Hult Global Case Challenge

Scaling to 100 Million:
A community-based, entrepreneurship-driven water and sanitation ecosystem

5 March 2011

Tuck School of Business at Dartmouth

What is the key question?

- We know what works - WaterCredit
  - Empowering households to take ownership of access to safe water and sanitation
    - Individual microcredit is a core component
- How do we scale from 1M impacted to 100M?
  - **Moving from households to communities**
    - Households of 4.5 people to communities of 450+
    - Gives the 2 order-of-magnitude leap we need

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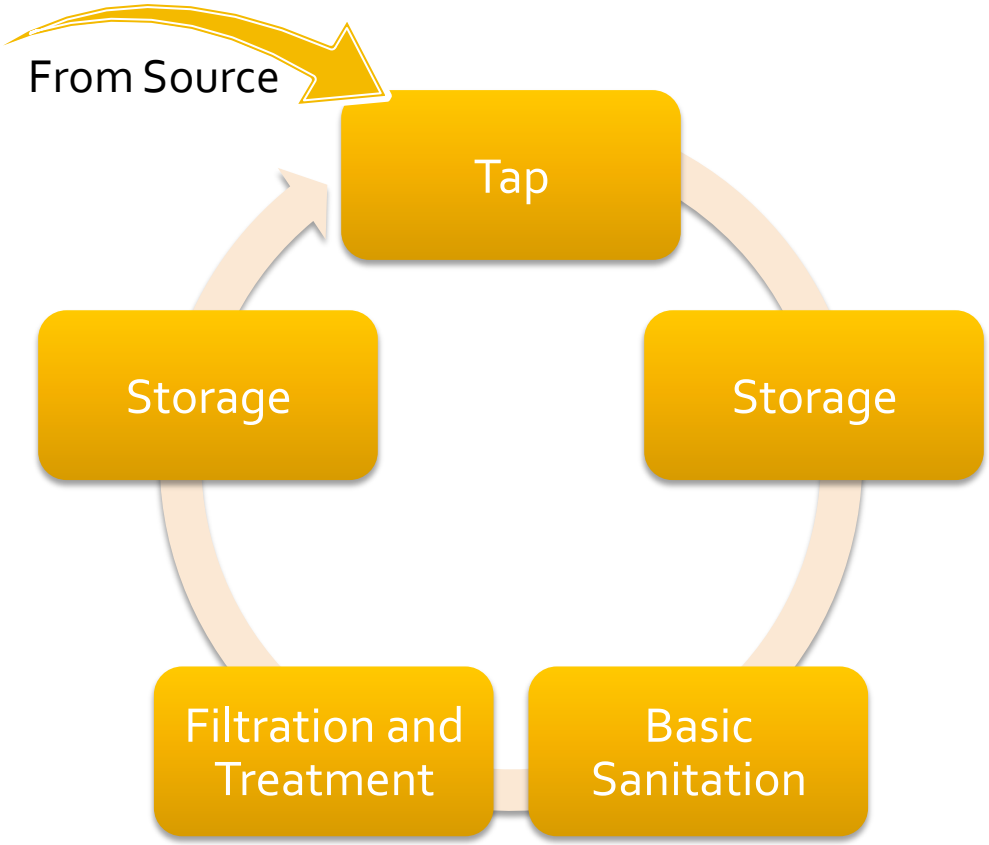
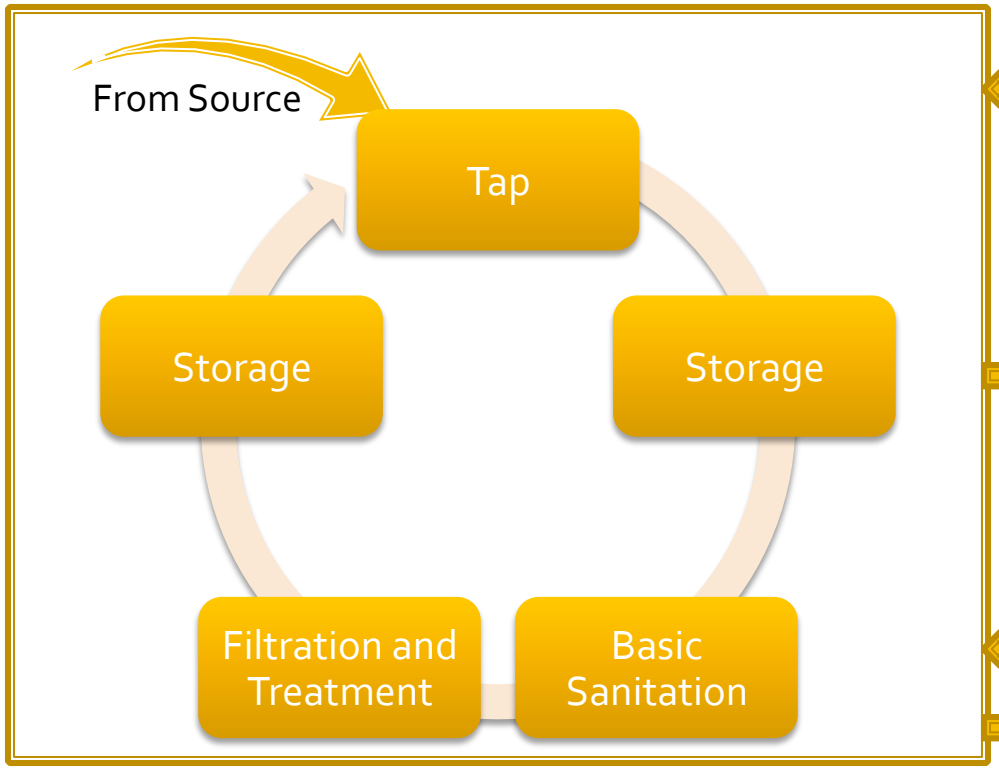
Community Water and Sanitation Ecosystem



- Each point in the water ecosystem represents an opportunity for entrepreneurial participation
- Each project represents an opportunity for incremental improvement, but is not essential for network effects
- Existing supply systems (ie delivery trucks), coupled with community pressure will prevent rent-seeking

Drivers and benefits



Economic Drivers
- Community Driven Development
- Individual Entrepreneurship

Positive Effects
- Entrepreneurship effects
- Reduction of harmful externalities
- Network externalities

Complementary Efforts
- Behavioral change programs
- Governance improvements

Necessary conditions for success

- Basic water source at the required scale
- Existing microcredit infrastructure
  - Willing microcredit participants - women
  - Sufficient access to microcredit funds
- Access to inputs
  - Materials, hardware, communications

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Complementary efforts at low cost

- **Partnerships:** Establish strategic partnerships with nonprofit organizations and the local community
- **Behavioral change programs:** Leverage mobile phones to deliver text-based campaigns about clean drinking water and sanitation
- **Community education:** Educate the members of the ecosystem about recapturing and recycling water and improving sanitation
- **Management improvements:** Assistance with planning, designing and supervising the implementation of the ecosystem
- **Improve governance:** Work with the local government to advocate policies around clean drinking water and sanitation

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Viral adoption through network effects

- Model is already proven in telecom and personal goods

- Keys to success:
  - Reverse innovation
  - Local entrepreneurs ⟹ network effect
  - Flexible payment terms

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Phases and Timelines - Actions

Testing

April-June 2011

- Finalize operating model
- Select target areas for pilot studies
- Finalize agreements with technology providers around performance, service and guarantees

Pilot

July-September 2011

- Enter into strategic alliances with MFIs and local watsan NGOs
- Commence advocacy in targeted areas
- Invite applications from area entrepreneurs
- Implement monitoring system
- Measure impact

Rollout

October 2011-2016

- Handover projects to local NGOs or watsan organizations for monitoring quality and safety
- Rollout ecosystem implementation to other NGOs and regions

Rapidly achieving massive scale - Results

Testing

April-June 2011

- 2-3 test programs
- In 2-3 areas where water.org has an established presence
- ~**500** impacted directly in each pilot
- Many more impacted via downstream externalities

Pilot

July-September 2011

- Incorporate learnings from test programs into 3 nearby pilots
- Leverages new pool of local ecosystem experts
- ~**18,000** impacted directly via operating ecosystems

Rollout

October 2011-2016

- Expand to new geographies and refine the ecosystem for each
- Direct impact and externalities grow exponentially
- Water and sanitation improved for **100M** people in 5 years

Franchise system structure

Philanthropic $

Franchise fee funded

GLOBAL	Water.org • Impact assessment			
REGION	Regional Head Office • Quality monitoring • Impact assessment • Troubleshooting and maintenance			
ZONE	MFI • Independent relationships with local level entrepreneurs • Information exchange with other zone agents	Collection agency • Collect from local entrepreneurs and process to head office	Quality Monitoring • Locally trained inspector • Maintenance queries	
LOCAL	Village/slum block • Water treatment entrepreneur • Sanitation entrepreneur • Input entrepreneur	Village/slum block	Village/slum block	

Early and ongoing measures of impact

- Key metrics
  - Availability
    - Liters/person/day of clean water
    - Days/person/month of sub-par water (quality or quantity)
  - Accessibility
    - All-in cost/liter (including opportunity cost of time spent procuring and storing water and recovering from illness)
  - Drinkability
    - Output relative to relevant quality standards

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High and growing impact per philanthropic dollar

- Launch
  - Philanthropic spend spurs micro-entrepreneurs' investment
- Launch + 5 Years
  - Micro-entrepreneur's investment and subsequent community involvement drives "long-route" government accountability and investment

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