From Beneficiaries to Businesses to the Big Picture: Monitoring for Sustainability in Market-Based Approaches to Sanitation

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Abstract

Since 2008, similar to other organizations in the sanitation sector, Water For People has embarked on a more market-oriented strategy to sanitation development. In short, "market-oriented," in terms of Water For People's work, involves a focus on the private sector (entrepreneurs, businesses, etc.) as the primary actors responsible for catalyzing increased access to sustainable sanitation services among lower income household "customers." Before this shift to a market focus, the primary monitoring activities of Water For People involved an almost exclusive look at sanitation infrastructure at the household level, with little or no focus on other components, and the actors and institutions that sustain them, throughout the entire sanitation service chain. This service chain incorporates not only storage practices at the household, but also sludge disposal, conveyance, treatment and when appropriate, reuse. While access to, and usage of, services at the household level continues to be a key outcome to track in any sanitation program; Water For People's experience with market-oriented programs has highlighted the importance of more holistic monitoring practices and understanding the health of the overall sanitation service chain.

In market-based approaches specifically, sanitation sustainability is predicated on the assumption that the market will provide the correct incentives to foster and extend relationships between consumer and provider, households and businesses, and that the sanitation benefits and impacts so sought after by the sanitation sector will be naturally implemented and maintained by a healthy market environment. This implies a new type of monitoring, one that maintains a household-level picture at the outcome level, but also incorporates business-, enabling environment- and program-level assessments to paint a more holistic picture of market health.

This paper, through the presentation of a short case study from Blantyre, Malawi, will illustrate Water For People's efforts to expand monitoring strategies to assess not only household outcomes, but overall sanitation market and service chain health and sustainability.

Keywords

Development, Evaluation, Market-based approaches, Monitoring, Sanitation.

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Introduction and Purpose

The "Dark Ages" of Sanitation Monitoring

On the surface this is a story about toilets, and many of the themes and buzzwords that likely have you reading this paper right now, such as monitoring, evaluating and other important activities that are implemented in the name of learning and improving programs; but it is largely a story about toilets, and the people who use them, the people who provide, promote and sell them, the people who help empty them, and the people who help ensure treatment of what toilets carry and contain is adequately carried out. Overall, this is truly a story about people, and how development organizations, government, the private sector and other stakeholders can better learn from them to support a process whereby everyone has sustainable access to sanitation services.

Prior to approximately five years ago, Water For People, a non-government development organization [NGO] that focuses on water and sanitation support programs in Africa, India and Latin America, primarily employed sanitation project strategies that targeted an increase in numbers of households with improved sanitation infrastructure. In other words, Water For People's primary focus was on latrine construction; and the more households with toilets, the more successful a particular project was deemed to be. This strategy was influenced by a number of factors, chief among them being the sanitation target within the Millennium Development Goals [MDGs], and World Health Organization [WHO] /Joint Monitoring Programme [JMP] criteria tracking progress towards this target based primarily on numbers of people with access to improved sanitation (UNICEF and World Health Organization, 2012). This paradigm focusing on numbers of people with access to improved sanitation, in addition to the urgency generated by the MDG time-bound target of 2015, logically led to the majority of aid funding to be oriented towards projects that most efficiently increased numbers of people with access to improved sanitation—in other words, the more project *beneficiaries* per dollar invested a particular proposal had, the more likely it would receive funding.

Water For People largely operated within this framework; projects were designed around leveraging as much funding as possible in order to maximize the number of beneficiaries receiving improved sanitation infrastructure and thereby contributing (ideally) to steps toward meeting the MDG sanitation target. Monitoring in this context primarily consisted of counting new toilets once or twice a year, adding them up for project reports, and then moving on to the next project. However, as Water For People continued to monitor, an interesting trend was occurring: toilets often weren't being used for their intended purpose, new households were not able to take advantage of the same offer that project beneficiaries had previously, latrine pits were filling, toilets were not being maintained, and overall, it appeared that any gain in improved sanitation coverage numbers was temporary. Soon it became apparent that Water For People

wasn't the only organization noticing this trend, and now, just two years away, most have given up hope of reaching the MDG target, or whether the target was correctly structured in the first place (Hutton, 2012). But that's another story for another time, there's still more to this story - more which needed to be monitored - more than just numbers of people with improved household toilets at a given point in time. While access to improved sanitation was certainly one important outcome to track; in order to understand sustainability prospects, and the root factors either fostering or inhibiting these prospects, a more robust monitoring system was needed. Water For People's sanitation implementation strategy evolved, and its monitoring framework had to change accordingly in order to keep up with the pace.

Context

A New Paradigm

Similar to many organizations in the sanitation sector, beginning around five years ago, Water For People shifted its focus from an exclusive target on projects with the key, exclusive outcome as "number of beneficiaries with improved sanitation," to an acknowledgement of the key role that local sanitation service providers, primarily the private sector and local businesses, can play in sustainably supporting the entire sanitation service chain, from household infrastructure (e.g. toilets), to sludge management (e.g. pit and septic tank emptying), to treatment. To better understand how well the sanitation chain was being supported by Water For People's strategic shift, and how sustainable these interventions were, a more holistic look, beyond beneficiaries, was needed in monitoring and evaluation.

Currently, numerous organizations are focusing on markets, businesses, and the private sector as key agents for bringing about positive, sustainable change to fragmented sanitation service chains throughout the world (Schaub-Jones, 2011). These approaches have varying names, from *sanitation marketing* to *sanitation as a business,* but the strategies are rather similar: use markets, and the incentives that motivate the actors that support them, to implement sanitation models that are scalable, sustainable, and do not require long-term support from outside aid. It's a subtle but important change, from households to markets; this paper will discuss the corresponding shift in monitoring frameworks following Water For People's own change in focus from beneficiaries to businesses, and eventually, to the even bigger picture, and formidable task, of monitoring the overall sanitation "ecosystem".

Methodology

How does Water For People monitor its sanitation programs?

While as an organization Water For People has always placed a great deal of emphasis on monitoring and evaluation of sanitation programs, the main focus has usually been on household outcomes, i.e. how well has household access to sanitation services increased?, and more specifically, how well has household access to sanitation *infrastructure* increased? This is, and will continue to be, a key outcome to track and

makes up a large part of Water For People's continuing monitoring efforts in sanitation. However, in order to gain a better understanding of the entire sanitation service chain, expansions in monitoring frameworks were needed in two key areas:

1. How well is the *entire* sanitation service chain functioning (i.e. not solely looking at household infrastructure, but fecal sludge management practices (emptying, conveyance, treatment, etc.) as well).
2. In addition to households, how well are *all* actors in the sanitation service chain carrying out their role, (i.e. assessing the sanitation service providers themselves, sanitation service chain support mechanisms such as finance, enabling environment, etc.).

Within this context, Water For People currently focuses on three main areas, or "levels," when analyzing the sanitation service chain in the areas it is working:

1. Households.
2. Service providers (e.g. sanitation businesses, etc.).
3. The overall sanitation market or "ecosystem" (market support structures such as financial services for sanitation, the enabling environment including local government, etc.).

The following table briefly illustrates the methodology for carrying out analysis of each "level," please note that as of January 2013, much of this information gathering is still ongoing, methods are being piloted and refined; and not all information has been gathered.

Unit of Monitoring	**Methodology**
Households	Household interviews, observations and questionnaires to assess: • Level of access to sanitation services; including household infrastructure, fecal sludge management practices such as emptying services utilized, etc. *Note that these sanitation service levels are currently being developed and the criteria refined, but are similar to those proposed by IRC.* (Potter, 2011) • Usage of sanitation services • Satisfaction with current services • Demographic and contextual information such as awareness of service availability, land tenure, motivations for sanitation service uptake, etc.
Service providers	Interviews with sanitation service providers, such as businesses, to assess: • Revenue, expenses, profit • Number of customers (both new and continuing) • Number of employees • Number of bathrooms constructed, or septic tanks/latrine pits emptied in the case of emptying businesses • Financial solvency including loan payback, etc.

	• Satisfaction with involvement in sanitation sector • Other qualitative aspects about the business such as diversity of revenue streams, history in the sanitation sector, etc.
The Big Picture: overall sanitation market or "ecosystem"	The sanitation market and overall ecosystem is challenging to monitor and assess in an objective manner, and different stakeholders will often have different assessments based on their own experiences and role they are playing. Water For People is currently piloting a methodology that brings together key in-country staff and public/private partners to reflect, discuss and "score" different elements of the overall sanitation "ecosystem" in a particular administrative area (district, city, etc.) of focus. While these assessments may lack objectivity, they do provide an overall snapshot of the ecosystem and help Water For People and other partners identify weaknesses and plan strategies accordingly, which is arguably the key role that monitoring is supposed to play. More information on this methodology is found in the subsequent section.

With the information gathered through the monitoring practices outlined above, Water For People is beginning to acquire a more holistic picture of the sanitation landscape, and a better understanding of the extent to which its activities have contributed (or not) to its improvement. Much of these methodologies are still being developed, refined, and the data analyzed; in the following section, as a case study, some preliminary results will be shared from activities carried out to analyze service providers and the overall sanitation "ecosystem" in Blantyre, Malawi.

Findings and Discussion

Case Study—Blantyre, Malawi

Blantyre is often referred to as the commercial capital of Malawi, and according to market analyses carried out by Water For People and partners, has tens and potentially even hundreds of thousands of people without access to sewer networks or other viable sanitation options. To help address some of these challenges, Water For People has been supporting sanitation businesses in Malawi since early 2009 through a variety of different programs. These businesses primarily offer construction (marketing bathrooms and latrines to households) and pit emptying services. In 2012, Water For People has carried out monitoring activities at all three levels mentioned above: household, service provider/business-, and ecosystem-level, with results from the latter two areas presented and discussed below. Although some household surveys were carried out as well, at the time of writing this paper, data is still being analyzed and complemented with subsequent customer surveys during Quarter 1, 2013.

Monitoring Sanitation Businesses

Although Water For People has been supporting sanitation businesses for a few years in Blantyre, more detailed and in-depth monitoring of business activity didn't begin until

the middle of 2012. Prior to 2012, most monitoring efforts associated with sanitation business support strategies focused on the outcome at the household level: How many toilets were built? How many pits were emptied? While these indicators are still important, in order to better understand how Water For People's business support efforts were contributing to a sustainable sanitation service chain, a closer look at key supporters of this chain was needed. Beginning in 2012, Water For People began asking more questions of the businesses being supported, to better understand their role in the Blantyre sanitation marketplace, and how likely it might be that they would have the proper incentives, in this case profit-based, to continue their role given the business activity generated. Below is a Table illustrating business activity from a sampling of sanitation businesses being supported by Water For People in Blantyre from June-October 2012.

Activity	Business A	B	C	D	E	F	Total
Pits Emptied	44	21	43	43	5	3	**159**
Septic Tanks Emptied	3	3	2	1	7	2	**18**
Drums Emptied	172	80	192.5	136	88	35	**703 .5**
Liters Emptied	33,400	13,700	38,400	31,200	17,600	7,000	**141,300**
Pit/Septic Emptying Turnover (MWK)	618,200	336,500	684,011	573,000	261,065	155,000	**2,627,776**
Number of Low Income Areas reached	4	2	6	4	2	2	**10**
Staff Utilization	3	4	6	4	3	3	**n/a**
Transport Costs for Sludge (MWK)	81,000	88,500	161,350	87,275	48,000	35,000	**501,125.00**
Dumping Costs (MWK)	51,250	11,100	28,850	20,450	13,400	1,800	**126,850.00**
Wages Paid (MWK)	141,000	118,500	143,359	159,000	24,000	20,000	**605,859.00**
Latrines Constructed	2	4		1			**7**
Value of Latrines	240,000	480,000		120,000			**840,000.00**
Investment Made - Vehicles (MWK)	2,000,000						**2,000,000**
Investments Made - Equipment (MWK)	217,500						**217,500.00**
Investments Made - Building (MWK)	4,000,000						**4,000,000**

While this only represents a snapshot during a few month period in 2012, some interesting lessons are beginning to emerge:

- Much of the potential revenue for sanitation in Blantyre appears to be in offering emptying services; latrine construction does not make up a significant portion of these businesses revenue stream. To keep businesses incentivized to continue offering sanitation infrastructure, more work needs to be done to facilitate demand

for these products, otherwise businesses may shift to other, more profitable revenue generators, potentially outside of the sanitation sector. While some businesses are profitable due to other revenue outside of and in addition to sanitation, one key sustainability assumption is that if money can be made from offering sanitation services, businesses will continue to provide them, which is why revenue is a key indicator that is tracked.

- One business has been shown to invest a significant amount of money in capital equipment for their business—this represents a key success in that one entrepreneur sees the potential in the sanitation sector, and is even willing to invest their own money in it.

Despite some of this initial information, many questions still remain. This is still only a focus at one level, the service provider- or business-level. Water For People can get some sense of the likelihood of these businesses continuing their role as sanitation service providers based on their profits, level of investment in their business, etc., but there are still other questions left unanswered about the overall health of Blantyre sanitation in general, and the overall environment that supports households acquiring sanitation services.

Monitoring the Sanitation "Ecosystem"

In October 2012, in an effort to carry out a more holistic, "high-level", and qualitative assessment of the sanitation landscape in Blantyre, Water For People invited key staff members and local partners, from both the public and private sectors, to reflect on the overall environment and provide scores to 11 key areas deemed to be important functions within a "healthy" sanitation ecosystem. Generally, those functions included monitoring (i.e. monitoring the monitoring), sanitation service provision along the entire chain (household infrastructure, sludge management services including emptying and treatment), access to finance, demand creation, business and/or service provider support and development services, and the overall enabling environment with respect to how well local government either facilitated or inhibited sanitation service providers from offering services to all households. Participants also analyzed the extent to which Water For People could easily extract themself from the process, i.e. is there an exit strategy in place and how realistic is it?

During the exercise, Water For People staff and their partners were separated, and each asked to reflect independently on each function within the sanitation ecosystem. Each group determined who was most responsible for carrying out the function, and how well the party deemed responsible was currently carrying out that role. Scores were reported on a scale from one to four, with one being "no confidence" that the stakeholder was effectively and sustainably able to carry out their role in the ecosystem, and four being "completely confident" that the responsible party was adequately and sustainably carrying out their role without the need for continued outside support. In other words, a score of four in a particular area meant there was no longer any role for

an outside support organization, such as Water For People, within that function; anything less than a four helped identify strategic areas of focus.

The results of the exercise are summarized in the following table.

			Blantyre		Blantyre		Agreed Scores
			Responsibility	**Score**	**Responsibility**	**Score**	
Monitoring	1	How well is data being captured, and analysed, about ***household access*** sanitation services, and being provided to those who need that information?	Government, District Health Officer [DHO]	3	Community Based Organization, Public Sector	3	3
	Notes: Both partners and Water For People agreed on this area. Generally they both felt household monitoring was being captured reasonably well by government and DHO, but there is still room for improvement, especially with regard to sharing information.						
	2	How well is data being captured to ***analyse the long-term viability of service providers*** responsible for providing sanitation products and services, such as latrine construction businesses, pit/septic tank emptiers, or other public or private sanitation service providers?	Government	1	Local NGOs, Private Sector, National NGOs	2	2
	Notes: Both partners and Water For People felt that the government was not doing nearly enough to monitor service providers, and that Water For People's monitoring, while on its way to being a fairly solid system, was operating a bit in isolation and not necessarily sustainable. *Some questions to consider for next year: To what extent does this area even need to be monitored? i.e. Can monitoring, in the long run, just focus on household impacts?*						

Demand Creation	3	How effective and <u>self</u>-sustainable (i.e. don't rely on donor funding in the long-term) are the processes in place that <u>stimulate</u> demand for sanitation products and services, such as CLTS, sanitation marketing, business promotion, community health education, etc. in the district we are working?	Government Private Sector	3	National Government, Private Sector	3	3
	<u>Notes</u>: Both partners and Water For People felt that sanitation demand creation had room for improvement, especially in regards to the private sector taking more ownership on the process, but both believed that things were moving in a positive direction and they were aware of the challenges.						
Service Provision	4	<u>Construction</u>: How available, effective and sustainable are sanitation service providers (businesses, households themselves, masons, local government if appropriate, etc.) and the supply chain for materials, with respect to providing (or self-providing) affordable household sanitation infrastructure (bathroom, latrines) to all households?	Private Sector	2	Households, Private Sector, National Government	2	2
	<u>Notes:</u> Relative to pit emptying, both Water For People and partners agreed that service providers focused on on-site sanitation construction were still developing, and there was much room for growth.						
	5	<u>Emptying Services and Sludge Management (i.e., what happens when the pit is full?)</u>: If applicable (i.e. in a non-sewered, densely populated, area) - How available, effective and sustainable are sanitation service providers (businesses, local government, utilities) at providing affordable pit or septic tank emptying services to everyone? Or, if	Private Sector	2	Private Sector	3	2

		in a rural area, are households prepared to manage full pits or septic tanks?					
	Notes: Both partners and Water For People agreed that numerous pit emptiers were on their way to developing their businesses, but scored it as a 2 given that there is still a long way to go to provide services to *all* households that need it.						
	6	Treatment: How available, effective and sustainable are options for waste treatment (in urban areas)? In case of ecological sanitation, how confident are we that households know how to properly compost and manage waste?	Blantyre City Assembly [BCA] Government	3	Local govt., households, private sector	2	3
	Notes: Both Water For People and partners agreed there was room for improvement on treatment processes in Blantyre, but felt that a lot of responsibility was being taken and options actively being explored for improvement, by the appropriate players, such as BCA, government, etc. Services for dumping and treatment are theoretically available, and while not perfect, had some level of management.						
Finance	7	Households: How effective and sustainable are the finance options available to all households for purchasing sanitation goods and services?	Private Financial Sector	2	Private Sector	2	2
	Notes: Everyone agreed that options for household were not well established apart from the OIBM options in Blantyre, but there was still much room for improvement in allowing for these options to be available to more households.						
	8	Sanitation Service Providers: How effective and sustainable are the finance options available to sanitation service providers, such as businesses, for supporting sanitation service provision? Also consider the likelihood entrepreneurs will self-invest in their own business?	Financial Institutions, private sector	1	Private sector	2	2
	Notes: Finance is even more of a challenge to service providers, and businesses. The only positives were a couple of sanitation businesses investing their own resources in their business, but still very difficult for businesses to get a loan.						

Exit Strategy	9	How far along is the development of an exit strategy for Water For People's (and their partners') role in the sector?		2	*Evaluated Water For People only*	2	2
	Still deemed to be challenging for Water For People to exit from the process.						
Enabling Environment	10	How effective, available/affordable, and sustainable are local business and other service provider <u>support mechanisms</u> (such as Business Development Services [BDS], SME development agencies, etc.)?	-Private Sector -BDS -Business Consult Africa -SME support departments at banks	3	Private Sector	3	3
	11	How *supportive and facilitative* is the <u>regulatory environment, the political climate and any other public support programs</u> currently in place with respect to the sanitation ecosystem, and everyone acquiring/attaining sustainable sanitation services?	-Local government	4	-Local government not doing enough to support private sector	2	2

Conclusions

Two relatively new monitoring strategies were presented, one focusing on businesses, the other focusing on the overall sanitation "ecosystem." Some key lessons Water For People has learned throughout this process include:

- Analyzing the sanitation ecosystem is nearly impossible to do objectively; as such, any scores or assessment will always have some level of subjectivity. The important aspect is the *process* of monitoring the ecosystem itself, and taking the time to reflect on what elements are key to sustaining sanitation, who is responsible for doing them, and how well that is currently happening.
- Household monitoring still provides the key outcome to track, i.e. access and usage of sanitation services across the entire chain; however, without understanding the bigger picture, including businesses, service providers, government, finance, etc., aid organizations will not be able to have a true sense of how sustainable their interventions are, and how likely it is they'll be able to exit the process at some point. In other words, without understanding the service providers themselves, their

incentives, satisfaction, capacity and viability in the sanitation sector, it will be difficult to tell how likely it is they will continue offering services.

- Monitoring at all of these levels implies a resource allocation that may not be appropriate or possible for all organizations. Given limited budgets, priorities will have to be made in the future, even for Water For People - it is hoped that in testing these different monitoring strategies over the next couple of years, Water For People will be able to hone in on viable sanitation service sustainability indicators and best practices.

Overall, monitoring gives us a snapshot of an ongoing, developing process about how different people are (or aren't) carrying out their roles in order to sustain the sanitation service chain. To more fully evaluate this process, it means more than just counting toilets, it means sitting with people and talking about incentives, capabilities and where the gaps are. Water For People's experience in monitoring has been about toilets, sludge, treatment and people; and it's proven to be much more complicated than just carrying out household surveys, but hopefully the learning from these new strategies will be worth the investment, and we can eventually tell the story of how Water For People, through iterative reflection from monitoring information, found a way to eventually exit the process without having businesses fail, toilet pits fill, and the overall development of the sanitation ecosystem stagnate.

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