teams

iit chicago

Fransisca Dewi - architecture
Christopher Lee - civil engineering
Timothy Nystrand - physics

iit mumbai

Subrahmanyam – mining
Vishal Gangawane – computer science
Rupas Kumar – civil engineering
Madhumanti – humanities

mentors

Jason Schafer - caterpillar
Nakul Goswami - honeywell
the mumbai area is home to approximately **fourteen million people**. over half these reside in slums. of these seven million residents, nearly all experience complications involving water, usually related to **access, supply, cost, storage, and/or sanitation**.
“most people would be happier if they get more per capita water. It’s a daily struggle to stand in queue or line the entire day along the time of available water supply. Women of the family bear the brunt of having to fill water and then carry it across narrow alleys and often walk up slopes with them. Children too may miss schools for the same reason. Petty fights over water collection is not uncommon.”

IIT Bombay researcher
some residents do not have enough access to water due to inadequate supply caused by bottlenecks.

others simply cannot afford to purchase enough water.

an ideal solution would work towards a simultaneous solution for both problems.
goals

. provide an easily attainable **20L/day increase** in water supply for slum dwellers.
. create a sustainable, expandable business that will bring **wealth** into the community.
a community oriented, franchise based system that increases the available supply of water in the slum while giving access to potable water, year round, to those who cannot afford to purchase it.
traditional pipeline

expensive and not enough access

it can break
segmented pipeline

- reduces cost and risk of broken pipes.
- makes water more accessible to more people.
- adds more water to the system.
- helps to relieve the bottleneck.
how does it work?

franchisee rainwater harvest

aquacredit franchise

cash customer

credit customer
example process

resident harvests monsoon water

resident sells 20L rainwater for 10L credit coupon

aquacredit franchisee stores water in reusable bag

resident buys water with 10L coupon during dry season

aquacredit franchisee sells remaining 10L for profit
. milk is distributed to commercial locations in 5-gallon reusable bags all over the world. These bags are often thrown away or recycled for materials.

. these bags may be easily available through donation

shelves made from . locally available materials placed around the perimeter of the home under bed storage .
milk crates to hold the plastic bags
rainwater harvesting
strategic partnership

- Sodexo is IIT’s food service partner, and is a publicly traded multinational corporation with a long history of philanthropy.

- Katadyn is the world’s largest manufacturer of individual water purification systems with an established philanthropic arm that operates throughout the world.
sustainability

. aquacredit franchises run with low overhead, reuse supplies, and can be started with very little initial investment.
. aquacredit franchises can operate at any scale, anywhere.
. aquacredit will improve by encouraging franchisee innovation.

why?

. aquacredit brings wealth into the community, while nearly every other water supplier removes wealth.
. aquacredit allows residents to take advantage of the monsoon even during the dry season.
. aquacredit allows year round access to water for free.
. aquacredit introduces new jobs.
aquacredit