



# Water and Sanitation for Health and Development

RTI International's integrated water and sanitation solutions save lives, improve the human condition, and advance sustainable development.

The United Nations' Sustainable Development Goals highlight water, sanitation, and hygiene (WaSH) as top-priority issues threatening people worldwide. RTI is tackling global WaSH challenges by leading integrated programs that save lives and help countries develop sustainably. Our multisectoral expertise fuels our work in the following areas:

- Public and environmental health
- Survey research
- Social and behavior change communication
- Geographic information systems (GIS) and data management systems
- Technology development and commercialization
- Governance and policy reform

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## Areas of Expertise

drinking water quality and waterborne diseases	irrigation water quality and management	sanitation management and wastewater reuse	sanitation technology field testing and commercialization	watershed management
sector governance	monitoring, evaluation, and learning	survey research	human-centered design	gender research

## Areas of Expertise

RTI is involved in multiple efforts to provide people worldwide with the water they need. Our knowledge of water extends from the elemental to the global scale. Our water-related services are part of a broader environment and natural resources research portfolio encompassing climate change, food security, environmental and human health risk assessment, and waste management.

### Health Effects from Environmental Contaminants

We lead projects that link environmental and public health problems to their associated causes; we also identify and implement risk mitigation strategies. We help our clients quantify potential health risks to individuals and populations by developing methods, models, and data. Our laboratories can measure microbial and chemical contaminants in water using advanced instrumentation. We can also adapt methods, data collection, and interventions to meet a variety of field conditions and country contexts.

### Solutions to Guide Sustainable Water Resources, Policy, and Technologies

Competing demands for limited water resources call for cross-disciplinary insights to guide decision-making and development of context-appropriate policies and technology solutions. Our teams include experienced engineers; hydrologists; economists; and policy, governance, and public health experts who develop multisectoral and market-driven approaches. We provide independent assessments of current and future water constraints, including the impact of environmental policies on water supply, risk-based decision-making around health and environmental effects, and guidance for the development of innovative water and sanitation technologies.

### Water Management and Governance

As leaders in international development, we see firsthand how countries struggle to provide clean water to their citizens—and how not only those countries but also their people suffer when these efforts fall short. We help water providers around the world enhance their capabilities by providing sustainable water management solutions, such as forecasting and decision-support tools, to manage dynamic environmental challenges strategically. We also improve service delivery, enhance institutions, reform policy, and strengthen good governance practices to help increase access to basic drinking water, sanitation, and hygiene services in developing countries.

RTI International is an independent, nonprofit research institute dedicated to improving the human condition. Clients rely on us to answer questions that demand an objective and multidisciplinary approach—one that integrates expertise across the social and laboratory sciences, engineering, and international development. We believe in the promise of science, and we are inspired every day to deliver on that promise for the good of people, communities, and businesses around the world. For more information, visit [www.rti.org](http://www.rti.org).

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## Project Highlights

We lead integrated water resources and sanitation projects around the world that are based on sound science, innovative technology development, and effective institutional approaches.

### Effective WaSH (E-WaSH) Services in Nigeria

In 2018, the U.S. Agency for International Development (USAID) contracted RTI to implement the E-WaSH program. This program will improve the availability of clean water and sanitation in Nigeria's poorest urban neighborhoods. We expect to improve water delivery to 500,000 households by boosting the productivity and efficiency of state water boards (SWBs). Our approach to improving the viability of SWBs includes the following:

- Building a common understanding between state governments and SWBs via Service Improvement Plans
- Making SWBs financially and operationally viable via technical assistance and connections to private-sector actors
- Strengthening regulatory oversight to improve SWB transparency and accountability
- Engaging with civil organizations as advocates

### Sanitation Technology Platform (STeP)

RTI is the implementing partner of STeP, funded by the Bill & Melinda Gates Foundation. RTI established STeP to support the development and launch of new sanitation technologies by streamlining and de-risking field testing and commercialization. STeP supports field testing of prototype technologies and integrates market intelligence, user insights, and technology transfer in the business planning and commercialization processes.

### USAID Jordan Institutional Support and Strengthening Program (ISSP)

The USAID Jordan ISSP developed a national Wastewater Strategic Master Plan that is now the basis for all Ministry of Water and Irrigation/Water Authority of Jordan planning decisions for wastewater investments. The plan greatly accelerated donor investment in wastewater infrastructure and established national planning criteria. ISSP also developed and institutionalized performance monitoring of key operational indicators in Tafilah, which showed that actual water production was 20% lower than reported. These data enabled the utility to repair or replace meters, or to close unproductive wells with the added benefit of saving energy.