

WSUP | Water & Sanitation
for the Urban Poor

Annual Report

2022 - 2023



Our water, sanitation and hygiene work has improved the lives of over 40 million people so far

"I feel happy and much more confident with these positive changes in my life."

Image: Bithi, 16, is a schoolgirl who lives with her extended family in a low-income neighbourhood in Chattogram. She used to dread her periods as she had to share a dilapidated toilet with several other families. This facility was dirty and lacked lighting and a lockable door. She struggled to cope and often missed school during menstruation. WSUP upgraded the toilet facilities in her community, and provided hygiene education including around menstruation, making Bithi more relaxed about handling her periods. Bithi now shares her knowledge with her friends and younger girls in her family. "I feel happy and much more confident with these positive changes in my life," she says
Copyright: Shehela Ali, May 2023, Bangladesh



Our work is central to the achievement of two of the UN's Sustainable Development Goals (SDGs)



It also contributes to the achievement of several other SDGs



Contents

Message from our Chairman	4
A year in review	5
Why water and sanitation for the urban poor?	6
Impact and strategic goals	8
Stopping leaks and losses	10
Core country - Bangladesh	12
Working with local employers	13
Building stronger utilities	14
Core country - Madagascar	15
Core country - Ghana	16
Core country - Zambia	17
Supporting the next generation: improving school WASH	18
Core country - Kenya	20
Getting regulation right	21
Simplified sewers - innovating sanitation solutions	22
Core country - Mozambique	24
Building a sanitation economy	25
Evaluation, research and learning	26
Extending WSUP's impact beyond our core countries	28
Beyond the mega-city, support for fast-growing towns	29
Finances for the year ended 31 March 2023	30
Thanks to WSUP's funders and partners	31

Message from our Chairman

As a child, I attended a school in Ghana where the standard punishment was to move night soil. I can recall my mother's joy - and my fascination - with our first flushing toilet in Accra. And the cold horrors of the outdoor toilet and the tin bath in the kitchen at my maternal grandparents' home in England will never leave me.

These formative experiences ensure I will never take access to decent sanitation for granted.

More than 60 years later, over a billion people are still living with the indignity, hazards, and health impacts of poor sanitation and water. This is why I support WSUP, an organisation that effectively delivers to some of the world's most neglected communities.

WSUP's approach acknowledges that, for improvements to be sustainable, the whole system needs to change. Rather than creating parallel services or hand-outs, WSUP partners with local authorities, utilities, and businesses in cities to enable them to extend their services to informal, slum neighbourhoods.

This multi-disciplinary approach is rooted in partnerships between groundbreaking research and best practices in implementation, working with the public and private sector, regulators, government and traditional leadership. It delivers systemic sustainable change to the lives of millions in countless communities in the countries in which we operate.

On my visits in various roles to schools all over the world, I have seen how decent, safe toilets on site mean that girls can come to school whatever time of their month it is. The absence of such facilities is a major barrier to equal outcomes for school attendance, and for the attainment of the Sustainable Development Goals around education, health, and economic empowerment.



Rt Boateng

The Rt Hon the Lord Boateng CVO DL
Chair of the Board
Water & Sanitation for the Urban Poor

*<https://doi.org/10.1038/s43247-022-00413-w>

And, as climate change becomes a reality, WSUP's work is more important than ever. Preserving water supplies is a pressing priority, and you can read more about our work to conserve this precious resource in this Report. Climate change is not only bringing droughts and drier conditions, but also increased storms, floods and major weather events which can be devastating for people living in low-lying areas, particularly when toilets overflow, and raw sewage contaminates water supplies. We are also learning more about the climate damage from poor sanitation systems. For instance, recent research suggests that over half of the greenhouse gas emissions in Kampala, Uganda, emanate from poorly managed sanitation*. That's why WSUP is investing in facilities and services for the regular emptying of pit latrines, and working with businesses, utilities, and regulators to improve the situation for both people and the planet.

It has been fantastic to see the impact of WSUP's work for myself on my travels, and to know that we've already touched the lives of millions of families. However, the task ahead of us is still great. I am proud to be working alongside this group of outstanding and passionate individuals and in an oft-troubled world see WSUP as a source of hope and transformation. I hope you too will lend your support to this vital cause.



Image: An impromptu photo taken on a recent visit to Ghana on other business. I was delighted to meet, by chance, a young person who had been working with WSUP to promote handwashing. She described just how impactful the experience had been, which confirmed all I had learnt in my meetings with WSUP's team on the ground and during more formal encounters with our partners and beneficiaries. March 2023

A year in review

This was my first full year at the helm of WSUP, an organisation that I've been passionate about since being involved in its conception back in 2005.

I thought I knew it well, but since returning to the fold as CEO I've been blown away by how much has changed, and by the incredible impact that our teams are having around the world.

The period covered by this Annual Report was characterised by global uncertainty and stress. The pandemic might be over, but the war in Ukraine and rocketing fuel prices set inflation spiralling in every country where we work. The impact was felt most acutely by those at the bottom of the economic pyramid, the communities for whom we exist, but our own staff – and projects – have not been immune to the hardships brought about by rapidly increasing prices. It is to the credit of our teams that they ensured the impact of our work was not diminished during this period, indeed remarkably it continued to expand.

For nearly twenty years, our focus has been on the needs of the urban poor, and we work in some of the biggest cities in Africa and Asia. However, urbanisation is not only swelling the population of cities. Across the world small towns are expanding incredibly fast and are experiencing huge pressure on water and sanitation systems. In this Report you'll read more about our work in fast-growing towns in Uganda, where we are helping to professionalise and extend services, so they can meet the needs of the population in a sustainable way.

You'll also find out more about WSUP's work in schools. One in five urban schools in Sub-Saharan Africa have no sanitation facilities, which has a huge impact on the attendance of all children, and consequently their educational and life opportunities. The impact is felt most acutely by girls who need to manage their periods. That's why WSUP invests in improving sanitation and hygiene facilities in schools across the countries where we work, not only building the facilities but ensuring that they are properly maintained into the future too.

It's clear – and very satisfying – to see the impact of our work when you visit a school with a new toilet block, or a household which has just been plumbed in for the first time. However, some of the ways WSUP's work has really profound impact are less easy to photograph. Getting a country's policies and regulations drafted so that they put the needs of the poor – and the environment – front and centre is a major pillar of our work, and again you can read more about how this has transformed the way water and sanitation services are delivered in this Report.

I'm enormously proud of the work WSUP has achieved over the last year despite the very difficult circumstances. I'd like to thank my colleagues, and particularly all our loyal and generous supporters without whom we would not be able to change so many lives. But we cannot rest on our laurels, we need to massively accelerate our progress if we are to meet the Sustainable Development Goals. I hope you will join us in stepping up to this challenge.



Image: Viewing Nyahuka water treatment works together with local colleagues during a visit to Uganda, June 2023. WSUP funded the upgrade of the laboratory, extended the network, and helped to professionalise the small utility which forms part of the mid-Western Umbrella. You can read more about WSUP's work in Uganda in this Report.

Ed Mitchell

Ed Mitchell
Chief Executive Officer
Water & Sanitation for the Urban Poor



Why water and sanitation for the urban poor?

Access to clean water, decent toilets, and the ability to wash are vital to a healthy, happy, and productive life. They are essential cornerstones of people's physical and mental wellbeing, their safety, their opportunities to be educated and to work, and impact wider environmental issues like pollution and climate change. Investing in water, sanitation, and hygiene (WASH) for the urban poor underpins several of the United Nations' important Sustainable Development Goals.

The world is urbanising at an incredible pace, with people moving daily into towns and cities. They are turning away from rural life because of climate change and poverty, and being drawn to urban centres for the opportunities to work and build a better life.

In the countries where WSUP works, most of these people end up residing in unplanned, informal settlements often described as slums; in many cities they make up over half the population. These unplanned neighbourhoods lack the water and sanitation services that exist in wealthier parts of the town or city, and so residents are forced to pay vastly inflated prices for water - of uncertain quality - from private sellers. Many of the shared latrines in these communities are unpleasant and unsafe, especially for women and girls.

WSUP exists to improve life for these under-served populations by developing solutions which are affordable for the poor, financially viable for suppliers, and sustainable for the environment.

Changing lives by changing systems

At WSUP, we recognise that water doesn't just come out of a tap, it comes out of a complex system made up not only of tanks and pipes, but of the people, institutions, regulators, businesses and politicians who manage and maintain them. We recognise that these systems need to be financially stable in the long-term, and that marginalised communities need to be included in city and state services.

International development is littered with examples of short-term projects which cease to function after a couple of years.



Image: People walk past open sewers in the Mukuru neighbourhood of Nairobi. A lack of proper sanitation is very common in unplanned, low-income neighbourhoods like Mukuru, and makes life unpleasant and unhealthy for residents. In 2023, working with the municipal authorities and the community, and with funding from The One Foundation, WSUP provided new pre-paid water dispensers and new connections to the main sewerage line, through a simplified sewer system (see later article). **Credit:** Brian Otieno, Kenya, August 2023

At WSUP we take a 'beyond charity' approach changing lives not through handouts, but by driving sustainable, systemic change which creates financially viable services that meet the needs of the poor. We encourage business thinking in the provision of public services and the recognition that low-income people are citizens and consumers, who have the right to receive services from their governments, and to make choices about how their needs are met.

Sometimes this is best achieved by bringing the private sector into the urban WASH space, and sometimes by helping the mandated utilities to develop viable commercial services for poorer customers. In Kenya, Bangladesh, and Ghana for example, we have supported the local utilities to develop dedicated customer service units to better meet the needs of their poorer customers.

In all our projects we work alongside local service providers, enabling them to develop services, build infrastructure and attract funding so they can reach low-income communities. We also work closely with the communities themselves to understand and relay their needs and concerns back to service providers.

Political commitment and institutional change are equally critical and political leaders need to prioritise WASH investment and policy change. WSUP advises international financial institutions and our utility and city partners on how best to mobilise investment and target low-income urban residents. This has resulted in more than US\$643 million of finance being mobilised to date.

Over the nearly 20 years since WSUP was founded, we have become the acknowledged experts at meeting the water and sanitation needs of the urban poor, and our work has transformed the lives of millions of low-income families so far.

We focus on:



Clean, affordable drinking water:

Connecting poor communities to their city's water network, providing safe water at an affordable price.



Climate change:

Building resilient water and sanitation systems which meet today's needs and tomorrow's climate.



Improving utilities:

Helping build stronger utilities with better infrastructure, fewer leaks and improved customer services able to meet the needs of the poor.



Safe, dignified toilets:

Ensuring clean, convenient, and safe toilets and sanitation systems for communities, households and in schools.



WASH for women & girls:

Providing infrastructure and services that support attendance in schools, safety while going to the toilet, saving women the time and money otherwise spent on collecting water for domestic use.



Mobilising investment:

Working with international and local financial institutions to unlock and direct investment which benefits the poorest urban residents.



Improving policies and regulation:

Advocating for improved policies and regulations which underpin better services for both the poor and the environment.

Impact figures 2022 / 2023

At WSUP we have a permanent presence in 25 cities and municipalities across six countries and are developing our presence in Uganda. Our consultancy, WSUP Advisory, has been working in a further 10 countries during the year.

10,938,130*
people reached

with improved water, sanitation and hygiene facilities, services or information and education across WSUP's core countries in the year ended 31 March 2023.

 Water
325,469

 Hygiene
10,857,871

 Sanitation
98,366

 Finance Mobilised
\$4,317,662**

*This is the total number of people reached by WSUP, noting that some receive more than one service, for example water and hygiene, but are only counted once.

Our Strategic Goals

WSUP's work aligns to our five Strategic Goals that reflect our vision for changing the capacity of cities to provide basic sustainable services to the poorest residents, drive us to scale, and integrate our proven models within wider urban development.



Strategic Goal 1 Integrated city development

Integrate WASH services within wider urban development to make cities inclusive, safe, resilient, and sustainable.



Strategic Goal 2 Stronger service providers

Strengthening and expanding our technical and business support to utilities, municipalities and water and sanitation enterprises.



Strategic Goal 3 Enhanced Partnerships

Seeking out and building partnerships to accelerate urban WASH provision at scale.



Strategic Goal 4 Effective Policies & Regulations

Driving transformation within the urban WASH sector through rigorous research, data-driven learning, dissemination and influencing.



Strategic Goal 5 Increased scale

Implementing a considered strategy of geographical expansion, to increase our scale and impact.

Ghana

Kenya

Mozambique

Bangladesh

Zambia

Madagascar

 Core Country

 Core & Advisory

 Advisory

** A core concept within WSUP's Theory of change is securing finance for models and service approaches which work, with a particular focus on the financial sustainability of service providers. We track two main categories of finance mobilized: Firstly, household payments for connection and maintenance of water/ sewage bills (where WSUP support the connection) which builds up the service provider revenue base. Secondly, public, private or IFI investments in service delivery improvements which are influenced by WSUP, either through collaboration during the investment or through a replication of an approach developed by WSUP.

Stopping leaks and losses

WSUP's approach to preserving precious water supplies

Water is essential to all life on earth. Yet while it is recognised as one of the world's most precious resources, it is often taken for granted; something which, because it falls from the sky or rushes as a river from an unseen source, is expected always to be there.

Recent years have brought a growing recognition of water as a finite resource which needs to be conserved and protected. As the effects of climate change become more apparent, we have seen calls to protect rivers and seas, as once reliable water supplies decrease, and instances of drought increase to disastrous effect. The search to find new or more reliable water sources is becoming more urgent, and ways to reuse or replenish those we already have are increasingly being explored, from rainwater harvesting and greywater recycling to recharging aquifers – something which we here at WSUP are working in partnership with others to explore.

However, the drive for sustainable and equitable water supplies is undermined by the lack of attention paid to effective water management and the prevention of water wastage. In sub-Saharan Africa, for instance, more than 50% of water generated for commercial or domestic use is lost through leaks or theft. That means that 50% of the resources used to generate that water and make it fit for use are also wasted, creating a cycle of inefficiency, of both water and financial resources. This undermines a water utilities' ability to function effectively and sustainably. It also means that they are only supplying water to 50% of the people they could reach. As a result:

- The number of city inhabitants lacking safely managed drinking water has increased by more than 50% since 2000
- By 2050 the UN calculates that up to 2.4 billion people in cities will face water scarcity

At the sharp end of these figures are the low-income communities (LICs) which, due to the unplanned and unofficial nature of the communities, are often ignored when it comes to services. This means many LIC households rely on private vendors for water – which is likely to be stolen from the utility's own network or even drawn untreated from a local river – paying as much as eight times what the utility would charge for the same volume of safe, clean water. In this way, poor communities, through being ignored and exploited, are doubly penalised for their poverty.

For those that are served by the utility, the risks of the water supply being contaminated increase if the network is leaking, especially if it also has intermittent supply. Illegal connections to the water network introduce contaminants into the system and increase water loss through damage. Contaminated water and poor availability mean that fewer customers want to pay their bills or report theft or leaks. It becomes a vicious cycle.

Stopping leakages and theft means more water, extended coverage, and increased hours of supply. It also means lower water abstraction. This means wins all round. WSUP addresses the challenges of this non-revenue water (NRW) head-on, promoting long-term, sustainable change and building resilience through working with water utilities to strengthen their services and view the resources they have and the service they provide through a business lens. There is no point in finding more water to put into a system if half of that new supply is immediately lost through a broken system or theft. Water utilities need to avoid this cycle of expense and waste.

As NRW affects all areas of operations from supply and climate resilient infrastructure to billing and customer service, ensuring utility-wide understanding of the processes of production and distribution of water are central to improving efficiency, and driving profits. Utilities use WSUP's Utility Strengthening Framework to examine their business practices and the approaches they take across all departments, and we work with them to analyse how and where improvements can boost their operational effectiveness and sustainability as a business.

Utilities are essential commercial service providers. As such they should be no less rigorous in their business practices than any other business, especially when they are in charge of such a vital commodity as water. They can and should apply the same standards as any typical manufacturer; understanding their product, their customers, and the demand for that product; knowing the production process and distribution pathways and mechanisms; and always keeping a keen eye on pricing and ways to reduce waste so as to maximise profits.

We support utilities to develop these practices where they don't have them, build institutional capacity where they recognise it is needed, and put in place an appropriate and effective NRW strategy. This includes understanding how some of their current practices may be causing some of their problems; for instance, by introducing them to new and cheaper methods of remote monitoring and control of water networks, we can show utilities how operating intermittent supply stresses the network and increases leaks and damage to pipes, compared to constant supply and constant – though probably lower – pressure.



This increased and better data helps support better decision-making regarding operating the current network and allows utilities to advocate for major and/or targeted investments that will improve quality of supply.

Working with utilities across our core countries and through our consultancy WSUP Advisory has supported them to:

- Improve asset management and mapping to identify where problems in the network occur unseen and underground, through digitisation of maps and sensors fed back to the utility control room
- Understand the data from the network and what it is telling them about how their system operates and where there are problems
- Reduce leaks through intelligent network management, using automated valves to maintain constant pressure in the system and enabling continuous monitoring and adjustment of water flow
- Use data from customers to see how much water they use and pay for; utilities need to know the communities that are not being served, so they can plan to do so with the water they conserve through fixing and preventing leaks and theft

- Ensure that connecting to the water network is an affordable and straightforward process for all, including pro-poor customer service mechanisms such as sliding tariffs and a range of bill-payment options

By doing so, we show utilities how equitable services ensure the creation and maintenance of a well functioning, secure system that delivers long-term sustainable change. It also helps utilities better deliver their mandate of providing affordable, high quality, safe water to all urban residents, including the poorest informal settlement dwellers and women and girls.

On the customer side, we work in the LICs to ensure the communities recognise their ownership of new water points, and support their ongoing maintenance and sustainability. We address issues of poor water management and wasteful usage, such as leaving taps on, and inadequate handwashing with soap which contribute to and raise the risk of contamination during water collection, transportation, storage, and consumption. Through providing information and group sessions, WSUP works in the LICs to improve better water usage and stewardship to ensure that the safe water that we deliver to them is not wasted.

Our work with utilities delivers huge water savings.

Over the last 10 years, in Madagascar and Mozambique alone, reducing leaks and losses has conserved 7.9 billion litres of water

As a result over 900,000 people now have improved hours of supply and new water services including:

- household connections
- water kiosks
- toilet, washing and laundry facilities



Habibur Rahman
Interim Country Manager,
Bangladesh

Bangladesh

Project locations: Dhaka, Chattogram, Rangpur, Tarabo, Mankganj, Narsingdi, Savar, Kaliakair



With an estimated urban population of 62 million, over half of which lives in slums, a number which is expected to double by 2035, the pressure on cities in Bangladesh to provide clean water and safe sanitation is enormous.

Dhaka is the country's only city with a sewer system but it still only covers 20% of the population; most people use pit latrines or septic tanks which need regular emptying. Urban slums are overcrowded, with communal toilets that empty into waterways and where water is generally unsafe or hugely expensive, and often both.

Creating sanitation solutions

WSUP works with ministries, utilities, city authorities, and low-income communities to tackle these problems. Our sustainable solutions have included the ground-breaking SWEEP model, launched in 2015, which demonstrated that with the right business model, and support from municipalities, it is possible to create viable sanitation enterprises which meet the needs of poorer customers. SWEEP has provided safe collection and treatment of sanitation waste services to more than 2.6 million people to date. We are now working with Bangladesh's Department of Public Health Engineering to prepare Sanitation Improvement Plans in 30 municipalities that want to achieve 100% safely managed sanitation with funding from the World Bank and the Asian Infrastructure Investment Bank.

Expanding water networks

WSUP works to ensure that the poorest urban residents can benefit from clean, affordable water by providing practical and technical assistance to the local utilities. This includes improving pipe networks with new valves or materials, providing new or improved water sources for

better provision, and always ensuring our support integrates with, and complements, investments from multinational institutions such as the Asian Development Bank. Alongside extending water networks into the slums to ensure provision of safe drinking water, we work with those communities to ensure better water stewardship and hygiene practices.

Supporting the needs of the poorest

We have supported the utilities in Dhaka and Chattogram to develop specialist units to improve their understanding of the specific needs of poorer customers. This includes improving their sign-up and bill collection process that consider the customer's possible lack of official identification paperwork, low literacy rate and their possible need for a flexible payment plan.



Image: Landlord stands proudly by a new water tap installed as part of WSUP project with support from The Coca-Cola Foundation. This communal water tap provides clean water from the municipal utility CWASA. The green pipe is connected to a water meter and payment is collected from the tenants to meet the regular bill. Previously residents had to pay approx. 700-100 taka a month for water from a private vendor, their share of the bill is now 200 taka a month. **Credit:** Emma Bakhle, Bangladesh, 2023



Image: Menstrual health education talk with girls in the low-income neighbourhood in Chattogram organised by WSUP. **Credit:** Shehela Ali, Bangladesh, 2023

Working with local employers

Working with companies to improve lives in their global sourcing communities

From The One Foundation and The Co-op in Ghana and Kenya, to VF Corporation and The Coca-Cola Foundation in Bangladesh, WSUP is working with corporate funders to improve WASH services and practices in the communities within their global supply chains with a particular focus on addressing the needs - and safety concerns - of women and girls.

In partnership with these funders, WSUP has put in new toilet blocks, with locks and lights to improve privacy and security, bins for disposal of menstrual hygiene products and basins for handwashing. We work closely with the local community, and particularly women, to ascertain and meet their precise needs. For instance, we have built bathing chambers when women specifically asked for them, and consulted on extending the water networks and new tubewells so we site new water points where they are most useful. At the same time, we've worked with the communities on ways to keep their new facilities maintained and clean and provided education and communication on improving hygiene and how not to waste water, including how to store it safely.

In Bangladesh, Sabrina a 21-year-old garment worker, lives with her family in the most crowded area of Chattogram, where many factory workers live. Sabina and 12 other families shared a broken-down toilet with no water supply or lights. The toilet emptied into a side pond, leading to foul odours and huge health risks when the pond flooded during the rainy season, and the area was seeing increasing instances of diseases like diarrhoea and typhoid. The unhygienic and unsafe toilets also meant Sabina didn't want to use the toilet at all, putting her at risk of urinary infections and other health issues.

Sabina says her life has now changed significantly: "WSUP has built two chamber toilets, one for males and the other for females, with water facilities, septic tanks, and lighting. I can now use the toilet at any time, especially at night and in the morning when I am in a hurry to go to work, which has made me so much happier and healthier. I am not late for work any longer, I can work better and earn more."



Image: Two technicians in the JIRAMA laboratory in Antananarivo. WSUP helped upgrade the laboratory facilities responsible for testing the water quality as part of our support to the utility. This was one of the improvements identified as a priority by the staff themselves during the Utility Strengthening process we conducted with them. **Credit:** Tsilavo Rapiëra, Madagascar, 2022

Building stronger utilities

Central to WSUP's approach is our belief that the mandated utilities – those organisations with the responsibility to serve citizens – are the best route to ensure long-term services for the poor. However, to be able to do so, they need support. Part of the support WSUP provides is to encourage utilities to appreciate that low-income households make good customers; their small but regular payments provide a positive boost to a company's cashflow. The other important element is to ensure that the utilities themselves are efficient and well-run, providing a good level of customer service, that their networks are robust, and that they are financially viable.

In all WSUP's country programmes, we work closely with the water utilities to support them through this journey of self-improvement. These are long-term relationships, with trust and respect between both parties as the key to making progress.

"The utility strengthening project has now become SWSC's operating document which defines its strategic direction."

Gift Monde, Managing Director, Southern Water & Sanitation Company

Rather than coming with a prepared list of improvements the utility should make, our Utility Strengthening Framework enables the utility to self-diagnose their own weaknesses, identify their priorities, and set out a roadmap for development. The framework is designed to be practical and agile – balancing the needs for the utility to develop long-term strategic priorities with its need to implement change quickly.

Utility staff are encouraged to analyse their effectiveness in seven business areas: sustainability, attitudes and behaviours; capacity and performance; planning and investment; financial management, governance & mandates, and commitment & engagement. This provides a process for driving long-term change that places the utility and their staff in charge.

It is designed to ensure complete ownership of the change process, which in WSUP's many years of experience, is vital to ensuring that improvements will last.

WSUP core country



Sylvie Ramanantsoa
Country Manager,
Madagascar

Madagascar

Project locations: Antananarivo, Mahajanga, Toliara



29.6m
Population

67%
of urban
residents living
in slums

4.1%
Urbanisation
rate a year

88%
of people
without safely
managed
sanitation

47%
of people
without even
basic drinking
water

World Bank data

WSUP has worked in Madagascar for over 15 years, providing support to the national water utility JIRAMA, as well as directly improving sanitation for the poor.

Our long-term relationship has improved pipes which reduce leaks, boosted supply with new pumping equipment, and installed digital sensors leading to better pressure across the network. Together with these practical, operational improvements, WSUP has helped JIRAMA extend their supply to the poorer neighbourhoods.

For many low-income households in Madagascar, an individual tap inside their home is still not a possibility. Several years ago, WSUP piloted the approach of community-run water kiosks, which the utility supplies at a reduced tariff. The small profits made by these facilities – which also provide employment for locals – are invested back into community projects. In addition to kiosks, WSUP has also encouraged the installation of household connections for both water supply and for toilets, where these are suitable. These are often shared between two or three families, who organise themselves to share the costs and maintenance duties, and have proven to be extremely popular. We also install or improve washblocks in schools across three cities in Madagascar, ensuring staff and students have access to the facilities they need.

Since starting work in Madagascar, WSUP has constructed nearly 800 community WASH facilities including water kiosks, laundry blocks and public toilets.

Creating markets for sanitation

Many low-income households in Madagascar have very basic toilet facilities. For some, this means just a hole in the ground surrounded by a sheet. WSUP has a network of Toilet Sales Agents who offer safe toilet upgrades at affordable prices, allowing people to pay in small instalments. By developing a sustainable economy around toilets, WSUP is stimulating employment for sales staff, installers, and pit-emptiers, while providing dignity and choice for households.

Addressing waste management

Many of the low-income areas are low-lying, flood-prone, and have poor sanitation. WSUP has been supporting the creation of formal community groups to clean neighbourhoods, educate residents, and clear drainage channels. In 2022 WSUP started supporting another major utility in Madagascar, Société Municipale d'Assainissement (SMA) which is responsible for household and human waste. We are working closely with the management and staff of SMA to identify how they could improve their operations – increasing internal efficiency but also improving their environmental and customer performance to complement the work being done by local groups.

Across Madagascar, WSUP works closely with the community, local government, the Ministry of WASH and the utilities, to create sustainable services that meet the needs of the poor. Our insights and experience are sought by major international donors including the European Investment Bank and the World Bank to guide their own investments in the country's WASH sector.

WSUP's partnership with JIRAMA in Madagascar has supported the utility to make huge strides towards achieving national targets for improving WASH.

Between 2015-2022:

16.3% increase
2.69 million people got improved access to water; WSUP was instrumental in 16.3% of that increase.

24.9% increase
2.53 million people got improved access to safe sanitation services; WSUP was instrumental in 24.9% of that increase.



Frank Romeo Kettey
Country Manager,
Ghana

Ghana

Project locations: Accra, Kumasi, Tamale, Takoradi



33.5m
Population

33%
of urban
residents living
in slums

3%
Urbanisation
rate a year

84%
of people
without safely
managed
sanitation

12%
of people
without even
basic drinking
water

World Bank data

Ghana is one of the most urbanised countries in Africa with almost half the population now living in towns and cities.

Despite increasing prosperity, accelerating growth of the urban population – not only in cities but in towns and peri-urban communities – is leading to considerable unmet needs, as public investment and the capacity of institutions to address the demands for safe water supply and improved sanitation are failing to keep pace. This has an inevitable and significant impact on people's health, dignity, safety, and economic growth. 19,000 people die of diarrhoea-related disease every year in Ghana, the majority of whom are children; most of those deaths are avoidable.

WSUP has worked in Ghana since 2010, improving the provision of water and sanitation services in Accra, Kumasi, and the rapidly-growing towns in the Ashanti region. To date, we have reached over 3.8 million people with improved water and sanitation services, and nearly 9 million people with education and information to improve WASH and specifically hygiene practices, as well as mobilised \$57 million in investment for services for low-income communities (LICs).

Partnerships for progress

We have achieved this through strong partnerships at the national, regional and municipal levels, to improve the sanitation infrastructure and services and to support local entrepreneurs working in the sanitation sector to grow their businesses and meet the needs of LICs. Long-term relationships include the Ministry of Sanitation and Water Resources and other key stakeholders including Community Water and Sanitation Agency (CWSA).

CWSA is reforming to become a utility that directly manages publicly funded water systems, to better serve the rapidly growing small towns as well as rural communities. WSUP is helping CWSA build its internal capacity to operate effectively as a customer-facing, performing water utility, lending our expertise in working at the system level alongside local providers where we enable them to develop services, build infrastructure and attract funding so that they can deliver their mandates – including reaching LICs. We are also helping CWSA address the challenges of aging infrastructure, inadequate water sources to meet demand from rapidly growing small towns, high levels of non-revenue water, and low billing-and-collection efficiency.

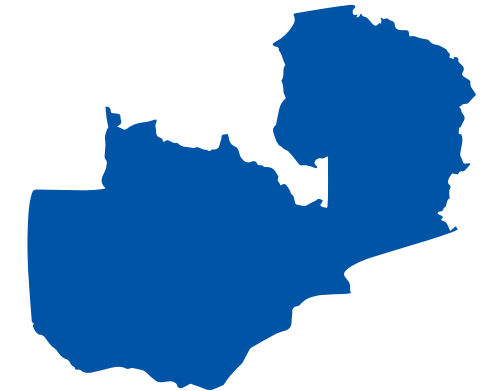
Other key partnerships in Ghana include supporting the establishment of a pro-poor unit within the urban utility, Ghana Water Company limited (GWCL) resulting in an increased focus on LICs, including extension of service lines to 45,000 people in LICs in Kumasi. We have also been working with local education authorities and communities to ensure that there are decent WASH facilities in basic schools benefitting 17,305 children; and improving water and sanitation services in small towns in the Ashanti region benefitting over 63,000 people; establishing community management committees in both the schools and towns to oversee the facilities and ensure sustainability of services.



Reuben Sipuma
Country Manager,
Zambia

Zambia

Project locations: Lusaka, Livingstone



20m
Population

48%
of urban
residents living
in slums

4%
Urbanisation
rate a year

32%
of people
without safely
managed
sanitation

64%
of people
without even
basic drinking
water

World Bank data

Existing water and sanitation challenges in Zambia are being exacerbated by climate change, leading to prolonged drought.

Sewerage coverage in the country rarely extends beyond the planned neighbourhoods in the big cities, with most households using pit latrines, which are often unlined and leak. In the capital, Lusaka, the high water table means ground water is frequently contaminated by these latrines, leading to the spread of diseases, including cholera.

Since starting work in Zambia in 2008, WSUP has worked closely with the Ministry of Water Development and Sanitation, major water utilities, the regulator, and low-income communities to address the needs of the urban poor. We have improved the training, regulation, and operation of pit latrine-emptiers, ensuring a better service for low-income consumers, protection of the environment, and raising the standards of health and safety for sanitation workers.

Working with delegated service providers

In low-income neighbourhoods around the capital, Lusaka, WSUP has supported the mandated water utility to extend supplies to residents. The utility has delegated responsibility for managing supply to the 140,000 residents of Chazanga neighbourhood to a community Water Trust. WSUP has helped both the utility and the Water Trust to improve their networks, including developing new sources of water, rehabilitating equipment, and introducing new water storage. We have also improved water pressure and hours of supply for existing customers by repairing 16.5km of pipes, which has also helped to reduce water loss. Household water connections have been installed at 2,442 homes, and residents without a tap at home are able to get clean,

affordable water from five pre-paid water dispensers located at convenient locations. So far, 62,000 residents have benefited from this project.

Margarate Mulenga, aged 33, has lived in Chazanga for six years. Her family had a household connection, but prior to WSUP's intervention, the supply was very irregular. Days would go by with no water in the tap and even when there was water, it was dirty due to broken pipes underground. Since WSUP's improvements, Ms Mulenga and her family now have clean water every day. "We are happy now because we can get all our chores done such as cooking, cleaning, and washing. And we are also able to drink clean water. We have also been able to finish extending our house now that we have a constant water supply. It was difficult before as we could not really build with the little water we were buying from the water kiosks. We had to prioritise it for cooking and other essentials."

Tackling water losses

WSUP is currently focusing on two low-income neighbourhoods in the southern city of Livingstone – Ngwenya and Messenger – home to over 16,000 people. Part of WSUP's approach is to make sure that the utility – in this case, Southern Water Supply & Sanitation Company – is financially viable. This enables it to reinvest in repairing and extending its network. Working closely with the utility, we are tackling water loss by repairing the infrastructure, using smart technology to monitor and manage water pressure in the system ensuring continuous supply, improving metering, billing accuracy and collection, and training utility staff to detect and address leaks in the system. Improved network management will result in increased hours of supply of good quality water as well as ensuring there is more water in the system to benefit a wider area.

Supporting the next generation: improving school WASH facilities and maintenance

The link between decent WASH facilities in schools, and school attendance, not to mention educational success, is obvious.

Yet far too often toilets and hand washing facilities in schools – if they exist at all – are dirty, broken, unhygienic and even locked. It is not surprising that teachers report that children deliberately don't drink any fluids while they are at school, or do their best to 'hold it in' so that they can avoid using the toilets, putting them at risk of dehydration, bladder and kidney infections. This means many children are missing out on their education and impacting their futures. .

Girls are especially disadvantaged. The lack of gender friendly WASH facilities and adequate facilities for menstrual hygiene management in schools impacts on privacy, dignity, and convenience, and can result in high rates of absenteeism and drop out for girls. Nearly 40% of girls enrolled in primary school don't finish it. Teachers are also affected by the lack of WASH facilities, especially women.

An integrated approach to providing sustainable WASH facilities in schools
Improving WASH facilities in schools has long been embedded in WSUP's work. Working closely with the school management, teachers, the local education authority, and the community, WSUP has transformed the WASH facilities for hundreds of schools across our core countries. This work has reduced the incidents of open defecation in the target schools and communities, minimized the occurrence of school pupils going home during classes to access water or use the toilet, and stopped girls staying away from school during menstruation.

We work with key partners throughout the process, from selecting the schools and siting of new facilities to ensuring the operation and maintenance team is set up to keep the facilities working. From Ministries of Education at central, regional and local level, School directors,



Image: Students help with the cleaning of their school's new toilets. WSUP has installed new clean water stations and new toilets at the public school in Mahamasina. Organising regular cleaning and maintenance of facilities is critical to the long-term success of any new facilities. **Credit:** Tsilavo Rapiera, June 2023, Madagascar

representatives from the local authority and the community, we ensure that each school sets up a WASH committee responsible for the upkeep of the facilities.

Many schools lock the toilets due to a lack of funding to clean them and an understandable reluctance on behalf of the teaching staff to add cleaning the toilets to their workload. The school WASH committee is essential to overcoming this barrier as they take on the operation and maintenance of the WASH facilities, including collecting money from the parents and the wider community to fund the cleaning and upkeep of the facilities, as well as monitoring of good WASH and hygiene practices at school. Committee members are composed of the school



Image: Student of Shoilabala Govt Primary School entering the toilet facilities upgraded by WSUP **Credit:** WSUP, Bangladesh 2022

Director, teachers, students, parents, and representatives from the local authority.

Added to this, in many schools WSUP supports the Committee to set up circular economy activities, including promoting reuse and recycling of waste, using water from handwashing stations or rainwater harvesting to grow vegetables that can be used in the school cafeteria or sold to generate funds for the operation and maintenance cost. In some countries, awareness-raising and knowledge sharing on management of health and menstrual hygiene (MHM) led to sanitary pads manufacturing becoming part of the circular economy approach, by demonstrating how girls could reuse cotton fabrics to make into washable sanitary pads.

Practice into policy

WSUP's expertise in schools WASH has led to Ministries of Education creating models of WASH in schools:

In Madagascar, we have worked with the Ministry of Education, Ministry of WASH and other WASH actors to establish as a WASH friendly school certification scheme and national guide. Each school must fulfil certain requirements before being recognized and certified as WASH Friendly School: These include the availability and use of hygienic facilities, inclusion of hygiene promotion inside school curricula, good WASH and hygiene practices, including MHM and establishment of School WASH Committees.

The WASH Friendly School approach has been effective in supporting schools to improve WASH services, with most schools making progress to gain the different levels of certification. There is strong government support to extend the WASH Friendly Schools approach. WSUP facilitated an agreement between the Ministry of Education and Ministry of WASH to collaborate on the approach and increase resource allocation to WASH in schools.

In Mozambique, WSUP has supported the development and implementation of a nationwide strategy for school WASH in urban areas. Through our strong relationship with the Councillor for Education at the Maputo City Council, we have supported the school boards to establish effective management of water and sanitation facilities, as well as implementing hygiene promotion campaigns in schools and develop a WASH strategy which was approved by the Maputo Municipal Council (CMM). CMM is planning to expand this work to cover all primary schools in the city and we are hoping that this leads to a nationwide strategy for schools in urban areas.



Eden Mati
Country Manager,
Kenya



Kenya

Project locations: Nairobi, Mombasa, Naivasha, Nakuru, Kisumu, Malindi, Eldoret and Mavoko



World Bank data

Natural population growth and rural-urban migration driven by climate change, conflict, and rural poverty has led to unplanned rapid urbanisation and the proliferation of over-crowded low-income communities in cities.

This has created huge unmet demand for critical infrastructure and basic services. Meeting growing water demand in a context of increased water scarcity is becoming a significant challenge in Kenya and efforts to address poor sanitation in urban low-income areas are constrained by limited national budget allocations, with just \$2 per person/per year earmarked for sanitation, as well as poor coordination and overlapping institutional mandates for sanitation service delivery.

Capacity building

Since 2007 WSUP has worked in all the major cities in Kenya to build capacity of service providers and county governments. As a result, we have generated significant long-term improvements to the national urban WASH sector, enabling over 9 million people to receive improved access to water, sanitation, and hygiene.

In Kenya, WSUP has strengthened the capacity of utilities and national water sector institutions to enhance systemic change in water and sanitation services delivery to the urban poor. WSUP in Kenya has supported the utility sanitation capacity assessments as well as establishment of sanitation units in Malindi, Nakuru, Kisumu and Naivasha. WSUP has also strengthened the capacity of 6 utilities (Nairobi, Mombasa, Kisumu, Nakuru, Malindi and Naivasha) to improve low-income households' access to equitable, affordable, and safe water and sanitation services. WSUP's support on governance issues, policy, regulation, extension of climate-resilient water, sanitation

and sewer networks as well as promotion of their services, has helped these utilities to grow their bottom-of-pyramid customer base with over 100,000 customer accounts cumulatively.

Innovation for sanitation

In 2022, WSUP and Nairobi City Water and Sewerage Company (NCWSC) piloted 5km of simplified sewer systems (SSS) in Mukuru informal settlement in Nairobi, as a cheaper, more efficient, and climate-resilient sanitation concept for low-income neighbourhoods in Nairobi (see pp 22-23 for more details). By demonstrating the effectiveness of this approach, we have ensured buy-in and adoption of SSS from the city's utility, NCWSC and the Ministry of Water, Sanitation & Irrigation. Since 2023, WSUP has been marketing and promoting SSS connections in an ongoing tripartite collaborative framework with NCWSC and Athi Water Works Development Agency, through which 35km of simplified sewer networks are being scaled up in Nairobi's informal settlements. This scale-up is facilitated by investments from the African Development Bank's Nairobi Rivers Sewerage Improvement Program (Phase II).

WSUP in Kenya is excited to be the primary recipient of a new grant from the Sanitation and Hygiene Fund (SHF) - a UN fund dedicated to sanitation, hygiene and menstrual health - and the Government of Kenya. This 36-month catalytic grant addresses market failures and bottlenecks that hinder the much-needed flow of finance to the sector. The grant will be implemented in six cities in Kenya.

Getting regulation right

Creating water and sanitation services which are affordable for the poor, financially viable for suppliers and also environmentally sustainable requires the right policies and regulations to be in place.

Companies need to be held responsible for treating customers and the natural environment responsibly. Sanitation workers need to be protected. Low-income households need to be included in service delivery. Many of these things will not happen on their own if market forces alone are paramount. Governments need to create the correct incentives, through both carrots and sticks, in the form of regulation. This is why WSUP is so focused on ensuring that the right regulations, standards and guidelines are in place.

Across all our countries, we support the development of legislative, regulatory, and public finance instruments that incentivise pro-poor inclusion in service delivery. In Kenya, where there are over 80 different water utilities overseen by the national water and sewerage regulator WASREB, WSUP pressed for the introduction of an additional, tenth Key Performance Indicator (KPI) against which each utility is annually assessed. KPI10 - which came on the statue books in 2018 - requires utilities to institutionalise service provision to low-income communities (LICs), from obtaining buy-in from the board of directors, to designing subsidies and tariffs that will benefit poorer customers. The regulatory requirement to track and report annually helps ensure utilities are held accountable for providing water and sanitation services to LICs. As a result, several utilities established pro-poor units and over 80 of the 88 utilities in Kenya are using the KPI to report on their investment in pro-poor services.

In sanitation, regulation can be complicated by the involvement of different providers across the sanitation service chain, with the private sector often playing a key role.

In Kenya, for example, where 84% of the population relies on non-sewered sanitation, WSUP is supporting the regulator and utilities to organise formal delegation and oversight of private pit-emptying service providers. At the same time, the regulator WASREB is adopting a



Image: Previously working informally, WSUP helped these pit emptiers in Livingstone, southern Zambia become part of a professional team supported by the utility Southern Water & Sanitation Company (SWSC). Without training, equipment and safe working practices, pit-emptying can be a very dangerous activity. Regulation has a role in protecting workers in the sanitation economy. **Credit:** Chisha Mwenso, Zambia, 2022

leadership role in addressing the financing gap for sanitation, by driving forward a surcharge on water bills, which is intended to support the costs of ensuring safe non-sewered sanitation for low-income communities. A KPI for safely-managed non-sewered sanitation is being considered as part of the solution.

WSUP works closely with governments and regulators to support the development of sanitation regulation at every level, understanding that countries are at different stages on their journey, and that regulatory frameworks, enforcement, data management and financial support in the form of levies are interlinked. Globally, the government entity responsible for regulating sanitation is not always clear, making the review of institutional and regulatory frameworks a critical first step. In early 2024 the World Health Organization will publish a roadmap for improved sanitation regulation produced in collaboration with WSUP, drawing on case studies from countries across Africa, Asia, Europe, and Latin America.

Simplified sewers - innovating sanitation solutions

Most toilets WSUP work with are so-called 'off-grid', meaning pit latrines or septic tanks. In recent years we have piloted installing simplified sewers in two city slums in Kenya, with very positive results. This opens new possibilities for better sanitation which could benefit millions.

Kenya's capital city, Nairobi, has a municipal sewer network which serves the business district and the wealthier areas of town, but although the trunk sewers run close to, and sometimes even under, the city's informal neighbourhoods, it has been hard to connect those households to them. This is due to highly dense housing, narrow unplanned streets, and uncertain land tenure. Recently however, in partnership with the local authorities and as part of an integrated neighbourhood upgrade effort, WSUP has innovated the use of a simplified sewer network in the community of Mukuru.

So-called 'simplified sewers' are widely used in South America. They use smaller and more flexible pipes, laid at a shallower depth, making them quicker, easier, and cheaper to lay. They work best in locations which have an existing sewer network of trunk sewers allowing for the waste from the new network to travel into the main sewer system – and from there to treatment facilities.

In addition to trunk sewers, there are some other conditions required for simplified sewers to work. These include an adequate water supply to support pour-flush toilets and strong community engagement to support operations and maintenance. The narrow pipes could easily get blocked if alternative solid waste management and disposal options are not available.

These conditions were in place during the pilot project, which was a partnership between WSUP, Nairobi City Water & Sewerage Company, Nairobi Metropolitan Services, Akiba Mashinani Trust, and the community in Mukuru. Prior to the intervention, most Mukuru residents relied either on shared pit latrines or pour-flush toilets which channelled waste through open drains to the nearby river.

With the financial support of The One Foundation, in just one year, WSUP laid over 1,000m of pipes, constructed 72 inspection chambers and connected 94 households to the sewer system, benefitting over 4,000 individual residents, and ensuring a much cleaner local environment free of the stinking open drains.

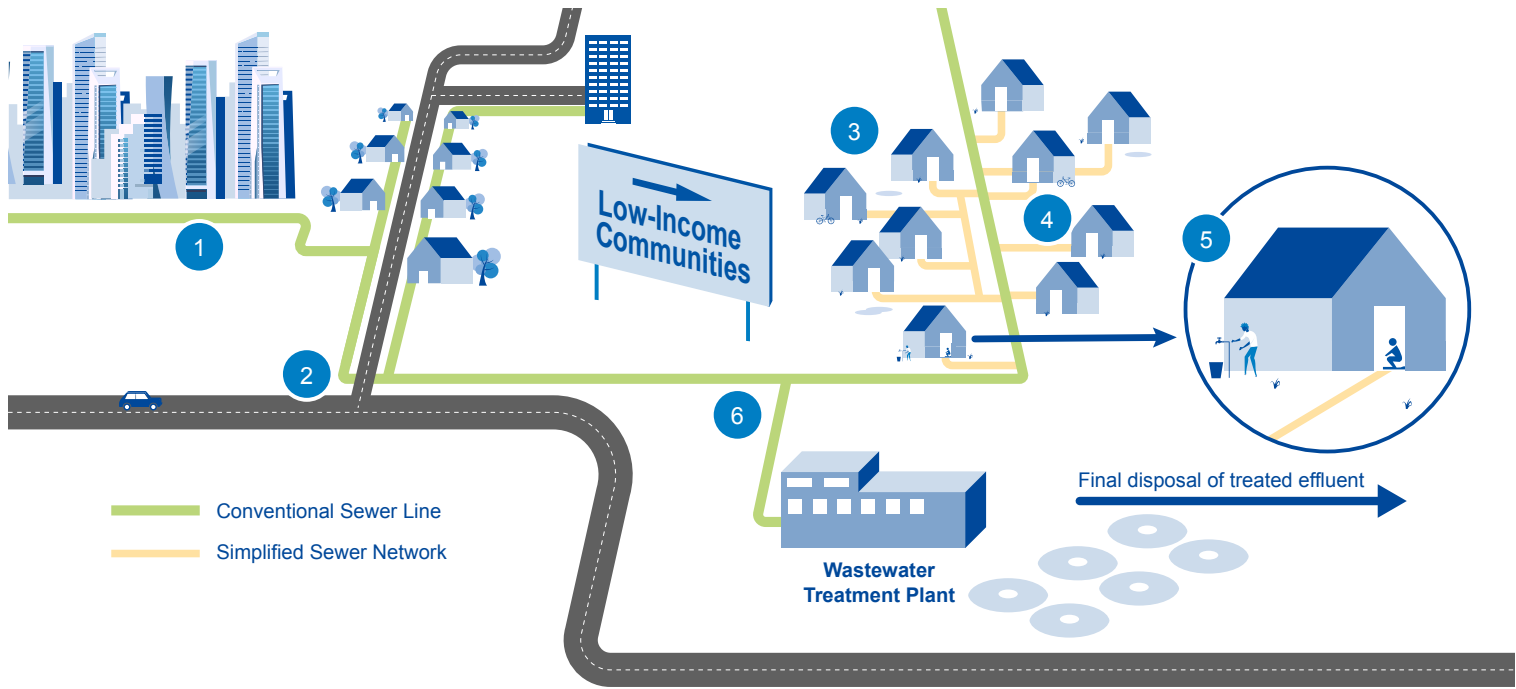
Residents reported that they were highly satisfied with their new facilities. They also benefited from lower costs: residents of Mukuru pay between KES 5-10 for a single use of public latrines (amounting to KES 900 a month for a family of three), compared to KES 20 per month for simplified sewer services, assuming a plot of ten households.



Case study: Isaac Otieno Odongo

Isaac Otieno Odongo lives in the community of Mukuru, Nairobi, and says that before the simplified sewers and water dispensers were installed, residents had to pay to use the few toilets available and had to purchase water at high cost. "You had to ensure cash was available to pay for water and for using toilets. It was expensive especially for those with small children and families. The environment was dirty because people would throw faeces all over. But now, we have seen change. The sewerage project has benefited us since we no longer have to pay for these services."

"The area around me would be very dirty but with water available, it is easier to sweep and keep it clean. We never had toilets inside the plots, but with the sewerage projects, plots now have toilets. Diseases like cholera would affect people and kids, but they have reduced drastically, I have not heard of a sick child in the area recently. The water project has helped us to keep the toilets clean. Water is now cheaper and available all the time". **Credit:** WSUP, Kenya, 2022



In addition to the successful pilot in Mukuru, WSUP has also piloted the same approach in the Kenyan cities of Nakuru and Naivasha, with similarly positive results.

"There is no 'one size fits all' solution to the sanitation challenge in urban slums", explains WSUP's Country Manager in Kenya, Eng. Eden Mati. "However, we now have strong evidence that simplified sewers are one of the answers. The prevalence of trunk sewer networks around

many of our informal settlements in Kenya provides abundant untapped potential for scale-up of this solution. Further challenges lie ahead, not least in securing the finance for extending the connections and developing appropriate infrastructure for sewage treatment, but I am hopeful these can be overcome."



Case study: Catherine Nduku

Catherine Nduku is a landlady and community leader in the Mosque Road area of Mukuru, Nairobi. For years she has suffered from sewage overflowing into her compound. Tenants in her compound would frequently leave plastic bags of faeces along the corridors at night to protest the lack of sanitation in her plot. She was worried constantly about contracting cholera or typhoid. Since being connected to the sewer network by WSUP, Catherine says she is really enjoying a clean compound and a 'fresh' toilet without smell. She can confidently walk around without worrying about stepping on excreta. She says the easy connection process has enabled many landlords who did not have toilets in their plots to construct toilets and connect to the new sewers. **Credit:** WSUP, Kenya, May 2021



Case study: Judy Chelangat Busienei

Judy Chelangat Busienei is a resident of Githima, a low-income neighbourhood in Nairobi, one of the first areas to benefit from WSUP's installation of simplified sewers.

"I am so elated about the connection to the sewer line which prompted our landlord to upgrade our facilities from pit latrines to the current pour-flush. I can comfortably let Alvny, my son, use the toilets without fear or discomfort. The toilets were too smelly and difficult to maintain in the past. I therefore had to avail a potty where he would poop inside the house, then dispose it off into the latrine. This, to me, is a commendable life upgrade!" **Credit:** Brian Otieno, Kenya, 2019

For more on simplified sewers, visit the WSUP website - www.wsup.com



Tunisio Meneses Camba
Country Manager,
Mozambique

Mozambique

Project locations: Maputo, Beira, Tete, Quelimane



World Bank data

WSUP's work in Mozambique is a mix of direct delivery to the urban poor, longer-term support to build the capacity of utilities and service providers, as well as wider policy and regulatory improvements.

This latter element includes a long-term project with the Mozambican water and sanitation regulator, Autoridade Reguladora de Água (AURA), to develop and roll out a new sanitation regulatory framework which includes a city-level sanitation surcharge to help fund essential improvements in services.

Integrated urban development

We provide technical support to the water utility in Maputo to reduce losses through their pipe system, installing modern monitoring equipment to ensure the preservation of precious water supplies. In Maputo, we work with Architects Without Borders to upgrade several low-income 'bairros' including providing toilets for households and connecting people to the city's water supply. In Beira we've helped the city recover from Cyclone Idai and built a stronger and more resilient pipe network which has already proved itself by withstanding several serious subsequent storms.

A further focus of our work in Mozambique has been the improvement of WASH in primary schools. This has been a combination of direct rehabilitation/replacement of facilities in large schools in the capital, as well as helping the Maputo municipal authority to develop their city-wide schools WASH strategy, which aims to provide proper WASH facilities in all schools there by 2030 (see page 18-19 for more details).



Case study: Maria João Macaringue

Five families share our plot, and the same latrine, which was just a pit we would fill when it was full. It was difficult in the rainy season. We saw bathrooms being built by WSUP in the neighbourhood and the organiser visited us for a survey. We now have a toilet with two compartments, a water tank and a laundry tank. We like it very much! We can receive visitors without shame. The bathroom is a luxury for us, it is safe and comfortable, a person inside can lock the door, and it is easy to clean.

Credit: WSUP, 2020, Mozambique

We work with the national and municipal authorities – and international donor agencies – to develop responsible and sustainable sanitation systems in the country. This involves supporting the development of businesses providing affordable pit-emptying for low-income communities based on a tried-and-tested model which fits the conditions in Maputo. WSUP works closely with the National Directorate of Sanitation (DNAAS) to roll out Sanitation Planning and Improvement in Maputo, Tete and Quelimane cities under the Mozambique Urban Sanitation Project (USP) including revision of designs for the Maputo, Tete and Quelimane sewerage systems.

Building a sanitation economy

Meeting the sanitation needs of the world's population is an expensive business, but there is also money to be made.

This might be through the production and sales of hygiene products and toilets, or the emptying and servicing of latrines, or the transformation of human waste into useful products including fuel and fertiliser. WSUP is committed to developing a functioning, sustainable and safe sanitation economy, one that works for low-income customers, business operators, and frontline workers.

We operate at every level to help improve the sanitation economy, adopting tailored approaches which meet the specific needs of each location and the needs of the poor.

In Bangladesh, for example, our SWEEP pit-emptying businesses operate a tiered pricing model which means wealthier customers pay higher fees allowing poor households to access the service. In Madagascar, our toilet sales agents go door-to-door in low-income neighbourhoods offering affordable toilet upgrade options at a lower cost which are transforming daily life for families. In Ghana, we've supported the development of container-type toilet business called Clean Team, providing a dignified and hygienic toilet solution without the need to dig a pit.

In Kenya, alongside innovating sewered solutions where applicable, WSUP is the primary recipient of a grant from the UN's Sanitation and Hygiene Fund (SHF). This grant is part of SHF's innovation investment envelope intended to complement the efforts of the Government of Kenya towards the achievement of SDG 6.2. Working in partnership, the project will increase sustainable access for sanitation products and services in low-income urban areas, with the aim of reaching 1.35 million people across six targeted cities over three years..

The global sanitation economy we want to see won't grow by itself though, so alongside our work with households and businesses, WSUP encourages politicians and decision-makers to prioritise sustainable solutions for sanitation, such as levying a surcharge on water bills to support sanitation efforts, as WSUP is advocating for in Mozambique.

WSUP teams work with government and utilities to try and secure the political will required to ensure the necessary finance is mobilised from the public sector, alongside private investment. We advise on the regulation and policies that are needed to protect workers, and the environment, from unscrupulous operators, whilst ensuring the business environment is attractive to entrepreneurs. And making sure that the needs of the poor are understood and met, remains paramount.



Image: Creating a truly circular sanitation economy means finding profitable uses for faecal sludge. In Kenya, WSUP has been supporting Nakuru's water utility NAWASSCO to produce briquettes for use as fuel in replacement of charcoal. "We see that faecal matter is a resource. It is raw material for us, as a company," says Zaitun Kanenje, Low-Income Consumer Manager at NAWASSCO. "The briquettes that we are making we're bringing back to the same community, of Ronda and other areas." Credit: Awakening Pictures, Kenya, 2023

Evaluation, research, and learning

Improving policies and practices to better serve low-income customers

Research is core to WSUP's theory of change and the 2020-25 Business Plan. Since its inception, WSUP has been committed to thought leadership through the generation of high-quality evidence, research, and learning. WSUP works at the interface of research and practice, leveraging research to support our country-level influencing goals and to promote evidence-based programming; and leveraging our programmes to generate evidence to influence decision makers at the regional and global levels.

Led by our Evaluation, Research & Learning team, WSUP is a leading knowledge broker in urban WASH, with an unmatched track record in producing technical publications on urban water and sanitation. We believe in the power of cross-regional knowledge exchange to catalyse change and drive progress in water and sanitation services provision. Through a partnerships-based approach, we aim to pool knowledge, learning and expertise to influence real policy change.

WSUP's research function is supported by in-house expertise in evaluation, peer to peer learning and data visualisation. Our innovative citywide survey methodology has generated comprehensive city-level data on water and sanitation access. The interactive dataset is targeted at city-level service providers and national-level policy-makers and can be deployed to guide future water and sanitation investments. WSUP has also pioneered the Sector Functionality Framework as a diagnostic and evaluative tool tailored to the complexities of urban WASH systems.

WSUP has a proven track record of designing, managing, and delivering research projects in urban water and sanitation. This includes the 2016-2020 Urban Sanitation Research Initiative, a £4 Million research-into-policy programme funded by UK Aid. The Initiative was grounded in formalised partnerships with ministries, regulators, and academic institutions in the 3 focus countries of Bangladesh, Ghana and Kenya. Informed by the evidence needs of our institutional partners, the Initiative produced high-quality, locally-driven research across 5 core thematic areas.

Over the past year, WSUP has delivered through its research, leveraging its unique expertise to deliver globally relevant research for a wide range of influential clients. Ongoing research initiatives include a study on principles for achieving universal access to safely managed water supply and sanitation in Africa, for World Bank; a study on clarifying responsibilities and strengthening accountability to support the effective regulation of sanitation services in RegNet member countries and the WHO European Region, for World Health Organization; and a landscape assessment of WASH in Healthcare Facilities, for Save the Children. These studies build on recent collaborations including the production of sector framing papers on the responsibility and accountability functions of Citywide Inclusive Sanitation (CWIS), as part of a series produced by ESAWAS in collaboration with Bill & Melinda Gates Foundation.

Our in-house research capabilities are further demonstrated through the delivery of a major global report for UN Habitat (2023) on sanitation and wastewater management in cities and human settlements, presented on the next page.

Figure 2: Global Mapping - BOD removal efficiency
Source: Global Mapping - Biological Oxygen Demand (BOD) removal efficiency. Source: UN Habitat (2023) Global Report on Sanitation and Wastewater Management in Cities and Human Settlements

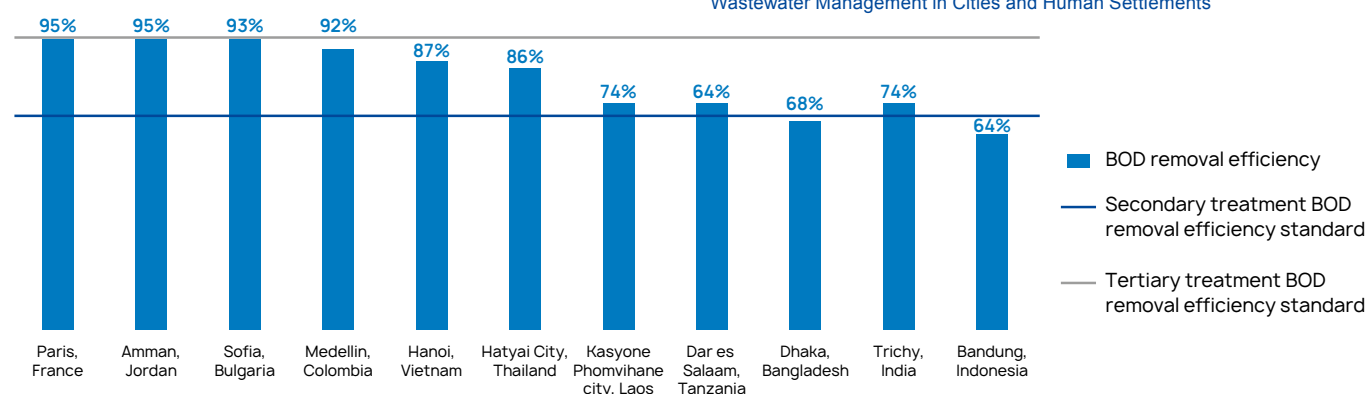


Image: WSUP's Head of ERL, Sam Drabble, takes part in a presentation and discussion at the UNC Water & Health Conference. From paths to proper regulation of the WASH sector, to assessments of the effectiveness of policies and programmes for low-income urban communities, WSUP's research and evaluation work has become a vital reference to policymakers, utilities and multinational organisations around the world.
Credit: WSUP, USA, 2023



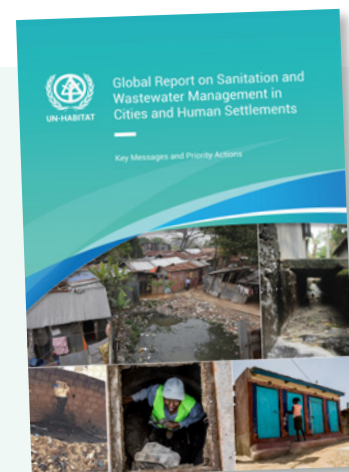
Image: Eden Mati Mwangi, WSUP's country manager in Kenya, speaks to guests at the Danish embassy in Nairobi, June 2023. This climate-related discussion at the Danish embassy in Nairobi presented the MAR project, funded by P4G. The MAR (Managed Aquifer Recharge) project, in the cities of Mombasa and Malindi, on the coast of Kenya, promises to increase the offer of clean water to local communities while protecting the environment.

Spotlight: UN Habitat Global Report on Sanitation and Wastewater Management in Cities and Human Settlements

The Global Report on Sanitation and Wastewater Management in Cities and Human Settlements is a global reference document for sanitation and wastewater in urban settings. The Report provides a unique overview of wastewater and faecal sludge management performance across diverse contexts, including self-reported data on treatment performance. It takes stock of the current situation globally both in terms of service levels and the supporting functions required to enable service provision at scale.

WSUP led a global consortium for this work, managing consortium partners Thuyloi University (Vietnam), 2ie (Burkina Faso), Eastern and Southern Africa Water and Sanitation Regulators Association (ESAWAS), University College London, GSMA and Aguaconsult. The project leveraged this consortium to engage directly with the mandated service authorities in 18 cities across Africa, Asia, Europe, and Latin America. Primary data from these cities was supplemented by a wide-ranging literature review.

The starting premise of the report is that sanitation is a public good, and sanitation services must be organized into public service systems. The report argues that for countries and cities starting from a low base point in sanitation and wastewater management,



UN Habitat (2023) Global Report on Sanitation and Wastewater Management in Cities and Human Settlements

clarity is needed on what actions to prioritize and why. It offers a structuring framework to support such prioritization, integrating the three core functions of Citywide Inclusive Sanitation (Responsibilities, Accountability, and Resource Planning and Management); and highlighting how these functions must be underpinned by public sanitation data management systems.

Drawing on in-depth case studies from Medellin (Colombia), Dhaka (Bangladesh), Nakuru (Kenya), Ouagadougou (Burkina Faso) and Hanoi (Vietnam), the report showcases cities that are driving sector reforms in these core functions. Beyond these foundations, the report captures a wide range of inspiring innovations in sanitation and wastewater management, with particular focus on climate resilience, digitization, and wastewater and faecal sludge reuse.

The Global Report is an initiative of UN Habitat. The Agence Française de Développement (AFD) and Bill & Melinda Gates Foundation provided financial resources.



Jane Olley
WSUP Advisory
Technical Manager

Extending WSUP's impact beyond our core countries

WSUP Advisory, WSUP's consultancy arm, undertakes commercial consultancy work globally.

We offer technical assistance and advice to governments, international finance institutions, service providers, UN agencies, NGOs, and other stakeholders, including on investments in addressing the WASH needs of consumers. Clients include the Conrad N Hilton Foundation, USAID, UNICEF, the Asian Development Bank, and the World Bank.

WSUP Advisory primarily works in countries where WSUP does not have a permanent presence. It draws on the insights and expertise gained in WSUP's core countries, feeding lessons learned and the profits made back to WSUP to enrich longer-term programmes and support its work. It also creates a virtuous circle allowing new methodologies and tools developed through these assignments to be applied in benefit of WSUP core country programmes. During 2022-2023 WSUP Advisory worked on projects in Cambodia, Ethiopia, Malawi, Nigeria, India, Uganda, Kenya, Burundi, Rwanda, and Tanzania.

Lake-wide Inclusive Sanitation Initiative

Lake Victoria lies at the heart of the continent of Africa and is a vital resource and source of livelihoods for millions of people living around it. However, it is becoming increasingly polluted by untreated wastewater, septage and faecal sludge generated by the 40 million people living in the Lake Victoria Basin. This includes the population of three countries which directly border the lake – Kenya, Tanzania and Uganda – but also of Rwanda and Burundi which form part of the Lake Victoria basin.

To address this, the five countries have come together under the Lake Victoria Basin Commission (LVBC), and – with funding from the World Bank – have established the Lake-Wide Inclusive Sanitation (LWIS) Initiative. The goal of this ambitious initiative is to improve sanitation services for their populations by reducing effluent going into the lake. WSUP Advisory was asked to facilitate the



development of the LWIS Strategy and Action Plan, using city-wide inclusive sanitation (CWIS) as the key approach.

Having conducted research and used those insights to create guidance, WSUP Advisory facilitated the sharing of experiences from previous city-wide inclusive sanitation projects to foster a wider understanding of how it had been applied in different locations across the different countries.

WSUP Advisory supported the LVBC in encouraging stakeholders from key ministries, utilities, and local governments from all five countries to work together to develop the strategy for LWIS and its application within the Lake Victoria Basin. This included the demonstration of LWIS planning in three lakeside communities, Entebbe in Uganda, Mwanza in Tanzania, and Homa Bay in Kenya.

Across 12 months between 2022 and 2023, WSUP Advisory led the Lake Victoria Basin's Technical Working Group through development of a preliminary strategic framework for lake-wide inclusive sanitation, to the creation of the full Strategy and Action Plan.

At the same time, research was undertaken on sanitation employment opportunities in Lake Victoria Basin and on the promotion and use of appropriate sanitation technologies at each stage of the sanitation chain. These research findings helped inform the development of the Strategic Plan and provided decision-making tools to be used by sanitation planners in the region.

If you are interested finding out more about WSUP Advisory's services please contact us direct on advisory@wsup.com

Beyond the mega-city, support for fast-growing towns

We are all aware of the story of urbanisation over recent years. In 2015, half of Africans were city-dwellers, and that is forecast to rise to more than 70% by 2050.

However, focus on the megacities masks an important trend, the rapid growth of smaller cities and towns, sometimes known as rural growth centres. According to The Economist, in 2015 roughly 60% of Africa's urban population lived in towns and cities that had fewer than 1m inhabitants.

The sharp growth in population levels of previously small towns places extreme pressure on their water and sanitation infrastructure. It is rare for large utilities to operate outside of the largest cities, and so most smaller towns rely on a local provider operating a legacy pipe network. This, however, often only covers part of the population, with the rest relying on private sellers or shallow wells for their water. Smaller providers often must contend with aging infrastructure and insufficient income from their customers to cover the costs of upgrades. They may also lack professional and technical skills. Generally, their focus is just to provide water, with less concern about quality.

Increasingly, WSUP is supporting the extension and professionalisation of water and sanitation providers in these smaller towns across many of the countries where we work, building on the years of experience we have working with larger utilities. As always, we focus on ensuring that poorer and vulnerable residents benefit, and that service providers are able to improve the quality and quantity of the water they provide. Often this is achieved by grouping several small municipalities together into a single, regional, administrative structure. In Uganda, for instance, the Ministry of Water divided the country into six 'Umbrella Authorities', and replaced the technical support that the local community-managed water providers previously received with more direct control.

Aggregating providers in this way allows for increased efficiency through economies of scale. It has also allowed for water providers and Umbrellas to learn from each other; WSUP has held several workshops bringing operational staff from across the country together to



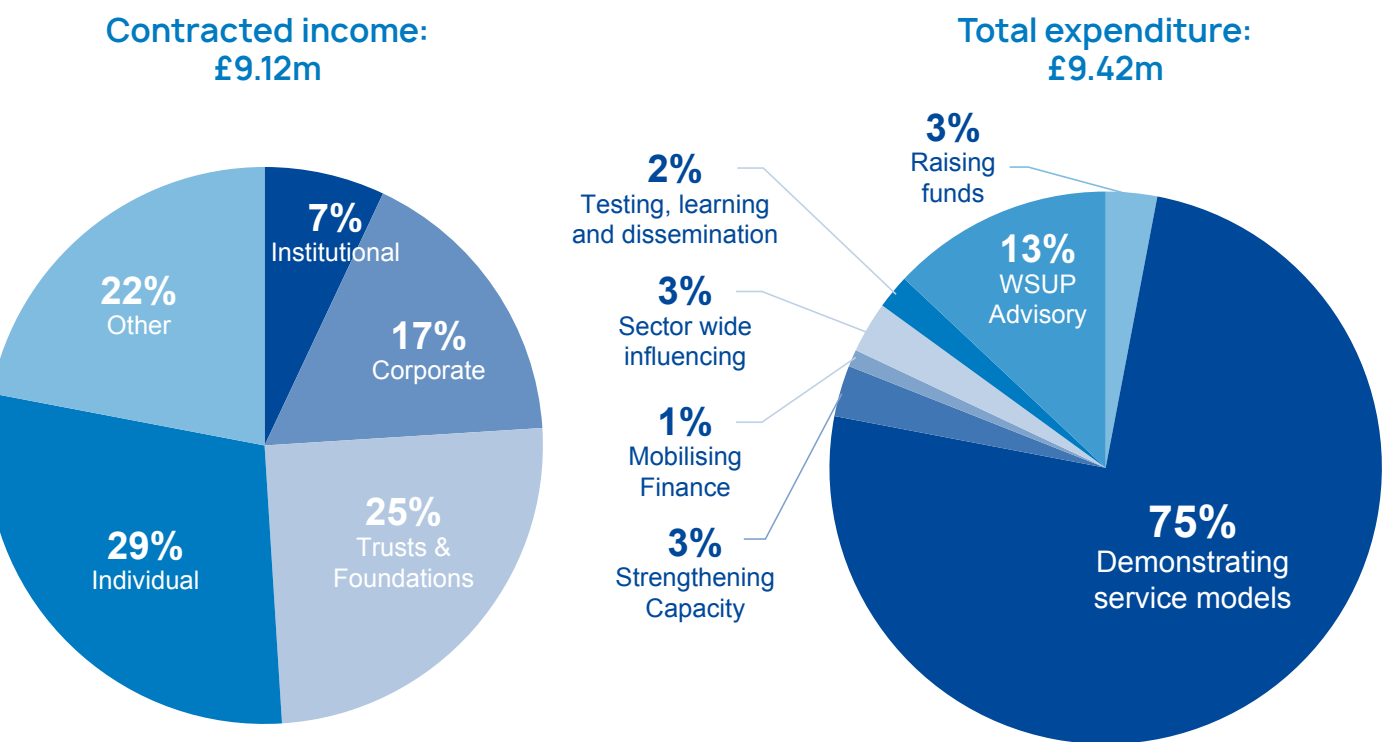
Image: Community water point managed by the Mid-Western Umbrella, Uganda. Credit: Naomi Kabarungi/IRC, Uganda, 2022

exchange insights and experiences. Philip Oyamo led WSUP's work within Uganda: "At WSUP we are used to working with more mature utilities, but with the Umbrellas our partners were at a very formative stage, so we had to start at ground zero and build up their understanding and operations."

With WSUP's support the Central and Mid-West Umbrellas in Uganda are now realising the gains from professionalising their operations. This includes very practical changes to accounting methods (eg introducing double-entry book-keeping), establishing customer service departments, and investing in the strengthening and extension of the piped network to include low-income neighbourhoods. As a result, customers in the Mid-West Umbrella region can now expect any complaints to be resolved within 48 hours, billing has been streamlined, and the quality of water – which is tested more frequently – has improved.

"Customer satisfaction has really risen under the new system. When representatives from the water company come to their door in their white coats, and instead of collecting the bill they are testing the quality of the water coming out of the tap, that really makes people feel confident with the quality of the water they are getting," Oyamo added.

Finances for the year ended 31 March 2023



WSUP Governance*

To distinguish it from traditional charitable or philanthropic entities, WSUP operates as a not-for-profit company limited by guarantee, with the following organisations acting as WSUP’s Members:

- Borealis & Borouge
- Care International
- Cranfield University
- Thames Water
- Unilever

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There is also The WSUP Charity (UK reg charity no. 1170651) which supports our work.

The WSUP Charity Trustees:

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Thanks to WSUP’s funders and partners

WSUP is grateful to the many funders and partners who have supported our various activities over this financial year. We would also like to thank all the communities we worked with.

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| African Ministers’ Council on Water (AMCOW) | The Church of Jesus Christ of Latter-Day Saints |
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We want to change even more lives, but we can’t do it alone. If you are interested in supporting WSUP’s work, or have any questions about what we do, please get in touch. Email us at partnerships@wsup.com

*Correct as of December 2023



Image: Hellen Ponde (in the striped top) is a landlord in Chanzanga living in a small plot with her two tenants. For 23 years, her main source of water was a public kiosk 1.5km away. She spent Kwacha150 or more a month on water, and having the cash for this daily necessity was a big challenge for her and her tenants. Hellen had to wake up around 4:30 am to line up her water containers, but still would often not get her water until noon. Chores would have to wait until then because water is not something to be shared among neighbours due to its scarcity. "I live in the same yard with my tenants, we had a very formal relationship with each other. We didn't want to be too friendly in case one doesn't have money to buy water that day and they ask you to share the little resource you have." After WSUP supported the extension of the water network to her street, Hellen paid Chanzanga Water Trust for a household connection. Now, she has 24 hours water supply, and she doesn't need to factor in time for drawing water when planning her day. "Before, I used to spend K150 a month on water just for my household, but now the water bill is K80 for all the households on my plot. So, my own water bill is only about k26 a month. My relationship with my tenants and among themselves has equally improved as we are freer to be friendly with each other without fear of creating dependence." Hellen says the improved water supply has not only saved her money, but also helped create friendship with her neighbours, as pictured here. **Credit:** Jessica Phiri, Zambia, 2022.

WSUP | Water & Sanitation for the Urban Poor

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