In preventive health since 2008

The Larger Purpose

Accessible
Affordable
Pure

“Water for all, particularly the underserved”
Session Focus-
Market-based mechanisms for providing clean drinking water at Lower Levels of Pyramid.
Present in:
- > 180 Locations
- 7 States
- 1 UT

Safe Drinking Water:
- Affordable rates
- to the underserved

In Partnership with:
- Local entrepreneurs,
- Corporates,
- Government to provide access

The Knowledge of Market based Mechanisms...
Current Water Scenario

- India rank 120 / 122 nations
- 30% of women walk > 500 meters
- 70% of India’s water supply is polluted with sewage effluents
- Groundwater in 1/3rd of 600 districts is unfit for drinking
- 443 million school days lost per year
- 70% in low income communities drink water from untreated source

37.7 Million
affected by water borne diseases*

73 Million
Work days lost due to waterborne diseases
Resulting economic burden is $600 million /year

1.5 Million
Children die due to diarrhea .(1600 Diarrheal deaths daily)

62 Million
Affected by dental, skeletal and/or non-skeletal fluorosis.

Upper class find their own solutions

Middle and Lower Middle can pay/fund part of cost

Base of the pyramid needs to be subsidized/supported

Market Mechanisms for different socio-economic levels
Consumer Segments

- Villages
- Slums
- Public Spaces
- Hospitals
- Schools
- Govt. Projects
Technology to suit Water Profile

**Water Treatment Plant**

- Purification process structured to suit local water profile
- Removes ionic and biological contaminants
- Remote and Auto Controls
How Community Level Water Purification Installations are created

1. Promote Water Franchisees in rural as well as urban areas

2. Joins hands with Corporates, Government and Multilaterals
Expenditure

Village Level Cost Sample

CAPEX* (in rupee lakhs)

Purification Plant **2.50**
Borewell **0.80**
Delivery Vehicle **3.50**
Water Chiller **0.60**
Power Connection **0.25**
Site Preparation **0.80**
Bubble top & Water Campers **0.50**

Ball Park Rs 9 lakhs

* Assuming pre-existing machine room
Expenditure

Village Level Cost Sample

**OPEX** (Per Month)

- Machine Maintenance: 6000 INR
- Driver and Helper Salary: 8000 INR
- Electricity Cost: 5500 INR
- Operator Salary: 5000 INR
- Diesel Costs: 2600 INR
- Franchisees Expectation: 12900 INR

Ball Park: Rs 40000

*To service approximately 150 households per day ** CAPEX recovery has to be over and above Rs. 40000
Revenue Cycle

Components

Equipment and Services

Prepaid Balance

Real Time Process Data

Purification Unit

Revenue share

Pure Water

Self Delivery

Home Delivery

Water ATM

Pay Per Use
Revenue Cycle

Who Pays CAPEX

- Village Entrepreneur
- Corporate Foundation
- Government Partner

How?
- One Go
- Lease
- Charge Consumers
Revenue Cycle

Who Supports OPEX

Franchisee

CSR Partner

Government Subsidy

Market:
End Users Pays as per need/perception.
Market Payment Mechanisms

To Village Entrepreneur From Consumers

- Punch Card
- Credit/Cash
- Pre Paid

From Entrepreneur to Suppliers

- Volume Based
- Flat
Remote Monitoring Technology

“Soochak” Controller

• Patented
• Real time monitoring
• $\uparrow$ efficiency $\downarrow$ machine downtime

Sarvajal Enterprise Management System

• Information processing ERP
• Enables quicker response to machine related issues.
• Tracks vital health parameters

“Enables remote monitoring of volume – hence price adjustment”
Water ATM – Dispensing technology

Water ATM Device

- Automated water vending machine
- Cloud connected, Real time online monitoring of each transaction
- 24 x 7 access

- Solar power
- RFID card

“Ability to price and charge consumer differentially”
Water ATM – Dispensing technology

- Targeted Consumer Subsidy
- Automated debit at dispensing point
- Differential prices
- RFID Card recharge
Hub-&-Spoke Model

- Central purification plant and remotely located Water ATM units
- Helps expand reach and social impact
- Price transparency and Quality Accountability
- Reduces fuel costs
- Each transaction is remotely tracked
- Generates additional livelihood opportunities
Cost Break Up for 1 Litre of Water - Sample

<table>
<thead>
<tr>
<th></th>
<th>Water Charge</th>
<th>Delivery Cost</th>
<th>Chiller Cost</th>
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<tbody>
<tr>
<td>RO</td>
<td>30p</td>
<td>20p</td>
<td>25p</td>
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<tr>
<td>LF</td>
<td>30p</td>
<td>20p</td>
<td>25p</td>
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</tbody>
</table>
Expense Recovery

100 House Holds
Cover OPEX

150 House Holds
Cover OPEX and Some CAPEX

200 House Holds
*Recover All Costs*

Approximately in 2-3 years* depending on Price and Volume.
Case Study

Case of Piramal Sarvajal Franchisee in Padampur (Rajasthan)

Satpalji’s Journey:
September 2012- Launched his Sarvajal Franchisee in Padampur.
April 2013- Brought second delivery vehicle. Total team of five people working for Franchisee.
January 2014- Set Up Sarvajal Water ATM for 24*7 access for all consumers
March 2014- Expanded production capacity with second purification unit
Local community mobilizes Local Market

Community Involvement

Feeling of Ownership

Drives the Market

Makes it Sustainable
Case Study

Three-Tier Demand & Supply Cycle

**Primary**
Served ~7 lakh liters of water since Oct 2013

**Secondary**
Over INR 2.5 Lakhs of water revenues have been generated
Leveraged existing physical infrastructure worth ~ INR 7 lakh
This solution has also created 3 new livelihoods

**Tertiary**
65 paisa per liter
3 competitors replicated model, 50% more HHs!
Impact

Prices controlled by Market
Inspires Others
Maintains Local Ecosystem
Creates Livelihood
Improves Health
Relative Roles of the Contributing Partners

Sarvajal Partners with Village Franchisees, Corporates (for their CSR program), Government for creating solutions
Safe Drinking Water = Good Health = Smiles!