Faecal Sludge Management by a Water Trust in Zambia - The Case of Kanyama, Lusaka

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Background

• National population of 13.7 million
• Only 56% of the national urban population have access to improved sanitation
• In Lusaka the capital, at least 65% live in informal settlements
• Over 90% in informal settlements dependent on on-site sanitation systems which are usually poorly constructed and managed
• No organised faecal sludge management exists in most urban areas – pit emptying a challenge to most households
• Sludge from few emptied latrines is discharged inappropriately
Responsibility for sanitation

- In Zambia local authorities through utilities are mandated to provide water supply and sanitation
- Low or no provision of sanitation services in informal settlements apart from water which is provided successfully via Water Trusts or Water Committees
- Water Trusts – community based & made up of a number of players including the community, water utilities & NGOs
- Some utilities like Lusaka Water and Sewerage Company have Peri-Urban Departments to support Water Trusts in water provision but until now little or no support on Sanitation .............
Kanyama Water Trust FSM Initiative

- LWSC with the support of Water and Sanitation for the Urban Poor (WSUP – a UK organisation) have initiated a FSM service in Kanyama covering the sanitation value chain - emptying, transportation, treatment and reuse
- Build on success of Kanyama Water Trust in water provision
- Aims to provide an affordable but sustainable service
- Decentralised primary & secondary treatment leading to production of biogas, fertiliser/soil conditioner
The Process

Community mobilisation and surveys carried out

Former informal pit-emptiers trained and provided with equipment and uniforms
Key Findings (Community & Trials)

• Of the 250,000 residents, 80% had toilets of which 95% are pit-latrines
• There was demand for pit emptying and 55% were WTP to pay for the service as long as it was affordable – (most h/h owned the property - 51%)
• 45% mostly tenants not keen on paying
• Gulper and modified manual tools used
• Cost for 12 60litre Barrels – KR250 ($38), 24 - KR380 & 32 – KR450
• Break even at emptying 30 pits a month (6% for labour costs per person/5 % handling charge)
• By working through an established Water Trust management running costs are minimised
Emptying & Transportation
Treatment & Reuse
Roles of Different Players

Kanyama Water Trust
- manage FSM project on behalf of LWSC
- Finance
- Monitoring
- Infrastructure maintenance
- recruitment of sanitation workers
- Advertising

Pit Emptiers
- Empty pits using modified manual tools or gulper
- Transportation
- Man the biodigester /separation of solid waste at sludge
- Promotion
Conclusion

• The initiative looks promising and about to be replicated in Chazanga (going beyond the pilot)
• Nearly 700 pits emptied (10,000 residents) and infrastructure has capacity to serve 50,000 residents
• Setting of sustainable tariffs a challenge in low income settings
• Make reuse products attractive
• Alternative emptying methods need to be looked into as pit-emptying is key to success of FSM
• Better designed and managed sanitation facilities
• Biogas production still too low to make it possible to connect to households
• Working through the Water Trust has been key to success
Thank you (cảm ơn bạn)

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