Empowering the Community to Develop Entrepreneurial Solutions

Providing water and sanitation to 100 million people in 5 years

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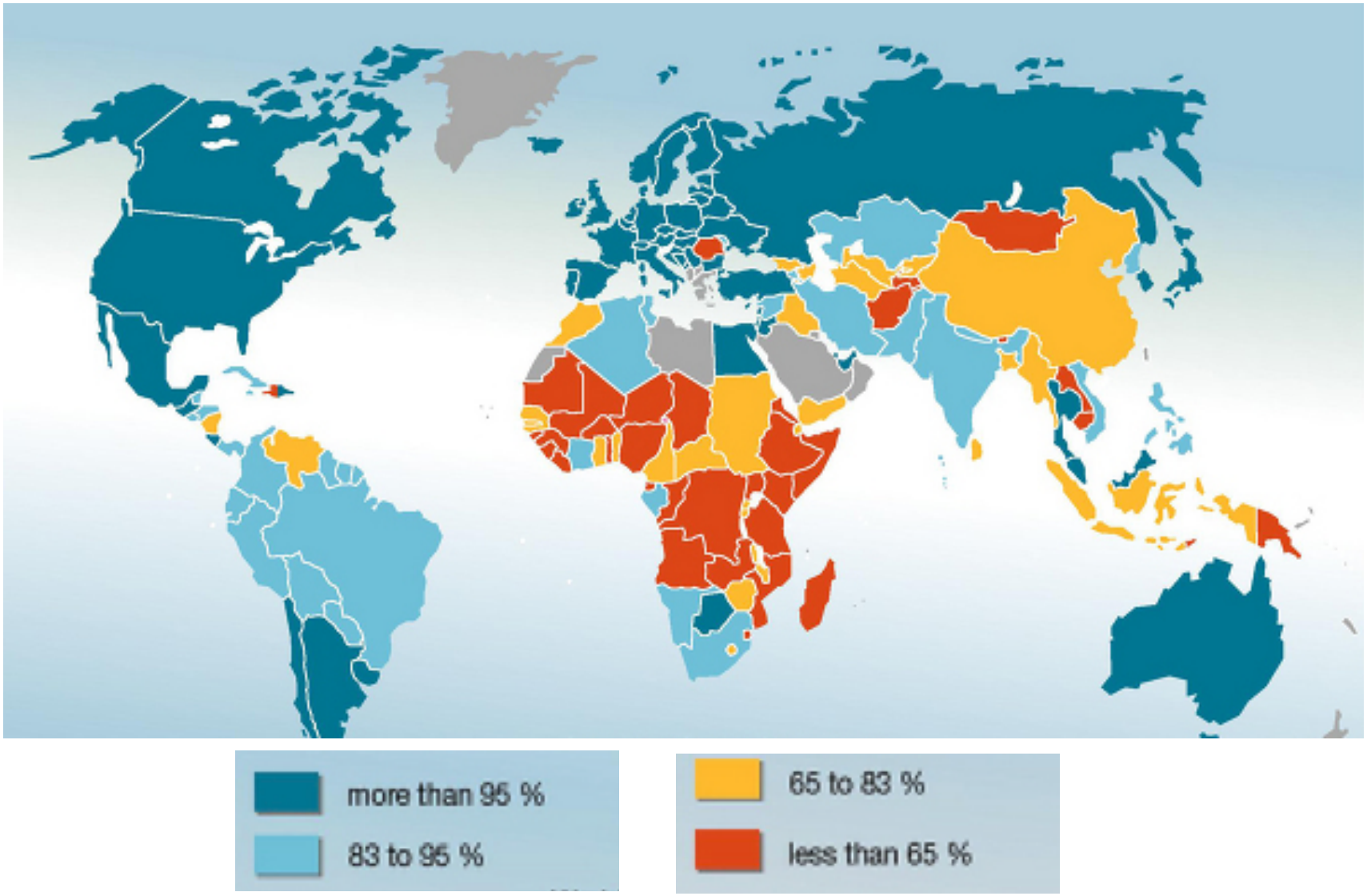
ACCESS TO CLEAN WATER



Lack of access to bottom of pyramid

World Heawlth Organization (WHO) and United Nation's Children's Fund (UNICEF), Meeting the MDG Drinking Water and Sanitation Target (The Urban and Rural Challenge of the Decade, Geneva (WHO) and New York (UNICEF), 2006

KEY QUESTION & RECOMMENDATION

Key Question

How can Water.org provide access to clean water and sanitation to 100 million people within 5 years?

Recommendation

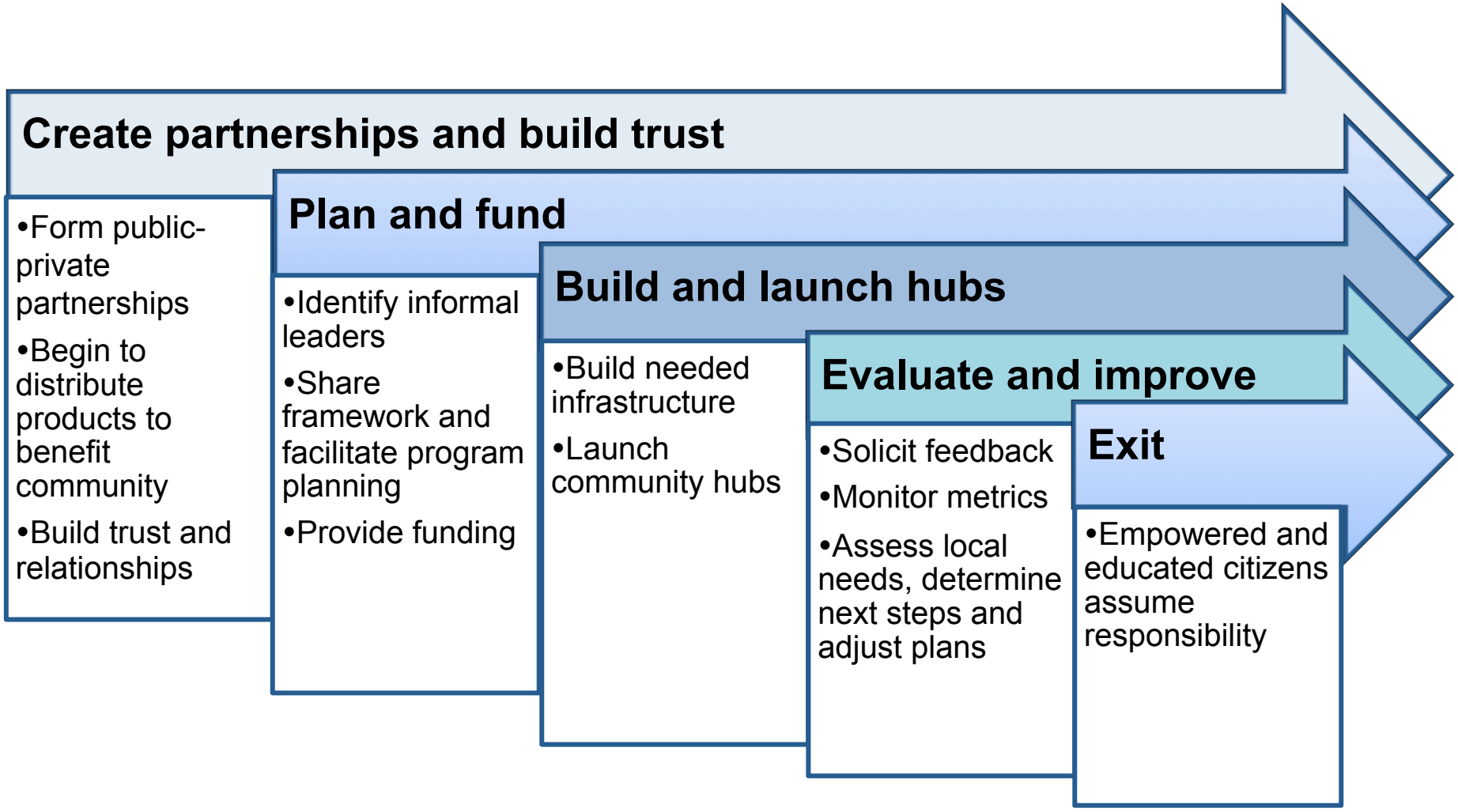
Act as a catalyst to empower the community to reach their potential in an innovative and sustainable way

Action

Develop community hubs that provide access to clean water, sanitation and education to maximize economic and social benefits

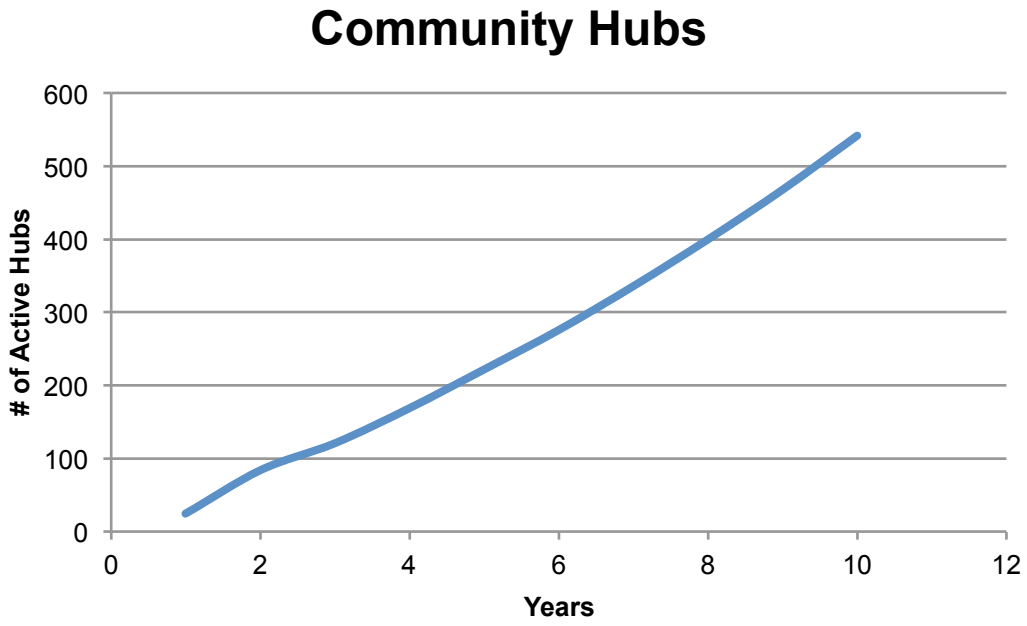
Community driven hubs will surpass Water.org's goals

PROGRAM IMPLEMENTATION



Facilitate community driven incremental improvements

FINANCIAL RATIONALE



- Each hub costs $12,100 and serves 1000 people/day
- 121 hubs financed for $1,000,000 in three years
- Customers pay $0.04 per day and hub profits 17% per month
- Hubs service 542,000 people over 10 years
- Water.org receives an 18.1% annual return
- Generate interest from Impact Investors
- Scalability to service 100 million people in 5 years

Self-sustainable financial model

IN SUMMARY

- Financially and socially viable
- Builds on the strengths of the communities
- Potential to surpass Water.org's goal
- Provides 100 million people with water and sanitation over the next five years

THANK YOU

QUESTIONS?

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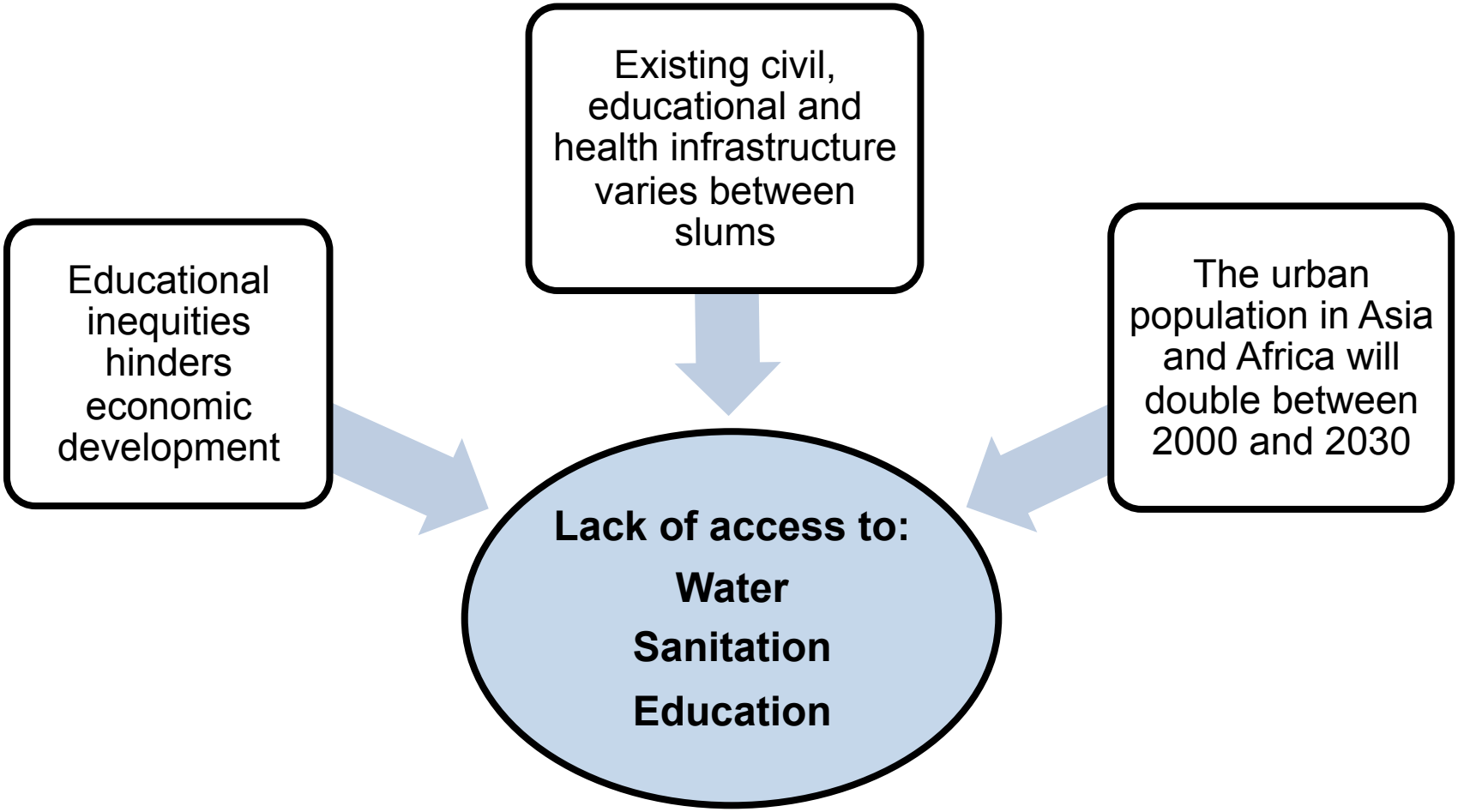
APPENDICIES

CURRENT SITUATION



Despite contextual differences the main issues remain the same

COMPARISON OF SLUMS

	Nairobi 	Mumbai 
Average household size	3.0	4.2
% population with some education	79%	22%
Access to toilet in home	25%	15%
Access to piped water in home	19%	5%
Main water source	Water kiosks (purchased)	Shared connections
% of household expenditures spent on water	2%	1.5%
Predominant religion	Christianity	Hinduism
% of individuals below poverty line	72%	54%
Population density	49,228 people/km^2	305,191 people/km^2

There are major variances between slums

•*The Slum Water Program Business Plan: A Sustainable Water Solution for Marginalized Slum Communities.* Reach Out Water 2 Solutions. • Central Intelligence Agency. The World Factbook: • *Poverty, Living Conditions, and Infrastructure Access: A Comparison of Slums in Dakar, Johanneburg, and Nairobi.* The World Bank. • A pilot study of the nutritional status of disabled and non-disabled children living in Dharavi, Mumbai. *Indian Pedatrics* • *The largest cities in the world by land area, population and density.* • The World Bank. *The Mumbai Slum Sanitation Program: Partnering with Slum Communities for Sustainable Sanitation in a Megalopolis.*

CONTEXT

Lack of access to:

Water	Sanitation	Education

- Existing civil, educational and health infrastructure varies between slums
- Cultural norms can cause systemic racism and sexism
- Life-long habits create a complex and challenging environment to motivate behaviour change in
- Match resources and solutions to local abilities
- Educational inequities hinder economic development

Despite contextual differences the main issues remain the same

STAKEHOLDER ANALYSIS

KEY STAKEHOLDER	INTERESTS	POWER
Community Women	-Access to safe water -Access to private and safe toilets -Time to work/learn/care for children -Education/better opportunities for their children	Medium
Local Government	- Economic development	High
NGOs	-Self-sustaining solutions -Access to safe water/sanitation	Medium
Private Water Companies	- Economic profit	Medium
Micro-financing Institutions (MFIs)	-Self-sustaining solutions -Economic development -Low risk opportunities	Medium
Private Corporations	-Penetrating the bottom of the pyramid -Corporate social responsibility	Low
Community Men	- Job opportunities	Medium

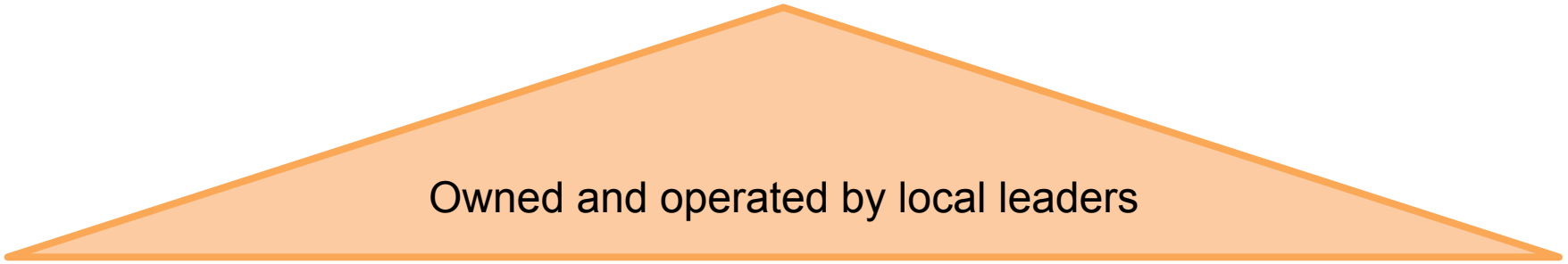
Stakeholders' priorities must be considered

PEST ANALYSIS

Political	• Basic human rights, instability, civil conflict, privatization of water, government corruption, international tensions, government does not recognize right of “squatters”
Economic	• Micro financing and water credits, economic recession, income disparity, economic growth limited by lack of water
Social	• Class system, tribal conflicts, gender inequality, cultural differences, lack of formal and informal education
Technology	• Cell phones are prevalent, lack of water infrastructure, no sewage systems, need for durable and simplistic technologies

The internal and external environment of slums is complex

COMMUNITY HUBS



Clean Water	Sanitation	Education
• PUR packets • Water spout to an existing pipeline •UV filtration system •Groundwater pump	• Compostable toilets • Easy latrine • Domestic waste removal • Pit latrines	• Entrepreneurial • Trade and life skills • Health and safety •Traditional education

Community planned and operated hub

Reach potential by building on community strengths

CORPORATE PARTNERSHIPS

Procter & Gamble

- Live, Learn and Thrive focuses on improving the lives of children
- Reach 300MM+ children with water by 2012.
- Children's Safe Drinking Water program provides PUR packets

Unilever

- Focuses on partnering to improve hygiene habits and increase access to water
- Lifebuoy, a hand-washing program provides children with soap
- Hygiene for 1+ billion people and water access to 500 MM people

Mutually beneficial and allow accelerated implementation

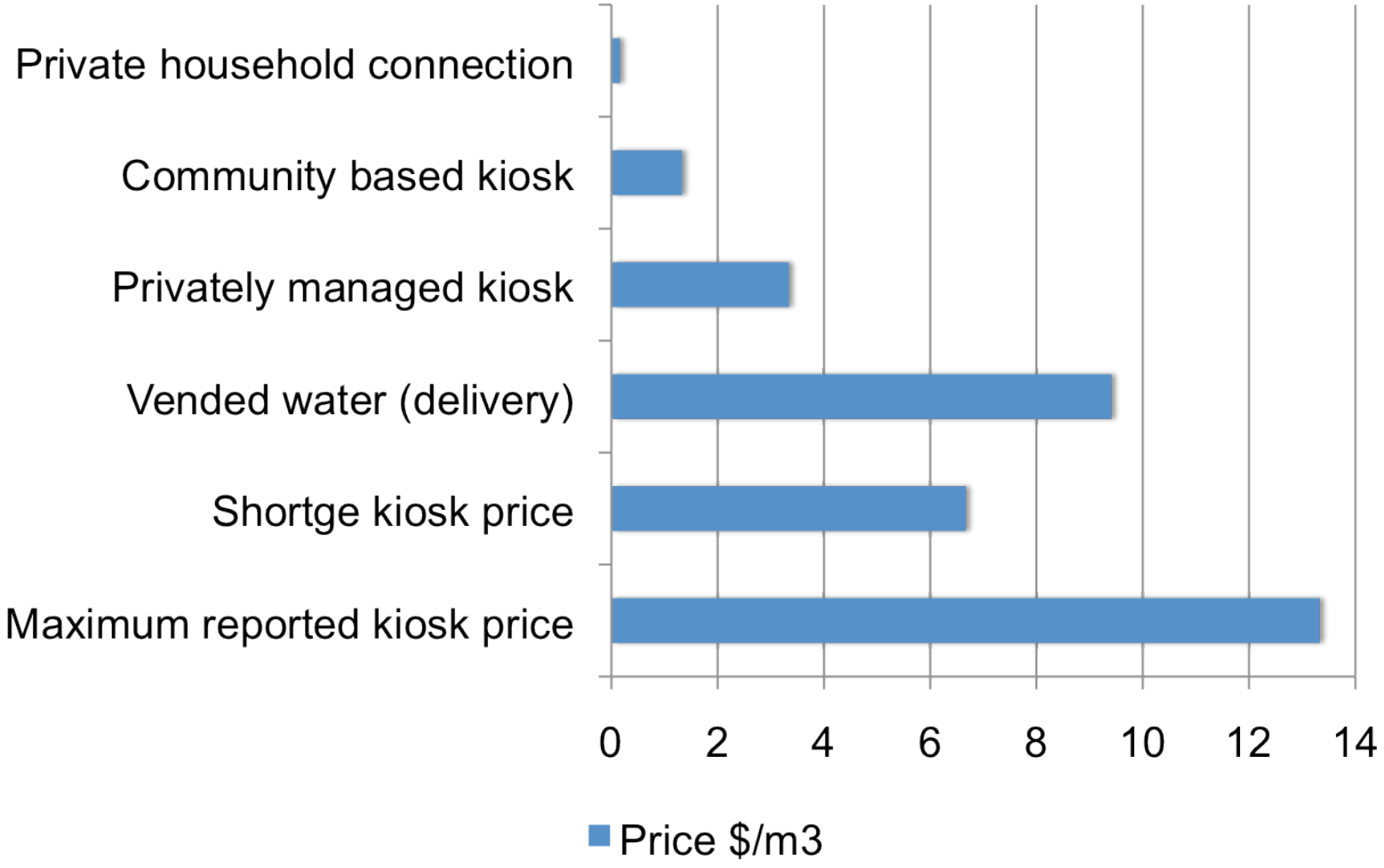
Procter and Gamble, Children's Safe Drinking Water http://www.csdw.org/csdw/home.shtml Unilever, *Handwashing initiatives* http://www.unilever.com/sustainability/wellbeing/hygiene/handwashing/index.aspx

RISKS AND MITIGATORS

Lack of community buy-in	Region specific barriers	Lack of space	Lack of corporate initiative	Unsupportive or volatile government
Research and incorporate local values and norms	Include region specific best practices	Build upon partners' existing facilities	Approach strategically aligned partners	Framework is flexible and adaptable
Support innovative solutions	Leverage existing partnerships	Position initiatives on periphery	Provide product placement and brand exclusivity	Engage government during development

Framework is flexible and adaptable to local needs

PRICES OF WATER OPTIONS



Water options and prices paid by Nairobi's low-income population

ASSETS AND DEFICITS

Assets

- Untapped labor pool
- Relationships with MFIs
- Resourceful/entrepreneurial
- Communities of women
- Access to cell phones

Deficits

- Education
- Financial resources
- Water/Sanitation
- Permanent infrastructure
- Safety and security
- Ownership of property

Solution needs to build upon existing strengths to address deficits

BALANCED SCORECARD

Perspective	Objective	Measures
Financial	- Provide low risk loans to community groups to develop hubs - Develop self-sustainable solutions through revenue generation	- Loan repayment time - Loan default rates - Revenue generated
Customer	- Engage and empower community - Provide access to clean water and sanitation - Increase access to education and training	- Number of local citizens employed - Number of families with access to water/ sanitation - Number of children enrolled in education programs
Internal Business Processes	-Develop partnerships with NGOs and private corporations - Develop partnerships with financial institutions to provide loans	-Number of partnerships established - Total loan amounts provided
Learning and Growth	-Increase number of communities participating in initiatives - Develop cultural sensitive initiatives	-Number of communities reached - Number of local citizens engaged in planning process
Environmental and Legal	- Develop local government partnerships	- Percentage of local governments engaged in planning process

Need to measure and evaluate progress

FINANCIAL RATIONALE

Capital Costs

Item	Total Cost
UV Waterworks	$2,400
Borehole Drilling	$4,000
Borehole Pump	$1,000
Storage Tanks	$2,000
Containers	$800
Building Modification	$1,000
Municipal Connection	$100
Education & Training	$500
Easy Latrines	$300
Total Capital Cost	$12,100

Budget	$ 1,000,000
Administative Fees	$ 109,000
Total Available	$ 891,000

Expenses

Item	Daily Cost	Monthly Cost
Municipal Water Fee	$1.28	$38.40
UV Waterworks	$1.00	$30.00
Electricity Costs	$1.75	$52.50
Staffing (5 people)	$16.70	$501.00
Maintenance	$1.00	$30.00
Interest Accrual	$12.33	$370.00
Total	$34	$1,022

Income

Item	Daily	Monthly
Water Revenue (0.04/person)	$40.00	$1,200.00
Community Hub Costs	$34.06	$1,021.90
Total	$6	$178

Economically feasible with monthly profits

FINANCIAL RATIONALE

Cash Flow Waterfall	31/12/2011	31/12/2012	31/12/2013	31/12/2014	31/12/2015	31/12/2016	31/12/2017	31/12/2018	31/12/2019	30/12/2020	31/12/2021
Begginning Cash		$891,000	$729,960	$446,160	$578,050	$647,020	$657,195	$723,525	$771,870	$826,540	$894,960
Less: Loan Made		(290,400)	(726,000)	(447,700)	(580,800)	(641,300)	(653,400)	(726,000)	(774,400)	(822,800)	(895,400)
Plus: Repayment	–	105,600	369,600	506,000	572,000	566,500	629,200	676,500	723,800	778,800	836,000
Plus: Interest Received		23,760	72,600	73,590	77,770	84,975	90,530	97,845	105,270	112,420	121,220
Ending Cash (Available for Loan)	$891,000	$729,960	$446,160	$578,050	$647,020	$657,195	$723,525	$771,870	$826,540	$894,960	$956,780
Loans Made Year in Given Year		*24*	*60*	*37*	*48*	*53*	*54*	*60*	*64*	*68*	*74*
Amount Per Loan		$12,100									
Annual Repayment Per Loan		$4,400									

		Year									
		1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
	31/12/2011	31/12/2012	31/12/2013	31/12/2014	31/12/2015	31/12/2016	31/12/2017	31/12/2018	31/12/2019	30/12/2020	31/12/2021
Cash Flow Out (Loan)		(290,400)	(726,000)	(447,700)	(580,800)	(641,300)	(653,400)	(726,000)	(774,400)	(822,800)	(895,400)
Cash Flow In (Repayment)		105,600	369,600	506,000	572,000	566,500	629,200	676,500	723,800	778,800	836,000
Terminal Value (Residual Cash Flow and Interest Due)											730,070
Plus: Interest Received		23,760	72,600	73,590	77,770	84,975	90,530	97,845	105,270	112,420	121,220
Total Cash Flow In / (Out)	–	($161,040)	($283,800)	$131,890	$68,970	$10,175	$66,330	$48,345	$54,670	$68,420	$791,890

Economically feasible with monthly profits

RECOMMENDATION CRITERIA

- Philanthropically efficient
- Ease of implementation
- Transferability and scalability
- Measurable results
- Culturally sensitive
- Builds family's sense of status
- Empowers and provides a sense of ownership

Effective recommendations must meet all criteria

COMMUNITY HUB TIMELINE

Phase 1 3-6 months	• Find a group of local women leaders • Plan with group and provide funding • Distribute PUR packets
Phase 2 7-18 months	• Clean water and sanitation system • Trade based education • Health services
Phase 3 19-24 months	• Mentor community leaders in operational management • Life skills training sessions • Market-place for local vendors
Phase 4 25-30 months	• Commence exit strategy and receive final payment • Start reducing operational support • Transferring all operational control to community leaders

Phased in approach that leads to self sustainable solutions