WASH Results R/05/2020

ONEWASH Plus in Urban Areas in Ethiopia – Results from the First Phase

SUMMARY

The first phase of the ONEWASH Plus Programme (2013 to 2019) has focused on WASH services in small towns, satellite villages and institutions (health facilities and schools). It has complemented Ethiopia's One WASH National Programme (OWNP), addressing strategic priorities that might otherwise have been overlooked. The ONEWASH Plus Programme has aimed to introduce and test innovative approaches and concepts to deliver equitable, sustainable and resilient water, sanitation and hygiene services in towns and satellite villages working in four regions of the country. Following an integrated approach, the programme has included new construction and rehabilitation of WASH infrastructure in eight small towns and 31 satellite villages, together with the development of capacities for WASH service provision in these locations and beyond. Further, the ONEWASH Plus Programme aims to contribute to policy reforms, sharing lessons learned, advocating, and building capacity at national level to strengthen the OWNP. The first phase of the ONEWASH Plus Programme was led by UNICEF with financial support from DFID.

This synthesis report summarizes learning from the first phase of the ONEWASH Plus Programme. Some of the concepts and approaches introduced proved to be effective and are ready to be advocated as best practice to be scaled through the OWNP. Others were found to be promising but needing further refinement. Lastly, for some new concepts and approaches there remains inadequate data to draw conclusions at this stage.

Key words: Ethiopia, integrated urban WASH delivery approach, concept proofing

Introduction

The first phase of the ONEWASH Plus Programme was funded by DFID (budget GBP 22 million, approximately USD 33.3 million), coordinated by UNICEF and implemented over a six-year period from November 2013 to September 2019. Partners included Government of Ethiopia (federal, regional, woreda and municipal), Salomon Consultants LDA in association with local consultants (Derba Drilling PLC, Bigeta Business PLC, Brooklyn Economic Consulting Ltd), Water and Sanitation for the Urban Poor (WSUP), World Vision Ethiopia (WV), the Open University (OU) and IRC.

The ONEWASH Plus Programme complements Ethiopia's One WASH National Programme (OWNP), which is led by the Government of Ethiopia. The ONEWASH Plus Programme aims to introduce, test and achieve proof of concept of innovative approaches in integrated WASH service delivery to deliver equitable, sustainable and

resilient water, sanitation and hygiene services for all. On the basis of evidence, the programme aims to influence policy and to support the development of capacities at national level.

The first phase of the programme focused on improving WASH services in small towns (with a population of 10,000 to 50,000 people), which are challenged by rapid growth and with low institutional capacities to provide and improve WASH services. The goal of the programme was to improve health, well-being and productivity of 250,000 people living within eight targeted towns in four regions of Ethiopia (Maksegnit in Amhara, Abomsa, Sheno and Welenchiti in Oromia, Jigjiga and Kebridehar in Somali, and Adishihu and Wukro in Tigray region) and 31 surrounding villages.

Figure 1: ONEWASH Plus Programme Towns

Source: UNICEF 2019

The ONEWASH Plus Programme approach

The ONEWASH Plus programme supported improvement of small town piped water supplies, the construction of public and school latrines, and the development of landfills and sludge drying beds for safe solid and liquid waste disposal. The ONEWASH Plus Programme also supported capacity building of local government, water utilities, institutions (health facilities and schools) and private sector actors, and provided platforms for participatory planning, implementation and monitoring. CLTSH was innovatively used in towns and satellite villages to trigger the construction of household sanitation facilities.

To achieve sustainable, equitable and resilient WASH services, the ONEWASH Plus Programme focused on three main intervention areas:

A. **Service delivery**: to achieve improved WASH service provision in eight towns and satellite villages.

B. **Policy and advocacy:** to strengthen national WASH programme through uptake of innovations and unlocking new capacities.

C. **Monitoring, learning and knowledge management:** to establish proof of concept of integrated urban WASH approaches.

Throughout implementation, the ONEWASH Plus Programme put special emphasis on six strategic results areas, at national level and in programme areas:

Governance: Strengthen governance systems for equitable, effective and transparent resource allocation and WASH service delivery.

Private sector: Strengthen private sector and advocate for integration of private sector actors in WASH service delivery.

Resilience: Improve knowledge on groundwater characteristics and water resource management to ensure water supplies cope better with dry seasons and drought years.

Equity: Enhanced partnership with civil service organisations to address equity issues, and to support social accountability dialogues.

Urban WASH services: Improve level of enabling environment to enhance WASH services in small towns and surrounding villages.

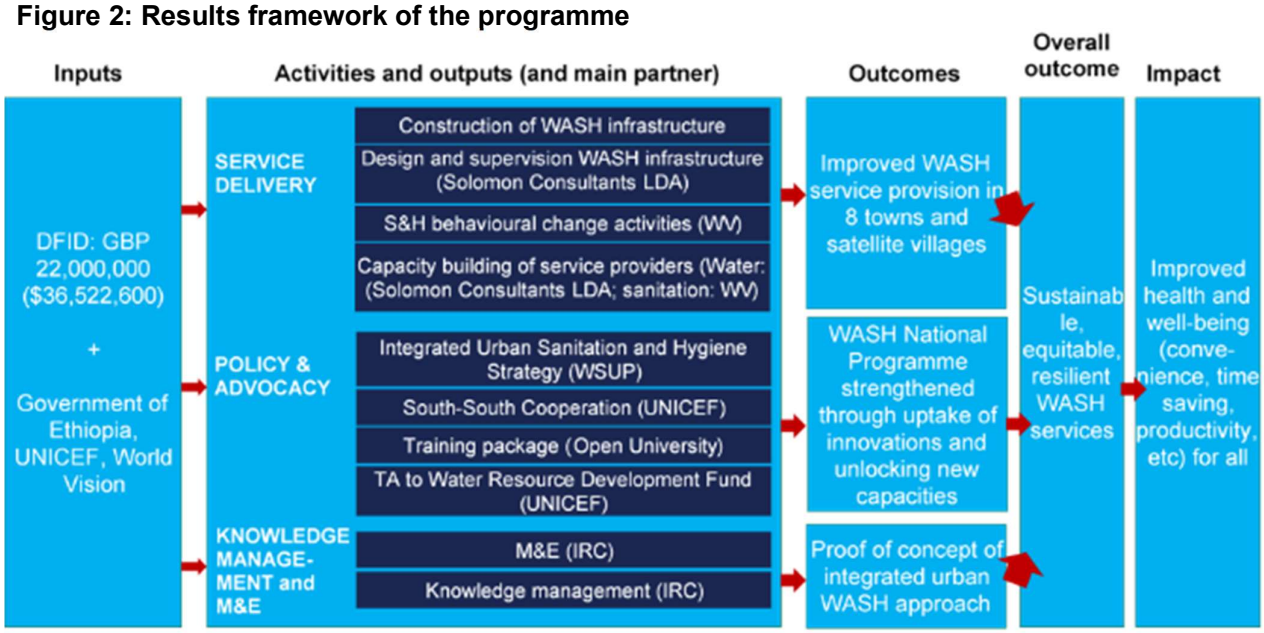
Capacity development: Develop capacity of individuals responsible for planning, managing, implementing and monitoring WASH services.

This report

This report summarises the approach taken related to (A) WASH service delivery, (B) policy and advocacy, and (C) monitoring and learning. It includes the achieved results, challenges and lessons learned. Furthermore, it highlights innovations and lessons learned from these innovations. It is recommended to read this report in conjunction with the 2019 assessment report and the 2019 sustainability check report, which present in detail the programme outcomes and results at the end of September 2019. The ONEWASH Plus Programme implementation remains to be completed within the next two years.

CONTENT

Figure 2: Results framework of the programme



A) Service Delivery Approach

WHAT WAS LEARNED?

- Infrastructure improvements take time to deliver, especially in complex urban schemes. Even without allowing for the extra time needed to change ways of working, similar infrastructure delivery programmes should consider an implementation period longer than six years. Some flexibility is needed to ensure capacity building activities, on-the-job training and business plan revisions take place after commissioning of the infrastructure.

- A strong, competent team of international and local consultants is needed for design of complex urban water and sanitation investments. Ideally the same supervising consultant should be involved through the end of the one-year liability period for the contractor, and the same performance targets should apply to both the contractor and the supervising consultant. Thorough technical evaluation of local contractors' tender documents and outputs is essential and needs to be planned.

- In planning similar programmes, more emphasis should be given to involving water utilities and municipal administration in the project design and contract management to increase ownership and foster capacity building. Endorsement by the local administration is important to ensure business plans are followed, and related awareness creation activities and social accountability dialogues are continued.

- Issues over land rights can take a long time to resolve, so it is important to involve communities living around landfills, water sources and water supply infrastructure from an early stage. Benefits of construction, providing new and better access to public water points can be designed and communicated alongside drawbacks and negative impacts to secure buy-in from communities.

Approach

To improve **water services**, improvements were made to the piped water supply schemes, including hardware components in the supply systems (e.g. drilling of new boreholes, construction of water reservoirs and improvement of water supply network) and at the water utilities (e.g. construction of new utility office, generator houses and store sheds).

The ONEWASH Plus Programme specifically sought to address inequalities with the goal to provide universal water access to everyone. In Maksegnit, Abomsa, Sheno and Welenchiti, the programme supported the construction of water kiosks and 200 to 300 pro-poor household connections per town. In satellite villages around Maksegnit, 21 new public standpipes were constructed. Around the towns Welenchiti, Sheno and Wukro, 14 new public standpipes were constructed per project town.

Special emphasis was given to software components such as capacity building for the town water utilities to improve the operation and maintenance of schemes, and business plan development.

To improve **sanitation services**, a Sanitation Master Plan for each town was developed through a participatory process to identify activities tailored to the needs of the town. The master plans addressed both liquid and solid waste management.

The sanitation interventions included an infrastructure component such as the construction of gender-sensitive and disability-friendly public toilets (two per town), drying beds for sludge

treatment, solid waste transfer stations with composting facilities, and landfills for solid waste disposal in each town. The ONEWASH Plus Programme also supplied vital equipment, e.g. vacuum trucks for emptying of septic tanks and latrines, garbage and dust bins, push carts, trucks for solid waste transportation, safety tools for operators, machines for grinding and recycling plastic bottles.

The programme included sanitation-related software and awareness components such as CLTSH campaigns to attain open defecation free status, support to public-private-partnerships for solid and liquid waste management and a capacity building component for local authorities and Public Private Operators (PPOs) in the operation and management of the supplied equipment.

To improve **institutional WASH**, disability-friendly and MHH-inclusive model toilets were constructed by the programme in two schools in each town. In most places, two separate blocks were constructed, one for girls and one for boys. In addition, sanitation and hygiene behaviour promotion was undertaken at public places (e.g. markets), health facilities and schools in and around the project towns. In the 81 schools covered by the software programme, special emphasis was given to Menstrual Health and Hygiene (MHH) management.

All infrastructure construction and capacity building activities were implemented by a local contractor using a Build – Capacity Build – Transfer contracting arrangement. Planning, design and supervision were handled by a joint venture of international and national consulting firms led by Solomon consultants. Stakeholder analysis, vulnerability assessment, and awareness creation activities (e.g. social accountability dialogues, CLTSH triggering) were implemented by World Vision.

Results

By the time of writing, most of the new infrastructure had either not been completed or had not yet been formally handed over by the contractors to the town water utilities, municipalities and other relevant institutions.

As a result, **town water** schemes have not started providing services as per their full potential yet. Accessibility to the schemes has improved, with an increase in household connections mostly in line with population growth. The exception is Maksegnit, where growth in household connections has been observed beyond population growth. However, reliability, water quality and quantity have not or hardly improved yet. Due to a lower than expected quantity of water pumped and fed into the piped systems, water is still rotated and not provided to end users at all times.

The training received by utility staff has resulted in small improvements in capacity and performance of the utilities. However, challenges remain with low levels of utility staffing, water quality management practices, low cost recovery rates, lack of asset management practices, and lack of mechanisms for ensuring services for the urban poor. Some of these challenges are expected to be addressed in the year to come, through finalisation and operationalisation of the hardware and post-construction follow-up support to the utilities, including on-the-job capacity development.

In the satellite villages around the towns, accessibility to improved water services has improved to some degree, with an increase in household connections and public taps connected to the town water schemes. However, as these schemes have not fully started operations, water services have not improved yet in these areas in terms of water quality, quantity, and reliability.

Sanitation and hygiene promotion in the towns and satellite villages had a positive effect towards the eradication of open defecation and improving

sanitation services, especially in the satellite villages. However, in the years following the software interventions, slippage has been observed, especially in the satellite villages. The slippage is likely caused by a lack of sustained promotion activities to construct and use latrines.

Hardware interventions related to sanitation (public latrines, solid waste landfills, sludge drying beds) had not been completed and/or handed over at the time of writing of this report and had not yet started providing services.

The **school latrines** constructed under the ONEWASH Plus Programme had not been completed and/or handed over at the time of writing of this report. Software activities related to institutional WASH have contributed to positive changes in institutional WASH, especially in schools. These have included an increase in schools with improved and sex-separated sanitation facilities for students. The proportion of schools with clean sanitation facilities and with handwashing facilities has also increased, though it remains low (at 40% and 36% respectively). The number of schools with Health Clubs, latrine cleaning programmes, menstrual health and hygiene (MHH) awareness and dedicated MHH rooms has increased as well.

Challenges

The contractors' 12-months liability period as per the Build-Capacity Build-Transfer (BCBT) approach has not yet started in any of the project towns. Reasons for the delays include the limited capacity of local contractors, challenges with contract administration by regional water bureaus (and provision of insufficient support by UNICEF to strengthen the contract administration), lack of hard currency for the importation of electromechanical equipment and pipes and fittings, delayed payment of cost-sharing by government (Somali region), non-availability of transformers from the power utility and long negotiations with communities over the land needed for the construction of reservoirs, water points and sanitation infrastructures.

Some of the issues that led to delays could in future be addressed by allowing a longer and more flexible implementation period, while others need refinements in the approach. Further, some delays could be avoided by, for instance, purchasing electromechanical equipment, pipes and fittings directly through UNICEF. The delays had impact on the capacity building components, which generally took place rather early in the process. Practical on-job training during the one-year liability period is expected to be more useful than more theoretical trainings before the infrastructure construction has been completed. The same holds true for the development of the business plans: upon commissioning of the infrastructure and initial experiences with operation, the business plans should be updated.

Some issues arose with the designs. For example, a reliable water supply seems to attract settlement of new people and industries and an increase of water demand higher than initially expected. Further, the purchased trucks and liquid waste collection are all currently not operational. The main reasons identified are 1) the suction pumps installed on the vacuum trucks were not functioning properly /not compatible for dry pit toilets (this was reported in Sheno, Welenchiti, Maksegnit, Adishihu) and 2) the tractor cannot pull the vacuum truck (this was reported in Adishihu).

The contract with the lead consultant was stopped before the end of the contractors' liability period. In similar future programmes it is recommended that the consultant responsible for the design, remains involved until the very end. Ideally, the same performance targets as for the local contractor could be applied for the supervising consultant as milestones for the final payment. A thorough technical evaluation of local contractors' tender documents and outputs should be conducted to ensure the quality of constructions, but also capacity building activities, meet minimal standards.

Stakeholder engagement was extensive but remains challenging and needs even more effort. For instance, the water utilities and municipal administration did not always report sufficient involvement in the project design and contract management. Further, town water utilities, woreda water office and local WASH committees have not yet reached clear agreements about operation and maintenance, and tariff setting related to utility water supply in the rural areas. In some cases, the local communities tried to stop the construction of landfills (Sheno and Maksegnit) and boreholes and expressed that there not sufficient efforts were made to discuss and share grievances with the ONEWASH Plus Programme. Communities around landfills, boreholes, reservoirs and pipelines need to be offered public standpipes and potentially household connections to gain their buy-in.

The ONEWASH Plus Programme has strived to build capacity for ongoing sanitation and hygiene messaging, in order to achieve and maintain good hygiene and sanitation practices. However, the number of staff, financial resources and logistics of local government were insufficient to undertake ongoing messaging.

B) Policy & Advocacy Approach

WHAT WAS LEARNED?

- Policy and advocacy activities focused on six cross-cutting result areas (governance, urban WASH services, private sector, resilience, equity, and capacity development). These result areas had been identified by DFID which are in need of strengthening in the ONEWASH National Programme (OWNP).
- The ONEWASH Plus Programme managed to influence the content of national documents and to initiate discussions on the selected topics. For instance, the flagship Climate Resilience initiative and the Integrated Urban Sanitation and Hygiene Strategy were informed by the ONEWASH Plus Programme.
- The ONEWASH Plus Programme timeframe was relatively short and insufficient to collect evidence on some of the new approaches tested. It is recommended to advocate for successful approaches once sufficient evidence is available on how they can improve the OWNP.

Approach and results

On the basis of evidence, the ONEWASH Plus Programme aimed to influence policy and to support the development of capacities at a national scale. This was done through workshops and bilateral engagement with national and regional government, and by preparing training materials for WASH professionals. The policy and advocacy activities focused on six pre-selected cross-cutting results areas:

Strengthening governance of WASH services. ONEWASH Plus Programme has showcased how water, sanitation, hygiene and solid waste can be approached in an integrated way. This is unique in Ethiopia for a programme at that scale.

The ONEWASH Plus Programme stimulated and facilitated sector discussion on establishment of an agency responsible for regulation of urban water services. This has included the facilitation of South-South learning on the topic between Brazil and Ethiopia (see factsheet #15). In spite of the efforts in supporting the dialogue around the establishment of an independent regulator, at the time of writing this report, not a lot of progress has been made with the establishment of a regulatory agency. That was (at least partially) caused by the recent (2018-2019) government restructuring process, due to which discussions about the establishment of an urban regulatory agency have been put on hold.

The ONEWASH Plus Programme also organized a national workshop in August 2016 bringing together some 40 stakeholders to discuss the potential of sustainability checks and sustainability indicators for monitoring WASH services in Ethiopia. The 2016 workshop on sustainability checks stimulated discussion on how to monitor WASH services, going beyond monitoring coverage and service levels, including sustainability indicators related to the presence, capacity and performance of service providers and authorities. This has, however, not yet led to considerable changes in WASH monitoring or the use of data. Following the completion of four sustainability check rounds, the ONEWASH Plus Programme has rich insights to be shared with the sector.

Rethinking the way urban WASH services are delivered. The ONEWASH Plus Programme

contributed to the development of Ethiopia's Integrated Urban Sanitation and Hygiene Strategy. The Integrated Urban Sanitation and Hygiene Strategy was released in 2015.[1] This was a major achievement. The strategy calls for a mind-shift as sanitation improvement in urban areas needs to go beyond the approaches that have served rural sanitation. The strategy has been endorsed and promoted by relevant stakeholders. It is being used in project formulation and is improving the coordination between the relevant stakeholders and sectors in urban sanitation.

The ONEWASH Plus Programme also supported the revision of the OWNP through the development of the phase II programme document, published in November 2018.

Strengthening the private sector at national, regional and local level. In 2014, the ONEWASH Plus Programme published a private sector bottleneck analysis. Furthermore, the ONEWASH Plus Programme developed an innovative Build – Capacity Build – Transfer (BCBT) contract modality and strengthened micro-enterprises managing solid waste to showcase that more responsibilities can be taken on by the private sector. At the time of writing this report, Build – Capacity Build – Transfer arrangements had not been completed yet (see factsheet # 6). Private solid waste collectors have been set up and supported in all towns, with varying degrees of success (see factsheet # 8).

Improving resilience of WASH systems. The ONEWASH Plus Programme prepared the ground for discussions on climate resilient water supply in Ethiopia influencing the WASH strategies of the Government of Ethiopia, UNICEF and DFID. Strategies for the development of more resilient water sources for supplying water to the satellite villages were tested, with results still to be confirmed as infrastructure is commissioned.

Improving equity in WASH. The ONEWASH Plus Programme showcased socially inclusive latrines and menstrual hygiene rooms in schools, and tested approaches to ensure affordable access to water for the poor. Lessons learned were shared with the broader WASH sector in Ethiopia, and further evidence from the pilot activities will be gained over the coming years.

Capacity development for all actors involved in delivering WASH services. The ONEWASH Plus Programme has contributed to improving capacity building in the sector through the development of OpenWASH learning modules on urban WASH (see factsheet # 14). The modules have been piloted and well received. They are now used for teaching the WASH experts of tomorrow.

Challenges

It was found to be challenging to feed the lessons learned into the national OWNP and to change the way how certain things are done through one five-year programme. Change takes time. To fully realize possible outcomes and impacts, sector engagement and advocacy need to continue after completion of infrastructure under the ONEWASH Plus Programme. Implementation is not yet finalized and therefore only limited evidence could be collected on some innovative approaches.

Figure 3: Open University OpenWASH course collection

Source: Internet, https://www.open.edu/openlearncreate/course/index.php?categoryid=131 [accessed 28 Jan 2020)

[1] The Federal Democratic Republic of Ethiopia. Integrated Urban Sanitation and Hygiene Strategy. October 2015.

C) Monitoring and Learning Approach

WHAT WAS LEARNED?

- Continuous monitoring of the programme, which included annual sustainability checks and a quasi-randomised control trial with baseline, midline and endline proved useful. This enabled capturing outcomes occurring at different times along the programme timespan.
- Outcomes and impact should not just be measured right after the intervention, but also post-intervention, at frequent intervals (e.g. 1 year, 2 years, 5 years, 10 years post-intervention).
- Monitoring should not just cover outcomes and impact of the service delivery component, but also of the policy and advocacy part of the programme.
- More attention should be given to dissemination and use of findings from monitoring activities at different levels.

Approach

The ONEWASH Plus Programme invested in monitoring and documentation to promote learning from the programme. IRC was sub-contracted by UNICEF to deliver the monitoring and learning component. A range of activities were implemented:

- **Intervention tracking.** Record keeping of activities and outputs, and production of annual intervention tracking reports.
- **Impact evaluation.** A quasi-randomised control trail, with baseline, midline and endline surveys of household, institutional WASH and water schemes in project and control towns and satellite villages provides insight into the outcomes related to WASH service delivery and impact.
- **Sustainability checks**. Annual assessments of the level of services and the conditions for sustainable services with providers, service authorities and at national level. These provide further insight into outcomes related to WASH service delivery (Factsheet #3).
- **Value for money analysis** based on the results of the surveys (Factsheet #4). To provide insight into inputs and outcomes.
- **Action research on various topics.** To summarise learning related to innovations and policy and advocacy outcomes.
- **Production of knowledge products.** Including baseline, midline and 2019 assessment reports**,** annual sustainability check reports**,** annual town factsheets and audit reports, learning notes, journal papers and blogs.

Results

Intervention tracking was only conducted by IRC during the first two years of the programme. Resources were then shifted to other activities that were considered to be more critical.

In order to obtain statistical proof of the **impact** of the ONEWASH Plus Programme, a quasi-randomised control trail set-up was developed, with results from the project towns being compared to those of an equal number of control towns. Baseline data was collected in 2014. Midline data was collected in 2016, after software interventions related to sanitation and hygiene had taken place. The endline data collection was planned in 2019. However, as hardware interventions had not been handed over at the time, the 2019 assessment presents a second

midline assessment, rather than a true endline assessment. After each data collection round, findings were presented in the form of a report. Findings also informed the service level assessment, which was part of the sustainability checks of 2015, 2016 and 2019.

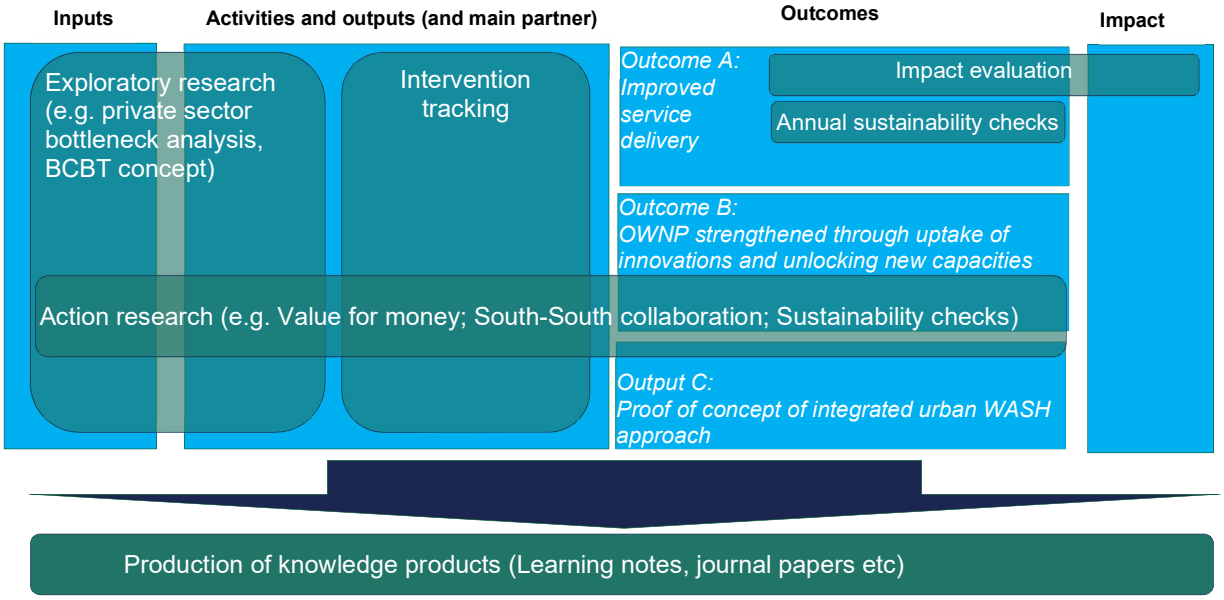
Sustainability checks were done in 2015, 2016, 2018 and 2019[2]. After each round, factsheets, in the form of "town audit reports" were produced for each town. Furthermore, a sustainability check synthesis report was produced for each round. The sustainability checks highlighted clear challenges at service provider and service authority level. The findings informed sustainability plans developed to address these challenges. In 2015 and 2017, stakeholders were brought together to verify the sustainability check findings and prepare sustainability plans accordingly. No verification workshop was organized for the 2018 round. At the time of writing this report, verification of the 2019 round had not taken place yet.

A **value for money study** was done in 2019, based on the framework developed and presented in a 2016 learning note[3]. However, as interventions were still ongoing at the time, and had not yet resulted in some of the expected outcomes (especially related to the water supply interventions), timing for this assessment was not ideal.

A series of eight **learning notes** has been developed. These have covered a diversity of themes, including South-South partnerships, BCBT, sanitation master plans, gender and equity etc. The majority of learning notes mentioned innovative concepts to be introduced and piloted under the ONEWASH Plus Programme. Furthermore, three papers have been developed under ONEWASH Plus Programme and published in peer-reviewed journals.

All knowledge products are made available at: www.ircwash.org/projects/onewash-plus

Figure 4: Learning framework



[2] Because of delays in the implementation of the programme, it was decided not to do a sustainability check round in 2017, but rather to do one in 2018 and 2019.

[3] ONEWASH Plus Programme Learning Note. Assessing Value for Money of WASH services in small towns. August 2016.

Challenges

Monitoring has focused on impact and outcomes related to the service delivery component of the project. Outputs have been tracked, but not systematically stored and made available at a central location. Further, only limited information was gathered regarding the outcomes and impacts of the policy and advocacy components. Outcome mapping or harvesting could have been deployed for gathering such information.

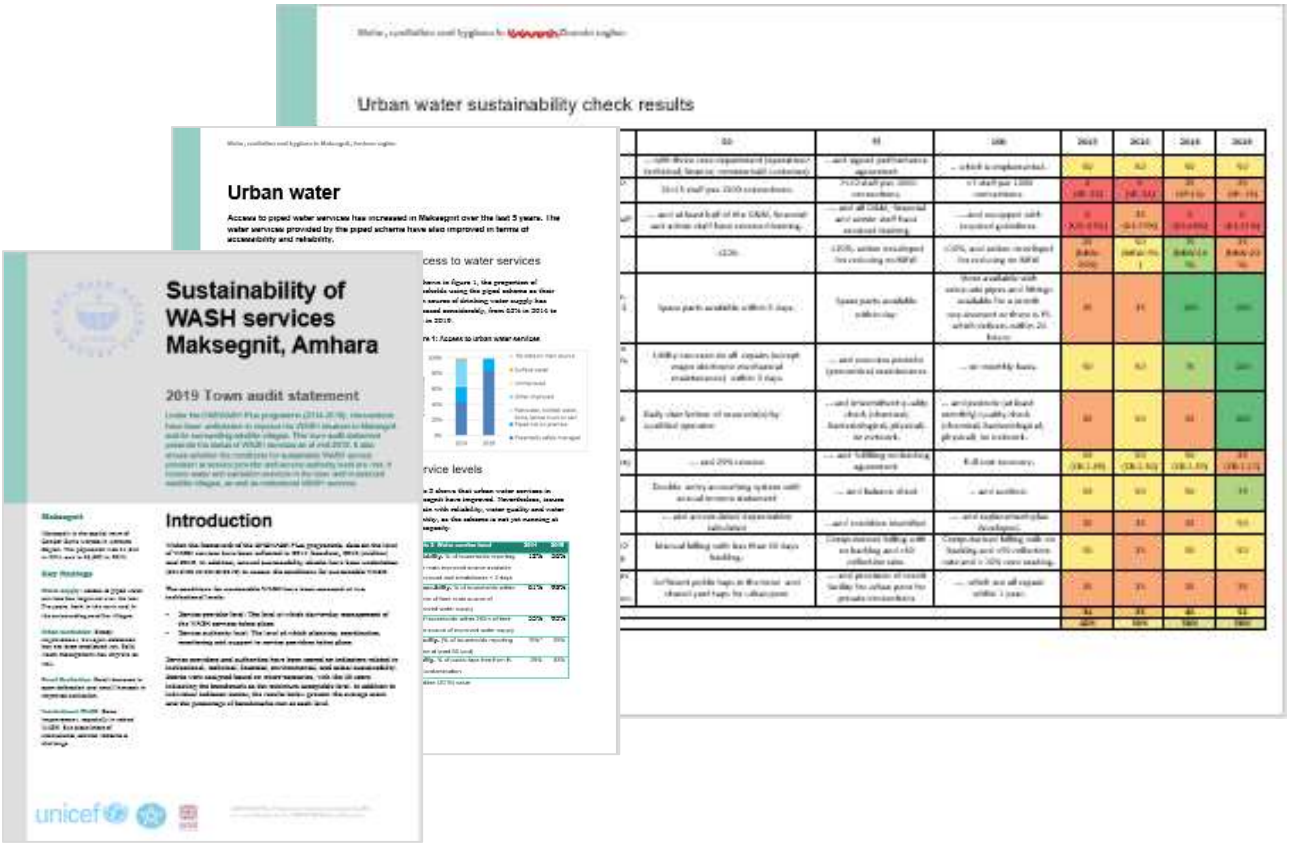
Dissemination and use of the sustainability check findings to relevant stakeholders at different levels have been a challenge. The sustainability plans were not linked well to actual implementation and sector development plans and therefore were mainly a paper exercise.

Because of the integrated nature of the ONEWASH Plus Programme and the different hardware and software interventions, with a variety of timelines, different outcomes emerged at different times. For example, the impact of the sanitation and hygiene promotion interventions were most obvious at the time of the midline, while interventions related to improving water supply are yet to result in clear outcomes. At the time of the 2019 survey, the implementation was not completed, and the results do not reflect all achievements of the programme.

Learning notes have been prepared during the programme period and mainly introduced concepts and approaches, rather than presenting action research findings related to application of these concepts and approaches.

Publications are all in English and not widely disseminated at national and town level.

Figure 5: Examples of learning products



Innovations in governance

1 Social accountability dialogue
2 Sanitation Master Plans
3 Sustainability checks and plans
4 Value for Money Analysis

Social accountability dialogue in Wukro. Source: World Vision

#1 Social Accountability Dialogue

WHAT WAS LEARNED?

- The social accountability dialogues facilitated by the ONEWASH Plus Programme involved relevant stakeholders, including vulnerable users, in planning and monitoring WASH services. These proved useful to help develop interventions that were contextually relevant and met local needs.
- However, further development of the approach is needed to improve and sustain buy-in, to increase information exchange amongst participants, to continue dialogues in case of changes in project design, and to establish a grievance mechanism. There was demand for even more participation.

What is usually being done?

WASH interventions usually focus on improving service delivery through investments in infrastructure and capacity building of service providers. Activities to strengthen the role of civil society to participate in the planning process and to hold public officials, politicians and service providers accountable for their conduct and performance ("social accountability") are often not part of the interventions.

What is the innovation?

The ONEWASH Plus Programme facilitated more than 150 dialogues on social accountability in six project towns. Each dialogue addressed one of eight specific WASH services (e.g. WASH in schools, or solid and liquid waste management) and involved around ten or so representatives from service users, service providers and service authorities.[4] Vulnerable users, identified in an initial assessment, were also involved in the dialogues.[5] Joint action plans were developed for each specific WASH service.

The applied social accountability framework focused on three key areas:

Increase dialogue between WASH actors with the goal to hold each other accountable for the respective responsibilities.

Increase participation to allow all stakeholders to be part in planning, design and monitoring of WASH services to ensure the services are contextually relevant and meet local needs.

Improve transparency by strengthening of systems that regularly share information to all stakeholders to improve WASH services.

Does it work?

The social accountability dialogues were intended to give a voice to all participants, including representatives from vulnerable user groups, in planning and designing the WASH services. However, anecdotal reports indicate that the dialogue participants did not necessarily represent all stakeholders (e.g. communities at landfills tried to stop construction work), that municipalities felt left out during implementation (contracts signed and supervised by regional government), that there was a lack of transparency (e.g. head teachers not being aware what type of latrines were being constructed), and that the dialogues were not sustained (e.g. no participatory monitoring activities took place). A lot was done, but there was demand for even more.

[4] World Vision. Synthesis Report on Advocacy for Equity, Inclusiveness and Social Accountability. June 2016.

[5] World Vision. Report on Vulnerability Assessment in the Context of Urban WASH – Part II. February 2015.

#2 Sanitation Master Plans

WHAT WAS LEARNED?

- The development of a Sanitation Master Plan in project towns proved a useful approach to bring relevant stakeholders together to plan the sanitation system in a holistic manner, and to jointly agree on “minimal packages” as interim targets.
- Nevertheless, the approach needs further improvements to strengthen municipal ownership of the Sanitation Master Plans, and new ideas are needed on how to keep the participatory process alive throughout implementation and monitoring of the plans.

What is usually being done?

Despite their differences, and the fast pace and scale of Ethiopia’s urban growth, usually the same approaches as for rural sanitation are applied to sanitation in small towns: hygiene awareness, behaviour change and household investment in toilets. While these are important components, interventions often fail to look at the whole sanitation chain including effective systems to collect waste for safe management, disposal and possible re-use.

What is the innovation?

In line with the Integrated Urban Sanitation and Hygiene Strategy[6], a Sanitation Master Plan was developed for each project town through a participatory process involving key stakeholders from the town and in collaboration with relevant actors at regional and national level. The plans were developed at town-level for a time span of 10 years with the goal to reach “minimum packages” as intermediate targets and long-term goals to be met gradually and incrementally.[7]

The Sanitation Master Plans included operational actions and resources needed to achieve the defined targets and were used as a basis for the implementation of activities to improve urban sanitation under the ONEWASH Plus Programme.

Does it work?

The development of the Sanitation Master Plans helped to bring together different actors involved in the towns’ sanitation systems. However, despite the participatory approach, some municipalities felt that they only had limited influence on the design and monitoring of the project activities and that many decisions were made directly between the regional bureau and the contractors. Further, due to delays with project implementation, the momentum of the participative planning process was lost.

Overall, the Sanitation Master Plans have been successfully used to identify suitable project interventions for the ONEWASH Plus Programme. Use of the Sanitation Master Plans beyond the scope of the programme will require further follow-up and support, and ensuring full ownership of the plans by the municipalities.

[6] The Federal Democratic Republic of Ethiopia. Integrated Urban Sanitation and Hygiene Strategy. October 2015.

[7] ONEWASH Plus Learning Note. Urban sanitation lessons. October 2015.

#3 Sustainability Checks and Plans

WHAT WAS LEARNED?

- Monitoring the necessary conditions for sustainability, especially capacities and performance of service providers and service authorities, is useful and has good potential for uptake by the OWNP and its partners.

- Sustainability checks developed and executed under the ONEWASH Plus Programme have highlighted sustainability challenges related to small town WASH at service provider, service authority and national level. This has not yet led to sufficient action in addressing these challenges so sustainability is at risk. Dissemination and use of sustainability check findings is important. Partners also need to invest much more resources in capacity building and other systems strengthening activities.

What is usually being done?

Project and programme monitoring in the WASH sector generally focuses on monitoring outputs and outcomes. This includes the number of schemes constructed or rehabilitated, the number of trainings conducted, or the number of knowledge products developed. It often involves an assessment of the level of service provided, using the JMP service ladders, or national norms and standards. However, whether or not conditions for the provision of sustainable WASH services are in place is less commonly monitored. Are there service providers, with the capacity and means to continuously provide services at the right service level? And are service authorities in place with the capacities and means to supervise, monitor and support these service providers? Sustainability checks have been developed and applied to meet this need[8]. These have generally focused on rural WASH service provision[9]. In urban water supply, benchmarking is a common practice. However, frameworks for assessing and monitoring small town WASH service provision, including the conditions for sustainable WASH service provision, are lacking.

What is the innovation?

Under the ONEWASH Plus Programme, a sustainability check framework for WASH service provision in the small town WASH context in Ethiopia was developed and piloted. The framework built on existing frameworks and experiences with urban benchmarking and rural-focused sustainability checks and took into account suggested indicators, norms and standards as set out in Ethiopia's One WASH National Programme (OWNP) (Federal Democratic Republic of Ethiopia, 2013) and the second Growth and Transformation Plan (Federal Democratic Republic of Ethiopia, 2015).

The sustainability check framework includes 1) indicators related to the level of services provided, and 2) indicators for assessing the degree to which the conditions for sustainable WASH service provision are in place at service provider, service authority and national level. The

[8] One of the first sustainability checks was developed and applied under UNICEF Mozambique's "One Million Initiative" programme (2007–2013), as documented in Godfrey et al, 2015 (Godfrey, S. Van der Velden, M. Muianga, M. Xavier, A. Downs, K. Morgan, C. Bartram, J. 2015. Sustainability check: five-year annual sustainability audits of the water supply and open defecation free status in the 'One Million Initiative', Mozambique, *Journal of Water Sanitation and Hygiene for Development,* Vol. 4, Issue 3, pp 471-483. DOI: 10.2166/washdev.2014.118)

[9] See Boulenouar, J. 2016. *Rapid Scan of nine years of sustainability checks. Lessons learned and next steps.* AguaConsult, Wivenhoe, UK

framework covers urban (small town) water supply, urban (small town) sanitation, rural (satellite villages) water supply, rural (satellite villages) sanitation, and institutional WASH (WASH in health facilities and schools). The sustainability indicators cover institutional, technical, financial, social and environmental issues.

The sustainability checks have been applied in seven project towns (with the exception of Jigjiga, where focus was on solid waste management only) in 2015, 2016, 2018 and 2019. They have shown improvements in service levels over time, especially following (sanitation) interventions, but also challenges with maintaining these levels of service. The checks have highlighted challenges with presence, capacities and performance of service providers and service authorities, which contributed to this. These sustainability challenges were discussed with stakeholders from the project towns and informed the development of sustainability plans, with actions for overcoming these challenges.

Does it work?

Sustaining achieved improvements in WASH service provision is a challenge and requires systemic change, at all levels. Intervention programmes can and should identify systemic challenges early on in the programme and come up with strategies to address these, in close collaboration with relevant sector stakeholders (as certain challenges are likely to be beyond the scope of project interventions). Sustainability checks can be a useful tool.

As mentioned above, the ONEWASH Plus Programme sustainability checks clearly highlighted potential sustainability challenges related to small town and institutional WASH, especially at service authority level. However, although sustainability plans were developed, these were not really taken up in the implementation of the programme, nor in addressing these challenges beyond the programme, e.g. by local government or as part of implementation or regulatory frameworks. Dissemination of the sustainability checks and subsequent use and uptake have not taken place to the expected degree.

Application and subsequent refinement of the sustainability check framework has resulted in a well-tested framework. The rural and institutional WASH part of the framework have been used to inform the development of rural sustainability checks for UNICEF's rural programme.

The framework, methodology and indictors could be used in strengthening regional and national level monitoring of (small town) WASH service provision. This should be linked to and inform investment/budget allocation decisions related to investments, as well as to the provision of (technical) support. Taking this forward would require wider sharing and discussion on the sustainability framework at regional and national level.

#4 Value for Money Analysis

WHAT WAS LEARNED?

- Ideally Value for Money (VfM) analysis is undertaken when outcomes from a programme have fully materialised, which was not the case for the 2019 VFM conducted for the ONEWASH Plus programme. Nevertheless, VfM proved a useful framework to help assess expected value for money within the programme.
- Costs of the ONEWASH Plus Programme will likely amount to about 92 USD per (2025 design) capita served. This is comparable with the cost of other similar programmes.

What is usually being done?

Value for Money (VfM) is defined as "maximizing the impact of each pound spent to improve poor people's lives" (DFID, 2011[10]). It requires that all costs, outputs (infrastructure), outcomes (quality of services provided) and impacts (on health, economy etc.) are analyzed together.

What is the innovation?

A Value for Money analysis was done of the ONEWASH Plus Programme in August 2019. The programme intended to use a VfM analysis to assess the costs, efficiency and effectiveness of WASH programmes in eight small towns and their surrounding villages. It intended to assess expenditure on the programme vis-à-vis achieved outcomes. Outcomes were expected to include:

- Increase in number of households with reliable and accessible water services of good quality and quantity;
- Increase in number of households with adequate latrines; with adequate solid waste management; and living in a clean and healthy, open-defecation-free environment;
- Increase in number of students with access to improved, clean, private and sex-separated latrines at school, with MHH facilities in place.

Does it work?

At the time of the ONEWASH Plus Programme VfM assessment, outcomes related to hardware interventions in the towns and satellite villages had not materialised yet, as facilities had only recently started providing improved services, or not at all. Therefore, at the time of the VfM it was not possible to do an assessment of expenditure against achieved outcomes.

The capital expenditure of UNICEF for the eight towns was roughly 31 million USD. This included both hardware (80% of total capital costs) and software (20% of total capital costs) related costs. Capital expenditure on software includes design and supervision services, sanitation and hygiene promotion and urban sanitation capacity building support. Additionally, about 1 million USD (about 3% of total expenditure) was spent on knowledge management, learning and monitoring and evaluation activities.

Capital expenditure on water accounts for 78% of the programme costs, sanitation 21% of the expenditure while institutional WASH totals 2%. The overall capital expenditure per person for the expected served population in 2025 amounts to 89 USD excluding the knowledge management activities and 92 USD per person if these activities are included. As shown in table 1, of the towns where the full ONEWASH Plus intervention

[10] DFID, 2011. DFID's approach to VFM. DFID, London

programme has been implemented, unit costs were highest in Maksegnit and lowest in Wukro.

Table 1: Cost per person per town (for expected population 2025 in USD 2016)

Town	Population 2025	CapEx hardware, per person	CapEx software, per person	Knowledge management, per person	Total Cost per person USD
Maksegnit	29,124	112.02	25.03	4.29	141.34
Abomsa	41,721	91.22	16.31	3.00	110.53
Sheno	44,145	93.72	15.41	2.83	111.96
Welenchiti	51,555	72.40	13.20	2.42	88.03
Jigjiga*	29,432	3.90	23.05	4.25	31.20
Kebridehar**	57,201	88.97	11.86	2.19	103.02
Adishihu[8]	21,474	11.96	30.94	5.82	48.72
Wukro	69,630	70.35	9.54	1.80	81.69
Total	**344,282**	**73.48**	**15.85**	**2.90**	**92.23**

*Only solid waste (Population reflects 25% of the total population, as ONEWASH Plus Programme interventions covered 5 of the 20 urban kebeles)

**Only urban water and sanitation and institutional WASH

***Only sanitation and institutional WASH*

With the information available it is too early to make a value for money assessment. Only capital expenditures can be compared with other programmes. However, the information from other programmes is also incomplete, with population numbers estimated. This affects the cost per capita considerably.

Table 2 provides the costs per person made available by different organisations with small town programmes. It is worth mentioning that each programme has different components and the costs are not fully comparable

It can be concluded that at 89 – 92 USD per person (design population), the ONEWASH Plus Programme has Capex hardware and software within the same range of costs of other programmes from other organisations.

We cannot yet conclude on the value for money since it is not possible to assess the costs related to the final outcomes reached.

Table 2: Cost comparisons of small town programmes (USD 2016)

Small town programme (date)	Components included in the programme	Population benefiting (estimated)	Cost per person USD
Hosaena Water Supply Project (2013)	Includes water supply only No capacity building, no sanitation	143,857	34
5 Towns Urban Water Supply and Sanitation Project (IDE and GoE)	Includes water supply, sanitation (not major), institutional capacity building, programme management and WASH access to low income families	1,554,057	66
One WASH Plus (2016)	Includes water supply, institutional capacity building, sanitation (landfill, sludge drying bed, vacuum and garbage truck, solid waste collection, public and communal latrines) and [knowledge management component]	344,282	89 [93]
WSSP small and medium town component (2004-2013)	Includes water supply, public latrines, capacity building	1,300,000	98
Small towns in Oromia (2016 study phase)	Includes water supply only No capacity building, no sanitation	64,534	101

5 Public Private Operators

Solid waste management facilities in Jigjiga. Source: Desta Demse, 2017

#5 Public Private Operators

WHAT WAS LEARNED?

- The ONEWASH Plus Programme increased solid waste collection by setting up and supporting waste collection micro-enterprises, but the financial viability of these enterprises remains a concern.

What is usually being done?

In Ethiopia, solid waste collection in small towns is often done through Public Private Partnerships (PPP) with micro-enterprises, also called Public Private Operators (PPOs). They collect solid waste and dump it at decentralized collection points. Disposal of waste, mostly at unimproved landfills, is organized by the town administration. The PPOs are generally weak (providing a small daily income for their members) and are typically not an attractive business opportunity. Prior to the ONEWASH Plus Programme, Maksegnit, Abomsa, Kebridehar and Adishihu had no formal solid waste collection system in place. Households burned or disposed of their waste at uncontrolled waste piles, or paid informal waste collectors.

What is the innovation?

The ONEWASH Plus Programme aimed to improve solid waste management by strengthening the PPOs in all eight programme towns and by advocating for a stronger entrepreneurial approach.[11] The project provided training to the PPOs and the town administration, supported the development of business plans, and explored opportunities to broaden the activities of the PPOs (e.g. waste treatment and recycling). In addition, equipment was donated for solid and liquid (faecal sludge) waste collection, waste processing, and transport. Under the ONEWASH Plus Programme landfill sites and sludge drying beds were prioritized in all towns. However, at the time of writing of this report, these landfills and faecal sludge drying beds were still under construction or had not yet started operation.

Does it work?

The number of households in project towns having their solid waste collected and taken away increased from 35% to 49%, indicating that overall the solid waste management system has improved. However, town administrations still play the leading role in the waste management process and the core activity of the PPOs remains solid waste collection while waste segregation, treatment and other business activities have not yet become relevant additional revenue streams.

Different business models evolved: in some towns the municipality provides fixed monthly fees for the enterprises paid from the annual property tax, while in other towns the PPOs collect their service charges directly from users on a monthly basis. Though it was only short lived, in Maksegnit, there was an attempt to improve the fee collection by integrating it into the water bill.

The ONEWASH Plus Programme looked at the whole sanitation chain to integrate liquid and solid waste management into the programme. Further assessment of the PPOs' different business models is recommended upon completion of the construction of the landfills and drying beds to identify best practices and possibilities of cross-funding sanitation with revenues from water services and to inform additional training.

[11] ONEWASH Plus Learning Note. Full Chain Sanitation Services in Small and Medium Towns. April 2019.

6 Climate Resilient Water Supply

Deep well drilling in Welenchiti town in Boset Woreda of Oromia region.

Source: UNICEF Ethiopia, 2015.

#6 Climate Resilient Water Supply

WHAT WAS LEARNED?

- ONEWASH Plus Programme prepared the ground for discussions on climate resilient water supply in Ethiopia influencing the WASH strategies of the Government of Ethiopia, UNICEF and DFID.
- It was found that investments in geophysical assessment prior led to strong borehole yields and will likely ensure resilient water supply of acceptable quality and quantity. However, catchment management plans and regular monitoring of groundwater resources have not yet been operationalized.

What is usually being done?

Finding suitable water sources with sufficient yields that can be sustained over time is a critical concern in towns. But good quality hydrogeological investigations are not always undertaken, and capacities are limited. As a result, the water quantity supplied to towns is often below the initial expectation and water shortages can occur shortly after construction.

What is the innovation?

The ONEWASH Plus Programme intended to improve the linkages between WASH and water resources, and to increase knowledge of groundwater characteristics and catchment management. Higher than usual budget was allocated for hydrogeological assessments to identify resilient groundwater aquifers for the construction of new boreholes. In addition, the project supported the development of catchment plans and water safety plans to improve the overall water resource management.

To increase the climate resilience of rural water supply, the ONEWASH Plus Programme also supported the extension of town water supply systems to satellite villages. In periods of drought, surface water and shallow wells, usually used by rural communities in Ethiopia, are some of the first water sources to dry up. Town water supply fed by resilient deep boreholes, with sufficient storage capacity, are more likely to provide sufficient quantities of water throughout the year.

Does it work?

Insights from the ONEWASH Plus Programme provided a basis for the national Climate Resilience programme under the OWNP. UNICEF has switched its strategy for rural water supply from community wells to multi-village water supply systems. Further, DFID allocated future budget for WASH sector support in Ethiopia specifically to climate resilient WASH systems.

While the construction of the water supply systems in most ONEWASH Plus Programme towns is not yet completed, many stakeholders agree that the higher investments to find suitable aquifers are justified. For instance, in Welenchiti aquifers at different depths were checked for, naturally occurring, fluoride levels and unsuitable layers were sealed with clay.

On the negative side, the catchment management plans were not rolled out and no monitoring system was put in place to observe water quality and aquifer recharge over time. It is too early to assess if the deep boreholes have any negative impacts on other water sources such as shallow wells.

It is also not yet clear if rural communities are willing and able to pay a similar water tariff as in

towns (which is substantially higher than contributions currently paid for shallow wells). Tariffs for fetching water from a public taps connected to town water schemes generally amount to 0.5 birr per (20 litre) jerry can, while currently, rural households tend to pay 10 to 20 birr per month for rural water services (e.g. from handpumps), without restrictions on the amount of water that they are allowed to fetch. Spending 20 birr per month on water from the public taps connected to the piped scheme would only provide about 5 lpcd (assuming a household size of 5 people).

Innovations in equity

7 Water Kiosks in Urban Areas
8 Pro-poor Household Connections
9 Socially Inclusive Toilet Design
10 Menstrual Health and Hygiene

Sanitary pad production by women group member in Sheno town. Source: UNICEF Ethiopia/2017/K. Gugsa

#7 Water Kiosks in Urban Areas

WHAT WAS LEARNED?

- Water kiosks aim to provide better and more resilient water services to urban dwellers compared to public water points: reliable and affordable access to water, throughout the day and during temporary interruptions of piped water.
- However, the already opened water kiosks are not operating differently from public water taps, and the concept needs to be revised, ideally based on experiences from other towns. Robust business models are needed and on-site water storage tanks are recommended.

What is usually being done?

Underperforming water systems create inequities in water supply. The poor are most affected by water shortages and intermitted services, as they usually lack capacity to store sufficient water at home. Public water points in towns are often unreliable: affected by intermittent water supply and only open for a few hours per day. When the water at home is used up and no water is available at public water points, households are forced to walk long distances to collect water from other parts of town or surrounding villages. Or they pay high prices to water vendors.

What is the innovation?

The ONEWASH Plus Programme supported improvements in water supply systems that were expected to improve the situation of vulnerable households through improving accessibility and reliability of the water supply. In addition, approximately five water kiosks were constructed in each of the six project towns.[12] The water kiosks are an alternative to existing public taps. The kiosks are expected to be run by female shopkeepers, ideally selected by the local administration and favouring women from poor female-headed households. The water kiosks provide space (at no cost for the shopkeeper) for selling different items or for opening a small coffee place. Due to the additional income generated from other activities than selling water, it is expected that the water kiosks will be reliably open throughout the day at a similar water price charged at public taps.

Does it work?

At the time of writing, not all water kiosks were operational. In August, only two kiosks in Maksegnit and one in Welenchiti were found to be operational. However, these were operating like public taps (single service and with limited opening hours), rather than kiosks (with a variety of services and longer opening hours). The applied construction design did not foresee storage tanks to be installed at the water kiosks and therefore the kiosks do not provide a back-up supply to bridge water interruptions.

Essentially, the water kiosks will need a business model that does not solely rely on water sales, because the increase of private connections and reliable water supply will reduce the demand for water kiosks. As it is intended to nominate poor women as shopkeepers, they will likely lack the seed funding needed to stock the store. The shopkeepers might also need training on entrepreneurship and financial management to start a viable business.

[12] ONEWASH Plus Learning Note. Gender and equity issues in WASH. April 2019.

#8 Pro-poor Household Connections

WHAT WAS LEARNED?

- Pro-poor household connections aimed to ensure availability of water at the lowest block tariff for the most vulnerable.
- Instead of long-term subsidies for social tariffs targeting vulnerable households, the subsidies might be used to support poor households to get their own private household connection.

What is usually being done?

In Ethiopia, water utilities usually apply increasing block tariffs, as was the case in all ONEWASH Plus Programme towns except Kebridehar where a flat tariff was applied. Table 3 presents an overview of the tariffs in the ONEWASH Plus Programme towns as per 2019. Poor urban households are more likely to share a connection with multiple households, for example in a compound house. In that case they pay more per m^3, as they fall in a higher block tariff due to the combined higher monthly water use. Or they do not have a private household connection at all and therefore pay relatively high water fees at public taps or from neighbours or vendors.[13]

What is the innovation?

The ONEWASH Plus Programme planned the installation of about 200 to 500 private connections for vulnerable households in each project town, identified through a town-led vulnerability assessment based on pre-defined criteria.[14] The project also supported the town water utilities to develop a business plan to ensure that operations do not depend on subsidies from the government and stressed the importance of a pro-poor tariff system that ensures water is affordable for all.

Table 3: Tariffs in ONEWASH Plus Programme towns (in birr/m^3)

	Abomsa	Sheno	Welenchiti	Kebridehar	Wukro
From neighbour	150	50	100	NA	NA
From Public tap	37.5	25	25	NA	25
Household connection - Month use: <4m^3	25	11.3	12.7	20	3
4-5 m^3	28	12.4	14.43		
5-6 m^3					
6-7 m^3	32		17.75		5
7-8 m^3		14.25			
8-9 m^3					
9-10 m^3	34		21		
10-11 m^3					10
11-31 m^3	36	17.1	25		
31-50 m^3					15
>50 m^3					20

[13] See also Vincent Thomas. Understanding inequities in water services in small Ethiopian towns: the case of Welenchiti. 2016.

[14] ONEWASH Plus Learning Note. Gender and equity issues in WASH. April 2019.

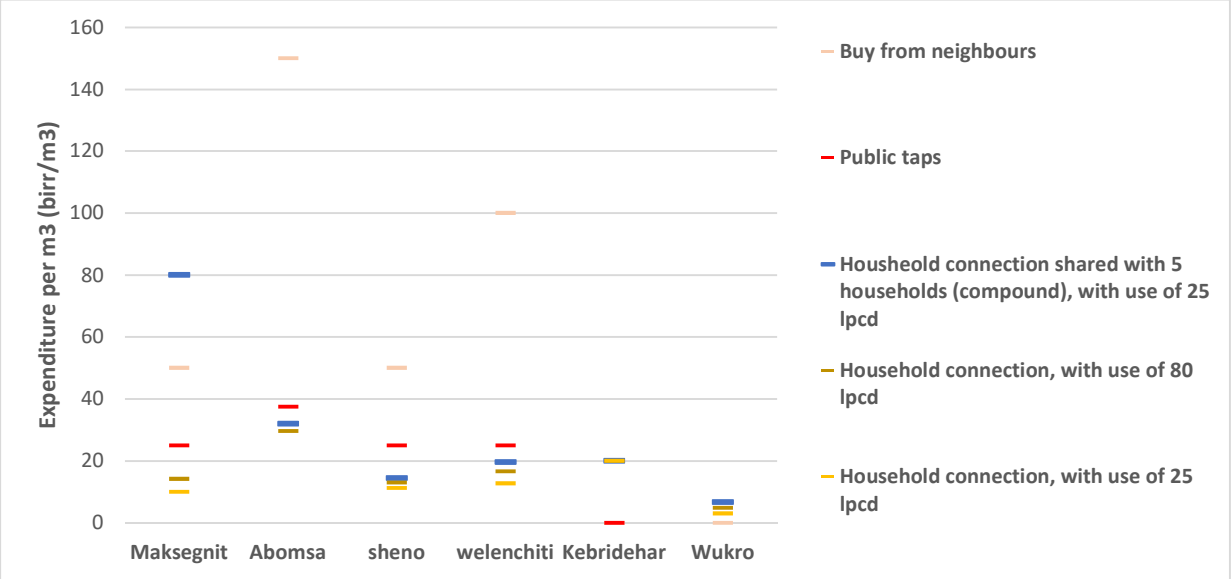
Does it work?

Household connections provide water at the lowest unit costs. Even households using 80 litres per capita per day (lpcd) pay less per unit water than a household using only 25 lpcd from a connection shared with five households (e.g. in a compound house), a public tap, or from neighbours or vendors, as shown in figure 2. Therefore, pro-poor connections give vulnerable households access to water at the lowest block tariff, even if no social water tariff has been introduced.

Nevertheless, at the time of writing of this report, pro-poor connections had hardly been installed and social tariffs had not yet been introduced, as the water schemes in most towns had not started providing enhanced water services. As soon as water services have been significantly improved, and pro-poor connections and social tariffs become a reality, further research will be needed to assess the acceptance and impact of these interventions. This should focus on whether the most vulnerable did get a connection and whether water utilities are able to afford the social tariffs through cross-subsidies. Awareness raising to the need for social tariffs and support to regular tariff revision will be needed.

Not all utilities are convinced of the pro-poor concepts introduced by the ONEWASH Plus Programme. For instance, the Wukro town administration concluded that there are no vulnerable households that require special support and everyone is expected to pay for their connection.

Figure 6: Expenditure per m ^{3} in the ONEWASH Plus Programme towns (based on 2019 tariffs)



#9 Socially Inclusive Toilet Design

WHAT WAS LEARNED?

- Advocacy by the ONEWASH Plus Programme triggered a revision of the existing school latrine design and construction manual which will now include socially inclusive designs.
- Socially inclusive toilets have been constructed under the ONEWASH Plus Programme, but are not yet in use in most schools. An evaluation of the design is recommended to provide advice on where pour flush systems or dry pit latrines should be promoted.
- Attention needs to be given to the management of the sanitation facilities. Poor cleanliness is an obstacle for safe use of the latrines, especially for children with physical impairment or blindness.

What is usually being done?

The Government of Ethiopia in collaboration with UNICEF developed a construction manual for sanitary facilities in schools in 2009 focusing on dry, onsite sanitation facilities (ventilated improved pit latrines).[15] While the manual describes child friendly principles, it lacked specifications on socially inclusive toilet designs.

What is the innovation?

Based on the construction manual for sanitary facilities in schools, the ONEWASH Plus Programme adapted the design to specifically address considerations of social inclusiveness. In each of the programme's project towns, two schools were provided with disability-friendly model sanitation facilities, consisting of two separate blocks, one for girls and one for boys, each including one separate and lockable latrine that has wheelchair access, and that has a raised toilet seat with handles. The blocks are connected to 10 m^3 water tanks and have pour flush systems discharging in septic tanks with soak away trenches/pits.

Does it work?

The current version of the design manual for primary school sanitation facilities is now under review and experiences from the ONEWASH Plus Programme will be reflected in the revised version.

At the time of writing, socially inclusive school latrines constructed under the ONEWASH Plus Programme had not been handed over and were not yet in use. As soon as they are, an assessment of the actual situation would provide information about the improvements of the new design, the actual use of the facilities and level of user satisfaction.

A potential technical challenge could be the fact that water supply in many towns and satellite villages is limited and pour-flush systems might not be appropriate in some places.

While it is important to have the right infrastructure in place, innovative solutions will be needed to keep the toilets clean and well-maintained. Children with physical impairment or blindness are unable to reach the drop-hole without stepping into faeces.

[15] Ministries of Health, Education and Water Resources. Design and Construction Manual for Water Supply and Sanitary Facilities in Primary Schools in Ethiopia. June 2009.

#10 Menstrual Health and Hygiene

WHAT WAS LEARNED?

- The ONEWASH Plus Programme contributed to the development of national guidelines on menstrual health and hygiene, providing practical experiences from the intervention schools which have increased the overall awareness on the topic in the WASH sector.
- Initial evidence suggests a decrease in the overall drop out of adolescent girls from school by 80 to 85 per cent. Further research is needed to confirm these results.

What is usually being done?

When the ONEWASH Plus Programme was launched, menstrual health and hygiene management (MHH) was not commonly incorporated in school WASH interventions. Lack of adequate facilities understanding around menstruation are issues that prevent adequate MHH. Female students regularly miss classes during their menstrual period due to discomfort and fear of staining their clothes, which negatively impacts their education.

What is the innovation?

The ONEWASH Plus Programme supported the development of national MHH guidelines through a participative process led by the Federal Ministry of Health.[16] In addition, MHH has been included in the urban health extension manual which is used in refresher trainings for health extension workers and for local government health offices staff.

Furthermore, the ONEWASH Plus Programme addressed MHH in the 81 interventions schools in the project area.[17] Awareness raising trainings were organized in schools and communities to break the taboo and to shift harmful social norms surrounding the issue. The project encouraged schools to prepare an MHH room, which serves as a resting and counselling place for girls who are experiencing pain related to menstruation. The rooms provide privacy for menstrual hygiene management and are equipped with mattresses, blankets and reading materials. Sanitary pads and other hygiene products, such as soap, are stored in the rooms for students who cannot afford to buy them and for emergency cases. The ONEWASH Plus Programme also stimulated the production of sanitary pads by local producers and the distribution of sanitary pads in schools.

Does it work?

The advocacy work by the ONEWASH Plus Programme resulted in the MHH guidelines which have been approved by the Ministry of Health.

Almost half (47%) of the schools in the project areas were found to have an MHH room in place in 2019. In 2016, just after MHH promotion had taken place, 65% of the schools in the project areas distributed sanitary pads. There was concern at the time whether it would be possible for the schools to keep this up after direct programme intervention in this area would come to an end. Although a drop had been observed in the proportion of maintaining this practice, still 39% of schools were distributing sanitary pads.

The improved knowledge about and attitude towards menstruation in combination with the availability of MHH facilities in schools has been reported to have led to reduced absenteeism of girls by 80% to 85%.

[16] FMoH. Menstrual Hygiene Management in Ethiopia: Policy and Implementation Guideline. 2016

[17] ONEWASH Plus Learning Note. Gender and equity issues in WASH. April 2019.

Innovations in urban WASH service delivery

11 Integrated WASH Service Delivery
12 Build – Capacity Build - Transfer
13 Urban CLTS

Public toilet and showers managed by a Public Private Partnership group in Kebridehar. Source: UNICEF Ethiopia 2020.

Open defecation areas mapping during a CLTSH triggering session in Hamusgebiya village near Sheno. Source: World Vision Ethiopia, 2016.

#11 Integrated WASH Service Delivery

WHAT WAS LEARNED?

- The ONEWASH Plus Programme contributed to the discussion on integrated WASH service delivery and WASH systems thinking in Ethiopia. All WASH sub-systems need strengthening to ensure reliable and sustainable WASH services for all.
- Preliminary results suggest that the integrated service delivery approach can help to increase the government's budget allocation to sanitation, including solid waste management.

What is usually being done?

Traditionally, WASH interventions tend to only look at "bits of solutions", like building public toilets without considering the entirety of the urban sanitation challenge in towns, or constructing water supply infrastructure without considering the long-term financing strategy of the water utilities. In Ethiopia, regions are supposed to follow integrated approaches for WASH service delivery, including both water and sanitation services. However, this is often not achieved, sanitation in particular is often neglected and notoriously underfunded.

What is the innovation?

The ONEWASH Plus Programme advocated for an integrated approach that ensures available funding is spent on strengthening all components of the WASH system. The ONEWASH Plus Programme emphasized different aspects of integration:

- District-level focus. Planning solutions recognizing the interconnections between small towns and the surrounding villages, rather than only planning for either an "urban project" or a "rural project".
- Integration of waste management. The intervention looked at the whole sanitation chain, including proper disposal of solid and liquid waste.
- WASH for everyone. Special attention was given to understand and integrate the needs of vulnerable population groups.
- WASH everywhere. Integration of WASH in schools and market places, instead of only considering household settings.
- Integration of capacity building. The programme recognized the need to invest not only in infrastructure but also in capacity building of service providers, service authorities and the enabling environment.

Does it work?

The ONEWASH Plus Programme contributed to the discussion on integrated approaches and systems thinking in Ethiopia. The programme also provided practical experiences in the project towns which can be used to illustrate the interconnections of various components of the WASH system. Preliminary results show that the government's budget allocation to sanitation increased in the project towns.

#12 Build - Capacity Build - Transfer

WHAT WAS LEARNED?

- The ONEWASH Plus Programme has developed and trialled a Build – Capacity Build – Transfer contract modality. It is too early to fully assess its effectiveness, but initial findings suggest the approach is promising if not yet proven.
- Implementation of a new contracting arrangement needs regular back-up support to all actors involved ensuring that everyone is aware of the new ways of working, and to make changes in the approach to adapt to circumstances.
- Local contractors have relatively low capacity and were found to require external support in order to establish effective and viable joint ventures with sub-contractors.
- The capacity building and performance target components need to be strengthened. Improved guidance and tools for local contractors could be considered particularly on how to assess the performance of water utilities, and on how to address potential gaps.
- The regional bureaus should play a less active role in the construction supervision. Instead, the utilities should be more strongly involved as should the consultant(s) that prepared the designs.

What is usually being done?

In Ethiopia, new town water supplies are commonly constructed by the government through individual contracting arrangements for water source development and treatment works, civil works, supply and installation of pipes and fittings, supply and installation of electromechanical components (such as generators and pumps), and capacity building to utilities and local administrations. The performance of such arrangements has not been encouraging, with long delays and often sub-standard construction work. The government is forced to manage many different contracts and contractors, often involving lengthy tendering processes and unclear roles on accountability between the different partners.

What is the innovation?

Build – Capacity Build - Transfer (BCBT) is an innovative contracting arrangement that combines infrastructure development and capacity building for town water utilities.[18,19] The approach was developed by UNICEF with its partners in the ONEWASH Plus Programme. Compared to other procurement options, the BCBT modality provides the possibility of transferring more of the liability for the infrastructure development and initial operations to the private sector with expected benefits in terms of a more effective service delivery, without compromising the basic principles of public ownership of assets.

The BCBT approach consists of four key features:

One contract. All the contractual components for the construction and capacity building are packaged into one single contract and awarded to a local construction company through a competitive tendering process. A second contract is only needed for the design and supervision

[18] ONEWASH Plus Learning Note. Build Capacity- Build Transfer (BCBT). August 2016.

[19] Godfrey et al. Fuzzy Logic Analysis of the Build, Capacity Build and Transfer (B-CB-T) Modality for Urban Water Supply Service Delivery in Ethiopia. May 2019.

which is assigned to a joint venture of international and national consulting firms.

Capacity building. The contract specifically includes an assessment of the organisational arrangements, operations, financial situation and commercial practices of the utility. Based on this assessment, the contractor prepares a capacity building plan for technical staff and the board of the utility, and provides on-job training to water utility staff after commissioning.

Liability period. To incentivise the contractor to ensure good quality implementation and appropriate capacity building a liability period is defined in the agreement which makes the contractor liable for rectification of defects within a 12-months period.

Performance targets. The payments for the BCBT contract are made according to a schedule set out in the tender documents. The final payment (approximately 5%) is linked to a set of benchmark indicators which need to be achieved during the first year of operation. Three benchmark indicators were selected which are expected to be evaluated by the consulting firm supervising the implementation:

- Non-revenue water (to decrease as shown in utility business plan);
- Number of new metered and functioning connections (for each mode of service as outlined in the utility business plan);
- Quality of water supplied: full compliance with Ethiopian water quality standards – microbiological, chemical and physical - with a minimum of six completed tests.

The BCBT approach was piloted in the six project towns where water interventions were undertaken. In each town, one single local contractor was assigned to implement water source development and treatment works, civil works, supply and installation of pipes and fittings, supply and installation of electromechanical components (such as generators and pumps), and capacity building for town water utilities and water boards.

Does it work?

At the time of writing none of the new components of water supply systems had been handed over to the utilities. Therefore, only initial conclusions can be made about the success of the contracting modalities. Overall, the BCBT seems to be a valuable new contracting option but it needs further refinement to actually get the intended benefits and to overcome the following challenges:

Limited openness to change. Local contractors were sceptical about the liability period and performance targets. For instance, in Abomsa the contract was terminated before the end of the liability period and no final performance-based payment was made.

Limited capacity. Overall, the capacity of the assigned local contractors was found to be rather weak to handle the construction work and the management of sub-contracted companies. The contractor's limited cash flow delayed implementation as the payments to sub-contractors could not be advanced.

Limited focus on capacity building. Overall, the trainings provided were of limited quality and value for the utilities. Some local consultants assigned for construction supervision seemed not to be fully aware about the technicalities of the BCBT approach and solely focused on the hardware components.

Limited ownership. While the water utilities will be responsible to repay the loan, they have not been closely involved in implementation and supervision (although in e.g. Wukro, Welenchiti and Maksegnit the utilities managed to be more actively involved). The regional water bureau assigned the local contractor and managed the supervision. Ideally, the consultant who prepared the design would take the lead of construction supervision until the end of the liability period.

#13 Urban CLTSH

WHAT WAS LEARNED?

- The adapted CLTSH approach for urban areas, combined with other programme components, was more successful in sustaining reduced open defecation than the conventional CLTSH approach used in the satellite villages. Only a few years after triggering, the level of open defecation in satellite villages was again comparable to the baseline situation, while it remained at a low level in towns. Nevertheless, almost 10% of urban population still defecate in the open.
- Stronger government ownership on the urban CLTSH approach is needed through formal integration into the existing public health framework, policies and guidelines to ensure promotion to construct latrines is sustained in the long-term and to finally eradicate open defecation.

What is usually being done?

The Community-Led Total Sanitation and Hygiene (CLTSH) approach is widely used in Ethiopia to reduce open defecation. However, existing implementation focuses mainly on rural areas. The urban context is more complex: communities are usually less homogeneous, migration leads to continuous changes in the population and a limited availability of space for the construction of latrines requires more sophisticated sanitation systems.

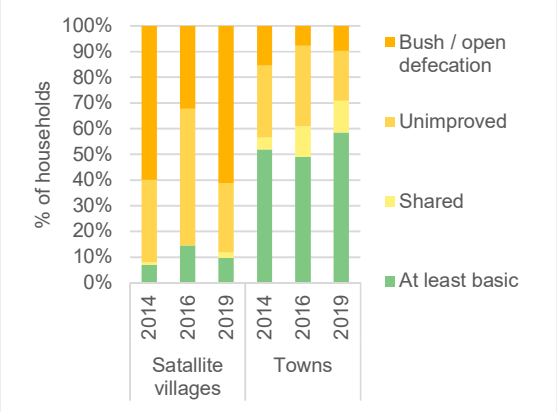
What is the innovation?

As part of the ONEWASH Plus Programme, the CLTSH approach has been adapted to an urban context, and a trainer's manual developed and used for the training of urban health extension workers.[20] The CLTSH activities were complemented by other interventions to improve the full sanitation chain, such as the construction of public latrines, and strengthening of liquid waste collection and treatment systems. A range of communication platforms and tools were used to trigger the construction of improved sanitation facilities: incl. tasks forces, radio and audio vans.

Does it work?

The results from the midline survey show a clear decrease of open defecation compared to the baseline, especially in the rural areas around the project towns. However, at the time of the endline survey open defecation had increased again in the rural areas. This suggests, as has been found elsewhere, that CLTSH needs to be a more continuous process with regular follow-up to sustain progress.

Figure 7: Sanitation service ladder



[20] World Vision. Trainer's Manual for Urban Health Extension Professionals. September 2015.

14 Learning Modules
#15 South-South Cooperation

Visit of Ethiopian delegation, H.E. State Ministers of Water and Health of Ethiopia, to Brazil in the framework of the South-to-South cooperation between the Governments of Ethiopia and Brazil. Source: UNICEF, 2015

#14 Learning Modules

WHAT WAS LEARNED?

- The OpenWASH learning modules developed as part of the ONEWASH Plus Programme are recognized as a valuable resource for teaching and training. Although currently their use is limited to a few colleges, the ready-made modules can be easily promoted and applied more broadly, as they provide an Ethiopia-specific curriculum.
- The development of learning modules has proven an effective tool to mainstream best practices and to overall strengthen skills and competences of WASH professionals. However, limited access to computers and internet requires new ideas for effective dissemination.

What is usually being done?

Strengthening the skills and competences of individuals responsible for planning, managing, implementing and monitoring WASH service delivery is an important component for improving the water and sanitation situation in Ethiopia. However, specific curriculums on small town WASH are weak, out-dated or non-existent.

What is the innovation?

A total of five learning modules were developed to provide a core curriculum for teaching and learning of urban WASH subjects in Ethiopia targeting students and professionals with no prior specialist knowledge on the subject:

- One WASH National Programme
- WASH: Context and environment
- Urban water supply services
- Urban sanitation and waste disposal
- Urban WASH: Working with people

Each module has 15 study sessions of two-hours each. They follow an interdisciplinary approach that recognizes the complex interconnections between water, sanitation and hygiene, and the need for both 'soft' and 'hard' knowledge and skills. Illustrations, case studies and examples are included to reflect Ethiopian regional variations.

The modules are available in English and accessible at the Open University Website.[21]

Does it work?

The modules were piloted in four out of nine Vocational Educational and Training (TVET) colleges that teach water-related subjects and in three out of 22 Health Science (HS) colleges. Representatives from the TVETs and HS colleges attended a Training of Trainers and subsequently the modules were used for teaching.

The overall response to OpenWASH has been very positive. Stakeholders describe the modules as highly relevant, important and valuable for their teaching and training. To be relevant for colleges, alignment with Ethiopian occupational standards is essential, as these are the reference for teaching at TVET and HS colleges. While English is the language of instruction, translations to at least Amharic and Afar Oromo would be useful support material for the colleges.

Limited access to computers with internet limits the accessibility of the online modules. Ideally, more e-library facilities should be made available in the future. Alternatively printing of hardcopies might need to be considered. Use could be further promoted.

[21] OpenWASH (www.open.edu/openlearncreate/course)

. #15 South-South Cooperation

WHAT WAS LEARNED?

- The knowledge exchange between Ethiopia and Brazil, including visits by high-level delegations, contributed to a policy shift in Ethiopia towards a WASH regulatory framework to standardize and improve water supply services. It also led to the piloting of a decentralised (condominium) sewerage facility in one of the ONEWASH Plus Programme towns (Wukro).

- South-South collaborations on specific and important topics can inspire through personal experience and direct exchange. However, explicit learning agendas need to be defined to prioritize and focus on common needs and mutual benefits.

A South-South Cooperation between Ethiopia and Brazil was introduced under the ONEWASH Plus Programme in 2014. During a series of exchange visits in late 2014 and early 2015, efforts were made to capture the insights, impressions and shifts in perception of delegates from both countries about urban sanitation services.[22] Common needs and mutual benefits were identified to form the foundation of a collaboration. The main outcome of this activity was the formalisation of a two-year South-South collaboration agreement (2015 to 2017) on Water Supply and Sanitation between the Governments of Ethiopia and Brazil. The parties identified two key priorities: Support to the development of a regulatory framework and piloting condominium sewerage in Wukro town in Tigray Region.

The innovation

South-South cooperation for improving regulation. A range of actors in Ethiopia have been advocating to establish an independent regulatory agency responsible for improved and standardized provision of rural and urban water supply services. However, getting the attention of high-level officials to influence policy proved challenging.

The South-South cooperation re-initiated the discussion at high level about an independent regulator in Ethiopia. As Brazil has good examples of urban WASH regulation, policy frameworks, service planning and management, the ONEWASH Plus Programme facilitated visits by high-level delegations to Ethiopia and Brazil.

Figure 8: World map with Brazil and Ethiopia

[22] ONEWASH Plus Learning Note. The start of a shared learning journey. August 2015.

South-South cooperation for piloting condominium sewerage. Under the South-South Partnership between the government of Brazil and Ethiopia, in collaboration with UNICEF, condominium sewerage was piloted in Wukro. The condominium sewerage facility was designed by the Brazilian technical team and constructed in 2018. The Brazilian team also developed manuals for the operation of the decentralised sewerage facility.

Does it work?

South-South cooperation for improving regulation. The idea of an independent regulator was given high attention and the positive impressions from the knowledge exchange helped shift perceptions towards recognizing the importance of a regulator in Ethiopia. This is now included in national policy. The OWNP now mentions "*By 2020 establish an independent water and wastewater service regulatory agency to ensure high service quality*" as one of its goals.

However, progress related to the actual establishment of a regulatory agency has been limited. This was (at least partially) due to the recent government restructuring in Ethiopia.

South-South cooperation for piloting condominium sewerage. At the time of writing, the piloted condominium sewerage facility in Wukro was operational yet. The additional works required to operationalise the facility, as recommended by the Brazilian team and implemented with UNICEF's resources, are expected to be completed by the first quarter of 2020.

Since both the revised OWNP (Phase II) document and the Integrated Urban Sanitation and Hygiene Strategy (IUSHS) focus on decentralized waste treatment options for urban sanitation, the Wukro pilot decentralized condominium sewage treatment plant is expected to create possibilities to scale up this technology in the future.

In general, South-South collaborations with explicit learning agendas defined through iterative, participatory processes by country delegations, were expected to reach beyond the individual learning experience to realize learning aims, objectives and priorities with wider societal benefits.

Conclusion and Recommendations

The ONEWASH Plus Programme was very ambitious, seeking to implement a complex and higher innovative set of WASH activities within less than six years. The programme changed ways of working by testing several new concepts and approaches. Overall, looking back, the programme could maybe be considered too ambitious. Additional resources and time would have been needed to manage and supervise programme implementation in a way that is fully aligned with the best practices described in the initial design, and to assess and document the impact resulting from the innovative way of working.

Not all infrastructure improvements have been finalized yet: design and quality need to be re-assessed after the first few years of operation and compared with costs and planning documents. While the programme aimed to follow best practices, more coherence and linkages between the different elements of the programme would have been desirable, for instance in regards to timing and stakeholder engagement of various activities related to improving the sanitation chain.

All 15 innovations highlighted in this synthesis report are promising ideas to contribute to equitable, sustainable and resilient WASH services for all. However, many of the innovations need further refinement and additional evidence before advocating for a general scale-up.

Social Accountability Dialogues are a promising tool to foster participatory planning and monitoring but the ONEWASH Plus Programme process needs further improvements to create sustained ownership and full transparency.

Sanitation Master Plans are a suitable approach for towns to understand and plan solid and liquid waste management but the municipalities ownership and alignment with the social accountability dialogues needs strengthening.

Sustainability Checks and Plans provide a valuable tool to track, recognize and address specific sustainability challenges. However, use of results and integration into the broader government's monitoring system needs to be explored.

Value for Money analysis is generally recognized as a useful tool, however the relevance for this programme can only be determined once implementation is completed and impact achieved.

Integrated WASH Service Delivery should be the starting point for any WASH intervention to prioritize key issues in the WASH system that need to be addressed and to ensure an appropriate share of the funding is used for sanitation.

Build - Capacity Build – Transfer is a promising contracting arrangement but needs further refinements and proof of concept before it can be advocated more broadly.

Urban CLTSH was found successful in reducing open defecation, however formal integration into existing public health regularity framework, policies and guidelines is needed to eventually eradicate open defecation.

Public Private Operators were found to be an appropriate entity to manage solid waste disposal but more evidence is needed to understand what business models should be advocated for scaling.

Climate Resilient Water Supply is important and should be advocated broadly. However, more emphasis needs to be given to the development of catchment management plans to monitor aquifers and track sustainable availability of sufficient groundwater.

The concept of **Water Kiosks in Urban Areas** needs to be revised. The water kiosks constructed under the ONEWASH Plus Programme can be

used to further explore a suitable business model and to assess the positive impacts for poor households.

The impact of the **Pro-poor Household Connections** on the affordability of water for vulnerable households and on the business case of utilities needs to be assessed in more detail before advocating for a scale-up.

Socially Inclusive Toilet Designs need to be promoted so that all students are able to access sanitation facilities at school. However, the ONEWASH Plus Programme design needs further evaluation and possibly some adjustments.

Menstrual Health and Hygiene was neglected in WASH interventions for many years and advocacy needs to continue after the ONEWASH Plus Programme. The next goal is formal integration into standard procedures for school WASH in Ethiopia.

The existing **Learning Modules** should be promoted to be more widely used in teaching. More evidence on the impact of WASH staff capabilities should be collected to justify the development of additional learning modules.

South-South Cooperation should be encouraged for specific topics where other countries have proven experience.

ONEWASH Plus Programme knowledge products

Learning notes

UNICEF, IRC, 2015. “The start of a shared learning journey. A south-south partnership between Brazilian and Ethiopian water and sanitation specialists.”

UNICEF, IRC, 2015. “Urban sanitation lessons. Piloting innovative Sanitation Master Plans in small towns.”

UNICEF, IRC, 2015. “Measuring factors that predict if WASH services are sustainable.”

UNICEF, IRC, 2015. “Private sector role is critical to meeting WASH targets.”

UNICEF, IRC, 2016. “Build Capacity- Build Transfer (BCBT). Piloting an innovative contracting arrangement for urban water, sanitation and hygiene services (WASH).”

UNICEF, IRC, 2016. “Value for Money of WASH services in small towns. Establishing a framework for analysis of ONEWASH Plus Programme interventions.”

UNICEF, IRC, 2019. “Full Chain Sanitation Services in Small and Medium Towns.”

UNICEF, IRC, 2019. “Gender and equity issues in WASH. Addressing inequalities in the ONEWASH Plus Programme implementation to ensure adequate WASH services for all.”

UNICEF, 2019. Field Note (11p). “Urban WASH in Small Towns: “The ‘ONEWASH Plus’ Programme in Ethiopia.”

UNICEF, IRC, 2019. Technical Paper (9p). “ONEWASH Plus: Delivering Value for Money in Eight Towns in Ethiopia.”

Policy documents

The Federal Democratic Republic of Ethiopia, 2015. “Integrated Urban Sanitation and Hygiene Strategy.”

Reports/Manuals

UNICEF, IRC, 2015. “WASH services in small towns. Baseline report for a quasi-randomised control trial to assess impacts of the One WaSH Plus programme.”

UNICEF, IRC, 2015. “Private Sector Landscape for WASH in Ethiopia. Bottlenecks and opportunities.”

UNICEF, IRC, 2015. “ONEWASH Plus Programme sustainability checks. First annual report (2015)”

UNICEF, IRC, 2016. “Looking back and looking forwards. Summary of mid-term progress review workshop for the ONE WASH Plus Programme.”

UNICEF, IRC, 2016. “Solid waste management in Jigjiga, Somali Region. Baseline survey factsheet.”

UNICEF, IRC, 2016. “Monitoring for Sustainability. Report on a learning seminar”.

UNICEF, IRC, 2017. “WASH services in small towns. Midline report for quasi-randomised control trial to assess impacts of the ONEWASH Plus Programme.”

UNICEF, World Vision, 2015. “Trainer’s Manual for Urban Health Extension Professionals. “

UNICEF, World Vision, 2015. “Report on Vulnerability Assessment in the Context of Urban WASH - Part II.“

UNICEF, World Vision, 2016. “Synthesis Report on Advocacy for Equity, Inclusiveness and Social Accountability.”

Scientific publications

Adank M., Butterworth J., Godfrey S., Abera M., 2016. “Looking beyond headline indicators: water and sanitation services in small towns in Ethiopia.” Journal of Water, Sanitation and Hygiene for Development 6(3). https://doi.org/10.2166/washdev.2016.034

Adank M., Godfrey, S., Butterworth J., Defere E., 2018. “Small town water services sustainability checks: development and application in Ethiopia”. Water Policy wp2018004. https://doi.org/10.2166/wp.2018.004

Thomas V., Godfrey S., 2018. “Understanding water-related emotional distress for improving water services: A case study from an Ethiopian small town”. Journal of Water, Sanitation and Hygiene for Development. https://doi.org/10.2166/washdev.2018.167

Godfrey S., Asmare G., Gossa T., Paba M., 2019. “Fuzzy Logic Analysis of the Build, Capacity Build and Transfer (B-CB-T) Modality for Urban Water Supply Service Delivery in Ethiopia.” Water 11(5):979. https://doi.org/10.3390/w11050979

Learning modules

Available at: www.open.edu/openlearncreate

- One WASH National Programme
- WASH: Context and environment
- Urban water supply services
- Urban sanitation and waste disposal
- Urban WASH: Working with people

Resources

Available at: https://www.unicef.org/ethiopia/reports/onewash-plus-programme-owpp-publications/; www.ircwash.org/blog; www.ircwash.org/resources

Acknowledgements

The programme is supported by UNICEF and implemented in eight towns over a six-year period from 2013 to 2019 with GBP 22 million UK funding through the UK Department for International Development. The implementation of the programme is still ongoing with cost-contribution of the government and with UNICEF post investment support. We are grateful to the UNICEF team for their intensive support. The authors would like to acknowledge the following people for their valuable input and feedback: Eyob Defere (IRC Associate), Abinet Kebede (IRC Ethiopia). Finally, the authors would like to extend thanks to all the UNICEF staff in the field offices and all participants who repeatedly gave their time and opened their homes to the field team.

About the Authors

Lars Osterwalder is a WASH Consultant, based in Addis Ababa. He is an IRC associate with more than a decade of experience in the sector, with a special interest in water quality assessments and market-based WASH interventions.

Marieke Adank is a WASH Expert, working at IRC, based in the Netherlands. She has over 16 years of experience in the WASH sector, with a special interest in small town WASH and evidence-based decision making in WASH.

John Butterworth is the head of IRC's International and Innovation Programme. From 2016 to mid-2019 he was the Country Director of IRC's Ethiopia Country Programme. He has specific expertise in WASH sector monitoring, alternative approaches to rural water supply (self-supply, multiple use water services), transparency and accountability, multi-stakeholder approaches to learning and change, and water resources management. John has 20 years practical experience in WASH working in Latin America, Africa and Asia.

Lavuun Verstraete is the UNICEF Ethiopia Urban WASH Manager, based in Addis Ababa. He has more than 18 years of experience mainly in sub-Sahara Africa, with more than 15 years in rural and small town WASH and water resources management.

Tamene Gossa is a UNICEF Urban WASH Specialist, based in Addis Ababa. He has more than 30 years of experience in WASH including in rural and small-town urban WASH programme management.

UKaid
from the British people

IRC

www.unicef.org/wash

United Nations Children's Fund
3 United Nations Plaza, New York, NY 10017, USA
For more information, please contact: WASH@unicef.org

Document No: WASH/R/05/2020