

# HGCC Competition

Hult International Business School



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# AGENDA

1 Water Org – Objectives & Challenges

2 The Synergy, Idea in Brief

3 Pain Chain

4 Timeline Activities, Finances & Challenge of Space

5 References

# Key Objectives & Challenges

## *Key objectives*

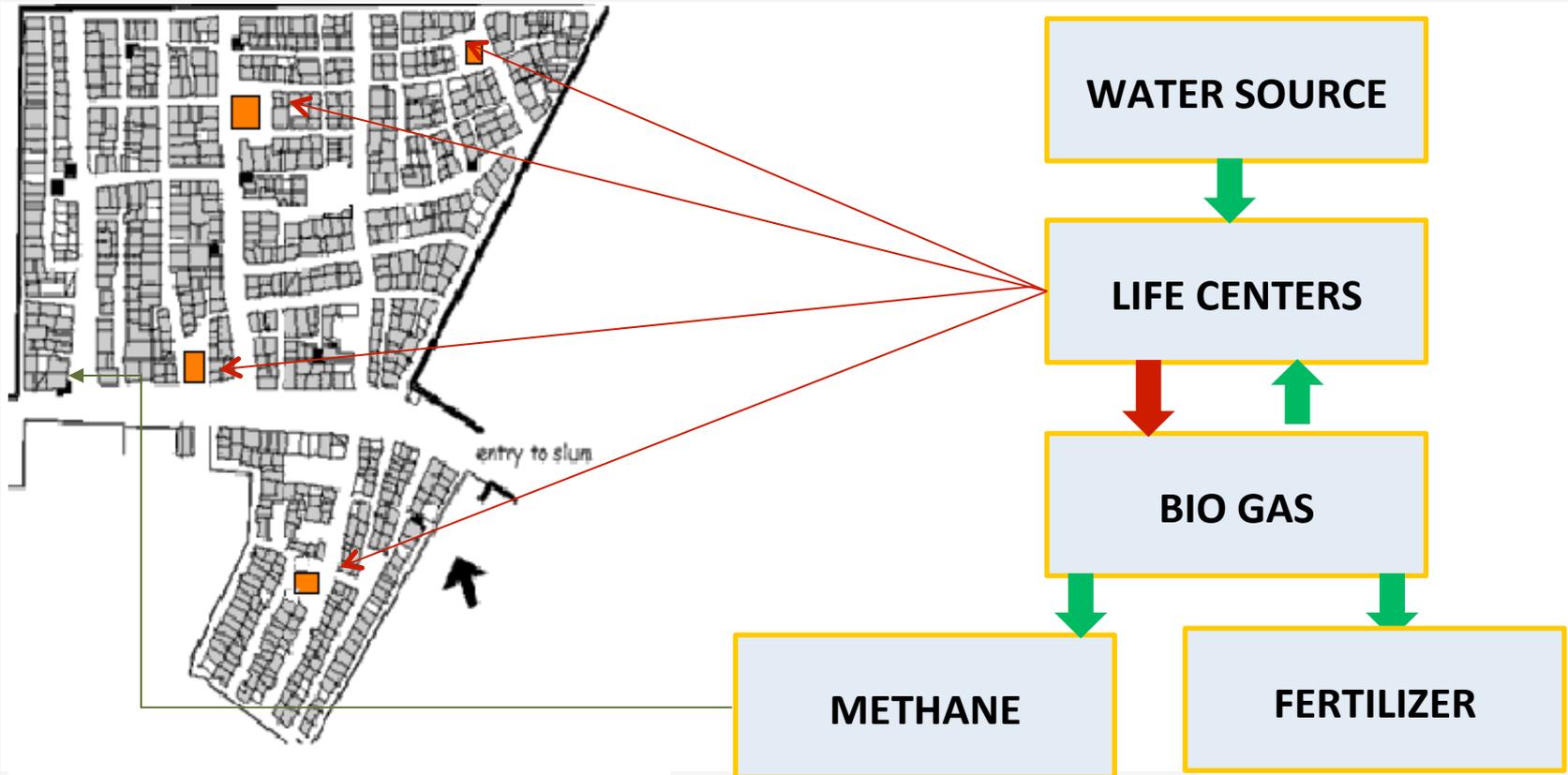
- Affordable and safe water and sanitation to the BOP
- Move beyond WaterCredit (i.e. microfinancing)
- Find bigger and bolder solutions to achieve growth beyond 10 million people in 5 yrs
- Leverage business models from industries outside watsan
- Explore franchise solutions for entrepreneurs at the BOP to deliver water profitability
- **Connect innovations in new ways to create sustainable solutions**

## *Key Challenges*

- **Cheap, Simple, Sustainable, Scalable and Transferrable**

# Feasibility Study

*Pilot project*



Sen, S & Hobson, J. (2005). The Pune Slum Census. Shelter Associates, Pune. India. Retrieved on February 28, 2011 from <http://en.wikipedia.org/wiki/Pune>

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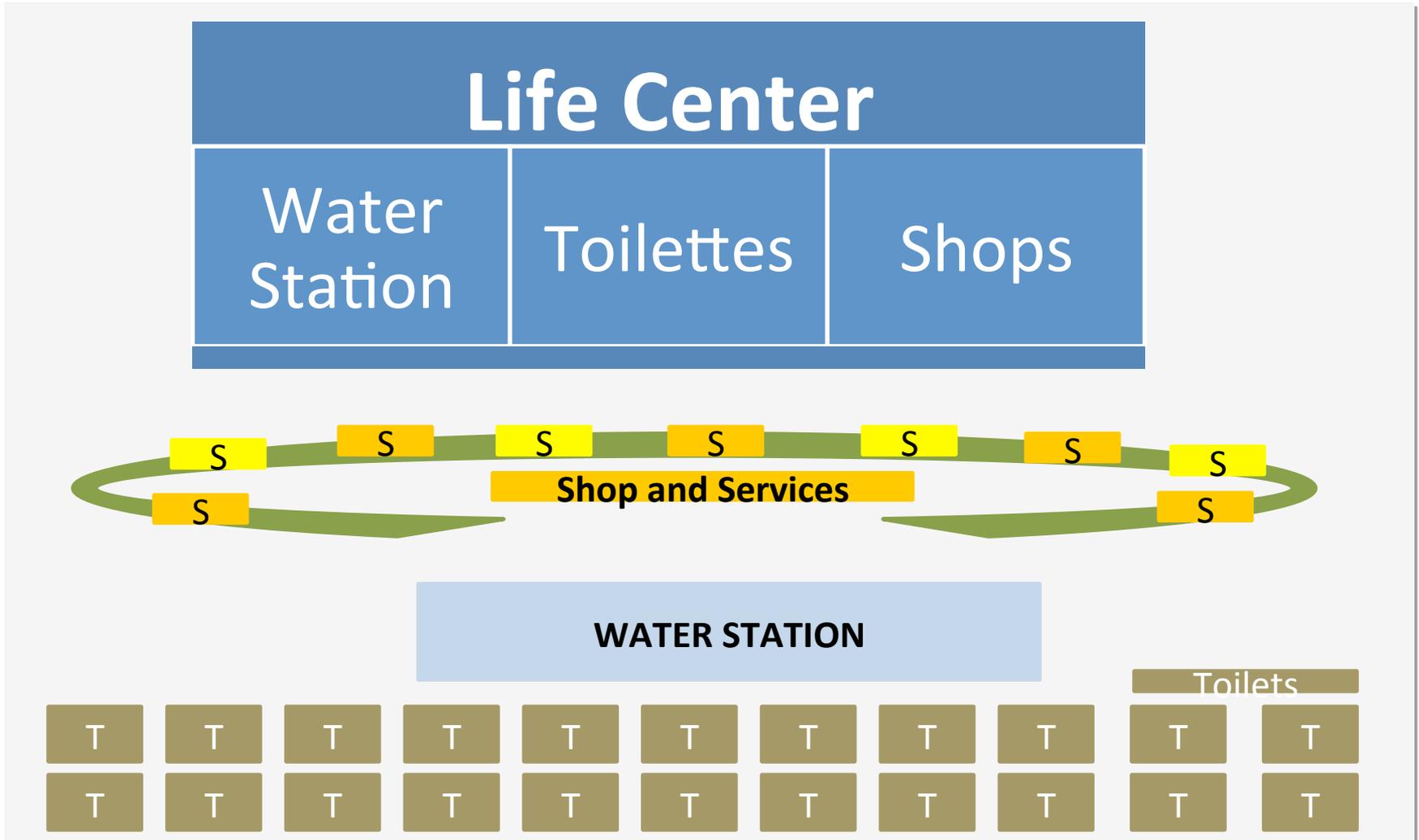
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3 Pain Chain Chart

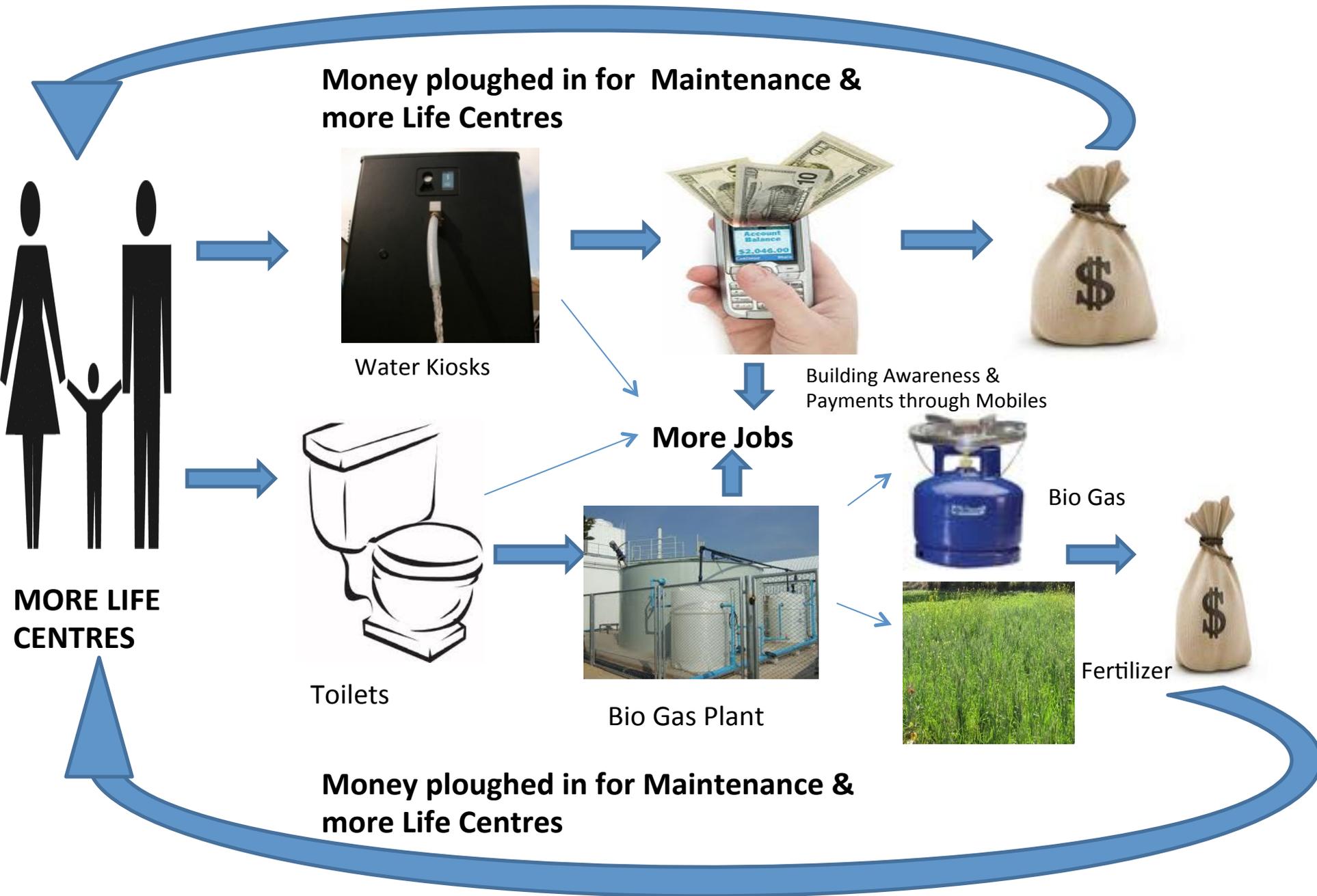
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# The Synergy Solution: One-stop shop for community needs



# The Business Model



# The Solution- Life Centre

*Life Centre*



# The Solution- Affordable Clean Water

## Capital Investment

- **Raised via Water Credit - \$9 per person (existing cost is around \$26// person)**
- and combination of community, social venture funds (e.g. Acumen fund, Schwab foundation etc.) and government offset subject to availability

## Sustainability

- 10% maintenance fee withheld from each transaction (Price = \$0.0002/Lt)

## Create jobs

- Women sell cards for water mobile credit
- Men jobs in day-to-day operations & distribution system (hand-carts)

## Risk Assessment

- Similar Installations successfully implemented in Africa and Central America by Grundfos.

## Profitability

- EBIT = \$1.2million/year
- ROI = 20%, IRR = 19%

# The Solution- Free Sanitation

## Capital Investment

- *\$407,000 (plant) & \$90,000 (1,000 toilettes)*
- **Funded by:**
- **50% of total cost is funded by Ministry of New Renewable Energy, Government (existing scheme)**
- **Advertising Revenue from the Life Centre**

## Sustainability

- Profits and maintenance come from sale of bio-gas and fertilizer
- Franchised to local Entrepreneurs

## Risk Assessment

- 2 plants already constructed in Haryana with Government funding
- Eco-tact - Nigeria

## Profitability

- **EBIT = \$118,000/year**
- **ROI = 40%, IRR =25%**

# The Solution- Ancillary Services & Advertising Revenue

## Advertisements Revenue

- Provide store space to Government for Ration shops
- Local Entrepreneurs – Economic products like homemade sanitary napkins, Tea stalls etc
- Social Media Advertising in India – \$20 million/ year growing @ 10%/ year
- Negotiate contracts on Countrywide/ State wide or District wide sponsorships.
- Leverage Water.org contacts with Hindustan Lever, Pepsi Co, Master Card (Kenya)  
Tie up with Telecom partner IDEA Cellular India



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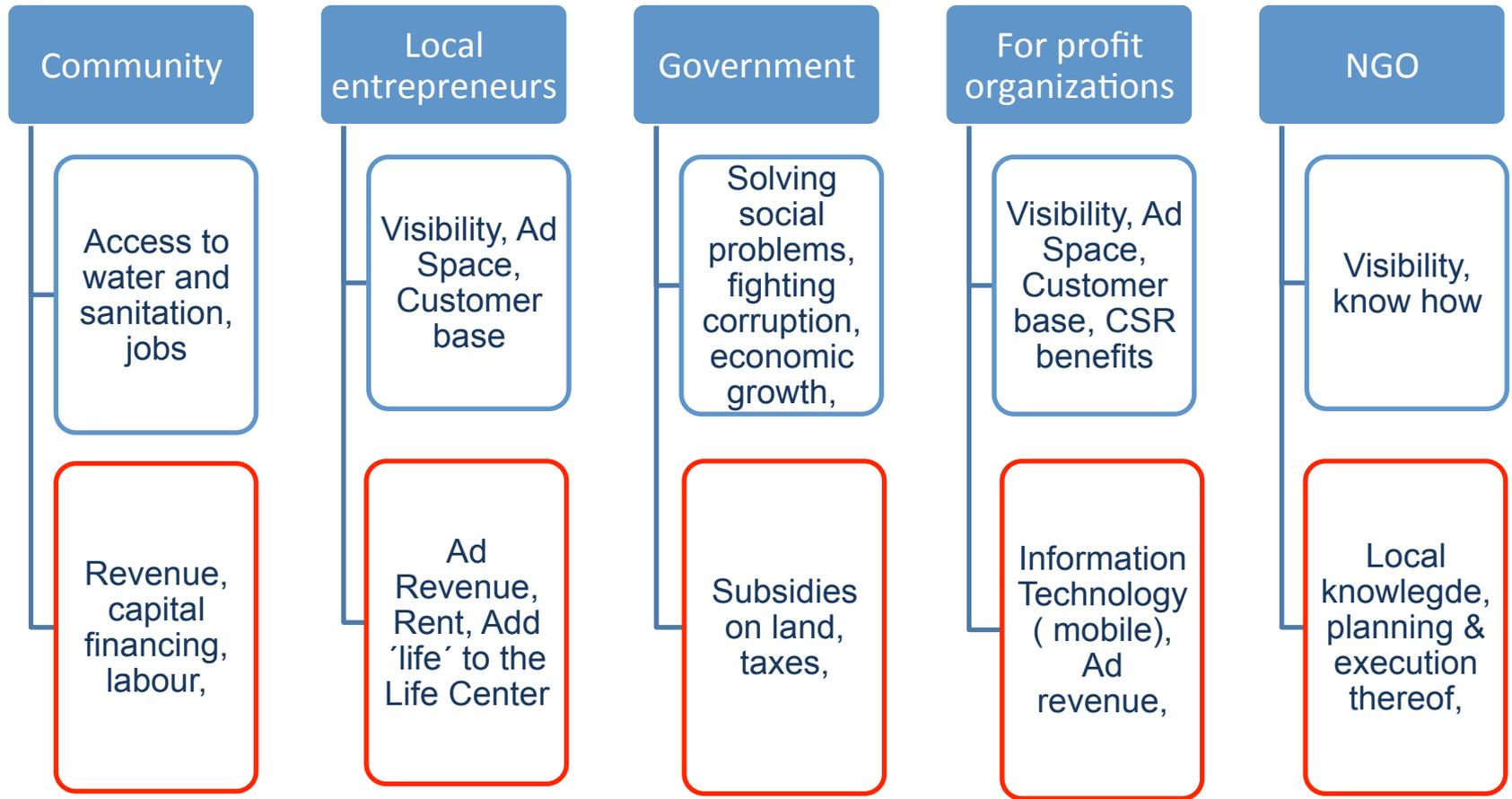
**3 Pain Chain Chart**

4 Timeline Activities, Finances & Challenge of Space

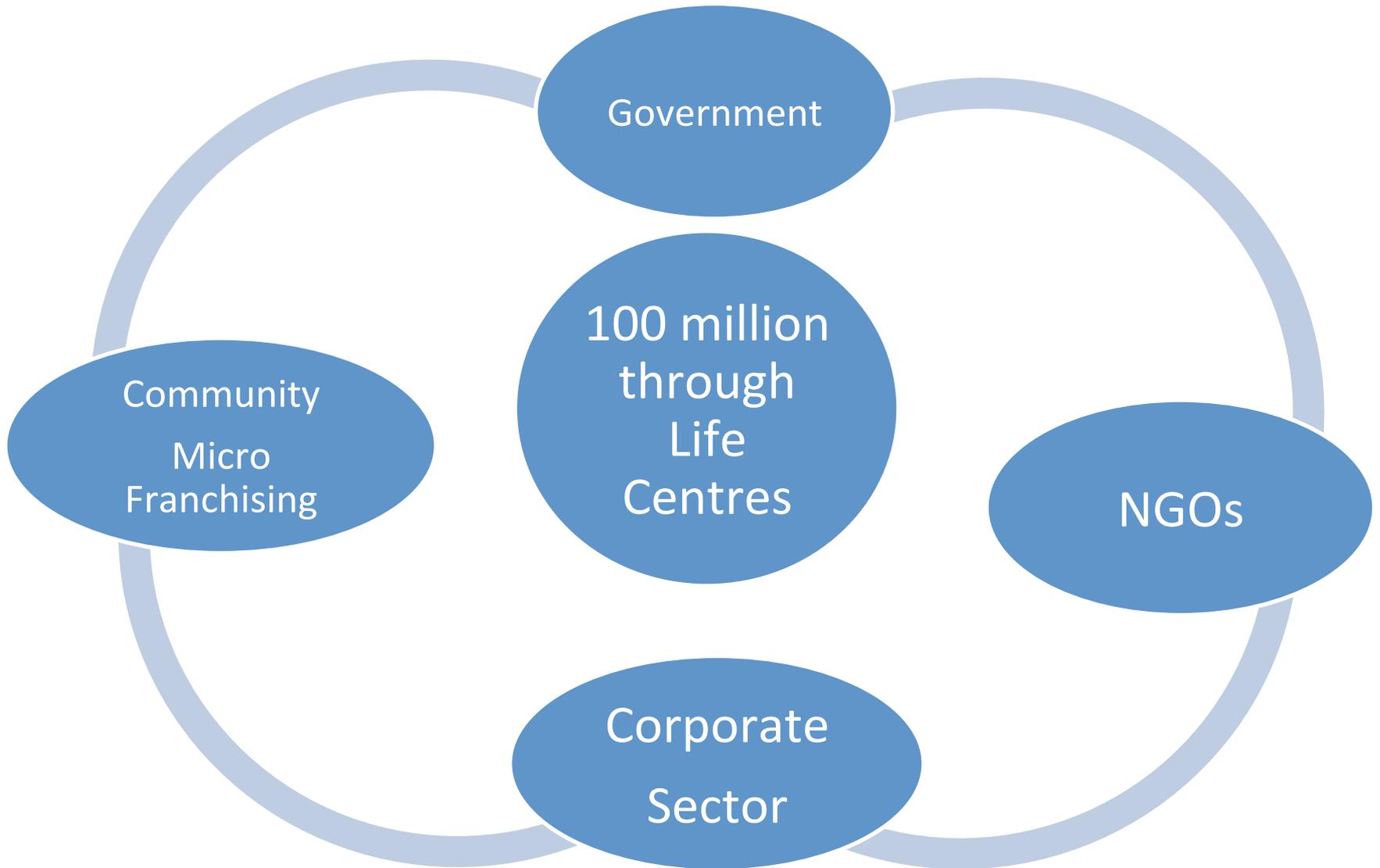
5 References

# Pain Chain Chart

## Out stakeholders

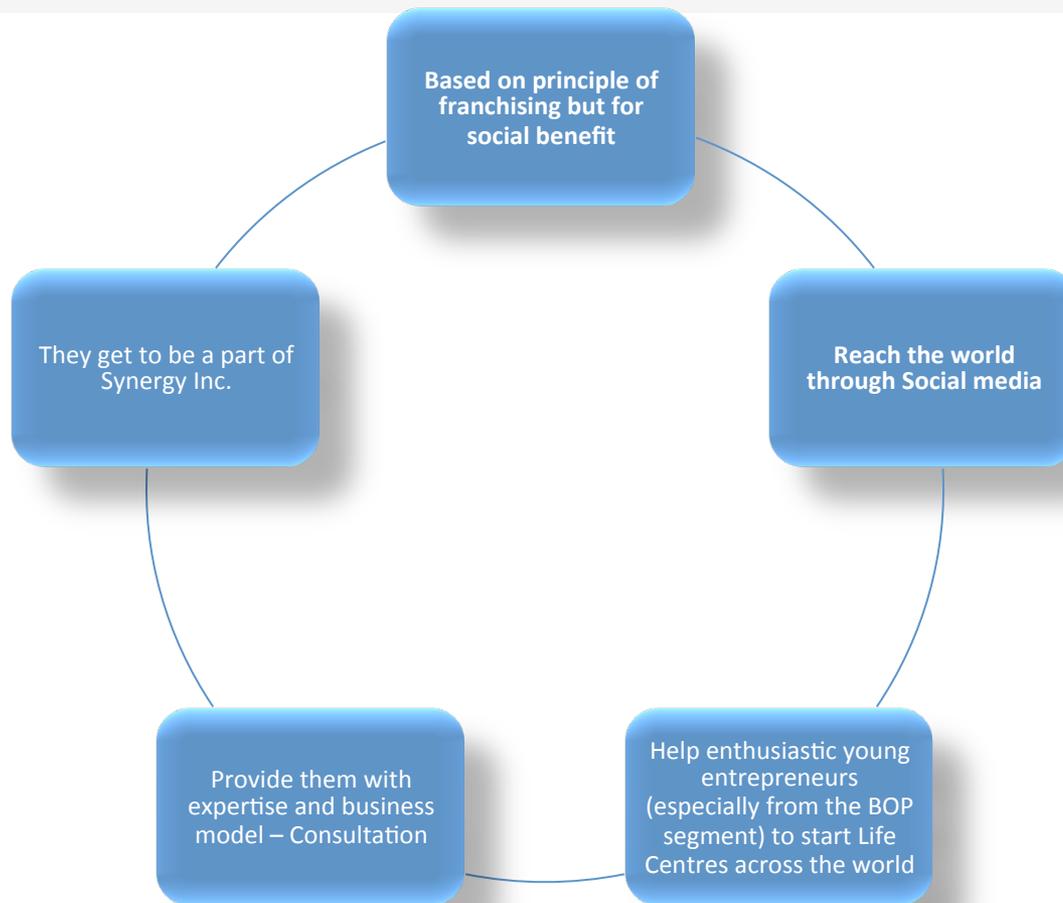


## Out stakeholders



# The Solution- MicroFranchising

## MicroFranchising



# The Solution – Mobile Banking

## *Mobile banking*

Partnership with local telecom and bank the community member will receive water banking services via their mobile phones. ( EXAMPLE: 'Obopay' in Mumbai). The water money can be simply re-loaded and paid by customers through a simple text message.

Water credit is deposited in a bank account



Each bank account is connected to a **MOBILE NUMBER**



Unique mobile payment system (**M-PESA**) and a pre-paid **FOB** key (with Radio Frequency Identification Technology) is used

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# TIMELINE Activities

The first 12 Months

## 2011

## 2012

May	June	July	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr
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**Planing stage –**  
Negotiations  
with Local Govt.,  
NGO's, Mobile  
Network Company

**Phase 1 - Life Centre**  
Construction Begins

**Publicity**  
Use of Social Media  
and News Media.  
Attract Corporates.

Registration Begins

Bids for  
Construction

**Phase 2 – Bio Gas**  
Construction of Bio Gas plant

Life Centre  
fully  
functional

Employ and use Local Youth and Women to educate and train slum dwellers on Wat-San & Life Centre. Use Network company to educate registered users through SMS.

# Financial Information

Clean Water: Funds Raised by WaterCredit	
<b>Cost of Life Centre Water Station</b> (includes borehole, UV, pumping system, solar panels, mobile banking and training)	<b>\$9.0 per person</b>
Price of water per liter	\$0.0002
Revenues per year (average consumption 100lt per day)	\$7.3 per person
<b>Profit per year</b> (assuming 30% operating expenses and 10% maintenance costs)	<b>\$4.4 per person</b>
<b>ROI</b>	<b>49%</b>
Sanitation & Biogas Production: Funds Raised from Advertising Revenues in Life Centers	
Cost of Biogas Plant (daily capacity of 1000m <sup>3</sup> )	\$403,000
Ministry of New Renewable Energy, Government of India will fund 50% of the total project cost	-\$201,500
Cost of toilettes (1,000 per community) installed at Life Centers	\$90,000
<b>Total cost of Sanitation and Biogas Plant - Covered by Advertising Revenue</b>	<b>\$291,500</b>
Revenues from selling 800m <sup>3</sup> of biogas (200m <sup>3</sup> of biogas used to power plant)	\$116,168
Revenues from selling 3.96 tones of fertilizer to farmers	\$80,819
Total Revenues from selling methane and fertilizer	\$196,987
<b>Profit per year</b> (assuming 40% operating expenses and rebates for grey water returned)	<b>\$118,192</b>
<b>ROI</b>	<b>41%</b>

**The profits from selling clean water & biogas are loans that will be given to local entrepreneurs that wish to set up franchises in other locations**

# Growth Chart: Millions of People over 5 years



= MFI (\$9/person) + Offset + Social Venture funds + Water.org



**Investment for Water Station & Toilets**

Advertising Revenue

Profits from Sale of  
Water & Bio Gas

Investment  
for Bio Gas  
Plant

**Funds for Maintenance &  
Investment for more Life Centres**

# What is Offset?

## Offset

An offset agreement is a stipulation made between a foreign supplier and a company which requires the supplier to purchase a certain amount of goods/ or investment in a national project from that country in exchange for a contract (on average 8%).

SOURCE: <http://www.wisageek.com/what-is-an-offset-agreement.htm>

# Offset

**Offset 26,340,000 USD**

Initiatives in India from foreign investments	Defense Deal	Infrastructure Investment
Amount of USD invested	17,000,000,000 USD	308,000,000,000 USD
Offset % requirement (8%)	1,360,000,000 USD	24,640,000,000 USD
Investment time	4 years ( 2011-2015)	5 (2012-2017)
Amount of USD per year	340,000,000 USD	4,928,000,000 USD
Amount for SYNERGY (0,5%)	1,700,000 USD	24,640,000 USD
Source:	<a href="http://news.in.msn.com/national/article.aspx?cp-documentid=4969480">http://news.in.msn.com/national/article.aspx?cp-documentid=4969480</a>	<a href="http://www.khl.com/magazines/international-construction/detail/item61858/India-plans-US\$-308-billion-infrastructure-investment/">http://www.khl.com/magazines/international-construction/detail/item61858/India-plans-US\$-308-billion-infrastructure-investment/</a>

# The Solution- Training & Education

## *Training and Education*

- Leverage the power of Information & Communication Technology (ICT) along with a huge installed base of mobile phones.
- Use the toilets to showcase eye catching posters on safe water usage and importance of sanitation.
- Periodic SMS's using the mobile network company on sanitation in local language!

### **Did you wash your hands today?**

- Visits to schools – Spread the message to the families through students.
- Leverage the power of women groups to spread these messages
- Encourage the use of Life Centres for new business opportunities

# The Challenge of Space (Land)

*Our goal is to start Life Centres on Government Land, given by the local government on lease, at subsidised rates*

Why would the Government give us the Land?

- Cleaner peri-urban areas; Change the 'Unhygienic' perception of Slums.
- Reduced corruption and crime
- More jobs and Economic development
- Popular support for the Government.

*Renovate the existing Sanitation structures*

- Make use of existing, unmaintained public wat-san infrastructure.
- Build Multi-Storey Life Centres to make maximum use of available land.
- Percentage of Revenue for the Government; Facilities for the people!
- Saves costs on negotiations and construction

# The Synergy Solution meets the Criteria

## Accessibility

- 0.5km distance
- Clean water for \$0.0002/Lt (vs. \$1 currently)
- Free sanitation

## Availability

- 24/7 access to clean water and sanitation
- Groundwater: Partner with NGOs for infrastructure
- Underground water: Drill boreholes

## Drinkability

- Simple and inexpensive UV technology
- Water quality meets minimum WHO standards

## Sustainability

- Educate, train and empower the community to grow and maintain the project
- Maintenance fund sufficient for at least 20years

# The Synergy Solution meets the Criteria

## Demand-driven approach

- The community has access to safe water/sanitation
- The investors achieve ROI
- The corporate sponsors get access to a \$4billion market of BOP consumers

## Create jobs

- Create 1,000s of jobs and give people time
- Improve quality of life
- Increase Purchasing Power of BOP consumers

## Scalability

- Reinvest profits from project
- Raise corporate capital (sponsorships, advertising)
- Government funding (bio-gas funding & offsets)
- Micro-franchising

# Summary - What have we achieved?

## Summary

- **Affordable Clean Water** (\$0.0001/Lt) **within 0.5km reach** of the community & **distribution system**
- **Free Sanitation** (1,000 Toilets)
- **A Sustainable Solution** with Annual Profits of \$984,039 per project
- **335% ROI** (Water.org investment required: \$293,500 per project) – **No Dependence on Charity**
- **A simple solution** that can be **scaled according to demand not supply**

### Partnerships with:

1. **NGOs** to deliver infrastructure (wherever necessary) train & educate people
2. **Telecom & Banking** for the mobile banking system
3. **Government** funding for bio-gas energy plant & potential offsets

### Franchise options for entrepreneurs at the BOP :

1. **Energy Company** for the production of biogas from human waste
2. **Water Station** for the supply of clean water
3. **Shops at Life Centre**

**Created thousands of jobs for the community**

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4 Time Line Activities

5 References – Our research based on reality & not perceptions

# 'Dreams cannot be realized if they are not based on reality!'

*We based our idea on the following recommendations:*

- **Rasoul Dashtbani Mikkelsen**

FUNDING + PARTNERSHIP  
MANAGER GRUNDFOS

- **Ammar Lahham**

ANALYST BLOOMBERG

- **David Kuria ( Entrepreneur of the Year 2010)**

FOUNDER OF ECOTACT

- **Patrick Onyango**

SUSTAINABLE SANITATION  
ALLIANCE IN KENYA

- **Syddon Chacko**

BPG ADVERTISING

- **Ed Kuzniarski**

TRADE OFFSET PROGRAM  
(Kuwait example)

- **Syddon Chacko**

BPG ADVERTISING

- **Chhaya Waghmare**

PUNE'S SLUM RESIDENT