

# Water Supply and Sanitation: Improving Services for the Poor

**T**arget 10 under the Millennium Development Goals (MDG) is to halve by 2015 the proportion of people without sustainable access to safe drinking water and basic sanitation. The International Development Association (IDA), the fund for the world's poor, has been working to improve access to water and sanitation in the world's poorest countries and has seen real progress over the last 15 years. Overall, access to improved water sources in IDA countries rose from 65 percent in 1990 to 78 percent in 2006. Progress in sanitation, however, has been slower.

IDA increased its investments in the sector during 2005-2009. This stepped-up commitment is expected to provide access to an additional 36 million people by supporting infrastructure development, by laying the basis for the expansion of water and sanitation services through reform, by including water and sanitation in country development plans, and by improving local institutional capacity to implement related programs.

### At a glance

- Access to safe water in IDA countries improved from 65 percent in 1990 to 78 percent in 2006.
- IDA financing helped shrink the water and sanitation access gap by at least 25 million people (22 million for water) between 2000 and 2006.
- Since 1999, annual IDA lending for the water supply and sanitation sector has averaged US\$577 million.
- Expanding water supply access costs on average US\$55 per person.
- Worldwide in 2006, some 884 million people still lacked access to a reliable source of water that was reasonably free of contamination, and 2.5 billion people still required improved sanitation.

## SECTORAL CONTEXT

**Halving by 2015 the proportion of people without access to improved water and sanitation is a considerable challenge.**

For IDA countries in Sub-Saharan Africa, the share of the population with access to improved water has increased from 46 percent in 1990 to 56 percent in 2007.

For all IDA countries, it has improved from 65 percent in 1990 to 77 percent in 2006. However access to sanitation still trails behind: access to improved sanitation rose from 21 percent to 35 percent during the same period. Although some regions and countries fare better than others, IDA borrowers collectively are off-track to reach this MDG.

In IDA countries, 569 million people remained without access to safe water in 2006 and 1.6 billion people were deprived of basic sanitation, with coverage in rural areas lagging seriously behind urban access.

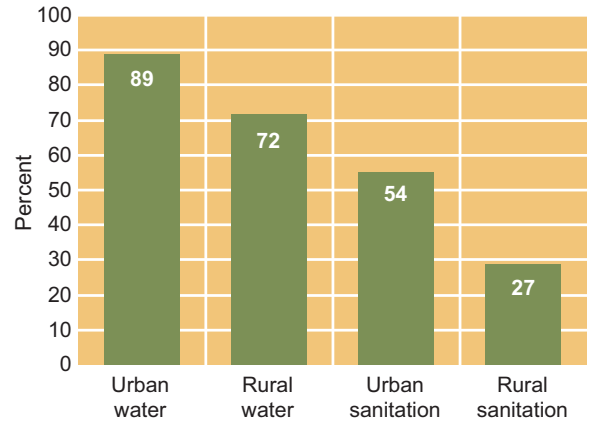
### Measuring results

IDA is also working on tools to help governments and project teams to improve overall monitoring and evaluation in projects. Yet, improving results measurement at the local level remains a long-term endeavor. Support from donors is often required, as data collection and analysis are public goods which usually are not given high priority in most budgets.

In order to improve monitoring at the country level, IDA has started to assist its clients in building and strengthening statistical capacity in both sector and central agencies. One

### Urban and Rural Access in IDA Countries, 2006

(% of population with access to improved source and facilities)



Source: World Development Indicators.

tool is the International Benchmarking Network database of water utility performance indicators (funded by the United Kingdom). It uses standardized definitions for the indicators being collected and currently includes 2,500 utilities in more than 100 countries.

### Life-saving, cost-effective programs

Initiatives focused on hygiene, sanitation, and water supply have varying, but collectively important, influences on the improvement of child health. Hand washing initiatives were reported by experts to reduce the probability of contracting diarrheal diseases—an important cause of child morbidity and mortality—by 44 percent. Similarly, sanitation improvements resulted in a 32 percent decrease, while improved water supply resulted in a 25 percent reduction in the probability of contracting diarrheal diseases.

On average, water supply projects are inexpensive: expanding water supply access comes out to US\$55 per person. Those costs

vary, of course, by country and type of investment. The costs of inadequate water supply and sanitation are harder to measure but are certainly very high, with lack of water affecting poverty, health, education and the environment, and disproportionately affecting the poor.

## **IDA CONTRIBUTIONS**

### **IDA has steadily increased its lending for water and sanitation since 2003.**

Between 1998 and 2009, IDA lending for the water supply and sanitation sector has averaged US\$577 million each fiscal year. Lending in FY2009 was US\$800 million, a 50 percent increase compared to FY2005. IDA lending has been concentrated in Africa, which has received about half of the IDA commitments to the water supply and sanitation sector since 1998. Most of the remaining IDA lending in this sector is focused on East Asia/Pacific and South Asia, two regions that have especially large gaps in achieving the MDG for sanitation.

### **Projects across several sectors**

In the past decade, much of the assistance to water supply and sanitation has been provided through projects that incorporate it as one of several sectors. Since 1999, 41 percent of IDA lending has been provided directly through these multi-sector operations, funded as part of urban development, rural development, and social protection projects. This trend to incorporate water supply and sanitation components into multi-sector projects is a positive development, as it reflects increased recognition of this key sector in reducing poverty and promoting economic growth.

## **Analysis and advice**

The increase in lending has been accompanied by IDA experts producing a greater number of analytical and advisory studies that include a focus on water and sanitation. This analytical work helps project teams set the right priorities and suggest appropriate reforms in borrowing countries. These studies increasingly address issues that span several sectors—such as community participation, local government reform, public sector reform, and capacity building—while also more effectively integrating water supply and sanitation into country and regional studies.

### **Customized projects**

IDA assistance in post-conflict countries, such as Afghanistan and Sierra Leone, is mainly focused on reconstruction and rehabilitation of critical infrastructure, while supporting longer-term efforts to strengthen institutional capacities.

In countries characterized by a more supportive environment, such as Ghana, Guyana, India, or Vietnam, IDA assistance is focused on expanding and sustaining the delivery of water supply and sanitation services.

### **Effective lending**

The effectiveness of IDA lending in water supply and sanitation has improved significantly. Evaluations of completed projects show that 80 percent of the water supply and sanitation projects completed between 2001 and 2008 had satisfactory outcomes, higher than the Bank average and a major improvement over prior years. Sustainability ratings have also gone up, as has the percentage of completed projects with satisfactory policy reforms.

## Tangible results

Urban water projects in **Senegal** helped usher in a reform of the water sector in 1996 which led to increased efficiency and expanded access, particularly for the poor, without increasing water tariffs beyond the rate of inflation. Following the engagement of a private operator in an innovative public-private partnership, water losses decreased from 32 percent to 19 percent between 1998 and 2006. Access to water supply services was extended to approximately **1.6 million people** in Dakar and secondary cities over the same period. IDA helped finance 130,000 new household connections at subsidized rates for poor families as well as 400 public standpipes. Sanitation improved in urban areas with 830,000 people gaining access to sewerage connections or on-site sanitation.

Two successive projects leveraged important funds from other donors and commercial banks and contributed to expanding **access to water to 98 percent of people in Senegal's cities in 2006**, up from 82 percent 10 years earlier. The level of household connections in urban areas (76 percent, up from 58 percent a decade ago) is now the highest in sub-Saharan Africa.

In **Ghana**, the Second Community Water and Sanitation Program (2000-2004) adopted a community-driven approach to water supply, supporting Ghana's decentralization strategy through grants. More than **2,000 communities are now using and managing water and sanitation facilities** that they planned and helped build. Overall nearly 800,000 people in four regions (6 percent of Ghana's total rural population) gained access to potable water. The project also trained 500 service providers.

In **Burkina Faso**, the Ouagadougou Water Supply Project (2001-2007) helped triple the number of city residents with household connections, from 300,000 in 2001 to 1,040,000 people in 2007. A full 94 percent of the city's population—1,480,000 people—now has access to safe water on a regular basis. A 2007 survey found 85 percent of the utility's customers were highly satisfied with the quality of water and services provided.

The Small Towns Water and Sanitation Project in **Uganda** (1995-2003) succeeded in improving water supply services for over 190,000 people in **11 towns** and significantly reduced time spent on water collection.

The **Yemen** Social Fund for Development (1997-2003) provided basic social and economic services to almost 10 million people, of which almost 2 million benefited from access to water supply services. A follow-up project (2001-2006) provided more than 820,000 people with improved environmental sanitation—for example, working gutters, and efficient rubbish removal.

Through the **Cambodia** Urban Water Supply Project, water losses were reduced from 57 percent in 1998 to 18 percent in 2003, while adding almost **100,000 new connections** to the piped network system and resulting in a 34 percent increase in access to improved water sources in the country's urban areas between 1998 and 2004. The increased sales and lower cost of production had a positive impact on the financial performance of the utility.

In **Armenia**, IDA has successfully supported the modernization of the water sector with participation of the private sector. The Yerevan Water and Wastewater Project builds on the success of a previous IDA project in introducing

an international private operator to manage the city's utility. As of January 2007, about 75 percent of Yerevan had 24-hour water supply, up from 7 hours a day previously. A second project outside the capital has provided 50 percent of the people with continuous water supplies. The water utilities show steady improvement in their financial performance, operating efficiency, and customer relations.

In rural areas of **Indonesia**, **600,000 households** and 3,000 schools have benefited from improved water supply and sanitation services under the Second Water and Sanitation for Low Income Communities Project (2000-2010).

The on-going Second Community Water Supply and Sanitation Project (2007-2010) in **Sri Lanka** has succeeded so far in providing safe access to water supply to 46,000 households and supported the construction of some **10,000 toilets**.

The Bombay Sewage Disposal Project completed in December 2003 was supported by a US\$192 million blended IBRD/IDA loan. One component of the project provided sanitation services for over a quarter of a million slum dwellers and accounted for approximately six percent of the overall cost. It also constructed 328 toilet blocks with more than 5,100 toilet seats in slums across Mumbai. These facilities are designed to serve the needs of 250,000 people but the actual number of users likely exceeds 400,000 people.

In 2004, the World Bank launched the Ethiopia Water Supply and Sanitation Project. The project specifically provides a US\$75 million IDA credit and US\$25 million IDA grant to improve approximately 5,500 rural water supply schemes serving 2 million people, and about 75 town water supplies serving 1 million people.

In Nepal, IDA has supported the completion of 1,815 schemes serving 1.2 million people. Eighty-nine percent of the schemes built under the IDA project score well for sustainability compared to a national average of 56 percent. Sanitation coverage averages over 60 percent in areas served by the project, compared to 46 percent nationally.

### Several factors drive these positive results

- **A country-based approach** ensures that IDA investments are tailored to the needs and capacities of specific countries. The Bank's capacity to work across sectors, to interconnect these different sectors, and link local (i.e., city or rural districts) with the country aspects of development helps to create an environment that facilitates efficient and sustainable water and sanitation investments.
- **Global operational experience and research capacity.** The increase in analytical work over the past five years has helped to improve water supply and sanitation policy and institutional reform strategies that underpin the lending program, and has, as such, contributed to improved results in the lending portfolio.
- **Budget support.** Indirectly, the increased use of budget support instruments, such as the financing attached to Poverty Reduction Strategies, has enabled sector-wide reforms that have brought water supply and sanitation programs funded by different donors under one umbrella. It has also helped to strengthen public management, improving the predictability of financial support to the sector.

In Benin, for instance, this approach has, since 2001, resulted in a doubling of the

## Partners in Action

The World Bank and the African Development Bank (AfDB) are committed to working together to support national programs for rural and urban water supply and sanitation in order to curb transaction costs and maximize the funds that government and donors can contribute to the sector.

The Rural Water Supply and Sanitation Initiative led by the AfDB is an important element of this strategy. The partnership with AfDB and other donors enables the Bank to leverage its IDA funds significantly, and to balance investments between rural, town and urban water supply and sanitation.

population served with improved water supply and sanitation. In Uganda, general budget support has helped increase budget allocations to water from 0.5 percent of public expenditure in 1997 to 2.8 percent in 2002. Uganda is on track to meet the development goal of supplying 65 percent of the population with safe water and 80 percent with sanitation by 2015.

- **International cooperation.** IDA actively contributes to the international dialogue on water and sanitation. Special attention has been given to Africa through the African Ministerial Conference on Water, the New Partnership for Africa's Development and regional initiatives such as the Nile Basin Initiative. Efforts to ramp up financing for water supply and sanitation will continue, mostly through the establishment of an Africa Infrastructure Consortium (agreed at the 2005 Group of 8 summit) that will focus on aid effectiveness.
- **Drawing on available knowledge.** IDA has also been able to draw on policy research financed by trust funds to improve its

operational work. The Bank-Netherlands Water Partnership (established in 2000) played a key role in getting sanitation and hygiene components into water projects in more than 18 IDA countries and shed light on innovative ways to improve service delivery to the poor. Other trust-funded programs, such as the Public Private Infrastructure Advisory Facility and the Global Program for Output Based Aid, have also contributed by disseminating knowledge and providing new financial instruments to increase access to water supply and sanitation services.

## OUTLOOK

### Learning from the past

In the past two decades, it has become increasingly clear that sustainable infrastructure development is more likely to occur in an environment that fosters reform to improve the performance of basic service providers.

More closely engaging with governments and public institutions on policy goals has a positive impact on country ownership of development and can contribute to improved project performance.

The implementation of a revised business strategy in 2003 has resulted in assistance to water supply and sanitation focused on those countries where the potential for impact is the highest, matching Bank support with country commitment to sound policies and institutions. The lending program increasingly has been combined with sector evaluations to strengthen lending programs through, for instance, action plans for water supply and sanitation based on the MDGs (e.g. India, Senegal), and regional infrastructure strategies.

Nevertheless, sector reform tends to take place in spurts depending on the political climate in client countries, and that means progress tends to experience its ups and downs.

To ensure sustainable service delivery of water supply and sanitation, the following project design features have proved to be of major importance: the use of demand-responsive approaches in service provision; managing services at the lowest appropriate level; adherence to cost recovery policies, where necessary in combination with transparent subsidies targeted to the poor; the use of appropriate technologies and standards to ensure cost effectiveness of investments; and a shift from sewerage to on-site sanitation and hygiene promotion programs.

In addition, IDA engagement in the sector is becoming more nuanced by addressing the reality that different management models are appropriate in different country contexts. An increasing variety of management models in the public and private sectors are being utilized as a result. A last lesson is that regulation cannot substitute for good governance.

### **Strategy going forward**

The major challenge facing the development community lies in broadening and deepening investment and reform efforts.

IDA has been able to increase lending for water supply and sanitation, thanks to the sector's prominence in poverty reduction and country assistance strategies. Water and sanitation is currently represented in 75 percent of poverty reduction strategies Bank-wide.

IDA lending is expected to grow further over the coming years, although this expansion can be inhibited by limits on IDA investments per country. In the fiscal years 2008-11, IDA will continue to focus on priorities set during the previous cycle, with Africa remaining a major focus of efforts.

The provision of urban water supply will remain important, fuelled by the rapid urbanization taking place in many IDA countries. Sanitation and hygiene promotion components in the overall IDA portfolio are likely to increase as previous projects are starting to show results and create demand. However, there will also be an increased focus on improving governance so that water and sanitation infrastructure investments can be operated and maintained in a long-term, sustainable fashion.

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<http://www.worldbank.org/ida>