



WaterCredit<sup>3.0</sup>

Accelerated

March 28, 2011

**Presentation to: [Water.org](http://Water.org)**

Belinda Li, Florin Gheorghe, Thato Makgolane,  
Peder Sande & Hilary Watson



# Problem Statement

---

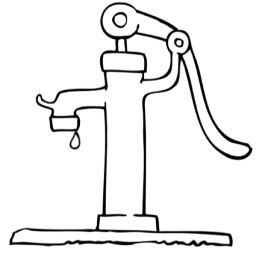
Water.org would like to reach 100,000,000 people in 5 years. Presently capital requirements and availability of MFIs are Water.org's bottleneck.

We have been challenged to design an innovative business model that can leap frog over these barriers to ultimately reach 100,000,000 people in 5 years.

# 100,000,000



# Solution:



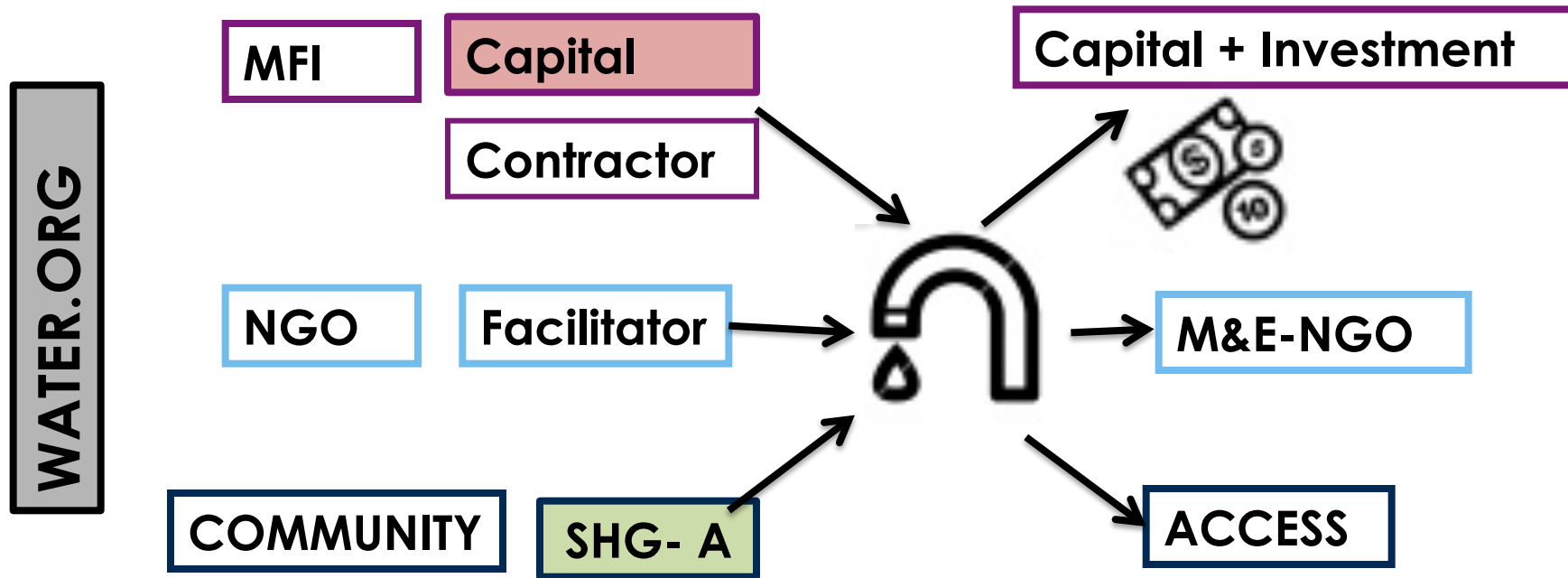
# Target Broken Water Points

Our Solution  
removes the  
need for  
scarce capital  
required from  
Water.org and  
MFIs to realize  
the dream of  
WaterCredit

[Please Watch Entry Video](#)

# CURRENT MODEL

---



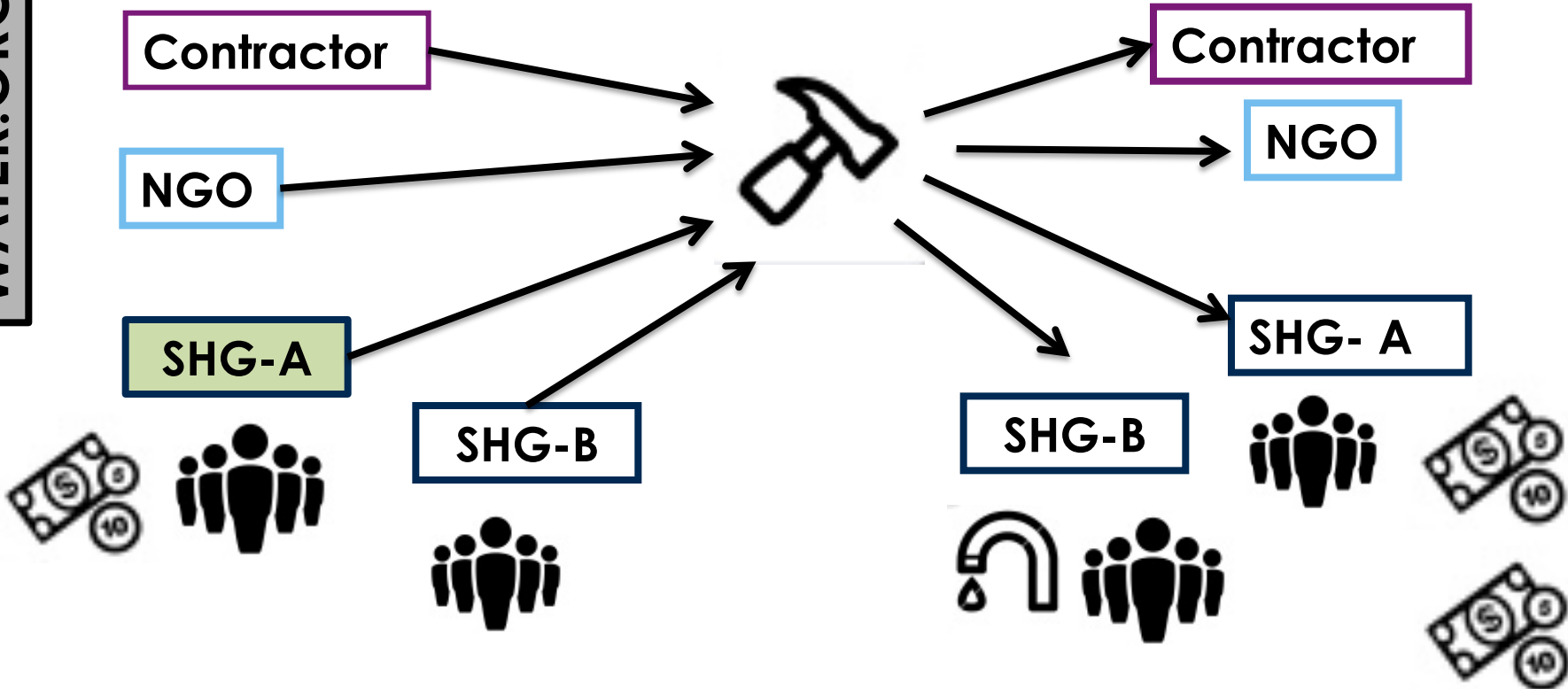









# Solution

**Community-to-Community Investing**  
Through Smaller Capital Investing

**WATER.ORG**



# Stakeholder Analysis

	NGO	MFI	Contractor	Self Help Group A	Self Help Group B
Role	Facilitator	Funder	Builder	User Facilitator	User
Benefit					

# Orthogonal Business Model

Our solution allows for Water.org to continue larger demand response WaterCredit projects, while community-to-community investing groups target water point functionality through organic growth.



## **Benefits to Water.org**

Less capital needed

More hands through community engagement

Reaching 100 million people in 5 years

# Low-Capital Investment Projects



Rainwater collection



**Pump repairs**



Water kiosks



# Human Capital



**Belinda** has a passion for water. With an undergraduate degree specializing in groundwater hydrology and water treatment, she is now tackling bigger water issues at the Masters level.

**Florin** brings seasoned development experience, with his 5 years working with Engineers Without Borders in Canada and Africa. Having managed a social enterprise in Ghana and consulted on organizational development in Zambia, Florin has a strong ability to problem-solve and communicate across language and cultural differences.







# Human Capital



**Peder**'s strengths lie in integrative design thinking and creativity. Peder has specialized in development economics and cultural psychology, with a passion for raising the standard of living for the billions living without clean water. From his studies and work experiences, Peder has developed a well-tuned sense of empathy, and an ability to intuitively understand people's needs, desires, and the basis for individual and group decision-making.

**Thato** is a proud African. An outspoken and lively character that is passionate about his home country South Africa. He boasts exceptional experiences through leading various organizations and initiatives within the development community. He will be pursuing the Chartered Accountant designation and continue to initiate social enterprise projects.





# Human Capital

---



**Hilary** is the rational backbone of the team. Her experience working with the World Food Program has developed her capacity to analyze complex problems and develop effective solutions while managing risk in an uncertain environment. From past case competitions, Hilary can think creatively and effectively communicate her perspectives and ideas to any audience, be it a competition judge in San Francisco or an end user living in Nairobi.

# Implementation & Costs

Stages	Months						Costs
	1	2	3	4	5	6	Total
Vision & Managers							\$50,000
Testing & Tweaking							\$100,000
M&E							\$200,000
Roll Out - Training -Marketing -Communication -Collaboration							\$500,000
Investment & Contingency Fund							\$150,000
<b>Total</b>							<b>\$1,000,000</b>

# Timeline

	Year				
	One	Two	Three	Four	Five
<b>Action Items</b>	Project Planning & Setup	Monitor & Evaluate	Monitor & Evaluate	Monitor & Evaluate	Monitor & Evaluate
	Educational curriculum development	Expand to other regions	Expand and share model with other institutions	Expand and share model with other institutions	Expand and share model with other institutions
	Trial Roll-out in selected region (from month 7)				Final evaluation of strategy
<b>% Target People Reached</b>	5%	10%	15%	30%	40%

# User Education & Channels

**Radio:** simple messages of how to apply for investment program, coupled with stories told by local people on their investment experience

**Drama:** a drama developed to explain the power of community investing and savings

**Workshops:** organized in conjunction with traditional leaders who are influential

**Exchange Visits:** communities interested in participating can be brought to communities already taking part to facilitate information sharing





# SHG Demand Generation Through Low Risk Investing

- Education and appropriate response to community investing coupled with guaranteeing financial investments will lead to increased demand.
- Water.org will additionally offer limited seed funding for a minority of investment groups that require additional funds to start water investment projects or for unforeseen events within project.



# Community Selection Criteria

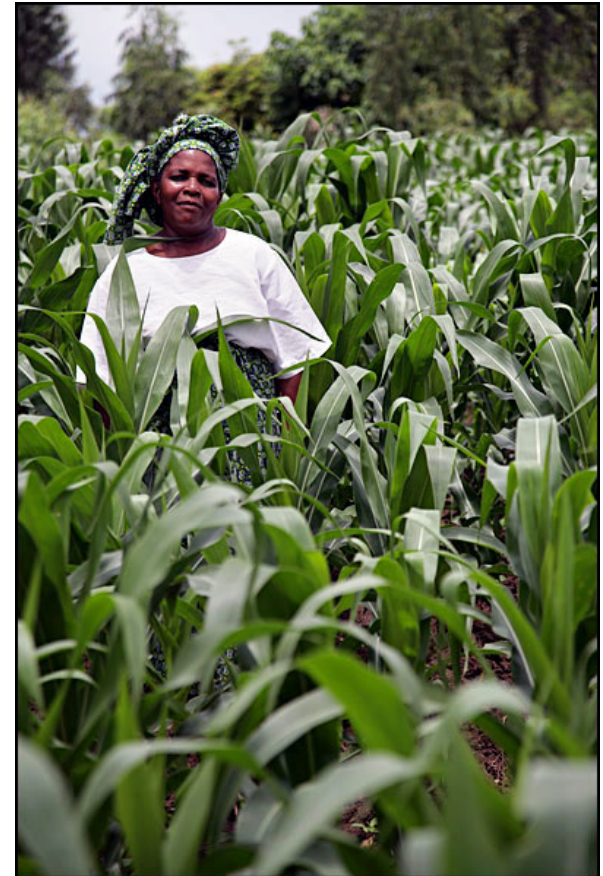
- Prior community experience of group-based participatory development approaches; *WaterCredit recipients*
- Proximity to low capital cost watsan projects
- Must express community demand & willingness to invest
- Older community settlements are preferred



# Harnessing Existing Community Capacity

Communities who have already gone through the WaterCredit program show:

- **Ownership:** demonstrates commitment to water projects
- **Organizational capacity:** Communities can arrange and invest capital together
- **Future Finances:** the community can gather substantial funds, suggesting they can continue to save and invest in perpetuity





# First Steps After Selection

Once Community is Selected:

- NGO puts on meetings with interested residents, called ‘investment associations’
- These associations should have a flexible blueprint with either a distinct body arising that can undertake savings and credit or the whole investment community as the investor committee



# Community SHG Structure

- The structure of community SHGs are context and cultural dependent.
- However women's management committees will be encouraged
- Ideally these committees will have existing capacity from their own communities water point project
- In conjunction with an NGO they will manage and build capacity for neighboring communities with low capital cost water projects





# NGO Responsibilities

- NGOs will spearhead investment capacity building through SHGs, usually applied to existing WaterCredit management committees.
- Train groups in valuation, management, and recovery of funds from low risk & capital cost water projects
- Supervise the investment of the first water project through capacity building within investee community until SHG capital is paid back



# SHG' s Responsibilities

- Select & liaise with demand driven investee community
- In conjunction with NGO, build capacity through the creation of savings groups and management committees of watsan facilities within the investee community
- Appoint committee investment managers and pay their salaries
- Collect investee repayments



# Monitoring & Evaluation

---

In order to monitor the project, we must be clear on the overarching intended impact, and the desired outcomes / mid-term goals that will lead to realizing that impact.

IMPACT: Communities that have a sustainable solution to their daily water needs

OUTCOMES:

1. Create a culture of saving and investing, leading to increased incomes
2. Expanded access to water to those in need
3. An improved rate of water point functionality for all communities
4. Enhanced community cohesion, and cross-community cohesion
5. Create a system with nearly 100% repayment rate on investments

# Monitoring & Evaluation

---

Water.org will use a comprehensive annual baseline survey of select members from each region to monitor effectiveness across our coverage areas. The metrics presented next for each outcome area will be used to assess community progress, while also gathering feedback on the overall project to allow Water.org to iterate and learn.

The implementing NGO will be required to do initial setup of the first round of SHG's. After the initial setup, quarterly consultations will be held with each SHG by the implementing NGO to assess progress and trouble-shoot any challenges and conflicts that arise.

All M&E will be conducted using semi-structured interviews and observations. A conversational style of data gathering will allow the collection of both **quantitative** and **qualitative** information.

# M&E: Culture of Investing, Income

## Quantitative Metrics

1. Percent of women's income being invested into the group and invested forward
2. How often do women add money to the group?
3. How much is income increasing for these women?
4. What is the return on the investment?
5. Total community income increase?

## Qualitative Metrics

1. What are the perceptions of women towards saving? Investing? The program overall?
2. What quality of life improvements are being reported?
3. Interpret quality of life based on non-obvious factors (tin roof vs. thatch roof?)
4. What other economic benefits have come from participation in the SHG and the investment program?



# M&E: Scaling Up Water Access

## Quantitative Metrics

1. Population reached with clean water
2. Rate of repayment of loans
3. Rate of re-investment of money
4. Rate of SHG' s finding new groups to invest in
5. Decreased number of water-related illnesses

## Qualitative Metrics

1. Water point type installed/fixed
2. Community access to spare parts and knowledge for repair

# M&E: Water Point Functionality

## Quantitative Metrics

1. **Percentage of water points installed that are non-functional**
2. **Rate of water point break-down**
3. **How fast is a water point repaired once it has broken down?**
4. **Distance between functioning and non-functioning water points** (perceived community value of water point decreases with proximity of other points, must influence siting of new points and repair of broken ones to ensure community value)

## Qualitative Metrics

1. **Are broken water points being repaired using our system of community investing? Why or why not?**
2. **What is the cause of the water point breaking down?**
3. **What is the cause of it not being repaired?**
4. **Is there local availability of spares and knowledge for repair?**

# M&E: Community Participation

## Quantitative Metrics

1. Number of weddings and funerals that women attend together, signifying cohesion in the community

## Qualitative Metrics

1. Overall opinion of group members towards the functioning of the SHG
2. Feelings of trust towards other communities that SHG members have invested in?
3. Beneficiary participation in the planning of projects and investments?
4. Beneficiary participation in water point maintenance activities
5. Participation rate of women in all activities

# M&E: Loan Repayment

## Quantitative Metrics

1. Time required to repay a loan
2. Percentage of loans paid back after 1 year
3. Percentage of new group's incomes spent repaying the loan
4. Percentage of new group's incomes previously spend on buying water

## Qualitative Metrics

# Cash Flow Scenario

Assumptions	
Annual interest rate	20%
Payback period	2 years
Capital available/SHG	\$600
Minimum cost of pump repair	\$1
Average cost of pump repair	\$300
Maximum cost of pump repair (new pump)	\$600
Number of people served/pump	250
Philanthropic cost/person served	\$0.01

# Cash-Flow Scenario

Principal received back at end of Year 1 and reinvested at beginning of Year 2

	Year					
	0	1	2	3	4	5
SHG lends to another (beginning of year)	-\$300.00		-\$150.00	-\$225.00	-\$187.50	-\$206.25
Principal received back (end of year)		\$150.00	\$225.00	\$187.50	\$206.25	\$196.88
Interest earned & distributed to members		\$60.00	\$90.00	\$75.00	\$82.50	\$78.75
<b>Total Cash-on-Hand</b>	-\$300.00	\$210.00	\$165.00	\$37.50	\$101.25	\$69.38

Total reinvested capital	\$1,068.75
Total paid back	\$965.63
Total outstanding	\$103.13
Total interested earned	\$386.25

**ROI of 36% in 5 years**



# Do we have enough SHGs?

---

- Est. 2.5 million SHGs in India alone
- Only need 5% (112,280) of SHGs in India to participate to reach 100 million people
- Many more SHGs in other developing countries saving money and waiting for an opportunity to invest

# Risk Assessment

Risk	Strategy for Mitigation
Facilitators do not trigger SHGs to form investment groups and spread the program	
SHG lack skills to form investment groups	Facilitate skill building on saving and investing, community organization
SHG's are not confident in loaning money to other communities (lack of trust)	Educate on benefits of investing (economic and social) while assuring of legal protection, as well as enforcement and backing by NGO
Other communities do not repay loans to self-help groups	Use community pressure for members to pay (e.g. making it public who has paid). NGO can enforce agreements.

# Risk Assessment

Risk	Strategy for Mitigation
Problems arise from conflicting interests with local government structures	Establish good relationships both with the democratic government and the traditional authorities
Other NGOs targeting the same population with “free” solutions	Build long-term relationships with stakeholders, ensuring perception that this is not a “2 year NGO project” but a sustainable, locally driven solution that they will <i>choose</i> to invest in rather than receive charity
SHG experiences break-down as personal conflicts may arise	While lacking resources for continual contact, ensure open-door policy with NGO. Additionally, NGO performs quarterly consultations with SHG for trouble-shooting and conflict

# Risk Assessment

Risk	Strategy for Mitigation
SHG can not fundraise the capital for investment	NGO, Water.org, and or MFI can determine a payment schedule and rate that is appropriate to help SHG plan and realize their goals of investment
Water point breaks down, leading to de-motivation to keep fixing it	SHG will be mobilized to hire local help to diagnose the ongoing problem, with support from NGO on determining a solution and next steps
Local spare parts or repair knowledge does not exist	Local contractors and private sector links from previous WaterCredit program can be consulted for tips



WaterCredit<sup>3.0</sup>

Accelerated

**THANK YOU**