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**DELIVERING WATER, SANITATION AND HYGIENE SERVICES  
IN AN UNCERTAIN ENVIRONMENT**

**WaterCredit: A case study of microfinance for household  
water and sanitation improvements in India and Kenya**

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*WaterCredit is an approach that blends WASH and microfinance for WASH improvements at the household level. To-date Water.org has implemented WaterCredit programs in four countries. This paper focuses on experiences in India and Kenya including successes, challenges and lessons learned. Due to major differences in the WASH and microfinance sectors in India and Kenya the WaterCredit programs have very different outputs. Global WaterCredit successes consist of 545,617 people gaining access to improved water and sanitation through 100,338 loans disbursed by 25 microfinance partners. Challenges include monitoring of construction and use, building WASH capacity in MFIs, the ultra-poor, and sustainability. Lessons learned and best practices include a formal product development process, monitoring and evaluation, due diligence of partners, and flexibility in activities and approaches.*

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**WaterCredit**

WaterCredit is an initiative of Water.org that puts microfinance tools to work in the water and sanitation (WASH) sector. It is the first comprehensive program of its kind that connects the microfinance and WASH communities to scale up access to credit and capital for individual- and household-based WASH needs, and does so with multiple models across multiple countries. Through WaterCredit, Water.org aims to channel and redeploy financial resources more efficiently, enabling increasing numbers of people to meet their water and sanitation needs through demand-driven, market-based services and reducing the need for never-ending subsidies.

The population earning 2 USD per capita per day or less (base of the pyramid) is not a homogenous group. There are people who earn small amounts of income through informal work such as agriculture and trading goods. Many of these individuals can afford to upgrade their water and sanitation situation at the household level. Many of these people are already clients of microfinance institutions, have growing businesses, and are ready to pay for their children to go to school, purchase micro-health insurance, connect their households to the energy grid, and increase access to water and sanitation. The investment needed globally for water and sanitation is great. The amount of financing needed between 2010-2015 for all countries to meet the drinking water and sanitation Millennium Development Goals is \$145 billion. (Hutton, 2012) There is not enough public sector and charitable investment in the world from governments and NGOs to provide universal access with subsidies alone. Therefore private sector involvement is needed. In WaterCredit, the borrower receives funds in bulk for a WASH improvement or asset and then repays the funds in small amounts. After repayment these funds can then be used for another loan, therefore recycling the same capital. By segmenting the market, subsidies are saved for the ultra-poor who need charitable investment to gain access to WASH, or for investment in community-level infrastructure.

With WaterCredit, beneficiaries become customers and can demand their own solutions that are tailor-made to their needs. If a technology is not accepted by the market then it will not sell. WaterCredit is demand-driven- i.e. it promotes those products that fit the needs and demands of clients and eliminating those that do not have market support. In addition, borrowers who take out WaterCredit loans save time and costs by having water closer to home, reducing reliance on vendors, and decreasing illness due to open defecation.

The current model for WaterCredit includes Water.org providing smart subsidies to microfinance institutions (MFIs) and sometimes additional funding to WASH NGOs to provide technical assistance to the MFIs to conduct market assessments, develop WASH products, monitor the WASH portfolio, and build internal WASH capacity. MFIs then coordinate with the WASH NGOs to provide social marketing and education to borrowers. MFIs obtain capital for their loan portfolio from banks, wholesale lenders, and internal resources, and give WASH loans to individual borrowers or self-help and joint liability groups.

This paper will examine differences and similarities between Water.org's WaterCredit programs in India and Kenya and the challenges and lessons learned that apply more generally.

## **WASH and microfinance differences**

In order to examine the differences in WaterCredit between Kenya and India, it's important to look at the differences in the WASH and microfinance sectors.

### **WASH**

In India, 814 million people do not have access to improved sanitation and 99 million lack access to an improved water source. (JMP, 2012) In Kenya the numbers are smaller with 28 million people lacking access to improved sanitation and 17 million people without access to an improved water source. (JMP, 2012)

Another main difference is in water and sanitation service provision. In India, services are provided by state authorities, with power being granted to panchayats (village councils) in rural areas and municipalities in urban areas. There is generally a limited role for private service providers in India, such as private companies providing operational and managerial assistance to water service boards. Many rural communities have boreholes that supply water and are managed by the panchayat officials. The panchayats are also responsible for health and hygiene education of the population. In order to stimulate demand, the government of India provides subsidies to households for toilet construction. For example, the subsidy in Tamil Nadu is approximately 94 USD. In Kenya, water service provision is supervised by the government but many private water service providers are responsible for water and sanitation in urban areas. In rural areas there is often an absence of water service providers, therefore service provision falls either to community groups or self-service by households.

### **Microfinance**

India's microfinance sector is large and well-developed with 192 MFIs listed on MIX Market (2013), and the majority of borrowers are women. Most (about 80%) MFIs in India are closely regulated by the Reserve Bank of India, and all MFIs are prohibited from taking deposits. MFIs in India are a mix of newer institutions focused on profit-making and older institutions that developed out of grassroots poverty alleviation organizations. The microfinance sector faced serious problems in 2010, particularly in Andhra Pradesh, with borrower over-indebtedness. The "Andhra Crisis," continues to shape the landscape for MFIs. Most of Water.org's MFI partners are part of larger organizations that also manage NGOs focusing on health education. The average WaterCredit loan size among Water.org partners in India is 153 USD, the average interest rate is 14-15%, and the average repayment rate is 99%.

In Kenya the microfinance sector is much smaller with 39 MFIs listed on MIX Market (2013) and is made up of an almost equal number of men and women borrowers. The sector is one of the most robust in Sub-Saharan Africa, and includes deposit-taking and credit-only MFIs. MFIs in Kenya are now being encouraged to transform into deposit-taking MFIs (DTMs) and then are closely regulated by the Central Bank of Kenya under the Microfinance Act of 2006. Many of the prominent MFIs in Kenya are commercialized. Recently the sector has witnessed innovations such as M-Pesa and agency banking resulting in an increase of financial inclusion. Water.org's partners obtain loan capital in Kenya from deposits, banks or wholesale lenders. The average WASH loan size among MFI partners in Kenya is 473 USD, the average interest rate is 20%, and the average repayment rate is 98%.

Water.org began working with WaterCredit in India in 2004 and with MFI partners in Kenya in 2010. The table below gives more specific numbers for WaterCredit globally and in Kenya and India.

## Global WaterCredit at a glance

Indicator	Global	India	Kenya
Loans	100,338	95,851	3,303
People	545,617	435,537	44,923
Partners	25	18	4
Capitol Disbursed	16,809,798 USD	14,903,743 USD	689,693 USD
Loan Size	164 USD	153 USD	473 USD
Repayment Rate	98.84%	99%	98.75%

## Case studies

### Hand in hand, India

Hand in Hand India began operating in Kancheepuram, Tamil Nadu, India in 1998 with the mission of eliminating child labor and getting children back to school. After realizing that child labor was just one aspect poverty, Hand in Hand expanded its focus and began moving towards an integrated approach to development. The work of Hand in Hand India now comprises of five key areas: microfinance, education, health, citizens' centers, and a clean environment. Additionally, in 2008, Hand in Hand began its first WaterCredit program with support from Water.org and began health and hygiene promotion and WASH lending. Hand in Hand's health initiative had already been organizing medical camps, disseminating health information and awareness campaigns, offering counseling, care and immunization services, engaging in community mobilization and total sanitation campaigns (TSC). Hand in Hand's approach is to form Health Rights Protecting Committees (HRPCs). These committees function like a public vigilance groups for health-related issues, and they help generate public demand for health services. Through HRPCs, Hand in Hand is able to generate demand for WASH loan products.

During Hand in Hand's first program with Water.org they disbursed 4,422 loans for water connections and 3,225 loans for toilets. The outcome of the first program was very encouraging, and Water.org is partnering with Hand in Hand again to assist them in expanding their WaterCredit program further.

Hand in Hand offers the following WASH loan products:

Loan Product	Loan Amount (INR)	Loan Amount (USD)	Repayment Period	Interest Rate
Water tap – rural	3,000	\$56.00	12 months	15%
Water tap – urban	6,000	\$111.00	12 months	15%
Toilet construction	7,500	\$139.00	12 months	15%
Bathroom & Toilet construction	10,000	\$185.00	12 months	15%

Hand in Hand's WaterCredit program covers two districts in Tamil Nadu – Kanchipuram and Villupuram. In the current program, the MFI is in the process of disbursing 21,050 loans for water connections and 6,450 loans for toilets through their network of Self-Help Groups. Estimating an average household size in their

target area of 4.4, these loans will provide access to clean water for a total of 92,620 people and access to an improved toilet to 23,280 people.

Hand in Hand mobilizes economically poor and socially marginalized women into democratically governed Self Help Groups (SHGs), which act as a platform for training and capacity building, and facilitate access to affordable and flexible microfinance products through a savings and demand driven approach. Hand in Hand's lending approach is as follows:

- Mobilization of women from households below the poverty line
- Formation of active and cohesive SHGs comprised of women from similar socio-economic backgrounds
- Providing capacity building and training to group members in savings and thrift, internal rotation of funds, leadership skills, group dynamics, and financial literacy
- Giving group members easy access to affordable and flexible microfinance products and services
- Creating solid and lasting community structures by empowering rural women and their groups to form federations.

There are 4,883 SHGs with 79,755 members (all women) in Hand in Hand's program implementation areas, and their WaterCredit clients are selected from these groups. Through these groups, Hand in Hand conducts health and hygiene education, stakeholder awareness-building, and community mobilization activities. These activities include trainings, cultural programs, distribution of IEC materials, and one-on-one meetings with clients.

### ECLOF Kenya

ECLOF Kenya (ECLOF) was registered in 1994 as a company limited by guarantee in Kenya. ECLOF International is currently the sole owner of ECLOF and, until 2006, was the sole funder of ECLOF. Since 2006 ECLOF has solicited commercial capital and only occasionally obtains small bridge grants from ECLOF International. Although ECLOF International is based in Geneva, Switzerland, ECLOF is based in Kenya with a headquarters in Nairobi and 29 business units (branches) and offices in six provinces. ECLOF has not yet applied for a license to become a DTM, but plans on doing so in the medium term.

ECLOF is a medium-sized MFI with around 20,000 borrowers divided into SHGs of between 10-20 borrowers. Water.org began working with ECLOF in 2011 to develop a water and sanitation portfolio. ECLOF then conducted a market demand assessment of current and targeted new clients and developed three main new products: water storage/rainwater harvesting tanks, shallow wells, and improved latrines/toilets. In order to build staff and borrower capacity in WASH, ECLOF has a two prong approach: creating WASH officer positions regionally within the branch network, and hiring consultants to create a WASH curriculum to train staff and borrowers. Since May 2012 ECLOF has disbursed over 425 WASH loans to clients. The most popular product thus far is rain water harvesting tanks, followed by latrines, shallow wells and water kiosks.

<b>Loan Product</b>	<b>Ave Loan Amount (KES)</b>	<b>Ave Loan Amount (USD)</b>	<b>Ave Repayment Period</b>	<b>Interest Rate</b>
Water storage	37,000	\$435	9 months	20%
Sanitation facilities	36,000	\$423	9 months	20%
Shallow wells and bore wells	32,000	\$376	9 months	20%

## Successes, challenges and lessons learned

### Successes

As of February 2013 WaterCredit has impacted 545,617 people with improved access to safe water and sanitation in four countries- Bangladesh, India, Kenya and Uganda. This has been achieved through a

partner network of 25 NGO and MFI partners that have provided 100,338 loans valuing 17 million USD to end borrowers. Partners have leveraged 21.6 million USD in capital to cover current and future WaterCredit loans. Of all borrowers, 89% are women, and 98% of loans have been repaid on time.

Water.org has developed a team that includes technical WASH and microfinance experts, particularly in our regional offices. These staff members remain current in developments in their sectors and consult with partner organizations regularly. When partner organizations require support, Water.org staff members generally equipped to provide that support. In cases where they are not, they connect the partner organization with other resources.

### **Challenges**

Although Water.org has spent years perfecting the current WaterCredit model, there are still challenges that this model faces. As a MFI-led model, one challenge is lack of experience and knowledge surrounding WASH. Many MFIs have never offered WASH products in the past with the exception of water tanks. It's important to work with partners to make staffing and capacity building plans for how to ramp up WASH knowledge as fast as possible in the beginning of the program.

Another challenge MFIs face is monitoring of loans, especially as the portfolio scales. Water.org requires that partners monitor some quality indicators such as confirming that the physical product has been installed completely and that the borrower and family members are using the products. This can be a major challenge for large MFIs that need to verify thousands of loans. Water.org has been able to work with partners to devise strategies to overcome this challenge such as sampling the portfolio instead of monitoring each borrower, and relying on group members to confirm installation.

Water.org recognizes that WaterCredit is not a solution for everyone at the base of the pyramid lacking access to water and sanitation. There will always be situations for which microfinance is not a viable solution. At the micro-level there are simply some households that are too cash-poor to participate in microfinance, or for whom microfinance for business solutions may be more appropriate. For these ultra-poor families subsidies for water and sanitation are a better option. On a macro-level there are some countries in which WaterCredit will not work well. Countries with a poorly developed and unregulated microfinance sector are not good candidates, nor are countries that are politically unstable or suffer reoccurring natural disasters.

An additional challenge with WaterCredit is the lack of knowledge around sustainability. Water.org takes steps to ensure that the water and sanitation products are profitable within the MFIs, but it is unknown if partners can sustain the same level of monitoring and portfolio quality when subsidies end. The steps Water.org takes to increase sustainability include: encouraging partners to charge market interest rates and ensuring that water and sanitation products are integrated into the greater portfolio. Water.org is addressing the sustainability question for the future.

### **Lessons learned**

Over the years Water.org has developed a series of tools for due diligence to assist in certifying MFIs as partners. These tools enable Water.org to document and acknowledge strengths and weaknesses of the MFIs and provide a guide on which institutions would make good partners. Once partners have been certified, Water.org assists in creating a work plan to develop the WASH portfolio. An important best practice in microfinance is following a formal product development plan that includes market assessments, product protocols, piloting and a formal product launch. Water.org has found that basing product development on the needs and demands of borrowers and then testing the new products and processes around them can help to iron out problems before the products are rolled out.

In all partnerships regular communication is key. Water.org has developed robust monthly and quarterly reporting requirements for partners that allow for good risk and program management. The monthly reports alert Water.org to issues with loan disbursement or the work plan while the quarterly reports allow for a deeper understanding about successes and challenges. Water.org also requires every partner organization to incorporate monitoring and evaluation into each project. Water.org regularly tracks deliverables and reports program progress to donors as well. The M&E vision extends beyond the routine requirements of progress reports and field visits across the entire spectrum of the logic model to help ensure that the desired outcomes and impacts are achieved.

As the microfinance and WASH sectors are different across countries, there is no one perfect solution, or fit, for every country or partner. For example, some partners prefer to build WASH knowledge internally while others prefer to hire consultants or work with WASH NGOs. Some MFIs like to focus on water

products and others focus on sanitation. As long as the partners are providing market-based household solutions to the market at the base of the pyramid Water.org allows flexibility on the specific activities that are undertaken.

### The future of WaterCredit

Water.org is close to reaching capacity of the MFI partners in India and Kenya at this time and is now looking to expand the program in the next few years in neighboring countries. There are smaller revolving loan fund programs in Uganda and Bangladesh. Water.org would like to build on these programs and begin to partner with larger MFIs in these two countries. In addition Water.org would like to begin WaterCredit in new regions (such as South America and Southeast Asia), and pilot a light-touch approach in these regions.



Photograph 2. WEDC – Borrower in Kenya with rainwater harvesting tank



Photograph 2. WEDC – Borrower in India with new toilet

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