

Profile: Safe Water Network India

Providing potable water to communities that lack access to safe drinking water



Challenge

Some 97 million people in India lack access to safe water, according to the World Health Organization. Three-quarters of India's surface water is contaminated by waste, and groundwater often contains high levels of fluoride, nitrate, and other mineral contaminants. Water- and sanitation-related illnesses account for 70–80 percent of the country's disease burden. The challenge is to provide safe drinking water at an affordable rate to low-income communities.



iJal stations like this one in the village of Peddapur, in Telangana, provide residents with relatively inexpensive clean water.

Innovation

Safe Water Network was co-founded in 2006 by the actor and philanthropist Paul Newman. Although it is a nonprofit organization, it is based on market principles and a customer-oriented approach.

In 2008 the organization launched its first effort, a rooftop rainwater harvesting program that built or refurbished more than 1,000 community and household cisterns. Soon after, it set up water treatment and sales points. These Safe Water Stations (locally called iJal Stations) are equipped with water treatment technology to treat groundwater contamination in affected areas.

Sites for Safe Water Stations are identified based on the following criteria:

- Water quality is very poor.
- Households demand and are willing to pay for safe drinking water.
- The community has at least 400 households, and at least 75 percent of households are likely to participate. (If half of the population buys water regularly, the program needs at least 2,000 people in 500 households to be financially viable.)
- A local elected body has the authority and is willing to sign a tripartite agreement with Safe Water Network and the local operator giving Safe Water Network the right to operate. The agreement includes a mechanism for setting an affordable but viable price for water and ensuring equitable access to all community members.

In consultation with the community, a local entrepreneur or community-based organization is selected to operate the water station. Safe Water Network selects the most appropriate water treatment technology, provides the funds for capital investment, builds the station, and subsidizes the marketing costs.

All stations are equipped with a remote monitoring system that enables 24/7 monitoring of plant performance and water quality. Monitoring enables technical issues to be addressed by the project team immediately, keeping downtime to less than 2 percent. Each station is expected to cover its

operational costs from the start. The local entrepreneur, while setting aside some percentage toward plant maintenance, earns fixed fees from the water sales, and the balance is returned to Safe Water Safe Water Network uses its revenues toward plant repayment and is used as a revolving grant to invest in other communities. It takes about 7-8 years to recover the costs of setting up a station. If a station proves nonviable, either operationally or financially, Safe Water Network has the right to terminate operations and relocate the treatment plant.

Impact

Safe Water Network India has brought access to safe, affordable drinking water to more than 672,000 people through 180 iJal Stations in the states of Telangana, Uttar Pradesh, and Maharashtra (2017), having doubled the number of its stations in just the past couple of years.

Water is priced to make it as affordable as possible while covering operating costs. In 90 percent of communities served, it sells for USD 0.06–0.08 per 20 liters—a fraction of the USD 1.20 charged for the cheapest branded bulk-packaged treated water. iJal water is also less expensive than untreated water from tankers or boreholes.

Education about the health benefits of properly treated water is part of the model, particularly in areas where dissolved minerals have contaminated the water. Education is also necessary to counter the belief that boiling water can make it safe to drink.

Safe Water Stations generates livelihoods for local station entrepreneurs, operators, and drivers who transport the water. They also provide training on how to manage a small business.

Scaling Up

The main external driver of this model is the vast unmet demand for safe drinking water. Safe Water Network in India and Ghana have reached nearly a million people (2017). Five variables drive the financial viability of individual stations: the population of the community, household size, household participation, distribution, per capita consumption, and most critically, willingness to pay.

Internally, two drivers underpin design and scale-up: cost reduction and a commitment to sharing knowledge. The network keeps costs low by using technology and limiting its staff to a small team – half of which are for awareness raising and knowledge dissemination, an important part of the company's social mission and also improves willingness to pay.

While the Indian government has become more involved in procurement of decentralized water treatment plants, its focus on the lowest price, without incorporating quality and social impacts, limits the network's ability to win public sector contracts.