INCLUSIVE BUSINESSES IN WATER AND SANITATION

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WHAT IS INCLUSIVE BUSINESS?

- Inclusive business models include the poor on the demand side as clients and customers, and on the supply side as employees, producers and business owners at various points in the value chain.
- They build bridges between business and the poor for mutual benefit.
- The benefits from inclusive business models go beyond immediate profits and higher incomes. For business they include driving innovations, building markets and strengthening supply chains.
- And for the poor they include higher productivity, sustainable earnings and greater empowerment.

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THE GROWING INCLUSIVE MARKETS INITIATIVE

What is GIM?

- The Growing Inclusive Markets (GIM) initiative is a UNDP-led global multi-stakeholder initiative to promote and lead the integration of business and the poor, where it creates value for all.

Case Studies

- 110 original case studies of inclusive businesses from over 40 countries. The case studies have been authored by over 40 leading Southern senior academics and practitioners.
- Business model database of over 1,000 inclusive business models from all regions and sectors.

Reports

- "*Creating Value for All: Strategies for Doing Business with the Poor*" was launched in over 50 countries since July 2008 and translated in five languages.
- *The MDGs: Everyone's Business* was launched in September 2010
- GIM Regional Reports from Eastern Europe and Africa (forthcoming)

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GROWING INCLUSIVE MARKETS AND WATER/SANITATION

GIM has conducted approximately 12 in depth case studies on water and sanitation inclusive business models that both make a profit and serve the poor from Morocco to Uganda to India and the Philippines

These inclusive businesses work in the water sector through different methods: some reach the rural, remote and dispersed poor, some reach urban slums and shanty towns, and others work in water purification sectors by providing new technologies to low income customers

For more information and to download each of these case studies in depth; please go to www.growinginclusivemarkets.org

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WATER AND SANITATION INCLUSIVE BUSINESSES

WATER INCLUSIVE BUSINESS MODELS	SANITATION INCLUSIVE BUSINESS MODELS
Wind, Water for Life (Du vent, de l'Eau pour la Vie, VEV)	Ecotact: Affordable Sanitation Services in Pleasant Surroundings
Procter & Gamble: Providing Safe Drinking Water to the Poor	Sulabh International: A Movement to Liberate Scavengers by Implementing a Low-Cost, Safe Sanitation System
Water for All: New Tirupur Area Development Corporation Ltd. (NTADCL)	Waste Concern : A Decentralized Community based composting through public-private-community partnership
Manila Water Company: Improving Water and Wastewater Services for the Urban Poor	
LYDEC: Providing Electricity, Water & Sanitation to Casablanca's Shanty Towns	
Association of Private Water Operators in Uganda: Affordable and Safe Water for the Urban Poor	
Amanz' abantu: Water (and Sanitation) for the People	
Amanco: Providing Irrigation Systems to the Rural Poor	

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TYPES OF WAT/SAT INCLUSIVE BUSINESS MODELS

Reaching the Rural, Remote, Poor	Reaching the Urban Poor	Providing new water technologies
• New Tirupur Area Development (Semi Rural)	• Manila Water Company	• Procter and Gamble (Pur)
• Association of Private Water Operators in Uganda (using coin-operated water meters)	• Lydec: Providing water to slum areas	• Wind, Water for Life
• Amanco (Irrigation Systems for rural poor)		• Amanz' Abantu

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CASE STUDY: WIND, WATER FOR LIFE

Founded in Senegal in 1991, VEV is a wind pump company.VEV repairs and maintains the pumps installed during the time of LVIA with locally made parts. It additionally manufactures wind pumps on site and installs them in new locations. Repairs and new installations can be relatively expensive for the communities and part of VEV's continued success lays in its work with village water committees and partners.

Partners: Government (tax relief for pump), E+Co (Financing), UNEP (TA) and others contributing technical expertise and community mobilization

Economic Benefit: VEV sustains 660-1000 jobs in Senegal

SOCIAL BENEFIT: 43, 175 people in 130 villages have access to clean water. Women save time on transporting and obtaining water. Villages report improved health and hygiene. Villagers report ability to grown their own gardens as a result of on site access to water.

ENVIRONMENTAL BENEFIT: The Wind Pumps displace the use of diesel generators and eliminate CO2 emissions

Inclusion of the Poor as Consumer and As Producers of Water (through pumping clean water)

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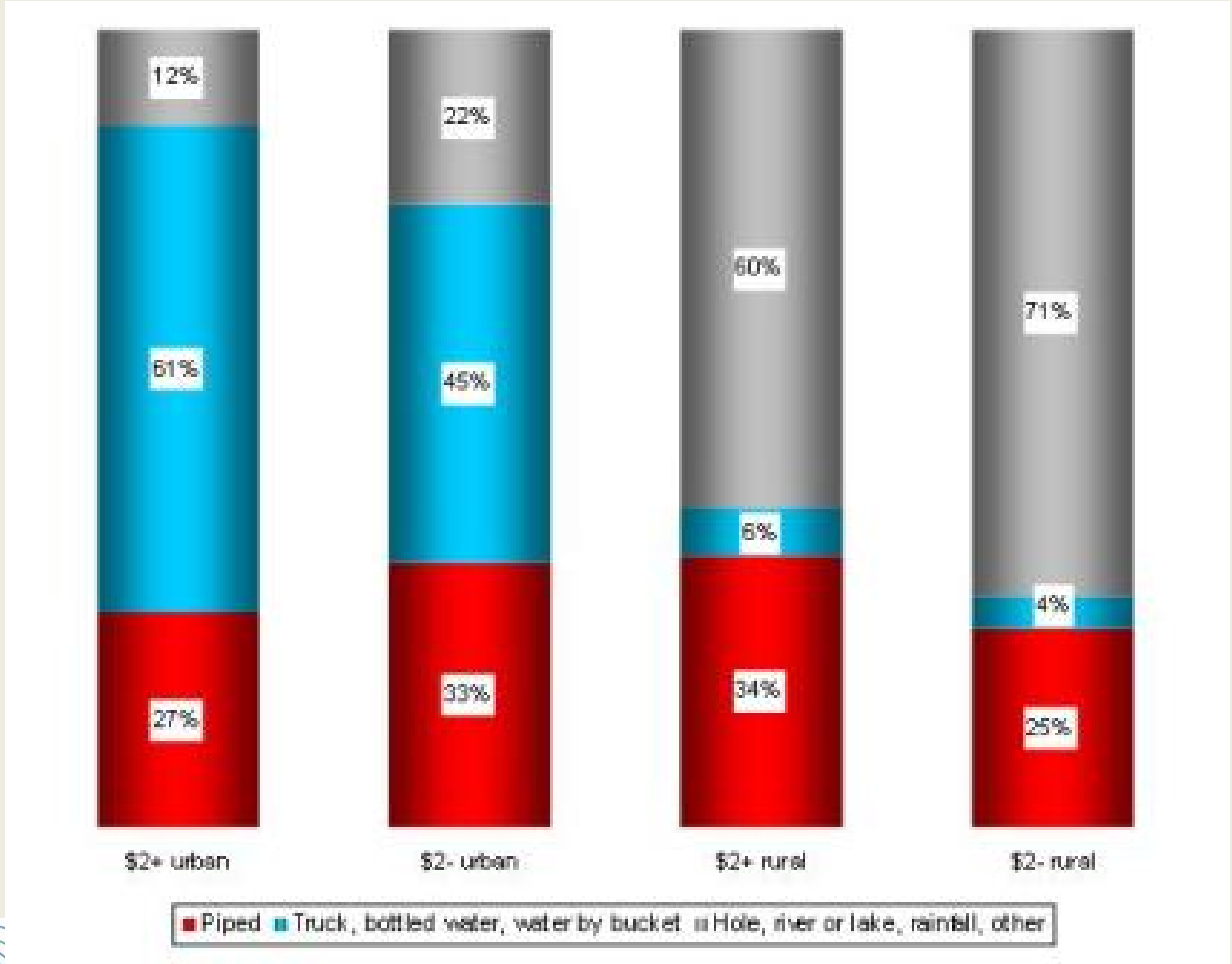
UNDERSTANDING THE SUPPLY SIDE: HAITI



•Small and informal providers often serve areas where larger, formal enterprises will not operate because of high costs.

•Take Haiti's water market where water distribution depends heavily on a functioning infrastructure but building an extensive network of pipelines is expensive. Haiti is one of the world's 50 least developed countries. Low economic growth, natural disasters, political instability and poor governance have eroded basic public services.

•As the heat map shows, access to piped water networks is generally very limited: only about a third of Haiti's urban poor and fewer than a third of its rural poor have access.

Households with a per capita income of less than $2 a day, 2001, Based on Institut Haïtien de Statistique et d'Informatique 2001.

UNDP AND JICA IN CAMBODIA IN THE WATER SECTOR

- Decided to Adopt a 'Sector Approach' instead of a product approach because of significant benefits in operational efficiency and cost
- A sector approach is relatively innovative compared to the standard 'product' based approach by most companies when entering the bottom of the pyramid
- 2 products Clinka and Glu tested with very poor residents in two communities in Cambodia (both water-improvement products)
- Insights present learnings for all inclusive businesses interested in entering the water sector in low income areas

PROCESS FOR IDENTIFYING OPPORTUNITIES FOR BOP PRODUCTS

Product Approach	Sector Approach
✓Limited market research, R&D ✓ Limited successful case studies	✓More market research, R&D focusing on BOP ✓Successful case analysis
✓"Product-out" mentality with limited understanding of customer needs in BOP markets ✓Limited feedback due to due to no feedback loops	✓Easy to implement analytical toolkit (i.e. price target, RAP method, pilot implementation) for each stage to reduce upfront cost and resources needs
✓Short-term profitability timeline ✓Hard to obtain buy-in from senior management ✓Expensive human resource cost that cannot be justified upfront	✓Business case evaluation and ROIC analysis with longer-term horizon ✓ODA, partnership with NGOs and social enterprises

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TWO PRODUCTS PILOTED IN CAMBODIA

Clinka Product

- *A sand-like catalyzing disinfectant that is effective against bacteria, viruses, some protozoa, and theoretically some helminths.*
- Only requires being put in the correct amount of water (40g of Clinka for every 1 liter of water) and left for 10 hrs to work.
- Used continuously for approximately 1 year.
- For some water including turbid water, water needs to be filtered before drinking.
- Low upfront cost ($1.30* for a 40g sachet) and low cost / liter: US$0.007
- Highly effective against bacteria, virus, protozoa
- Portable

Poly Glu Product

- *An organic based flocculent that works by adhering to ionized contaminants in water.*
- Works at 1 gram per 10 liters and requires 3-5 minutes of stirring and filtering.
- Water needs to be disinfected before being used for drinking.
- Very effective in heavy metal removal.
- Low upfront cost ($2.50* for a 150g sachet, which should serve a family of five for 5 months)

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COMPARISON OF EXISTING WATER PURIFICATION PRODUCTS

Product	Clinka 205	P&G PUR	Solvatten	Poly-Glu	Potters for Peace	Unilever Pureit	Lifestraw
Effect*	D	D	D	F	F	D&F	D&F
What is it	Coagulating disinfectant	Coagulating disinfectant	UV disinfectant	Organic Coagulant	Ceramic Water Filter	Filter w/ disinfectant processor	A straw w/ filters, chlorine
Upfront cost**	$0.68 (40g)	$0.10 (4g)	$35	$1.92 (100g)	$10 - $20 ($4 filter / yr)	$39 ($7/germkill kit every 1500l)	$2
Avg. price per liter***	$0.001	$0.01	$0.003	$0.002	$0.001	$0.005	$0.003
Treatment capacity	40g per 1 l	4g per 10l	10l / day	10g per 100l	24l / day	20l / day	–
Lifespan	1 yr	Single use	1 yr	NA	5 yrs	10 yrs	1 yr

*Disinfect(D), Filter (F), or Both (F&D)

** Local price of device or smallest packet. Excludes international shipping (dependent on size and shape) and local taxes

*** Based on the treatment capacity and the lifespan of the product.

Study performed by International Management Group, Inc.

CAMBODIA PILOT LOCATIONS

Ta Veng District, Ratanakiri (2 villages, 70 households, avg. annual HH income of $579)
One of the **lowest income** districts within the region with significant water quality issues, and periodic inaccessibility
48% and 44% of households said they would buy Clinka and PolyGlu respectively

Occhum District, Ratanakiri (1 village, 50 households, avg. annual HH income of $1,297)
10km proximity to the provincial capital and more stable economic status and access to markets and services of the capital. Represents a **more upper-tier BoP** population.
72% % of households said they would buy Clinka (PolyGlu was not needed)

Ban Lung, Ratanakiri (4 villages, 47 households, avg. annual HH income of $1,404)
The **capital**, representing the main **urban** area of Ratanakiri.
43% and 25% of households said they would buy Clinka and PolyGlu

Kratie province (2 villages, 37 households, avg. annual HH income of $539)
Largely **representative of Cambodia**: 70% rural, 90% ethnic Khmer
64% and 69% of households said they would buy Clinka and PolyGlu

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CAMBODIA PILOT RESULTS

Improved Health

	Baseline	Post Project
Percentage reporting diarrhea within preceding week		
Respondent	28%	10%
Child	33%	23%
Percentage reporting abdominal pain within preceding week		
Respondent	61%	23%
Child	56%	37%

Improved Financial Situation

	Baseline	Post Project
Average monthly health expenditure	$15	$4.50

Note: As the pilot is still ongoing in Ban Lung and Kratie, these results are for Va Teng and Occhum.

CAMBODIA PILOT LEARNINGS

Improving Existing Options

- Boiling is considered to be the safest method but is expensive and takes time. People like filters because they visibly clean the dirty water but most know that it doesn't effectively disinfect, plus the upfront cost of $8 to $20 is not affordable by most.

Ease of Use of Product

- This report states that when study participants found out about chemical disinfectants, they were very attracted to their ease of use and portability.

Awareness Building

- Awareness creation is critical – the perceived disadvantage is that the chemicals may be harmful

Pricing

- The ideal product should cost between $0.02 to $0.25 per 20 liters & produce as little odor as possible.

- *"Understanding Consumers and the Market for Household Water Treatment Products in Cambodia" (Dec 2009), PATH ** PATH is an international nonprofit organization that creates sustainable, culturally relevant solutions, enabling communities worldwide to break longstanding cycles of poor health.

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CONCLUSION

- When doing market research for water products in low income communities; it may be beneficial to adopt a sector approach testing multiple products than a single-product approach
- Low income-communities still need to understand benefits of water products: awareness building and community mobilization are necessary cost factors
- Adopting a product will depend on each location's particular water access characteristics, cultural characteristics and ease of use: market research is thus essential before rolling out in scale (pilot approaches also recommended)
- Successful for-profit strategies in the water sector targeting low income communities have proved to be successful; the challenge continues to be one of finding those that are replicable and scaleable (which may be difficult since water is a highly context-driven issue)

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