

# Ensure environmental sustainability



## Target

**Integrate the principles of sustainable development into country policies and programs and reverse the loss of environmental resources; halve the proportion of people living without sustainable access to safe drinking water by 2015; achieve a significant improvement in the lives of at least 100 million slum dwellers by 2020**

While many countries in the ECA region appear on track to meet the target of access to safe drinking water, the picture is complicated by large urban-rural disparities in water access, quality, and reliability. Complementary ECA region MDG indicators should be developed to better reflect the features unique to the region.

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Sustainable development can be ensured only by protecting the environment and using its resources wisely. The MDG focuses on some of the environmental conditions that must be closely monitored: energy use and efficiency, greenhouse gas emissions, changes in forest coverage and biological diversity, the plight of slum dwellers in rapidly growing cities, and the availability of adequate water and sanitation services. Environmental sustainability is important to the ECA region, primarily for access to safe drinking water and improved sanitation facilities, which are linked to improved health outcomes, but also for the institutional capacity of countries to promote such sustainability. As such, this section focuses on access to improved water sources and sanitation.

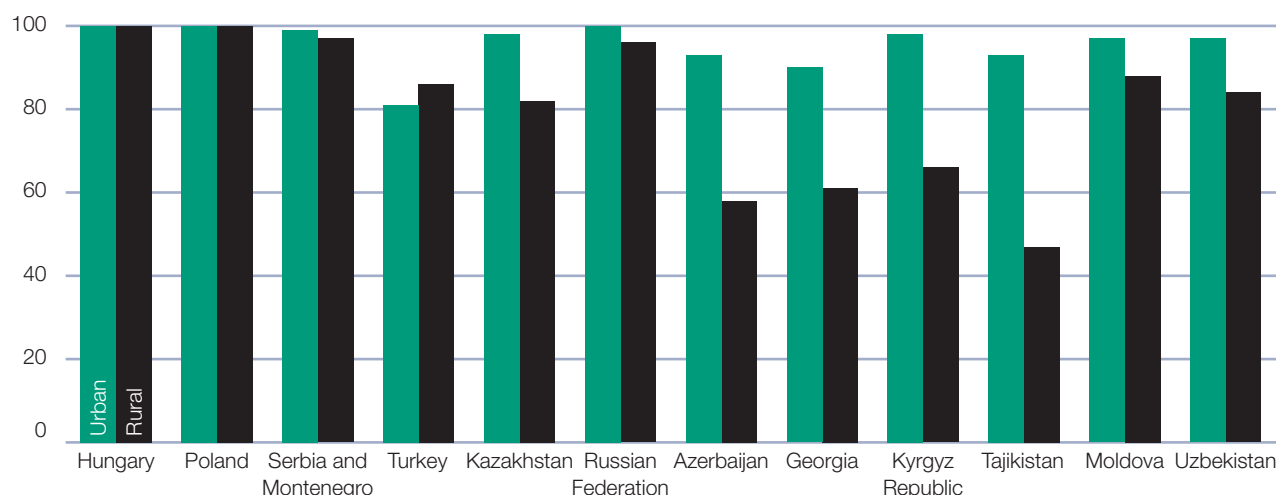
The data for population with access to an improved water source and sanitation facility are based on the data from the WHO-UNICEF Joint Monitoring Program, which keeps track of the progress of the water and

sanitation target based on household surveys.<sup>9</sup> The entire region appears to be doing well: 91 percent of the population has access to an improved water source, and 93 percent to an improved sanitation facility. However, predicting whether the target of improved water and sanitation access will be met is difficult because information is often provided for only one or two years between 1990 and 2000—and for some countries, not at all. Where adequate data are available, many countries in the region (with the exception of Moldova and Tajikistan) seem to be on target to meet the MDG. However, the story is not that simple—several factors must be kept in mind.

*Urban-rural disparity in water access.* National data sometimes mask any disparities in access to basic services that exist between urban and rural dwellers. Across the ECA region much progress has been achieved in making water available—to more than 90 percent of urban homes in each country and to at least 75 percent of rural households—though

rural areas without communal systems of water access or waste disposal still exist. While not a significant issue for most of the region, the gap between urban and rural access is widest in the lower income CIS countries. In Tajikistan, for example, only 47 percent of rural households, compared with 93 percent of urban households, have access to drinking water. In most EU8 countries 100 percent of rural and urban households have access to clean drinking water. Turkey is the only exception, where 86 percent of rural households and 81 percent of urban households have access to drinking water.

*Water quality.* While the MDG target relates to sustainable access to safe drinking water, the statistics only measure access to an improved water source. In the ECA region drinking water frequently does not meet basic biological and chemical standards—a major health threat. Where is the water quality problem most serious? In all the CIS countries, particularly Central Asia.

**Gap in access to water in urban and rural households, 2000**

Source: WHO and UNICEF Joint Monitoring Programme 2004.

A recent World Bank study of five ECA countries (Armenia, Moldova, Kazakhstan, the Kyrgyz Republic, and Serbia and Montenegro) found that water quality had deteriorated in all cases and was of particular concern in Kazakhstan and Moldova (World Bank forthcoming a). Samples not meeting microbiological standards range from 12 percent in Armenia to 32 percent in Moldova; those not meeting chemical standards range from 2.5 percent in the Kyrgyz Republic to 80 percent in Moldova for shallow groundwater sources. Providing the population with quality drinking water is a priority for Kazakhstan, which faces water scarcity and severe pollution of water resources from industrial waste and mining industries.

*Sustainability of water supply.* The MDG target states that access

to water should be sustainable. Sustainable access to safe drinking water must be distinguished from access to water, which does not account for supply reliability and drinking water quality. In parts of the ECA region water infrastructure is often characterized by damaged pipes, a lack of maintenance and necessary investments, and so on, which cause sustainable access to water supply and sanitation to be lower than official statistics suggest. A World Bank study found a problem of regular supply in Armenia, Moldova, and Serbia and Montenegro (forthcoming a). Where information is available it points to a deteriorating situation, with many households having only 2–4 hours of access to water a day. In Kazakhstan most pipelines, even in regional centers, grossly violate operational and maintenance rules. Because of

interruptions in power supply, lack of maintenance, and huge system losses (30–80 percent), water is delivered with large interruptions or fixed to specific schedules (in mornings and evenings only). But there are also improvements. In Yerevan, with a third of Armenia's population, water service has progressed from 2–4 hours a day in 1998 to 24 hours a day for 55 percent of the city.

Similar issues exist for access to improved sanitation, which is at 93 percent for the ECA region—not far from the 95 percent target for 2015. Although most ECA countries report more than 90 percent access to improved sanitation, sewage systems are in a serious state of disrepair and require immediate attention. For example, in Moldova the majority of the system was built to operate for

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just 20 years. Now 100 kilometers of the network needs reconstruction and repair. A lack of investment will only worsen the situation.

As with water quality, access to sanitation is most problematic in Albania, Romania, and the lower income CIS countries. It is also much worse in rural areas than urban.

Romania reported the lowest access to improved sanitation (53 percent) and the widest disparity in urban-rural access—with 86 percent in urban areas and 10 percent in rural. Given its EU accession in 2007—and the surge of loans and grants with it—Romania is expected to invest heavily in both water and sanitation infrastructure. In general, although access to basic sanitation services is widely available in most rural areas of the ECA region, access to sewage systems necessary for indoor toilets is a rare occurrence.

Given the problems of the quality and sustainability of water and sanitation facilities, as well as urban-rural disparities, it may be appropriate to develop MDG-plus indicators and targets that better reflect conditions specific to the ECA region. Examples

include: the percentage of the population connected to a central water supply, the percentage of time or population with uninterrupted supply and in line with water quality standards, and the existence of stand pipes and piped sewage systems in urban areas and flush toilets connected to septic systems in rural areas.

#### Definitions

*Access to an improved water source* refers to the percentage of the population with reasonable access to an adequate amount of water from an improved source, such as a household connection, public standpipe, borehole, protected well or spring, or rainwater collection. Unimproved sources include vendors, tanker trucks, and unprotected wells and springs. Reasonable access is defined as the availability of at least 20 liters per person a day from a source within 1 kilometer of the dwelling.

*Access to basic sanitation* refers to the percentage of the population with reasonable access to an adequate sanitation facility, such as a public sewer connection, septic system

connection, pour-flush latrine, simple pit latrine, or ventilated improved pit latrine. Unimproved sources include public or shared latrine, open pit latrine, and bucket latrines.

#### Data sources

The data on access to improved water sources also come from the Joint Monitoring Programme for Water Supply and Sanitation Coverage website. The data on the percentage of the population connected to the water supply are sourced from the WHO HFA website. It measures the share of the population with reasonable and ready access to an adequate amount of safe water for domestic purposes. An improved source can be any form of collection or piping used to make water regularly available. While information on access to an improved water source is widely used, it is extremely subjective because such terms as safe, improved, adequate, and reasonable may have very different meanings in different countries despite official WHO definitions. Other sources of data include: the multiple indicator cluster surveys, demographic health surveys, and household budget surveys.

Country	Indicator/source	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Albania	Proportion of population with access to improved water supply	97.0	..	..	..	..	..	..	..	..	..	..	..	97.0	..
	JMP—WHO and UNICEF (urban/rural)	99/95	..	..	..	..	..	..	..	..	..	..	..	99/95	..
	EWS 1996a	..	..	..	..	..	..	66.5	..	..	..	..	..	..	..
	Population connected to water supply (%): WHO HFA	..	..	..	76.0	76.0	..	..	..	..	..	..	..	..	..
	Population connected to public water supply (%): UNECE 2002	..	..	..	..	..	..	..	..	..	..	..	85.0	..	..
	Access to running water: LSMS 2002	..	..	..	..	..	..	..	..	..	..	..	..	66.4	..
Albania	Proportion of population with access to improved sanitation	..	..	..	..	..	..	..	..	..	..	..	..	89.0	..
	JMP—WHO and UNICEF (urban/rural)	99.0	..	..	..	..	..	..	..	..	..	..	..	99/81	..
Armenia	Proportion of population with access to improved water supply	..	..	..	..	..	..	..	..	..	..	..	..	92.0	..
	JMP—WHO and UNICEF (urban/rural)	99.0	..	..	..	..	..	..	..	..	..	..	..	99/80	..
	DHS 2000 (piped to house or yard)	..	..	..	..	..	..	..	..	..	..	86.9	..	..	..
	WB 2005 (urban/rural)	..	..	..	..	..	..	..	..	..	..	..	..	..	96/81
	LSS 1999	..	..	..	..	..	..	..	..	..	57.9	..	..	..	..
Armenia	Proportion of population with access to improved sanitation	..	..	..	..	..	..	..	..	..	..	..	..	84.0	..
	JMP—WHO and UNICEF (urban/rural)	96.0	..	..	..	..	..	..	..	..	..	..	..	96–61	..
Azerbaijan	Proportion of population with access to improved water supply	66.0	..	..	..	..	..	..	..	..	..	..	..	77.0	..
	JMP—WHO and UNICEF (urban/rural)	80/49	..	..	..	..	..	..	..	..	..	..	..	95/59	..
	ASLC 1995	..	..	..	..	..	50.6	..	..	..	..	..	..	..	..
	UNECE 2003 (capital/secondary-cities/rural)	..	..	..	..	..	..	..	..	..	..	95/83/11	..	..	..
	MICS 2000	..	..	..	..	..	..	..	..	..	..	76.3	..	..	..
Azerbaijan	Proportion of population with access to improved sanitation	..	..	..	..	..	..	..	..	..	..	..	..	55.0	..
	JMP—WHO and UNICEF (urban/rural)	..	..	..	..	..	..	..	..	..	..	..	..	73/36	..
Belarus	Proportion of population with access to improved water supply	100.0	..	..	..	..	..	..	..	..	..	..	..	100.0	..
	JMP—WHO and UNICEF (urban/rural)	100/100	..	..	..	..	..	..	..	..	..	..	..	100/100	..
	MSA (from UNDP 2003)	100.0	..	..	..	..	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	..
	Running water at home: HHS 1999	..	..	..	..	..	..	..	..	..	73.1	..	..	..	..
Belarus	Proportion of population with access to improved sanitation	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	JMP—WHO and UNICEF (urban/rural)	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Bosnia and Herzegovina	Proportion of population with access to improved water supply	98.0	..	..	..	..	..	..	..	..	..	..	..	98.0	..
	JMP—WHO and UNICEF (urban/rural)	100/100	..	..	..	..	..	..	..	..	..	..	..	100/100	..
	MICS 2000	..	..	..	..	..	..	..	..	..	..	100/96	..	..	..
	Connected to water supply: PRSP 2004	..	..	..	..	..	..	..	..	..	..	..	53.0	..	..
Bosnia and Herzegovina	Proportion of population with access to improved sanitation	..	..	..	..	..	..	..	..	..	..	..	..	93.0	..
	JMP—WHO and UNICEF (urban/rural)	99.0	..	..	..	..	..	..	..	..	..	..	..	99/88	..
Bulgaria	Proportion of population with access to improved water supply	100.0	..	..	..	..	..	..	..	..	..	..	..	100.0	..
	JMP—WHO and UNICEF (urban/rural)	100/100	..	..	..	..	..	..	..	..	..	..	..	100/100	..

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Country	Indicator/source	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
	Water supply at home/connected to public system: LSMS 1995 and 1997	..	..	..	..	..	88.5	..	89.4	..	..	..	..	..	..
	Proportion of population with access to improved sanitation	100.0	..	..	..	..	..	..	..	..	..	..	..	100.0	..
	JMP—WHO and UNICEF (urban/rural)	..	..	..	..	..	..	..	..	..	..	..	..	100/100	..
Croatia	Proportion of population with access to improved water supply	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	CBS	..	..	..	..	..	..	..	..	..	..	95.0	..	..	..
	Population connected to water supply (%): WHO HFA	70.4	69.5	66.7	66.3	65.4	63.2	..	..	..	..	..	..	..	..
	Population connected to public water supply (%): UNECE 1999	..	..	..	..	..	..	..	63.0	..	..	..	..	..	..
	Running water at home: HBS 1998	..	..	..	..	..	..	..	..	96.2	..	..	..	..	..
	Proportion of population with access to improved sanitation	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	JMP—WHO and UNICEF (urban/rural)	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Czech Republic	Proportion of population with access to improved water supply	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Population connected to water supply (%): WHO HFA	..	..	..	..	..	..	85.9	86.0	86.2	86.9	87.1	87.2	..	..
	UNDP 2004	83.2	..	..	..	..	..	..	..	..	..	87.1	..	89.8	..
	Proportion of population with access to improved sanitation	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	JMP—WHO and UNICEF (urban/rural)	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Estonia	Proportion of population with access to improved water supply	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Access to piped water and standpipes: WB 2005	..	..	..	..	..	..	..	..	..	..	77.0	..	..	..
	Population connected to water supply (%): WHO HFA	..	..	..	..	..	..	..	..	..	..	83.2	..	87.0	..
	Proportion of population with access to improved sanitation	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	JMP—WHO and UNICEF (urban/rural)	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Georgia	Proportion of population with access to improved water supply	..	..	..	..	..	..	..	..	..	..	..	..	76.0	..
	JMP—WHO and UNICEF (urban/rural)	..	..	..	..	..	..	..	..	..	..	..	..	90/61	..
	Access to piped water in dwelling and yard (urban/rural): UNECE 2003	..	..	..	..	..	..	..	..	..	83/30	..	..	..	..
	Safe drinking water: MICS 1999	..	..	..	..	..	..	..	..	..	75.6	..	..	..	..
	Proportion of population with access to improved sanitation	..	..	..	..	..	..	..	..	..	..	..	..	83.0	..
	JMP—WHO and UNICEF (urban/rural)	96	..	..	..	..	..	..	..	..	..	..	..	96/69	..
Hungary	Proportion of population with access to improved water supply	99.0	..	..	..	..	..	..	..	..	..	..	..	99.0	..
	JMP—WHO and UNICEF (urban/rural)	100/98	..	..	..	..	..	..	..	..	..	..	..	100/98	..
	Population connected to water supply (%): WHO HFA	85.0	..	..	..	..	..	..	..	..	..	..	..	84.0	90.8
	Proportion of population with access to improved sanitation	..	..	..	..	..	..	..	..	..	..	..	..	95.0	..
	JMP—WHO and UNICEF (urban/rural)	100	..	..	..	..	..	..	..	..	..	..	..	100/85	..
Kazakhstan	Proportion of population with access to improved water supply	86.0	..	..	..	..	..	..	..	..	..	..	..	86.0	..
	JMP—WHO and UNICEF (urban/rural)	96/72	..	..	..	..	..	..	..	..	..	..	..	96/72	..

Country	Indicator/source	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
	WB 2004	..	..	..	..	..	..	..	..	..	..	80.0	..	..	..
	Access to piped/well water: DHS 1995	..	..	..	..	..	96.2	..	..	..	..	..	..	..	..
	Access to piped/well water: DHS 1999	..	..	..	..	..	..	..	..	..	96.5	..	..	..	..
	Proportion of population with access to improved sanitation	72.0	..	..	..	..	..	..	..	..	..	..	..	72.0	..
	JMP—WHO and UNICEF (urban/rural)	87/52	..	..	..	..	..	..	..	..	..	..	..	87/52	..
Kyrgyz Republic	Proportion of population with access to improved water supply	..	..	..	..	..	..	..	..	..	..	..	..	76.0	..
	JMP—WHO and UNICEF (urban/rural)	98.0	..	..	..	..	..	..	..	..	..	..	..	98/66	..
	WB 2004 (urban/rural)	..	..	..	..	..	..	..	..	..	..	..	..	86/64	..
	Population connected to water supply (%): WHO HFA	..	79.0	80.5	..	..	..	..	..	..	..	..	..	..	..
	KPMS 1998	..	..	..	..	..	..	..	..	70.2	..	..	..	..	..
	Proportion of population with access to improved sanitation	..	..	..	..	..	..	..	..	..	..	..	..	60.0	..
	JMP—WHO and UNICEF (urban/rural)	..	..	..	..	..	..	..	..	..	..	..	..	75/51	..
Latvia	Proportion of population with access to improved water supply	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	JMP—WHO and UNICEF (urban/rural)	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Population connected to municipal water supply (%): UNECE 2000	..	..	..	..	..	..	..	40/98	..	..	..	..	..	..
	Population connected to water supply (%): WHO HFA	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Proportion of population with access to improved sanitation	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	JMP—WHO and UNICEF (urban/rural)	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Lithuania	Proportion of population with access to improved water supply	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	JMP—WHO and UNICEF (urban/rural)	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Population connected to water supply (%): WHO HFA	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Proportion of population with access to improved sanitation	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	JMP—WHO and UNICEF (urban/rural)	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Macedonia, FYR	Proportion of population with access to improved water supply	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Population connected to municipal water supply (%): UNECE 2000	..	..	..	..	..	..	..	..	..	..	70.0	..	..	..
	Water supply installed (%): HES 2000	..	..	..	..	..	..	..	..	..	..	89.5	..	..	..
	Proportion of population with access to improved sanitation	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	JMP—WHO and UNICEF (urban/rural)	..	..	..	..	..	..	..	..	..	..	..	..	86/52	..
Moldova	Proportion of population with access to improved water supply	..	..	..	..	..	..	..	..	..	..	..	..	92.0	..
	JMP—WHO and UNICEF (urban/rural)	..	..	..	..	..	..	..	..	..	..	..	..	97/88	..
	Population connected to water supply (%): WHO HFA	..	54.8	55.0	..	..	55.6	..	..	..	..	..	..	..	..
	WB 2004 (urban/rural)	..	..	..	..	..	..	..	..	..	..	..	..	69/30	..
	Plumbing in residence: HBS 2000	..	..	..	..	..	..	..	..	..	..	26.3	..	..	..
	Proportion of population with access to improved sanitation	..	..	..	..	..	..	..	..	..	..	..	..	68.0	..
	JMP—WHO and UNICEF (urban/rural)	..	..	..	..	..	..	..	..	..	..	..	..	86/52	..
Poland	Proportion of population with access to improved water supply	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	JMP—WHO and UNICEF (urban/rural)	100.0	..	..	..	..	..	..	..	..	..	..	..	100.0	..

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Country	Indicator/source	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
	Population connected to water supply (%): WHO HFA	78.0	..	..	..	..	..	..	..	..	..	92.0	..	95.0	..
	Urban households with water mains: UN 2002	95.3	95.6	95.9	96.2	96.4	96.7	96.9	97.1	97.4	97.6	97.6	..	..	..
	Rural households with water mains: UN 2002	67.6	69.4	71.2	72.2	74.4	76.2	77.8	79.4	80.8	82.1	83.1	..	..	..
	Proportion of population with access to improved sanitation	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	JMP—WHO and UNICEF (urban/rural)	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Romania	Proportion of population with access to improved water supply	..	..	..	..	..	..	..	..	..	..	..	..	57.0	..
	JMP—WHO and UNICEF (urban/rural)	..	..	..	..	..	..	..	..	..	..	..	..	91/16	..
	Population connected to water supply (%): WHO HFA	..	..	62.0	..	..	..	..	..	..	..	..	..	..	..
	Ministry of Public Administration	..	..	..	..	..	..	..	..	..	..	65.0	..	..	..
	Water inside building: IHS 1994, 1998, and 2000	..	..	..	..	54.0	..	..	..	57.2	..	58.3	..	..	..
	Proportion of population with access to improved sanitation	..	..	..	..	..	..	..	..	..	..	..	..	51.0	..
	JMP—WHO and UNICEF (urban/rural)	86/10	..	..	..	..	..	..	..	..	..	..	..	86/10	..
Russian Federation	Proportion of population with access to improved water supply	94.0	..	..	..	..	..	..	..	..	..	..	..	96.0	..
	JMP—WHO and UNICEF (urban/rural)	97/86	..	..	..	..	..	..	..	..	..	..	..	99/88	..
	Have running water: HEIDE 1993	..	..	..	73.7	..	..	..	..	..	..	..	..	..	..
	Central water supply at home: RLMS 1998 and 2000	..	..	..	..	..	..	..	..	76.5	..	76.9	..	..	..
	Proportion of population with access to improved sanitation	87.0	..	..	..	..	..	..	..	..	..	..	..	87.0	..
	JMP—WHO and UNICEF (urban/rural)	93/70	..	..	..	..	..	..	..	..	..	..	..	93/70	..
Serbia and Montenegro	Proportion of population with access to improved water supply	93.0	..	..	..	..	..	..	..	..	..	..	..	93.0	..
	JMP—WHO and UNICEF (urban/rural)	99/86	..	..	..	..	..	..	..	..	..	..	..	99/86	..
	Population with water in home or yard (%): MICS 1996	..	..	..	..	..	..	76.4	..	..	..	..	..	..	..
	WB 2004 (urban/rural)	..	..	..	..	..	..	..	..	..	..	..	..	..	95/90
	MICS 2000 (for SAM minus Kosovo and Metohija)	..	..	..	..	..	..	..	..	..	..	98.4	..	..	..
	Proportion of population with access to improved sanitation	87.0	..	..	..	..	..	..	..	..	..	..	..	87.0	..
	JMP—WHO and UNICEF (urban/rural)	97/77	..	..	..	..	..	..	..	..	..	..	..	97/77	..
Slovakia	Proportion of population with access to improved water supply	100.0	..	..	..	..	..	..	..	..	..	..	..	100.0	..
	JMP—WHO and UNICEF (urban/rural)	100/100	..	..	..	..	..	..	..	..	..	..	..	100/100	..
	Population connected to water supply (%): WHO HFA	..	..	..	..	..	..	79.7	80.8	82.1	82.3	82.9	83.4	..	..
	Proportion of population with access to improved sanitation	100.0	..	..	..	..	..	..	..	..	..	..	..	100.0	..
	JMP—WHO and UNICEF (urban/rural)	100/100	..	..	..	..	..	..	..	..	..	..	..	100/100	..
Slovenia	Proportion of population with access to improved water supply	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	JMP—WHO and UNICEF (urban/rural)	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Population connected to water supply (%): WHO HFA	98.2	98.2	..	..	..	..	..	..	..	..	..	..	..	..
	Proportion of population with access to improved sanitation	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	JMP—WHO and UNICEF (urban/rural)	..	..	..	..	..	..	..	..	..	..	..	..	..	..

Country	Indicator/source	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Tajikistan	Proportion of population with access to improved water supply	..	..	..	..	..	..	..	..	..	..	..	..	58.0	..
	JMP—WHO and UNICEF (urban/rural)	..	..	..	..	..	..	..	..	..	..	..	..	93/47	..
	Population connected to water supply (%): WHO HFA	..	70.0	69.0	..	..	..	..	..	..	..	..	..	..	..
	MICS 2000	..	..	..	..	..	..	..	..	..	..	56.9	..	..	..
	NNWSS 2003	..	..	..	..	..	..	..	..	..	..	..	..	..	75.1
	Access to piped water: UNECE 2004 (urban/rural)	..	..	..	..	..	..	..	..	..	..	..	..	..	96/40
	Access to piped water: TLSS 1999	..	..	..	..	..	..	..	..	..	46.2	..	..	..	..
	Access to piped water: TLSS 2003	..	..	..	..	..	..	..	..	..	..	..	..	..	54.0
Access to piped water: THHS 2003	..	..	..	..	..	..	..	..	..	..	..	..	..	41.0	
Proportion of population with access to improved sanitation		..	..	..	..	..	..	..	..	..	..	..	..	53.0	..
	JMP—WHO and UNICEF (urban/rural)	..	..	..	..	..	..	..	..	..	..	71/47	..	..	..
Turkey	Proportion of population with access to improved water supply	81.0	..	..	..	..	..	..	..	..	..	..	..	93.0	..
	JMP—WHO and UNICEF (urban/rural)	92/65	..	..	..	..	..	..	..	..	..	..	..	96/87	..
	Households with indoor tap: HCIS 2001	..	..	..	..	..	..	..	..	..	..	..	95.6	..	..
	Households within 15 minute of safe water (%): DHS 1998	..	..	..	..	..	..	..	..	74.4	..	..	..	..	..
Proportion of population with access to improved sanitation		84.0	..	..	..	..	..	..	..	..	..	..	..	83.0	..
	JMP—WHO and UNICEF (urban/rural)	94/62	..	..	..	..	..	..	..	..	..	..	..	94/62	..
Ukraine	Proportion of population with access to improved water supply	..	..	..	..	..	..	..	..	..	..	..	..	98.0	..
	JMP—WHO and UNICEF (urban/rural)	100.0	..	..	..	..	..	..	..	..	..	..	..	100/94	..
	Population connected to water supply (%): WHO HFA	..	54.7	54.7	..	..	..	..	..	..	..	..	..	..	..
	Water supply at home: HBS 1995 and 1996	..	..	..	..	..	55.3	76.3	..	..	..	..	..	..	..
Proportion of population with access to improved sanitation		99.0	..	..	..	..	..	..	..	..	..	..	..	99.0	..
	JMP—WHO and UNICEF (urban/rural)	100/97	..	..	..	..	..	..	..	..	..	..	..	100/97	..
Uzbekistan	Proportion of population with access to improved water supply	89.0	..	..	..	..	..	..	..	..	..	..	..	89.0	..
	JMP—WHO and UNICEF (urban/rural)	97/84	..	..	..	..	..	..	..	..	..	..	..	97/84	..
	Population connected to water supply (%): WHO HFA	..	..	57.0	..	..	..	..	..	..	..	..	..	..	..
	Households within 15 minutes of safe water (%): DHS 1996	..	..	..	..	..	..	84.8	..	..	..	..	..	..	..
	Population use safe water (%): MICS 2000	..	..	..	..	..	..	..	..	..	..	84.0	..	..	..
	Running water at home (%): FBS 2001	..	..	..	..	..	..	..	..	..	..	..	45.9	..	..
Water piped into residence (%): UHES 2002	..	..	..	..	..	..	..	..	..	..	..	..	54.2	..	
Proportion of population with access to improved sanitation		58.0	..	..	..	..	..	..	..	..	..	..	..	57.0	..
	JMP—WHO and UNICEF (urban/rural)	73–48	..	..	..	..	..	..	..	..	..	..	..	73–48	..

Data for	Data source	Description
Primary data source	WDI 2005	All data are from the World Development Indicators database unless otherwise stated
Common data sources	JMP (WHO and UNICEF)	Estimates of access to improved drinking water sources and improved sanitation from Multiple Indicator Cluster Surveys: from the WHO/UNICEF Joint Monitoring Programme for Water Supply & Sanitation Coverage website, 2004. Access to safe drinking water is the percentage of the population using improved water sources where access to water supply services is defined as the availability of at least 20 liters per person a day from an "improved" source within 1 kilometer of the user's dwelling and an "improved" source is one that is likely to provide "safe" water, such as a household connection, a borehole, and so on. Access to adequate sanitation facilities is the percentage of the population using improved sanitation. Excreta disposal systems are considered adequate if they are private and if they separate human excreta from human contact

## 7

Ensure  
environmental sustainability

## MDG

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Data for	Data source	Description
Country-specific sources		
Albania	EWS 1996a	Percent of households that describe their main source of water as either piped public, own system, pump, or well
	UNECE 2002	UNECE Environmental Performance Review for Armenia; Water Management chapter; <a href="http://www.unece.org/env/epr/studies/albania/welcome.htm">http://www.unece.org/env/epr/studies/albania/welcome.htm</a> ; percent of population supplied with water through a public system at home in urban areas and essentially from standpipes and public taps in rural areas
	LSMS 2000	Living Standards Measurement study
Armenia	DHS 2000	Demographic Health Survey (NSS, MH, and ORC Macro 2001) for period 1996–2000
	WB 2005	(Forthcoming) Environment MDG study of 5 ECA countries. Estimates are from national water experts/reports of local consultants
	LSS 1999	1999 Living Standards Survey—estimates from the 1999 Integrated Survey of Living Standards
Azerbaijan	ASLC 1995	Azerbaijan Survey of Living Standards
	UNECE 2003	UNECE Environmental Performance Review for Azerbaijan; Water Management chapter
	MICS 2000	Azerbaijan Multiple Indicator Cluster Survey.
Belarus	MSA	Ministry of Statistics and Analysis—a statistical Annex prepared for the UNDP National Human Development Report, 2003
	HHS 1999	Belarus Household survey 1999 (using 1996 PPPs)
Bosnia and Herzegovina	MICS 2000	Multiple Indicator Cluster Survey. UNICEF Household Survey of Women and Children B&H 2000. Final Draft Report May 29, 2002
	PRSP 2004	Mid-term Development Strategy of Bosnia and Herzegovina (PRSP) 2004–07, BiH council of Ministers (see table, p. 131)
Bulgaria	LSMS 1995, 1997, and 2001	Living Standards Measurement Survey
	CBS	Republic of Croatia Central Bureau of Statistics
Croatia	UNECE 1999	UNECE Environmental Performance Review for Georgia: Water management chapter
	HBS	Household Budget Survey, 1998
	UNDP 2004	Millennium Development Goals: Reducing Poverty & Social Exclusion, Czech Republic, United Nations Development Programme and Centre for Social and Economic Strategies, 2004
Estonia	WB 2005	(Forthcoming) Environment MDG study of 5 ECA countries. Estimates are from national water experts/reports of local consultants
Georgia	MICS 1999	Multiple Indicator Cluster Survey, State Dept of Statistics, National Center for Disease Control, and UNICEF, Tbilisi 2000
	UNECA 2003	UNECA Environmental Performance Review for Georgia
Kazakhstan	DHS 1995	National Institute of Nutrition. Kazakhstan demographic and health survey 1995. Demographic and Health Surveys. Almaty, Kazakhstan, 1996
	WB 2004	(Forthcoming) Environment MDG study of 5 ECA countries. Estimates are from national water experts/reports of local consultants
	DHS 1999	Kazakhstan demographic and health survey 1999. Demographic and Health Surveys. Calverton, Maryland: Water access Sanitation—of 99.2% with access to sanitation, only 42.3% have a flush toilet
Kyrgyz Republic	KPMS 1998	Kyrgyz Poverty Monitoring Surveys, 1998
	Official stats	drawn from Social Economic Development (1993–97 and 1996–2000) year books; Education Stats 2000 Yearbook; 2001 National Human Development Report UNDP
	WB 2004	(Forthcoming) Environment MDG study of 5 ECA countries. Estimates are from national water experts/reports of local consultants
Latvia	UNECE 1998	UNECE Environmental Performance Review for Latvia. Percent of population connected to water from big cities and small and medium towns
Macedonia	HES 2000	Household expenditure survey 2000
Moldova	UNECE 2000	UNECE Environmental Performance Review for Macedonia
	HBS 2000	Household Budget Survey
Poland	WB 2004	(Forthcoming) Environment MDG study of 5 ECA countries. Estimates are from national water experts/reports of local consultants
	UN 2002	Report on the Millennium Development Goals Poland, UN representative in Poland and the Gdansk Institute for Market Economics, Warsaw 2002. Water mains number of houses connected to water mains as a proportion of all inhabited housing units. Source: Wskazniki przemian warunków życia w okresie przechodzenia do gospodarki rynkowej w latach 1989–94; Statistical Yearbooks, CSO
Romania	IHS 1994, 1998, and 2000	Integrated Household Surveys for 1994, 1998, and 2000
	MO Public Admin	2001 Annual Report
Russian Federation	RLMS	Popkin, B. "The Russian Longitudinal Monitoring Survey." Third and sixth rounds. University of North Carolina, Chapel Hill
	HEIDE 1993	
Serbia and Montenegro	MICS 1996	Multiple Indicator Cluster Survey FR Yugoslavia 1996, Institute of Public Health Serbia, Institute of Public Health Montenegro and UNICEF, Belgrade 1997 (for Yugoslavia as a whole)
	WB 2004	(Forthcoming) Environment MDG study of 5 ECA countries. Estimates are from national water experts/reports of local consultants
	MICS 2000	Multiple Indicator Cluster Survey II—The Report of for the Federal Republic of Yugoslavia, UNICEF, Belgrade, 2000 (excludes Kosovo and Metohija)
Tajikistan	TLSS 1999	Tajikistan Living Standards Survey. Conducted May–June 1999 jointly by the State Statistical Agency and the Center of Strategic Research under the Office of the President in collaboration with the sponsors, UNDP, and the World Bank. Many of the data quoted are from the Republic of Tajikistan Poverty Assessment published by World Bank June 2000, which made extensive use of the TSLSS data
	MICS 2000	Tajikistan Multiple Indicator Cluster Survey
	NNWSS 2003	National Nutrition and Water and Sanitation Survey. [ ] denotes data are for 2003
	UNECE 2004	UNECE Environmental Performance Review for Tajikistan
Turkey	THHS 2003	Tajikistan Household Survey
	DHS 1998	Turkey Demographic and Health Survey, Hacettepe University Institute of Population Studies and Macro International Inc. The mortality rates for the 1998 TDHS are for the five-year periods preceding the survey (1988–93 and 1993–98)
	2001 HCIS	2001 Household Consumption and Income Survey
Ukraine	HBS 1995 and 1996	Ukraine Household Budget Surveys from 1995 & 1996 (poverty data derived using 1996 PPP)
Uzbekistan	DHS 1996	Uzbekistan Demographic and Health Survey 1996, Institute of Obstetrics and Gynecology Ministry of Health of the Republic of Uzbekistan, Macro International Inc. Tashkent City, Uzbekistan September 1997. For period 1991–96
	MICS 2000	Multiple Indicator Cluster Survey, Republic of Uzbekistan, 2000
	UHES 2002	Uzbekistan Health Examination Survey, Analytical and Information Center Ministry of Health, State Department of Statistics
		Ministry of Macroeconomics and Statistics, ORC Macro April 2004. The mortality rates from the 2002 UHES are for three five-year periods preceding the survey (1988–92, 1993–97, and 1998–2002).
	FBS 2001	Family Budget Survey, Uzbekistan 2001