HOW STANDARDS CAN IMPROVE ACCESS TO CLEAN WATER

Nearly 800 million people lack dependable access to clean water and about 2.5 billion people lack access to modern sanitation, putting them at risk of disease. Poor water quality has become a global issue of concern as populations grow, industrial and agricultural activities expand, and climate change puts global water resources under enormous pressure.

Improvements in water supply and sanitation are critical to saving lives and in the development of communities. Clean water is also important for economic development, as industry and food processing rely on pure water to ensure product quality and safety. Governments, often in tandem with industry, have sought to address the issues of water access, safety, efficiency, and sanitation by creating regulatory frameworks that shape how communities manage and maintain their valuable water resources.

Empowering communities to adopt and implement water and sanitation programs and investments, based on standards that are developed by consensus and approved by a recognized body, is critical to expanding access to clean water supplies, increasing water productivity, and reducing water contamination. Standards are an important tool for governments to enable, regulate, and implement large-scale water and sanitation programs. They also strengthen the private sector's ability to create and expand the availability of water and sanitation products and services. Alternatively, regulations that diverge from international standards and best practice restrict competition or are not based on sound science can prevent the most effective and innovative products, processes, and testing methods from helping vulnerable communities meet their water and sanitation needs.

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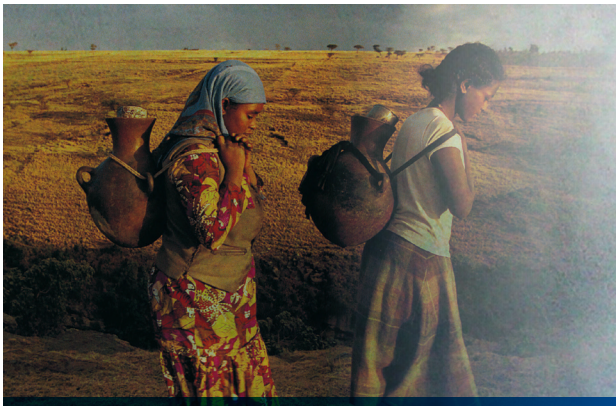


HOW STANDARDS CAN IMPROVE ACCESS TO CLEAN WATER

THE POTENTIAL OF STANDARDS FOR DEVELOPING COUNTRIES

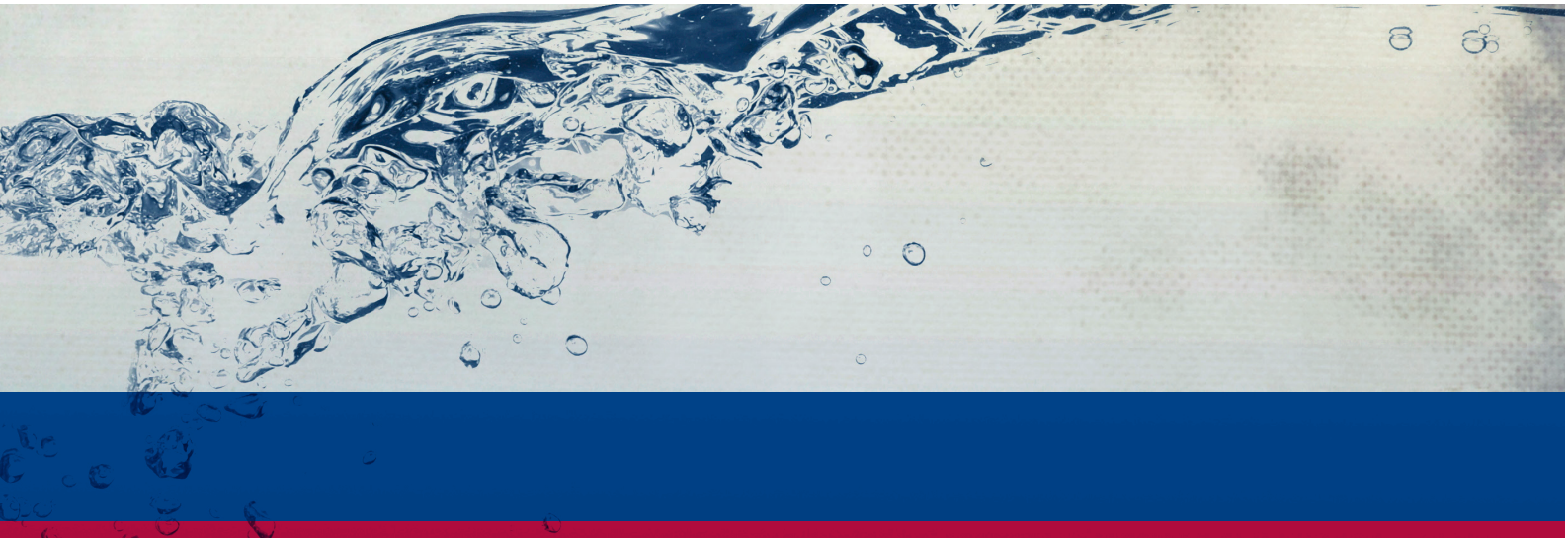
CASE STUDY:

REDUCING WATER WASTE IN INDIA

Management of water resources in India is critical to poverty reduction and economic development. But inefficiency is a significant problem: the efficiency of water supply rates is below 50% in some urban areas. To address this issue, officials in India approached the International Association of Plumbing and Mechanical Officials (IAPMO) to help in the development of standardized plumbing practices and to train a workforce to maintain infrastructure and water services. IAPMO partnered with local government and other institutions to develop and promote the adoption of IAPMO-based plumbing and mechanical codes.

The adoption of these high-quality codes, based on internationally recognized plumbing standards, has helped expand access to improved water and sanitation services, promote a culture of water sustainability, build the capacity of local government agencies, and elevate the skills of the workforce with respect to building and maintaining water resources. The adoption of the codes also prompted officials to mandate zero-discharge projects for new privately developed townships and to promote the use of alternate water sources (e.g., rainwater).

Source: IAPMO



Adoption of effective consensus standards can play a key role in helping developing countries manage the effects of economic growth on water supplies and on access to safe, potable water in low-resource environments.

IMPROVING WATER QUALITY

Providing reliable access to water resources is a critical step toward promoting sustainable economic and social development. But in many developing countries, drinking water has become a serious threat to public health because it contains pathogenic organisms, pesticide runoff, and other contaminants. One of the most important interventions governments can make to help reduce the risks of water contaminants is adopting high-quality drinking water standards based on international standards. By establishing clear specifications for water quality and testing, governments can take more effective and targeted action to purify water resources and curb harmful industrial and agricultural practices that release toxic contaminants into the water supply.

INCREASING WATER EFFICIENCY

Minimizing wasteful uses of water is critical in emerging economies, where expanding populations are increasing demand and putting greater strain on resources. Developing countries must maximize the services generated from available water resources and expand productive capacity without depleting or polluting water supplies.

An additional challenge in developing countries is decaying (or non-existent) plumbing infrastructure. Enormous amounts of water are wasted in developing countries due to poor water infrastructure, illegal tapping of water lines, and mismanagement of water resources. These same challenges can also impede efforts to improve public health.

In many cases, regulators require guidance on how best to regulate the use of water by the industrial and agricultural sectors to encourage water efficiency. They often require similar guidance on optimizing existing infrastructure to distribute and manage water supplies efficiently. The adoption of international consensus standards can guide regulators on best practices for water use, materials, components, and production methods that make it possible to increase productivity and reduce waste. Since international consensus standards incorporate the results of advances in science, technology, and experience, regulators can be confident that their adoption will encourage use of the most innovative and effective products and processes to improve water infrastructure and expand the availability of water supplies, helping countries with growing populations meet rising demand for clean, safe water.

OPPORTUNITIES TO ENGAGE

International consensus standards are a critical tool for regulators seeking to improve water and sanitation. Donors can play a key role in working with developing country partners to ensure that standards are effectively integrated into programs to achieve water and sanitation goals. Potential interventions include:

- Improve water efficiency by encouraging regulators developing water conservation policies to base regulations on international standards that reflect the best practices recommended by international experts.
- Enhance the quality of water infrastructure by working with governments to adopt regulations based on consensus standards that address quality and performance requirements for water infrastructure.
- Create access to safer drinking water by promoting the adoption of international standards for water safety.
- Build local capacity to enforce existing standards by providing the necessary capacity building and technical assistance to professional bodies and labor and government officials on the design, installation, inspection, and maintenance of water and sanitation systems.

CASE STUDY: DRINKING WATER STANDARDS IN MYANMAR

Like many developing countries, Myanmar's economy is largely based on agriculture. As economic growth has picked up and the country has begun liberalizing ties with the rest of the world, use of pesticides has increased— from about 3,000 metric tons in 2002–2003 to 11,000 metric tons in 2011–2012. Increased pesticide usage has also increased the risk of harmful chemicals contaminating the country's drinking water supply and endangering human health.

To address this issue, the Ministry of Health organized a cross-ministry workshop in May 2012, funded by UNICEF, to develop new regulations for acceptable levels of pesticide residue in drinking water. The government based its regulations on drinking water standards developed by the World Health Organization, which it then adapted to suit local conditions. These residue levels are expected to be incorporated into Myanmar's National Drinking Water Quality Standard, which will also set standards for contaminants like bacteria and arsenic. In this case, the availability of international standards on water quality helped the government quickly develop science-based national regulations to reduce risks to human health and promote water sustainability. *Source: Myanmar Times*

For more information on USAID assistance related to standards please visit **standardsalliance.ansi.org** or contact us at **SA@usaid.gov**