Team Organization

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The Problem

- 8 million people in Indian slums with limited access to clean water
- No sewage system in the slum area, so water is not recycled
- Water obtained from the main water supply is used primarily for drinking and cooking, thus there is not enough water for washing
Obtain personal water connection from the main water supply for about Rs 100,000 (~$2000)
Families can pay Rs 200/month (~$4) to rent water from those who own their own connections.
Those who cannot afford to pay the Rs 200/month bring water from the lake manually from the foothill using ‘gadas’
• Foothill is 2 km away from the slum
• Gadas can hold up to 2 - 3.5 gallons (16 - 28 lbs)
• They are carried by young girls on their head
• Takes 3 hrs to bring 5 ‘gadas’ (10 - 17.5 gallons)

← Gadas are steel pots used for transporting the water
The water brought from the lake is used primarily for bathing. This is done in the streets of the slums.
A sanitary block called “MHADA” provided by the government
There is not enough clean water to both bathe and wash clothes so a compromise has to be made.
Design Analysis from Indian Partners
Goals

• Provide a clean and private facility for taking baths

• Conserve and filter the used bathing water for washing clothes

• To make the transportation of water easier and faster using ‘gadas’
Bathe & Save - Basic Concept

[Diagram showing a structure for bathing and water storage]

People in Slum → Micro-entrepreneur
Prototype A
Prototype A

Provided Bucket
Liftable Screen
Basic Filtration System
Client's Bucket
Prototype B
Filtering system

Charcoal

Small Rocks

Big Rocks
Filtering system

Sources:
http://blog.naver.com/dmsoot?Redirect=Log&logNo=50014665813
http://www.ag.ndsu.edu/pubs/h2oqual/watsys/ae1029w.htm
Business Model - Basic Concept

People in Slum

Micro-entrepreneur
Business Model

- How it works
  - Bathing cabin and backpack come as a package
  - Rs 80 to use shower cabin and backpack
  - Premium service for Rs 100: Do not need to bring own bucket of water and can take a bucket of water home
  - If one can not pay, he/she can offer labor to use the service
  - The business can be expanded to provide other services e.g. water delivery, laundry, etc.
Business Model

- Implementation Stage
  - Micro-entrepreneur
  - Budget: Rs 7,500 (~$150)
  - 1 shower cabin & 6 water backpacks
  - Loans from micro-finance institutions like Kiva, Sadhan, Bandhan, etc
Business Model

- Development Projection
  - The business creates jobs in slum
  - Stimulates economic growth in the slum
  - Micro-entrepreneur expands the business through franchisee
  - Employees can start their own franchise
  - Additional services can be provided
Benefits

• Clean and Private bath (would be particularly appealing for women)
• Transporting water gets easier and more efficient
• Create jobs in slums

Challenges

• To convince microfinance institutions to give loans to micro-entrepreneur
• Maintaining sanitation in the bathing cabin
Micro-entrepreneur

Microfinance Institutions

Franchisee

Loan

Interest

Business item

Royalty

Provides service / employment opportunities

Pays for membership

People from Slum
Dhanya Vaad (Thank You)

Questions? Comments?