

Sanitation workers are still invisible although they form the backbone of a very essential public service. Proper policies, good governance and regulation are indeed important to achieve SDG 6, but this is not completely possible without recognising the efforts of sanitation workers on the ground. Let us work towards empowering them by recognising their skills formally and making them visible.

Lior Sperandeo & Shobana Srinivasan

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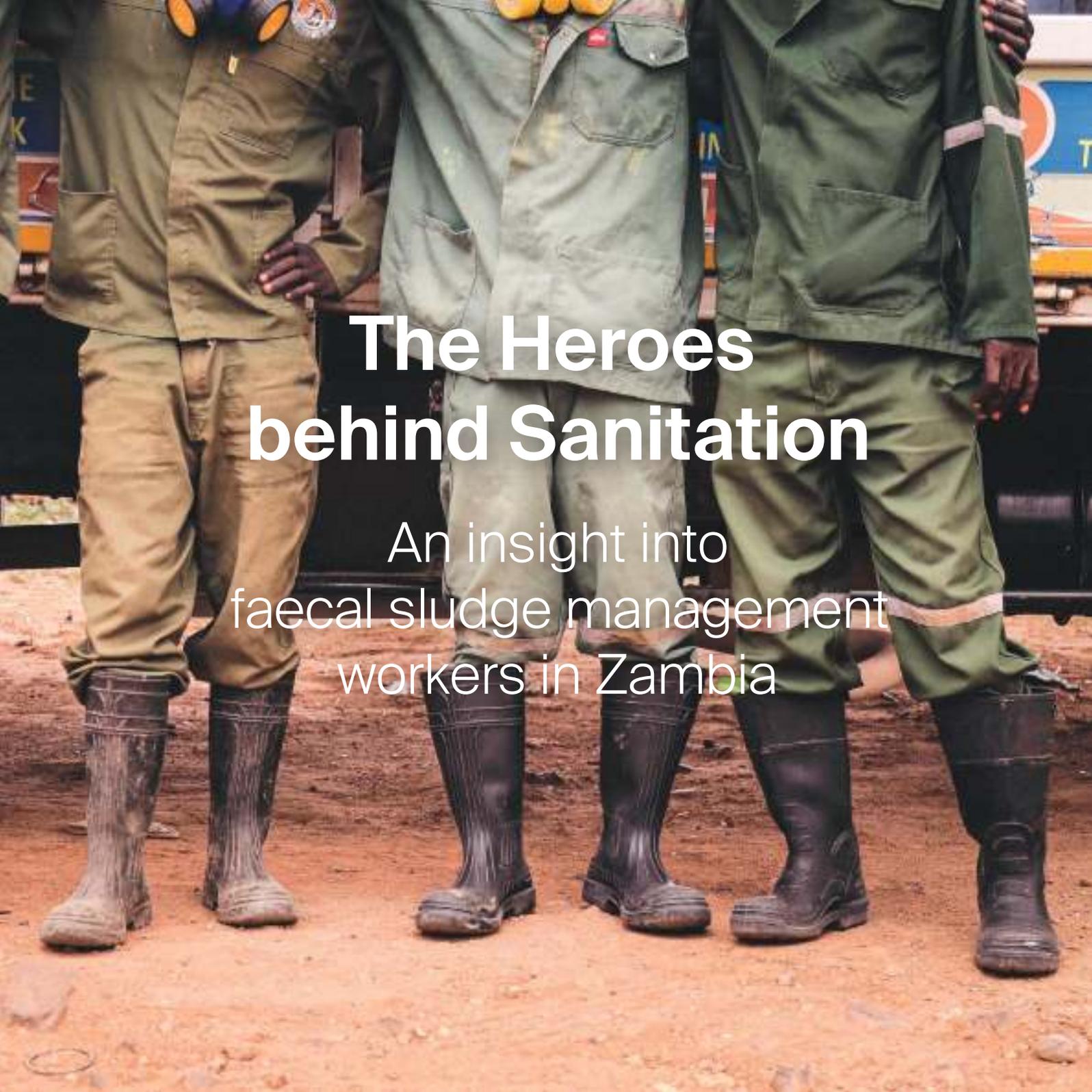


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The image shows three workers from the waist down, standing on a dirt surface. They are wearing green work uniforms and black rubber boots. The worker on the left has their hand on their hip. The worker in the middle has a yellow object hanging from their belt. The worker on the right has a reflective strip on their leg. The background is slightly out of focus, showing some equipment and a vehicle with letters 'E', 'K', and 'T' visible.

The Heroes behind Sanitation

An insight into
faecal sludge management
workers in Zambia

Acknowledgements

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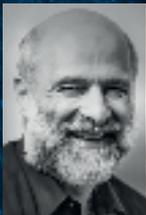
Foreword

On World Toilet Day, 19 November 2018, the Sustainable Sanitation Alliance (SuSanA) with support from the German Federal Ministry of Economic Cooperation and Development (BMZ) released a publication called 'Where there are no sewers', which focused on manual scavengers and sludge emptiers – still one of the most ostracised groups of worker in India despite the implementation of the Swachh Bharat or 'Clean India' initiative. The story captured the ordeals and emotions of these workers in an attempt to build awareness of the need to formalise the sanitation sector.

This year, Sustainable Sanitation Alliance (SuSanA) and Faecal Sludge Management Alliance (FSMA) with support from BMZ are excited to showcase an example from Lusaka, Zambia that sheds light on how successful delivery can improve the physical and mental wellbeing of sanitation workers. BMZ has been supporting 'Skills Challenges' for pit emptying operators at major conferences, such as the Faecal Sludge Management conference (FSM5), AfricaSan 5 and the Zambia Water and Exhibition Forum (ZAWAFE) in 2019, along with SuSanA and FSMA. In front of global, multi-stakeholder audiences, these conferences address issues with the aim of empowering and generating recognition of sanitation workers.

Both male and female sanitation workers participate in solving life challenges, and the winners of these contests have the opportunity to develop their skills and knowledge further through learning trips, training workshops and peer-to-peer exchange. This publication includes details of one such training conducted in Lusaka, Zambia.

Lusaka is one of the fastest growing cities in Africa and the majority of the population live in informal, peri-urban settlements. To achieve sustainable sanitation and safely managed services for all, we must focus more on strengthening non-sewered sanitation systems that can serve the majority of the population in an affordable manner. Pit emptiers and sludge operators form the backbone of service delivery, but are often overlooked and stigmatised. This photo story captures in detail the lives of sanitation workers, their hopes, aspirations, and challenges. Our intent is to make sanitation workers more visible and create the recognition and respect that they so rightfully deserve. Additionally, this would assist the sector to design projects and processes that improve their working environment and conditions, and help to provide the required investments to support their enterprises.



A white handwritten signature of Arne Panesar on a dark blue background.

Dr. Arne Panesar

Head of Sector Programme Sustainable Sanitation and SuSanA Secretariat
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A white handwritten signature of Jennifer Williams on a dark blue background.

Jennifer Williams

Executive Director
Faecal Sludge Management Alliance

Introduction

Around 82 percent of Lusaka is reliant on onsite sanitation services (OSS)¹. The city is built on a karst² landscape and has a high-water table, making it very expensive to build sewer networks³. Poorly maintained OSS make the city highly vulnerable to contamination and cholera outbreaks. Lusaka city is made up of seventeen informal settlements and 90 percent of the population uses pit latrines. Hence, there is an urgent need to address sanitation access more intensely and professionally⁴ in this location.

While there are many success factors that could be highlighted, one key aspect is formalisation of ground practitioners and service providers. Operators who empty the pit latrines, transport the sludge and treat the sludge should be trained in innovation, technology and operation models to achieve maximum efficiency and coverage. Zambia is making progress day by day. Eleven Zambian companies in the water and sewerage sector have been renamed 'water and sanitation' companies, providing onsite sanitation, pit emptying and FSM services. This change signals an optimistic future for sanitation coverage and will pave the way to create more jobs within this sector.

The sanitation workforce provides an essential public service to all. They clean and empty pit latrines, septic tanks, sewers and other sanitation systems, transport faecal sludge, remove contaminants from the sludge and process the sludge for disposal or reuse. Constantly exposed to faecal microorganisms, hazardous waste and harsh chemicals, sanitation workers are susceptible to several operational and health risks. Owing to a public lack of awareness, the career choice and valuable service of a sanitation worker are often a subject of ridicule. In terms of the UN Sustainable Development Goals (SDGs), improving the working conditions of sanitation workers contributes not only to one (SDG 6) but four of the seventeen SDGs: to SDG 1 by promoting access to basic services for the poor; to SDG 3 by improving occupational safety; to SDG 6 by ensuring availability and sustainable management of water and sanitation for all; and to SDG 8 by focusing on decent work⁵.

We continue to see initiative and progress towards streamlining processes within the water and sanitation sector. This photo story captures the working process of a small group of pit emptiers and service providers from public utilities in Zambia, highlighting their lives, ordeals, opinions and dreams, the people they serve, and the unserved.

1 African development Bank Group, 2015. ENVIRONMENTAL AND SOCIAL MANAGEMENT FRAMEWORK SUMMARY: [Online] Available at: www.afdb.org/fileadmin/uploads/afdb/Documents/Environmental-and-Social-Assessments/Zambia_ESMF_Summary_Lusaka_Sanitation_Program_Final.pdf

2 Topography formed from the dissolution of soluble rocks like limestone, dolomite and gypsum

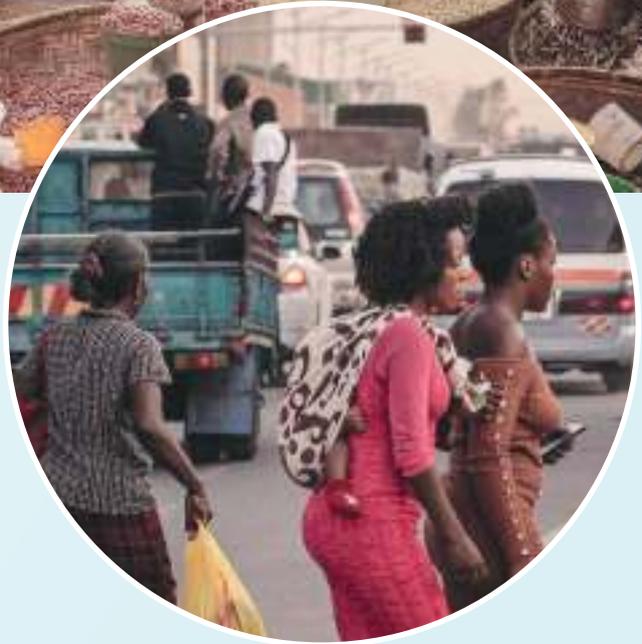
3 LGH, LCC, JICA, 2009. The Study on Comprehensive Urban Development Plan for the City of Lusaka in the Republic of Zambia, Lusaka: MLGH.

4 Siwambi, A., Hibler, S., Pietruschka, B., Hawkins, P., 2017. Approaches to Faecal Sludge Management in Peri-Urban Areas: A Case Study in the City of Lusaka: BMGF

5 Worldbank, ILO, WaterAid and WHO, 2019. Health, Safety and Dignity of Sanitation Workers: An initial Assessment: Worldbank



A bustling market in Central Lusaka



The Training

“Once I pulled a stillborn baby out of the sewer,” answers a sewer worker dismally. “I did not want to go back to work the next day.”

The question he was asked – *“What are the challenges you face in your profession?”*

Sanitation workers from four regions in Zambia meet for a training and learning exchange in faecal sludge management (FSM) and pit emptying techniques.

A session is also dedicated to focus on the social aspects of being a sanitation worker and how improving their conditions can strengthen sanitation service delivery in Zambia.

“Solid waste is a huge problem for us. We fish all sorts of things out of the sludge – diapers, condoms, plastics, e-waste. Removing solid waste is time consuming and makes our job five times more difficult,” says another.

The trainees feel comfortable sharing information with each other, and the challenges start pouring out. It feels like a therapy session.

Touching on health, and safety of

communities, building standards crop up during the conversation too. *“I am quite concerned about construction of pit latrines. Is the Lusaka City Council involved in the planning of the pit latrines?”* asks one participant.

“Even access to the site is often a challenge for us,” he adds.

The teams interact the whole day in a range of small group exercises. Details of the sanitation value chain, use of personal protective equipment, and manual, semi-mechanised and mechanised emptying techniques are some of the topics discussed.





The Unserved Sewer Worker

Driving through an informal settlement, we come across Simon Banda. Simon is 55 years old and lives in Garden Compound. He is currently unemployed and has six children. The two youngest are five and six years old. His oldest daughter has finished school, but Simon can't afford to fund her education to a higher level.



“Our family does not have a toilet. We share a toilet with eight other families ...”



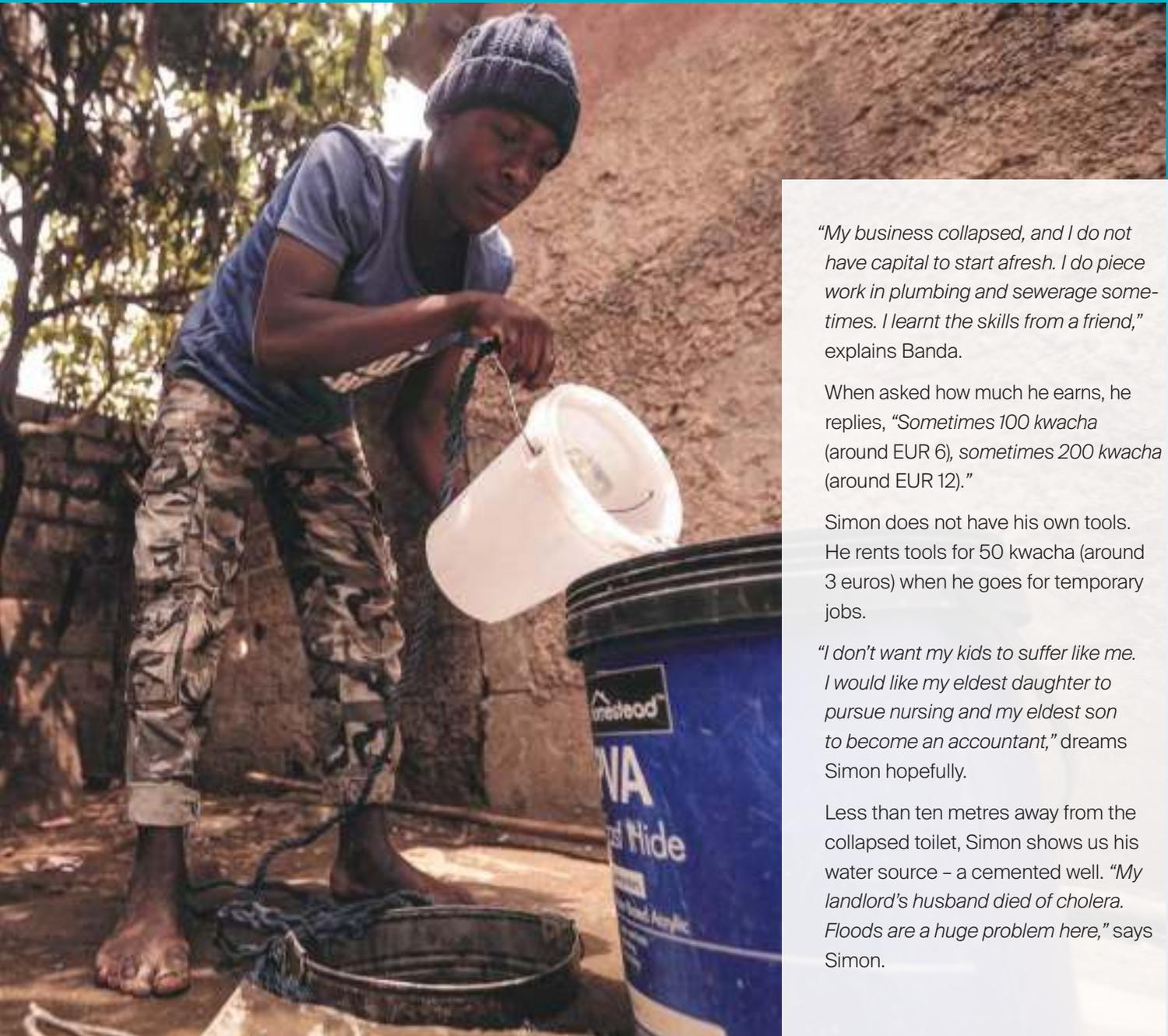
“Our family does not have a toilet. We share a toilet with eight other families, and it is located a minute away,” explains Simon when asked if he has a toilet. The shared toilet is an elevated pit and the super structure is covered with a steel sheet. Flies swarm the area.

His previous toilet collapsed a few years ago due to heavy rains and he cannot afford a new one. *“I would love to have a new, flush toilet,”* he chuckles, looking at us.



“I would love to have a new, flush toilet.”





“My business collapsed, and I do not have capital to start afresh. I do piece work in plumbing and sewerage sometimes. I learnt the skills from a friend,” explains Banda.

When asked how much he earns, he replies, *“Sometimes 100 kwacha (around EUR 6), sometimes 200 kwacha (around EUR 12).”*

Simon does not have his own tools. He rents tools for 50 kwacha (around 3 euros) when he goes for temporary jobs.

“I don’t want my kids to suffer like me. I would like my eldest daughter to pursue nursing and my eldest son to become an accountant,” dreams Simon hopefully.

Less than ten metres away from the collapsed toilet, Simon shows us his water source – a cemented well. *“My landlord’s husband died of cholera. Floods are a huge problem here,”* says Simon.

Pit Emptying in Chazanga Settlement

Early next morning, all the trainees arrive at Chazanga for a learning exchange on manual pit emptying.

With a population of 96,000 people, Chazanga is a huge informal settlement, one of 17 in Lusaka.









The settlement is served by Chazanga Water Trust, which provides manual emptying. Emptiers from Chazanga Water Trust lead the demonstration.

Barrels are arranged near the pit to collect the sludge. The teams put on their protective gear and equipment. The client had agreed to pay for 12 barrels of sludge to be emptied.



The emptiers assess the area and clear any obstruction or debris.

Chazanga team lead, Samson, measures the 'Germ Guard' disinfectant and dilutes it with water. Then the digging starts. Carefully, an emptier starts to make a hole at the side of the latrine using a pickaxe to gain access to the pit. Once the hole is dug, he positions a barrel for filling.



Fellow Chazanga emptier, Stanley, prepares to do the first round of emptying. Using a scoop, he removes mounds of sludge and solid waste.









"Who wants to go next?" asks Samson looking at the emptiers from other regions. *"Me!"* shouts Mutale, the female emptier from Chambeshi. Samson gives instructions as she starts to empty the pit.





One by one, the other emptiers take their turn using the scoop to remove sludge and fill the barrels. Once the barrels are filled, one half of the team starts disinfecting the barrels and loading them on to the trucks while the others close the opening and clear the area.





A fresh coat of cement mortar is applied to seal the opening in the pit latrine and prevent any contamination.

Finally, all the emptiers disinfect their equipment with chlorine solution before transporting the sludge barrels in trucks to the treatment facility.



Samson interacts with the client for feedback and completes the official form for the service provided. The teams drive to the treatment facility on the service truck and Samson calls the treatment facility to alert them.

“We started the work around 10 am. It took us nearly an hour to collect 12 barrels of faecal sludge. This is slightly longer than normal as the other teams were learning how to work with scoopers. The work is usually done in half an hour with 2-3 emptiers,” claims Samson before driving off.





The Client

Chapula Reagane is a businessman who has lived in Chazanga for five years with his wife and two children. He is served by the Chazanga Water Trust.

When Chapula realised his pit was full, he went to the trust to book an appointment. A pit emptier was sent to the site to give Chapula an estimate. Chapula paid and a date for the emptying was agreed verbally.

“Someone who saves you from diseases is a friend. So, pit emptiers are my friends.”





"They called me today morning as a reminder and asked me to provide a drum of water for cleaning purposes," says Chapula as he finishes explaining the process.

"I am very happy with the service that was provided. Someone who saves you from diseases is a friend. So, pit emptiers are my friends," he says as we bid goodbye.

The Process:

The family registers with Chazanga Trust when their pits are full. The trust sends an emptier to assess the pit and estimate the cost of emptying it.

The family pays for the service in advance. The appointment for emptying is made, and emptiers call the client on the day as a reminder.

Treatment of Faecal Sludge

The Chazanga treatment plant is designed for 30,000 households. An engineer from Water and Sanitation for the Urban Poor (WSUP) explains to the trainees how the treatment plant functions.

The truck enters the treatment plant, the barrels are taken out and rinsed thoroughly once again.





The sludge is poured into a feeding bay where solid matter is fished out using equipment. Screens on the side walls of the feeding bay help trap the solid waste.

Sometimes, water is added to liquify the thickened sludge and make the separation of solid matter easier. Solid matter typically includes plastic covers, rags, diapers, sanitary napkins, sticks and other domestic solid waste that is dumped into the pit latrines.





The solid matter that is raked out is washed thoroughly, dried on metal racks and later sent to the landfill nearby. Washing the solid waste removes the faecal matter, facilitating faster drying.





“Kushoko vinyalala? (Can we burn the waste?)” asks one emptier.

Samson answers, *“No, we don’t.”*

The plastic waste must be picked up by a hazardous waste collector (with a special permit) to be transported to the landfill.

From the feeding bay, the faecal sludge is sent to the biogas digester. Once the gas is produced the solids are collected separately and sent to the drying bed.

The solids from the biogas digester are allowed to sun dry in the drying bed for weeks. It takes two weeks for a 15-cm layer of sludge to completely dry and undergo solar disinfection.

Thicker layers of sludge take longer to dry. A 30-cm layer of sludge takes nearly three months to dry completely. Dried sludge is sold as fertiliser to the local farming communities for 3 Zambian Kwacha (ZMW) per kg.

The Female Pit Emptier

There is no doubt that 29-year-old Mutale Mukuka is a hard worker. She is sweet and sassy at the same time, and a fashionista.

"I was initially working in the commercial section dealing with bill distribution, connection and customer services at Chambeshi Water and Sanitation Company. Chambeshi is new to non-sewered sanitation services and one of the eleven companies that changed their names. Due to the need for more professionals in the sanitation team, I transferred departments and became a sanitation assistant," she answers confidentially when I asked her how she became an emptier.

Mutale is one of the few women who have managed to break barriers as a female pit emptier.





“Our team was invited to take part in the pit emptiers skills challenge in Zambia Water Forum and Exhibition ZAWAFE (July 2019) and we came third in the competition,” she adds excitedly.

Mutale is very grateful to be a part of this training. *“I am glad to have this opportunity to learn new emptying techniques. In our region, we only test and pilot the e-Vac technique currently,”* she says.

She wants to train her colleagues back in the north in the techniques that she learnt.

When asked if she enjoys work, she says, *“My team is very supportive of me and I like to hang out with them after work.”*

The work being quite labour intensive, I ask her if she finds it difficult. She shrugs and says, *“I rest a bit when I am tired and share the work with my co-workers.”*

When asked about challenges she said, *“I have not faced any major challenges yet. Most people think that I don’t work hard because I’m a woman. But I don’t care what they think. My team knows me well enough.”*

“I am proud of my job and I am not afraid of shit,” she adds. People sometimes ask her why, as a woman, she ‘plays around’ with shit. *“I just smile back at them,”* she responds, laughing.

Mutale explains about how women are getting the opportunity to work in sanitation these days. *“When our job contracts at the utility end, many women are given the chance to do field work and pit emptying. But many refuse because of the working conditions.”*

“You have to have an interest in it,” she adds.

Mutale is one of only a few women who have managed to break down barriers by becoming a female pit emptier. We still have a long way to go.

“I am proud of my job
and I am not afraid of shit.”



The Water Trust

Chazanga Water Trust is an autonomous body with delegated management under the Lusaka Water and Sanitation Company (LWSC). Trusts like Chazanga do not have a legal mandate to provide sanitation services themselves and have to operate under a legal body like LWSC.

LWSC provides technical support and official approval for service provision, financial subsidies and upgrading infrastructure.





The salaries of the Chazanga pit emptiers come from the fees paid by the community for their services. Sixty percent of the fee is set aside for sanitation worker salaries and 40 percent for operation and maintenance of the treatment plant and the wages of its workers.

Chazanga charges residents 380 ZMW (around EUR 23.50) to empty 12 barrels of faecal sludge, which is roughly 0.72 m³. The greater the volume, the lower the unit charge – 450 ZMW for 24 barrels (1.44m³) and 580 ZMW for 32 barrels (1.96m³).

The Quality Controller

Gabriel Mutale has been working in the quality control department at Chambeshi Water and Sanitation Company dealing with water and wastewater quality standards.

“Our department also deals with environmental safety and so human safety is a part of it,” he says.

When asked to elaborate on human safety, Gabriel mentions that the quality control department collaborates with the human resources department to ensure that workers have access to personal protective equipment (PPE) and that the working environment is conducive for the sewer workers, operators and emptiers.

“We are quite new to non-sewered sanitation. Hence, we still lack manpower to ensure proper control of faecal sludge by-products. But we hope we would soon be able to treat the sludge and produce manure out of it,” he adds.

Gabriel believes that changing the name of ‘Chambeshi Water and Sewerage’ to ‘Chambeshi Water and Sanitation’ has a lot of positive impacts. *“We will soon develop guidelines and safety regulations for the reuse of faecal sludge locally. Some structures have to be set up before we start implementing fully-fledged FSM services.”*

“Our department also deals with environmental safety and hence human safety is a part of it.”



Lives of Pit Emptiers of Chazanga

Samson Kanyanda Chikatula is a 38-year-old foreman and lead pit emptier for Chazanga Water Trust.

His wife, Alice Kanyanda, is a 35-year-old homemaker. They live in a two-room rented apartment.

There is a nice little garden in front of their house.





Samson wakes up at 5.30 am every day. At 7.30 am, he leaves for work after a humble breakfast consisting a sugary black tea. *"I love black tea,"* he says.

He gets home at around 6 pm. *"The first thing I do when I get back home is bathe and wash my uniform. I don't feel comfortable bringing pathogens home."*

"After a warm bath, I spend time with my children. Elizabeth is my first born. She is 15. The younger ones, Samson Jr. and Brigette, are 13 and three."

As we continue talking, Samson entertains Brigette. *"Is she your favourite?"* I ask.







“No,” says Samson firmly. *“I treat all of them the same. My son is just like me, and I want him to become a lawyer,”* he adds.

Elizabeth, the first-born, mentions that she would like to become an accountant. Samson sends her to boarding school, where her favourite subject is maths.

Samson points at little Brigette and says, *“She is going to be a doctor someday.”* Brigette giggles and nods at her father in approval before continuing to play with her neighbour.

The family sits down for dinner of nshima (cornmeal) and relish (beef). After dinner, Samson sips a glass of chibwantu, a traditional brew. *“It energises me,”* he says smiling.

On his sanitation worker’s wage, Samson can afford to pay the rent on his house and for a good education for all three of his children. But he does find the job very challenging and manual emptying quite tedious. Thickened sludge and solid waste in pit latrines make his job much more difficult. He tries to advise users and communities against dumping solid waste in latrines. *“I also advise them not to build unlined pit latrines with an unstable super structure. They are unsafe,”* he says.





*Samson also has dreams of his own.
"I want to run my own company one day and
be a rich man."*

The Toilet Builder

In Garden Compound, just a few blocks away from Simon Banda's house, we notice something interesting. Someone is building a toilet – a very basic latrine.

As we walk by, he greets us. *“Hello, my name is Monti.”*



“I am doing this as a favour to my neighbours. They will pay me later.”



We greet him back and full of curiosity, I ask him what he is doing.

Monti is a cobbler by profession. He is trying to build toilets to make extra money.

"I am doing this as a favour for my neighbours. They will pay me later," he says.

The toilet pit is about two metres deep and unlined. It does not classify as an improved sanitation facility. The super structure is a mere wooden frame covered in old plastic sacks.

"What happens when the pit is full?" I ask.

Monti shrugs indifferently and says that they would abandon it and build another one nearby.

"I'm going to be paid 50 ZMW (around € 3.00) for building the toilet," he adds.

Abandoning toilets when the pits are full is common practice. Many people cannot afford improved toilets.

Lives of Pit Emptiers of Chazanga (continued)

Stanley Mambwe lives a few minutes away from Samson. He is 32 years old and is a colleague of Samson. Like Samson, Stanley gets up very early in the morning.

As we start chatting, Samson arrives at Stanley's to pick him up for work. Stanley puts on his PPE before sparing a few minutes to talk to us.

As he invites us inside his home, he apologises that his wife is not home to receive us. *"My wife is harvesting this season's crops on our farm."* Stanley's farm spans around 20 hectares and is located 200 kilometres from Lusaka, in Kapiye Mponshi. He bought the land for 10,000 ZMW a few years back. *"This year we have planted ntshaba (peanuts) and milisi (maize),"* he adds.







Stanley plans to sell the produce his wife brings back. Maize sells for 5 ZMW a kilogram and peanuts fetch 300 ZMW a sack.

As we walk into his living room Stanley shows his most prized possessions - his sofa set and TV - and introduces his two children.

Stanley has three children. *"My first-born is at his friend's house playing,"* he says.

Stanley's toilet is a few metres away from his house. There are two separate cubicles – a bathroom and a toilet. The toilet is a simple elevated pit latrine that is well lit.





Stanley moved to this house eight months ago. He hasn't had the chance to empty his own pit yet.

As Samson signals that they are going to be late, Stanley puts on his helmet before heading out with Samson.

Samson and Stanley were champions at the Zambia Water Forum and Exhibition Skills Challenge for manual pit emptiers. They will attend the 2020 African Water Association Congress in Kampala, Uganda.





“We got our passports and our yellow fever vaccinations ages ago. I feel so happy, like I am being tickled. I am excited to see how our fellow emptiers work in Uganda,” exclaims Samson.

Stanley adds that he has never been on a plane before and that he’s planning to bring back colourful Ugandan clothing for his family.

The two sanitation workers set off on their walk to work as the sun rises before them.

Imprint

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