



WASH Field Note FN/23/2019

Urban WASH in Small Towns: The 'ONEWASH Plus' Programme in Ethiopia

SUMMARY

Water, sanitation, and hygiene (WASH) for urban populations is one of UNICEF's emerging areas of focus highlighted in its Global WASH Strategy (2016-2030). In east and southern Africa, a number of WASH programmes have targeted small towns as a niche area in which UNICEF can build on its experience and comparative advantages at a manageable scale for the organisation. The focus of this Field Note is on Ethiopia's ONEWASH Plus programme, and it is designed as a learning note for the organisation as it strengthens its role in urban areas.

Introduction

Background

UNICEF's Global WASH Strategy (2016-2030) highlights urban WASH as one of the emerging areas of focus for the organisation—given the increasing numbers of vulnerable children living in poor urban environments across the world. This Field Note forms part of UNICEF's efforts to document its urban WASH programme experience and expertise, to inform the development of a global urban WASH framework and support this Global WASH Strategy.

This note focuses on a specific context in urban WASH programming: small towns. It documents UNICEF's experiences in implementing urban WASH in Ethiopia, focusing specifically on its 'ONEWASH Plus' programme, and as such

provides a useful starting point and guidance for country offices considering urban WASH programming, particularly in such smaller urban contexts. It is not prescriptive—every country is different and will require a thorough urban situation analysis prior to the development of a suitable programme. However, UNICEF has considerable experience in small-town WASH programming in east and southern Africa, and Ethiopia has a particularly innovative approach that can provide country offices with valuable lessons when faced with similar urban WASH programming challenges.

Understanding the context: Ethiopia

Ethiopia is the second most populous country in Africa, with an estimated population of 100 million people (July 2018). The urban population makes up about 21 per cent of the population, which is among the lowest in the continent but still represents some 21 million people; more than some African nations. The urban population is increasing rapidly, with the vast majority of growth occurring in small and medium towns. It is estimated that about 40 per cent of Ethiopia's population will live in urban settings by 2050.

The Government of Ethiopia has a clear economic and social policy goal to transform the country from an agricultural to an industrial economy. It aims to achieve middle income status by 2030 through its 'Growth and Transformation Policy' (GTP II) and has aligned this strategy with the SDGs. Most of the economic growth required to achieve the goals of the GTP II is expected to come from the country's urban settlements. However, the small- and medium-sized towns that will be critical to this economic growth are characterised by poor WASH services, deprivation, inequalities, and the rapid development of informal service provision. These factors provide the ideal conditions for WASHrelated illness and infection (such as Acute Watery Diarrhoea - or AWD), which occur with regular frequency in these urban centres and threaten both the ambitious goals the Government has set and the SDGs themselves.

The Government of Ethiopia's ONEWASH National Programme (OWNP) takes a holistic approach and includes all aspects of WASH (whether rural or urban), supporting infrastructure and technical assistance. It is a truly national programme that is unusual within Africa; a sector-wide approach involving wider government participation (bringing four ministries together) and development partners, with a single system for planning, budgeting, financial management,

- The ONEWASH Plus programme supports eight towns in Ethiopia on improving water and sanitation service provision and hygiene behaviours. It includes capacity-building for utility-based sustainable service provision, following a business model approach.
- The ONEWASH Plus programme is a key element of the Government's wider ONEWASH National Programme (in which UNICEF plays an integral part) and is providing valuable lessons in developing district-wide services encompassing urban, periurban, and satellite village communities, strengthening resilience and water resource management.
- The ONEWASH Plus programme aims to improve WASH services for 250,000 people in the eight towns by 2018 and 300,000 by 2025, with up to 700,000 additional people expected to benefit through its effects on the wider ONEWASH National Programme.
- A focus on the populations of small towns as 'users' rather than 'beneficiaries' is aimed at changing attitudes towards a more business-oriented (and therefore potentially more sustainable) approach.

procurement, information, monitoring, evaluation, and reporting. However, the OWNP programme has a very strong focus on rural programming; it was recognised that increased attention on urban WASH and sanitation would be critical to achieving progress, and would bring benefits to huge numbers of people in Ethiopia. Through its Department for International Development (DFID), the British Government has been a major donor for Ethiopia's OWNP. In 2013, DFID agreed to support a five-year urban WASH programme to be implemented by UNICEF: this was the ONEWASH Plus programme, which supported eight small towns in different regions of the country from 2012-2018.

KEY POINTS

¹ UN population estimates: https://population.un.org/wup/Country-Profiles/

Description of intervention

Programme outline

The ONEWASH Plus programme is a partnership between the Government of Ethiopia and UNICEF, with funding support from DFID. It is designed to complement and influence the national WASH agenda in six strategic result areas:

- 1. Sector governance: Strengthening governance systems for equitable, effective, and transparent water, sanitation and hygiene resources allocation; and strengthening WASH service delivery, both at national level and locally in the programme areas.
- 2. Private sector engagement: Analysis of bottlenecks in WASH service supply, market response, and value for money; addressed through support to private sector organisations at national level and locally in the programme areas.
- 3. Resilience and 'Integrated Water Resources Management' (IWRM): Improved linkages and understanding of WASH and water resources, with increased knowledge of groundwater characteristics and catchment management, to ensure water supplies cope better with dry seasons and drought years, both locally in programme areas and at national level.
- 4. Equity and social accountability: Enhanced partnership with civil society organisations (CSOs) to support equity issues, with an emphasis on the poor and specifically women and girls, empowering adolescent girls with an understanding of menstruation and adequate facilities for menstrual hygiene management (MHM).
- Service delivery: Improvements to the enabling environment for urban WASH at federal, regional, and local levels, including facilitating improved access to urban WASH services.
- 6. Sector capacity: Human resource capacity developed both at national level and locally in programme areas; providing or supporting provision of WASH services in programme areas through continuation and expansion of support to technical and vocational colleges

to cover urban WASH training and postconstruction supervision.

The overall programme rationale for ONEWASH Plus is based on a conscious strategic shift in UNICEF programming towards an urban focus, as a result of WASH needs being increasingly concentrated on small towns. UNICEF's Ethiopia country office realised that this strategic shift must coincide with a shift in programme principles to focus on value for money, private sector participation, achieving services across the full sanitation chain, developing user and service provider accountability, financial sustainability, and improving resilience.

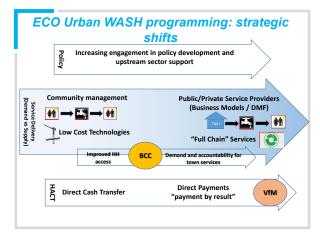


Figure 1: Strategic shifts in UNICEF's Ethiopia WASH programming

Outcomes

Work in the eight selected small towns of ONEWASH Plus are the foundation for UNICEF's district-wide WASH approach. UNICEF implementation in these areas has been designed to provide valuable information, learning, and demonstration models, designed to trigger reforms and introduce innovations, and to influence the national sector agenda. Lessons from the small-town implementation are expected to inform the development of the next phase; the 'ONEWASH II' (OWNP II) programme, with the same strengthened focus on urban WASH.

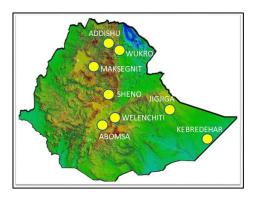


Figure 2: Map of UNICEF small-town programme areas

The key focus **activities and results** of ONEWASH Plus are:

Sector governance: UNICEF is engaged in supporting and strengthening national and subnational levels of the sector through the programme. The country office provides practical support to national WASH structures (including technical support) based within the OWNP secretariat, and participating or heading various subcommittees, such as urban WASH and the ongoing development of OWNP II.

The ONEWASH Plus programme contracted the international NGO (Water and Sanitation for the Urban Poor-WSUP) to assist the Government in developing the recently launched 'Integrated Urban Sanitation and Hygiene Strategy' (IUSHS) and its 'Strategic Action Plan'. The programme has also been instrumental in facilitating Brazilian advisers (technical team), who have guided the construction of one of the first faecal sludge treatment units for a condominium housing complex in east and Central Africa, in Wukro town, one of the eight small towns.²

In addition, the country office has been able to reach out and engage with different tiers of the government/governance system: federal, regional, and local. It has also effectively engaged with different partners (e.g. international NGOs, academia, the private sector, small enterprises) with clear accountabilities and funding flows, as well as setting out a clear and robust 'payment-byresult' approach.

Private sector engagement: Private sector engagement in the small-towns programme was

designed on the back of two research studies; private sector bottleneck analyses, and a series of capacity assessments of town municipalities and utilities.

Implementation has included the development of an innovative 'Build, Capacity Build, Transfer' (BCBT) approach to private sector participation in WASH. The BCBT approach requires any contractors hired to install water systems or waste management infrastructure to include capacity-building of the municipal and town utility technicians/officials as part of the contract. This is regulated through a performance-based agreement on selected utility key performance indicators, linked to the release of retention payment to the contractor. The concept has been reported as being welcomed by the regional and national bodies responsible for the OWNP, and there are indications that they will use this process in future programming.



Picture 1: Water kiosk, Wukro

'Training of trainers' support has been provided for water vendors, to enable the trained vendors to work as a support arm to the town water utility in providing water services through carts and/or water kiosks, within a legally established framework, and without compromising affordability and quality of services. A utility business plan (developed for each town) serves as the main instrument to control and adjust sales of water and related costs across the different methods of service delivery in place, including the water kiosks and carts. Water kiosks in different towns are being activated through the capacity-building programme of the BCBT, as the water distribution networks become functional.

² Ethekwini Municipality (Durban) in South Africa also has a similar 'shallow sewers' programme.

Private public operators (PPOs) linked to municipalities have been trained and deployed in towns to enable sound management of solid and liquid waste services in a self-sufficient manner, including working with private sector providers on business plan development. The sanitation business model for the management of solid and liquid waste specifies a minimum package, whereby cost-effective facilities and equipment are provided to the PPOs to initiate their business, so they can then expand as demand increases. The model seeks to avoid massive infrastructure development with associated high running costs; rather, it focuses on supporting services that develop in a selfsustainable manner.

Sanitation marketing is another part of the programme's effort to support private sector initiatives to address the sanitation challenges of urban and peri-urban areas of the country. A partnership between UNICEF and Lixil American Standard has been established for the roll-out of satopan³ products in Ethiopia, including field trials in the small towns of Welenchiti and Wukro. This has helped initiate the dialogue required to engage the Government of Ethiopia (with the leadership of the federal Ministry of Health) for the scaling up of local satopan production within Ethiopia.

Resilience and Integrated Resource Water Management: Resilience is considered and built into the programme in several ways. The piped water systems were based on a full groundwater analysis to ensure year-round water availability. As part of the district-wide approach, these systems are designed to serve the relevant town as well as adjoining peri-urban/rural settlements, and are operated under centralised management by a small-town utility.

Figure 3: Water system layout with satellite villages and
Wukro town

The approach is designed to reduce migration from rural areas to towns during dry seasons—often the cause of water stress conditions in small-medium urban centres—and also allows the town to cope with occasional demand fluctuations related to various external factors (e.g. daily workers, markets, or increased construction). Secondly, the central management of water services is expected to minimise non-revenue water and wastage.

In addition to the above, water catchment conservation plans have been developed in consultation with local administrations and users' groups. The woredas (districts) covered by the programme have incorporated specific activities and budgets to preserve the aquifers as sources of the water supply systems for the towns and villages in their annual planning. Awareness campaigns, the defining of catchment areas, and initiatives for reforestation of such areas have been completed and will be taken over by the woredas during future administration planning exercises.

Equity and social accountability: The programme has facilitated the development of a social accountability framework to reinforce dialogue between users and service providers, and specifically targets the most vulnerable segments of society to ensure an equitable distribution of WASH services, starting from the planning phase.

water seal reduces disease transmission by insects, reduces odour, and reduces the volume of water needed to flush. Produced with the financial support from the Bill and Melinda Gates Foundation, satopan has been successfully scaled up in Bangladesh.

> Tot population served (2025):
74,000 (Wukro+SVs
> Water production (2025): 80
I/s
> Existing water sources: 30 I/s
> 3 New Doreholes – total production more than 50 I/s
from 150-200 m depth

Boreholes area

Final Users

³Also called SaTo pan (derived from 'safe toilet'), it is an inexpensive innovation designed for poor households in cultures where squatting and pour–flush latrines are the norm. It uses a simple trapdoor design that forms a water seal at the bottom of a pan set into a cement slab over the pit. The

In terms of institutional WASH, as well as rolling out an improved design for school toilets, ONEWASH Plus has focused on MHM in 81 schools in the eight towns. This includes hygiene promotion, the creation of school WASH clubs, sensitisation of parent-teacher associations, the creation of safe spaces for girls during menstruation, counselling, and the development of an improved sanitary products supply chain.

Construction of full WASH services (water, segregated sanitation facilities, and safe spaces for menstruating girls) is also expected to be completed in 16 selected schools within the eight towns. To ensure continuity of supply of menstrual hygiene materials, the programme has also supported established women's groups for sanitary pad production. The local school WASH clubs in the eight towns have noted a significant increase in attendance rates, linked to improved MHM.

Within the poorer urban population, vulnerable families have been identified through local administrations and school WASH clubs, based on one or more of the following criteria: low income; single mother families; and the presence of persons with disabilities and the elderly, with the programme prioritising the construction of latrines for these families. Prioritising the most vulnerable families in each subdistrict has been a consultative process (supported by World Vision), in order to avoid potential tensions or confusion within communities.

Service delivery: For water supply, in each of the eight towns, high-yielding boreholes have been developed and water is being pumped to the relevant town, as well as to communities situated along the truck line. Within the towns and communities, water is distributed through a mix of household connections and public standpipes/kiosks. All systems have standby generators to ensure continuous supply, and water is chlorinated at the final reservoirs before distribution. The water system and distribution points are all metered, to ensure improved control of commercial and physical losses.

The programme's works are designed on the basis of calculations on projected population growth to 2025. Business plans based on willingness-to-pay assessments have been developed, as well as effective public-private partnerships (through the BCBT model).

In addition, capacitybuilding activities are under development to reinforce the management structures of the town water utilities, working towards more efficient service delivery at equitable



Picture 2: Production borehole pumping station, Wukro

cost for the users. Funding models are based on 60 per cent of the capital expenditure expected to be repaid, and 40 per cent given as a grant. UNICEF has managed to secure cost sharing from regional governments of up to 30 per cent of the total funding required.

For *sanitation*, ONEWASH Plus is implementing a multi-pronged approach to liquid and solid waste management, through both demand and supply-side interventions, addressing issues across the entire sanitation chain.

On the **demand side**, behaviour change and communication for development (C4D) campaigns have been implemented with the aims of i) triggering demand among target service users; ii) raising awareness of available services, and iii) reinforcing accountability relationships between the user and service providers.



Picture 3: FSM marketing material, Wukro

On the **supply side**, at neighbourhood level, the projects provide gender- and disability-friendly public toilets (including urinals for men, showers and kiosks for selling soap, etc.) managed by private entrepreneurs. Public toilets are located in communal places such as markets, stadiums, etc., as part of the overall objective to eradicate open defecation and improve hygiene. Tariffs for the use of public toilets are based on

affordability (ETB 1⁴ for the use of a toilet; ETB 2 for a shower, for example).

The approach to solid waste management (SWM) is founded on existing youth employment policy of the Government of Ethiopia. UNICEF has supported the establishment of youth-based small enterprises, each with a business plan aligned to users' willingness to pay. These enterprises collect rubbish in hand-carts, which is then deposited into skips. The municipality transports this waste to a new landfill site where it is first separated, then processed for marketing for either compost or plastics. This involves door-to-door waste collection by the operator; twice-weekly waste collection for non-residential buildings, and weekly waste collection for households.

SWM is currently subsidised (by municipalities) to different extents across the eight towns, with all eight administrations moving towards a feesbased approach to ensure financial viability. Implementation of the business plans has been discussed with local administrations to ensure that any expansion of the service should be based around creating sustainable businesses, therefore moving towards a fees-based approach.



Figure 4: Schematic of SWM business model

For liquid waste management, small-scale equipment (motorised vacuum equipment) has been provided to the municipality by the programme, and sludge drying beds have been developed to allow the eventual sale of the dried matter. Most works for water supply and sanitation were completed by July 2018 in five of the eight towns, with three at final testing and

commissioning phase. Delays were experienced in three towns due to some initial security problems, but works resumed and are on the verge of completion (only electromechanical installations are ongoing).



Figure 5: Schematic of faecal sludge management business model

Sector capacity: The programme has focused on the following points for increasing and developing capacity for the WASH sector:

- Supporting the Government of Ethiopia to develop an integrated urban sanitation and hygiene plan, and related strategic action plan.
- Development of an 'Urban Health Extension Programme' training manual for health officials.
- Creating WASH training modules in collaboration with World Vision and Open University in the UK.
- Supporting the Water Resource Development Fund to revise its cost recovery mechanism to support more efficient and sustainable funding models for WASH delivery.
- Development of an urban WASH gender technical guideline, to support sector professionals in the design and implementation of gender sensitive WASH programming.
- Supporting 'south-south' learning exchanges between Brazil and Ethiopia on condominium faecal sludge management, and the development of an economic regulatory framework for the sector.

⁴ 1 Ethiopian Birr = US\$0.036.

What is working well

Most construction activities of the programme were completed by July 2018, with services starting to become operational, water utilities busy fine-tuning operations and adapting to the requirements of the new systems, and public private operators, starting their businesses, particularly in solid waste management. The ONEWASH Plus programme has several elements that worked/are working well, outlined below:

- Improving the enabling environment: ONEWASH Plus sits firmly within the Government of Ethiopia's OWNP; both drawing from it and providing guidelines and policy direction to it, placing urban WASH firmly in future programming. The Government's national economic policy and framework looking to urban centres for economic growth strengthen the need for full WASH programmes, while UNICEF's contribution to national basket funding provides it with leverage to further reinforce urban WASH within the national policy agenda and strengthen sector capacity. The strong link between project (town) level and regional and national WASH programming is influencing national sector programming.
- A comprehensive WASH package: UNICEF
 Ethiopia's provision of the full WASH package
 (water, sanitation, hygiene, SWM, and more)
 in small towns is providing evidence of the
 benefits that a holistic and truly sector wide
 approach to WASH can bring.
- Resilience: Improving water security to urban, peri-urban, and satellite villages with resilient technologies and conservation plans, particularly in the surrounding areas looking to develop a multi-village supply has been a clear success. Given that acute watery diarrhoea (AWD) in Ethiopia is very much an urban disease, assured clean water supplies for future AWD treatment centres when outbreaks occur is a major advantage in strengthening a rapid response.
- Innovative behaviour change communication: The C4D component of the programme goes way beyond hygiene alone;

- it includes revising training manuals for the Ministry of Health's 38,000 extension workers, strengthening the urban WASH component of the training modules and technical training manuals developed for the programme by the Open University.
- Capacity-building and the 'Build, Capacity
 Build, Transfer approach': Municipality
 strengthening, following the identification of
 town-level capacity assessment gaps, and a
 training manual developed by the Open
 University for on-the-job courses based on
 training, coaching, mentoring, and
 supervision are being provided by the
 contractor as part of their responsibilities for
 one year after the completion of the
 technical works.
- Business models: Much of the delivery of the programme has a business model approach, including utility strengthening, solid waste management, faecal sludge management, public toilets, sanitation marketing, and MHM products. The business plans have developed new tariffs from the willingness-to-pay studies. However, these tariffs are only to be introduced when water flows and users can begin to see the necessary improvements in supply; seeing the results and benefits of these elements should ensure there is willingness to pay for them.
- Equity and social accountability/inclusion:
 This has been achieved through the inclusion of gender-sensitive facilities in schools, delivering the MHM package as part of school WASH programming, and the promotion of women's groups in activities related to delivery of different WASH services.
- Partnership and cooperation: This manifests itself in different ways. The integration and clarity of roles between UNICEF, the managing consultants, contractors, and utilities ensures efficient and effective technical implementation, follow-up monitoring, and quality control. A strong partnership between UNICEF and World Vision has also meant that the 'software' component of the programme has been well managed, with an innovative payment-by-

results mechanism built into the programme cooperation agreement.

Implementation challenges

- Off-shore procurement: This is particularly difficult for contractors, as accessing imported goods is a major challenge in Ethiopia; yet spares and replacements are not available in the local market. This will continue to be a challenge for utilities as they take on the full operation and management elements of the systems that have been developed.
- Staff turnover: Frequent changes in staff at utilities and municipalities (particularly at management and technical levels) is raised by many stakeholders as a major challenge to continuity and skills retention, requiring continuous capacity-building.
- Facilities/behaviour change implementation mismatch: This is not a problem unique to Ethiopia; the time needed to implement the hardware components of an urban WASH programme is sometimes underestimated when contracting organisation(s) to carry out behaviour change activities among users. This has meant, for example, that communities and target users have been sensitised, but the water is not yet flowing, and the facilities are not ready when they are. Many elements of the programme can cause unforeseen delays. For example, it was not expected that translating the ONEWASH Plus project document into an operational plan would take 10 months. So some contingency and flexibility should be built in; for example, planning (and even contracting) for the potential need to revisit some behaviour change communication elements of a programme, in case there is a protracted delay in completing new WASH facilities.
- Market assessment: The 'full chain' processes of solid waste management and faecal sludge management are exceptional in a small-towns programme; however, they are based on a business model which assumes a

- ready market for the final products—compost, fertiliser, and plastics. The extent of a market for these products depends on many factors, many of which are external and not necessarily captured in the business plans.
- School WASH: The programme provided demonstration models of gender-appropriate toilets in selected schools in all eight towns. However, the wider education sector in Ethiopia shows little inclination or capacity to provide sufficient toilets to replicate this in other schools, and sanitation remains woefully inadequate.
- Accountability: It is not clear how
 accountable municipalities and their utilities
 will be once the programme ends and UNICEF
 is no longer the driving force. Service-level
 benchmarks are required, and citizen
 awareness of their responsibilities need to be
 ensured. The future adoption by the
 Government of a fully-fledged regulatory
 framework would help to overcome some of
 the inefficiencies related to the internal
 accountability mechanisms of the utilities as
 service providers.
- Scalability of approach: This could be a concern for future programmes. There is much interest in Ethiopia from all regions in replicating the programme, especially from administrations already working with UNICEF; but scale has so far been elusive. The programme does have new funding possibilities, but it is clear that scalability of such a complex programme requires a mix of enabling factors beyond just funding availability; human resources, the readiness of local administrations, and national government support.

Lessons learned

- In small towns, the ONE WASH Plus
 programme has shown that UNICEF is able to
 provide a full WASH package; however,
 larger urban centres would require capital
 investments beyond UNICEF's scope; there
 are other actors better placed to take this
 on, though UNICEF stands ready to offer its
 expertise and experience.
- Political commitment at all levels, but particularly in local administrations, is essential for the project's success. In Wukro, for example, the mayor has taken a leading role heading a town WASH committee, while the regional water bureau is fully supportive of the programme's initiative in small towns.
- Thinking of small towns' populations as 'users' rather than 'beneficiaries' is not just a semantic change, but helps change attitudes towards a more business-like and potentially sustainable approach.
- As other small-town programmes have discovered, contracting of an overall management consulting company or consortium to take on the technical elements and quality control provides expertise and time, freeing UNICEF staff to continue their other responsibilities, including overall oversight.
- The data must be solid and inclusive. Urban programming must either access or collect specific data on the poor urban child; it is only with this data that projects can ensure they are responding to the needs of the urban poor alongside an overall ambition to support the small-town population.
- The ONEWASH Plus programme is a catalyst for wider improvements in service delivery, knowledge management, and policy at national level (for example, the new sanitation strategy and the development of the next national ONEWASH programme).
- Programme financial management was based on zero cash advances to implementing partners, which has avoided related issues such as outstanding advances and programme implementation delays. This was extremely

- beneficial and should be replicated where possible. In the ONEWASH Plus programme's case, it was possible because the main NGO partner (World Vision) was in a position to carry the initial costs themselves.
- The ONEWASH Plus programme has acted as an extremely effective pilot in Ethiopia. It has shown that the approach works and can therefore be used as a template in similar contexts, both in-country and beyond.

Next steps

- Assessment and regular analysis of business models for viability and sustainability.
- More market research for processed solid and liquid waste products.
- A multisector approach with education and health to be considered and strengthened for school WASH.
- Monitor the progress of the 'building, capacity building, transfer' approach; postimplementation in particular.
- The Ethiopia country office will continue to work hard to effectively document their work and initiatives. The innovative nature of the ONEWASH Plus programme (and its potential to guide the work of other country offices in small towns and to strengthen the urban WASH knowledge base in general) means there are further elements to document, such as:
 - (i) The C4D approach and minimum sanitation package;
 - (ii) Condominium sewerage;
 - (iii) Deep drilling beyond the fluoride layer: 20 million people are considered at risk of fluoride poisoning in the region—while not specifically 'urban', this initiative needs a wider audience;
 - (iv) Different approaches to municipalities the eight towns and their municipalities are not identical, and different approaches have been used in working with them in the programme; and
 - (v) Additional lessons learned in general arising from the ONEWASH Plus programme.

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