

Stanford SOCIAL INNOVATION^{Review}

Viewpoint

Taps and Toilets for All

By Gary White & Matt Damon

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VIEWPOINT

INSIGHTS FROM THE FRONT LINES

Taps and Toilets for All

Microfinance for water and sanitation enables people to find their own solutions.

BY GARY WHITE & MATT DAMON

Globally, 844 million people still lack basic water service—a drinking water source that is accessible within a 30-minute round trip from their home. Even more people, 2.3 billion, still do not have access to basic sanitation—a toilet or latrine that is not shared with other households. All human beings share the need for drinking water and sanitation, and the people with least access to them pay a steep price in health, wealth, and dignity.

But there is another side to this story: Many people who lack access to water and sanitation know exactly how to solve their problems. They may just need to connect to an existing water system, buy a toilet, or set up a rainwater harvesting system using readily available labor, technology, and materials. Their solutions are in plain sight. They just need a financial bridge to reach them.

Nureni was one of these people. Nureni lives in Jakarta, Indonesia, with her husband and son. Not long ago, with a small amount of credit, she was able to have a water tap installed in her own kitchen. This saved her from a lifetime of having to fetch contaminated water from a stream shared with animals, or pay the exorbitant prices of a local water truck. Having safe water in her home enabled Nureni to start her own business: Each morning, she fills her pots with water from her tap in order to prepare a traditional rice and coconut dish, which she then sells to neighbors and passersby. The money Nureni makes from this business is helping put her son, Rhian, through school to become a motorcycle mechanic. He will soon graduate and start an internship at the local motorcycle manufacturing plant.

Plenty of people have water on tap in their kitchens. Why didn't Nureni's family, until recently? She couldn't afford to pay for the connection in a single payment. But Nureni could make smaller payments over time, and with a little affordable credit, she invested in her own solution and changed her family's lives. There are an estimated 565 million other people like Nureni, who, with access to affordable financing, could solve their own water problems immediately.

Understanding this should trigger a fundamental shift in thinking. People in need are no less diverse than any other group of people, and they require similarly diverse pathways out of difficulty. Some suffer from inequities so great that they need immediate help and subsidies to access the basics of life. But there are hundreds of millions of others who are prepared to find and fund their own solutions to satisfy their needs. We can dramatically shift the balance of

those needing aid and charity by serving those who can participate financially with affordable household credit.

FINANCING SMALL SOLUTIONS

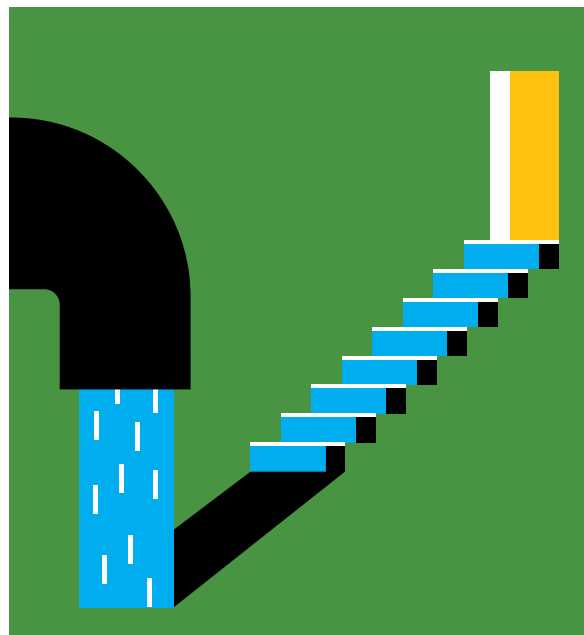
When we met in 2008, we had been working independently on water issues. Gary had cofounded WaterPartners International, which worked with local NGOs to provide water and sanitation solutions. Matt had cofounded H2O Africa to raise awareness about the global water crisis. We both knew the overwhelming size of the problem.

We witnessed, across many different countries, the crippling cycle of poverty that the lack of access to clean water and sanitation perpetuates. Collecting water is a major activity each day. Adults leave work to walk to the local community tap and then spend hours in line waiting to fill their containers. Children—mostly girls—are forced to leave school to spend their time collecting water, their future choices narrowing with every bucket filled.

We saw firsthand how the smallest, most practical solutions can change lives. A toilet in the home means that children spend time on homework rather than finding a safe place to defecate. A tap means that a woman can take up sewing to earn money with the

hours she once spent collecting water. Multiply these small changes by the millions, and they hold globally transformative potential.

We observed that people, despite abject poverty, were making huge financial sacrifices to try to change their water situation, turning to informal credit markets—loan sharks—to do so. We learned that people earning as little as \$1.25 a day were willing to access financing for water and sanitation if they could overcome the obstacles that stood in their path. We asked, what if we could facilitate small,



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affordable loans for water and sanitation access? Microfinance was enabling poor people to generate income by creating their own micro-businesses. Could we add microfinance to the tools we had available to provide the poor with access to safe water and sanitation? The answer was yes.

Our organization, Water.org, now works with microfinance providers to extend affordable financing solutions for safe water and sanitation to the poor. We use our capital to offset startup costs and provide technical assistance to help microfinance institutions to build water-based loan portfolios. Our microfinance partners utilize financing from banks and capital markets so that they can disburse loans to their clients, who include both individuals and small communities. Their clients then hire contractors and use retailers to improve their own water and sanitation.

We call this WaterCredit. We have disbursed nearly two million loans totaling more than \$602 million through our partner institutions, to those living at the base of the economic pyramid. These institutions work closely with their customers' communities, and they have built-in flexibility that enables their borrowers to define their own water needs and solutions. The program has seen tremendous success: Despite 60 percent of WaterCredit borrowers earning less than \$2 a day, repayment rates are more than 97 percent.

Wherever we can empower people to solve their own water and sanitation problems, they can break the poverty cycle. These people are not just investing in clean water and toilets, they are buying back time so that they can spend it caring for family members, going to school, and earning more money. This latter point is significant: Only 53 percent of WaterCredit borrowers in India were earning \$47 per month or more before they took out a loan, but after financing their own water solutions, 97 percent of borrowers were achieving this level of income.

During a recent trip to the Philippines, one of the women that I (Gary) met in San

Mateo, a suburb of Manila, was Leneriza Guerrero. She had recently connected to the water utility through a loan from ASA Philippines, a Water.org partner. Guerrero is now paying about \$4.50 per month for her water tariff. Before connecting to the water utility, she had to purchase water from a local water vendor and pay to have it delivered to her home. This cost her about \$60 per month. Her loan payments are about \$5 per month, and it will take her 46 weeks to repay. This is an immediate net gain of more than \$50 a month that she can use to improve her life and that of her family.

We believe that if this approach—supporting small, sustainable solutions through affordable credit—is magnified, it will finally liberate the hundreds of millions of people whose lives are dominated by lack of clean water and sanitation, and empower them to better their circumstances.

MORE ACCESS, FASTER

Among the 17 Sustainable Development Goals established by the United Nations is an ambitious yet achievable goal for water and sanitation: *Ensure availability and sustainable management of water and sanitation for all* (Goal 6). The World Bank estimates that meeting this goal by the 2030 deadline will take worldwide investments of \$114 billion a year. Current aid for water and sanitation across *all* areas (including infrastructure, supply, and access) only adds up to \$8 billion a year. If we continue to limit our thinking to aid and traditional development assistance, then the difference between these numbers is insurmountable.

However, the problem becomes more solvable if we consider targeting charity to those who need it most and using financing to empower others to achieve their own water solutions. Interventions like WaterCredit unleash the latent demand and problem-solving power of our borrowers. Each repaid loan goes on to enable the next family. Investors reinvest their returns. The gap narrows.

The problem of scale is paramount when there are more than two billion people left

to reach. Microfinance has the power to reach more people, faster. Water.org, for its part, aims to reach 60 million more people over the next five years. To do this, we will diversify the types of financial institutions delivering affordable loans, and we will work with partners throughout the water-service supply chain to pioneer new methods of delivering financing. We know that this five-year target is achievable, but we also know that it matches only 10 percent of the estimated demand for affordable financing. There needs to be far more support through better policies and an increase in capital injected into the system to encourage other microfinance institutions to enter this sector.

Water.org's programs have demonstrated that clean water and sanitation is a viable market, and we are not alone in understanding its potential. The Bill & Melinda Gates Foundation estimates that the global market for microfinance in water is \$12 billion. Deloitte's Monitor Inclusive Markets estimates a \$10 billion to \$14 billion market for toilets in rural India alone. The demand exists, as does the approach to meet it. Now we are beginning to see the missing piece: the investment capital that will catalyze the process. To tap into this new source of capital, Water.org recently launched WaterEquity, a fully dedicated and staffed impact investment manager. WaterEquity creates the opportunity, through a series of investment funds, for accredited investors to put their capital to work to achieve extensive social impact, while also producing financial returns.

For some people, getting fresh water is as easy as turning the handle on a spigot. For others, it is a daily struggle that dominates their lives. This inequality demands action. But the actions we take will not be enough to end the crisis if we define people only by their needs. Nureni and Leneriza are agents of their own solutions; their needs, in comparison, were straightforward and achievable. With simple access to microfinance, people like them are ready to bring the water and sanitation crisis into its final years. ■