

# INTERNATIONAL DEVELOPMENT

## Sustainable Sanitation



Improperly managed human waste can contaminate drinking water and food sources, leading to diarrheal disease that kills 1.5 million children a year. More than 2.5 billion people remain without improved sanitation—they use facilities that do not properly separate their feces from human contact, such as open pits or buckets, or practice open defecation. RTI International is addressing this challenge by moving from traditional subsidy-based programs that give people toilets to market-based interventions that are proving to be more sustainable, cost-effective, and scalable.

RTI believes that empowering entrepreneurs is the key to driving wide-spread sanitation improvement in low-income countries. Building on the evidence from numerous programs, RTI is committed to growing private sector markets as the enabling environment for sustainable sanitation.

The business of sanitation is immature in many countries, but it can be developed by increasing household demand

through promotion campaigns, while supporting entrepreneurs with the technical skills and business savvy needed to supply the demanded sanitation facilities and services. RTI deploys its specialists in health, surveys, community organization, environmental engineering, entrepreneurship, economics, and public policy to assist public and private partners to launch or expand their sustainable sanitation programs.

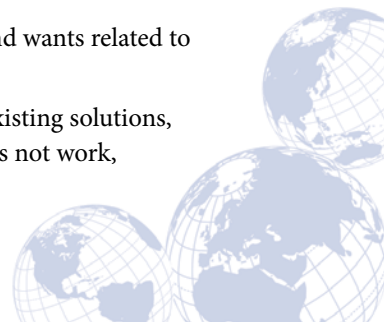
### RTI's Approach to Sustainable Sanitation

1. Conduct baseline survey of household knowledge, attitudes, practices, and Rapid Technical Assessment of available sanitation options
2. Trigger community awareness of sanitation and promote demand for services
3. Perform market analysis of demand and supply constraints to improve the sanitation business model to reach broader customer base
4. Carry out marketable solutions of sanitation options that are easy to buy, install, and use
5. Build local supply networks
6. Link supply and demand through trade and user groups microfinance for businesses and consumers

### Surveying the Sanitation Landscape

RTI assists local governments and community groups to raise awareness of hygiene and generate demand for improved sanitation facilities. We have found that people will invest in sanitation if they believe it will improve their lives. RTI's approach to demand-generation begins with a baseline survey. RTI employs its world-renowned survey capabilities to

- Identify the knowledge, attitudes, and practices of sanitation in the community
- Understand individuals' needs and wants related to health and sanitation
- Investigate technical aspects of existing solutions, examining what works, what does not work, and why



As part of this situational analysis, RTI trains local engineers and plumbers to work side-by-side with survey enumerators to perform rapid technical assessments. These assessments are the first steps in identifying opportunities to make technology options easier to buy, install, use, and maintain. This often results in innovation, cost reduction, and simplification.

### Generating Demand through Hygiene Promotion

RTI has used the Community-Led Total Sanitation (CLTS) approach—a guided process of collective discovery and behavior change to end open defecation—to introduce demand for sanitation where there is none. Merging CLTS efforts with a robust marketplace that provides low-cost sanitation options shows great promise as a tool for achieving behavior change on a wide scale.

- In Madagascar, RTI leads the USAID SantéNet2 project, which has initiated CLTS in 291 communes. As a result of triggering community demand for sanitation through CLTS, villagers built 1,832 latrines with SantéNet2 assistance between September 2009 and October 2010—accounting for more than half of all latrines built in Madagascar through CLTS during the same period.
- In Senegal, RTI leads the USAID Millennium Water and Sanitation Program, which has used CLTS and social marketing through community radio, schools, and women's association to trigger demand for sanitation in rural Casamance Region. Local village management committees and water user associations oversaw the effort, which generated demands for 432 ArborLoo latrines in less than 4 months.

#### CLTS in Madagascar

None of the 634 households in the village of Sahanavo had access to latrines. According to local beliefs, defecating indoors was not healthy behavior. Even schools, the local health center, and the church lacked latrines. The RTI-led SantéNet2 project helped local leaders organize a health committee to find creative solutions to poor hygiene and sanitation in the village. Within 4 months of forming the committee and initiating CLTS, villagers built 26 new latrines with local materials. To reinforce use of the latrines and hand-washing, community health workers taught villagers the dangers of fecal-oral disease transmission.

### Supplying Sanitation through Entrepreneurs

Sustainably supplying the demand for sanitation requires flipping the sanitation business model around. Traditionally, businesses tend to maximize profits at the expense of volume. To achieve wide-spread sanitation improvements, businesses under the RTI model are encouraged to market and sell lower-cost technologies at low margins but high volume, thus scaling up their customer base while expanding the number of households with access to improved sanitation. Adding the components of promotion and access to microfinance closes the gap between buyers and sellers and sets the stage for sustained business growth and development.

The market-based approach for providing low-cost sanitation goods and services also applies to larger scale wastewater treatment needs for urban and peri-urban areas. Empowering businesses through training, mentoring, and finance is key to scaling up the delivery of decentralized wastewater treatment systems (DEWATS) for schools, hospitals, subdivisions, and public markets.

#### Community-Owned Sanitation in Indonesia

In most poor rural and peri-urban communities, flush toilets and piped sewerage are too costly to immediately introduce. A stepping stone is community block toilets outfitted with hand-washing stations. For the safe removal of excreta, these facilities are connected to DEWATS, including septic tanks, biogas digesters, and constructed wetlands. RTI uses this approach to introduce sanitation in Pondok Jaya Village on the margins of Jakarta, where 80% of the population defecates in the open and more than 50% of the population had diarrhea in the past year. Following the Indonesia SANIMAS approach to community-based sanitation planning, RTI and local partner BEST secured commitment from village leadership and community members to cover the operation and maintenance costs of a community block toilet and a school toilet with waste treatment system through cash contributions and user fees. The toilets are being constructed with village help and will serve more than 1,000 residents.

#### More information

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