

Public-Private Partnerships explained: Urban sanitation service delivery in Zambia

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The concept of Public-Private Partnership is diverse and far-reaching. In WSUP's experience, collaboration between the public and private sectors is not simply something to aspire to: it is essential to providing pro-poor urban unsewered sanitation services at scale.

This publication is part of a series examining the different ways in which public-private collaboration is being realised in Bangladesh, Kenya, and Zambia - three countries where WSUP is working with Bill & Melinda Gates Foundation (BMGF) to improve the enabling environment for urban and peri-urban Faecal Sludge Management (FSM) services.

Public-Private Partnership takes many forms

While definitions vary, there is arguably no such thing as a typical Public-Private Partnership (PPP): the term is used as a catch-all to describe a number of different arrangements between the public and private sectors to deliver services and infrastructure in a cost-effective manner. PPP contracts take a number of forms which differ according to the division of roles and appropriation of risk between the public and private partners.

The design of individual PPPs can be seen as part of a continuum, with varying levels of cooperation and formalisation depending on the context. In WSUP's experience, it is a mistake to conceive of PPPs solely in the traditional sense of large-scale, contract-based infrastructure projects: these arrangements are inappropriate at the scale of unsewered sanitation service provision in urban areas, where partnerships developed between the public and private sector are often governed by service-based agreements and/or working relationships rather than a single contract. Such fluid and flexible partnerships are integral to the successful development of urban FSM services.

In Bangladesh, Kenya and Zambia, WSUP has been able to propose and adapt different models and approaches to developing PPPs, and to strengthen the environment in which they operate. In Zambia, WSUP are supporting Lusaka Water and Sewerage Company (LWSC) to develop new relationships and build the capacity of existing private operators under the Lusaka Sanitation Project (LSP), as well as working alongside LWSC and Water Trusts—LWSC's delegated managers—to improve the sludge emptying and toilet upgrade business models operating in Lusaka's peri-urban areas.



Image: Decentralised FSM transfer station in Kanyama, Lusaka. **Credit:** Gareth Bentley

What do we mean by the term “enabling environment”?

PPPs (and sanitation businesses in general) need to sit within a regulatory, financial and institutional framework which supports private sector involvement. The strength of the enabling environment—which refers to clear policies, guidelines, regulations, technical assistance, financing streams and political buy-in—will directly correlate to the success of a PPP, both in terms of financial stability and its ability to reach customers in an equitable manner.

Urban sanitation in Zambia

Before detailing WSUP's response in Lusaka, it is important to understand the national context in which the BMGF programme operates. Lusaka's sewerage network only serves a small section of the city (predominantly higher-income, well planned areas in the city centre): most residents, and the vast majority living in informal settlements, use on-site sanitation facilities such as pit latrines and septic tanks.

Around 65% of Lusaka's population live in peri-urban areas (PUAs) and have limited access to basic services such as safe water and adequate sanitation. The proportion of the city's population with access to improved sanitation has actually fallen over the last 15 years, and now stands at less than 50%. Poor access to improved water sources or sanitation facilities means that water-borne diseases such as cholera are endemic in Zambia: the latest outbreak in February 2016 affected hundreds of people across several towns, with some PUAs of Lusaka particularly impacted.

Few national policies address FSM in much detail, although the National Urban and Peri-Urban Sanitation Strategy identifies FSM as an appropriate approach to dealing with on-site sanitation. The Water Supply and Sanitation Act 1997 devolved responsibility for sanitation services to Local Authorities, who in turn have formed Commercial Utilities (CUs), such as LWSC, to provide water and sanitation services. CUs have tended to be more active in providing sewerage, as on-site sanitation is complex and the related policies unclear. Unplanned urban zones (i.e. PUAs) therefore have no organised formal FSM service, due to cost and the difficult terrain; residents either empty their onsite sanitation facilities themselves or employ informal emptiers to do so.¹ Almost half of the sludge from Lusaka's onsite sanitation facilities re-enters the environment untreated.²

How can PPPs strengthen Zambia's urban sanitation sector?

In most countries in which WSUP works, utilities and local government struggle to deliver adequate water and sanitation services in rapidly growing cities. PPPs can offer a strong platform for developing approaches to FSM in such environments: advantages include allowing public institutions to meet mandates in an efficient and cost-effective way that ensures services are pro-poor and sustainable; reducing cost and risk for both parties; offering the potential to reach under-served populations (such as low-income communities or those living in topographically challenging areas); and harnessing private sector innovation, business acumen, speed, and demand creation through business links to communities. Businesses with an interest in expanding into FSM service provision are likely to be drawn to urban areas by virtue of their dense populations, their higher than average income (although this will be less apparent in low-income areas), and potential to scale up.

Increasing private involvement in urban FSM requires strong regulatory frameworks and supportive public institutions. Nationally, sector reform, framework development and demand creation (through subsidies, for example) will strengthen the enabling environment for PPPs and other fruitful

¹ Kennedy-Walker R, Amezaga JM & Paterson C (2015) The role of power, politics and history in achieving sanitation service provision in informal urban environments: a case study of Lusaka, Zambia. *Environment and Urbanisation* 27:2

² Holm R, Tembo JM & Thole B (2015) A comparative study of faecal sludge management in Malawi and Zambia: status, challenges and opportunities in pit latrine emptying. *African Journal of Environmental Science and Technology* 9:11

collaborations between public bodies and private service providers. On subnational levels, the public sector can provide capacity building, technical assistance, and guidelines for SMEs willing to enter the urban sanitation sector.³

Zambia's PPP framework

Zambia has had a specific legal framework for PPPs since passing the Public Private Partnership (PPP) Act in 2009. The PPP process is headed by the PPP Unit, originally located in the Ministry of Finance but since absorbed into the Zambia Development Agency. PPPs in Zambia are very flexible, referring to “any form of partnership between public authorities and the private sector for the construction, management and/or provision of an infrastructure or public service”.⁴ PPP contracts in Zambia focus on the services to be delivered, rather than assets or the details of construction. The private sector therefore has a great deal of flexibility around design, construction, delivery and management – as long as they achieve the service outputs required by the contract.

A different type of partnership: LWSC and Water Trusts

Partnerships between public bodies and WASH stakeholders are fairly common in Zambia. To date, these have involved partnerships between the public sector and CBOs, as opposed to PPP arrangements. A prominent example of this type of partnership is between LWSC and Water Trusts: LWSC is mandated to provide water and sanitation services in Lusaka, and chooses to provide part of this service through Water Trusts - community-based organisations in different zones that operate through a delegated management model with the utility. There are 11 such Water Trusts in Lusaka, the largest of which is Kanyama Water Trust (other peri-urban areas are serviced directly by LWSC through the Zonal Branches).



Image: Kanyama Water Trust employees empty a customer's pit latrine. **Credit:** Gareth Bentley

³ Ndaw MF (March 2016) Private sector provision of water supply and sanitation services in rural areas and small towns: the role of the public sector. WSP, World Bank

⁴ Zambia Development Agency (2014) Public-Private-Partnerships in Infrastructure Development in Zambia

Opportunities to strengthen partnerships in FSM service provision

Setting up a new FSM service in Kanyama and Chazanga

A number of privately-run vacuum tankers operate in Lusaka, but are focused on middle and high-income new developments in the city. The lack of such services in peri-urban areas (which are challenging for vacuum tankers to access) had previously resulted in LWSC hiring local emptying services in an ad hoc manner when required. WSUP has been working with Kanyama Water Trust (via LWSC) to address this gap since 2010, establishing a safe, hygienic FSM service with a tariff structure for poorer residents. With support from the Stone Family Foundation and Comic Relief, the first FSM facility was established in Kanyama in February 2013. The sludge collected by KWT is safely transported by truck and handcart to treatment facilities (a biodigester and underground holding tank for primary treatment, and drying beds as secondary treatment), then processed and disposed of safely or sold as soil conditioner or fertiliser. Two additional facilities were later established, one in Kanyama and another in Chazanga - a second PUA where the model is being replicated.



Image: Third FSM transfer station under construction in Chazanga. **Credit:** Yvonne Linyama

Demonstrating the business viability of FSM

LWSC is now aiming to build on the success of the new service in Kanyama and Chazanga by expanding its role in FSM through the Lusaka Sanitation Project (LSP).⁵ Under the Project, LWSC have ease of emptying as a minimum requirement for any sanitation facility constructed in the PUAs, which will improve the viability of the existing FSM business, protect groundwater and improve public health. With support from BMGF, the ongoing FSM programme

⁵ LWSC is implementing the LSP, which aims to improve sanitation services in selected areas in Lusaka and strengthen LWSC's capacity to manage sanitation services. The LSP is supported by the World Bank, European Investment Bank, African Development Bank and KfW Development Bank.

has been aligned with the Project, and WSUP is working in close collaboration with the LSP team.

One of the LSP's aims is to enhance LWSC's capacity to respond to on-site sanitation challenges. To help achieve this, WSUP is focusing on demonstrating the viability of FSM businesses to LWSC and the private sector: WSUP has recently undertaken a rapid examination of the private sector landscape for FSM in Lusaka, identifying the appetite among small- and medium-sized enterprises for expanding into the sector. Most companies identified do not currently work in FSM, but in complementary areas such as solid waste management, plumbing or construction. Among these companies, there was appetite for engagement in the sector given its potential profitability, but most lacked either the capacity or the finance to enter the FSM market.

These barriers to private sector entry will feed into planning and strategy for the LSP as it works to strengthen the sanitation sector as a whole. Already, LWSC are identifying potential sanitation entrepreneurs and offering capital to those lacking the necessary equipment.

Results so far

Previously, Lusaka's sanitation stakeholders have been hesitant about public-private collaboration. Private operators who empty and transport sludge have been reluctant to compromise their existing customer base by expanding into low-income areas; while public bodies have been protective of their mandate, and cautious of aligning with companies who might not provide services to the level required to safeguard the health and safety of their employees and the wider public.

However, highlighting the potential of these collaborations is important as the five-year LSP continues to invest in improving LWSC's capacity to deliver sanitation services. LWSC's partnerships with the Water Trusts have already shown them the value of delegating certain tasks: LWSC preserves their mandate, but can achieve more in collaboration with those who have relevant skills, innovative business thinking, and capacity to identify and serve customers. For example, the pit-emptying service operated by the Kanyama Water Trust has now served more than 33,000 people in the PUA.⁶

Under the LSP, new private sector entrants to the FSM market will receive support, training and monitoring from LWSC. LWSC will divide the city into different zones in which FSM businesses will work, each zone served by its own decentralised treatment facility. This will guarantee that multiple areas are covered and allow LWSC to better track the operations of private sanitation service providers.

Next steps

Creating demand for sanitation products

Demand for products such as improved toilets in Lusaka—which could be a valuable area for private sector involvement—remains low, particularly in low-income areas where residents could struggle to afford such items without

⁶For more information on the progress of the FSM service to date, see WSUP (2015) Introducing safe FSM services in low-income urban areas: lessons from Lusaka.

subsidy. One potential model is to engage micro-finance institutions to provide loans to households and enable artisans to upgrade toilets in PUAs. WSUP will then monitor the upgrades, ensuring they have been installed according to city regulations. This model will be piloted in at least 100 households in Chazanga, with the objectives of supporting the LSP, demonstrating the business case for toilet upgrades, and providing lessons for the sanitation chain and its interplay in the wider market beyond the LSP.

Building capacity with LWSC

WSUP's focus on support for private sector entry into the FSM market has now been adopted by LWSC. Under the LSP, LWSC are leading the creation of a centralised support entity for FSM businesses, as well as designing a toilet database following a pilot run by WSUP in Kanyama. The database is almost complete, with the compilation of data currently ongoing. This database will provide valuable information that can be used to identify the location of customers; the nature of their sanitation facilities; which facilities require upgrading; and how many members of the household the facility serves. This will support the private sector in accurately projecting demand, enabling them to know which customers need their latrines emptied and when. The data will also be useful for the public sector and commercial utilities such as LWSC by revealing which areas most urgently require intervention.

Partnering with existing private operators to expand the FSM model into new PUAs

LWSC's main aim going forward under the LSP is to build on the services that already exist in Lusaka in order to improve service provision. Some private vacuum tanker operators have strong contacts in PUAs, and are better positioned than LWSC to respond to realities on the ground, for example by tracking when customers' pits require emptying. However, most PUAs in Lusaka still rely on informal manual emptiers. LWSC are therefore keen to export the model developed and tested in Kanyama and Chazanga (and other models developed under the LSP) to these new areas through new forms of Public-Private Partnership - by linking up with private sector operators who have the tools, the knowledge and the links to customers, while ensuring that they comply with regulation and provide a safe and equitable service.



Image: Kanyama Water Trust employees inspect a pit latrine. **Credit:** Gareth Bentley

Credits

This publication is produced by WSUP, a not-for-profit company that helps transform cities to benefit the millions who lack access to water and sanitation. We were created in 2005 as a response to the unprecedented urban explosion that has left cities unable to provide basic services to low-income communities. Since inception, we have helped nearly 15 million people access better water and sanitation services.

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