



Strengthening public sector enabling environments to support sanitation enterprises

Based on Water For People's experience in nine countries

Executive Summary

Billions of people lack access to a decent toilet. Attempts to address this gap through direct-subsidy models have often been proven unsustainable as, given resource limitations, they are unable to provide desirable toilets that families are likely to use and maintain over time. Based on private sector success in low-income markets, business-based approaches may be able to help bridge this gap through sustainable market-based mechanisms and associated incentives to meet the needs *and desires* of lower-income households.

Water For People is piloting sanitation business approaches and seeks to discover under what conditions these approaches are successful. Public sector influence is one condition that has the potential to facilitate or hinder private sector sanitation endeavors. This study aims to understand: (1) how the public sector enabling environment can facilitate or hinder low-cost sanitation enterprises; and (2) how NGOs can effectively engage the public sector to support sanitation businesses. Data were collected from Water For People staff and partners in nine countries and summary case studies were coded to discover prevailing themes.

How the public sector influences sanitation businesses: Based on the synthesized information, 10 common mechanisms of public sector influence were identified under three domains, each of which is discussed further with examples of Water For People’s experiences:

Demand stimulation <ul style="list-style-type: none">▪ Campaigns▪ Increasing client purchasing power▪ Public sector as client	Operating climate <ul style="list-style-type: none">▪ Regulatory framework▪ Bureaucracy▪ Physical & organizational infrastructure▪ Political norms	Supply-chain development <ul style="list-style-type: none">▪ Operational cost relief▪ Research & development support▪ Business development support
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TAKEAWAYS. Highlighted mechanisms of public sector support:

- Direct a portion of subsidies to creating social drivers for sanitation through marketing campaigns
- Provide direct subsidies through market-stimulating rebates that give households purchasing power
- Develop and enforce policies to moderate subsidies, including requiring socio-economic segmentation
- Reduce fecal sludge disposal costs at safe official sites for small operators & support small decentralized sites
- Create or increase access to benefits such as tax exemptions for low-cost sanitation businesses

How NGOs can engage the public sector to create sanitation business-friendly environments: Four phases of public sector engagement were established, and key activities and ideas are provided based on what has been successful (or unsuccessful) for Water For People.

1. Identify & understand potential partner(s) <ul style="list-style-type: none">▪ Consider different levels & sectors▪ Understand barriers, discomforts & incentives	3. Develop relationship & build trust <ul style="list-style-type: none">▪ Involve from beginning▪ Create a two-way active partnership
2. Build a case for sanitation market support <ul style="list-style-type: none">▪ Align with public goals▪ Share evidence	4. Support sustainable & scalable action <ul style="list-style-type: none">▪ Act as a think-tank▪ Utilize existing organizational structures

TAKEAWAYS. Highlighted ways to engage government:

- Identify government’s barriers, discomforts and incentives to develop palatable strategies
- Directly align market-supportive approaches with government goals and activities
- Actively engage public partners from the very beginning in a two-way partnership and include longer term local leaders to alleviate challenges with frequently changing public officials
- Leverage existing organizational structures to strengthen capacities and encourage sustainability and scale

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Introduction

1. Background

Billions of people lack access to a basic necessity: a decent toilet. Due to limited resources, governments do not have the capacity to provide free sanitation services to all those in need, particularly desirable products that are likely to be used and maintained over time. Creative solutions are therefore needed to close the sanitation gap. Based on private sector successes in less-developed countries (e.g. Coca-Cola and Tigo), the proclivity of markets to extend products and services to the poor through *long-term* mechanisms is encouraging for the sanitation sector. The private sector could therefore help bridge the resource gap through sustainable sanitation markets that seek to meet the needs and desires of lower-income households. Of course, sanitation markets are unlikely to cater to the extremely poor. However, they may help free up public and aid resources to support those at the lowest income segments.

Based on this reasoning, Water For People is implementing sanitation business approaches in nine countries. The question is if these more market-oriented, business-based strategies, in-fact, lead to sustained household coverage, and under what conditions. The public sector enabling environment (Box 1) is one condition that has the potential to facilitate or hinder private sector sanitation endeavors. Understanding this influence is therefore a critical component to answering the broader questions surrounding the success and effectiveness of businesses-based approaches to improve sanitation coverage.

Box 1. Definition of “Public sector enabling environment” used for this study

The role that local, regional and/or national government, and/or publicly-supported institutions, can play in facilitating or hindering sanitation enterprises, including sanitation product and service providers along the entire sanitation chain from collection and storage to treatment and reuse.

2. Objective

This study aims to synthesize Water For People experiences in nine countries in order to understand:

- (1) How the public sector enabling environment can facilitate or hinder the growth and long-term viability of low-cost sanitation enterprises; and
- (2) How NGOs can effectively engage the public sector to support nascent sanitation businesses.

This study is not intended to criticize national governments or compare governments in general. It is meant to highlight positive and challenging experiences with public sector enabling environments for sanitation businesses to support sectoral learning and global efforts to improve sanitation coverage through market-based mechanisms.

3. Scope

The success of sanitation businesses is influenced by a number of factors (e.g. economic, financial, socio-cultural, etc.), and these should be considered, but the primary intent of this study is to understand the role that the public sector, specifically, can play to support and/or hinder sanitation businesses and how to encourage a supportive public sector enabling environment.

Geographically, this study evaluates public sector enabling environments in all nine countries where W4P is currently implementing sanitation business approaches. The countries span three regions: Latin American (Bolivia, Guatemala, Honduras, Nicaragua, and Peru), Sub-Saharan Africa (Malawi, Rwanda, and Uganda), and Southern Asia (India). Water For People experiences across these countries include both rural and peri-urban settings. A general background of each country’s context, including economic status, sanitation coverage and how easy it is to do business in the country is provided in Table 1. Further details are provided in the appended country case studies.

Table 1. Contextual country data on economic status, sanitation coverage and ease of doing business

Country	Bolivia	Guatemala	Honduras	India	Malawi	Nicaragua	Peru	Rwanda	Uganda
Population (x1000)¹	10,496	15,083	7,936	1,237,000	15,906	5,992	29,988	11,458	36,346
GNI per capita (USD)²	2,220	3,130	2,140	1,550	320	1,690	5,890	600	480
Population below poverty line³	45%	54%	67%	22%	51%	43%	26%	45%	25%
Sanitation coverage⁴	46%	80%	80%	36%	10%	52%	73%	64%	34%
“Ease of doing business” ranking (of 189)⁵	162	79	127	134	171	124	42	32	132

4. Methods

Information was gathered via document review, an online survey (in English and Spanish) completed by country program staff and partners, and follow-up e-mail and Skype communication. Country case studies were then created from the information and shared with country programs to validate accuracy. We analyzed the resulting case studies to develop theories grounded in Water For People’s experiences. We used an open-coding approach, allowing themes to emerge from the data, then grouped resulting codes into similar categories to develop the theories that form the basis of the following guidance manual.

¹ Total population, World Bank 2012 data

² GNI per capita, Atlas method (current US\$), World Bank 2012 data

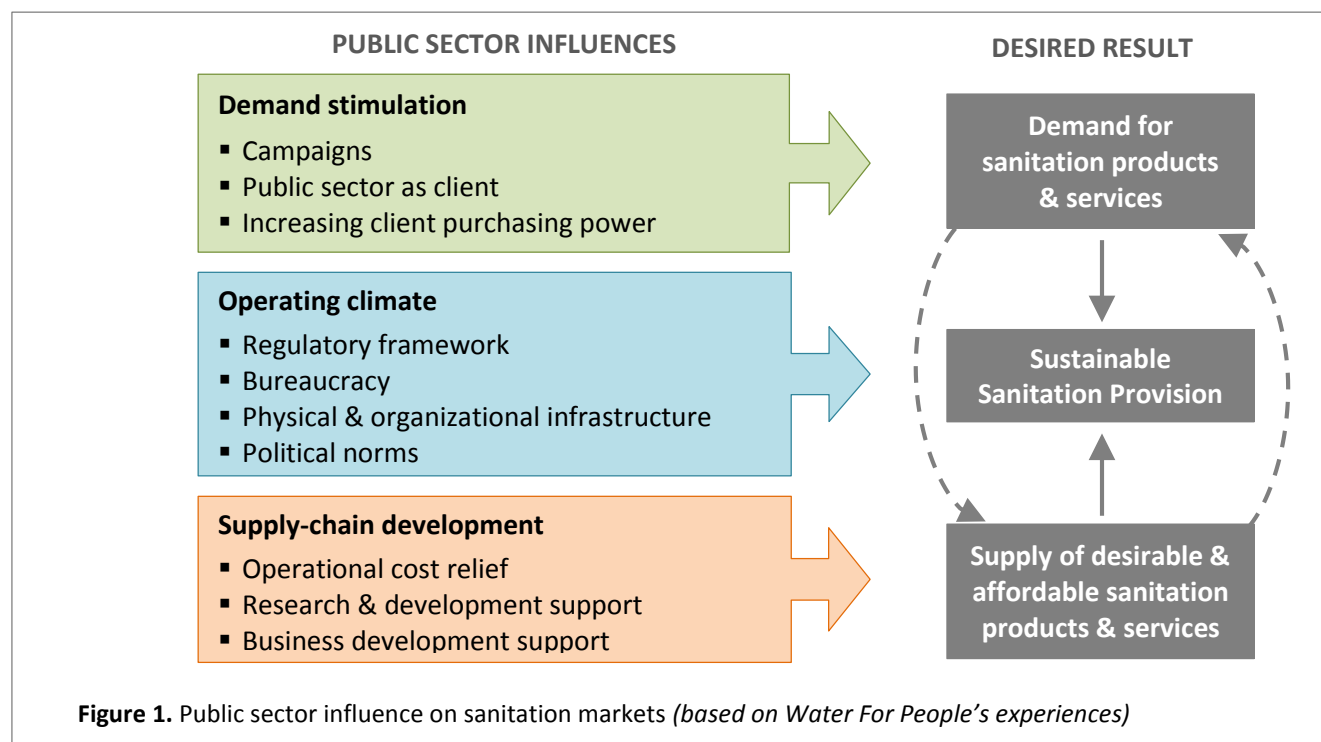
³ Poverty headcount ratio at national poverty line (% of population), most recent World Bank data: 2009 for Nicaragua and Uganda, 2010 for Malawi, 2011 for Bolivia, Guatemala and Rwanda, and 2012 for Honduras, India and Peru

⁴ Joint Monitoring Programme 2014 update

⁵ World Bank Group ranking 2013. The ranking considers 10 topics, including starting a business, dealing with construction permits, getting electricity, registering properly, getting credit, protecting investors, paying taxes, trading across borders, enforcing contracts and resolving insolvency. More information: <http://www.doingbusiness.org/~media/GIAWB/Doing%20Business/Documents/Annual-Reports/English/DB14-Chapters/DB14-Ease-of-doing-business-and-distance-to-frontier.pdf>

Part 1: How the public sector environment influences low-cost sanitation markets

Based on Water For People’s experiences, we’ve categorized public sector influences on sanitation markets into three domains: demand stimulation, operating climate, and supply-chain development (Figure 1). Recurrent themes emerged within each of these domains in Water For People’s experience with government influence. Each mechanisms is detailed subsequently with empirical evidence provided.



Demand stimulation

CAMPAIGNS

Strategic sanitation campaigns

Publicly-supported sanitation campaigns, such as sanitation technology fairs or community promoters, can serve to stimulate household sanitation investment by sharing information on available products and services, and encouraging household sanitation improvements. However, they can also be a simple, less-risky, but ultimately ineffective public sector contribution if conducted only as a quick means to “support” sanitation programming. Campaigns can be easy for public partners to agree to, but difficult to conduct effectively without proper incentives in place. Sanitation campaigns should serve a specific purpose to fill a larger goal; the campaign should not be the goal in and of itself.

Experiences with sanitation campaigns in Peru, Uganda and India

Peru: Two partnering municipal governments sponsored a promotional campaign with household visits and two technology fairs. While an attempt to support sanitation markets, Water For People staff felt these campaigns were less effective than expected potentially due to inadequate government incentives to actually inspire household investment, and the stand-alone nature of the campaign as a goal itself.

Uganda: During sanitation week, the Kampala Capital City Authority (KCCA) strategically places their sewer trucks (which are used by KCCA the rest of the year) near peri-urban areas and allows pit emptying businesses to dump fecal sludge in the trucks, saving on transport costs and serving to promote pit emptying in peri-urban Kampala.

India: Sanitation campaigns appear to have successfully contributed to increased demand for sanitation in some areas, but, they have been only one of a number of publicly-sponsored sanitation support mechanisms, including supply-chain support through rural sanitary marts.

PUBLIC SECTOR AS CLIENT

The public sector can support local businesses as a client themselves

In addition to encouraging household investment through campaigns and rebates and/or microfinance opportunities, the public sector can serve as a client themselves. Their business may increase recognition for sanitation businesses and products, particularly for technologies that are unfamiliar to families. This may include government purchases of public toilet facilities from local sanitation businesses, employing local entrepreneurs to manage public toilets, purchasing compost from treated ecological/composting toilet waste, or even contracting local businesses to construct toilets for low-income households through sanitation programs. However, the latter may also hinder local businesses if subsidized programs create expectations that the government will provide free toilets to everyone, disincentivizing other households to purchase a toilet.

Experiences with the public sector acting as a client in Malawi and Rwanda

Malawi: The Blantyre City Council supported a local sanitation entrepreneur by providing the land on which fee paying “eco-san” latrines were built at the Blantyre Market. Eco-san latrines require little to no water and the waste can be reused as agricultural compost, but the idea of using human compost is a new concept to many people. Once the latrines and waste processing is operational, the council themselves will become a compost customer (as repayment for providing the land) and use the compost for nearby landscaping.

Rwanda: The City of Kigali supported the private sanitation company, SANDEV, to build and manage public toilets in two locations. The business is profitable (i.e. sustainable) and the toilets are well-managed, supporting a healthy environment for the city’s citizens.

INCREASING CLIENT PURCHASING POWER

□ Market-stimulating rebates and subsidies

While direct sanitation subsidies typically distort markets for sanitation products and services, well-structured rebate programs may actually encourage household sanitation investments, particularly in countries where political norms nearly require the subsidization of household sanitation. However, the effect of subsidy programs on household toilet construction is still not well understood, and some studies suggest that social motivators may have a greater impact. A 2009 study on India's subsidy-based Total Sanitation Campaign found that household Below Poverty Line (BPL) cards, which provide access to subsidies, explained only about one-third of total latrine construction, while social drivers, including those resulting from Community-Led Total Sanitation and "No Toilet. No Bride" campaigns accounted for the remaining two-thirds.⁶ This suggests the importance of structuring subsidy programs so as to not distort the market for sanitation products and services that may be purchased by other households motivated by social drivers.

Experiences with market-stimulating rebates in Nicaragua and India

Nicaragua: In one municipality, Water For People is encouraging local government to provide families a \$300 discount on local sanitation products (given directly to suppliers) instead of spending \$300 on pit latrines that based on market studies, families don't like and are unlikely to use. This public support, along with supply-side development of affordable and desirable technologies and microcredit opportunities, would allow families to combine the subsidy with their own resources to purchase a flush toilet they actually want.

India: A government program provides subsidized rebates for "below poverty line" (BPL) families who purchase a toilet, encouraging sanitation markets while supporting very low-income families to acquire a toilet and giving them purchasing power in the process.

□ Household access to microfinance

In conjunction with subsidies, or alone, household access to microfinance, including credit and savings schemes, can greatly increase families' purchasing power.⁷ Many of the Water For People country programs identified access to microfinance as highly influential to demand stimulation. Although direct government lending and government-mandated portfolio quotas (requiring microfinance providers to invest or lend a specified amount of their assets for defined social purposes) are discouraged,⁸ the public sector's receptivity to the role that microfinance service providers can play to support sanitation service provision may support household access to microcredit when needed. This may include public campaigns encouraging microfinance service providers to include sanitation in their portfolio, disseminating successful examples to mitigate perceived risk, as well as informational campaigns, promoting savings schemes and encouraging cautious borrowing for sanitation.

⁶ Pattanayak, S K et al. (2009) Shame or Subsidy Revisited: Social Mobilization for Sanitation in Orissa, India. *Bulletin of the World Health Organization*, **87**:580–587.

⁷ Water For People. (2013) *Microfinance as a potential catalyst for improved sanitation: A synthesis of Water For People's sanitation lending experiences in seven countries*. Denver: Water For People.

⁸ CGAP. (2006) *Good practice guidelines for funders of microfinance*. 2nd edition.

Operating climate

REGULATORY FRAMEWORK

Sanitation regulations & policies

Regulations and policies around household sanitation services can have a substantial impact on the sanitation market. This includes requiring households to have a safe latrine and to empty it when the pit is full, as well as prohibiting businesses from manual pit emptying and open fecal sludge dumping. Requiring households to have a safe latrine may help to provide public sector incentives to ensure affordable, safe and environmentally friendly products are available to lower-income households. However, caution is warranted as regulations may also increase pressure on governments to provide more direct subsidies for sanitation products, distorting potentially more sustainable market-based mechanisms.

Experiences with sanitation regulations and policies in Honduras and India

Honduras: In all three municipalities, the mayor and Water For People worked together to create new policies that: (1) require all households to have a functioning toilet, and (2) limit external funds from NGOs and the municipality to discontinue direct sanitation subsidies. Although these are not formal national policies endorsed by congress, they have a strong influence at the local level with respect to starting to change social norms. Additionally, where households are not yet connected to the water supply, the local water boards require they have a functioning toilet before they are connected to the water system, providing pressure for households to prioritize and invest in sanitation instead of waiting for unreliable and unsustainable donations.

India: A national law against the dangerous practice of manual emptying/scavenging of latrines supports safe pit emptying businesses by discouraging manual emptying businesses and encouraging households to pay for safe fecal waste disposal.

Capacities and incentives for supportive enforcement

Regulations are only effective if they are enforced and feasible to comply with, including that families have access to a supply of affordable and desirable products and services. Unfortunately, many countries lack the incentives and/or capacities to enforce regulations, especially through supportive mechanisms. However, even small gestures of supportive enforcement can provide a starting point and facilitate sanitation business operations, such as streamlining regulatory processes.

Experiences with sanitation regulation enforcement strategies in Uganda and Malawi

Uganda: Local authorities sanctioned pit-emptying businesses to temporarily operate without an environmental permit while awaiting the lengthy permit process. This encouraged pit emptiers to comply with the regulatory process, while still collecting income and operating profitable businesses.

Malawi: In Malawi, there is insufficient capacity to support and enforce sanitation regulations requiring households to have a safe toilet that could provide additional business opportunities for local sanitation entrepreneurs. The government has also been unable to enforce regulations on illegal manual pit emptying and open fecal waste dumping. More financial and human resources are needed to enforce regulations, in addition to incentives to enforce and support supply-chains of affordable options for families to comply with regulations. One idea to address this is to provide incentives to households to reject and report manual pit emptiers to city council law enforcers, but this idea has not yet been trialed.

BUREAUCRACY

Length of government processes

Bureaucratic processes can greatly inhibit the realization of sanitation programs, regulatory compliance, and progress of sanitation markets. Many country programs noted that communication between multiple levels of government, some with a large gap between them, resulted in lengthy processes. Streamlining these public processes, would greatly facilitate the emergence and operation of sanitation businesses. The public sector themselves may be able to provide guidance to streamline government procedures, such as in the example from Uganda, but streamlining should be institutionalized in support of organic market growth.

Experiences with bureaucracy in India, Nicaragua and Uganda

India: The “below poverty line” (BPL) subsidy that provides rebates to low-income families who invest in sanitation includes central and state-level financing and, in some states, funds from two departments, which can greatly delay processing. The flow of these funds can also get congested in the trickle down from central to state, district, block and then Gram Panchayat who verify toilet construction before releasing funds.

Nicaragua: Local government is on board to pilot sanitation programming that utilizes the market to encourage sustainable service provision, but they need central government authorization to conduct supportive activities. This has slowed and hindered progress, particularly since the concept challenges the conventional approach to provide free latrines. This requires effective discussions with both local and central government representatives to change political norms, and it can be challenging to gain the ear of busy central government representatives.

Uganda: Without local authority intervention the process for pit emptiers to obtain an environmental permit would have been too long to wait before earning income, and sludge disposal fees would have been too high to offer affordable services. With Water For People support, these businesses have been able to push through red tape and high costs, but these barriers limit the ability of other businesses to emerge on their own, restricting scalability.

PHYSICAL AND ORGANIZATIONAL INFRASTRUCTURE

Physical infrastructure for fecal waste disposal and treatment

Physical infrastructure, such as wastewater treatment plants, can greatly facilitate or hinder sanitation businesses; both product manufacturers and pit-emptying operations. The promise of sewer systems can influence household decisions to invest in sanitation. Where sewer lines are planned, many families choose to wait years without safe sanitation until a sewer connection is in place. For pit-emptying services, if there are no safe dumping sites within a reasonable transport distance, pit-emptying businesses either don't exist or dump sludge unsafely out of necessity. Large centralized wastewater treatment plants are expensive to construct and operate, but smaller more decentralized safe dumping sites could decrease pit emptiers' transport costs and be an economical investment that encourages safe sludge disposal.

Experiences with physical fecal waste infrastructure in Uganda

There is insufficient infrastructure for safe fecal sludge dumping in many towns, limiting the potential for formal, safe emptying businesses. More decentralized sludge dumping sites would help to alleviate this barrier. Water For People is currently working to pilot test facilities that would charge a higher dumping fee (to cover facility costs), but could reduce transport costs faced by pit emptiers and the temptation of open dumping. Land ownership issues and the stigma of waste treatment have been barriers to identifying a pilot site that the government may be able to help diminish.

□ Supportive public organizational infrastructure

Strong public sector organizational structures provide opportunities to work within and build upon them to support sanitation markets through institutionalized mechanisms with greater potential to self-sustain. This is especially true in Latin America where many communities have strong local governments and community water boards who can promote sanitation markets through existing structures. However, although these organizational structures may be long-term, government officials are often not. Frequent changes in local government staff can limit long-term planning and relationship building. The process of gaining buy-in from local public sector officials may need to be repeated each time local government officials change. Identifying potentially longer-term leadership, such as village chiefs or respected local teachers, and including them in planning and discussions with public sector officials may support continuity as public officials change hands.

Experiences with public organizational infrastructure in Honduras and Bolivia

Honduras: In Honduras, most rural communities have a local water and sanitation board (JAAS) to manage services. Each JAAS pays a portion of their local water tariffs to municipal associations of water and sanitation boards (AJAASM) who support the JAAS. Leveraging the existing JAAS & AJAASM structures, Water For People is piloting a self-sustaining micro-lending program for household sanitation managed by AJAASMs. The AJAASMs lend seed capital to JAAS who then offer desirable flush toilets to households on credit (they can also be purchased with cash). The households pay the JAAS in installments over one to two years at 24% interest annually, and the JAAS repays the AJAASM with interest. The existing AJAASM/JAAS structure has provided a strong local framework for the program.

Bolivia: Every municipality has different departments that focus on a specific theme. Water For People has been advocating for and supporting the creation of a municipal basic sanitation department within the municipal governments with which they work. These institutionalized departments oversee sanitation-related projects, understand community needs, and provide hygiene training, with the idea that they would be able to continue operations without Water For People presence.

POLITICAL NORMS

□ Receptivity to private sector involvement

In some countries, sanitation is considered a public good that should be provided by the government without private sector involvement. Although understandable and well-intended, especially considering the history of private sector involvement in some countries⁹, this norm exists despite insufficient resources that restrict governments' ability to provide free sanitation for everyone, resulting in insufficient sanitation coverage. Where governments are more amenable to public-private partnerships, private financing can be leveraged to improve public service provision. Where government, or the public, is not open to private sector involvement, government support of sanitation businesses may be seen as risky and public officials are often risk-averse due to the precarious nature of their elected positions. There are rarely incentives to try something new, and doing so may risk public careers, as seen by one public official in Nicaragua. Time may be needed to reduce risk (or perceived risk) in the process of gaining public support for sanitation business activities.

Experiences with public sector receptivity to private sector involvement in Bolivia, Malawi and Nicaragua

Bolivia: There are challenges to private sector involvement as the government declared that water and sanitation should be public services and to make them private sector commodities would be a violation of human rights.

Malawi: The government has been open to Public Private Partnerships (PPPs), as exemplified by the Blantyre City Council providing land for an entrepreneur to construct fee paying public toilets. This partnership provided jobs and a public toilet that is likely to be maintained since profit incentives exist for the operator. Based on this experience, Water For People-Malawi suggests developing clear strategies for PPPs, including clear roles for sanitation businesses, within public plans.

Nicaragua: One municipal public official eventually decided to support sanitation business activities and has been subject to reprimands as a result, threatening his job security.

⁹ For example, the 2000 "Water War" in Cochabamba, Bolivia where the city shut down for four days and many were injured in protests over the privatization of the municipal water supply company.

□ Expectations of free sanitation services

Direct sanitation subsidies can distort sanitation markets and create expectations for free sanitation products. This was a challenge reported by almost all countries in the study. Although direct support is warranted for very low-income or vulnerable households, subsidies are often provided to families who could afford to invest in sanitation due to pressure for public and NGO implementing agencies to report a high number of “beneficiaries” within logistical, time and resource constraints. Socio-economic segmentation, clear criteria to qualify for sanitation support, and policies that restrict agencies from indiscriminately providing free toilets could directly support low-cost sanitation market growth.

Both India and Rwanda seem to have clearer guidelines for who is eligible for publicly-subsidized toilets based on socio-economic status, which may encourage families who don’t qualify for the subsidy to invest in sanitation and not wait for government support. In many of the Latin American countries included in the study, sanitation subsidies tend to be distributed in a more arbitrary manner, which can discourage household investment as families may prefer to wait for the possibility of public support. This may be partially due to the common interpretation in Latin American countries of “sanitation as a human right” to mean free toilets for everyone. While well-intended, this interpretation may challenge attempts to clearly define the flow of sanitation subsidy funds to those in greatest economic need, as that would mean also clearly defining those higher income households that would be excluded from government support of this “human right.”

Experiences with subsidies and expectations of free sanitation in Rwanda, Nicaragua and Honduras

Nicaragua: Latrines are sometimes provided as part of government or NGO water projects and are given to all families in the community regardless of socio-economic status or need. Despite good intentions, such subsidies can have a negative impact as households come to expect, and wait for, government and/or NGOs to provide them with a free toilet, despite insufficient resources to provide all families with desirable toilets that are likely to be maintained and used over time.

Rwanda: The public Vision 2020 program is building toilets for extremely poor households. Recipients are identified by the community through the government program. Government support of the very low-income households is promising as it allows the market to address the population segments that have the capacity to purchase a toilet likely resulting in greater sanitation coverage improvements despite limited resources.

Honduras: Sanitation businesses are challenged by political pressures that dissuade municipal governments from declining offers from NGOs to provide free toilets to households in their communities. These offers are rarely consistent or sustainable, but in a mayor’s position it is difficult to refuse them when they are on the table. This highlights a systemic issue where policies and aid practices may need to change before a sustainable model will take root at scale in Honduras.

Supply-chain improvement

OPERATIONAL COST RELIEF

Reduced fecal sludge dumping fees

The cost to safely dump fecal sludge at official treatment facilities can be prohibitively high, resulting in either pit emptying services that many families can't afford, or unsafe sludge dumping negating the environmental and public health benefits of improved sanitation facilities. Reducing sludge dumping fees can encourage accessible and safe services for households when their latrine pits fill. Of course, this mechanism is only supportive where safe dumping sites exist that are within a reasonable distance from pit-emptying sites.

Experiences with fecal sludge dumping fees in Malawi, Uganda and Bolivia

Malawi: The fee to dump fecal waste at the centralized treatment plant in Blantyre was increasing to the point that pit emptying businesses were struggling to provide affordable rates to households and still operate profitable businesses. The city authority reduced the cost by 67% allowing pit emptying businesses to provide services to households at a much cheaper rate and decreasing the appeal of open, unsafe dumping.

Uganda: With backing from local authorities, the wastewater treatment plant reduced fecal sludge dumping fees by half for "gulper" (small sludge pumps designed for crowded peri-urban areas) operators.

Bolivia: Pit emptying businesses that bring waste to centralized publicly-operated treatment plants face a very high dumping fee that restricts their ability to offer affordable pit emptying services to households.

Business benefits

Businesses operating in the formal sector often have a number of advantages, including the ability to work with institutional or large clients that require formal receipt, recognition by households, and greater access to business development and microfinance services. They can also provide benefits to their clients and the community such as environmentally-safe practices via formal permitting procedures. However, operating in the formal sector can have a number of disadvantages, including high tax rates and strict labor laws that greatly increase operating costs and are transferred to clients restricting the ability of formal businesses to compete with those in the informal sector. Business benefits for socially-minded sanitation businesses, such as tax exemptions, more lenient labor laws, and business grants or loans, may encourage greater participation of sanitation businesses in the formal economy, increasing sanitation entrepreneurs' ability to provide affordable services that are high-quality and compliant with environmental regulations.

Experiences with business benefits from Peru

There is a government program to support small businesses, including reduced labor costs and tax exemptions: the micro and small business (MYPE) law. But currently, the MYPE benefits do not extend to construction enterprises, which includes sanitation businesses and despite their social aim, they don't gain any benefit over other businesses. There is therefore little incentive to formally operate which can limit accountability in the market. As an example, one family decided to hire a mason operating in the informal sector due to the high-cost of Water For People's partner, Dipolsur, who operates formally. After a few months, the installed biodigester collapsed and the household had no legal avenues to pursue given the product was provided by an informal provider.

Advice from Peru: offer a legal registration option to bridge the gap between NGOs and conventional businesses, similar to "low profit limited liability company" (L3C)⁹ registration in the United States. This could allow low-cost sanitation businesses, to provide affordable services to households while maintaining profit and associated market-driven incentives.

¹⁰ For more on L3C legislation: <http://americansforcommunitydevelopment.org/index.html>

RESEARCH AND DEVELOPMENT SUPPORT

Public sector support of technology development

A few county programs reported direct support by the public sector in research and development of technology through public-private partnerships, or through existing public technology development with potential for private sector support.

Experiences with public sector involvement in private sector technology development in Malawi and Guatemala

Malawi: The Blantyre City Council offered to provide land for construction of a sanitation technology piloting center. Additionally, the public University of Malawi has partnered with Water For People to research and develop solar sludge dryers to support more decentralized safe sludge disposal.

Guatemala: The Municipal Development Institute (*Instituto de Fomento Municipal*, IFM) has technically-sound designs for a pit latrine and a dry composting toilet. However there are challenges to household adoption, including: (1) they are developed specifically for subsidy programs and are not available to purchase, but funding is not available so their distribution is stagnant, and (2) they are not attractive toilets and there is not an option for families that prefer water-based toilets, such as a biodigester. Engaging the local private sector may allow the current designs to be expanded upon, improved esthetically, and made available for families to purchase. This would allow for progress toward sanitation coverage while awaiting additional public funding that could be used to support partial subsidies for lower-income families

Certification or accreditation of sanitation products and services

Certification or accreditation can be helpful to sanitation entrepreneurs by providing their products and services with recognition and backing. However, certifications are only supportive if they are available, clear and streamline to obtain.

Experiences with certification and accreditation in Nicaragua, Bolivia and Uganda

Nicaragua: Water For People is developing a technical course for masons working in the sanitation sector. The course will be offered by municipal technical education centers through the Nicaragua National Institute of Technology (INATEC) who will provide certification to masons who successfully complete the course.

Bolivia: If the compost reuse market continues to grow, and entrepreneurs want to scale their business, the product will need to pass regulations by national environmental authorities including additional laboratory testing. The process is lengthy, but reasonable and could result in formal certification that may diminish potential clients' safety concerns.

Uganda: The pilot modular latrine will eventually require certification by the Ministry of Health. Although not a prerequisite to sell to households, it is necessary to sell to institutions, such as schools. Although certification is a positive result, the process to obtain it may be prohibitively lengthy.

BUSINESS DEVELOPMENT SUPPORT

Business incubation and aggregation

Publicly-supported business development services or incubation programs may increase the likelihood of success and effectiveness of local sanitation businesses. As a large-scale example, there are Small Business Development Centers in the United States (typically found at universities or colleges) managed by the Small Business Administration, a public agency. Providing a similar service in low-income countries could help socially-minded sanitation businesses succeed. In return, successful sanitation businesses serve the interest of the public sector by increasing sanitation coverage and supporting a healthier environment. Aggregation of sanitation businesses can serve a similar supportive function, grouping together sanitation businesses and/or interested parties to strategize and address challenges more effectively, as a larger group. The public sector may be able to support this via aggregation programs or consortiums.

Experiences with business aggregation in Bolivia and Uganda

Bolivia: Water For People-Bolivia's partner, IMG Consulting, is creating a "platform" of actors in the sanitation sector including sanitation businesses, microfinance service providers, government representatives, universities, marketing agencies, and clients. They are hoping the platform will serve as a way for players in the nascent sanitation market to work together to solve problems as they arise and strengthen the sanitation market in Cochabamba serving the interest of all actors and hence increasing the likelihood of sustainability.

Uganda: Urban sanitation entrepreneurs partnered with Water For People form a larger group under the name, "Sanitation Solutions." This larger business serves as an aggregator to support member entrepreneurs and create a larger voice among them in the public arena, including marketing and Public aggregator programs may bring this idea to a larger scale to support sanitation businesses and address national sanitation challenges more effectively.

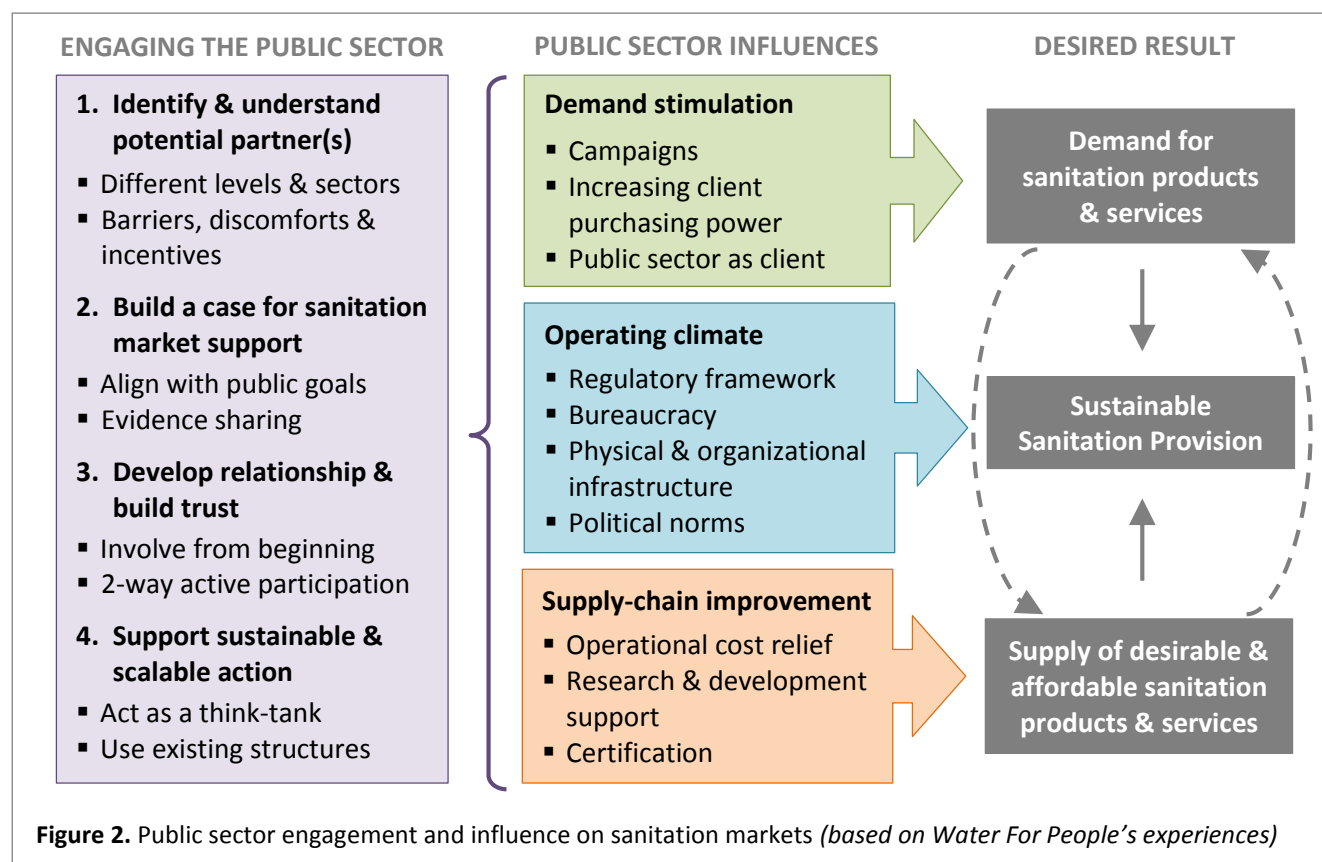
Support of market intelligence

Water For People has been largely supporting market research where they are working. Although no examples of public support for market research arose from the country case studies, public sector adoption of this role over time could provide continued market information to low-cost sanitation businesses without relying on external support. Market studies could be planned or information relayed through sanitation business consortiums to limit the need for individual businesses to conduct separate market studies in support of reduced business expenses and more effective solutions to low-cost sanitation challenges.

Part 2: How to engage the public sector to encourage their support of sanitation markets

Engaging government can take more time upfront, but can make things much smoother in the long-run. Sanitation can be controversial from an environmental and public health perspective and the exclusion of local authorities can result in legal issues for sanitation businesses if practices are not in-line with regulations and the public sector is not aware of activities. Involving the public sector can also help alleviate bureaucratic processes and red tape. Further, working directly with communities without the public sector can distort and conflict with government efforts.

From Water For People’s successful (and unsuccessful) experiences we identified four phases to engaging the public sector, with associated activities (Figure 2). Further discussion and examples follow.



1. Identify & understand potential partner(s)

Consider government partners from different levels & sectors

Public sector partners most directly engaged with sanitation businesses are often local government. Working at this scale and then working up may be more appropriate/feasible for a medium-sized NGO such as Water For People, compared to large multi-lateral aid organizations where partnering primarily with central government directly and then working down may be more appropriate. Based on Water For People's experiences, benefits to working with local government include: they are intricately aware of happenings locally, yet also of national regulations; their approval is often required before implementing activities; and they can help navigate bureaucracy and support discussions with central level government. Depending on capacities and program scope, working congruently with multiple public sectors may also be advantageous, such as partnering with education authorities to promote sanitation through schools, while partnering with municipal health or finance authorities to build sanitation markets more directly.

Advantages to different public partners based on experiences in Uganda and Guatemala

Uganda: Water For People has been advocating for unused, broken down public latrines to be taken over by entrepreneurs. Support from Kampala Capital City Authority (KCCA) has been critical in this process which has faced a number of barriers including complex procedures involved in handing over a facility constructed using public/tax-payer funds to a private business who will manage operations via a profit-based model. KCCA worked with Water For People to alleviate lengthy processes based on their knowledge and experience with local politics, resulting in a plan to reduce prohibitively extensive procedures: each public latrine has an associated sanitation committee, and adoption of an interested entrepreneur into the respective committee reduces the number of approvals required, streamlining the process. The two latrines that have been adopted by entrepreneurs as a trial are in operation as a result of this strategy.

Guatemala: Although the idea of supporting sanitation businesses, specifically, was foreign to the Ministry of Finance, the business aspects are within their mandate. Although less directly related to sanitation businesses, the Ministry of Education and the Ministry of Health have been engaged in school-based sanitation activities with Water For People. If students share messages of improved sanitation in their homes, this may indirectly facilitate local sanitation markets by increasing household demand for sanitation products and services.

Understand government's barriers, discomforts & incentives

Understanding public sector partners' barriers, discomforts and incentives is a key first step in developing approaches that are feasible and of interest to government partners.

Working with public sector barriers, discomforts and incentives in Nicaragua, Honduras, Uganda and Peru

Nicaragua: Understanding government's discomfort with business-based approaches to sanitation, considered a public good, Water For People-Nicaragua (along with the other Central American offices) changed the program name from "*saneamiento como negocio*" (sanitation as a business) to "*saneamiento sostenible*" (sustainable sanitation), re-focusing the aim to achieving *sustainable* sanitation through markets with embedded incentives.

Honduras: The JAAS and municipalities don't have business- or market-based incentives; they are not for-profit entities. However, they do have the incentive to maintain sufficient resources to support their communities and constituents over time. In this sense, a model that supports the public aim of providing sanitation to all families within a structure that maintains resources for other public investments has gained local interest.

Uganda: Water For People used the fact that there is an urgent need for safe pit emptying in peri-urban Kampala and the fact that the city has limited exposure to pit emptying technologies appropriate to the city's overcrowded, unplanned settlements, as a means to incentivize the city authority to support pit emptying businesses.

Peru: Government officials often cite limited budgets and insufficient human resources to promote sanitation market development. One challenge noted by Water For People staff in Peru is that sanitation investments are often seen to have a low cost to visibility ratio limiting local government incentives to invest in on-site sanitation.

2. Build a case for sanitation market support

□ Align strategies with public goals

Complimenting and coordinating with government aims and activities can increase their incentives and buy-in to support sanitation businesses.

Experience aligning sanitation business support strategies with public approaches and goals in Malawi

The Ministry of Health and other public officials in Chikhwawa and Rumphi districts prefer the Community Led Total Sanitation (CLTS) approach to the “Sanitation as a Business” approach, as they view CLTS as more directly related to the nature of their responsibility: disease prevention, not business development. The CLTS approach uses shame and disgust to trigger households into stopping open defecation by constructing a latrine, even if it is very basic to start with. To work within government activities and encourage the complimentary nature of CLTS and sanitation businesses, Water For People ensures that local sanitation entrepreneurs participate in the process of CLTS during triggering exercises in the community, with the idea that families can construct a latrine from free basic materials, but they also have the option to invest in more desirable or more hygienic products. CLTS is now embraced by entrepreneurs as a marketing tool and platform to showcase their products and services, and a source of customers. They offer various products at reasonable prices and have served to improve the supply-chain as demand increases through government-supported CLTS activities.

□ Share evidence of gaps and successful experiences

Sharing evidence of gaps and the need for improved sanitation markets, as well as successful experiences with sanitation businesses can help gain public sector interest and alleviate their concerns associated with new or unfamiliar approaches.

Evidence sharing in India, Bolivia and Nicaragua

India: Water For People-India hopes to demonstrate how sanitation markets can improve household sanitation coverage and share experiences from successful pilots with government as a way to engage public partners. They currently participate in government review meetings at various levels to provide water and sanitation expertise and may be able to influence future public support of sanitation businesses through this medium once results of pilot programs are able to be shared. Additionally, Water For People-India is discussing the “Sanitation as a Business” model with government representatives to encourage their offering of additional sanitation services to promote one-stop sanitation marts including microcredit, in order to further strengthen the rural sanitation supply chain.

Bolivia: Water For People-Bolivia has found that sharing experiences of pilot efforts to build a sustainable sanitation market with government representatives at all levels is an effective way to engage and influence the public sector to further support sanitation markets. Water For People has engaged government through annual municipal meetings to discuss budget allocations. Through these relationships, Water For People has shared evidence of the demand for sanitation in communities and the potential of families to invest their own resources in desirable sanitation products. Although skepticism of private sector involvement in sanitation still exists, Water For People is working to mitigate this through the dissemination of successful pilots.

Nicaragua: Sanitation demand is high in Nicaragua suggesting potential for a thriving sanitation market if desirable and affordable products are available, along with credit and/or subsidy programs for families that are truly low-income. A Water For People market study found that over 80% of families in a lower-income area were interested in investing their own resources if they could purchase a porcelain flush toilet.

3. Develop relationships & build trust

Engage and actively involve government partners from the very beginning

Almost all participating country programs reported that involving government from the beginning was key to building trust and obtaining their necessary support down the road.

Engaging with government partners from the start in Malawi and Honduras

Malawi: Government involvement from the very beginning, including entrepreneur training, has enabled full government participation and successful implementation of activities. For example, Water For People did not have to ask the local authority to provide the land for a sanitation center. Since they were involved from the beginning and understood and agreed with the aims, they offered to provide the land as a way to contribute to progress toward a better sanitation market.

Honduras: Water For People began by working with the mayor in each municipality to change local policies around sanitation service provision.

Actively develop a two-way relationship over time

Relationships should be developed with public sector partners over time. Activities to help build these relationships could include Memorandums of Understanding agreed to by both parties, NGO participation in government working groups and public budget allocation meetings (combining efforts with other NGOs or agencies where possible), and government participation in NGO trainings and monitoring activities. These activities should be two-way allowing for both parties to actively participate, provide ideas, and take ownership, including financial buy-in. As mentioned previously, frequent changes in local government staff can limit long-term planning and relationship building. Identifying potentially longer-term leadership, such as village chiefs or respected local teachers, and including them in planning and discussions with public sector officials may support continuity as public officials change hands.

Building relationships with public partners in Malawi, Bolivia and India

Malawi: Joint quarterly field monitoring visits are conducted with representatives from government departments (Blantyre City Council, Water Board, and District Health Office) to assess the performance of sanitation entrepreneurs. Government stakeholders also participate in annual evaluation sessions to review Water For People activities and initiatives. This provided a platform for government stakeholders to share ideas on how sanitation businesses could be better supported, including through public sector channels.

Bolivia: Bearing in mind government and historical precautions regarding private sector involvement in water and sanitation services in Bolivia, Water For People has been working closely with public sector representatives, including written agreements with local governments and has engaged government through annual municipal meetings to discuss budget allocations.

4. Support sustainable & scalable action

Act as a think-tank

Even when government partners are fully engaged in supporting sanitation markets, how best to provide support is not always clear given the recent emergence of sanitation programs that aim to work through local markets. NGOs can support government action by providing specific ideas based on research and experiences from pilot programs, and other countries, agencies and sectors.

Experiences providing ideas to public sector partners in Peru and Nicaragua

Peru: Water For People has met with regional government representatives to discuss inclusion of sanitation microenterprises within the scope of the MYPE law, as well as the importance of government promotion and support in developing the lower-income sanitation market.

Nicaragua: Water For People is developing a technical course for masons working in the sanitation sector. The course will be offered by municipal technical education centers through the Nicaragua National Institute of Technology (INATEC) who will provide certification to masons who successfully complete the course.

Idea from Bolivia: Engage the government to launch large-scale promotional campaigns for new low-cost sanitation technologies, encouraging markets that provide a variety of technologies and prices. And, encourage government to promote microfinance options specifically for sanitation, which is currently not a priority of microfinance providers. This may include public encouragement or incentives for lending institutions to increase their small-scale sanitation portfolio.

Build capacity within existing structures

In order to encourage support to sanitation businesses to self-sustain and scale, efforts should be made to work with and build-on existing structures to ensure capacities and incentives are in place for activities to continue post-Water For People involvement.

Examples of building capacity within existing structures in Bolivia, Malawi and Guatemala

Bolivia: Water For People is working with municipalities to strengthen human resource skills. Advice from Bolivia: Identify (or create) and strengthen local public partners, such as DMSBs, who can continue efforts, including monitoring, after Water For People is no longer involved.

Malawi: Water For People also works to support local governments' efforts to ensure sustainability of sanitation interventions by building their capacity to monitor household sanitation.

Guatemala: Water For People works with ministry representatives from the municipal level up to central level, to provide trainings on sustainable sanitation and coordinate efforts.

Conclusion

While assessing public sector activities and influence can be a delicate subject, this publication attempts to outline some of the potential avenues for government support (or hindrance) of low-cost sanitation businesses. The results are based on experiences from Water For People country program staff who work with government on a regular basis and have received substantial public support and collaboration through strong partnerships. These findings are not intended to criticize national governments or compare governments in general. They are meant to highlight positive and challenging experiences to support sectoral learning and global efforts to improve sanitation coverage.

Part 1: How the public sector environment influences low-cost sanitation markets

The following avenues of potential public sector support were identified in the study, categorized under demand stimulation, operating climate and supply-chain improvement:

DEMAND STIMULATION

Campaigns	Strategic campaigns	Sanitation campaigns should serve to address a larger goal, not be the goal itself
Increasing client purchasing power	Market-stimulating subsidies	Well-structured public rebate or partial subsidy programs may actually encourage household sanitation investment
	Household access to microfinance	Although direct government lending and portfolio quotas are not recommended, the public sector could encourage microfinance providers to provide sanitation microfinance products and conduct public informational campaigns around sanitation savings and loan programs
Public sector as client	Public sector support as a client themselves	The public sector can purchase public toilet facilities, employ local entrepreneurs to manage public toilets, purchase compost for public agriculture space, or even, contract local businesses in low-income sanitation subsidy programs

OPERATING CLIMATE

Regulatory framework	Sanitation regulations & policies	Regulations, such as requiring households to have a safe latrine and empty full pits, and prohibiting open sludge dumping, can spark local markets, but also have the potential to increase pressure on governments to provide more free toilets, distorting local markets
	Supportive enforcement	Regulations are only effective if they are enforced and feasible to comply with, including that families have access to products and services, and regulatory processes are affordable and navigable by local sanitation businesses
Bureaucracy	Length of processes	Streamlining public processes, including permitting and accessing public support programs, can greatly facilitate sanitation markets.
Infrastructure	Physical infrastructure	Wastewater treatment plants or safe fecal waste dumping sites that are accessible and affordable are crucial to the success of pit emptying businesses
	Organizational infrastructure	The existence of strong public organizational structures can support sanitation business activities. However, frequent changes in public officials can limit long-term planning. Including other local leadership, such as village chiefs or teachers, may support continuity
Political norms	Receptivity to private sector involvement	Private sector involvement in sanitation is not readily accepted in some countries and government support of sanitation businesses can present a risk to public officials' job security
	Expectations of free sanitation services	Heavy subsidies, particularly with unclear segmentation for recipients, can distort sanitation markets by creating expectations for free sanitation products, limiting household investment

SUPPLY-CHAIN IMPROVEMENT

Operational cost relief	Fecal sludge dumping fees	Reducing sludge dumping fees at publicly-operated safe dumping sites can greatly improve pit emptying businesses' ability to offer affordable services to households
	Business benefits	Business benefits for socially-minded sanitation businesses, such as tax exemptions, more lenient labor laws, and business grants or loans, may encourage greater participation of sanitation businesses in the formal economy
Research & development support	Technology development	Public-private partnerships for technology development has the potential to allow public sanitation products to adapt to household desires and flourish with market incentives
	Certification/ accreditation	Accessible certification of products or service providers can provide public recognition and backing for sanitation businesses, encouraging a quality market and alleviating concerns
Business development support	Business incubation & aggregation	Publicly-supported business development or incubation programs, particularly through supportive consortiums of businesses, may increase the likelihood of business success
	Market intelligence	Public sector conducted and disseminated sanitation market research could reduce business expenses and support more effective solutions to low-cost sanitation challenges

There were additional observations noted by international Water For People staff based on their visits to country program offices. These included:

- In some areas, lower performing government officials are relegated to the most remote districts. Often the more remote districts are those in most need of support and where Water For People works. This means that in some countries the least effective government staff are working in the areas of greatest need, instead of sending the most effective, better qualified staff there.
- Governments with an ingrained allowance culture, where financial incentives are expected for participation of government staff in programming, can dominate NGO-government relationships and make activities with government involvement, such as CLTS, very expensive.
- In a risk averse culture, it can be difficult to get things in writing. For example, in one country, a sanitation entrepreneur partnered with Water For People was assured verbally by local government that it would be fine to develop a new sludge treatment module, but was unable to obtain anything in writing. In the end, if the design is unsuccessful or something goes wrong, Water For People and the entrepreneur will likely be responsible, but if it is successful, the government can receive recognition. This alleviates government risk, but creates a risky scenario for emerging entrepreneurs.

These observations and the preceding frameworks provide concepts and experiences to consider when working with government partners to support low-cost sanitation businesses. However, they are context dependent and not intended as dogma, only areas to take into consideration and potentially investigate.

Part 2: How to encourage the public sector to support sanitation markets

The following four steps provide guidance for NGOs working to engage the public sector to support sanitation businesses:

1. IDENTIFY AND UNDERSTAND POTENTIAL PARTNERS

Consider government partners from different levels & sectors

The most appropriate government partners will likely vary greatly between organizations and by location. For example, smaller organizations may have more success partnering with local government, while central

government may be a more appropriate direct partner for larger aid organizations. Similarly, government agency roles vary by country and in some places the Ministry of Finance may be a well-suited main partner, while in others, the Ministry of Health or other agency may be better suited.

Understand government's barriers, discomforts & incentives

Understanding potential public partners' barriers, discomforts and incentives can aid in identifying appropriate public partners as well as inform effective strategies that are feasible and of interest to the government.

2. BUILD A CASE FOR SANITATION MARKET SUPPORT

Align strategies with public goals

Complimenting existing government aims and coordinating activities can serve to incentivize government partners and increase their buy-in.

Share evidence of gaps and successful experiences

Sanitation as a business approaches are a new concept for many government officials. There is often an aversion to trying something new which may be perceived as risky, threatening job security. Sharing evidence of past successes may help to alleviate perceived risks as well as working within existing structure and public aims as much as possible.

3. DEVELOP RELATIONSHIPS AND BUILD TRUST

Engage and actively involve government partners from the very beginning

Involving government partners from the very beginning was noted by all country programs as a crucial step to building trust and gaining public support as the program progressed. This can be a time-consuming process, and programs with strict time constraints may feel pressure to skip this necessity and working directly with communities, but this can interfere with existing government plans, caused delays further down the road, and limit sustainability and potential for scale.

Actively develop a two-way relationship over time

Relationships with government partners, like any relationship, needs continued work and contributions from both parties. This could include regular monitoring visits with public officials, annual fiscal planning meetings, and space for both parties to provide ideas and take ownership, including financial buy-in. These efforts could also be combined with those of other NGOs or local agencies with similar interests. Relationship building can be challenged by frequent turnover of government officials. Identifying potentially longer-term leadership, such as village chiefs or respected local teachers, and including them in planning and discussions with public sector officials may support continuity as public officials change hands.

4. SUPPORT SUSTAINABLE AND SCALABLE ACTION

Act as a think-tank

NGOs can support government action by providing specific ideas for how best to support local sanitation businesses based on research and experiences from pilot programs, and other countries, agencies and sectors.

Build capacity within existing structures

A successful pilot program is really only successful if it is sustained and scaled-up. Working with and building upon existing public structures and goals is critical to ensuring that capacities and incentives are in place for activities to continue and grow, particularly after external support comes to a close.

Annex.

Country case studies

Case Study: BOLIVIA

Contributors: Carlos Quiroga Covarrubias, Julia Montes, Heinar Azurduy, Betty Soto

The Bolivian context

In urban Bolivia, water and sanitation services are managed by municipal governments, directly or through Water and Sewer Service Providers (*Empresas Prestadores de Servicios de Agua Potable y Alcantarillado*, EPSA), which are publicly-run or cooperatives. In rural areas, services are usually managed by local water committees with municipal support. Public resources are likely insufficient to meet the sanitation needs in Bolivia through direct subsidy solutions, but there are challenges to private sector administration of services as the government declared that water and sanitation should be public services and to make them private commodities would be a violation of human rights. Accordingly, most urban and some rural sanitation is publically subsidized by 30% to 80%.

Population	10,496,000
GNI per capita	US\$2,220
Population below poverty line	45%
Sanitation coverage	46%
"Ease of doing business" rank	162/189

Program Background

Water For People-Bolivia is working with a number of sanitation businesses and partners with an aim to create a sustainable market along the entire sanitation chain from constructing toilets to emptying, treating and reusing waste products. These include private sanitation construction microenterprises that offer composting and low-flush toilets, and manufacturers of toilet components, such as urine diverting toilet pans. On the other end of the sanitation line, Water For People is exploring toilet compost treatment and reuse with local private and university partners. Compost sales are in the pilot phases with a few small clients, but the reuse market seems promising.

Public sector influence

Examples of public sector support:

- In urban areas, the government manages sewer lines and treatment facilities, collecting fees to maintain operations. In rural and peri-urban areas, on-site sanitation is supported by the government, but to a lesser degree due to resource limitations. These services are often supported by NGOs, but this gap also provides an opportunity for private sector involvement.
- If the compost market grows, and entrepreneurs want to scale their business, the product will need to pass national environmental regulations including additional laboratory testing. The process is lengthy, but reasonable and could result in formal certification that may diminish clients' safety concerns.
- Based on the experiences of organizations that implement responsible composting toilets which close the cycle of nutrients, including those of WFP, the public sector is in the final stages of designing the "Plurinational Bathrooms Ecological Program," which will offer partial subsidy to households investing in an ecological toilet.

Examples of public sector hindrances:

- Pit emptying businesses that bring waste to centralized publicly-operated treatment plants face a very high dumping fee that restricts their ability to offer affordable pit emptying services to households. Despite high-profile public campaigns promoting a clean and healthy environment, prohibitively high dumping fees and inadequately functional treatment facilities pose a large environmental and public health risk.
- There are currently no policies in place to support small emerging sanitation businesses.

Ideas for further public sector support:

- Conduct public campaigns to promote sanitation;
- Decrease fecal sludge dumping fees;
- Open discussions regarding public private partnerships and policies to involve small local sanitation businesses as a means to create jobs and address resource limitations to providing free *desirable* toilets to all families;
- Create policies that incentivize small sanitation businesses such as tax breaks and business support services;
- Offer business grants and loans for socially-minded businesses that work in the sanitation sector; and
- Create and offer additional certifications for sanitation products and services.

Engaging the public sector

Bearing in mind government and historical precautions regarding private sector involvement in water and sanitation services in Bolivia, Water For People has been working closely with public sector representatives, including written agreements with local governments. These relationships include experience exchange, technical support, working with municipalities to strengthen human resource skills, and leveraging public economic resources. Partnering with local governments has led to the institutionalization of approaches to address basic sanitation, including the creation of a municipal basic sanitation department (Box 1).

Sanitation subsidies are engrained in the Bolivian social and political culture and zero-subsidy sanitation programs would likely meet high government and community resistance. Within this context, Water For People subsidizes 20% of on-site sanitation programs, while municipalities subsidize 20% (in rural areas), and families cover the rest of the cost (60-80%). This model provides affordable sanitation options while engaging the government and giving families purchasing power enabling them to voice their preferences. Although there are still concerns, such as determining who would pay Water

Box 1. Supporting the creation of municipal basic sanitation departments

Every municipality in Bolivia has different departments that focus their efforts on a specific theme. As a means to increase local governments' focus on sanitation, Water For People has been advocating for and supporting the creation of a municipal basic sanitation department (*dirección municipal de saneamiento básico*, DMSB) within the municipal governments with which they work. These institutionalized departments oversee sanitation-related projects, understand community needs, and provide hygiene training, with the idea that they would be able to continue operations without Water For People presence.

For People's portion in their absence, it's a step in a more sustainable direction compared to 100% direct-subsidization programs that don't allow families to choose within a competitive market system.

Water For People engaged municipal government at annual budget allocation meetings, where Water For People shared evidence of the demand for sanitation and the potential for families to invest their own resources in desirable products. Although skepticism of private sector involvement in sanitation still exists, Water For People is working to mitigate this through the dissemination of successful pilots.

Suggestions from Bolivia

- Involve and get buy-in from municipal governments from the beginning; don't work directly with the community without coordinating with and engaging the municipality as this can distort and conflict with government efforts.
- Identify (or create) and strengthen local public partners, such as DMSBs, who can continue efforts, including monitoring, after Water For People is no longer involved.
- Engage the government to launch large-scale promotional campaigns for new low-cost sanitation technologies, encouraging markets that provide a variety of technologies and prices.
- Facilitate government promotion of microfinance for sanitation, encouraging lending institutions to increase their small-scale sanitation portfolio.

Case Study: GUATEMALA

Contributors: Otto Gonzalez, Edgar Fajardo, Reyna Pelicó, Aura Cuc Guarcas, Eduardo Diéguez, Cristóbal Pérez, Otilia Mulul

The Guatemalan context

In Guatemala, like many Latin American countries, water and sanitation responsibilities are often decentralized to municipalities. The main body responsible for setting policies is the Ministry of Public Health and Social Assistance (*Ministerio de Salud Pública y Asistencia Social, MSPAS*), however there are a number of agencies involved in water and sanitation, including the Municipal Development institute, Ministry of Health and the Ministry of Environment and Natural Resources, although roles are somewhat ill-defined and there is no clear, effective regulatory body.

National law does not stipulate who should provide sanitation services. Additionally, resources are often limited and service provision is typically addressed through a variety of public, private and community entities, including Community Development Councils (COCODEs). COCODEs were introduced in 2002 to support decentralization of power and greater community participation. They are typically comprised of active community members and, in theory, can access national funding earmarked for cost sharing with local governments.

Population	15,083,000
GNI per capita	US\$3,130
Population below poverty line	54%
Sanitation coverage	80%
"Ease of doing business" rank	79/189

Program Background

Water For People-Guatemala is working with small sanitation product providers and microfinance institutions to facilitate the local sanitation market in Santa Cruz del Quiche. These include a business that makes latrine slabs, another that fabricates fiberglass urine diverting seats for ecological toilets, a new

sanitation construction company who builds and remodels toilets, a large supplier of hardware products including sanitation components, and two microfinance institutions.

Public sector influence

Examples of public sector support:

- There are some publicly-sponsored benefits for registered small businesses, such as business development support and additional credit access (however these programs have limited geographical reach and are not accessible to businesses in Santa Cruz del Quiche).
- Small businesses pay lower income tax (5%).
- In the areas where Water For People is working, there have been no direct-subsidy sanitation projects in the last two years allowing the market greater potential to flourish without distortion of free products.

Examples of public sector hindrances:

- Although the areas where Water For People is working have been free of direct-subsidy sanitation programs for the past two years, public and NGO-sponsored sanitation programs in Guatemala typically consist of giving free latrines to every family in a community regardless of income. This means that one entire community is provided free toilets, even those families who can afford to purchase one, while families in another community that can't afford to purchase a toilet may go without since there are insufficient resources to provide toilets to every community.
- NGOs often partner with or give money to local or larger government bodies specifically to construct free toilets for families. These toilets are usually simple pit latrines that families don't like and are often left unused, resulting in a continued lack of

household access to safe sanitation and further expectations of free sanitation distorting the sanitation market that could provide more desirable toilets that families may actually use. This is a systemic issue as it is difficult for governments to decline external financing.

Ideas for further public sector support:

- Place additional emphasis on sanitation in public programs and plans.
- Conduct sanitation awareness campaigns.
- Spread resources more evenly, and to those who truly need it, through sanitation intervention that is based on socio-economic segmentation and policies that discourage blanket subsidized sanitation programs.
- Improve support to microenterprises by expanding the Ministry of Finance (MoF) micro and small business program (MIPYME) which offers business development support and expanded access to credit, but is not currently accessible in all areas of Guatemala.
- Disseminate research carried out by the Regional School of Sanitation Engineering (ERIS) who has significant information regarding on-site sanitation that could be useful to local sanitation service providers and/or municipal governments, but the knowledge is centralized in the capital.
- Build the local sanitation market instead of importing toilet components that don't consider local household preferences.
- Build on and involve the private sector in the Municipal Development Institute (INFOM) demonstration latrine models (Box 1).

Engaging the public sector

At the community level, Water For People works with COCODES to organize community meetings to promote sanitation, including sharing demonstration latrine models and health education training. They also work with ministry representatives from the municipal level up to central level, to provide trainings and coordinate efforts. At the central level, they participate in the water and sanitation network.

Box 1. Expanding public programs through PPPs

INFOM has technically-sound designs for a pit latrine and a composting toilet. However there are challenges to household adoption, including: (1) they are developed specifically for subsidy programs and unavailable to purchase, but programs are not funded so their distribution is stagnant, and (2) they are not attractive toilets and there is not an option for families that prefer water-based toilets, such as a biodigester. Engaging the private sector may allow the designs to be expanded upon, improved esthetically, and made available for families to purchase while awaiting additional public funding that could be used for partial subsidies to lower-income families and opening access to credit options through local microfinance providers.

With the MoF, specifically, Water For People has presented the concept of a market-based approach and worked with them to coordinate actions that support local sanitation enterprises. Government activities often have to be coordinated a year in advance due to budget planning structures, but next year, the MoF may support sanitation fairs to encourage local markets. Since the MoF focuses on business and finance, they are engaged through that aim, and although the idea of supporting sanitation businesses, specifically, was foreign, it was of interest. A lack of resources and the existence of other priorities are the main barriers. The topic is still new however and while it is being discussed at meetings and joint activities with public partners, the issue still needs to be addressed on a deeper level, including addressing the norm of direct sanitation subsidies without socio-economic segmentation.

Although less directly related to sanitation businesses, the public sector (the Ministry of Education and the Ministry of Health, specifically) has been engaged more deeply in school-based sanitation activities with Water For People where they are working to train teachers to teach and promote sanitation and hygiene through the national curriculum and school activities. If students share messages of improved sanitation in their own home, this may indirectly facilitate local sanitation markets by increasing household demand for sanitation products and services.

Case Study: HONDURAS

Contributors: Sergio Reyes, Lenin Martinez, Johny Chirinos, Mark Duey, David Sparkman

The Honduran context

In Honduras, sanitation is mainly a municipal or local responsibility, especially in the rural areas. To support this mandate, rural communities have local water and sanitation committees (*Juntas Administradoras de Agua y Saneamiento*, JAAS) to manage drinking water and sanitation services. Each JAAS pays a portion of their local water tariffs to municipal associations of water committees (*Asociaciones de Juntas de Agua y Saneamiento Municipal*, AJAASM) who support the JAAS.

Despite insufficient municipal and JAAS funding, the expectation of free sanitation has been engrained as a social norm in Honduras, likely due to intermittent NGO and publicly subsidized sanitation programs. The reality is there is not enough government funding to provide every family with a free toilet, especially one that is desirable and likely to be maintained and used over time.

Population	7,936,000
GNI per capita	US\$2,140
Population below poverty line	67%
Sanitation coverage	80%
"Ease of doing business" rank	127/189

Program Background

Balancing resource constraints and the existing JAAS and AJAASM structures, Water For People has partnered with three municipalities to pilot a self-sustaining micro-lending program for household sanitation managed by AJAASMs. In this model, the AJAASM lends seed capital to JAAS who then offer desirable flush toilets to households on credit (they can also be purchased with cash). The households pay the JAAS in installments over one to two years at 24% interest annually, and the JAAS repays the AJAASM with interest.

The "sanitation as a business" program in Honduras is the most directly linked with the public sector than in any other country where Water For People is working. Their main "business" partner is actually the local water committee in collaboration with the municipality, including the mayor and the AJAASM, blending a business approach of resource recovery with the government's social responsibility to ensure families have adequate sanitation. Accordingly, the program in Honduras is interchangeably referred to as "*saneamiento sostenible*" (sustainable sanitation) and "*saneamiento como negocio*" (sanitation as a business), since the more business-like approach is seen as a way for municipal governments and communities to achieve full sanitation coverage for the *long-term* and overcome insufficient public funds and unsustainable "free" sanitation models.

Although still in the pilot phase, the model appears successful in the three municipalities where Water For People is working. In El Negrillo municipality, there are 62 households. Of those, 17 did not have a toilet. Through the lending scheme, 16 households purchased the US\$75 toilet on credit from the JAAS to be paid back over 15 months. The last household purchased the toilet with cash. To date, only one type of toilet has been offered on credit. However, the AJAASM credit statutes do allow for others.

Each AJAASM will need at least two staff to run the program: an administrator and a promoter. To help facilitate the model, municipality will likely subsidize these positions for one year, after which the AJAASM will be expected to self-sustain.

Potential for scale: The model is limited by district boundaries, and there are 298 districts in Honduras, with only around half having a JAAS. However, it's a step toward a potentially more sustainable model, and since there has been limited direct support from Water For People, there is a strong possibility that the model will be replicated in other parts of the country without much additional support.

Public sector influence

Examples of public sector support:

- The existing AJAASM/JAAS structure provides a strong local framework for the program.
- The JAAS have been pushing households from inside communities to have a functioning toilet, and offering an option that is affordable to most families.
- In all three municipalities, the mayor and Water For People worked together to create new policies that: (1) require all households to have a functioning toilet, and (2) limit external funds from NGOs and the municipality to discontinue direct sanitation subsidies. Although these are not formal national policies endorsed by congress, they have a strong influence at the local level with respect to starting to change social norms.
- Where households are not yet connected to the water supply, the JAAS requires they have a functioning toilet before they are connected to the water system, providing pressure for households to prioritize and invest in sanitation instead of waiting for unreliable and unsustainable government or NGO donations.

Examples of public sector hindrances:

Political pressure and offers for financial support from NGOs (e.g. one mayor agreed with the new approach, but due to political pressure and NGO financing opportunities, provided free toilets to some households, distorting the market that a potentially more sustainable approach would depend on). Public policies to avoid this don't exist, and the social norms have not yet changed, leaving emerging sanitation markets vulnerable to political and social pressures and foreign aid organizations offers of free toilets even to families that can afford to invest in their sanitation.

Ideas for further public sector support:

Create public policies to eliminate or reduce direct sanitation subsidies from government and NGO programs which distort the market and attempts at more sustainable sanitation models.

Engaging the public sector

Water For People began by working with the mayor in each municipality to change local policies around sanitation service provision. Their first aim was to gain municipal government buy-in for a new intervention approach to improve the sustainability of sanitation in their communities. Water For People then worked with them to develop the new local policies and influence social norms. However, public sector engagement is an on-going process as the program is still in the pilot phase.

Public sector incentives: The municipal partners are on board because there is not enough funding available to provide toilets to their constituents through a direct subsidy model. However, the program is challenged by political pressures that dissuade municipal governments from declining offers from NGOs to partner in providing free toilets to households in their communities. These offers are rarely consistent or sustainable, but in a mayor's position it is difficult to refuse them when they are on the table. This highlights a systemic issue where public policies and international aid practices may need to change before a sustainable model will take root at scale in Honduras. These public policies do not yet exist, but may be a step in the right direction if this pilot is successful.

Conclusion

The JAAS and municipalities don't have business- or market-based incentives; they are not for-profit entities. However, they do have the incentive to maintain sufficient resources to support their communities and constituents over time. In this sense, a model that supports the public aim of providing sanitation to all families within a structure that maintains resources for other public investments (e.g. schools, healthcare facilities and toilets for very poor households) has gained local interest. Households recognize the opportunity to invest in a desirable, yet affordable, toilet, and local governments see the opportunity to provide services to their communities, with very limited resources.

Case Study: INDIA

Contributors: Satya Narayan Ghosh, Gopalan Sampath, John Sauer, Steve Sugden

The Indian context

State governments bear the main responsibility for implementing sanitation programs in India. Responsibility can be turned over to the district, block, or village (Gram Panchayat) level, depending on state policies and practices. India accounts for over 600 million people defecating in open out of 1.1 billion in the whole world. In response, the Government of India has prioritized sanitation and has a number of publicly-sponsored programs to improve sanitation access.

Population	1,237,000,000
GNI per capita	US\$1,550
Population below poverty line	22%
Sanitation coverage	36%
“Ease of doing business” rank	134/189

Program Background

Water For People’s sanitation program in India focuses on: (1) business development with local entrepreneurs; (2) development or discovery of new sanitation products; (3) identifying or creating credit opportunities for sanitation businesses and customers; and (4) demand generation and linking households with government incentives. The types of partnering businesses include:

- Component manufacturing (e.g. latrine slabs);
- Construction / installation of toilets;
- Fecal waste management (starting in 2014).

Like most of India’s small businesses, the sanitation private sector mainly operates informally due to a gap in regulations and guidelines for grassroots private sector players. The entrepreneurs working with Water For People are slowly registering, with Water For People’s support, so that they can legitimately operate and work with larger clients who require formal billing and receipt.

Public sector influence

Examples of public sector support:

- Public sanitation programs, including:
 - Subsidized rebates for “below poverty line” (BPL) families who purchase a toilet, where the government provides Rs 9,100 (approx. 150 USD) in rebates (a low-cost toilet costs around Rs 10,000) based on local government verification of poverty level and toilet construction;
 - Sanitation demand stimulation campaigns;
 - “Rural sanitary marts” to improve access to sanitation products in rural areas; and
 - Interest-free loans to new sanitation businesses.
- A national law against the dangerous practice of manual emptying/scavenging of latrines is also supportive of safe pit emptying businesses.

Examples of existing challenges:

- There are gaps between policy and execution:
 - The BPL subsidy includes central and state-level financing, but in some states these funds come from two different departments, which, due to lack of convergence, can greatly delay processing;
 - The flow of BPL subsidy funds can also get congested in the trickle down from central to state, district, block and then Gram Panchayat who verify toilet construction before releasing the rebate funds; and
 - The use of revolving funds available with the district government for the interest-free sanitation business loans is very limited.
- A lack of guidelines and regulations for grassroots private sector businesses can discourage a formal sanitation sector with greater access to clients, credit and business support services.

- Wastewater treatment plants, which are mainly publicly owned and dependent on subsidies, are few and functionality is low.
- There is insufficient robust wastewater treatment infrastructure in urban areas. There is also a lack of regulations around fecal waste dumping (although guidelines may be created by the new government who has shown an interest in improving sanitation).
- The siloed nature of government departments that influence sanitation programs, including water, health, and employment, can limit the realization of programming and sanitation coverage targets. The convergence of different government departments is slow, and the sanitation market is partially dependent on this convergence as currently government incentives come from different departments, such as Nirmal Bharat Abhiyan (NBA) and the Mahatma Gandhi National Rural Employment Guarantee Assurance scheme (MGNREGA).
- There is a lack of collective effort regarding demand generation and behavior change.
- There is insufficient innovation for sanitation products appropriate to different geographies.
- There is a lack of concurrent monitoring for sanitation programs.

Ideas for further public sector support:

- The government is trying to push the sanitation agenda with banks and MFIs to offer sanitation loans to households (e.g. government regulations could require a certain percentage of financial institution portfolios to consist of sanitation-related financial services).
- More liberal policies for private sector sanitation players, such as tax exemptions and incentives for opening a sanitation business, could spark a stronger sanitation market.
- Fecal sludge management support, such as regulations and treatment facilities, likely through public-private partnerships, would help support pit emptying, an increasing need as more families

invest in latrines. The current government is now working to build public-private partnerships to address the sanitation challenges in India.

Engaging the public sector

Water For People-India tries to demonstrate how sanitation markets can improve household sanitation coverage and share experiences from successful pilots with government as a way to engage public partners. They currently participate in government review meetings at various levels to provide water and sanitation expertise and may be able to influence future public support of sanitation businesses through this medium once results of pilot programs are able to be shared.

Additionally, Water For People-India is discussing the Sanitation as a Business model with government representatives to encourage their offering of additional sanitation services to promote one-stop sanitation marts including microcredit, in order to further strengthen the rural sanitation supply chain.

Other influences

Demand for sanitation has been high in the areas where Water For People is working in India. For middle-income families, dignity and privacy seem to be main drivers of sanitation demand, while for lower-income families, health appears to be a larger factor. The level of demand and knowledge of demand drivers for different market segments has also had a positive influence on partnering sanitation businesses in India, in addition to (and in part due to) supportive public programming.

Case Study: MALAWI

Contributors: Brian Mulenga, Joseph Magoya, Emmanuel Kanjunjunju, Jameson Chausa, Chrisswell Nkoloma, Kate Harawa

The Malawi context

Sanitation responsibilities in Malawi sit with the Ministry of Irrigation and Water Development, the Ministry of Health and Population (MoH) and five parastatal water boards: one in the city of Blantyre, one in Lilongwe, and one in the northern, central and southern regions. The Ministry of Local Government is also involved through the decentralization of sanitation responsibilities to more heavily involve local governments.

Population	15,906,000
GNI per capita	US\$320
Population below poverty line	51%
Sanitation coverage	10%
“Ease of doing business” rank	171/189

Program Background

Water For People is concentrating their support on three areas of Malawi: Blantyre, Chikhwawa and Rumphi, including both peri-urban and rural settings. Partnering with a local business development services provider, TEECs, they have been facilitating the sanitation supply chain by working with local entrepreneurs to develop and market a variety of low-cost toilet products and pit emptying services, as well as coordinate microcredit opportunities. They complement supply side efforts with Community Led Total Sanitation (CLTS) approaches to increase demand for household sanitation according to government strategies and plans.

Public sector influence

Examples of public sector support:

- The Blantyre City Council (BCC) reduced dumping fees at the treatment plant (Box 1).
- The BCC offered to provide land for construction of a sanitation technology piloting center.

Box 1. City Council decreases dumping fees so pit emptiers can offer affordable services.

The fee to dump fecal waste at the centralized treatment plant in Blantyre was increasing to the point that pit emptying businesses were struggling to provide affordable rates to households and still operate profitable businesses. Based on pit emptiers’ complaints, Water For People met with the Blantyre City Council (BCC) to request a decrease in dumping fees based on the argument that the city doesn’t have pit emptying equipment and the only option available is through the local private sector whose transport costs are already significant and lower dumping fees would help them continue to provide their services, and promote environmentally safe disposal of fecal sludge. The BCC reduced the cost by 67% as a result. This has had a positive impact on pit emptying businesses in Blantyre allowing them to provide services to households at a much cheaper rate and decreasing the appeal of open dumping.

- Government representatives from the MoH, BCC and others participate in quarterly review meetings with partnering sanitation entrepreneurs to ensure environmentally responsible practices (such as sludge dumping in designated areas) and provide guidance and build the capacities of entrepreneurs.
- The government has been open to Public Private Partnerships (PPPs) (e.g. the Lions Club of Blantyre worked with a local sanitation entrepreneur at Blantyre Market to build fee paying eco-san latrines. In support, the Blantyre City Council provided the land on which the latrines were built. The council will use the compost from the latrines for landscaping).

Examples of public sector hindrances:

- In rural Chikhwawa and Rumphi districts, the government, with NGO support, provide subsidized concrete latrine slabs for rural vulnerable households (Box 2).

Box 2. How can sanitation entrepreneurs compete with free latrines?

Direct sanitation hardware subsidies may be necessary to support vulnerable households. However, depending on the actual criteria used to identify “vulnerable” households and how subsidies are offered, government and NGO-subsidized sanitation programs can produce an expectation that free latrines will be provided to all households. For example, on paper, subsidy recipients should be vulnerable households (e.g. child-headed, elderly, chronically-ill, etc.), but subsidized toilets are often provided to households who don’t meet the criteria in order to comply with program deadlines and achieve a certain number of “recipients.” This has a negative effect on sanitation business growth and other potentially more sustainable mechanisms as entrepreneurs find it challenging to sell sanitation products when households view their future latrine as a free public good.

- There is insufficient capacity to support and enforce sanitation regulations requiring households to have an “improved” toilet that could provide additional business opportunities for local sanitation entrepreneurs.
- The government has been unable to enforce regulations on illegal manual pit emptying and open fecal waste dumping.
- Local governments have, understandably, not been able to resist sanitation hardware subsidies from NGOs, which distort sanitation markets challenging local entrepreneurs’ efforts to create long-term, viable businesses.
- There are unclear or limited private sector roles in local government operational strategies for sanitation.
- In the rural areas, fecal sludge dumping sites are often very far from where pits are emptied resulting in prohibitively high transport costs.

Ideas for further public sector support:

The public sector may be able to support low-cost sanitation markets via the following activities:

- Develop clear strategies for PPPs to encourage small sanitation businesses to enter the market with a clear role within government plans;

- Provide incentives to households to reject and report manual pit emptiers to city council law enforcers;
- Recruit staff and dedicate resources to building low-cost sanitation market capacities, and enforcing household sanitation and fecal sludge dumping regulations;
- Develop a clear operational strategy for how sanitation market support can be implemented by all stakeholders in a district or city;
- Increase capacity of local government to monitor and mentor sanitation businesses through dedicated public personnel;
- Invest in small, safe fecal sludge disposal sites to reduce transport costs and encourage safe dumping and more sustainable, profitable pit emptying businesses (Water For People and the University of Malawi’s research with solar sludge dryers may also provide a solution as they begin to market the product to entrepreneurs who could then treat fecal sludge locally as part of their own or a partnering business); and
- Develop and enforce clear guidelines for sanitation hardware subsidies to reduce or redirect subsidies to support long-term solutions that don’t rely on external financing.

Engaging the public sector

In Malawi, the role of NGOs, including Water For People, is to complement efforts of the government of Malawi to improve the lives of Malawian citizens. Each district in Malawi has a District Implementation Plan (DIP) which provides guidance to all stakeholders on the needs of the district. Water For People meets with district officials during monthly planning meetings and influences and aligns its activities with these official public plans. They also seek local government approval prior to any program implementation. Government involvement from the very beginning and working to align with their goals has enabled full government participation and successful implementation of projects in both rural and urban areas.

Water For People also works to support local governments' efforts to ensure sustainability of sanitation interventions by building their capacity to monitor household sanitation. For sanitation businesses, specifically, Water For People engages the public sector by:

- Actively involving public sector partners in decisions from the very beginning (e.g. Water For People did not have to push the BCC to provide the land for the sanitation center. Since the BCC was involved in the initiative from the beginning and understood and agreed with the aims, they offered to provide the land as a way to contribute to progress toward a better sanitation market);
- Involving government stakeholders in sanitation entrepreneur training in Chikhwawa and Blantyre districts;
- Conducting joint quarterly field monitoring visits with government representatives (Blantyre City Council, Water Board, and District Health Office) to assess the performance of sanitation entrepreneurs in Blantyre;
- Ensuring active local government participation in "Sanitation as a Business" conferences (e.g. participation of the Director of Public Health for the Blantyre City Council was invited by Water For People and actively participated at a conference in Uganda in early 2014, called "Sanitation as a Business: Unclogging the Blockages");
- Inviting government stakeholders to an annual Re-imagine Reporting sessions to review Water For People activities and initiatives including "Sanitation as a Business." This provided a platform for government stakeholders to share ideas on how sanitation businesses could be better supported;
- Lobbying for increased funding toward sanitation-related activities with local governments or district councils; and
- Linking sanitation market support activities with MoH-endorsed CLTS activities (Box 3).

Box 3. Complimenting CLTS with sanitation businesses

MoH and other public officials in Chikhwawa and Rumphi districts prefer the CLTS approach to the "Sanitation as a Business" approach, as they view CLTS as more directly related to the nature of their responsibility: disease prevention, not business development. The CLTS approach uses shame and disgust to trigger households into stopping open defecation by constructing a latrine, even if it is very basic to start with. To encourage the complimentary nature of CLTS and sanitation businesses, Water For People ensures that local sanitation entrepreneurs participate in the process of CLTS during triggering exercises in the community, with the idea that families can construct a latrine from free basic materials, but they also have the option to invest in more desirable or more hygienic products. CLTS is now embraced by entrepreneurs as a marketing tool and platform to showcase their products and services, and a source of customers. They offer various products, such as concrete slabs and drop-hole covers, at reasonable prices and have served to improve the supply side of sanitation as demand increases through CLTS activities.

Program monitoring and evaluation

Through annual "Re-imagine Reporting (RiR)" reflection sessions, where Water For People-Malawi and partnering public stakeholders meet to evaluate the past year's activities, Water For People has been able to discuss and assess the public sector's role in sanitation market growth, actively engaging public sector partners in the process. The only idea for improvement may be to conduct these sessions quarterly to remind government partners more frequently of their commitments to supporting the local sanitation market.

Suggestions from Malawi

- **Engage and actively involve government partners from the very beginning** to increase open communication and trust.
- **Compliment government aims** and activities.

Case Study: NICARAGUA

Contributors: Mauricio Villagra, Ivette Morazán

The Nicaraguan context

Sanitation coverage in Nicaragua is the lowest in Central America, at 52% nationally and 37% in rural areas. Technically, sanitation coverage is a municipal government responsibility in Nicaragua, but municipalities are rarely able to meet sanitation needs due to resource and political limitations. In urban areas, sewer connections, where present, are typically managed by the national water and sewerage company (ENACAL).

Population	5,992,000
GNI per capita	US\$1,690
Population below poverty line	43%
Sanitation coverage	52%
“Ease of doing business” rank	124/189

Program Background

Water For People is working with a number of different types of sanitation businesses, including:

- Component (e.g. latrine slabs) providers, such as hardware stores, operating mostly in urban areas;
- Local masons who construct toilets/latrines in both urban and rural areas;
- Waste reuse (i.e. compost) businesses; and
- Microfinance institutions and agriculture cooperatives, who are interested in adding sanitation to their portfolio to enhance their application for certifications, such as the “Good Agriculture Practice” certification, which have financial benefits.

Public sector influence

Water For People-Nicaragua works with public institutions, including the Ministry of Health, Ministry of Education, and municipal governments. These public partners support sanitation programming, including community awareness and education

campaigns, hygiene corners in schools, and municipal-level technical support and monitoring. However, these activities have been encouraged by Water For People and there is no guarantee that they will continue without their intervention.

Examples of public sector support:

So far, the public sector has not developed activities or programs that facilitate household access to sanitation via sustainable mechanisms, such as sanitation market support. However, there is high potential for the public sector to have a strong positive impact on sustainable sanitation mechanisms and some ideas for how the public sector could better facilitate sustainable sanitation markets are discussed on the following page, include:

Examples of public sector hindrances:

- Sanitation businesses have been hindered by municipal sales tax that treats new small businesses the same way as large established businesses, creating an environment difficult for small businesses to compete and profit.
- The public sector provides some households with 100% subsidized toilets, undercutting sanitation businesses who can’t offer a product for less than free. Often, latrines are provided to households as part of government or NGO water projects and are given to all families in the community regardless of socio-economic status or need. There is no segmentation to qualify for subsidized sanitation. These projects are typically administered by local government with direction from national authorities. Despite good intentions, such subsidies have often had a negative impact as households have come to expect, and wait for, government and/or NGOs to provide them with a free toilet, despite insufficient resources to provide all families with desirable toilets that are likely to be maintained

and used over time, resulting in continued dependence on external support.

- Local government has begun to realize that attempting to provide every family with a new pit latrine every five years is an unsustainable model, but they need authorization from central government for many of their activities which can slow and hinder activities particularly those that challenge the norm such as sanitation programming that utilizes the market to encourage sustainable service provision in a government where the conventional approach and expectation is to provide free latrines. This also requires effective discussions with both local and central government representatives to change social and political norms, and it can be challenging to gain the ear of busy central government representatives.
- Government has created the expectation of providing free latrines to families. This social norm and resulting political pressure challenges more sustainable approaches that could ease reliance on continued government and NGO support.

Ideas for further public support

- Develop and enforce regulations and/or favorable policies for sanitation businesses;
- Conduct national promotional campaigns;
- Support local masons to gain certification in improved sanitation construction practices; and
- Decrease direct subsidies and focus on “smart subsidies” (Box 1) that support local sanitation markets and have a higher likelihood to bring long-term solutions to those who need it most.
- Lower local tax rates for small sanitation businesses operating as social microenterprises;
- Offer business development and technical support to small sanitation enterprises, such as certification through municipal tech schools; and
- Encourage household investment in sanitation products they desire through microcredit access and financial support for low-income families.

Box 1. Example of a potential “smart subsidy”

In one municipality, Water For People is encouraging local government to provide families a \$300 discount on local sanitation products (given directly to suppliers) instead of spending \$300 on pit latrines that, based on market studies, families don’t like and are unlikely to use. This public support, along with supply-side development of affordable and desirable technologies and microcredit opportunities, would allow families to invest their own resources in a flush toilet they actually want, an additional cost of approximately \$500. The idea is to not only support household access to sanitation products that will actually be used, but to allow municipalities to reallocate funds that would normally be spent replacing broken down latrines every five years as undesirable services are neglected over time.

Engaging the public sector

In order to engage the public sector, Water For People-Nicaragua (along with the other Central American offices) changed the program name from “*saneamiento como negocio*” (sanitation as a business) to “*saneamiento sostenible*” (sustainable sanitation), advocating for the achievement of sustainable sanitation through market-based mechanisms with embedded incentives.

Water For People is developing a technical course for masons working in the sanitation sector. The course will be offered by municipal technical education centers through the Nicaragua National Institute of Technology (INATEC) who will provide certification to masons who successfully complete the course.

Other influences

Sanitation demand is high in Nicaragua suggesting potential for a thriving sanitation market if desirable and affordable products are available, along with credit and/or subsidy programs for families that are truly low-income. A Water For People market study found that over 80% of families in a lower-income area were interested in investing their own resources if they could purchase a porcelain flush toilet. (The free pit latrines from the government often fill with water and are considered unpleasant.)

Case Study: PERU

Contributors: Oswaldo Tello

The Peruvian context

The Ministry of Housing, Construction and Sanitation is the main body responsible for sanitation in Peru, including defining national sanitation policies. Service provision, however, is fairly decentralized and usually the responsibility of municipal governments, however in some areas services are managed through public-private partnerships on a larger scale, particularly in the more populated cities.

Population	29,988,000
GNI per capita	US\$5,890
Population below poverty line	26%
Sanitation coverage	73%
“Ease of doing business” rank	42/189

Program Background

In the Arequipa region, Water For People works with three sanitation businesses who, between them, offer latrine components (e.g. slabs, toilet bowls), on-site wastewater treatment via biodigestors, construction of on-site sanitation products, and compost from ecological latrines (compost sales are in progress and in rural areas only). Water For People mainly provides technical assistance to local businesses and regional and local governments to support more sustainable sanitation programming.

Public sector influence

Examples of public sector support:

- On two occasions, the regional government of Arequipa sponsored small sanitation fairs where local sanitation product providers could exhibit their products to low-income families.
- The government has been providing free toilets to rural families living in extreme poverty through the Rural Sanitation Program. As the program targets extremely impoverished households, it doesn't appear to have had a large effect on the sanitation market. However, a new national rural sanitation approach is linking sanitation with

government water support. It is somewhat unclear how funds will be distributed for household sanitation, but there is a risk that the approach may contribute to household expectations for sanitation subsidies, diminishing demand and willingness to invest.

- The government in two municipalities of Arequipa, Peru conducted sanitation promotion programs and paid promoters to visit households and discuss water and sanitation. Unfortunately, these didn't seem to have much effect on household sanitation investments. This may be due to insufficient incentives for government to inspire household investment.

Examples of public sector hindrances:

- Microenterprises providing sanitation products and services, even though they are small socially-minded businesses, do not receive tax cuts or exemptions of any kind. They pay the same taxes as any business, including mining and petroleum companies, regardless of social aims or size.
- In Arequipa, Water For People has found that local mayors expect funding from the regional and central governments to finance either expansion of public sewer networks or fully or partially subsidize household toilets. Until this expectation changes, it is difficult to engage local mayors to take actions toward supporting the development of a sustainable local sanitation market.
- Most high-quality sanitation products and services are offered through the formal market (i.e. registered and tax-paying businesses). Unfortunately, participating in the formal market significantly increases business operating costs through high taxes and stringent labor laws. This cost is transferred to households who have to decide between high-cost, high-quality solutions and low-cost, low-quality solutions by purchasing materials themselves from a hardware store and hiring a local mason. Local masons often operate

in the informal sector and are able to keep costs very low, but often don't offer the quality provided by the formal sector. As an example, one family in Arequipa, Peru decided to work with a local mason operating in the informal sector due to the high-cost of the sanitation product offered by one of Water For People's partners, Dipolsur, who operates in the formal sector. After less than four months, the underground biodigester that was installed collapsed.

- The challenge for formal sanitation businesses to compete with sanitation entrepreneurs operating in the informal sector also provides a disincentive for informal entrepreneurs to formalize, despite the potential to access business development support services and larger clients, such as mining companies, who require official receipts.
- The autonomy of decentralized governments in Peru may limit the ability of national regulations and programs to influence sanitation investments at the local levels. Regional government offices are often insufficiently staffed and there is a large gap between central and local government activities. Even national funding is budgeted at the local level through participatory activities with local government where there is substantial autonomy. Local governments often feel more accountable to their constituents than central government, which may be one reason for greater investment in high visibility projects over public health projects to meet national norms.

Ideas for further public sector support:

- Allow sanitation-related microenterprises to be eligible for the benefits included in the micro and small business (*micro y pequeña empresa*, MYPE) law. Currently, the MYPE benefits do not extend to construction enterprises. Despite the public health benefits of sanitation services, sanitation enterprises are categorized as general construction companies under the law, excluding them from the MYPE benefits including reduced labor costs and taxes (18% instead of 30%).
- Offer a legal registration option for socially beneficial, for-profit ventures to bridge the gap

between NGOs and conventional businesses, similar to L3C registration in the United States. This would allow social enterprises, such as low-cost sanitation businesses, to provide affordable services to households (via less-strict business regulations) while maintaining profit and associated market-driven incentives.

Engaging the public sector

Water For People has met with regional government representatives to discuss inclusion of sanitation microenterprises within the scope of the MYPE law, as well as the importance of government promotion and support in developing the lower-income sanitation market. Regional and local government representatives agreed to support sanitation market development, but support stopped at two small sanitation fairs. Government officials cite limited budgets and insufficient human resources to promote sanitation market development. One challenge is that sanitation investments are often seen to have a low cost to visibility ratio limiting local government incentives to invest in on-site sanitation.

Although unconventional in a sense, one approach to gaining additional government investment has been a "do now, ask later" approach. In the town of Pedregal, the local government invested 60% of the cost of a sewer system and began construction. Throughout construction, the local mayors have been working with CARE to prepare households for sewer connections, including helping families to obtain official identification documentation and encouraging savings programs with local financial institutions. With over half the sewer lines constructed, some households already connected and the rest ready to connect, the local government is demanding that central government cover the additional 40% with a clear argument and all preparations in place. It seems very likely that national funds will cover the remainder and all households in the town will be connected to the sewer. This is often a prerequisite for household sanitation investment in urban areas where families may wait for sewer lines before purchasing a toilet.

Case Study: RWANDA

Contributors: Stephen Mugabo, Christine Umubyeyi, Perpetue Kamuyumbu, Eugene Dusingizumuremyi

The Rwandan context

The Government of Rwanda is promoting improved sanitation and there are campaigns throughout the country run by district and sector authorities. Every mayor has a contract with the president regarding four key areas: health, education, development, and good governance. Health includes sanitation coverage and the national standard is that every household has a toilet with a fine for open defecation.

To facilitate adherence to this standard, the government's Vision 2020 program builds toilets for extremely poor households where the head of household is unable to earn income (e.g. elderly, disabled). These recipients are identified by the community. The program also offers jobs to poor households that do have someone capable of working such as road or school construction or similar public sector work. Government support of the very low-income households is promising as it allows the market to address the population segments that have the capacity to purchase a toilet directly or through credit strategies which may result in greater sanitation coverage improvements despite limited resources.

Population ¹¹	10,527,222
GNI per capita	US\$600
Population below poverty line	45%
Sanitation coverage ¹²	64%
"Ease of doing business" rank	32/189

Program Background

In Rwanda, Water For People and partnering business development service provider, Boundless Consultancy Group, are working with small latrine construction businesses, local sanitation marketers,

and hygiene clubs. Under the Community Based Environmental Health Promotion Program launched in 2009, the Community Hygiene Clubs approach is used to reach all communities and empower them to identify their personal and domestic hygiene, nutrition and environmental health related challenges (including drinking water, utilization of improved toilets, hand washing, food safety, etc.). Community Hygiene Clubs were established and supported in both Rulindo and Kicukiro districts by the Ministry of Health (as part of the USAID-funded Rwanda Family Health Project) where Water For People through its partner Rwandan Organization for Solidarity and Development (ORSO) has worked with hygiene clubs to sensitize hygiene practices.

Some clubs have also established savings schemes (cash round groups) where each member contributes a given amount every week and is given a soft loan. At the end of each year, the club shares the interest generated among the members to meet sanitation and hygiene obligations. Boundless Consultancy Group and Water For People are assisting households to build toilets using the existing hygiene club and cash round group structure, including cash round group investment. All activities are co-implemented with district and local government.

Demand for sanitation is high as a result of sanitation promotion, but financial capacities are low for many households. Some community hygiene clubs have savings schemes for improved sanitation, some families have purchased a toilet with cash, some on credit via the local financial cooperative (Savings and Credit Cooperatives [SACCOs]), and other, very poor households, have received toilets through government subsidies and through 'Umuganda' (community service activities).

¹¹ From the 4th National Population and Housing Census of 15 August 2012. The World Bank provides a 2012 estimate of 11,458,000.

¹² Based on JMP estimates for comparability between countries. The 3rd Integrated Household Living Conditions Survey, used in Rwanda, estimates 75% coverage.

Public sector influence

Examples of public sector support:

- The Ministry of Health supported the creation of the community hygiene clubs, where each club is responsible for 60 households.
- There are government national sanitation campaigns, including fines for open defecation.
- Mayors are incentivized via contracts with the president to ensure health services and local leaders have taken the initiative to prioritize sanitation since it is a key health indicator measured in performance contracts.
- The government's Vision 2020 program, which constructs toilets for extremely poor households, identified by the community themselves. This government support, with clear selection criteria and community involvement in identification, provides services to very low-income households without distorting the market and allowing the market to address the needs (and preferences) of those with greater capacity to purchase a toilet directly or on credit.
- The City of Kigali supported the private sanitation company, SANDEV, to build and manage public toilets in two locations. The business is profitable (i.e. sustainable) and the toilets are well-managed, supporting a healthy environment for the city's citizens.

Examples of public sector hindrances:

- The absence of adequate wastewater treatment infrastructure has hindered pit emptying businesses in Kigali. Fecal sludge is currently dumped at a site in Nduba Sector of Kigali, which is far for many small pit emptying businesses where the septic tank trucks have to charge a high cost for their services. The government has long-term plans to construct a new plant and engineering designs are being finalized.

Ideas for further public sector support:

- Construct small fecal sludge treatment facilities near towns to support pit emptying services and reduce public health and environmental risks of improperly disposed fecal waste.
- Construct a centralized sewerage system in the city of Kigali to connect households.
- Encourage financial institutions to initiate or broaden their sanitation portfolios to help new sanitation businesses access credit to start or grow their businesses. Institutionalizing the cash round groups may also serve as a catalyst for greater access to sanitation microfinance.

Engaging the public sector

Water For People has discussed the importance of building the sanitation supply chain via local businesses with district-level government authorities in sector working groups at joint action development forums. Overall, the public sector has embraced the market-based approach as a complement to sanitation subsidies for very poor or vulnerable households.

The Rulindo district government was further engaged in sanitation after Water For People shared results from a comprehensive survey, including assessment of the level and quality of service in the district, level of household satisfaction, affordability of products on the market, and sustainability of sanitation solutions (Box 1). On a similar note, sharing results of monitoring and evaluation activities with local governments and, where possible, communities has also helped to engage the public sector.

Box 1. Monitoring to inspire government solutions

In 2012, Water For People shared monitoring results for improved sanitation coverage in Rulindo district with government officials. Coverage was estimated at 3.6%. In response, the district government established hygiene clubs, where each club worked with 60 households, and also supported very poor households to obtain improved sanitation. 2014 monitoring revealed sanitation coverage of 39%; a 35% increase.

Case Study: UGANDA

Contributors: Robert Makune, Sherina Munyana, Cate Nimanya

The Ugandan context

Sanitation in Uganda is primarily the responsibility of the Ministry of Water and Environment (MWE) who provides support to local governments and other service providers. In cities and larger towns, services are provided by the publicly-owned National Water and Sewerage Corporation (NWSC) via contracts with the MWE. In smaller towns and peri-urban areas, sanitation is the responsibility of local authorities, such as the Kampala Capital City Authority (KCCA), and in rural areas, responsibilities lie with district governments. Environmental regulations for sanitation are the domain of the MWE and the National Environment Management Authority.

Population	36,346,000
Per capita income	US\$480
Population below poverty line	25%
Sanitation coverage	34%
“Ease of doing business” rank	132/189

Program Background

Water For People-Uganda has been working with latrine pit-emptying businesses, predominantly in Kampala’s peri-urban settlements. Initially, these businesses were operating in the informal sector, but Water For People has helped them formally register as limited companies. This has given the businesses recognition with households and the ability to transport fecal sludge without risk of arrest, in addition to increasing eligibility for business loans.

In rural areas, Water For People has partnered with local savings and credit cooperatives (SACCOs) who work with Water For People-trained masons to construct household latrines. Families then re-pay the SACCO over time (usually with interest) for the sanitation product. However, demand for these products has not been as high as expected and Water For People is currently developing a modular latrine product to be piloted with a local fabricator.

Public sector influence

The public sector is more heavily involved in peri-urban programming, while in the rural areas, public sector involvement is substantially lower.

Examples of public sector support:

- The KCCA has authorized pit-emptying businesses that use the “gulper” (a small fecal sludge pump designed to operate in crowded settings) to temporarily operate without an environmental permit while awaiting the lengthy permit process.
- With backing from KCCA, the NWSC wastewater treatment plant in Kampala, reduced fecal sludge dumping fees for gulper operators by half.
- During sanitation week, pit emptiers are allowed to dump fecal sludge in strategically placed KCCA trucks (which are used by KCCA the rest of the year), saving on transport costs and serving to promote pit emptying in peri-urban Kampala.

Examples of public sector hindrances:

- Without KCCA’s intervention the process to obtain a permit would have been too long for businesses to wait before making an income, and sludge dumping fees would have been too high for pit emptiers to offer affordable services. With Water For People support, these businesses have been able to push through red tape and high costs, but these barriers limit the ability of other businesses to emerge on their own, restricting scalability.
- There is insufficient infrastructure for safe fecal sludge dumping in many towns, limiting the potential for formal, safe emptying businesses.
- Public latrines are seen by public officials as a service that should be free. Managing committees are therefore not allowed to charge user fees. Unfortunately, due to limited public resources to support on-going maintenance, this means that the hundreds of public toilets constructed in Kampala sit in various stages of disrepair, mostly unused.

- The pilot modular latrine will eventually require certification by the Ministry of Health. Although not a prerequisite to sell to households, it is necessary to sell to institutions, such as schools. Although certification is a positive result, the process to obtain it may be prohibitively lengthy.

Ideas for further public sector support:

- Increase the budget for sanitation, which is currently a tiny proportion of the national budget and limits the ability to work at a strategic level.
- Advocate for and create policies for low-interest loans or social business grants available to low-cost sanitation businesses.
- Support decentralized safe sludge dumping sites. Water For People is currently testing a facility design which would charge a higher dumping fee (to cover costs), but significantly reduce transport costs faced by pit emptiers. Land ownership issues and the stigma of waste treatment have been barriers to identifying a potential site, where the government may be able to provide support.
- Create policies to limit market distorting direct subsidies. Although the government doesn't provide many free household sanitation products, NGOs do. These subsidies invariably distort the sanitation market and when support runs out, it becomes nearly impossible for households to afford sanitation products and services due to a limited consumer base and supply chain.

Engaging the public sector

All towns in Uganda have a local authority, such as KCCA, whose approval is required for most activities. Water For People partnered with KCCA because they are aware or involved in most happenings and regulations in the city and their backing is often needed. Engaging the local authority from the beginning took more time upfront, but has made things much smoother in the long-run. Sanitation can be controversial from an environmental and public health perspective and the exclusion of local authorities can result in legal issues for sanitation businesses if practices are not in-line with regulations and the public sector is not aware of activities. In

addition, they can help navigate and support discussions with central level government (Box 1).

Box 1. Public support to address public barriers

Water For People has been advocating for unused public latrines to be taken over by entrepreneurs using fee-based models. KCCA support has been critical in this process which has faced a number of barriers including complex procedures to hand over a facility constructed using public/tax-payer funds to a private business to manage via a profit-based model. This includes approval from the Public Procurement Disposal of Public Assets Authority (PPDA) and Parliament. KCCA worked with Water For People to alleviate lengthy processes based on their knowledge and experience with local politics. This resulted in the reduction of prohibitively extensive procedures: each public latrine has an associated committee, and adoption of an entrepreneur into the respective committee reduces the number of approvals required, streamlining the process. The two public latrines that have been adopted by fee-charging entrepreneurs as a pilot model are in operation as a result of this strategy.

KCCA was incentivized to support pit emptying businesses based on the urgent need for safe pit emptying in peri-urban Kampala. KCCA had limited exposure to pit emptying technologies appropriate to the city's different contexts, such as overcrowded, unplanned settlements. Recognizing the environmental and public health risks of full pit latrines in these areas, KCCA has helped to create an environment conducive to profitable pit emptying businesses. At first, KCCA felt emptying rates were too high and wanted to put a cap on fees, but Water For People argued that fair prices would result from market forces of supply and demand and that a cap could lead to unprofitable businesses, that would eventually close down, particularly considering the cost of equipment and fecal sludge disposal.

Overall, the public sector has been supportive, but Water For People has had to advocate for their support and interest. With limited internal pressure within political structures, further work is needed for these efforts to self-sustain. To measure progress toward this aim, Water For People monitors public sector involvement in sanitation businesses via periodic working group forums with government and other WASH-related organizations.