77 60	1 1 1	000	000	1 1 1	1 1 1	- n -	∣ 10 4		000	22 21 20	m ∩ ⊓
	Total	Unimproved	Unimproved facilitites	1 4 1	-1 0 0	100	1 10 21	1 1 1	000	000	22	~ ~ ~	24 32	13 - 8	0 0 1	000	42 27 13	001
s G	Ê	μIJ	Shared	1 1 1	1 1 1	പവ	ч u м	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	37 34	21	~ ~ ~	1 1 1	29 54 54	1 1 1
ACILITIES ULATION)			Improved	51	11 9 11 9	95 95	1 0 4 0 1	1 1 1	100 100	100 100	78	86 86 86 86 86 86 86 86 86 86 86 86 86 8	36 - 33	- 63 67	96 95 95	100 100	7 9 13	97 98 98
FACI		/ed	Open Defecation	1 1 1	100 97 96	100	99 86 71	1 1 1	000	000	1 1 1	1 1 1	1 10 01	102	~ ~ ~	000	28 31 34	00 4 N
TION DF PC	Rural	Unimproved	Unimproved facilitites	1 1 1	0 - 0	100	0 8 0 19	1 1 1	000	000	43	ოოო	41 - 43	17 - 14	0 0 4	000	47 33 21	001
NITA VGE O	Ru	5	Shared	1 1 1	1 1 1	100	0 1 0	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	24 25	13 - 14		1 1 1	21 31 38	1 1 1
USE OF SANITATION FACILITIES (PERCENTAGE OF POPULATION)			Improved	- 46 -	0 0 4	94 - 94 -	0 U U	1 1 1	100 100	100 100	- 57	97 97 97	30 [–] 30	_ 61 65	95 94 93	100 100	4 10 M	92 96 97
JSE O		ved	Open Defecation	111	32 38 41	100	47 26 8		000	000	1 1 1	1 1 1	- 0 H		000	000	11 9 V	000
	Urban	Unimproved	Unimproved facilitites	1 1 1	10 8 /	100	18 29	04	000	000	15		21 20 30	104	1 1 0	000	34 18 5	0 -1 -1
	5	-5	Shared	1 1 1	1 1 1	44	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	1 09	58 54 52	¹ 96 96	21 26 29	92 96	100 100	100 100	85	66 66	37 - 33 33	- 65 68	97 96 96	100 100 100	11 15 18	100 99 99
			e urban tion	30 30 30 30	16 18 21	71 69 69	13 15 17	4 4 2 5 2 8	61 61 63	74 76 77	75 75 76	56 52 52	69 80 85	38 49 57	55 53 53	73 73 74	36 44 50	59 60 61
Р	population Population (thousand) Year	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		
		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
Co	untry,	area	or territory	Equatorial Guinea	Eritrea	Estonia	Ethiopia	Fiji	Finland	France	French Guiana	French Polynesia	Gabon	Gambia	Georgia	Germany	Ghana	Greece

a	ccess to drinkin	o impro	e who gained wed sources r 1990-2008 nd)		1	76		42	5 559	3 785	1	1	2 881	2 765	62	61	418 886	55 933	1	9 132
			Unimproved	1	ı و	10	11	000	11 18 11 18	2 8 8 8 2 2 8 8 8 6	45 39	11 - 6	53 45 37	28 20 14	4 0	000	28 19 12	29 23 20	6 M I	19 20 21
	<u>a</u>	T	Other improved	1	13	1 C	, I	1 1 1	33 22 13	13 55 61	50 - 52	29 27	38 45 51	14 w w	10 7 9	000	53 61 66	62 61 57	~ ~ '	Iwm
) ES	Total	Improved	Piped	1	81	1 00	, I	1 1 1	49 67 81	6 6 10 10	o n n	– 60 67	9 10 12	58 72 83	86 92 94	100 100	19 20 22	9 16 23	84 86 -	- 74 76
SOURCES LATION)		Ē	Total improved	1	94	1 00)	100 100	82 89 94	52 62 71	- 55 61	- 89 94	47 55 63	72 80 86	96 99 100	100 100	72 81 88	71 77 80	91 93	81 80 79
ER SI			Unimproved	1	► -		. 1	000	25 16	62 62 39	63 55 49	13	59 51 45	41 31 23	6 N O	000	34 24 16	38 33 29	17	56 51 45
-WAT F POI	a	Ð	Other improved	1	18	1 00) I	1 1 1	40 31 22	51 51 60	37 45 50	33 ¹ 30	39 46 51	17 10	19 12 7	000	58 67 73	60 63 63	14 14	12 - 6
KING GE O	Rural	Improved	Piped	1	75	75	<u>,</u> 1	1 1 1	35 53 68	8004	001	54 - 63	0 ω 4	42 59 72	72 86 93	100 100	11 9 8 11	0 ک N	69 69	37 49
OF DRINKING-WATER ERCENTAGE OF POPU		5	Total improved	1	60 I	1 6	<u>}</u>	100 100	75 84 90	38 51 61	37 45 51	87 93	41 49 55	59 69 77	91 98 100	100 100	66 76 84	62 67 71	8 8 I	44 49 55
SE OF DRINKING-WATER SOURCE (PERCENTAGE OF POPULATION)			Unimproved	m	ოო	20	1 01	000	סהע	13 12 11	21 21 17		29 33 88 29 33	9 2 5	000	000	10 1 / 4	8 01 11 11	~ ~ ~	രവന
USE (PE	pan	Ð	Other improved	1	4	0 0	> 0	1 1 1	23 123	0 64 63	61 56	18 - 22	35 43 50	044	4 ഗ ഗ	000	38 43 48	68 59 52	~ ~ ~	- m -
	Urban	Improved	Piped	1	е I	86 86	280	1 1 1	68 83 95 83	21 24 26	6 18 27	- 75 76	27 24 21	88 89 84	95 95	100 100	52 50 48	24 31 37	96 96 96	92 - 90
		E	Total improved	97	97 97	90 80 80	2 86 86	100 100	91 95 98	88 88 89 89	79 83	93 ¹ 80	62 67 71	91 93 95	98 100 100	100 100	0 6 6 8	92 99 89 89	8 8 8 8 8 8	97 95 91
	cess to	improv	le who gained red sanitation thousand)		2			41	5 294	1 315	I	I	-169	3 040	NA*	61	211 049	59 682	1	
		ved	Open Defecation	Ľ	1 1			1 1 1	23 13 7	41 30 22	38 - 31 -		40 30	39 24 12	000	000	74 63 54	39 31 26	1 1 1	רא ט א ו
	Total	Unimproved	Unimproved facilitites	m	ოო		-		ωσα	41 41 0	42 46	11 - 11	30 Q 30 Q	10 10	000	000	0 4 0	21 16 12	17	10 - 8
S 🗲	To	5	Shared	ľ	11			1 1 1	444	1 0 1 1 0 1		100	21 18 14	8 1 2	1 1 1	1 1 1	ဖထတ	⊳ 0 1	1 1 1	_ 16 17
USE OF SANITATION FACILITIES (PERCENTAGE OF POPULATION)			Improved	97	97 97	11	1	0 0 0 0 0 0 0 0 0 0 0 0	65 74 81	15 19 19	_ 18 21	79 81	26 22 17	44 59 71	100 100	100 100	18 25 31	33 44 52	8 8 I	- 69 73
FACI		ved	Open Defecation							54 33 33 33		⊣ 0	62 56 49	58 38 22	000	000	90 79 69	48 42 36	1 1 1	15 - 15
TION DF PC	Rural	Unimproved	Unimproved facilitites	m	ოო	1 1	-	~ ~ ~	12 13	36 36 50	40 1	14 1	20 35	12 11 11	000	000	040	23 19 17	22	
USE OF SANITATION FA	ž	Ĵ	Shared		1 1					14 M Ø								11 9 7		10 - 12
OF SA SENT			Improved	97	97 97			8 8 8 8 8 8	51 63 73	6 9 11					100 100			22 30 36		54 66
USE (ved	Open Defecation	1				1 1 1		-1 3 Q F							28 28 18			100
	Urban	Unimproved	Unimproved facilitites	4	44	l uc	പ		4 M V	53 53 37 23										ى ى ا
	Э	Σ	Shared							0 0 4			+ 45 45 24				19 20 21 21			19 - 19
			Improved	96	96 96	- 00	95	56 6 6	84 87 87	18 18 34 34	43 - 49	85 85 85	44 34 24	68 75 80	100 100	100 100	52 54	58 63 67	86	_ 76 76
		entag opula	e urban tion	32	31 31	66 60	2 8	91 93 93	41 45 40	28 31 34							26 28 29	31 42 52	56 64 68	70 68 67
P	opula	tion (thousand)	96	101 104	386	464	134 155 176	8 910 11 231 13 686	13 000 6 147 8 384 9 833	1 022 1 304 1 575	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	2008	1990 2000 2008	1990 2000 2008	2000 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
Со	untry,	area	or territory		Grenada	Guadeloune		Guam	Guatemala	Guinea	Guinea-Bissau	Guyana	Haiti	Honduras	Hungary	Iceland	India	Indonesia	Iran (Islamic Republic of)	Iraq

a	ccess to drinkin	o impro	e who gained ved sources r 1990-2008 nd)	922	2 538	2 606	347	4 102	2 734	NA*	12 795	I	768	I	1	NA*	1 219	765
		U	Jnimproved	000	000	000	N > 9	000	ω44	44 n	57 48 41	1 38 38 38		18 - 10	52 43		000	39 26 15
	a	-	Other improved	000	000		32 27 24	г 4 0	0 M D	33 36 37	24 34 40	23 29	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	90 90 98	95 93 91	63 58 58	19 18 19	25 33	1 1 1	44 48 54	12 - 20	82 N	1 8 1	4 1 19
DURC		=	Total improved	100 100 100	100 100	100 100	93 93 94	100 100	97 96 96	96 95	52 52 59	48 62 1	6 6 6 6 6 6	82 - 90	48 57	66 66	100 100	61 74 85
		U	Jnimproved	000	000	000	12 11 11	000	თთთ	8 e 0	68 57 48	67 50			60 - 19	444	000	43 31 19
-WAT F PO	<u>a</u>	-	Other improved		~ ~ ~	400	55 47 42	14 0 0	4 0 C	64 65 66	22 32 40	20 29	1 1 1	43 51	35 47	37 37	15	56 66 76
KING GE O	Rural	Improved	Piped	6 6 6 6 6 6	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 21 -	1 1 1	25 30 34	ΙΩ4	29 29	8 8 1 2 1	0 M I
USE OF DRINKING-WATER SOURCES (PERCENTAGE OF POPULATION)		=	Total improved	100 100	100 100	100 100	8 8 8 8 8 8 8 8	100 100	91 91 91	92 91 90	32 43 52	33 50	6 6 6 6 6 6	_ 73 85	40 - 51	96 96 96	100 100	57 69 81
E OF I		U	Jnimproved	000	000	000	~ ~ ~	000	~ ~ ~		9 13 17	24 - 23		~ ~ ~	23 - 28	000	000	12 a u
USE	an		Other improved	000	000	000	б ю Г	n v u	ы 0 4	8 17 17	34 38 39	1 29 30	1 1 1	23 16 10	- 42 17	~ ~	000	86 33 33 33 33 33 33 33 33 33 33 33 33 33
	Urban	Improved	Piped	100 100	100 100	$100 \\ 100 $	89 91 91	97 98 99	98 96 94	91 87 82	57 49 44	46 1 48	1 1 1	75 82 89	35 - 55	93 - 93	100 100	19 39 59
		=	Total improved	100 100	100 100	100	8 8 8 8 8 8	100 100	66 6 6 66 6 6	66 66 66 66 66 66	91 87 83	76 77 -	6 6 6 6 6 6	8 8 6 8 8 6	_ 77 72	100 100	100 100	88 92 97
	cess to	improv	e who gained ed sanitation housand)	913	2 538	1	285	4 102	1	NA*	5 925	1	776	I	1	I	1	82
		/ed	Open Defecation	000	000		000	000	100	- 0 0	14 15 15	57 49 -	000	100	64 ₋ 38	100	1 1 1	45 40 40 40
	Total	Unimproved	Unimproved facilitites		000		ω4 ω	000	100		40 29 34 29	13 13	000	44	o o ا	12	0	16 20 20
s Ə	4	'n	Shared	1 1 1	1 1 1	1 1 1	$\begin{smallmatrix}&1\\1\\4\\4\end{smallmatrix}$	1 1 1	100	~ ~ ~	22 25 25	4 W I	1 1 1	I ന ന	INM	10	1 1 1	7 9 11
			Improved	6 6 6 6 6 6	100 100		83 83 83 83	100 100	1 8 8	96 97 97	26 29 31	26 33 -	100 100	93 I	26 - 53	- 78 78	1 8 1	32 29 29
FACI PUL/		/ed	Open Defecation	000	000		001	000	100	0 1 0	17 18 18	65 55	000	100	_ 75 52	100	1 1 1	51 51 51
TION DF PC	Rural	Unimproved	Unimproved facilitites	~ ~ ~	000		നവവ	000	1 1 0	0 1 1	41 36 32	12 21 -	000	ى كى ا	1 00 00	26 26	13	13 17 21
NITA AGE O	Ru	5	Shared	1 1 1	1 1 1	1 1 1	12 12 12	1 1 1			15 16 18	~~~	1 1 1	100	1 11 0	m m	1 1 1	44 ω
USE OF SANITATION FACILITIES (PERCENTAGE OF POPULATION)			Improved	0 0 0 8 8 8	100 100		83 83 84	100 100	- 96 97	97 97 98	27 30 32	21 22 -	100 100	93 93	 16 38	_ 71 71	87	32 28 25
JSE C		ved	Open Defecation	000	000		0 0	000	000	000	m m ∩	$^{41}_{-}$	000	000	20 I	100	000	თთთ
	Urban	Unimproved	Unimproved facilitites	000	000		~ ~	000	000	- 0 0	20 33 28 20 3	10 1	000		၊ထက	ى كى ا	000	37 27 17
	5	5	Shared	1 1 1	1 1 1	1 1 1					45 48 51		1 1 1	വവ	∣4 ⊓	13 1	1 1 1	25 30 35
			Improved	100 100	100 100		82 82 82 82	100 100	8 8 8	96 97 97	24 26 27	36 47 -	100 100	94 94 94 94	62 86 86	82 82	100 100	29 35 40
		entage opula	e urban tion	57 59 61	90 91	67 67 68	52 53	63 65 66	72 78 78	56 56 58	18 20 22	35 43 50	8 8 8 8	35 35 36	15 22 31	69 88 88 88	83 86 87	14 25 25
P	opula	tion (1	thousand)	3 515 3 804 4 437	4 514 6 084 7 051	56 998 57 116 59 604	2 364 2 568 2 708	123 191 126 706 127 293	ω40	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
		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
Со	untry,	area	or territory	Ireland	Israel	Italy	Jamaica	Japan	Jordan	Kazakhstan	Kenya	Kiribati	Kuwait	Kyrgyzstan	Lao People's Democratic Republic	Latvia	Lebanon	Lesotho

ac	cess to drinkir	o impro Ig-watei	e who gained ved sources r 1990-2008 nd)	1 323	1	1	66	4 341	8 096	11 083	84	4 605	47	12	1	979	221	31 149
		(thousa L	na) Inimproved	42 35 32	46 1 1	1 1 1	000	69 20 20	80 37 20	12 0 3	01 0 0 0	71 56 44	000	ഗവവ	1 1 1	70 60 51		15 10 6
	_		Other improved	47 58 66	1 1 1	1 1 1	000	25 30 34	33 56 73	3 8 16 3 8	78 72 54	25 36 44	000	93	1 1 1	24 25 27	000	0 ~ ~
ES	Total	Improved	Piped	11 7 7 7	1 1 1	76 80 -	100 100	9 ~ ~	~ ~ ~ ~	72 89 97	12 19 37	4 8 5	100 100		1 1 1	6 15 22	66 6 6	77 83 87
USE OF DRINKING-WATER SOURCES (PERCENTAGE OF POPULATION)		Ē	Total improved	58 65 68	54 54	1 1 1								95 95 94	1 1 1	06 4 0 0 4 0	66 6 6 6 6 6	85 90 94
ER SC PULA		L	Inimproved	66 56 49	45 45	1 1 1	000	84 76 71	67 23 23	18 1 7	13 13 13	78 66 56	~ 0 0	ωαц	1 1 1	74 63 53		36 23 13
-WAT F POI	a	-	Other improved	31 42 51	1 1 1	1 1 1	200	16 22 25	31 56 75	23 8 13	87 87 84	22 33 43	000	- 66	1 1 1	26 29 33	000	14 15 15
KING GE O	Rural	Improved	Piped	m N O	1 1 1	49 55	8 8 8 8 8 8	0 0 4	20 00 00	59 80 91	000	0 -1 -1	98 100 100	110	1 1 1	1 8 0	66 6 6 6 6 6	50 62 72
DRIN		<u> </u>	Total improved	34 44 51	55 55	1 1 1	100 100	16 24 29	33 58 77	82 83 80 80	87 86 86	22 34 44	98 100 100	97 98 99	1 1 1	26 37 47	66 6 6 6 6 6	64 77 87
ERCI		U	Inimproved	14 18 21	46 1	1 1 1	000	22 23 29	10 5 J	0 1 0	001	46 31 19	000	8 7 0	000	64 55 8	000	ი ი 4
USE (F	Urban	σ	Other improved	65 71 76	1 1 1	1 1 1	000	53 54 57	45 59 69	∞4⊓	53 32 4	37 43	000	91		21 19 18	000	დ ი 4
	L'	Improved	Piped	21 11 3	1 1 1	89 92 -	$100 \\ 100 $	25 19 14	45 34 26	86 95 99	47 68 95	17 26 34	100 100		6666	15 26 34	100 100	88 90 82
		-	Total improved	86 82 79	54 54	1 1 1	100 100	78 73 71	90 93 92	94 99 100	100 001 00	54 69 81	100 100	94 93 92	$\begin{smallmatrix}&1\\1\\0\\0\end{smallmatrix}$	36 52 52	100 100	94 95 96
	ess 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
		ved	Open Defecation	44 46 49	1 1 1	1 1 1	000	65 45 32	31 19	0 10 20	22 14 22	29 21 16	000	14	1 1 1	44 53	000	23 12 4
	Total	Unimproved	Unimproved facilitites	29 22 14	ოოო	1 1 1	000	14 27 37	∧ ∧ ∞	0 1/2 00	രഹര	33 32 30	000	26 19	1 1 1	34 22 11	~ ~ ~	Ω4 0
S (N	P	5	Shared	16 18 20	1 1 1	1 1 1	1 1 1	13 18 20	20 24 27	ω44	1 1 1	12 15 18	1 1 1	10 12 12	1 1 1	10 8 6		୰ଊଡ଼
CILITIES JLATION)			Improved	$111 \\ 141 \\ 171 $	97 97 97	1 1 1	100 100	11 11	42 50 56	84 92 96	69 81 98	26 32 36	100 100	64 69 73		16 21 26	91 91 91	66 76 85
		oved	Open Defecation	68 73 77	1 1 1	1 1 1	000	77 54 38	35 22 11	041	19 30 19	36 28 21	000	351 1	1 1 1	58 68 79	000	54 31 12
USE OF SANITATION FA (PERCENTAGE OF POPL	Rural	Unimproved	Unimproved facilitites	12 12 7	444									1 1 0			ოოო	
AGE (œ	Þ	Shared	11 11 11				9 11 17										
OF S/			Improved	ω44				6 10 10									06 06 06 06	
USE (oved	Open Defecation	15 23 30													000	
	Urban	Unimproved	Unimproved facilitites														000	
	D	Э	Shared	21 24 25				26 27 28						112				
			Improved	21 23 25	97 97 97		100 100 100	14 15 15	50 51 51	88 94 96	100 100	36 41 45	100 100	77 80 83	94	20 38 20	8 6 6 6	9 8 9 9 8 9
		entage opulat	e urban tion	45 54 60	76 76 78	67 67	81 84 82							65 66 68		40 4 4 0 4		
P	opula	tion (t	housand)			3 698 3 501 3 321	382 382 437 481	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
		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
Сог	ıntry,	area	or territory	Liberia	Libyan Arab Jamahiriya	Lithuania	Luxembourg	Madagascar	Malawi	Malaysia	Maldives	Mali	Malta	Marshall Islands	Martinique	Mauritania	Mauritius	Mexico

a	ccess to drinkin	o impro	e who gained ved sources r 1990-2008 nd)	1	m	722	I.	NA*	7 243	5 644	11 908	1 053	I	10 833	1 575	844	1 755	4 292
		ι	Jnimproved	11 8 -	000	42 34 24	100	000	26 22 19	64 58 53	43 29 34 29	36 19 8	1 0	24 17 12	000	000	26 20 15	65 58 52
	al	77	Other improved	1.1.1	000	28 42 57	13 - 13	85 8 85	35 28 23	31 35 39	52 60 65	31 42 48	1 1 1	68 70 71	000	000	23 23 23	32 36 41
) ES	Total	Improved	Piped	1 1 1	$100 \\ 100 $	30 24 19	85 85	12 11 15	38 20 38	8 7 2	ഗഗവ	33 39 44	1 1 1	13 8 17	98 100 100	$^{100}_{100}$	52 57 62	4 Q M
DURC		=	Total improved	92 1	100 100	58 66 76	1 8 8 8 8	100 100	74 78 81	36 42 47	57 66 71	64 81 92	06	76 83 88	100 100	$100 \\ 100 $	74 80 85	35 42 48
ER S		ι	Jnimproved	1 <u>3</u> 1	A A A A A A	73 63 51	44	000	4 4 4 4 2 5	74 73 71	53 40 31	49 28 12	A A A	26 19 13	000	000	46 32 32	69 65 61
-WAT	<u>a</u>	77	Other improved	1 1 1	A A A A A A	27 36 47	30 [–]	$^{100}_{100}$	50 45 41	25 26 28	46 58 67	37 51 61	A A A A A A	69 73 77	ωοο	000	36 39 41	31 34 38
KING GE O	Rural	Improved	Piped	1 1 1	A Z Z Z Z Z	0 1 0	66 - 66	000	13 5 19		0 0 I	14 21 27	A A A A A Z	10 8 5	95 100 100	$^{100}_{100}$	18 23 27	1 1 0
USE OF DRINKING-WATER SOURCES (PERCENTAGE OF POPULATION)		=	Total improved	87 92 -	A N N	27 37 49	- 96 96	100 100	55 58 60	26 27 29	47 60 69	51 72 88	A N N	74 81 87	100 100	100 100	54 62 68	31 35 39
OF I		ι	Jnimproved	2007	000	19 3 12	100	000	040	27 25 23	13 20 25		1 0	400	000	000	ю л 00	43 22 4
USE E	an	77	Other improved	1 1 1	000	29 46 65	100	~ ~ ~	20 11 10	51 54 57	68 63 60	17 22 27	1 1 1	53 46 41	000	000	9 9 0 ¹	36 48 59
	Urban	Improved	Piped	1 1 1	100 100	52 32 32	1 8 8 8 8	8 8 8 8 8 8	74 82 88	22 21 20	19 17 15	82 77 72	1 1 1	4 4 3 5 2 8	$\begin{smallmatrix}&1\\1\\0\\0\end{smallmatrix}$	$\begin{smallmatrix}&1\\1\\0\\0\end{smallmatrix}$	8 8 83 8 8 8 83	21 30 37
		=	Total improved	94 95	100 100	81 88 97	100 - 100 - 100	100 100	94 96 88	73 75 77	87 80 75	66 6 6 6 6 6	06	96 94 93	$100 \\ 100 $	$100 \\ 100 $	92 95 98	57 78 96
	cess to	improv	e who gained ed sanitation housand)	1	m	I	I	NA*	8 660	2 315	1	349	I	6 829	1 575	I	1 168	928
		red	Open Defecation	1 1 1	000	16 - 13	100	1 1 1	38 24 17	65 55 42	10 - 1	63 57 53		80 64 52	000	1 1 1	23 16 11	84 82 79
	Total	Unimproved	Unimproved facilitites	71 74 -	000	၊ထတ	പറവ	444	<u>ы 0 4</u>	22 38 8 38	- 16 7	പരെ	26 - 1	ഗവവ	000	1 1 1	28 29 29	8 ~ 9
s G	ц Б	'n	Shared	1 1 1	1 1 1	27 28	I ന ന	1 1 1	8 10 10	0 m m	- 6 11	୦୦୦	23 - 1	11 8 4	1 1 1	1 1 1	8 7 0	ω40
ACILITIES ULATION)			Improved	29 26 -	100 100 100	49 50	92 - 92	96 96	53 64 69	11 14 17	_ 65 81	25 29 33	50	11 23 31	100 100	1 1 1	43 48 52	9 7 9
USE OF SANITATION FACILITIES (PERCENTAGE OF POPULATION)		/ed	Open Defecation	1 1 1	A N N A N N	- 36 26		1 1 1	69 50 38	74 68 59	14 - 1	83 77 73	A N N A N N	85 71 60	000	1 1 1	44 31 21	95 93 91
TION DF PC	Rural	Unimproved	Unimproved facilitites	84 84	A N N	18 1	10	444	- 0 4	21 27 36	19	9 ~ 9	A A A	ഗവവ	000	12	26 32 36	ωωω
NITA'	Ru	'n	Shared	1 1 1	A Z Z	20 - 24	I ന ന	1 1 1	ഗവഗ		11 8 1	0 M 4	A A A	√ 10 10	1 1 1	1 1 1	4 い 0	0 1 0
USE OF SANITATION (PERCENTAGE OF PO			Improved	20 16 -	A N N	26 32	86 ₋ 86	96 96	27 43 52	444	- 59 79	9 13 17	N N N N N N	8 19 27	100 100	8	26 32 37	0 0 4
JSE C PERC		ved	Open Defecation	111	000	100	100	1 1 1	ы о о	32 25 14	1 1 0	11 15 18		30 22 15	000	1 1 1	444	26 22 20
25	Urban	Unimproved	Unimproved facilitites	45 41	000	100		444	0 0 0	25 31 41	1 00 4	വവവ	26	Ω44	000	1 1 1	29 24	41 31 21
	5	ت آ	Shared	1 1 1	1 1 1	32 - 31	I M M	1 1 1	$\begin{smallmatrix}&1\\1\\4\\4\\4\end{smallmatrix}$		101	18 17 17	53	24 27 30	1 1 1	1 1 1	ထထဂ	14 20 25
			Improved	1 29	100 100	66 ₁	- 96 96	96 96	81 82 83 83	36 37 38	81 - 81 - 81 - 81 - 86	60 63 60	20	41 47 51	100 100	1 1 1	59 61 63	19 27 34
		entage opula [:]	e urban tion	22 22 22	100 100	57 57 57	48 59 60	13 11 15	48 53 56	21 31 37	25 28 33	28 32 37	100 100	9 13	69 77 82	85 86 87	52 55 57	15 16 16
Р			housand)	96 107 110	33 33 33	2 216 2 389 2 641	587 661 622	11 5 6	24 808 28 827 31 606	13 543 18 249 22 383	40 844 46 610 49 563	1 417 1 824 2 130	10 01 10 10 10 10 10 10 10 10 10 10 10 1	19 105 24 432 28 810	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	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
Co	untry,	area	or territory	Micronesia (Federated States of)		Mongolia	Montenegro	Montserrat	Marocco	Mozambique	Myanmar	Namibia	Nauru	Nepal	Netherlands	New Zealand	Nicaragua	Niger

a	ccess to drinkir	o impro	e who gained wed sources r 1990-2008 ind)	41 954	NA	41	525	977	59 690	I	1 134	1 003	3 155	7 314	29 778	NA*	066	I
			Jnimproved	53 47 42	000	~ ~ ~	000	20 17 12	12 12 10	19 17 -	16 10 7	59 61 60	48 26 14	25 21 18	16 12 9	000	4	1 1 1
	al	-71	Other improved	33 43 52	1 1 1	1 1 1	000	59 47 34	62 59 57	1 1 1	4 M 4	28 30 28	23 23 21	20 16	60 51 43	12 5 5	o ∩ O	1 1 1
) ES	Total	Improved	Piped	10 10	1 1 1	1 1 1	$^{100}_{100}$	21 36 54	24 29 33	1 1 1	8 87 80 80	13 10	29 51 65	55 63 70	24 37 48	95 95 98	87 97 99	1 1 1
DURC		=	Total improved	47 53 58	100 100	8 8 8 8 8 8	100 100	8 8 80 8 8 80 8 8 80	88 88 00 88 00	81 83 1	8 9 8 8 8 0 8	41 39 40	52 74 86	75 79 82	84 88 91	100 100	96 66 66	1 1 1
ER S			Unimproved	70 64 58	000	οოო	000	28 28 28	19 15 13	U U I	34 23 17	68 67	75 49 34	55 46 39	24 18 13	000	0 10 0	1 1 1
-WAT F PO	a	-	Other improved	26 34 40	50 1	1 1 1	000	66 59 59	72 70 67	1 1 1	ი ი 4	90 53 88 30 53 89	25 30 31	58 30 58 30	68 64 62	27 11	14 w 0	1 1 1
KING GE O	Rural	Improved	Piped	4 N N	80 1	1	100 100	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
SE OF DRINKING-WATER SOURCES (PERCENTAGE OF POPULATION)		<u>ء</u>	Total improved	30 36 42	100 100	100 97 97	100 100	72 74 77	81 85 87	98 95	66 77 83	33 32 33 32 33 32	25 51 66	45 54 61	76 82 87	100 100	94 98 100	1 1 1
OF I			Unimproved	21 23 25	000	~ ~ ~	000	16 13 8	4 ហ ហ	27 22	ო ო	11 12 13	19 1 8 1	10 10		000	~ ~	1 1 1
USE (PI	an	-	Other improved	47 57 64	1 1 1	1 1 1	000	55 41 24	39 39 40	1 1 1	N N 4	90 50 88 90 50 88	22 17	15 11 6	53 42 33	т н м	m ⊢ 0	1 1 1
	Urban	Improved	Piped	32 20 11	1 1 1	1 1 1	100 100	29 46 68	57 56 55	1 1 1	95 93	61 59 57	59 75 85	73 79 84	40 51 60	99 99	95 98 99	1 1 1
		=	Total improved	79 77 75	100 100	8 8 8 8 8 8	100 100	84 87 92	95 95	73 78 -	99 97	88 88 78	81 92 99	88 0 0 88 0 0	6 8 8 8 8 8	100 100	86 66 60 60	1 1 1
	cess to	improv	e who gained ed sanitation thousand)	12 373	NA*	1	525	I	47 211	I	946	1 018	2 794	7 850	32 457	I	1 496	I
		ved	Open Defecation	25 23 23	000	1 1 1	000	112	51 38 27	1 1 1	12 7	15 15 16	т н м	34 20	11 11 8	1 1 1	r 0 0	1 1 1
	Total	Unimproved	Unimproved facilitites	12 17 20	000	10 10	000	ωαι	18 21 23	31 20	22 19	စ္က စ္က စ္က	59 39 26	12 15	15 16	10	- 0 0	1 1 1
s 7	<u>م</u>	5	Shared	26 26 26	1 1 1	1 1 1	1 1 1	1 1 1	ω4 ω	1 1 1	თთთ	1 1 1	- 0 m	992	11 14 15	1 1 1	1 1 1	1 1 1
CILITIES ILATION)			Improved	37 34 32	100 100	84 92 -	100 100	85 87 -	28 37 45	80 - 80	58 65 69	447 45	37 58 70	54 62 68	58 69 76	⁻ 06	92 98 100	1 1 1
		ved	Open Defecation	34 32 31	000	1 1 1	000	32 32 32	71 54 40	1 1 1	25 17 13	16 17 18	4 0 1	74 50 31	23 18 14	1 1 1	10 12 14 0	1 1 1
DF PC	Rural	Unimproved	Unimproved facilitites	12 20 27	000	22 4 4	000						81 67 58				- 0 0	1 1 1
NITA AGE (R	5	Shared	18 116 14	1 1 1	1 1 1	1 1 1	1 1 1	വ ന പ	1 1 1	44 D	1 1 1	001	- 0 m	0 1 1 0 0	1 1 1	1 1 1	1 1 1
USE OF SANITATION FA (PERCENTAGE OF POPU			Improved	38 32 28 28			100 100		20 80 20 80				15 31 40				87 96 100	1 1 1
JSE O		ved	Open Defecation	8 10 12	000	1 1 1	000	200	20 7	1 1 1	~ ~ ~	დ 4 ი		16 8 1	ω 0 4	1 1 1	0 1 0	1 1 1
	Urban	Unimproved	Unimproved facilitites	11 13 14	000	15 8 1	000	н н м	14 16 17	24 8 4	15 12 12	19 21 24	35 16 5	9 7 2	ထကဝ	444	- 0 0	1 1 1
	Ğ	5	Shared	42 38 38									ω44					
			Improved	39 36 36	100 100	85 92 -	100 100 100	97 97 97	73 72 72	76 92 96	73 74 75	75 75 71	61 79 90	71 77 81	70 76 80	96 96	97 99 100	1 1 1
		entag opula	e urban tion	35 43 48	31 34 40	0 8 8 0 8 8 0 8	72 76 77	66 72 72	31 33 36	70 70 70	54 66 73	15 13 12	55 60	69 71 71	49 59 65	61 62 61	54 54 59	72 95 98
P		-	thousand)										4 250 5 350 6 238					
		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
Col	untry,	area	or territory	Nigeria	Niue	Northern Mariana Islands	Norway	Oman	Pakistan	Palau	Panama	Papua New Guinea	Paraguay	Peru	Philippines	Poland	Portugal	Puerto Rico

a	ccess to drinkin	o impro	e who gained wed sources r 1990-2008 ind)	813	1	I	I	NA*	1 456	10	31	I	1	I	I	I.	3 828	1
			Unimproved	000	1 1 0	1 8 0	1 1 1	∩ Ю 4	35 33 32 35		~ ~ ~	1 1 1	11 9 -	1 1 1	21 - 11	11	39 35 31	-
	al	-	Other improved	1 1 1	பல	52	1 1 1	17 18 18	66 64 61	27	1 3 1	1 1 1	32	1 1 1	56 - 53		42 35 31	19 - 18
) ES	Total	Improved	Piped	1 1 1	87 93	40 1 1 0 4	47 55 61	76 77 78	0 M 4	72		1 1 1	57	1 1 1	23 26	80 I I	19 30 38	80 - 81 81
SOURCES LATION)		<u>ء</u>	Total improved	100 100	93 I 80	92 90	1 1 1	95 95 96	68 67 65	66 6 6 6 6 6	8 8 8 8	1 1 1	91 89 -	1 1 1	- 79 89	80	61 65 69	66
ER S(,	Jnimproved	000	 25 12	12 - 15	1 1 1	19 11 11	34 38 38		~ ~ ~	- ~ -	11 12 -	1 1 1	30 - 12	37	57 52 48	1 0 0
-WAT F POI	aj	-	Other improved	1 1 1	29 - 24	- 79 72	1 1 1	36 44 49	66 64 61	27	23 1	20 -	30 1	1 1 1	- 56 70	ηιι	40 40 40 40	35 - 35
KING GE O	Rural	Improved	Piped	1 1 1	46 - 64	191	3 16 26	45 42 40	001			73	52	1 1 1	14 - 18	0 1 1	а 12 8 3	03 I 03 I
OF DRINKING-WATER ERCENTAGE OF POPU		=	Total improved	100 100	- 75 88	85 I	1 1 1	81 86 89	66 64 62	6 6 6 6 6 6	8 8 8 8 8 8	- 6 1 1	0 8 8 I	1 1 1	70 - 88	I I 03	43 48 52	1 8 8 8 8
SE OF DRINKING-WATER SOURCE (PERCENTAGE OF POPULATION)			Unimproved	000	m <\ O	1 W 4	1 1 1	~ ~ ~	15 23 23		20 00	1 1 1	∞ I	1 1 1	$^{14}_{-11}$	ოოო	12 8 10 8	
USE (PE	an	-	Other improved	1 1 1		19 17	1 1 1	11 8 8	64 63 62	27	23 1	1 1 1	181	1 1 1	- 55 57	000	43 29 18	100
	Urban	Improved	Piped	1 1 1	96 97 99	- 78 79	85 88 91	87 90 92	32 22 15		_ 75 _	1 1 1	- 74 	1 1 1	31 - 32	97 97 97	45 61 74	- 76 79
		=	Total improved	100 100	97 98 100	- 97 96	1 1 1	8 8 8 8 8 8	96 85 77	6 6 6 6 6	8 8 8 8 8 8	1 1 1	99 92	1 1 1	- 86 89	97 97 97	88 90 92	66
	cess to	improv	e who gained ed sanitation thousand)	813	5 169	I	NA*	NA*	3 605	10	1	1	21	I	1	1	3 363	1
		/ed	Open Defecation	000	000	100	000	111	3 U J	1 1 1	1 1 1	1 1 1	100	1 1 1	_ 71 55	1 1 1	39 28 19	100
	Total	Unimproved	Unimproved facilitites	000	000	15 15	27 26 26	13 13 13	67 49 35	444	11	1 1 1	000	1 1 1	- 4 15	1 1 1	13 15 16	பைப
s ç	P	μIJ	Shared	1 1 1	1 1 1	100	~ ~ ~	1 1 1	ოსდ	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	4 4	1 1 1	10 12 14	m m
ACILITIES ULATION)			Improved	100 100	100 100	- 79 79	71 72 72	87 87 87	23 40 54	96 96 96 96	1 68 1	1 1 1	98 100 100	1 1 1	21 26	1 1 1	38 45 51	92 92
FACI		ved	Open Defecation	000	000	00	000	1 1 1	м G Л	1 1 1	1 1 1	1 1 1	100	1 1 1	78 78 64	1 1 1	58 43 31	100
TION DF PC	Rural	Unimproved	Unimproved facilitites	000	000	21 - 21	45 45 45	8 8 8 8 8 8	69 51 36	444	11	444	~ 0 0	1 1 1	3 - 12	1 1 1	14 18 21	の の
USE OF SANITATION FACILITIES (PERCENTAGE OF POPULATION)	Ru	'n	Shared	1 1 1	1 1 1	ى كى ا		1 1 1	040	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	∣4 ∩	1 1 1	6 10 10	m m
OF SA			Improved	100 100	100 100	74 - 74	52 54 54	07 07 07	22 40 55	9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	80 1	96 96	98 100 100	1 1 1	15 19		22 31 38	1 8 8 8
USE C		ved	Open Defecation	000	000	100	000	1 1 1	m Ω ⊓	1 1 1	1 1 1	1 1 1	000	1 1 1	65 ₋ 49	000	ഗവര	100
	Urban	Unimproved	Unimproved facilitites	000	000	1 00 00	იიი		50 40 31	444	11	1 1 1	000	1 1 1	14 -	000	12 11 10	
	5	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	44	1 1 1	17 18 19	I M M
			Improved	100 100	100 100	85 85	8888	8 6 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	35 43 50	8 8 8	1 6 1 8 1	1 1 1	100 100	1 1 1	27 30	100 100 100	62 66 69	- 96 96
			e urban tion	92 95 96	74 80 81	4 4 4 4 4 4 4 7 4 4 7 4 7 4 7 4 7 4 7 4	53 53	73 73 73	14 18 18	35 33 35	28 28 28 28	4 4 4 7 4 1	21 22 23	90 94 94	44 53 61	77 80 82	39 41 22	50 51 52
Р	population Population (thousand) Year		467 617 1 281	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	107 108 109	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	
		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
Co	untry,	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

Number of people who gained access to improved sources of drinking-water 1990-2008 (thousand)						I	1 599	1	68	I	1	14 699	5 647	6 470	5 959	1	I.	646	827
		thousa) נ	nd) Jnimproved	1 1	I	45 51	000	100	00-	31	- 77 70	17 14 9	000	10 2 33	35 39 43	101	45 31	000	000
	-		Other improved	1.1	Т	44 - 43	000	100	000	57	11 - 20 -	24 24 24		56 59 62	31 29 29	12 - 23	32 37	000	000
ES	Total	Improved	Piped	1.1	Т	11 6	100 100	95 94 94	100 100 99	13 -	1 m 0	56 62 67	66 6 6	11 21 28	34 32 28	- 79 70	23 - 32	100 100	100 100
DURC	Rural	<u> </u>	Total improved	1 1	T	55 49	100 100	100 - 100	100 100 99	70	30 [–]	83 86 91	100 100	67 80 90	65 61 57	91 93	55 69	100 100	100 100
ER S(U	Jnimproved	1 1	Т	56 74	A A A	100		35 -	91 [–]	34 29 22	000	38 12 23	45 48	 27 19	54 - 39	000	000
-WAT F PO		σ	Other improved	1.1	Т	42 25	A A A	1 00 UO	000	64 -	- 11 9	41 43	000	56 62 66	66 66 88 89 89 89	24 36	33 - 40	000	
KING GE O	Ru	Improved	Piped	1 1	T	- 0 -	A A A A A A	89 92 94	66 66	🛏	100	25 28 32	100 100	6 15 22	19 16	49 45	13 13 21	100 100	66 66
USE OF DRINKING-WATER SOURCES (PERCENTAGE OF POPULATION)		-	Total improved	1 1	I	44 26	N N N	- 100 100	66 66 66	65	17 9	66 71 78	100 100	62 77 88	58 55 52	_ 73 81	_ 46 61	100 100 100	100 100 100
E OF PERC		U	Jnimproved	16	0	25 14	000	100	000	101		~~~~	000	ഗവര	15 27 36	ы о ю	14 1	000	000
	Urban	ed	Other improved	10	0	47 71	000	140	000	181	 27 16	13 11 10		54 33 33	9 13	5 19 7	28 - 25	000	000
	5	Improved	Piped	- ⁸	100	28 15	100 100	100 96 94	100 100	76 76 -	51 - 5	85 87 89	6 6 6 6 6 6	37 53 65	76 60 47	94 91 78	- 58 67	100 100	100 100
		_	Total improved	- 8 - 8	100	_ 75 86	001 001 001		100 100 100	94 -	36 67	8888	100 1000			99 97 97	- 86 92		100 100
	cess to	improv	e who gained ed sanitation housand) -			I	1 629	144	88	•		12 890	5 647	6 152	4 847	1	'	646	827
	Total	ved	Open Defecation	1 1	Т	24 - 24 -	100	000	000	1 1 1	25 ¹	13 10 8	000	1 4 / 1	40 88 41	مى م	22 16	000	000
		Unimproved	Unimproved facilitites	1 1	Т	42 84	- 0 0	000	000	- 69	11 8	റയറ	000	13 4 7	28 26 25		000	000	000
S: (To	5	Shared	1 1	1	23 I 29	1 1 1	000	1 1 1	1 1 1	15 - 15 -	0001	1 1 1	ω44	1 1 1	101	21 - 23		
CILITIES JLATION)			Improved	1 1					100 100			69 73 77							100 100 100
USE OF SANITATION FACILITIES (PERCENTAGE OF POPULATION)		oved	Open Defecation	1 1	1	34 ₋ 36	A N N A N N	000	000							22 I	28 21 21	000	000
ATION OF P	Rural	Unimproved	Unimproved facilitites	1 1			N N A N A		000	82		10 10				INM		000	000
USE OF SANITATION FA (PERCENTAGE OF POPL			Shared	1 1								0000				111	5 18 3 20		
OF S, CENT			Improved						100 100 100	18 -	101			67 81 92			- 46 53		
USE (PER		oved	Open Defecation Unimproved						000			~ ~ ~ ~							000
	Urban	Unimproved	facilitites						000										000
			Shared	1 4	97	- 41 41 47	500		000			0 10 4 10 10 10 10 10 10 10 10 10 10 10 10 10				000 000	 0 31 1 32		000
	Perc	antag	Improved e urban						100			88 84 84 84 84 84 84 84 84 84 84 84 84 8							100
		opula						56 56 56											5 73 t 73
P	Population (thousand)			72	8	4 08/ 5 560	3 016 4 018 4 615	5 256 5 379 5 400	1 927 1 985 2 015	31 ⁴ 416 511	6 596 7 394 8 926	36 745 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	6 715 7 184 7 541
Year					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
Country, area or territory			Sevchelles		Sierra Leone	Singapore	Slovakia	Slovenia	Solomon Islands	Somalia	South Africa	Spain	Sri Lanka	Sudan	Suriname	Swaziland	Sweden	Switzerland	

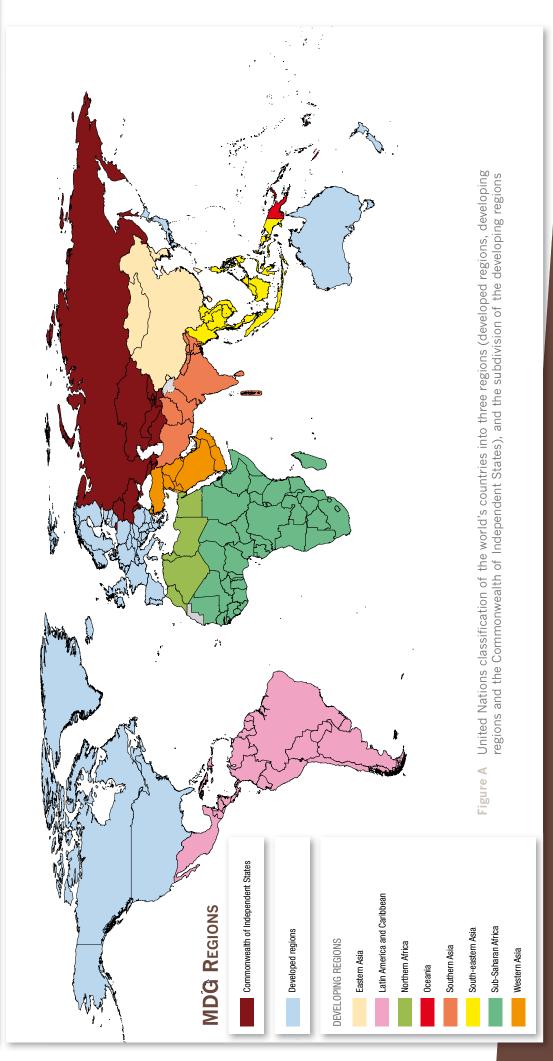
a	ccess to drinkin	o impro	e who gained ved sources r 1990-2008 nd)	8 079	I	14 466	I	I	1 951	0	I	181	2 905	25 502	I	21	0	13 586
		l	Jnimproved	15 13 11	40 [–]	0 4 N	100	48 ₋ 31	51 45 40	10 3 7	100	12 9	19 10	15 7 1	17	000	10 9 8	57 43 33
	al		Other improved	13 10 6	30 [–]	58 50	1 00 00	37 53	50 54 54 54	1 1 1	25	$\begin{array}{c}11\\18\\18\end{array}$	20 18 18	തനയ	1 00 I	321	110	42 55 64
ES	Total	Improved	Piped	72 77 83	35 40	33 46 54	92 92	15 16 16	4 W Ø	1 1 1	_ 75 _	69 73 76	61 70 76	76 88 96	23	1 8 1	- - 97	n ∩ w
SE OF DRINKING-WATER SOURCES (PERCENTAGE OF POPULATION)		<u> </u>	Total improved	85 87 89	- 09 70	91 96 98	100 100	52 - 69	49 55 60	90 93 97	100 - 100	88 91 94	81 90 94	85 93 99	1 8 1	100 100	90 94 97	43 57 67
		ı	Jnimproved	25 21 16	51 - 39	11 5 2	. – –	53 37	64 61 59	10 3 7	100	12 19	38 23 16	27 15 4	1 8 1	000	11 3 7	61 47 36
WATI POF	a l		Other improved	24 20 13	29 - 36	75 66 59	15 15	36 - 52	36 39 40	1 1 1	24 -	20 20	45 45 45	$^{11}_{4}$	1 6 1	1 0 1	110	39 53 63
SING-	Rural	Improved	Piped	51 59 71	20 - 25	14 29 39	84 1	11 -	- 0 0	1 1 1	_ 76 _	68 71 74	22 33 39	54 74 92	29	1 0 1	6	- 0 0
RINK		Ē	Total improved	75 79 84	49 61	89 95 98	- 66	47 63	36 39 41	90 93 97	100 - 1	91 93	62 77 84	73 85 96	_ 72 _	100 100	89 93 97	39 53 64
OF D ERCE		ı	Jnimproved	4 v o	100	т и м	100	3114	21 17 13	NA NA A	100	ഗവയ	-1 10 22	ဖကဝ	ოოო	000	v م 8	22 15 9
USE (PE	E		Other improved	n ∩ ⊔	14 - 11	19 16 14	4 4	41 - 58	65 70 75	N N N N N N N N N N N N N N N N N N N	1 28 1	11 01	പറെ	$m \land n$	16 -	22		69 71 72
	Urban	Improved	Piped	8 8 8 8 8 8 8 8	78 83	78 82 85	- 96 96	28 ¹ 28 1	14 13 12	A N A A A A	72 -	81 85 88	92 92 94	91 95 98	81 -	78	6	9 14 19
		<u>_</u>	Total improved	96 95 94	92 - 94	97 98 99	_ 100 100	69 86	79 83 87	NA NA NA	100 - 100	92 95 98	95 98 99	94 97 100	97 97	100 100	92 95 98	78 85 91
	cess to	improv	e who gained ed sanitation housand)	9 819	1	19 353	1	1	265	0	თ	93	2 565	19 410	1 348	1	I	8 280
	Total	ed	Open Defecation	0 2 0		16 0 3	100	44 - 43	59 57 55	1 1 1	1 1 1	000	21 10 5	0 1 0	ннн	111	ماا	25 17 10
		Unimproved	Unimproved facilitites	м N O	1 0 0	000	പരവ	22 -	3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	59 37 7	444	0 1 1	0 2 J	13 10 8	ннн	4	20 17 11	14 15 16
s c		'n	Shared	444	I ന ന	444	100	1 M W	25 23 22	1 1 1	1 1 1		444	- 0 0	1 1 1	1 1 1	1 1 1	22 24 26
ACILITIES ULATION)			Improved	83 89 96	90 - 94	80 93 96	¹ 88 80 80 80 80 80 80 80 80 80 80 80 80	32 32 50	13 12 12	41 63 93	96 96 96	93 92 92	74 81 85	84 87 90	8 8 8 8 8 8	96	80 83 84	39 44 48
USE OF SANITATION FACILITIES (PERCENTAGE OF POPULATION)		Unimproved	Open Defecation	19 10	101	23 4 0		52 - 52	74 76 78	1 1 1	1 1 1	000	46 25 14	н м ц		1 1 1		28 19 11
F PO	ral		Unimproved facilitites	ပကပ	1 10 11	000	10 10	22 6	13 9 2 13	59 37 7	444	0 1 1	$^{11}_{14}$	27 23 21	~ ~ ~	I Q I	24 21 12	14 16 18
USE OF SANITATION F/ (PERCENTAGE OF POP	Rural		Shared	4 ហ ហ	I ന ന	ω44	~ ~	1 1 0	16 10 6	1 1 1	1 1 1		9 / 8	ოორ	1 1 1	1 1 1	1 1 1	18 20 22
F SAI			Improved	72 82 95	- 89 94	74 92 96	82 [–]	25 40	നവയ	41 63 93	96 96 96	93 92 92	44 57 64	66 71 75	97 97	94	76 79 81	40 45
SE O PERC		ed	Open Defecation	000	000	0 1 0	100	 21 19	24 23 23	N N N N N N	1 1 1	000	0 H 0	000	000	1 1 1	1 1 01	4 0 0
	Urban	Unimproved	Unimproved facilitites	0 0	т и м	000	I M M	0 20	ഗരാ	A N N A N N	0 0 0	0 1 1	0 0 0	т и м		0 0 0	14 13 10	0 N 4
	'n	μIJ	Shared	444	444	ດມາ	ىرى ا	∣4 ₪	45 45 44	A N N N N N	1 1 1		0 0 0	0 0 1	1 1 1	1 1 1	1 1 1	52 54 56
			Improved	94 95 96	93 94 95	93 94 95	92 - 92	_ 55 76	25 24 24	N N N	8 8 8 8 8 8	92 92	95 95 96	96 96 97	66 6 6 66 6	8 8 8 8 8 8	86 87 88	35 37 38
			e urban tion	49 52 54	32 26 26	29 31 33	58 63 67	21 24 27	30 37 42	000	23 25 25	11 131 9	58 63 67	59 65 69	45 46 49	43 43	41 46 49	11 12 13
population 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 99 104	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	9 10 10	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		
Country, 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	

Number of people who gained access to improved sources of drinking-water 1990-2008 (thousand)				1	2 618	3 993	8 941	56 233	364	5 193	107	1	43 227	0	I.	I	3 696	2 060
	, ,		Unimproved		000	000	45 46 46		4 0 0	10 11 13	43 28 17	10 10	42 21 6	000	- 10	35 - 38	51 46 40	22 20
	_	77	Other improved	19 31	22 1	000	48 46 46	15 13 11	► 4 0	33 37 39	20 31 39	10	49 63 72	20 20	12 - 13	34 ₋ 34	29 39 46	46 45 46
ES	Total	Improved	Piped	- 78 67	78 78 78	100 100	r∞∞	86 88 88	89 94 88	57 52 48	37 41	85 85	9 16 22	80 80 81	_ 81 78	31 - 28	20 15 14	32 35 36
G-WATER SOURCES OF POPULATION)		Ξ	Total improved	- 6 97 98	100 100	100 100	55 54 54	66 6 6	96 98 100	90 89 87	57 72 83	92 1	58 79 94	100 100	_ 93 91	65 62	49 54 60	78 80 82
ER S		ι	Jnimproved	၊ထက	000	000	55 55 55	୰୰୰	21 12 0	15 17 19	51 34 21	29 26	49 26 8	000	12 - 19	41 - 43	77 64 54	28 39 30 28 3
OF DRINKING-WATER ERCENTAGE OF POPUI	Rural	Ţ	Other improved	42 - 72	1 0 00	~ ~ ~	45 45 42	84 84 84 84 84 84 84 84 84 84 84 84 84 8	29 15 8	48 51 55	22 35 46	27 24	51 69 83	20 20	24 27	39	22 35 45	63 65 67
KING GE O	Ru	Improved	Piped	50 25	70 70 70	8 8 8 8 8 8	0 m	46 46 46	50 73 92	37 32 26	27 31 33	44 50	ەسە	80 80 81	64 ₋ 64	20 17		567
DRIN			Total improved	- 92 97	100 100	100 100	46 45 45	94 94 94	79 88 100	85 83 81	49 66 79	71 74 -	51 74 92	100 100 100	_ 88 91	- 59 57	23 36 46	70 71 72
SE OF DRINKIN (PERCENTAGE		L	Jnimproved	0 1 1	000	000	14 6 20	000	0 1 0	$\omega \omega \omega$	のト4	- 9 I	12 10	A N N N N N	ەمە	- 18 28	11 12 13	
USE (PI	Urban	þ	Other improved	6 11	50 ⁻	000	60 58 57	ოოო	4 M V	11 12 13	12 14 17	ு ப	4 4 4 8 4 8	A N N N N N		19 - 118 -	46 50 50	5 8 11
	ż	Improved	Piped	93 92 87	80 1	100 100	34 28 23	97 97 97	94 96 88	86 85 85	97 97 97	87 89	45 51 56	N N N	- 88 84	63 - 54	49 42 37	94 91 88
		2	Total improved	6 6 8 6 6 6	100 100	100 100	94 86 80	100 100	98 99 100	97 98 98	91 93 96	93 94 -	88 94 99	A A A	100 95 91	_ 82 72	89 88 87	66 66 66
	cess to	improv	e who gained ed sanitation housand) -	NA*	2 539	3 993	4 087	56 801	426	9 958	I	1	42 135	0	1	9 701	2 545	985
	Total	ved	Open Defecation	000	000	1 1 1	9 11 13	101	ပကပ	000	100	10 19	42 21 6	444	11 0	44 33 25	27 22 18	34 29 25
		Unimproved	Unimproved facilitites	~ ~ ~	000	000	4 4 4 4 2 0	000	0	10 09	- 44 29	00 (V I	21 19 15	000	10 - 11	37 28 20	13 18 19	0 m r
S (F		5	Shared	ოოო	ოოო	1 1 1	53 53 53 53	1 1 1	000	1 1 1	13 - 17	1 1 1	0 0 4	1 1 1		- 0 m	14 13	23 24 24
CILITIES JLATION)		Improved		95 95 95	97 97 97	100 100	22 24 24 24	100 100	94 96 100	84 91 100	41 52	82 89	35 57 75	96 96 96	- 68 89 89	18 37 52	46 47 49	4 4 4 4 4 4
FACI		oved	Open Defecation	000	000	1 1 1	10 11 17	1 1 1	15 0 8 0	000	I ന ന	4 1 4 0	46 25 8	444	1 0 0	54 43 35	42 33 26	48 39 43
OF PC	Rural	Unimproved	Unimproved facilitites	مىم	000	000	44 41 11		0	24 13 0	51 36	14 16	23 22 21	000			14 22 22	
NITA AGE (æ	5	Shared		വവവ		~ ~ ~				10 - 113		0 0 4	1 1 1			ထထတ	
DF SA		Improved		91 91 90	95 95 95	100 100	23 22 21	66 66 66	8 0 0 8 0 0	76 87 100	36 48	45 54	29 50 67	96 96 96	84 ₋ 84	6 21 33	36 40 43	37 37 37
USE OF SANITATION FACILITIES (PERCENTAGE OF POPULATION)		ved	Open Defecation	000	000	1 1 1	m ∩ ∩	000	4 0 0	000	100	4 10 1	26 10	A N N N N N	4 0	94ω	ωυν	0 1 0
	Urban	Unimproved	Unimproved facilitites				45 41 36		0 1 1	ပကပ	18 1			A N A N A N		29 13 1	11 15 17	5 1 1
	Þ	Э	Shared				25 30 30 30		000					A N N N			23 23 23	
			Improved	97 97 97	8 8 8	100 100	27 29 32	100 100	95 97 100	95 97 100	57 66	93 1	61 79 94	A N N A N N	- 91 91	64 81 94	62 59	58 57 56
		entage opula	e urban tion	67 67 68	79 78 78	68 8 06					19 22 25	84 93	2 7 2 8 2 4 0 2 8 4	000	68 71 72	21 26 31	35 35 35	29 34 37
P	Population (thousand)			51 583 48 870 45 992	1 867 3 238 4 485	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		12 314 18 182 22 917	7 910 10 467 12 620	10 461 12 455 12 463
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	
Country, 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	

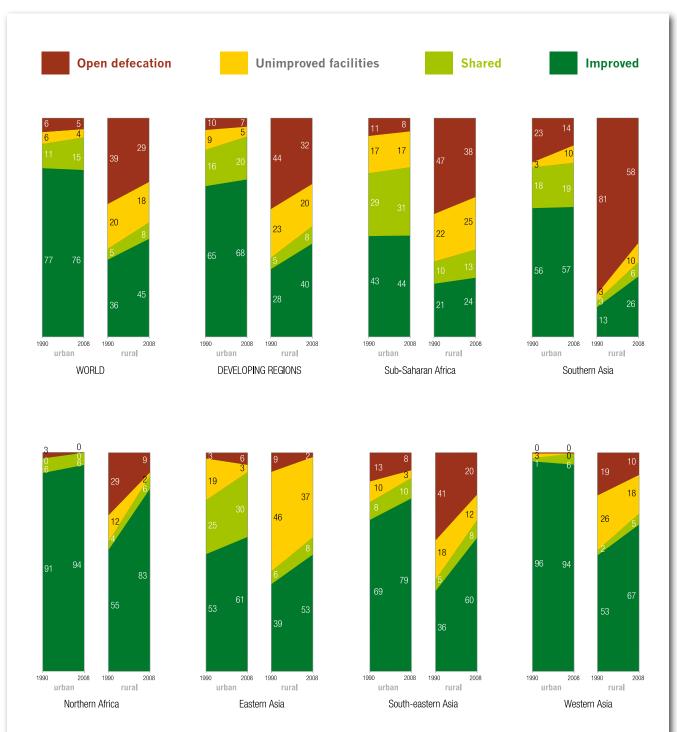
Number of people who gained access to improved sources of drinking-water 1990-2008 (thousand)		237 812	47 100	436 981	547 433	174 442	70 234	1 506	161 513	432	97 029	1 677 021		1 774 482			
		ι	Jnimproved	51 45 40	11 8 8 11 8	31 19 11	25 19 13	28 20 14	12 12 10	49 50 50	15 10	870	- 0 0	29 21 16	23	17	13
	e	_	Other improved	34 40 44	28 19 12	14 10 10	54 59 64	55 54 53	ထတထ	29 32 31	13 10	21 25 25	8 1 9	32 34 35	27	29	30
ES	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	50	54	57
LION		Ē	Total improved	49 55 60	86 89 92	69 81 89	75 81 87	72 80 86	88 88 00 88 00	51 52 50	93 93 93 93	92 93 94	99 100 100	71 79 84	77	83	87
ULA		ι	Jnimproved	64 53 53	22 17 13	44 30 18	31 24 17	37 28 19	22 26 22	60 63 63	37 28 20	18 16 13	~ ~ ~	40 31 24	36	29	22
G-WATER SOURCI OF POPULATION)	-		Other improved	32 38 42	45 32 19	11 0 11 0	60 66 72	57 61 65	15 20 17	31 32 31	27 24 22	43 54 54	24 21 17	39 42 45	37	40	4
E OF	Rural	Improved	Piped	44 D	33 51 68	42 59 73	9 11	$\begin{smallmatrix}&1\\1\\16\end{smallmatrix}$	55 54 61	r ø ø	58 48 36 58 48 5	39 33 33	74 77 81	21 27 31	27	31	34
RINK			Total improved	36 42 47	78 83 87	56 70 82	69 76 83	63 72 81	70 74 78	38 40 37	63 72 80	82 84 87	8 8 8 8 8 8	60 69 76	64	71	78
USE OF DRINKING-WATER SOURCES (PERCENTAGE OF POPULATION)		ι	Jnimproved	17 18 17	ىمەم	$\omega \sim \omega$	9 M B	ထထထ	444	∞ ∞ ∞	ი 4 ო	~ ~ ~	000	N 9 9	5	4	4
USE (Pi			Other	44 48 84	ю ro 4	10 6 6	36 40 44	51 45 40	ω4 ω	25 35 -	പറയ	01 0 8	~ ~ ~	22 22 21	15	16	11
	Urban	Improved	improved Piped		86 89 91						87 92 92				80	80	79
		dml	Total	83 82 83	94 94 95	97 98 98	91 93 95	92 92 92	96 96	92 92 92	95 96 97	8 8 8 8 8 8	0000	93 94 94	95	96	96
Number of people who gained				344	668	865	467	941	478	535	409	NA*	166 1 166 1			547	
aco			ed sanitation housand)	114	58	275	305 -	192 9	69	F	154 .		63	1 172 937		1 263 547	
	Total	/ed	Open Defecation	36 32 27	17 9 4	ΓΩ4	66 54 44	32 21 14	დით	$\begin{array}{c}11\\14\\14\end{array}$	17 11 6	1 1 1	000	32 26 21	25	21	17
		Unimproved	Unimproved facilitites	20 21 22	-1 5 0	22 23 38 23	10 6 2	16 12 8	10 7 7	45 47 7	$\begin{smallmatrix}&1\\1&4\\1&4\end{smallmatrix}$	1111		18 15 14	14	11	Ħ
s 🗘		5	Shared	16 18 20	ومى	12 15 18	⊳ 9 10	ဖထစ	വവഗ	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	80 82 85	55 53 53	69 75 80	80 80 80 80	66 66 66	41 48 52	54	58	61
FACI PUL/		Unimproved	Open Defecation	47 43 38	29 17 9	୶୰୶	81 69 58	41 29 20	19 15 10	17 17 18	43 31 20	101	100	44 32 32	39	34	29
F PO	ral		Unimproved facilitites	22 23 25	12 0 6	46 40 37	о 10 б 10	18 15 12	26 21 18	37 40 37	12 14 16	21 20 16	044	20 20 20	20	19	18
USE OF SANITATION F/ (PERCENTAGE OF POP	Rural		Shared	10 11 13	4 W Ø	9 1 8	ഗവശ	8 7 2	0 4 D	1 1 1	9 1 0	1 1 1	1 1 1	8 7 2	5	9	œ
F SAI			Improved	21 23 24	55 72 83	39 47 53	13 20 26	36 49 60	53 60 67	46 45 45	39 55 55	79 80 83	97 96 96	28 35 40	36	41	45
SE O ERCI		ed	Open Defecation	11 8	0 H 0	ഗവന	23 18 14	13 10 8	000	1 1 1	040	1 1 1	000	10 8 7	9	9	2
<u>٦</u> ٣	an	Unimproved	Unimproved facilitites	17 17 17	000	0 0 m	0 n w	10 3 7	0 ⊓ 0	15 15 19	13 12 12	9 ~ ~	000	0 M O	9	4	4
	Urban	Uni	Shared	29 30 31							1 1 1			16 18 20	11	13	15
			Improved	43 43 44	91 93 94	53 58 61	56 58 57	69 74 79	96 93	85 85 81	81 84 86	94 93 93	100 100	65 67 68	77	77	76
			e urban tion	28 33 37	49 51 53	30 38 45	26 29 31	32 40	61 65 67	24 24 23	71 75 79	65 64 64	71 74 75	35 40 44	43	47	50
population Population (thousand) Year			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	
			517 674 (822	120 (144 (164 /	1 213 1 1 345 1 1 419 1	1 200 043 1 462 960 1 668 746	439 517 575	135 174 207	ဖထစ်	442 310 521 228 576 102	280 280 276	933 (985 ; 1 028 ;	4 076 ; 4 848 5 5 444 5	5 290	6 115 :	6 749 8	
			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 1 2000 2 2008 1	1990	2000	2008	
				5 5 F		ы м м			7 X X	n n n			ы м м	ы Б Б Б Г	Ĥ	2	5
MDG regions and the World			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.





ANNEX B GLOBAL AND REGIONAL SANITATION LADDERS: URBAN AND RURAL





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

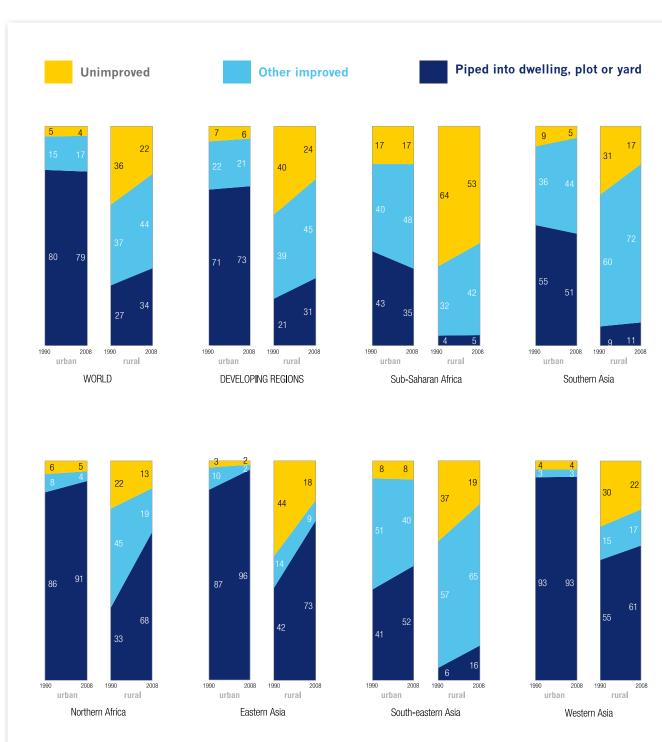


Figure C Urban and rural proportion of the population using a piped water connection, other improved drinking-water sources or an unimproved source, by MDG region, in 1990 and 2008



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.





World Health Organization Avenue Appia 20 1211 Geneva 27, Switzerland



United Nation Children's Fund 3 UN Plaza New York, NY 10017 USA

