



Credit for Water and Sanitation Improvements: a Case Study of Women's Self-Help Groups in Tamil Nadu, India

Executive summary

In 2003, WaterPartners initiated a program which utilized micro-finance to allow beneficiaries to gain access to safe water and sanitation. While the practice of micro-finance has gained wide acclaim for helping alleviate poverty – including a Nobel Peace Prize for one of its initial luminaries – MuhumadYunus, the technique had never before been widely applied to water and sanitation. With seed money provided by one of our major donors, the Open Square Foundation, we initiated a water and sanitation microfinance program in Tamil Nadu, India.

In this case study we examine a program carried out in and around the city of Tiruchirappalli (Trichy), Tamil Nadu, India. This WaterPartners microfinance program was implemented by our partner organization, Gramalaya, a water and sanitation focused non-governmental organization (NGO) based in Trichy. The program involved the construction of water and sanitation facilities by mobilizing a network of women's self-help groups (SHGs) to utilize a revolving loan fund.

Gramalaya's revolving loan program started in 2004. To date, Gramalaya has disbursed nearly \$200,000 in loans to women's SHGs, reaching over 10,000 people directly with water and/or sanitation improvements. The revolving loan program has collected over \$119,000 so far in loan repayments that will be used to reach the next generation of beneficiaries. The program took a holistic approach that included health and hygiene education, training on water testing, facility construction, operation and maintenance, financial management, leadership development, and solidarity among the women's groups.



Program location in the state of Tamil Nadu, India.



WAVE Federation members gathered for World Water Day 2007. Over 20,000 women attended this celebration.

Through the course of this program, Gramalaya stimulated a huge demand for its loan products and facilitated additional micro-finance activities beyond the initial revolving loan funds. Marking a pioneering achievement, SHGs built on their experience with WaterCredit and independently procured over \$390,000 in loan capital from private sector formal banks, internal SHG savings, and government subsidies. These funds have allowed this program to reach an additional 24,000 people, significantly leveraging the initial program

dollars. Furthermore, Gramalaya is planning to use its loan fund to collateralize approximately \$2 million dollars in loans from commercial financial institutions to significantly increase its overall loan portfolio.

This case study highlights how start-up investment in water and sanitation loan product development and the mobilization of women's SHGs were able to reduce barriers to credit and increase investment in water and sanitation facilities.

Context

Gramalaya works within three regional areas in Tamil Nadu, with a population of approximately 1.1 million. Access to improved sanitation in the program area is severely limited. Only 30% of the population has access to a basic toilet. Those without household toilets must use public facilities or defecate in open areas. Public toilets are generally not well maintained, overburdened, and often require a fee. Due to privacy and cultural concerns, women and girls are often unable to defecate during the day, which can subject them to serious health problems and dangerous situations at night. While 90% of the target population is officially listed with access to water facilities, many of the water systems in the area are overburdened, poorly maintained, or broken. In urban areas, women can wait hours in long lines in crowded city streets for water available only during certain hours, on certain days. In rural areas, women and children often walk long distances to reach a poor quality water source.

Program summary

WaterPartners provided Gramalaya nearly \$200,000 directly into the loan fund and an additional \$103,679 to support community hygiene and health trainings, SHG mobilization and training, Gramalaya's operational costs, and capacity building activities. The initial activities in 2004 that launched this new initiative were made possible by Open Square, a US-based foundation that is a partner of WaterPartners, who were willing to take a risk on this new opportunity to leverage scarce financial resources to reach more people in need of safe water. Thus far, Open Square's initial investment of \$93,000 opened the door to another \$390,000 of external funding resulting in a leverage of four to one.

Since 2004, Gramalaya has disbursed nearly \$200,000 in loans. 667 loans have gone for water improvements and 1,496 have been executed for sanitation improvements (Table 1). Directly through these loans, Gramalaya has reached over 10,000 people with safe water and/or sanitation improvements.

Table 1. Loan program summary

Community name	Year of origin	Annual interest rate charged	Loan amount disbursed (USD)	Amount Due to date (USD)	Actual realized to date (USD)	Loan recovery percentage	Number of loans for water	Number of loans for sanitation
Ponnusangampatti	2004	12%	\$12,440	\$14,398	\$7,323	51%	72	67
Melakothampatti	2004	12%	\$6,346	\$6,757	\$2,436	36%	24	54
Thevarapampatti	2004	12%	\$7,482	\$7,966	\$4,826	61%	46	90
Morupatti	2004	12%	\$28,380	\$30,282	\$23,275	77%	137	213
Ayinpatti	2005	12%	\$5,956	\$6,344	\$3,442	54%	46	71
Melakarthaipatti	2005	12%	\$7,815	\$8,325	\$3,888	47%	32	114
Melanaduvalar	2005	12%	\$11,741	\$10,686	\$6,894	65%	88	125
Kanganipatti	2005	12%	\$9,181	\$9,778	\$3,676	38%	51	118
Tiruchirappalli	2006	18%	\$98,438	\$53,765	\$58,358	100%	171	319
Kollapatti	2006	12%	\$4,185	\$2,130	\$2,470	100%	0	108
Kothampatti	2006	12%	\$5,357	\$2,933	\$2,786	95%	0	217
Totals	---	---	\$197,321	\$153,363	\$119,374	78% (AVG)	667	1,496

Key actors

WAVE Federation

Gramalaya’s loan program has been executed through its Women’s Action for Village Empowerment (WAVE) Federation network. Gramalaya founded the WAVE Federation in order to address women’s water, sanitation, health, and socio-economic concerns, and to provide a strong voice for women in Tamil Nadu. The WAVE Federation is a highly organized network of approximately 2,190 women’s SHGs with over 32,000 members. The Federation has a representative leadership structure and is active in three regional areas in and around the city of Trichy, India. The exceptional strength and effectiveness of this network was an integral part of the overall success of this loan program.

Women’s Self-Help Groups (SHGs)

Loans for water and sanitation improvements were facilitated at the women’s SHG level. The majority of loans went to individual SHG members for household water and/or sanitation improvements. In cases involving community-level water projects in rural areas, SHGs took on the loan as a group.

At program start, Gramalaya began by organizing women to form SHGs. These SHGs were formed with the twin purposes of improving the quality of life in their community and self-improvement. Gramalaya provided extensive training activities for these groups. SHGs are taught how to organize, manage, and govern themselves. They learn how to develop internal group savings and loans and how to take out loans from commercial banks. They are provided with trainings on leadership and community mobilization techniques. Gramalaya employs a total sanitation



Self help group testing their water to ensure its quality.

campaign approach in its projects, and one of the major initial focuses of the SHGs' activities was mobilizing their communities to become 100 percent sanitized (totally free of open-defecation).

Groups received hygiene education and learned how to test water and build and maintain system infrastructure. Additionally, they developed a better understanding of how to connect with their local government representatives to support their objectives.

Program outcomes

Through the creation of a revolving loan fund and investment in the mobilization of women's SHGs as part of this program, Gramalaya was able to significantly increase access to water and sanitation facilities and reduce barriers to credit for women and their families.

Major improvements in access to improved water and sanitation were realized as part of this program. 10,000 people obtained water and/or sanitation improvements directly from the initial capital provided by WaterPartners into the revolving loan fund and an additional 24,000 people secured improvements through outside loans stimulated by the program. Post-program data along with WaterPartners' site evaluations and interviews confirm all completed program areas have been declared 100 percent sanitized (totally free of open-defecation), in which everyone had access to a safe toilet.

As of January 2008, Gramalaya has collected over \$119,000 in loan repayments that will be used to reach the next generation of beneficiaries (Table 1). Over the course of its loan program, Gramalaya has realized an overall average repayment rate of 78% (Table 1). Under the latest portion of its loan program, Gramalaya has seen extremely high repayment rates which average close to 100% (Table 1). This increase in repayment rates is attributed in part to the micro-finance training Gramalaya received from the India-based MFI, BASIX Bank, in 2006 to further develop their loan program management capacity (Chart 1).

From its revolving loan program, Gramalaya found a greater demand for its loan product than it could meet through the capital directly provided by WaterPartners. In response, they successfully facilitated over \$390,000 in additional loans from commercial banks, internal SHG savings, and government subsidies (43%, 41%, and 16%, respectively). This capital enabled the program to reach the additional 24,000 people referred to previously.

Additionally, in January 2008,

Gramalaya received written confirmation from the Housing Development Financial Corporation bank (HDFC) that they will provide Gramalaya a \$1.5 million loan. Gramalaya and the HDFC are currently in the process of rating SHGs and collecting applications for loans. These SHGs will receive loans and primarily use them for water and sanitation improvements (they will also direct a lower percentage to income-generating activities). Through these initiatives, Gramalaya

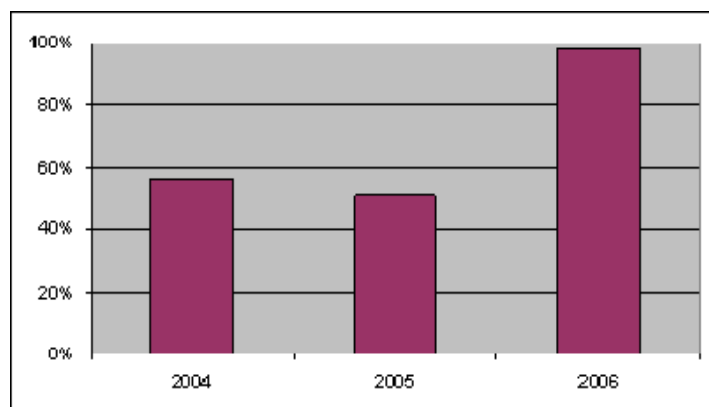


Chart 1. Increase in average annual loan recovery rate over time, from 56% in 2004 to 98% in 2006.

has plans to reach an additional 30,000 people by August 2008. Furthermore, Gramalaya is planning to leverage its revolving loan fund as a guarantee to obtain additional capital from commercial sources.

An additional major outcome of this program was Gramalaya's decision to spin off a completely new organization, Gramalaya Urban and Rural Development Initiatives and Network (GUARDIAN), which is now registered as a micro-finance institution (MFI) in India. Going forward, GUARDIAN will administer the micro-finance component of Gramalaya's work. In the case of the \$1.5 million HDFC loan obtained by Gramalaya, Gramalaya plans to release the loan to GUARDIAN at a 2% service charge, and GUARDIAN will administer the loan to borrowers and collect repayments. The launch of GUARDIAN is especially significant, as it is likely the world's first MFI designed specifically to provide micro-loans for water and sanitation projects.



Members of a SHG working at their brick production company. The SHG established the business to meet the demand for blocks for latrine construction stimulated by the program.

Beyond improvements in access to credit and increased investment in water and sanitation facilities, this program realized a significant increase in the overall status of the women involved in the WAVE Federation. Women in the Federation are looked up to as leaders in their communities. Many women have for the first times in their lives entered banks to obtain loans - something previously unthinkable to them. One woman noted that due to her membership in the Federation, she can now walk

into a bank and have the banker treat her with respect. Work with the Federation has also served as a launching pad for some women to pursue community development activities and procure loans for income generating activities previously not considered acceptable for women. Some SHGs have started their own businesses, including a rock quarry and a brick production company.

Discussion

Results from this study and WaterPartners' experience suggest that demand existed for loans for water and sanitation improvements prior to this program. However, market imperfections prevented access to loan capital and led to underinvestment in household water and sanitation facilities. Financial institutions were unable and/or unwilling to place their capital in the hands of poor, often illiterate women. Investment in the mobilization of women's SHGs empowered women to gain access to the credit market and functioned as "social capital" to correct inefficiencies in the local credit market. Overall, investment in loan product development and in the mobilization of a highly-effective social network of women's SHGs led to a significantly higher return in terms of people served per dollar spent than simply investing directly in water and sanitation facilities alone.

To the extent that these findings can be generalized to the developing world at large, they have important implications for NGOs, MFIs, the commercial sector, and policy makers who can incorporate these financing models to accelerate access to safe water for potentially hundreds of

millions of people. One of the most significant conclusions derived from this program is that when capital became accessible, women chose to take out loans for safe water and sanitation improvements and are able to successfully repay those loans. This is a groundbreaking and potentially revolutionary finding.

This program is still in its development stages as an innovative endeavor. Additional research is needed to have a more comprehensive understanding of the social, health, and economic impact of this program. The Aquaya Institute, a water-focused research institute in the United States, is currently working independently on a study that will contribute to a better understanding of Gramalaya's loan program. These findings will be used to continue to refine and develop WaterPartners' work on this initiative to further expand this model.