



WATER FOR LIFE

The challenge

At least 1.1 billion people, mostly living in developing countries, do not have adequate access to safe drinking water, a service that people in developed countries take for granted. In rural areas of developing countries, where one third of the population does not have adequate access, women and children often have to walk miles to fetch water. In urban areas, population growth and economic development are increasing the demand for water faster than municipal water supply systems can cope.

Two million tonnes of human waste, along with agricultural runoff and industrial effluent, are released untreated into rivers and streams around the world annually, contaminating the water, spreading infectious diseases and damaging ecosystems. Every year, water-related diseases, particularly diarrhea, kill more than two million people, mostly young children.

The largest use of water is for irrigating crops to feed the world's growing population. Agriculture accounts for 70 per cent of the freshwater used in the world, and water efficiency and productivity in this sector remain low. Water extraction for agriculture reduces river flows and, where excessive, may severely disturb natural ecosystems and conflict with growing demand for water for municipal and industrial use. At the same time, careless use of land ecosystems, for example deforestation of watersheds and soil erosion, can disrupt natural water regulation, causing flooding, desertification, and other problems.

As a result of the steady increase in the use of freshwater for agriculture, industry and households, a growing number of countries are facing water scarcity. By 2025, 1.8 billion people will live in countries or regions with absolute water scarcity, including North Africa and West Asia as well as significant expanses of South Asia and East Asia.

In responding to these challenges, the global water agenda focuses on two goals agreed at the 2002 Johannesburg World Summit on Sustainable Development: to halve by 2015 the proportion of people without access to safe drinking water; and to develop integrated water resources management and water efficiency plans by 2005 to improve the management of freshwater resources for all purposes.

Snapshots of success...

Rainwater harvesting can also be an important water source in rural communities.

In **Bangladesh**, about 1000 rainwater harvesting systems have been installed since 1997, primarily in rural areas.

Seventeen provinces in **China** have adopted rainwater harvesting, supplying drinking water for approximately 15 million people and supplemental irrigation for 1.2 million hectares of land.



CSD-13: Policies under consideration

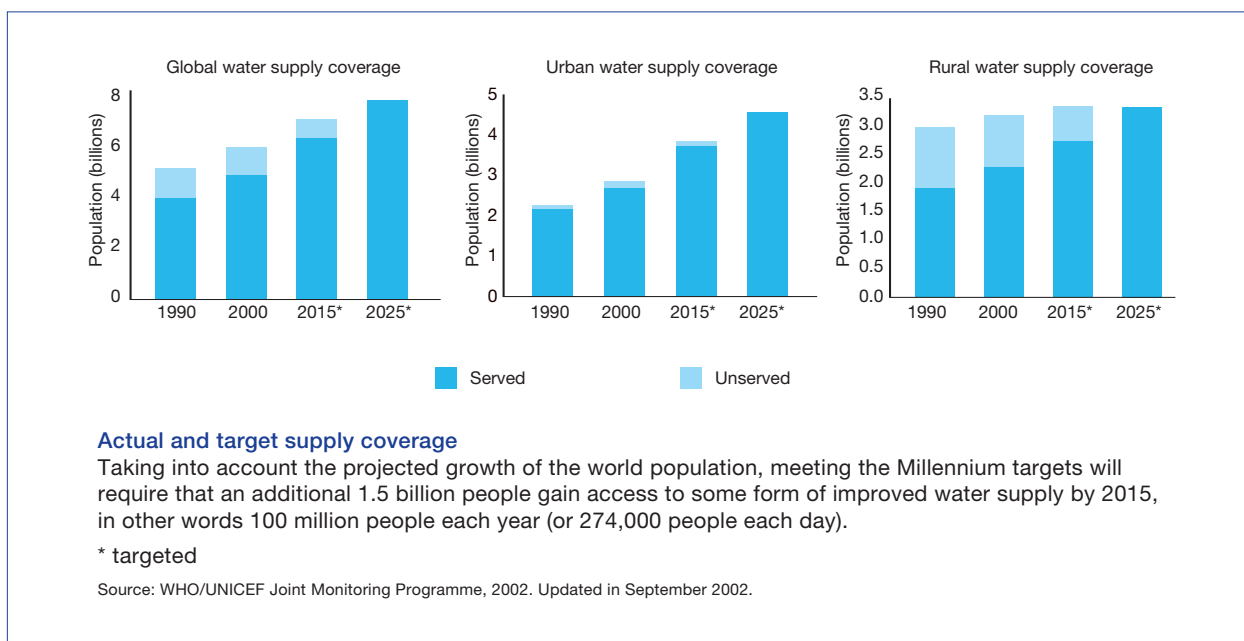
At the Commission on Sustainable Development's twelfth session (CSD-12), government ministers, delegates and non-governmental representatives assessed progress towards meeting the water goal, highlighting obstacles and constraints and sharing best practice examples.

The Commission's thirteenth session (CSD-13), to be held at the United Nations from 11 to 22 April 2005, will focus on the themes of water, sanitation and human settlements. Government delegates will decide on concrete policy options and actions to be taken to achieve the above goals on water as well as other sustainable development targets. This will be the first policy-setting session since the Johannesburg Summit.

While the challenges are daunting, there is now an increased understanding on the part of Governments, public opinion and the international community of the urgency of improving water management and access to safe drinking water. There is a growing consensus on many possible solutions and agreement that international water goals and targets can, indeed, be met through the cooperation of all partners. However, a focused and coordinated approach is needed and there is no one-size-fits-all solution. Each country will need to decide which policy options and possible actions it will use to meet its national water-related goals and targets.

The basis for discussions at the CSD-13 will be the Chair's Summary of the Interactive Discussions at the Intergovernmental Preparatory Meeting, 28 February to 4 March 2005 (www.un.org/esa/sustdev/csd/csd13/ipm_chairstext2.pdf), together with a report issued by the United Nations Secretary-General (E/CN.17/2005/2), which focuses on policy options and possible actions to achieve the water-related goals. Some of the key policy options from the report are summarized here.

Improved water management is key to attaining development goals relating to poverty, health, hunger, industrial development and environmental protection. There is therefore a need to integrate water management strategies into broader national sustainable development and poverty reduction strategies.



Snapshots of success...

Cost recovery is important to ensure the financial sustainability of water services:

In **Senegal**, the reform of the water utility was accompanied by an operating subsidy in the early years, with tariffs gradually rising to cost-recovery levels.

In **Sydney, Australia**, evidence shows a decline in average water consumption per person as a result of water pricing based on consumption.

For agriculture, a number of efficient small-scale irrigation options are becoming increasingly affordable to low-income farmers, including small drip irrigation kits (for example, the Chapin bucket-kits in **Kenya**), micro-irrigation kits using inexpensive plastic tubes (for example, the Pepsee kit in **India**), and foot-operated treadle pumps.

Increasing access in developing countries

The challenge of expanding access to safe drinking water in cities of the developing world - where almost all of the world's population growth in the coming decades will occur — and particularly in urban slums and informal settlements — can be addressed through a variety of measures. These include strengthened management and finance of public water utilities, improved operation and maintenance of water systems, better cost recovery, water conservation, policies to encourage small-scale water service providers, and partnerships with community-based organizations

Improved security of tenure and access to credit are important to promoting household investment in water systems. In rural areas, increased technical and financial support from governments, local authorities and the international community for digging and maintaining wells and other water sources is needed to expand access to safe water.

As water becomes scarcer, incentives will grow to develop less conventional sources of supply, such as desalination of seawater and rainwater harvesting.

Decentralized water management

Managing the drinking water supply is generally the responsibility of local authorities, often through water service utilities. In addition to improving the capacities of national and local governments to regulate water management, services can be improved technically and financially by making water utilities more autonomous of governments and more accountable to their customers. National governments, local authorities and water utilities can improve services through partnerships with other actors, including private entrepreneurs, water user groups, local community organizations, women's groups, and other organizations of civil society.

Snapshots of success...

Countries have adopted a variety of approaches to address the water needs of the poor:

In **South Africa**, the New Water Law guarantees every household 200 litres of free water per day.

In **Côte d'Ivoire** and **Senegal**, tariffs rise with the quantity of water consumed from low levels for a minimum quantity.

Colombia has a system of cross-subsidies from households clustered in a to high-income strata to those in low-income strata.

Targeted subsidies linked to household income are used in **Chile**, while in **Côte d'Ivoire** and **Senegal**, subsidies are given to cover connection costs for the poor.

Private sector participation

Sound, transparent and predictable legal and fiscal frameworks are important for promoting private sector participation in improving water services. So also is widespread public consultation. Access to credit and economic incentives can play an important role in encouraging small-scale water providers to offer services in underserved urban and rural areas.

Integrated water management plans

National water management and efficiency plans, with adequate allocations for municipal, agricultural and industrial use, as well as ecosystem protection, can be valuable tools to ensure long-term sustainable management of water resources to meet the growing demand, within the specific conditions of each country.

Efficiency in agriculture

Because agriculture is the main consumer of water, modest improvements in water efficiency in agriculture – for example, through improved conveyance and irrigation systems – can free up substantial volumes for municipal and industrial use and relieve pressures to invest in new water infrastructure.

Tariff reform and improved water financing

Better targeting of water subsidies to the poor, providing a minimum quantity of water free of charge, using increasing block tariffs among high-volume users: these are some of the policy options being employed in an effort to ensure water affordability while encouraging greater water conservation. Other policy options that can help in financing water systems include revolving funds for water investments, enhancing the creditworthiness and capital market access of municipal authorities, loan guarantees, debt-swap or debt cancellation arrangements, and increased official development assistance (ODA).