Think Piece 2 Ethiopia: A priority country for universal access to WASH in Africa

Lessons learned from WASH systems strengthening: a deep-dive into costing and planning for sustainable and inclusive water supply services in Gololcha Woreda, Ethiopia



Woreda and zonal government officials and service providers discuss the LCCA process in Gololcha Woreda.









Introduction

WaterAid's investment in Ethiopia is intended to contribute towards universal and sustainable water, sanitation and hygiene (WASH) access. A key approach of WaterAid's work in Ethiopia is strengthening government leadership and institutional processes and functions at national and sub-national levels to ensure water and sanitation services and hygiene behaviours are inclusive and sustainable. In Ethiopia, under the National One WASH Plan, government efforts at all levels are being harmonised and all actors agree on one common system for planning, procurement, implementation, monitoring and evaluation. However, while the institutional architecture is established, there is considerable variance in how effectively it is working, and systems for coordination, planning, and budgeting are not uniformly in place across different levels of government.

Under the Promoting Sustainable Water, Sanitation and Hygiene Services at Scale (SusWASH) project, WaterAid Ethiopia has developed and is applying a systems strengthening approach in Gololcha woreda (district), in Bale zone of Oromia region. It

aims to bring about transformative changes to improve peoples' WASH access, where progress towards sustained universal coverage lags far behind other woredas in the country.

As part of this approach, WaterAid Ethiopia, with facilitation support from IRC-WASH, supported district government to assess the full costs of delivering and sustaining universal water supply access in Gololcha woreda by 2030. The life-cycle costing assessment (LCCA) aims to raise government's and other service providers' awareness and understanding of the full costs involved in providing sustained water supply services and to ensure these are included in yearly budgets. These costs were estimated by woreda local government staff. The information generated was used to develop realistic planning and budgeting strategies to reach and sustain universal access to water in the woreda by 2030.

This case study introduces WaterAid Ethiopia's participatory approach to a water supply LCCA in Gololcha woreda. It presents key outcomes and reflections by the WaterAid team on the LCCA process.



Assessing life-cycle costs for water supply services

A water supply life-cycle costing assessment provides the information required for an accurate woreda or province-level plan that not only focuses on the achievement of universal water supply access but also estimates costs for its ongoing sustainability, considering different costs components. An LCCA provides the basis for credible budget advocacy, setting out the evidence needed to understand the true cost of sustaining services. It helps to identify the gaps in current funding and provides evidence for the need of additional funding to cover these gaps. Performing an LCCA also helps decision-makers to understand the cost implications of different technology and management models of water supply service provision, so informed decisions about investments can be made.1

Steps required to undertake a water supply

1. Compilation of a registry of water supply assets and service levels in the woreda.

The water supply asset registry (or inventory) involves collating information on technology type, GPS location, age and functional status of water supply infrastructure components including pumps, tap stands, and improved wells. Information on the water service level provided is also required including data on water quantity, reliability, quality, and continuity of supply. This information is the basis for service providers and local and national government to plan, prioritise and budget for water supply investment and generate a timeline for repairs and/or replacements of certain infrastructure components.

Questions that an asset registry aims to answer:

What assets do I own/manage? Where are they? Which ones are working? What is the useful/remaining life of each component? What is the value of the assets I manage? Who do they serve?

2. Prioritisation process for repair and replacement of water supply assets

Depending on the targets and requirements of service providers, authorities and regulators, using service level and asset registry data (including remaining life of infrastructure components), criteria are developed to support the prioritisation of repairs and replacements.

3. Grouping and assessing the costs of delivering and sustaining water supply services.

As life-cycle costing estimations aim to estimate costs for achieving sustainability, they include not only the initial costs of installing new infrastructure, but also all the different shortterm and long-term costs of maintaining and ensuring quality of these services.

These **costs occur at different levels** – at service provider level (for regular operation and maintenance of the supply), at woreda level (for support to major maintenance or replacements. and other technical support through water officer/technician salaries, local area mechanic wages, recurrent technical training of woreda staff or area mechanics), and at woreda and national-levels for planning and budgeting processes.

Costs are typically grouped into six components: capital expenditure (CapEx), operation and minor maintenance expenditure (OpEx), capital maintenance expenditure (CapManEx), expenditure on direct support (ExpDS), expenditure on indirect support (ExpIDS) and cost of capital (CoC). See Figure 1 for more information about each of the components.²

Unit costs used in the calculations are estimated from average unit costs relevant for the specific context and technology type.

Figure 1: The six life-cycle cost components

Capital expenditure (CapEx)

The initial costs for putting new services in place: hardware, such as pumps, toilets and handwashing facilities, and one-off software, such as training, consultations and awareness-raising activities.

Operations and minor maintenance expenditure (OpEx)

Regular maintenance and operation costs critical to keeping services running, e.g. spare parts, mechanic wages and repeat hygiene promotion. Without these, good hygiene practices can slip and services can quickly become non-functional or fail completely.

Capital maintenance expenditure (CapManEx)

Occasional large maintenance costs for the renewal, repair or rehabilitation of a system. These costs are less frequent but must be planned to ensure service failure is prevented and current service levels are maintained.

Expenditure on direct support

Expenditure on indirect support (ExIDS)

Pre-intervention and post-intervention support costs not directly related to implementation, e.g. training operators or committees and community sensitisation. These costs are almost forgotten in rural WASH estimates.

Cost of capital (CoC)

The cost of borrowing money or investing in the service instead of another opportunity. The profit that it is not reinvested back into the service is also included. This has a direct impact on the financial sustainability of the service.

4. Assessment of available funding and identification of funding gap

A full assessment of the funding available is necessary – this includes a review of current water supply tariffs by different service providers (price communities are paying to access water supply), taxes - government transfers for water supply from in-country taxes and transfers - international fund transfers (for example through iNGO funding) - within the district.

Overall funding available is then compared to the LCC estimate to identify the **funding gap** for universal and sustained water supply services.

Estimating life cycle costs for water supply services in **Gololcha Woreda**

1) Asset registry and service levels baseline of water supply services in Gololcha

WaterAid trained government officials from the water, education and finance offices from Gololcha woreda on water supply service level key indicators (including SDG 6.1 JMP core questions) and key information for the asset registry (e.g. the type, status and age of water supply infrastructure components). To facilitate and accelerate data collection and analysis, an online free mobile platform called mWater* was used and a map was produced with the location of the available water schemes, as showed in Figure 1.

All Kebeles (the lowest government level in Ethiopia, comprising, on average, 1,000 households) were assessed, while asset registry was focused on the Kebeles with existing improved water schemes in place (See Annex 1 for an extract summary of Gololcha's asset registry).

Water supply type available in Gololcha is mostly reliant on groundwater, with some presence of small distribution networks covering different areas of the woreda. Water supply is managed by WASHCOs in rural kebeles, with communities' participation in the committees. The small town of Jara has a utility which is responsible for the management of the water supply network.

Households surveys revealed that 46% of population is using unimproved or surface water while only 33% has access to basic water supply service (Figure 3).

^{*}https://www.mwater.co/

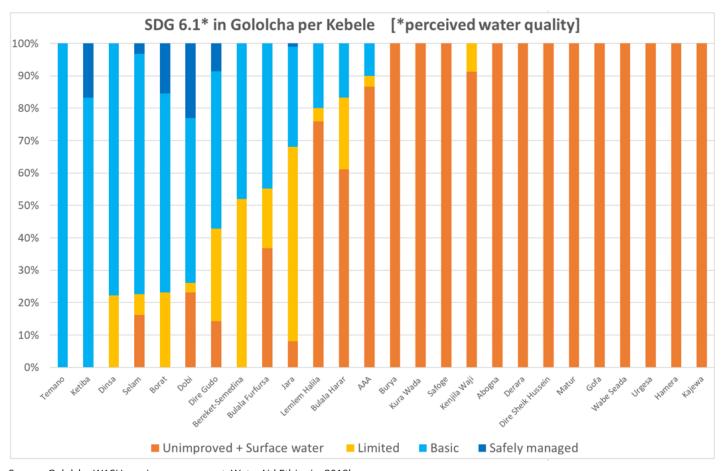
Gololcha Water Supply - Source type & Functionalty of tap stands Legend Tap stands Abandoned Functional / Nromal Partially functional / Not functioning as designed Deep well (borehole) Protected spring

Figure 2: Map of Gololcha water scheme sources and tap stands

Source: Woreda Gololcha WASH service level assessment, WaterAid Ethiopia, 2018b

Findings from the asset registry and water supply service levels revealed that when functionality estimates are combined with the percentage population having access to an improved water service, the value drastically reduces from 48% access to an improved infrastructure to only 19% of households with access to an improved and functional water source in the woreda (Figure 4). When considering all the OneWASH Growth and Transformation Plan (GTP) II standards including access time and minimum quantity, the value reduced to 7% (Figure 5). This highlights the requirements for both new infrastructure investment (CAPEX) to increase coverage of improved water supply but also the need for replacements and rehabilitation to improve nonfunctional infrastructure (CapManEx).

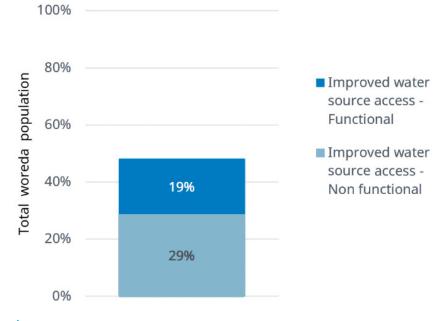
Figure 3: SDG 6.1 Safe Water Access in Gololcha Woreda presented by Kebele (2018)



Source: Gololcha WASH services assessment, WaterAid Ethiopia, 2018b.

Figure 4: Percentage of Gololcha population with access to an improved and functional water supply (2018)

Households accessing an improved source and functionality rate



Source: Gololcha Woreda WASH services assessment, WaterAid Ethiopia, 2018b

60% 48% 50% 40% 36% 30% 20% 14% 10% 7% 0% Improved source within 30 Improved and functional Improved and functional Improved source minutes from household source within 30 minutes source within 30 minutes from household from household providing minimum of 25L/c/day

Figure 5: water access with progressive consideration of GTP II standards in Gololcha Woreda (2018)

Source: Woreda Gololcha WASH services assessment, WaterAid Ethiopia, 2018b

2) Participatory Life Cycle Costing workshop with government and utility staff

WaterAid Ethiopia, in partnership with IRC-WASH, held a 5-day workshop to introduce LCC concepts and perform some initial costing estimates for Woreda Gololcha. Those in attendance included: woreda water officers, finance officers, utility staff from the town (Jara) and the head of the water department from the woreda level and the zone level. The major aims of the workshop were to: i) validate the water supply service levels and asset registry data collected in the woreda; ii) apply a methodology for assessing all life-cycle costing components and financing rural water supply by estimating the cost of universal and sustained water access in the woreda; and iii) review current woreda budgets for water supply.

An initial step included a detailed technical review and validation of the findings from the asset registry and baseline of service levels. This was carried out by the woreda water office engineers. Based on this information, the Woreda and zone-level staff discussed progress towards their previously-set short-term and long-term targets for water service delivery. At woreda

level some key challenges to the achievement of water service delivery targets were identified as:

- a lack of available contractors particularly in remote areas to construct new water supply infrastructure
- capacity building training to WASHCOs for management and operation of water supply was not yet completed

Regarding the utilities, the achieved increase in customers was much lower than planned (only 23% of planned 150 new customers for the year) – this is most likely due to the limited customer satisfaction associated with the intermittent and unreliable water supply. Reasons leading to the low services were identified as low water pressure, a lack of budget to buy diesel required to operate pumps and an overall utility budget deficit impeding the construction of new facilities, improvements of existing services and the hiring of new personnel.

3) Setting water supply service level targets and priorities within the woreda

Following the data validation process, woreda water service level targets and priorities were confirmed and agreed with the woreda and zonal level staff to inform the costing process. In alignment with the National Strategy and Ethiopia GTP II standards, the water target for the woreda was agreed as universal basic access (including GTP II standards for water quality) by 2030. For the utility, improvements to continuity of supply was identified as the key targets of reference for costing estimates. Some key priorities for water access were also identified at different levels (Table 1)

Table 1: Participants' priorities for improving water service delivery

Woreda	Utility				
 Improve functionality of existing schemes. Increase coverage. Improve availability of spares and fitting materials. Capacity building of existing WASH committees. 	 5. Increase water supply to provide water to the unserved. 6. Improve water quality. 7. Rehabilitation of water schemes. 8. Increase access to sanitation and hygiene. 				

Source: Adapted LCC workshop report, 2018

4) Costing water supply targets

To identify the overall costs for reaching and sustaining universal basic water access in the woreda, an initial prioritisation assessment was done of those kebeles where water infrastructure was at risk by analysing: 1) the age of each component of the infrastructure compared to the theoretical life; and 2) the current status of water infrastructure based on functionality and service levels provided (with a focus on reliability of utility managed infrastructure and functionality of rural community-managed infrastructure). The water infrastructure components were then labelled as low, medium or high risk to prioritise replacement needs and estimate the CapManEx

required. For the Kebeles with no improved water supply, Capital Investment (CapEX) was estimated based on the key infrastructure components required. To re-distribute the overall CapEx across financial years up to 2030 a prioritisation plan was developed based on the following criteria: 1) the size of the population and their social status; 2) the accessibility for construction of a water scheme; and 3) the severity of the current water supply.

Direct Support costs were estimated by reviewing key support functions played by the woreda and zone level – such as monitoring, technical support, planning etc. Detailed estimates of the time spent in different activities in the current and optimal scenario were completed. Based on this and the woreda, zone staff daily rate, a total estimate of direct support cost was derived (figure 6).

Figure 6: Projection of life cycle costing for water supply in Gololcha 2018-303

Gololcha Water Supply Life cycle costing

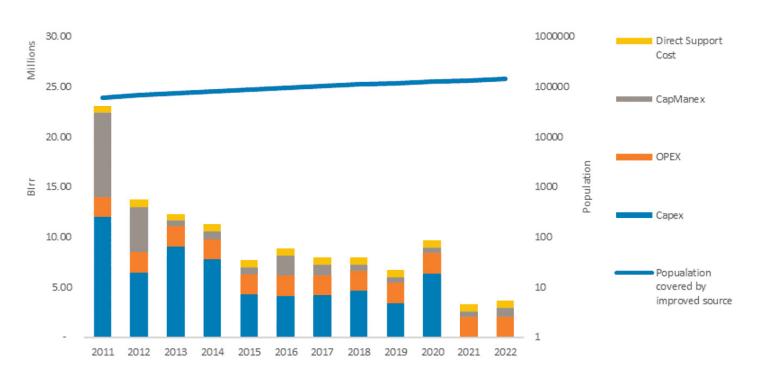
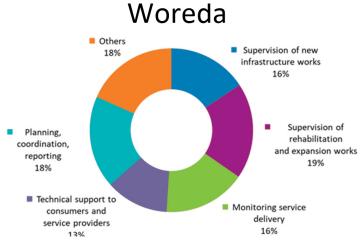


Figure 7: Breakdown of Water Supply Direct Support activities of the Woreda staff (current scenario)



5) Drafting woreda-level annual costing and maintenance plans

An annual costing plan was then developed for each kebele taking into account: 1) the capital investment costs (CapEx) for the new water infrastructure needed to reach unserved communities; 2) the costs of the

water asset components requiring repair or replacement; 3) the CapManEx costs for replacement of existing infrastructure and predicting future replacements based on future age of infrastructure, 4) the operational costs including regular use of consumable (fuel, chlorine and costs for minor maintenance (e.g. tap replacement etc); 5) the direct support costs including the time spent by woreda and zonallevel staff on water service-related activities, the salaries of those involved in water service activities, the time spent on regularly monitoring and maintenance of water services, and all the related transport and expenses.

A future annual maintenance plan for the new water schemes was developed by the Woreda staff (see Annex 2 for a summary of Gololcha's maintenance plan).

The annual costs per kebele were consolidated and an estimation of all water supply costs was calculated to understand the full cost required to reach universal and sustained basic water access by 2030 (Figure 6).

³Years are in accordance with Ethiopian calendar.

4) Reviewing funding available and identifying financial gaps

Having calculated the total cost of reaching and sustaining universal basic water access, woreda and zone staff identified the current financing available by estimating user tariffs, taxes and transfers according to available 2017/2018 data.

For tax contributions, participants were asked to identify and disaggregate their past budgets and expenditures on water supply service delivery (Table 2), accounting for the different cost components. In Gololcha, direct support has been budgeted by the woreda and the zone. The community (through the WASH committees) is responsible for minor maintenance, whereas the zone is in charge of supporting major maintenance for the kebele and utility. The woreda has no directly available budget for maintenance and replacements. This needs to be requested from the zone level who has access to spare parts and funding and whose water engineers can check the schemes. Communities provide in-cash contributions for minor maintenance, and may also contribute in kind to utilities, for example by transporting materials. The region supports with spare parts and does some construction work for major maintenance.

Figure 8: Zone, woreda and utility water budgets from national government allocations (2018/19 Ethiopian Financial Year)



Table 2: Zone, woreda and utility water budgets from national government allocation to Gololcha Woreda (taxes) (2018/19 Ethiopian **Financial Year**)

	Zone [for 1 Woreda]	Utility (Jara)	Woreda	
СарЕх	954,602	0	1,443,050	
Minor maintenance	2,757	238,150	0	
Rehabilitation	8,271	15,000	0	
Direct support	614,799	476,540	1,912,107	
Total ETB	1,580,430	729,690	3,55,157	
Total USD	55,315	25,539	117,430	

Source: Adapted from IRC-WASH, 2018

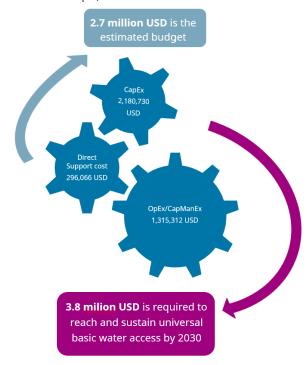
Based on the last 2018/2019 data the yearly total budget for water supply in Gololcha was 5.6 millions Birr (198k \$). An important limitation identified was the current restrictions on moving budget between cost lines which limits the capacity to address the high CapManEx funding gaps. In case of underspend by the zone, as happened in 2018 due to lack of contractors able to implement new infrastructure, these funds had to be returned to the region.

Tariffs contribution was identified as extremely limited - as utilities are not fully recovering customers' bills, while the rural Kebeles do not have regular tariff collection. Tariffs were therefore identified as an area for increasing funding within the Woreda. Transfers contributing to water supply funding included mostly the planned WaterAid financial support, while other overseas transfers were not yet forecast.

Based on the above, and a number of assumptions, such as government budgets from taxes would remain equal to the current values, when comparing the total costs up to 2030 with the overall estimated funding available to the woreda up until 2030 a finance gap of 1.1 million USD\$ in Gololcha water supply funding was identified.4

Figure 9: Life-cycle costing for reaching and sustaining overall basic universal water access in Gololcha up to 2030 compared to total funding

Source: WaterAid Ethiopia, 2018d



Outcomes

Government officials, with support from WaterAid Ethiopia, used the LCC estimates to inform the OneWASH woreda plan. WaterAid Ethiopia is continuing to support the woreda to develop processes for regularly updating the asset registry with updates on water infrastructure status, data on new infrastructure installed and on major maintenance performed, as well as to regularly review and update the costed district plan.

Since working together to understand the local government budget available for water and the current financial gap to achieve and sustain basic water access by 2030, WaterAid Ethiopia is supporting the local government to advocate for increased and more flexible (between new infrastructure and maintenance budget lines) budget allocation for water at regional and national levels. WaterAid Ethiopia is also supporting the district government to identify other sources of financing to reduce the size of the financial gap: strategies include supporting the utility to improve water supply service delivery in Jara Town, thereby increasing the collection of user tariffs to cover costs of OpEx.

Key reflections

Reflections and learnings from LCC process in Gololcha

- 1. Strong government and service provider ownership of the overall LCC process is required, with external agencies such as WaterAid playing only a facilitating role. The collection of data and the implementation, monitoring and follow-up of the costing assessment should be the exclusive responsibility of government officials and other service providers to ensure long-term institutionalization. A key process to support this is asset registry data validation to ensure that all levels of government have the same level of understanding and agree on the current situation in the district.
- 2. A deep insight and detailed data of water supply coverage, status of water assets, the service levels they provide and the roles and responsibilities of the people and institutions involved in water supply at the district level is crucial to inform an LCCA: what is the status of the water supply assets in the district?. how much funding is available for their maintenance or replacement?, and who is responsible for their operation, maintenance and budget? It is important to have clarity on the data required to inform LCC.

Key observations for water supply management in Gololcha and region

- 1. Different understanding of OneWASH water supply targets definition was noticed within different levels government staff. For example definition of coverage between woreda and the zone. This confusion around definitions hinders quality of data being reported by woreda upwards and therefore budget allocations.
- 2. Flexibility of budget line allocations at zone and woreda level (particularly from capital investment budgets to maintenance budgets) was identified as a key blockage for responding to the funding needs for minor and major maintenance and replacements of assets.
- 3. Conducting an LCC workshop created an opportunity for open and transparent discussions around budget availability and allocations between government at different

- levels. This had not occurred before in the woreda so was considered a useful approach to introduce discussion on budgeting issues.
- 4. Performing an LCC estimate allows to develop different scenarios and compare impact of long-term costing of services based on different technology choices, management models and tariffs setting. For Gololcha, a gradual increase in tariffs was modelled to inform potential financial sourcing increase.
- 5. Issues of affordability of services by parts of the population were identified and further investigation is underway to inform tariffs and universality of access to services including options for cross-subsidies within the district
- 6. While the detailed costing plan the main output of the LCC – does not result in an immediate increase in water supply budgets and improvements to service levels, it was identified as a powerful tool to advocate for additional funding and to demonstrate planning and budgeting capacity while also informing more effective budget allocations.

Additionally, the development and regular use of a WASH management information system (MIS) at the woreda will contribute to the harmonisation of WASH data and become the key reference to inform future planning and budgeting.

Finally, raising awareness and advocating for the financing of the District One WASH Plan at zonal and regional levels is needed - it is at these levels that budget allocation decisions are made.

WaterAid will continue to work across multiple government levels to influence and share lessons learned for the Gololcha LCCA. Key influencing asks are around: the need for increased budget flexibility in order to move funding to different budget lines and the need for all cost components to be calculated and budgeted for in woreda One WASH strategic plans. By addressing these budgeting and financing barriers, WaterAid aims to accelerate progress towards universal and sustained water supply access in Gololcha Woreda and in other areas of Ethiopia.

Ways forward

WaterAid Ethiopia will continue to strengthen the development of a regularly updated asset registry with the woreda to inform short- and long-term planning and to move from a 'fix on failure' culture to one of 'managing maintenance'. If OpEx is well calculated, preventive maintenance can be carried out, reducing the cost of CapManEx in the long-run. With the right data, advance budgeting can be done to cover the predictable CapManEx costs associated with the known end-of-life of some of the infrastructure. This 'managing maintenance' culture can help reduce CapManEx linked to unplanned breakdowns while maintaining high service level provision. WaterAid Ethiopia will continue supporting Gololcha woreda planning and budgeting processes to achieve the zonal targets while also ensuring the most disadvantaged populations are reached.

WaterAid will continue supporting local government to establish the processes, tools and personnel required for the regular updating of the woreda asset registry and the related fully costed budgets at local government level.

Conclusion

The LCCA process has been useful for the Gololcha government to get accurate estimates of all the different cost components required to reach and sustain universal basic water supply access. The methodology used can be replicated for future planning and to provide detailed evidence of budgets required. The integration of this approach into regular planning and budgeting has the potential to lead to increased financial sustainability which, together with clear roles and responsibilities, and improved technical support, can ensure universal and sustainable water supply services.



References

IRC-WASH (2018). IRC costing and financing training for WaterAid Ethiopia. Training report.

WaterAid Ethiopia (2018a). Introduction and step-by-step guide to conducting a life-cycle costing assessment for water supply services. Guideline note.

Water asset registry & WASH service levels and hygiene behaviours.

WaterAid Ethiopia (2018c). Sanitation costing

WaterAid Ethiopia (2018d). LCCA Summary

Acknowledgements

Written by María Florencia Rieiro with support from Tsequereda Abraham and Gashaw Kebede.

Annex 1: Gololcha woreda asset inventory (summary)

Remarks					4 faucets are damaged						
Тар	;	rear	01/01/92	01/01/94	01/01/94	01/01/94	01/01/94	01/01/94	01/01/94		
	State		Non functional	Functional Non functional		Partially functional	Non functional	Functional	Abandoned		
	Š		2	w		2	- 3 C				
	Year		Normal 01/01/92	Normal 01/01/94			Normal 01/01/94				
Reservoir	į	state	Normal		Normal				Normal		
		Capacity	75		75	50					
Pipeline	Year		01/01/92		01/01/94	01/01/94					
Pipe	State		Normal		Normal	Poor					
	ator	Year	01/01/88 Normal 01/01/92		01/01/94	0.1/0.1/94		01/01/94			
	Generator	State	Non functional		Normal						
Source	du	Year	01/01/92								
	Pumb	State	Non functional		рооб		роод				
		ıype	Deep well (borehole)		Deep well (borehole)						
	Overall functionality		Non functional	Functional			Functional Partially functional				
Scheme			Araremo	Bulala Furfursa			Dobi Bika				

Annex 2: Gololcha woreda maintenance plan (summary)

Total cost USD		21,085		21,085		2,828	4,027	11,902	22,639			
Total cost ETB		601,036		601,036		80,624	114,799	339,272	645,341			
Unit cost	281,036	320,000	281,036	320,000		80,624	114,799	339,272	254,224	50,845	339,272	1,000
Other	40,000		40,000									
Per diem	7,000		7,000			20,000	30,000	80,000	40,000		80,000	
Transport	18,000		18,000			11,000	096'6	19,200	200	40	19,200	
Staff costs	9:039		6,036		,	4,024	6,439	12,072	4,024	805	12,072	
Material costs	210,000	320,000	210,000	320,000	1	45,600	68,400	228,000	210,000	50,000	228,000	1,000
Type of repair	Replacement	Replacement	Replacement	Replacement	Replacement	Maintenance	Maintenance	Maintenance	Replacement	Maintenance	Maintenance	Maintenance
Component	Pump	Generator	Pump	Generator	Switchboard	Distribution line	Distribution line		Pump	Generator	Distribution	Switchboard
Year planned for	6	2019		2019		2021	2021	2021	2023			
Kebele / Scheme	Bulala	Furfusa		Dobi Bika		Bulala Furfusa	Dobi Bika	Selam	Ketiba			
Priority	High	High	High	High	High	Medium	Medium	Medium	Low	Low	Low	Low



Who we are

Our vision is a world where everyone, everywhere has clean water, sanitation and hygiene.

WaterAid has been operating in Ethiopia for 36 years as the only WASH focused NGO. During our previous strategy (2011-2016) we have reached over 1.4 million people across Ethiopia with access to water supply, sanitation and hygiene, this was based on our focus on access and coverage in line with Government's push for universal access. However, in order to sustain access rates, more focus on systems building is needed. Therefore, our current strategy presents a shift to support capacity and capability a lower level of government (Woreda/District level). Our programming package consists of service delivery, systems strengthening and influencing to deliver sustainable water, sanitation and hygiene services to reach and sustain universal access. Amongst our key value adds in supporting the strengthening of the WASH sector in Ethiopia is to draw lessons from our innovative WASH programs in Oromia, Amhara, Tigray and SNNPR and inform the design and improvement of sustainable sector wide systems and advocate for planning for sustainability.

This think piece captures and presents our knowledge from our programming approach and innovation from our 'Sustainable Wash Services' project in Gololcha, Oromia, financed by the H&M foundation and regional government of Oromia. It highly our learning drawn from effectively working with important actors at the woreda level to enable strengthening of WASH systems for sustainable universal access. This was enabled by flexible and courageous financing of a project that was framed to deliver long term change and not just focused on immediate results. This document is intended to shape and advance current practice to employing the 'systems thinking' by WASH actors in Ethiopia and beyond. I hope you will use and share this document and we look forward to having partnerships to further scale our experience in systems strengthening so our vision for universal access to WASH in Ethiopia is a reality in our lifetime."



Bethlehem Mengistu, Country Director, WaterAid Ethiopia

This case study examines WaterAid Ethiopia's approach to the development of a life-cycle costing assessment (LCCA) in Gololcha woreda. It also presents key outcomes and reflections by the WaterAid Ethiopia team on the LCCA process.

