

A Focus on Sustainable Finance: Small Water Kiosks WASRAG Discussion Document – May 2011

Economically and Locally Sustainable Enterprises

Safe Water Network has undertaken comprehensive efforts in Ghana, India and Kenya to establish a water kiosk service model that processes and sells affordable, purified water in partnership with local communities. A Village Water Committee or local entrepreneur oversees the operations and uses revenues collected from water sales to cover operating expenses (e.g., electricity, operator salaries, chemicals, maintenance, and demand generation activities). After debt repayments (interest and principal) are made, surpluses are used to establish a reserve account and pay down additional capital expenditures.

Safe Water Network manages more than 15 safe water kiosks providing over 100,000 people access to safe, affordable water on a daily basis (we expect to have 25 in place by the end of 2011). The sites are located, sized and constructed in a diverse range of settings and geographies to establish a learning platform that enables us to validate models that address challenges to sustainability. These efforts, together with a strong operational monitoring effort, are undertaken to assure each kiosk meets a goal to be owned and independently managed by the local community over the longer term. We focus on a ***pilot to scale*** agenda, establishing a framework for replication by our in-country “scale partners” which have the footprints to rapidly expand successful initiatives.

Most all of our sites are generating sufficient positive cash flow from operations to begin establishing reserves and a basis for capital repayment. Our most successful sites have realized more than 75% household participation. To support the project, and to evaluate and plan for large scale roll-out, each initiative incorporates the following components:

- ***Detailed Market Assessments*** to understand supply and demand needs, regulatory environment and barriers to operational and economic sustainability.
- ***Technical and Quality Assurance*** including training programs, manuals and workshops.
- ***Monitoring Health Impact*** to evaluate potential to realizing enduring health and socio-economic benefits.
- ***Demand Expansion & Hygiene Education*** to extend reach through cost-effective distribution models (truck, cart, piping) and help ensure water safety to point of use.
- ***Demand Assessment and Generation*** to assess alternative pricing, promotion and subsidy programs that generate trial and sustain use, including for poorest of the poor.
- ***Capital Formation***, working with in-country finance partners, to develop affordable loan products and promote true local ownership.



Financing Model

The water kiosks constructed to date have been funded primarily by Safe Water Network sources. Every project includes a contribution (usually about 10%) from the local community. The capital cost of the equipment is approximately \$15,000 - \$25,000 per location, with additional development expenses and working capital needs for a total funding requirement of \$25,000 - \$50,000 per location.

Based on our experience to date, we are developing lending products with leading finance institutions to provide enterprise loans for entrepreneurs and communities to purchase and install kiosks. Our goal is to develop revolving pools of capital – both loans as well as direct contributions – which will be “recycled” so that repayment from successful water kiosks is used to build additional locations and our network continues to grow. Thus, organizations funding these projects are participating in a broader initiative to realize an economically scalable proposition including participation of local finance institutions.

Safe Water Kiosk for 2,500 people Illustrative Economics

Project Uses	Amount			Project Sources	Amount	% Project		
Equipment Cost	\$ 20,000			Invested Capital				
Ancillary/In Kind Cost	10,000			Soft Loan	\$ 19,500	60%		
Working Capital	2,500			Village	1,625	5%		
Total Project Cost	\$ 32,500			Bank Financing	11,375	35%		
				Total	\$ 32,500			
Assumptions								
Price / 20 litre	\$0.06							
Monthly Capacity (litres)	700,000							
Monthly Capacity (cans)	35,000							
Fixed Opex (annual)	\$ 2,000							
Variable Opex / can	\$0.015							
Terms	18%	4 years						
		Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7
Volume (capacity)		8,400,000	8,400,000	8,400,000	8,400,000	8,400,000	8,400,000	8,400,000
Utilization		35%	45%	50%	55%	60%	65%	70%
Volume (delivered)		2,940,000	3,780,000	4,200,000	4,620,000	5,040,000	5,460,000	5,880,000
Pricing (20 liters)		\$0.06	\$0.06	\$0.06	\$0.06	\$0.06	\$0.06	\$0.06
Revenue	\$	8,820	\$ 11,340	\$ 12,600	\$ 13,860	\$ 15,120	\$ 16,380	\$ 17,640
OPEX		(4,205)	(4,835)	(5,150)	(5,465)	(5,780)	(6,095)	(6,410)
Operating Cash Flow	\$	4,615	\$ 6,505	\$ 7,450	\$ 8,395	\$ 9,340	\$ 10,285	\$ 11,230
O/H (Training, Demand)		(1,000)	(500)	(250)	(250)	(250)	(250)	(250)
Cash Flow After OH /Training	\$	3,615	\$ 6,005	\$ 7,200	\$ 8,145	\$ 9,090	\$ 10,035	\$ 10,980
Debt Service	\$	(3,637)	(3,637)	(3,637)	(3,637)	(3,637)	-	-
Working Capital		2,500	-	-	-	-	-	-
Cash Flow For Capital Repay	\$	2,478	\$ 2,368	\$ 3,563	\$ 4,508	\$ 5,453	\$ 10,035	\$ 10,980