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WOBA ARI WOREDA WASH SDG MASTER PLAN

December 2021





Southern Nations, Nationalities
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Executive summary

This woreda WASH master plan contains the vision and strategies of Woba Ari Woreda. This master plan aims for universal access to safe and sustainable water supply and sanitation and hygiene services for the entire population of Woba Ari Woreda by 2030. The master plan provides a strategy towards achieving the set goals and visions for WASH in the woreda.

The Government of Ethiopia has carried out several initiatives to improve WASH services in the MDG and SDG periods. Ethiopia has had two 5-year Growth and Transformation Plans (GTP): GTP I was completed in 2015 and GTP II ended in 2020. These 5-year plans were developed at the national level with regions using them as a base to develop their annual and 5-year plans. GTP II did not include sanitation, hygiene, and institutional targets. However, there is a health sector development plan (HSDP) developed by Ministry of Health and Total Sanitation to End Open Defecation and Urination in Ethiopia (TSEDU) campaign developed jointly by the Ministry of Water, Irrigation, and Energy and the Ministry of Health in 2019 to eliminate open defecation and declare all woredas in Ethiopia ODF by the end of 2024. The campaign follows SDG targets and indicators. As the GTP II period concluded in 2020, Ethiopia is now moving to a ten-year comprehensive plan called the Prosperity Plan. For WASH, the Prosperity Plan envisions at least 100% basic service by 2030 based on SDG indicators.

With lack of comprehensive plan for WASH, there is a huge need for a long-term, woreda wide WASH master plan. The master plan is framed within the targets of the United Nations' Sustainable Development Goal 6 (SDG 6). The master plan is a full package containing a detailed plan for water, sanitation and hygiene, and institutional WASH components. The plan has also allowed the woredas to understand the status of their woreda and strategize on the means to achieve the SDGs.

The 10-year costed plan contains costs beyond building new infrastructure. It also includes mechanisms and costs for operation and maintenance, replacement, and direct support (monitoring, routine technical assistance, and training/retraining of service providers). The plan considers a variety of WASH service delivery models. The plan also helps to understand the costing gaps and henceforth uses them as evidence for resource mobilization.

The WASH SDG plan for Woba Ari Woreda has been developed by the planning team drawn from district WASH sector offices of water, education, health, finance, administration, and women and children affairs. To support the planning process, IRC WASH developed Microsoft Excel-based planning tools. The aim of the tools is to support the handling quantitative data systematically and support the strategic planning and costing process of going from the current service to the desired, as per the agreed vision. The planning process involved a series of workshops with coaching and evaluation activities in between these workshops led by IRC WASH.

The WASH SDG master plan is prepared and owned by the woreda WASH sector offices with technical support from IRC WASH through USAID Sustainable WASH Systems Learning Partnership (SWS).

Woba Ari Woreda is located in South Omo Zone of the Southern Nations, Nationalities and People's Regional State (SNNPR), Ethiopia. Administratively, the woreda is divided into ten (10) rural and one (1) urban kebeles. The total population of the woreda is 66,466 (63,620 rural and 2,846 urban). The annual population growth rate of the woreda is 2.9%.

Water supply technologies in Woba Ari include spring on spot, hand dug wells, medium gravity spring with distribution, and large gravity spring with distribution. In total, there are 19 schemes in the woreda, of which 5 are non-functional (non-functionality rate 33%). The SDG plan estimates that currently 0% of the woreda population has access to safely managed service and 14% to basic service and 86% of the woreda population has no access to water.



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The most common sanitation facilities in Ethiopia are unimproved latrines, improved latrines, either with emptying or sewerage (off-site treatment) or in situ treatment. These facilities can be private (serving a single household), shared (serving 2-10 households), or communal (serving more than 10 households). Currently, in Woba Ari, there are private and shared improved household pit latrines in-situ and private and shared unimproved latrines. The total number of improved latrines is 5,909, and the number of unimproved latrines amounts to 5,904 with 8% of the population practicing open defecation. In addition, 5,926 households have handwashing facilities of which 3,800 have handwashing facility with soap and water. There are 159 villages in Woba Ari Woreda, of which 101 (64%) are ODF, while 70 (44%) have received CLTSH triggering.

There are currently 23 schools and 12 health care facilities in the woreda. 19 of the schools in the woreda have limited hygiene facilities, 21 schools do not have sanitation facilities, and 21 schools do not have water facilities. None of the health care facilities have basic water service. 11 of the health care facilities have no sanitation facilities. All health care facilities have limited handwashing facilities. 11 of the health care facilities have no waste management facilities and all of the health care facilities have no environmental cleaning practices in place.

The woreda have set the vision of achieving 100% coverage with at least basic WASH service in rural and urban areas. This is a big step from the current 14% of people served with at least basic services (100% in urban areas and 10% in rural areas) for water, 47% of people served with basic sanitation services, and 31% of people served with hygiene services.

The woreda has also set the vision of achieving 100% coverage with basic WASH services for all schools and health care facilities by 2030. This is a big step up from the current water, sanitation, and hygiene service of 9%, 9%, and 0% respectively in the schools and water, sanitation, hygiene, waste management, and environmental cleaning service of 8%, 0%, 0%, 8%, and 0% respectively, in health care facilities.

Going from 0% to 8% safely managed service and 100% at least basic waster service by 2030 requires that additional 82,031 people have access to at least basic service and 7,864 people have access to safely managed service. Strategic directions are rehabilitation of broken-down schemes, construction of new schemes including self-supply and household connections, and sustaining these services through establishment, legalization, and strengthening of WASHCOs/ WUAs and federations, tariff setting and revenue collection, and strengthening spare part supply and preventive maintenance services.

Going from 47% sanitation services to 100% at least basic services by 2030 requires that additional 5,571 households construct their own latrines, 5,474 households that currently have unimproved latrines upgrade to improved latrines, and 2,025 latrines are upgraded from improved basic to improved safely managed latrines. Additionally, 13,077 households will have hand washing facility with soap and water. Since the construction of sanitation and hygiene facilities is the responsibility of households, the main strategy is successful and sustainable implementation of the CLTSH, and sanitation marketing approach will require strengthening of the Woreda Health Office capacity and performance.

Strategies to achieve 100% at least basic WASH service in institutions are construction of adequate WASH facilities, and ensuring these facilities are sustained in all of the facilities. Strategies include construction adequate WASH facilities for new institutions, ensuring adequate WASH facilities in existing institutions, and ensuring sustainable WASH services through WASH promotion.

Estimated required costs to achieve the vision by 2030 are costs for Capital Expenditure (CapEx), Capital Maintenance Expenditure (CapManEx), Operation and minor Maintenance expenditure (OpEx), and Direct Support Costs (ExpDS). The total cost required for achieving 100% at least basic water service by 2030 is ETB 469 million (12 million USD). The total cost required for achieving 100% at least basic sanitation and hygiene service



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by 2030 is ETB 1.5 billion (37.5 million USD). The total cost required for achieving 100% at least basic WASH service in schools by 2030 is ETB 43.79 million (1.12 million USD). The total cost required for achieving 100% at least basic WASH service in health care facilities by 2030 is ETB 27.54 million (697 thousand million USD).



Endorsement of Woba Ari Woreda WASH SDG Masterplan

This woreda WASH SDG masterplan is signed by Woreda WASH Team (Woreda Water, Mines and Energy Office, Woreda Health Office, Woreda Education Office, Woreda Finance Office, and Woreda Administration) to support implementation of water supply, sanitation and hygiene services for the community and institutions.

The woreda WASH SDG masterplan was developed with the support from IRC WASH through USAID Sustainable WASH Systems Learning Partnership project.

The following Offices have endorsed the attached Woreda WASH SDG masterplan with signatures and official stamps.

Signatures:

For Woreda Water, Mines and Energy Office _____

For Woreda Health Office _____

For Woreda Education Office _____

For Woreda Finance Office _____

For Woreda Administration _____

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Abbreviations

BCC	Behaviour Change Communication
CapEx	Capital Expenditure
CapManEx	Capital Maintenance Expenditure
CLTSH	Community Led Total Sanitation and Hygiene
CWA	Consolidated WASH Account
DGIS	Directorate-General for International Cooperation
ETB	Ethiopian Birr
ExpDS	Direct Support Costs
GTP	Growth and Transformation Plans
HEP	Health Extension Program
HHs	Households
HSDP	Health Sector Development Plan
IEC	Information Education Communication
JMP	Joint Monitoring Program of the World Health Organization and UNICEF
MDG	Millennium Development Goal
MHM	Menstrual Hygiene Management
MoWIE	Ministry of Water, Irrigation, and Energy
NGOs	Non-Governmental Organizations
ODF	Open Defecation Free
OpEx	Operation and Minor Maintenance Expenditure
SDGs	Sustainable Development Goals
SLTSH	School Led Total Sanitation and Hygiene
SNNPR	Southern Nations, Nationalities and Peoples' Region
TSEDU	Total Sanitation to End Open Defecation and Urination in Ethiopia
WASH	Water supply, Sanitation, and Hygiene
WASHCOs	WASH committees
WHO	World Health Organization
WWMEO	Woreda Water, Mines and Energy Office



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1 Introduction

After the Millennium Development Goal (MDG) period which delivered improvements in access to WASH services, the Sustainable Development Goals (SDGs) were developed with the aim of ensuring sustainable water, sanitation, and hygiene services for all. Ethiopia achieved the water component of the MDGs by halving the proportion of the population without access to improved water services but did not achieve halving the proportion of the population without access to improved sanitation. The drinking water target of the SDGs (SDG 6.1) is, “By 2030, achieve universal and equitable access to safe and affordable drinking water for all”. The sanitation and hygiene target (SDG 6.2) is, “By 2030, achieve access to adequate and equitable sanitation and hygiene for all and end open defecation, paying special attention to the needs of women and girls and those in vulnerable situations”.

The Government of Ethiopia has carried out several initiatives to improve WASH services in the MDG and SDG periods. Ethiopia has had two 5-year Growth and Transformation Plans (GTP): GTP I was completed in 2015 and GTP II ended in 2020. Achieving these plans required huge resources and interventions. These 5-year plans were developed at the national level with regions using them as a base to develop their annual and 5-year plans. GTP II, which covered the period from 2016 to 2020, had targets to provide 85% of the rural population and 75% of the urban population with improved water supply access and decrease non-functionality rates to 7%. These national plans did not include Operational Expenditure (OpEx), Capital Maintenance Expenditure (CapManEx), and Direct Support Costs (ExpDS) that can ensure sustainability. Plans for water supply, sanitation, and hygiene were not addressed as integrated packages in these plans.

GTP II did not include sanitation, hygiene, and institutional targets. However, there is a health sector development plan (HSDP) developed by Ministry of Health. The plan includes an environmental hygiene section with a vision of increasing the proportion of households utilizing latrines from 20% to 82%, increasing the proportion of open defecation free (ODF) villages from 15% to 80%, and increasing the proportion of households using household water treatment and safe storage practices from 7% to 77%. It is stated that hygiene and environmental health will be improved through the application of the Health Extension Program (HEP) packages designed to decrease communicable diseases caused by poor hygiene and sanitation practices.

There is also the Total Sanitation to End Open Defecation and Urination in Ethiopia (TSEDU) campaign developed jointly by the Ministry of Water, Irrigation, and Energy and the Ministry of Health in 2019. The main objective of the campaign is to eliminate open defecation and declare all woredas in Ethiopia ODF by the end of 2024. The campaign follows SDG targets and indicators.

As the GTP II period concluded in 2020, Ethiopia is now moving to a ten-year comprehensive plan called the Prosperity Plan. For WASH, the Prosperity Plan envisions at least 100% basic service by 2030 based on SDG indicators. Though not yet approved, the Prosperity Plan is also not a full package for WASH as it does not include sanitation and hygiene or try to meet full coverage.

Because the Prosperity Plan is not comprehensive for WASH, there is a huge need for a long-term, woreda wide WASH master plan. The main purpose of the woreda WASH SDG master plan is to address both access and sustainability. It is a full package containing a detailed plan for water, sanitation, and hygiene, as well as institutional WASH components. The plan helps to understand the woreda’s WASH status and strategize how to achieve the SDGs.

The 10-year costed plan contains costs beyond building new infrastructure. It also includes mechanisms and costs for operation and maintenance, replacement, and direct support (monitoring, routine technical assistance, and training/retraining of service providers). The plan considers a variety of WASH service delivery models such as the commonly practiced self-supply, community managed, and utility managed service delivery models for water supply and community-led total sanitation and hygiene (CLTSH), school-led total sanitation and hygiene



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(SLTSH), and sanitation marketing approaches for sanitation and hygiene. The plan also helps to understand the costing gaps and henceforth uses them as evidence for resource mobilization.

The WASH SDG master plan is prepared and owned by the woreda WASH sector offices with technical support from IRC WASH through USAID Sustainable WASH Systems Learning Partnership (SWS).

1.1 The development of the woreda WASH SDG master plan

The WASH SDG plan for Baka Dawla Ari Woreda has been developed by the planning team drawn from district WASH sector offices of water, education, health, finance, administration, and women and children affairs.

To support the planning process, IRC WASH developed Microsoft Excel-based planning tools. The aim of the tools is to support the handling quantitative data systematically and support the strategic planning and costing process of going from the current service to the desired, as per the agreed vision. The tool supports planning and costing infrastructure needed over longer periods to provide universal services for all and planning for all necessary activities to sustain these services including operation and minor maintenance, capital maintenance, and direct support to service providers. An overview of the sheets included in the water, sanitation and hygiene, and institutional WASH planning tools can be found in Annex 1.

The planning process involved a series of workshops with coaching and evaluation activities in between these workshops led by IRC WASH.

At the 6th learning alliance meeting, learning alliance members discussed the importance of developing woreda WASH masterplan for the 3 woredas (South Ari, Baka Dawla Ari and Woba Ari). The learning alliance recognised that developing the plan is a good opportunity to have a long-term plan for the woreda to mobilize funds and work with development partners to achieve SDG 6 targets. The SDG planning teams were established in each of the three woredas comprising six to nine learning members from six woreda sector offices (water, education, health, finance, administration, and women and children).

Workshop 1 (October 2019): In this workshop, the planning team had an introductory training on the water planning tool. The main objective of the workshop was to discuss the basic concepts of SDGs, to provide training on the SDG planning tool and data requirements and to discuss and develop a timeline for the planning process. The discussion was supported with the demonstration of a similar activity from another program in the Amhara Region and the Excel planning tool. The planning team took the responsibility of collecting information and filling in the excel planning tool until the next workshop. The woreda planning team reviewed and decided on a vision, collected data for woreda information, and selected a new infrastructure option as a draft after the first workshop was conducted. The team identified new infrastructure required to achieve full coverage/access to all by 2030, considering and providing attention to planning assumptions like the number of users per scheme, the life span of water schemes, and cost of water schemes. The woreda agreed to achieve at least 100% basic access to water by 2030.

The woredas progressed well collecting data and populating the planning tool. The planning team sent a draft to IRC WASH and comments were provided to discuss on the second workshop.

Workshop 2 (February 2020): The main objective of this workshop was to present a draft SDG plan (data collection, data entry, setting assumptions) for discussion to get feedback on each planning step, discuss the challenges of the planning process and find solutions, evaluate the timeline for the planning process and develop a schedule to finalize the plan, and introduce the sanitation and hygiene planning tool. The team took additional responsibility and set timeline for further development of the plans.

Workshop 3 (June 2020): The main objective of this workshop was to verify all data from the different Excel sheets filled with the support of SWS local facilitator and further edit the planning tool, to discuss on the master



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plan narrative report outline and begin filling all the necessary information in bullet points under each outline title to begin the development of the narrative report.

Workshop 4 (January 2021): This two-day validation and launching workshop involved WASH stakeholders beyond WASH sector offices from the woreda, zone, and region including implementing NGOs, Small and Micro Enterprises (SMEs), and WUAs. The planning team from water, health and education presented their respective office plans. Participants suggested the approval of the plan by the management of each WASH sector office and the Woreda Cabinet Council after incorporating the comments to be used as a WASH roadmap for the woreda.

1.2 Outline of the document

Following the general introduction of the woreda SDG master planning in Woba Ari in this section, Section 2 introduces the main SDG service level definitions and national targets. Section 3 provides information on the woreda context. Section 4 presents an analysis of the current WASH situation in Woba Ari related to water services, sanitation and hygiene services, and WASH in health care facilities and schools. The vision of the WASH situation in the woreda by 2030 is presented in Section 5. Section 6 presents strategies for going from the current situation, as presented in Section 4, to the vision, as presented in Section 5. An analysis of the lifecycle costs for achieving the Woba Ari WASH vision is presented in Section 7. Finally, a plan for monitoring and evaluating the plan's implementation is presented in Section 8.

2 National targets and SDG definitions

The Ethiopian government has given high priority to WASH in its development agenda. The Ministry of Water, Irrigation, and Energy (MoWIE) leads the government's effort in water supply development in the country while the Ministry of Health leads with respect to sanitation and WASH in health care facilities. The Ministry of Education leads with respect to WASH in school. This section introduces the global and national WASH service ladders and targets. As stated above, the Prosperity Plan envisions at least 100% basic service by 2030 based on SDG indicators. Henceforth, for this master plan, the SDG targets and JMP ladder are used for planning.

2.1 Water service definitions and targets

Water supply development priorities feature in the country's main development instrument, the GTPs. The JMP of the World Health Organization (WHO) and UNICEF is responsible for monitoring progress made towards meeting SDG 6. For water service, the JMP differentiates between safely managed services, basic services, limited water services, unimproved services, and use of surface water.

Table 1: JMP indicators for water service

Ladder	JMP Indicator
Safely managed	Drinking water from an improved water source which is located on premises, available when needed, and free from faecal and priority chemical contamination
Basic	Drinking water from an improved source, provided collection time is not more than 30 minutes for a roundtrip including queuing
Limited	Drinking water from an improved source for which collection time exceeds 30 minutes for a roundtrip including queuing
Unimproved	Drinking water from an unprotected dug well or unprotected spring
Surface water	Drinking water directly from a river, dam, lake, pond, stream, canal, or irrigation canal

As part of the two GTPs, the Ethiopian government has set norms and standards related to water service levels, differentiating between rural and urban water services. The goal of GTP II in rural areas was to ensure universal access in line with GTP I norms while reaching 85% of people with the GTP II standards. This includes supplying more water within a shorter distance and improving water quality (Table 2). Safely managed service is not included in GTP I or GTP II.

Table 2: Water service level standards according to GTP I and GTP II compiled from GTP documents.

Category	Population	Water quantity		Accessibility			Water quality		Reliability	
		GTP I	GTP II	GTP I	GTP II	JMP (basic service)	GTP I and GTP II	JMP (basic service)	GTP II	JMP (basic service)
Rural	< 2,000	15 lpcd	25 lpcd	Within 1500m	Within 1000m	No more than 30 minutes round trip including queuing	In line with water quality standards of WHO	No faecal or priority chemical contamination	N/A	Available when needed.
Category 5 town	2,000 - 20,000	20 lpcd	40 lpcd	Within 500 m	Within 250 m				Uninterrupted for at least 16 hours per day	
Category 4 town	20,000 - 50,000		50 lpcd							
Category 3 town	50,001 - 100,000		60 lpcd							
Category 2 town	100,001 - 1 million		80 lpcd							
Category 1 town	> 1 million		100 lpcd							

2.2 Sanitation and Hygiene definitions and targets

The JMP defines sanitation and hygiene services with respect to whether people access safely managed, improved with on site or off-site safe treatment; basic, improved private facilities; limited, shared with multiple households; unimproved sanitation services, and practices open defecation.

Up to GTP II, there have not been specific targets for sanitation and hygiene in Ethiopia. GTP II states that there is a need to decrease communicable diseases caused by poor hygiene and sanitation practices. This will be done through the application of the Health Extension Program. Table 3 and Table 4 show JMP indicators and Ethiopia's national indicators.

Table 3: National and JMP indicators for sanitation

Ladder	JMP Indicator	National Sanitation Indicators	Technology Type
Safely managed	Use of improved facilities* that are not shared with other HHs and where excreta are safely disposed in situ or transported and treated offsite.	<i>Improved Sanitation Facility:</i> A sanitation system that is safe and cleanable, sealed (with an appropriate lid and vent pipe) to discourage exposure to flies, other animals, and the environment, as well as promote dignity and privacy. Safe disposal** of human waste protects the quality of drinking water, enhances the safety of women and children, and promotes dignity and self-esteem.	Flush/pour-flush to a piped sewer system or septic tank, pit latrines, ventilated improved pit latrines, composting toilet, pit latrine with slab.
Basic	Use of improved facilities that are not shared with other HHs.	<i>Onsite Sanitation:</i> A sanitation system where human waste is contained either in a pit, chamber, vault, or septic tank.	Pit latrines, ventilated improved pit latrines, pit latrine with slab.
Limited	Use of improved facilities that are shared between two or more HHs.	<i>Communal latrines:</i> Communal latrines are located in or near housing areas and are used by the community - people living in nearby houses who have no household latrines.	Flush/pour-flush to a piped sewer system or septic tank, pit latrines, ventilated improved pit latrines, composting toilet, pit latrine with slab.
Unimproved	Use of pit latrines with no slab or platform, hanging latrines, bucket latrines, traditional pit latrine.	<i>Basic/unimproved sanitation facility:</i> A fixed point of defecation system that does not fully satisfy any of the indicators for improved sanitation facility.	
Open Defecation	On fields, forests, bushes, water bodies, or other open space.	<i>Open defecation</i>	

*Improved facility: Include flush/pour-flush, septic tank, or pit latrines, ventilated improved pit latrines, composting toilets, or pit latrines with slabs.

**Safe disposal: In the national context, if the facility is onsite, not emptied but not contaminating the environment, then it is considered safely managed.

Table 4: JMP indicators for hygiene

Ladder	Indicator	Technology type
Basic	Hand washing facility on premises + soap + water	Fixed or mobile, sink with tap water, buckets with taps, tippy taps, designated jugs, or basins. Bar soap, liquid soap, powder detergent, soapy water (excluding ash, soil, sand, etc.).
Limited	Hand washing facility on premises	Fixed or mobile, sink with tap water, buckets with taps, tippy taps, designated jugs, or basins.
No facility	No facilities	



2.3 Institutional WASH definitions and targets

National and JMP definitions for institutional WASH show significant differences. While the main components are similar, there is no standard for the service ladder at the national level. Table 5, Table 6 and Table 7 show sanitation and hygiene JMP indicators for schools and health care facilities separately.

Table 5: JMP water ladder for institutional WASH

	Schools	Health Care Facilities
Basic	Drinking water from an improved source is available at the school.	Water is available from an improved source on the premises.
Limited	An improved source (piped, protected well or spring, rainwater, packaged or delivered water).	An improved water source within 500m of the premises.
No service	No water source or unimproved source (unprotected well or spring, surface water).	Water is taken from unprotected dug well or spring, or surface water sources. Or an improved source that is more than 500m from the facility. Or the facility has no water source.

Table 6: JMP sanitation ladder for institutional WASH

	Schools	Health Care Facilities
Basic	Improved sanitation facilities at the school that are single-sex and usable (available, functional, and private), at least one sex-separated toilet with menstrual hygiene facilities, and at least one toilet accessible for people with limited mobility.	Improved sanitation facilities with at least one toilet dedicated for staff, at least one sex-separated toilet with menstrual hygiene facilities, and at least one toilet accessible for people with limited mobility.
Limited	Improved sanitation facilities at the school that are either not single-sex or not usable	At least one improved sanitation facility, but not all requirements for basic service are met.
No service	Unimproved sanitation facilities or no sanitation facilities at the school.	Toilet facilities are unimproved (pit latrines without a slab or platform, hanging latrines and bucket latrines), or there are no toilets or latrines at the facility.

Table 7: JMP hygiene ladder for institutional WASH

	Schools	Health Care Facilities
Basic	Handwashing facilities with water and soap available.	Functional hand hygiene facilities with water and soap and/or alcohol-based hand rub available at point of care or within 5 meters of the toilet.
Limited	Handwashing facilities with water but no soap available.	Functional hygiene facilities available at either point of care or toilets but not both.
No service	No handwashing facilities or no water available.	No functional hand hygiene facilities are available at either point of care or toilets.

The national definition for health centres and health posts and schools is presented in Table 8 and Table 9, respectively.

Table 8: National health facility WASH indicators

Health Institution	Water	Sanitation	Hygiene
Hospital and health centre	Running water in inpatient rooms, outpatient examination rooms, shower facility for delivery rooms.	Toilet access for inpatients.	Hand washing facility chemicals with soap or other disinfectants in all rooms.
		Toilet facility with hand washing for outpatients, considering persons with disabilities and full-term pregnant women.	
Health posts	Running water in delivery rooms and examination rooms.	Male/female separated VIP or improved latrine considering persons with disabilities and full-term pregnant women.	Hand washing facility with soap in the compound.
			Hand washing facility with soap in delivery and



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			examination room and outpatient department.
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Table 9: National school WASH indicators

Parameters	Standard
Minimum package	Full package of WASH services (latrine, hand washing, menstrual hygiene management (MHM) facilities, urinals, drinking water fountains/taps).
Placement	Latrine for male and female students must be separated and placed in opposite directions.
	Latrine to student ratio should be one latrine stance for 50 girls and one for 75 boys.
Facility features	Latrines should provide adequate and separate access (male/female) to persons with disabilities both in accessing the latrine (ramp) and support mechanisms (handrail) for sitting or standing.
	Each latrine block should have a handwashing facility with soap or ash as a cleaning agent.
	Separate room for MHM (washing, changing, and waste disposal).
	Adequate and safe water supply should be available in schools. There should be a drinking fountain or tap. At least one tap for 100 students.
Latrine stance ratios	One stance/cubicle per 50 girls and one toilet for female staff in rural schools.
	One stand/cubicle and one urinal per 75 boys and one toilet for male staffs in rural schools.
	In urban schools, the number of seats to student ratio should be one stance for every 25 girls and one toilet for female staff and one stance plus one urinal for every 50 boys and one toilet for male staff.
	At least one toilet cubicle, each should be accessible for staff, boys, and girls with disabilities. This includes level or ramped access, a wide door, and sufficient space inside for a wheelchair user or helper to manoeuvre, and the provision of support structures such as a handrail and toilet seat.



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3 Woreda context

Woba Ari Woreda is located in the South Omo Zone of SNNPR, Ethiopia. It is one of the newly formed woredas in the zone. The capital of the woreda is Boyka.

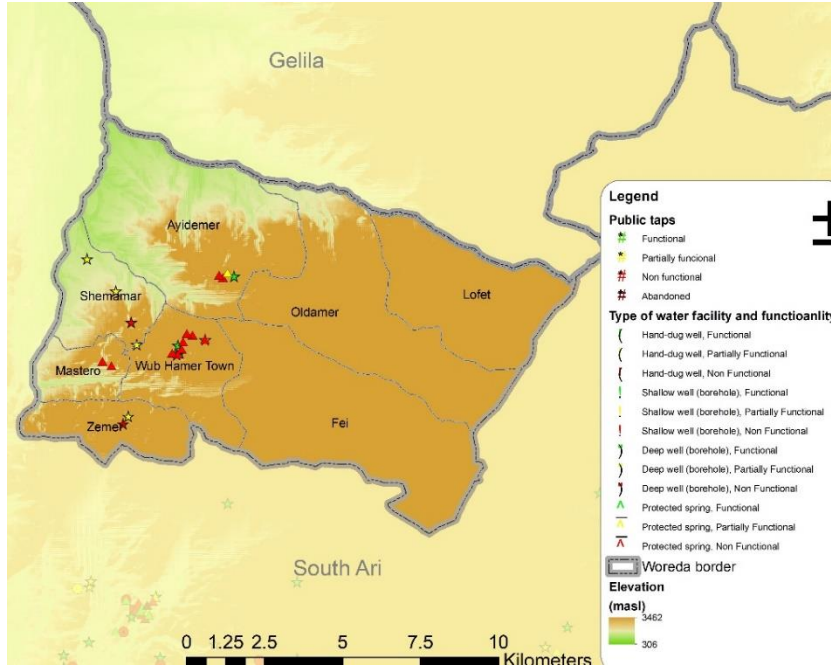


Figure 1: Map of Woba Ari Woreda

Administratively, the woreda is divided into ten (10) rural and one (1) urban kebeles. All the woreda sector offices use population data from the Woreda Finance Office. According to this data, the total population of the woreda is 66,466 (63,620 rural and 2,846 urban). The annual population growth rate of the woreda is 2.9%. There are 12,323 households (HH) in the woreda, with an average household size of 5 people.



4 Situational analysis

4.1 Water services

4.1.1 Water infrastructure

Water supply technologies in Woba Ari include hand dug wells, spring on spot, and spring with distribution (medium and large gravity). In total, there are 19 schemes in the woreda, of which 5 are non-functional (non-functionality rate 33%) (Table 10).

Table 10: Type of schemes and functionality in Woba Ari woreda

Service delivery model	Type of scheme	Number of beneficiaries	Functional	Non-functional	Total
Community managed point sources	Spring on spot	250	6	3	9
	Hand dug well	200	1		1
Community-managed spring with distribution scheme	Medium gravity spring with distribution	2,000	2	2	4
	Large gravity Spring with distribution	3,500			
			1		1
Total			10	5	15

4.1.2 Water service level

Based on the currently functional schemes in each kebele, the number of people that these schemes can serve with safely managed and basic water services, and the number of people per kebele, currently none of the woreda population has access to (potentially¹) safely managed service and 14% have access to basic service².

Figure 2 shows an overview of the service level for Woba Ari Woreda (urban, rural, and total). Overall, 86% of the woreda population has no access to water. Four rural kebeles (Zemer, Oldamer, Fae, and Yedamer) are not served with water services at all (100% unserved).

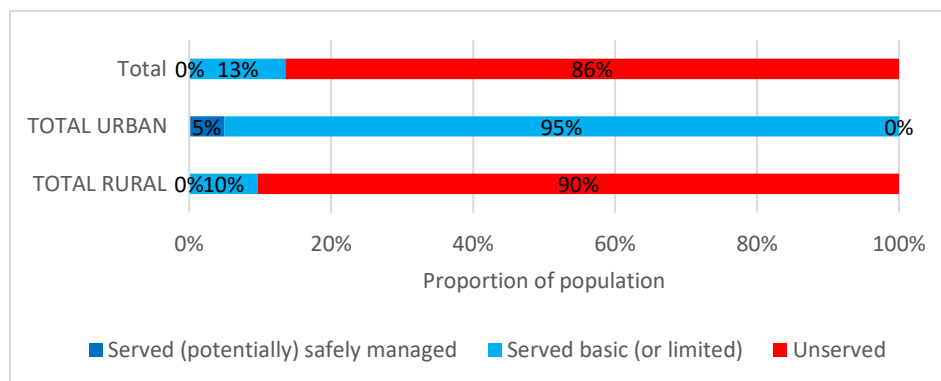


Figure 2: Woba Ari service level, water

¹ Improved water services on premises. As water quality (“free from contamination”) and service reliability (“available when needed”) are not included, this refers to potentially safely managed water services.

² Whether or not water services are within 30-minute round trip is not considered. Therefore, this refers to improved water services, which are potentially basic, but can also be limited.



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4.1.3 Water service delivery models

The main service delivery model in Woba Ari are community-managed schemes. There are also very limited number of self-supply schemes in rural kebeles of the woreda. The community managed schemes are managed by WASH committees (WASHCOs) and caretakers (which are recruited by WASHCOs). When legalized, WASHCOs are called Water User Associations (WUAs). WASHCOs/WUAs consist of five members, including at least 50% women, a chair, a secretary, a cashier, an auditor, and a member. They are elected from the user community and work voluntarily. WASHCOs/WUAs are responsible for tariff collection and day-to-day operation and maintenance of schemes. There are also federations at kebele level that manage and support the WUAs. The federations are established to streamline communication between WUAs and the woreda.

The government (Woreda Water, Mines and Energy Office, Zone Water, Mines and Energy Development Department, and Regional Water, Mines and Energy Bureau) are service authorities that support service providers (WUAs/WASHCOs and federations). The service authorities are responsible for new water scheme construction, major maintenance, and rehabilitation. This responsibility is shared between the woreda, zone, and region, as necessary.

4.1.4 Systems strength at woreda level

WASHCOs are responsible for the operation and maintenance of schemes with direct support from the woreda. WASHCOs are established at the woreda, and there is legalization process based on SNNP regional guidelines. Once established and legalized, WASHCOs are called water user associations (WUAs). It is difficult to hold WASHCO/WUA members accountable as they are working on a volunteer basis. WASHCOs/WUAs do not report to the woreda office unless staff call for information or visit the schemes. They also do not meet regularly to evaluate their performance.

There is a clear institutional setup for rural water services provision in Woba Ari, with defined roles and responsibilities for the WUAs (the service providers), the Woba Ari Woreda Water, Mines and Energy Office (the service authority) and support by the Zone Department and Regional Bureau.

SNNPR, where Woba Ari is located, has been a national leader in establishing the necessary proclamation and implementing the legalization policy for community-based water service providers. Although WUAs should be in place as water service providers for all water schemes, in reality, most of the water schemes do not have WUAs, according to the baseline assessment. Training of WUAs is insufficient with most receiving only limited training on scheme management and the regional guideline when the associations were first established. All WUAs in the woreda have by-laws describing their roles and responsibilities.

The WUAs do not receive continuous support and follow-up from the woreda water office. The woreda provides support on a demand basis and cannot provide regular support due to budget limitations. The biggest challenge, in addition to budget limitations, is transportation.

Woba Ari woreda water office focuses on new construction and, where needed, undertaking ad-hoc rehabilitation of infrastructure, rather than maintaining infrastructure and planning for asset rehabilitation and renewal which accounts for low rates of functionality.

Ownership of assets is not clear, and no systematic asset management system is in place in the woreda. The 2017 asset inventory conducted by the woreda with USAID Sustainable WASH Systems Learning Partnership and the USAID Lowland WASH Activity covered all water sources and water points, including their age and current physical state. However, before this intervention, no recent or detailed asset inventory data was available.



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4.1.5 Water service challenges and gaps

The woreda has challenges and gaps in to provide sustainable water supply service which include:

- Low coverage
- Frequent breakdowns
- Low level of safely managed water services
- Challenges with availability of water resources
- Challenges with presence, capacity, and performance of service providers and authorities

4.1.5.1 *Low coverage (at least basic) levels*

Currently, none of the kebeles have enough schemes to provide at least basic water service for all. Together, the water schemes have the potential to serve about 8,996 of 66,466 population of the woreda (14%). Four rural kebeles (Zemer, Oldamer, Fae, and Yedamer) have no access to water (100% unserved).

Reasons for low basic coverage include:

- Limited **number of schemes** in the woreda. There are currently 15 schemes in the woreda which is very low compared to the number of population that needs to be served.
- **Budget allocation** for new construction and repairs of existing broken downs schemes is low. New construction or rehabilitation is not included in annual planning which contributes to **high non-functionality** rate.
- Lack of **road access** to reach all areas. This also hinders woreda from providing maintenance services in time.
- Lack of **community awareness** to construct their own schemes like self-supply.
- Rural population living in **dispersed settlement** which makes supplying water difficult. Location of schemes is more than 30 minutes away.

4.1.5.2 *Frequent breakdown of schemes.*

At the time of the baseline, five rural water schemes (3 spring on spot, and 2 medium spring with distribution) were not functioning. Reasons behind the breakdown of schemes include:

- **Low construction quality:** There is lack of follow up before and after construction. The woreda is responsible to check construction quality of all schemes, including those implemented by NGOs. There is limited study before construction of schemes. Distribution systems are not properly buried which causes frequent breakdown of schemes.
- **Lack of resources for maintenance:** The tariffs collected do not cover running costs. Since communities cannot afford these costs, scheme downtime is high. In addition, budget allocation by the woreda for maintenance is not sufficient.
- **Lack of spare parts:** Spare parts are not available in the local market but can be found in Addis Ababa. Apart from the woreda and caretakers, there are not spare parts and maintenance service providers.
- There are no **trained or skilled caretakers** in the water schemes, which makes regular preventive maintenance difficult.
- Lack of **sense of ownership** and awareness both from users and service authorities on new and existing schemes.
- **Natural disasters** like landslides and flooding cause frequent scheme breakdown. In addition, spring development, which is the main water source in the woreda is susceptible to natural disaster.
- Most of the water schemes have been working for long time without proper care.
- There is no **proper documentation** of water schemes.



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4.1.5.3 *Low level of safely managed water services*

Only an estimated 1% of the woreda population (0% in rural and 5% in urban) have access to potentially safely managed services (improved water services on premises, regardless of quality and availability issues). The number of household connections to piped schemes is limited. Reasons behind the low number of household connections include:

- Most households in the woreda **lack the capacity to pay** for on premises connections. There is also lack of awareness on the benefits of household connections.
- There is **shortage of budget** for line expansion at woreda level.
- **Water sources** of most of the schemes do not have enough water for household connection.
- Because of **scattered settlement**, the location of households is not convenient for household connection.
- Reduction in the yield of water sources because of **deforestation**. There is also weak soil conservation activity.
- The community uses **traditional flood irrigation** which consumes a lot of water.

Water quality data is hardly available. There is high groundwater contamination because of **natural disasters**. The woreda water office is responsible for checking the water quality of all schemes every quarter. However, there is **no regular chlorination** or water quality checks for the schemes. This is because of a **shortage of skilled staff** and lack of availability of water quality test kits and laboratory equipment.

4.1.5.4 *Challenges with presence, capacity, and performance of service providers and service authorities*

The woreda is established very recently (2019). The woreda was established at the end of GTP II. The woreda plans to link the WASH SDG masterplan to the new 10-year government plan which is currently available at zonal level. The woreda is under re-organization and budget allocation for rural water at the woreda has been limited so far. The financial gap between needs and current allocation to Direct Support Costs, mainly covering salary costs, is also high. Findings from direct support cost estimation in 2019 show that the current estimated expenditure on direct support is ETB 206,510 (5,229 USD), which is about 13% of the required (desired) amount, ETB 1,534,654 (38,854 USD).

According to the data collected in the planning tool of the required (desired) staff, there are 5 staff members in the woreda water office dedicated to supporting water service provision. There are not enough technicians (electromechanical) for timely connection and maintenance of schemes.

There is a shortage of logistics, budget, and expenditure for the woreda water office to undertake its functions. WASHCOs/WUAs do not have the financial or technical capacity to do maintenance. They mostly concentrate on managing day-to-day operations. Payment for operation and maintenance is expected to come from the community, though this mostly happens on an ad-hoc basis. Some of the challenges include:

- Woreda does not have the required **maintenance technicians**.
- Lack of integrated **monitoring and supervision**; there is no good information sharing system.
- Poor sector's **budget allocation** system. Plan for building schemes is less than the institutional capacity. Thinking of water supply as an NGO's activity. Since there is support from NGOs, the woreda assumes support from NGOs is enough and the budget allocated is limited.
- No regular/continuous **capacity building** activities.
- **High turnover** of decision makers, office heads.
- **Lack of proper collaboration** between relevant actors.



4.2 Sanitation and Hygiene services

4.2.1 Sanitation and hygiene infrastructure

The most common sanitation facilities in Ethiopia are unimproved latrines, improved latrines, either with emptying or sewerage (off-site treatment) or in situ treatment. These facilities can be private (serving a single household), shared (serving 2-10 households), or communal (serving more than 10 households).

In Woba Ari, there are private and shared improved household pit latrines with in-situ treatment and private and shared unimproved latrines. The total number of improved latrines is 5,909, and the number of unimproved latrines is 5,904, with 8% of the population practicing open defecation. There are no facilities for the collection and treatment of faecal sludge. None of the improved latrines are expected to have proper in-situ treatment, with proper lining, not contaminating groundwater, and covering up and construction of a new latrine when full. In addition, 5,926 households have handwashing facilities of which 3,800 have handwashing facility with soap and water. There are 159 villages in Woba Ari Woreda, of which 101 (64%) are ODF, while 70 (44%) have received CLTSH triggering.

4.2.2 Sanitation and hygiene service level

Figure 3 shows sanitation and hygiene service levels in Woba Ari. However, it should be noted that there is a lack of a proper definition of the sanitation and hygiene ladder as there are different definitions of improved and unimproved sanitation facilities and open defecation. This makes it difficult to track which villages have sanitation services and which are ODF.

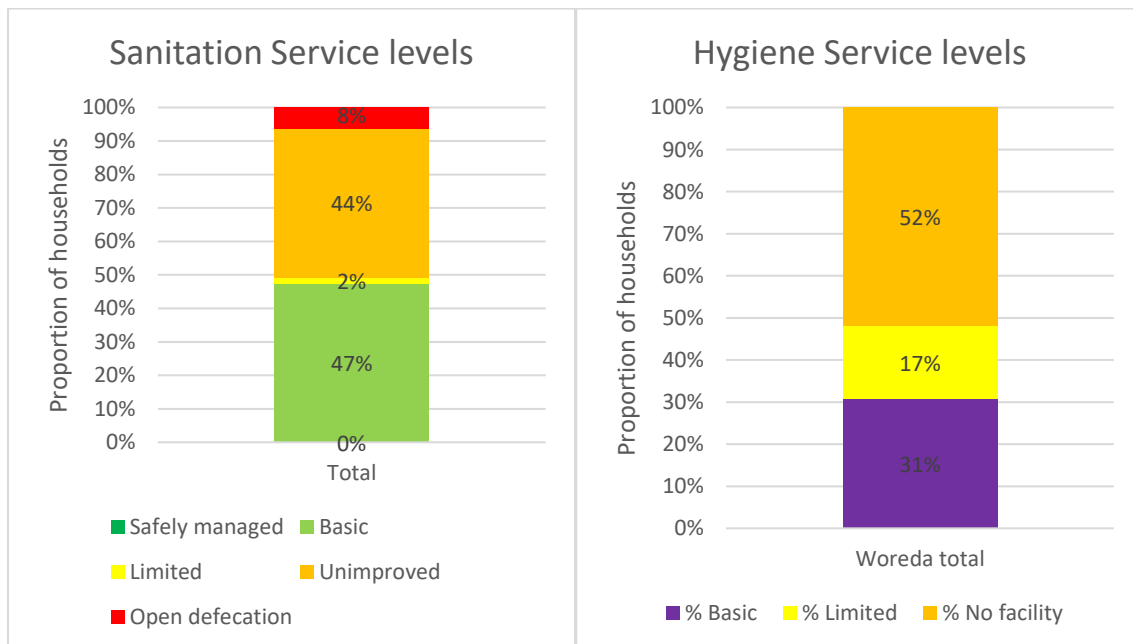


Figure 3: Sanitation and hygiene service levels Woba Ari

4.2.3 Sanitation and hygiene approaches

The main approaches towards improving sanitation and hygiene in Woba Ari Woreda are Community-led Total Sanitation and Hygiene (CLTSH), School-led Total Sanitation and Hygiene (SLTSH), sanitation marketing, and the production of Information Education Communication (IEC) and Behaviour Change Communication (BCC) materials.

The CLTSH approach is an approach carried out by health extension workers who guide communities and individuals through a process of 'self-realization' to end the practice of open defecation and bring about



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improved hygiene behaviours. This is achieved through households constructing basic sanitation facilities. The process of CLTSH includes orientation and training on the CLTSH approach, triggering villages, post triggering follow-up, verification, certification, recognition, and post ODF follow-up. The Health Extension Program, which is the centre for sanitation and hygiene approaches like CLTSH, was introduced in Ethiopia in 2006 with the goal of ending open defecation through household-built toilets and better handwashing practices. Better sanitation and hygiene practices are important in terms of controlling communicable water and hygiene-related diseases.

The SLTSH approach is a process for facilitating school communities, i.e., students, teachers, and parents, to understand their current sanitation and hygiene practices and the related consequences in the community to improve their sanitation and hygiene status and behaviour. The process of SLTSH includes establishing school WASH clubs along with sanitation and hygiene training for children, teachers, and health workers. It also includes activities in school media.

The sanitation marketing approach is promoting the availability of sanitation materials and allowing private suppliers to produce these materials for the created demand through CLTSH. The products and their promotion are based on the needs of the households in the community. The sanitation marketing approach includes the establishment of sanitation marketing centres, sanitation marketing awareness, demand creation for the community, sanitation marketing training for enterprises, sanitation marketing campaigns, and sanitation marketing implementation follow-up.

The IEC and BCC production is a strategy to spread awareness through printed or broadcasted media such as posters, flyers, leaflets, brochures, booklets, radio broadcasts, or TV spots.

4.2.4 Sanitation and hygiene service challenges and gaps

In the sanitation and hygiene context, there are no service providers. Households are responsible for the construction and maintenance of their own latrines. There is no subsidy approach for the construction of sanitation and hygiene facilities. It is assumed that sanitation promotion and marketing will be sufficient to create demand for sanitation and hygiene and households will construct their own toilets. The government is willing to support the enabling environment and demand creation. In addition, the government is responsible for the construction of facilities in public areas, schools, health care facilities, and communal latrines. The challenges and gaps include:

- Challenges with coverage (at least basic) levels
- Challenges with the presence, capacity, and performance of service providers and authorities

8% of the villages have not attained open defecation free status yet and do not have household latrines. In addition, 44% of the population have unimproved household latrines. 52% of the households do not have hand washing facilities.

The Woreda Health Office is the service authority for sanitation and hygiene through approaches described in section 4.2.3. The woreda health office carries out these approaches through health extension workers.

There is a lack of trained workforce for the sanitation marketing approach. Because of budget limitations, it is difficult to train enough sanitation marketing agents or train existing enterprise. Slab prices have increased significantly, and households do not have the capacity to buy what is available on the market. Sanitation and hygiene challenges and gaps include:

- Use of latrine without having hand washing facility is not effective. **Lack of water** is the main problem for hand washing. There is also **no handwashing tradition** as handwashing is linked with cleaning hands after eating.
- ODF needs continuous follow up at community level. However, because **weak post ODF follow up and support**, once declared ODF, most villages fall back to old habits and start open defecation practices.



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- There is **limited awareness** about the need for sanitation and hygiene practices within the community, which makes the promotion of construction and continual use of improved facilities a challenge. Households construct good quality houses but **not improved latrines**. Even though most households have latrines, **utilization is very low**.
- The community lacks the **capacity to construct latrines**. This is because of high construction material cost.
- Most sanitation and hygiene activities happen as a **onetime campaign**, but the campaign activities are not sustainable. There is no continuous awareness creation activity.
- There are **no by-laws** to prevent moving from ODF status back to practicing open defecation.

4.3 Institutional WASH

4.3.1 Institutional WASH infrastructure

There are currently 23 schools and 12 health care facilities (1 health centre and 11 health posts) in the woreda. Table 11 presents an overview of WASH services in schools. 19 of the schools in the woreda have limited hygiene facilities, 21 schools do not have sanitation facilities, and 21 schools do not have water facilities.

Table 11: WASH facilities in schools

Total number of schools	Service	Water	Sanitation	Hygiene
23	Basic	2	2	0
	Limited	0	0	19
	No service	21	21	4

Table 12 presents an overview of WASH services in health care facilities. None of the health care facilities have basic water service. 11 of the health care facilities have no sanitation facilities. All health care facilities have limited handwashing facilities. 11 of the health care facilities have no waste management facilities and all of the health care facilities have no environmental cleaning practices in place.

Table 12: WASH facilities in health care facilities

Total number of health care facilities	Service	Water	Sanitation	Hygiene	Waste management	Environmental cleaning
12	Basic	0	0	0	1	0
	Limited	1	1	12	0	0
	No service	11	11	0	11	12

4.3.2 Institutional WASH service levels

Figure 4 and Figure 5 show WASH service levels in schools and health care facilities. The baseline data shows 9% of the schools and 8% of the health care facilities have water services, 9% of the schools and 0% of the health care facilities have sanitation services and 0% of the schools and health care facilities have hygiene facilities. In addition, 8% of the health care facilities have basic waste management service levels and 0% have environmental cleaning service levels.



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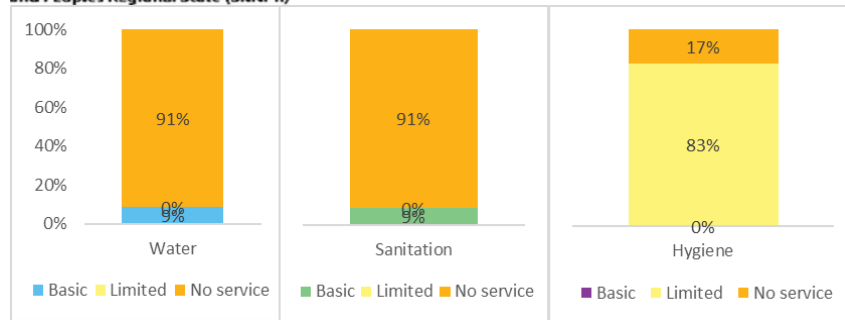


Figure 4: Woba Ari school WASH service levels

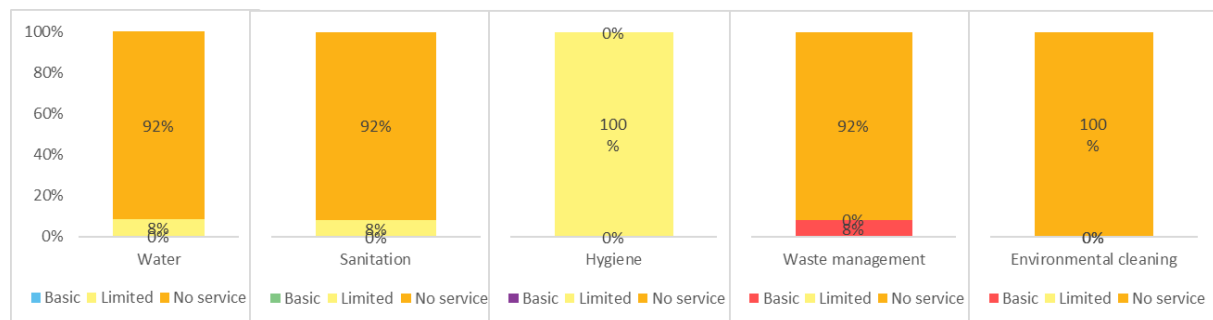


Figure 5: Woba Ari health care facility WASH service levels

4.3.3 Institutional WASH challenges and gaps

According to the baseline data, 91% of the schools and 92% of the health care facilities do not have access to water services. Underlying reasons include:

- The institutions do not have the budget or capacity to construct their own water supply systems.
- Because of the shortage of budget, the Woreda Health Office and Woreda Education Office have not been able to connect schools and health care facilities to existing piped systems even when there are pipelines nearby.
- Health posts in rural areas are far from existing water systems.

According to the baseline data, 91% of the schools and 92% of the health facilities do not have improved sanitation facilities and none of the health care facilities have menstrual hygiene facilities, and none of the health care facility latrines are disability inclusive. Most of the schools have no (17%) or limited (83%) handwashing facilities, and 100% of health care facilities have limited handwashing facilities. Underlying reasons which make it difficult for all schools and health care facilities to have basic sanitation and hygiene facilities include:

- The woreda and community do not have the capacity to cover the construction cost of WASH facilities in all schools.
- There is a lack of clarity on criteria for basic sanitation, with national criteria differing from the JMP criteria.
- Health posts are constructed with community participation, and latrines are constructed from low-quality materials making them susceptible to damage.
- Because of the lack of attention to requirements by health professionals, there is no handwashing facility in most health care facilities, even those that have water supply connections.
- Institutions do not plan for OpEx budget.



5 Woreda Vision and targets

5.1 Woreda vision and targets for water supply

Woba Ari Woreda have set the vision of achieving 100% coverage with at least basic water services in both rural and urban areas by 2030. This is a big step up from the current 14% of people served with at least basic services (100% in urban areas and 10% in rural areas). In addition, the woreda has set the vision of having 8% of the total population served with safely managed water services, with 90% of the urban population accessing safely managed water services and 5% of the rural population accessing safely managed water services (Table 13).

Table 13: Woba Ari Woreda baseline and vision for 2030, Water

	2019 baseline	2030 vision
% Served	14%	100%
% Served - basic	14%	92%
% Served - safely managed	0%	8%
RURAL		
% Served	10%	100%
% Served - basic	10%	95%
% Served - safely managed	0%	5%
URBAN		
% Served	100%	100%
% Served - basic	95%	10%
% Served - safely managed	5%	90%

5.2 Woreda vision and targets sanitation and hygiene

Woba Ari Woreda have set the vision of achieving 100% coverage with basic sanitation and hygiene services by 2030. This is a big step up from the current 41% of people served with basic sanitation services and 48% basic hygiene services. There is no plan for safely managed sanitation service because the woreda has no plan for stimulating the construction of latrines which require off-site treatment nor for implementation of a faecal sludge management facility. There is also no means of tracking if the improved pit latrines have in-situ treatment, i.e., lined, without contamination of the groundwater and covering up of the pit and construction of a new one when full, which are considered safely managed (Table 14).

Table 14: Woba Ari Woreda baseline and vision for 2030, Sanitation and Hygiene

	2019 baseline	2030 vision
Sanitation		
% HH Served	41%	100%
% HH served - safely managed	0%	12%
% HH served - basic	47%	88%
% HH served - limited	2%	0%
% HH Served - unimproved	44%	0%
% HH open defecation	8%	0%
Hygiene		



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%HH - basic	31%	100%
%HH - limited	17%	0%
%HH - no service	52%	0%

5.3 Woreda vision and targets Institutional WASH

Woba Ari Woreda have set the vision of achieving 100% coverage with basic water, sanitation, and hygiene services for all schools by 2030. This is a big step up from the current water, sanitation, and hygiene service of 9%, 9%, and 0% respectively (Table 15).

Table 15: Woba Ari baseline and 2030 vision for school WASH

	2019 (Baseline)	2030 vision
Number of schools	23	29
% Schools with basic water	9%	100%
% Schools with basic sanitation	9%	100%
% Schools with basic hygiene	0%	100%

Woba Ari Woreda have set the vision of achieving 100% coverage with basic water, sanitation, hygiene, waste management and, environmental cleaning services for all health care facilities by 2030. This is a big step up from the current water, sanitation, hygiene, waste management, and environmental cleaning service of 0%, 0%, 0%, 8%, and 0% respectively (Table 16).

Table 16: Woba Ari baseline and 2030 vision for Health care facility WASH

	2019 (Baseline)	2030 vision
Number of Health care facilities	12	15
% Health care facility with basic water	8%	100%
% Health care facility with basic sanitation	0%	100%
% Health care facility with basic hygiene	0%	100%
% Health care facility with basic waste management	8%	100%
% Health care facility with environmental cleaning	0%	100%



6 Strategies

This section presents the strategies for going from the current situation, as presented in section 4, to the vision, as presented in section 5. Section 6.1 presents the strategies for water services, 6.2 for sanitation and hygiene, and 6.3 for institutional WASH.

6.1 Water services

Table 14 shows the actual population served (2019), the required population to be served by 2030 as per the vision. In 2019, there were an estimated 8,996 people (14%) served by existing functional water schemes. Going from this current situation to the vision of provision of sustainable services to all by 2030 and 8% access to safely managed services require:

- Ensuring that an additional 82,031 people have access to at least basic services by 2030.
- Ensuring an additional 7,864 people have access to safely managed water services by 2030.
- Ensuring sustainability of water services.

Table 17: Projected population and population unserved

	2019 baseline	2030 vision	Additional number of people
Total population	66,466	91,027	24,561
People served	8,996 (14%)	91,027 (100%)	82,031
People served - basic	8,996 (14%)	83,162 (92%)	74,260
People served - safely managed	0 (0%)	7,864 (8%)	7,864

6.1.1 Strategies for increasing number of people with access to improved water services

Strategies for ensuring that 100% of the population will have access to at least basic water services in 2030 include rehabilitation of broken-down schemes, and construction of new schemes. Together the proposed strategies are expected to ensure 91,072 people will be served with at least basic water services by 2030.

6.1.1.1 Rehabilitation of broken-down water facilities in the woreda

At the time of the baseline, 3 spring on spot, 2 medium gravity spring with distribution were not functional. The plan is to have these facilities rehabilitated in the first three years (2020-2022) of implementation of the Woba Ari Woreda SDG Masterplan. Annual rehabilitation plan for broken-down schemes can be found in Annex 2.

To ensure this, the proposed actions include:

- Properly identify levels of functionality and expected lifetime of schemes. Properly categorize non-functionality of schemes to simple and complex to fix and estimate the costs of repair.
- Identify spare parts needed for the rehabilitation of non-functional schemes.
- Prioritize the rehabilitation of non-functional schemes that are serving a higher number of users.
- Allocate appropriate budget for rehabilitation and assign maintenance technicians. Conduct maintenance training as needed.
- Supporting WUAs to do maintenance by themselves by providing additional training.

6.1.1.2 Construction of new schemes

A mix of self-supply options and community-managed point sources, such as springs on-spot and hand-dug wells, and community-managed piped schemes (springs and deep wells) is planned to be implemented (Table 18). Annual plan for construction of new schemes can be found in Annex 3. In addition, sources that have potential serving more people than they currently are serving will have expansion work on their distribution systems.



Table 18: Number of water schemes to be constructed

Service delivery model	Type of scheme	Planned additional new schemes
Self-supply	Rope pump	74
Community managed point sources	Spring on spot	11
	Hand dug well	1
	Deep well	1
Community-managed spring with distribution scheme	Medium gravity spring with distribution	11
	Motorized Spring with distribution	2
	Large gravity Spring with distribution	10

To ensure the implementation of new schemes, there is a need for:

- Giving focus to spring development as the woreda is a highland and has the potential. In addition, cost of spring development is cheap.
- Identifying water scheme types specific to different kebeles. Allocating budget as per identified water sources and their potential.
- Strengthening WASHCOs/ WUAs capacity so that they can build their own schemes.
- Conducting regular community needs assessment and documentation.
- Identifying appropriate water scheme types specific to different kebeles based on the available source. Allocating budget as per identified water sources and their potential.
- While constructing multi-village schemes community at source and along the line should be served. Otherwise, the service cannot be sustainable because of conflict.
- Shifting from the woreda office being fully responsible for the construction or rehabilitation of schemes, to procuring materials and negotiate with artisans to construct schemes under woreda supervision.
- Scheduling construction of new schemes based on the weather conditions to avoid road access problems.

6.1.2 Strategies for increasing the number of people with access to safely managed water services

To achieve the vision of having safely managed water services for 5% of the rural population and 90% of the urban population of the woreda, the strategies are:

- Ensuring water supply on premises through self-supply and household connections
- Ensuring reliable, continuous piped water supply
- Ensuring water services free from contamination

6.1.2.1 Ensuring water supply on premises through self-supply and household connections

To achieve the vision of having 5% safely managed water services in the rural areas and 90% in the urban areas, a total of 1,478 households have to get access to water supply on premises, through self-supply options or through household connections connected to piped schemes.

Self-supply option is feasible in the woreda and can contribute to meeting the 2030 vision. However, the number of people to gain access to water supply on premises through self-supply is expected to be limited. 74 Self-supply rope pumps are expected to be constructed until 2030. To ensure this, the proposed actions are:

- Promoting self-supply implementation and mobilizing households to construct their own hand dug wells.



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- Establishing enterprises to supply parts with reasonable prices and support in connection to markets.
- Ensuring water quality through awareness creation.

804 households in urban areas and 674 households in rural areas are expected to have connected to piped schemes with household connections. To increase the number of household connections, the proposed actions are:

- Community awareness creation (social, health, and economic benefits) of household connections.
- Develop additional sources to increase water supply sources and the construction of schemes suitable for safely managed service.
- Expansion of pipelines. A total of 23 expansions have been planned on existing schemes.

6.1.2.2 *Ensuring reliable, continuous piped water supply*

To ensure reliable, continuous water supply, the following proposed actions are to be undertaken:

- Construction of additional water schemes and expansion of pipelines.
- Regular monitoring and preventive maintenance of pipelines.
- Proper design of pipelines in line with source capacity.
- Maintaining schemes on time when they breakdown.
- Assign appropriate technicians to operate distribution systems.

6.1.2.3 *Ensuring water services free from contamination*

To ensure contamination free water supply, the following actions are proposed to be undertaken:

- Regular water quality testing and regular chlorination of schemes. The woreda is responsible for water quality monitoring and treatment of schemes.
- Awareness creation at the household level to ensure good water quality during fetching, transportation, use, and storage.
- Preventing cross contamination of water sources by obligating households near water sources to build safely managed latrines.
- Cleaning the surroundings of water schemes and regular cleaning of wells.
- Disinfection of water sources after maintenance.

6.1.3 **Strategies for ensuring sustainable water service provision**

Strategies to improve the sustainability of water services include:

- Establishment, legalization, and strengthening of WASHCOs, WUAs and federations.
- Improve tariff setting and revenue collection.
- Improve spare part supply and preventive maintenance services.
- Address resource constraints at the woreda level.

The following actions are proposed for the establishment, legalization, and strengthening of WUAs, WASHCOs and federations:

- Currently there are schemes that do not have WUAs. WUAs need to be established at all existing and new schemes.
- WUA management guidelines need to be documented.
- Preparing WUA training manual.
- Conducting need assessment on necessary trainings.
- Allocating proper budget for training WUAs, caretakers and federations.
- Certification of model WUAs.



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Monitoring and record keeping by WUAs are key for ensuring sustainable water service provision as they help detect problems so they can be timely addressed. Proposed actions include:

- Training, follow-up, and monitoring of WUAs by the woreda water office.
- The woreda, federation, and WUAs should develop action plans, prepare a checklist for evaluation, and develop a feedback mechanism.
- Identifying functional and non-functional water schemes to facilitate maintenance.
- Use of asset management systems to keep proper records of schemes and incorporating new schemes to the system regularly.

To improve tariff setting and collection, the following actions are proposed:

- When tariff is collected, a proper receipt needs to be provided. The collected fees should be saved at a microfinance institution, and regular auditing needs to be conducted.
- The woreda needs to make sure tariff is collected properly.

Strengthening spare part supply and maintenance services improve scheme functionality and reduce downtime and contributes to more reliable and sustainable water services. Proposed actions to ensure that spare part supply and maintenance services include:

- Establishing and strengthening spare part and maintenance enterprises.
- Ensuring enterprises supply spare parts at a reasonable price.
- Organize skill training for enterprises.
- Construction supervision using proper checklist.

To address resource constraints at the woreda level, the following actions are proposed:

- Identify capacity gaps at different levels and plan skill improvement trainings. There is different capacity at different levels. The plan must be based on the available capacity. For example, rural community can supply construction material, can contribute cash, and support with labor.
- Proper follow up and support from the zone.
- Creating linkage with TVET is the strategy for relieving the manpower shortage.
- Properly documenting scheme data in hard and soft copy for proper handover during turnover.
- Water resource management should be given more attention. Deforestation of natural vegetation and replacement with new species is depleting the water resources.
- Woreda water office needs to plan and report on tariff collection and operation and maintenance activity conducted at scheme level by caretakers.

6.2 Sanitation and hygiene services

Table 19 presents the current and projected 2030 population and number of households based on the number of people and households per kebele. It also shows the number of households with safely managed and basic sanitation services, and households practicing open defecation.

Table 19: Population with sanitation and hygiene services, baseline and 2030

	2019 baseline	2030 vision	Additional
Population	66,466	91,027	24,561
Number of households	12,323	16,877	4,554
Sanitation			
HHs unserved (open defecation)	1,017	0	
HHs served - basic	5,832	14,851	9,019
HHs served - safely managed	0	2,025	2,025
% HH unserved (open defecation)	8%	0%	



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% HH served - basic	47%	88%	
% HH served - safely managed	0%	12%	
Hygiene			
HHs served basic	3,800	16,877	13,077
HHs served limited	2,126	0	
HHs no facility	6,397	0	
% HH basic	31%	100%	
% HH limited	17%	0%	
% HH no facility	52%	0%	

To achieve the vision of 100% of households with at least basic sanitation and hygiene services, there is a need to ensure that by 2030:

- Additional 5,571 improved basic latrines are constructed.
- 5,474 latrines are upgraded from unimproved to improved basic latrines.
- 2,025 latrines are upgraded from improved basic to improved safely managed latrines.
- Additional 13,077 households will have hand washing facility with soap and water.

The detailed plan can be found in Annex 4. To ensure this is done sustainably, households will need to be stimulated to construct and upgrade their sanitation facilities and construct new ones as they fill up. The proposed strategy for achieving this is through improved CLTSH and sanitation marketing practices. Successful and sustainable implementation of the CLTSH and sanitation marketing approaches will require strengthening of the Woreda Health Office capacity and performance.

Sanitation marketing includes the construction of sanitation marketing centres, awareness and demand creation for the community, sanitation marketing training for established enterprises, and sanitation marketing campaigns.

The CLTSH approach includes the following activities:

- Training on CLTSH approach.
- Model latrine construction.
- CLTSH triggering in all kebeles.
- Post triggering support including technical support.
- ODF verification and certification.
- Post ODF follow up.

Once villages/kebeles have been declared ODF, there should be monitoring and follow-up so that people do not fall back into old behaviours. In 2019, 101 of 159 villages were reported as open defecation free. The remaining villages need to be triggered to decrease open defecation and increase the number of households with sanitation and hygiene facilities. Detailed CLTSH plan can be found in Annex 5. Post ODF follow-up is to take place in all villages which have received triggering. The woreda also will work on advocacy for increasing the number of health extension workers per kebele based on the population number. Additional actions include:

- Developing detailed CLTSH plan at the woreda and kebele levels.
- Producing an awareness creation leaflet and booklet using local languages.
- Strengthening house to house visits to create better awareness and hygiene behaviour.
- Revitalize the committee that verifies ODF status. The committee is currently inactive.
- Acknowledging model households.



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- For rural kebeles, the kebele will construct one model latrine.
- Strengthen the sanitation product supply with reasonable prices to contribute to construction of improved latrines.
- Awareness creation on safe water use and treatment at household level.
- Prepare by-laws on post ODF follow up and what needs to be done when villages fall back to open defecation behaviour and practices.

6.3 Institutional WASH

The number of schools is expected to increase from 23 in 2019 to 29 in 2030, and the number of health care facilities is expected to increase from 12 in 2019 to 15 in 2030. Detailed annual plan for institutional WASH can be found in Annex 6. To go from the current situation towards the 2030 vision of all schools and health care facilities with sustainable WASH services, there is a need for:

- Construction of adequate WASH facilities in six new schools and three new health care facilities.
- Ensure adequate WASH facilities in the 23 existing schools.
- Ensure adequate WASH facilities in the 12 existing health care facilities.
- Ensuring sustainable WASH through WASH promotion.

6.3.1 Construction of WASH facilities and ensuring WASH service provision in existing and new schools

Each of the six newly constructed schools will incorporate WASH facilities in their design and implementation, and the existing schools will add missing WASH facilities which includes:

- Connection to the piped scheme or construction of water supply system on premises. 24 schools will be connected to existing schemes, 1 will construct protected dug well and 2 will construct protected spring.
- 27 schools will construct sex-separated, disability inclusive, functional, and usable improved pit latrines.
- 10 schools will construct handwashing facilities with soap and water. In addition, 19 schools will start providing soap regularly.

6.3.2 Construction of WASH facilities and ensuring WASH service provision in existing and new health care facilities

Each of the nine new health care facilities will incorporate WASH facilities in their design and implementation, and existing health care facilities will add missing WASH facilities which includes:

- Connection to the piped scheme or construction of water supply system on premises. 12 health care facilities will be connected to existing schemes with 4 health care facilities having piped water in their building, and 8 health care facilities having piped water in their yard. 2 health care facilities will develop protected spring.
- 15 health care facilities will construct sex-separated, disability inclusive, functional, and usable improved pit latrines.
- 14 health care facilities will construct hand washing facility with soap and water at point of care and the remaining 1 will construct hand washing facility at latrine.
- 14 health care facilities will construct both incinerator and non-hazardous waste pit and 1 will construct incinerator.

Environmental cleaning is defined through cleaning protocol in place, and staff trained on cleaning in woreda information. In Woba Ari, there is no cleaning protocol and none of the health care facilities have staff trained



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on cleaning. Therefore, the woreda plans to have cleaning protocol in place for all health care facilities with the necessary staff trained on cleaning. This is part of the ExpDS.

The main strategies and activities for ensuring that there is basic WASH service in institutions by 2030 are to increase community participation, incorporate all WASH facilities when designing schools and health care facilities, behavioural change training for health care facilities' staff, school WASH promotion, establishing and strengthening school WASH clubs, and increased attention to monitoring and support to institutional WASH from the Woreda Health Office and Woreda Education Office. The woreda should work closely work with partners and regional government to allocate funds for connections.



7 Costing and financing

This section presents the estimated expenditures required for water services (section 7.1), sanitation and hygiene (section 7.2), and institutional WASH (section 7.3) to reach the 2030 vision as presented in section 5, based on the strategies presented in section 6. Each section presents the estimated required costs for reaching the 2030 vision, including:

- Capital Expenditure (CapEx)
- Capital Maintenance Expenditure (CapManEx)
- Operation and Minor Maintenance Expenditure (OpEx)
- Direct Support Costs (ExpDS)

The costs are calculated considering an assumed annual inflation rate of 8.1% (SNNPR Finance and Economic Development Bureau) and an exchange rate of ETB 39.50 (Commercial Bank of Ethiopia) as of January 2021. Each section presents an overview of these costs per year and the resulting expected changes in service levels.

Each section also presents an overview of the sources of funding for the projected costs. The sources of funding for the projected expenditures required for reaching the vision of the woreda are:

- Taxes: Expenditure by government, paid for through tax revenues.
- Tariffs: User contributions in the form of volumetric or time-based (e.g., monthly) tariffs and other contributions, as well as contributions to CapEx of water schemes or household connections. When differentiating between tariffs, transfers, and taxes, tariffs refer to expenditure by users. This includes what is traditionally known as tariffs, i.e., payment for provided service, but also includes user contributions to investment costs (e.g., household connections or in-kind contributions to construction).
- Transfers: Funding from development partners and NGOs.

7.1 Costing and financing water services

7.1.1 Estimated required expenditure for reaching the 2030 vision

7.1.1.1 Capital Expenditure (CapEx)

The capital expenditure for the implementation of the master plan consists of the costs related to the establishment of new assets, including new water schemes and household connections. Table 20 presents an overview of the number of assets to be developed and the unit costs.

Table 20: CapEx unit costs and number of planned schemes (Water)

Water supply system	Unit Cost CapEx New (ETB)	Unit Cost CapEx New (USD)	Number of planned schemes
Household connections	5,000	127	1,507
Hand-dug well with rope pump	15,000	380	75
Hand Dug Well	250,000	6,330	4
Spring on Spot	200,000	5,064	11
Deep well	9,500,000	240,524	1
Medium gravity spring with distribution	1,500,000	37,977	11
Motorized Spring with distribution	7,000,000	177,228	2



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Large gravity Spring with distribution	6,000,000	151,910	10
Expansion work	550,000	13,925	23

The total required CapEx for new schemes is ETB 182.39 million (4.62 million USD), and for household connections is ETB 13 million (330 thousand USD) with an average per year of ETB 15.2 million (385 thousand USD) and ETB 1.09million (28thousand USD), respectively.

7.1.1.2 Capital Maintenance Expenditure (CapManEx)

Capital maintenance expenditure includes the costs of repairs and rehabilitation of currently broken-down facilities, and the future costs of major repairs, rehabilitating, and replacement. It is also assumed that by doing continuous major maintenance, the schemes will serve beyond their design period and no schemes will be abandoned.

The costs of repairs of the broken-down facilities are estimated as a percentage of the original CapEx. Table 21 gives an overview of the expected costs of required repair for the 5 currently broken-down schemes.

Table 21: Costs of repairs of broken-down schemes (Water)

Type of scheme	Number of schemes	Unit Cost Rehabilitation / scheme (ETB)	Unit Cost Rehabilitation / scheme (USD)
Spring on Spot	3	20,000	56
Medium gravity spring with distribution	2	105,000	2,658

The future annual estimated required CapManEx is estimated based on the CapEx divided by the expected lifespan (Table 22).

Table 22: CapManEx unit costs (Water)

Water supply system	Expected minimum lifespan	Unit costs CapManEx (ETB / year)	Unit costs CapManEx (USD / year)
Hand-dug well with rope pump	3	5,000	127
Hand Dug Well	5	50,000	1,266
Spring on Spot	10	20,000	506
Deep well	20	475,000	12,026
Medium gravity spring with distribution	15	100,000	2,532
Motorized Spring with distribution	20	350,000	8,861
Large gravity Spring with distribution	30	200,000	5,064
Expansion work	10	55,000	1,393

The required CapManEx has been estimated as ETB 292 thousand (7.39 thousand USD) for the rehabilitation of currently broken-down schemes and ETB 90.44 million (2.29 million USD) for regular CapManEx with an average per year of ETB 72.97 thousand (1.85 thousand USD) and ETB 7.54 million (191 thousand USD) respectively.

7.1.1.3 Operation and minor Maintenance (OpEx)

The required OpEx is estimated by calculating the required annual expenditure on operation, preventive and minor maintenance activities for each type of scheme, salaries of staff (where applicable), transport, power, and



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other cost items related to operation and minor maintenance. Table 23 gives an overview of the annual OpEx per scheme type.

Table 23: OpEx unit costs and total OpEx, Water

	Preventive and minor maintenance (ETB / year)	Salary (ETB / year)	Spare parts (ETB / year)	Transport (ETB / year)	Power (ETB / year)	Total OpEx (ETB / year)
Self-supply options:						
Hand-dug well with rope pump	800	-	8,400	2,400	-	11,600
Communal point sources						
Hand Dug Well	3,900	-	15,945	15,000	-	34,845
Spring on Spot	5,620	-	4,110	4,500	-	14,230
Deep well	31,000	-	129,600	30,000	33,120	223,720
Springs with distribution schemes						
Medium gravity spring with distribution	11,300	-	53,570	6,800	-	71,670
Motorized Spring with distribution	9,700	36,000	73,760	15,000	26,496	160,956
Large gravity Spring with distribution	20,500	-	131,150	20,000	-	171,650

The total required OpEx is ETB 63.38 million (1.61 million USD) with an average per year of ETB 5.28 million (134 thousand USD).

7.1.1.4 Direct support costs (DSC)

The required direct support costs are estimated by calculating the required personnel and non-personnel costs (per diems, transport costs, office costs and admin, costs of meetings and workshops (meals, room, per diems, transport)), water quality testing, and other costs related to the following tasks:

- Planning and reporting
- Training of WASHCOs/ WUAs
- Monitoring and follow up of WASHCOs/ WUAs
- Water quality monitoring
- Maintenance

Table 24 gives an overview of the current and required personnel. Actual ExpDS refers to ExpDS that is currently available in the woreda while required ExpDS refers to what the woreda needs to fulfil its duties. Currently, only 9 of the 16 required positions have been filled.



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Table 24: Actional and required personnel (Water)

Posts/positions	Actual (current) number of staff	Required number of staff
Office head	1	1
Vice Office Head		1
Plumber and Engineer	2	
O&M team Leader, 4-Electromechanic, 1-Water Quality Expert		6
Social promoters		4
Development planner, Human resource, Secretary, messenger	2	4
Total	5	16

Table 25 presents an overview of the estimated actual and required direct support costs in 2019. It shows that non-staff (non-salary) costs are 22% of the direct support costs. It also shows that actual expenditure on direct support cost amounts to 13% of the required expenditure.

Table 25: Annual direct support costs (Water)

Posts/positions	Actual 2019 staff costs	Required 2019 staff costs
Staff costs		
Office head	40,833	27,150
Vice Office Head		37,500
Plumber and Engineer	110,400	
O&M team Leader, 4-Electromechanic, 1-Water Quality Expert		312,192
Social promoters		221,232
Development planner, Human resource, Secretary, messenger	14,010	54,400
Total staff costs	161,160	652,474
Non-staff costs		
Per diems	13,250	491,530
Transport costs (fuel, depreciation, maintenance)	3,600	15,600
Office costs and admin	6,000	10,050
Costs of meetings and workshops (meals, room, per diems, transport)	25,000	305,000
Water quality testing		60,000
Total non-staff costs	45,350	882,180
Total direct support costs	206,510	1,534,654

Total required district support costs over the period 2020-2030 is ETB 119.14 million (3.02 million USD) with an average per year of ETB 9.93 million (251 thousand USD).

7.1.2 Projected changes in service levels and costs

Table 26 gives an overview of the total required lifecycle costs, while Figure 6 presents an overview of the required lifecycle costs per year and the expected changes in service levels. Table 25 shows in the period 2020-



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2030, CapEx constitutes the largest proportion (42%) of the required costs. Over the years, with an increase in the number of schemes, annual required CapManEx and ExpDS is expected to be higher than annual required CapEx, as shown in Figure 6.

Table 26: Total required lifecycle costs, water

	Total (ETB million)	Total (million USD)	Average per year (ETB million / year)	Average per year (million USD / year)	Average per person served per year (ETB / person / year)	Average per person served per year (USD / person / year)
CapEx	195.43	4.95	16.29	412.32	318.49	8.06
CapManEx	90.73	2.30	7.56	191.44	124.41	3.15
OpEx	63.38	1.60	5.28	133.72	84.43	2.14
ExpDS	119.14	3.02	9.93	251.37	183.26	4.64
Total costs	468.68	11.87	39.06	988.84	710.59	17.99

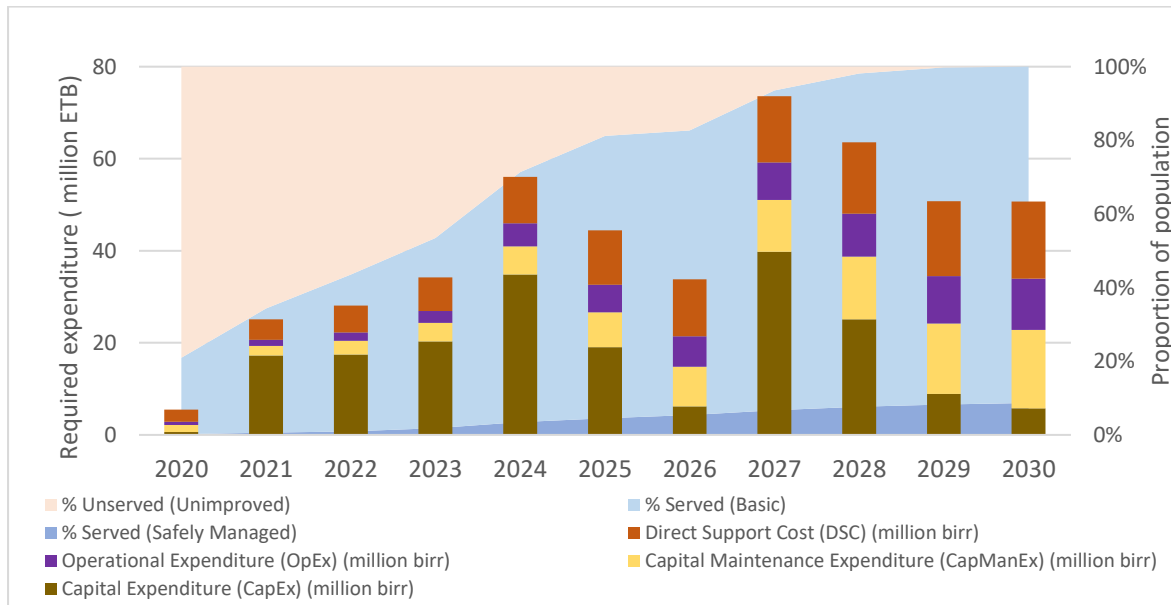


Figure 6: Lifecycle costs per year and expected water service level changes over time

7.1.3 Funding for projected costs

The government is expected to fund 100% of the required CapEx for all scheme types, with the exception of self-supply rope pumps. For self-supply (rope pump) 100% of the required CapEx is expected from users.

Repairs of rural communal schemes which are currently broken down and CapManEx are expected to be paid for by the government with the exception of self-supply and large spring with distribution. For self-supply, cost of rehabilitation is expected 100% from users. For large spring with distribution, 90% of cost of rehabilitation is expected from the government while the remaining 10% is expected from users.

Water users are responsible for 100% of the OpEx of all types of schemes with the exception of motorized spring with distribution, large spring with distribution, and deep wells. For motorized spring with distribution, and deep wells, 30% of OpEx is expected from the government while the remaining 70% is expected from users. For large spring with distribution, 10% of OpEx is expected from the government while the remaining 90% is expected from users.



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Figure 7 presents an overview of the required expenditure and sources of funding. The figure shows that a considerable proportion of the required expenditure is to be covered by the government through taxes.

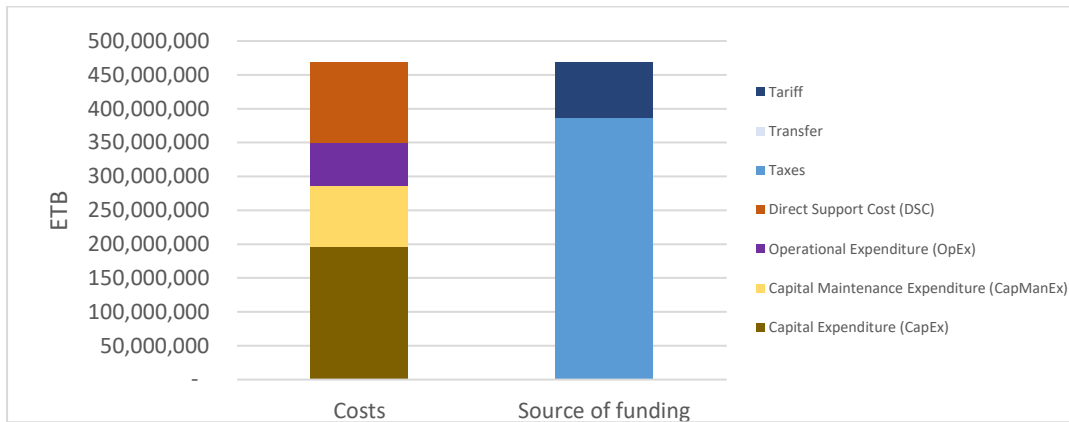


Figure 7: Overview of costs and sources of funding, Water

7.2 Costing and Financing Sanitation and Hygiene Services

7.2.1 Estimated required expenditure for reaching the 2030 vision

This section presents the estimated expenditure required over the period 2020-2030 for reaching the sanitation and hygiene service vision, as presented in section 4, and based on the strategies presented in section 5. These costs are related to CLTSH approaches, sanitation marketing, IEC/BCC materials, construction of new sanitation and hygiene facilities, and upgrading of existing sanitation and hygiene facilities.

7.2.1.1 Capital Expenditure (CapEx)

The capital expenditure for the implementation of the master plan consists of the costs related to the construction of new sanitation and hygiene facilities (CapEx hardware) and CLTSH triggering and sanitation marketing approach (CapEx software). Table 27 presents the number of planned schemes, the planned number of villages to be triggered, and total costs.

Table 27: Sanitation CapEx unit costs

	Per	Unit Cost CapEx (ETB per unit)	Unit Cost CapEx (USD per unit)	Total number of planned units
CapEx hardware (construction of latrines)				
Improved household pit latrines	Latrine	11,800	299	7,596
Upgrade Unimproved latrine -> improved latrine with in-situ treatment	Latrine	5,000	127	5,474
Handwashing facility		670	17	13,077
CapEx software - CLTS triggering)				
Triggering (includes pre-triggering)	Village	8,950	227	52
Training for verification committees	Village	15,720	398	1
ODF verification and certification	Village	11,600	294	52
CapEx software – Social marketing				
Sanitation Marketing Centers	Woreda	14,350	363	1



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Sanitation Marketing awareness and demand creation for community	Woreda	15,900	403	1
Sanitation Marketing training for enterprises	Woreda	21,200	537	1
Sanitation Marketing campaigns	Woreda	9,500	241	1

Total required CapEx costs over the period 2020-2030 is estimated as shown in Table 28.

Table 28: CapEx overview sanitation and hygiene

	Total (million ETB)	Total (million USD)	Average / year (million ETB)	Average / year (thousand USD)
CapEx, hardware	122.81	3.11	10.23	259.11
CapEx, software	40.52	1.03	3.37	85.48
Total CapEx	163.33	4.14	13.60	344.59

7.2.1.2 Capital Maintenance Expenditure (CapManEx)

Capital maintenance expenditure includes the costs of repairs and rehabilitation of sanitation and hygiene facilities. This includes the cost of the upgrades for unimproved facilities to improved facilities that provide basic service, as well as the continuous CapManEx, which is estimated based on CapEx and the expected lifespan of the facility. The 5,474 households with unimproved latrines are expected to spend ETB 5,000 (127 USD) on upgrading to an improved pit latrine in the period 2020-2030. Based on an expected lifespan of 7 years, the required annual CapManEx of improved pit latrines is ETB 787 (20 USD) per year. The total required CapManEx over the period of 2020-2030 is estimated as shown in Table 29.

Table 29: CapManEx overview sanitation and hygiene

	Total (million ETB)	Total (million USD)	Average / year (million ETB)	Average / year (thousand USD)
CapManEx, upgrade	47.58	1.2	3.96	100.39
CapManEx, household latrines and hand washing facilities	201.48	5.1	16.79	425.09
Total CapManEx	249.06	6.31	20.76	525.48

7.2.1.3 Operation and Minor Maintenance (OpEx)

The required OpEx is the estimated costs of operation and minor maintenance of the facility. This includes expenditure on toilet paper, water, minor repairs, soap, and others. Annual OpEx of improved household pit latrines is estimated as ETB 4,150 per year (105 USD per year). Annual OpEx for handwashing facilities is estimated as ETB 375 (9 USD). The total required OpEx is ETB 1.04 billion (26.23 million USD) with an average per year of ETB 86.33 million (2.19 million USD).

7.2.1.4 Direct support costs (ExpDS)

The required direct support costs are the costs of post triggering support, post ODF follow-up, and IEC and BCC material production costs. Table 30 gives an overview of the unit costs of direct support activities. The total DSC is ETB 32.48 million (822.31 thousand USD) with an average per year of ETB 2.71 million (68.53 thousand USD).



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Table 30: Direct support cost activities and costs, Sanitation and Hygiene

		Unit Cost ExpDS (ETB)	Unit Cost ExpDS (USD)
Post triggering CLTSH			
Post triggering support including technical support	Per village	5,600	38
Post ODF follow-up	Per village	5,000	127
IEC and BCC production			
IEC production	Per Woreda	11,200	165
BCC production	Per Woreda	15,000	151
Media coverage	Per Woreda	7,500	87

7.2.2 Projected changes in service levels and costs

Table 31 gives an overview of the total required lifecycle costs. It shows in the period 2020-2030, CapManEx constitutes the largest proportion of the required costs. Figure 8 presents an overview of the required lifecycle costs per year and the expected resulting changes in service levels.

Table 31: Total required lifecycle costs, Sanitation and Hygiene

	Total (ETB million)	Total (USD million)	Average per year (ETB million / year)	Average per year (USD thousand / year)	Average per person served per year (ETB / person / year)	Average per person served per year (USD / person / year)
CapEx, hardware	123	3.11	10.23	259	199	5
CapEx, software	41	1.03	3.38	85	64	2
CapManEx	249	6.31	20.76	525	356	9
OpEx	1,036	26.23	86.33	2,186	1,474	37
ExpDS	32	0.82	2.71	69	50	1

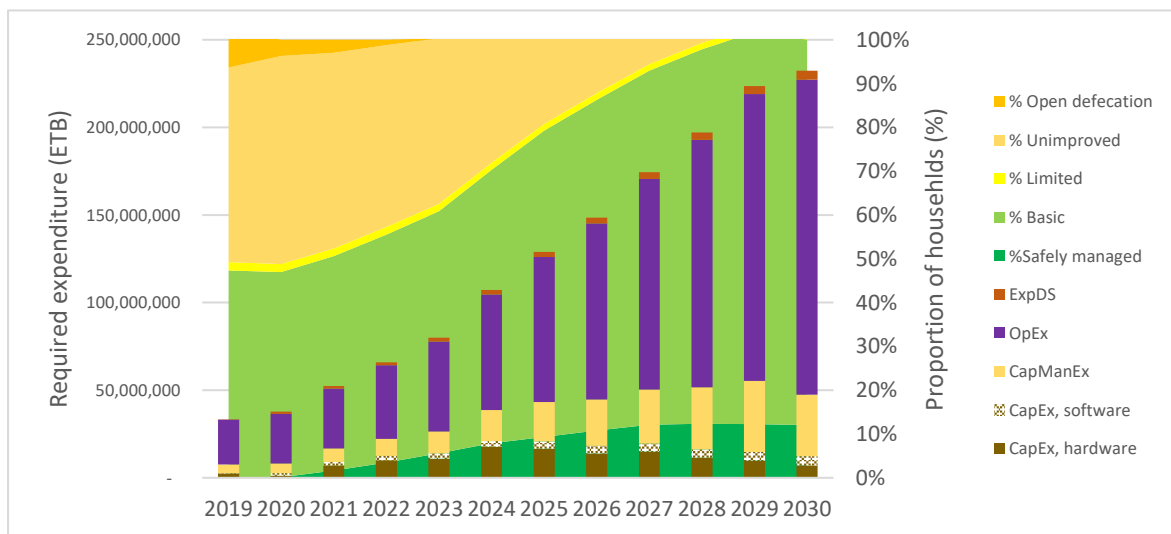


Figure 8: Lifecycle costs per year and changes in sanitation service level



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7.2.3 Funding for projected costs

In Woba Ari, households are expected to pay for CapEx hardware, CapManEx, and OpEx, while the government pays for CapEx software and ExpDS. Figure 9 presents an overview of the required expenditure and sources of funding.

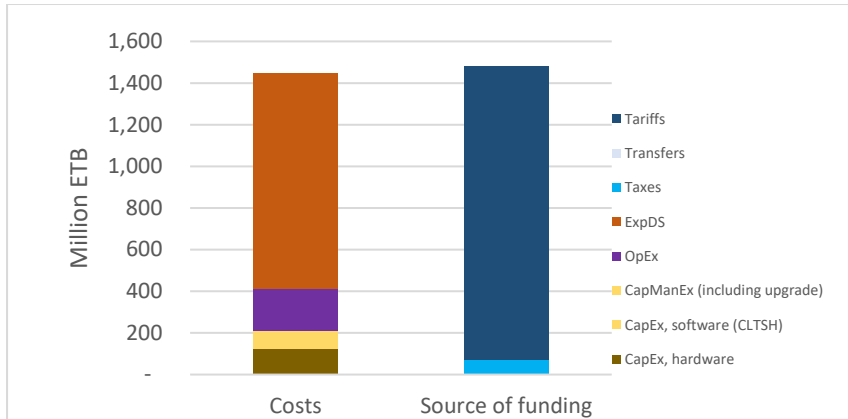


Figure 9: Overview of costs and sources of funding, Sanitation and Hygiene

7.3 Costing and financing institutional WASH

7.3.1 Estimated required expenditure for reaching the 2030 vision

This section presents the estimated expenditures required over the period 2020-2030 for reaching the WASH service vision as presented in section 4 and based on the strategies presented in section 5.

The capital expenditure (CapEx) for the implementation of the master plan consists of the costs related to the construction of new WASH facilities in schools and health care facilities. The required capital maintenance expenditure is based on expected CapManEx related to future required major repairs, rehabilitation, and asset replacement.

7.3.1.1 Health care facility WASH

7.3.1.1.1 Capital Expenditure (CapEx)

Table 32 presents the unit costs for the construction of new WASH facilities in health care facilities.

Table 32: CapEx unit costs for WASH in health care facilities

Type of facility	Unit costs (ETB)	Unit costs (USD)	Number of units required
Water supply			
Piped water into health facility building	187,000	4,735	5
Piped water to health facility yard	165,000	4,178	8
Protected spring	132,000	3,342	2
Sanitation			
Improved pit latrine	275,000	6,963	15
Handwashing facility			
Hand washing facility at latrine	9,720	246	15
Hand washing facility at point of care	9,185	233	14



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Waste management			
Incinerator	78,000	1,975	15
Nonhazardous waste solid waste pit	880	22	14

The required CapEx is estimated based on the planned implementation of new WASH facilities and their unit costs. Table 33 gives an overview of the estimated required CapEx for health care facility WASH.

Table 33: CapEx overview WASH in health care facilities

	Total million ETB	Total thousand USD	Average / year (million ETB)	Average / year (thousand USD)
CapEx - Water	3.99	101.12	0.67	16.85
CapEx - Sanitation	6.63	167.75	1.10	27.96
CapEx - Hygiene	0.42	10.53	0.07	1.76
CapEx - Solid Waste	1.90	48.01	0.32	8.00
Total CapEx	12.93	327.41	2.16	54.57

7.3.1.1.2 Capital Maintenance Expenditure (CapManEx)

The expected required expenditure on major repairs and rehabilitation of WASH facilities in health care facilities are estimated based on lifespan and CapEx as shown in Table 34.

Table 34: CapManEx unit costs health care facility WASH

Type of facility	Expected lifespan	Unit costs (ETB)	Unit costs (USD)
Water supply			
Piped water into health facility building	15	12,467	316
Piped water to health facility yard	15	11,000	279
Protected spring	10	13,200	334
Sanitation			
Improved pit latrine	7	39,286	995
Handwashing facility			
Hand washing facility at latrine	7	1,389	35
Hand washing facility at point of care	10	919	23
Waste management			
Incinerator	10	7,800	197
Nonhazardous waste solid waste pit	1	880	22

The annual required CapManEx are estimated based on the presence of WASH facilities in each year and their CapManEx unit costs, taking inflation into account. Table 35 gives an overview of the estimated required CapManEx for health care facility WASH.

Table 35: CapManEx overview health care facility WASH

	Total million ETB	Total thousand USD	Average (Million ETB / year)	Average (Thousand USD / year)
CapManEx water	1.85	46.95	0.31	7.82



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CapManEx sanitation	5.89	149.19	0.98	24.87
CapManEx hygiene	0.39	9.86	0.06	1.64
CapManEx solid waste	0.42	10.73	0.07	1.79
Total CapManEx	8.56	216.73	1.32	33.43

7.3.1.1.3 Operation and minor Maintenance (OpEx)

Table 36 presents the unit costs for operation and minor maintenance of WASH facilities in health care facilities.

Table 36: OpEx unit costs for WASH in health care facilities

Type of facility	Unit costs (ETB)	Unit costs (USD)
Water supply		
Piped water into health facility building	5,000	127
Piped water to health facility yard	4,120	104
Protected spring	1,500	38
Sanitation		
Improved pit latrine	10,898	276
Handwashing facility		
Hand washing facility at latrine	1,000	25
Hand washing facility at point of care	1,200	30
Waste management		
Incinerator	7,880	200

The required OpEx is estimated based on the presence of WASH facilities and their unit costs, taking inflation into account. Table 37 gives an overview of the estimated required OpEx for health care facility WASH.

Table 37: OpEx overview WASH in health care facilities

	Total million ETB	Total thousand USD	Average (thousand ETB / year)	Average (thousand USD / year)
OpEx - water	0.60	15.17	99.89	2.53
OpEx - Sanitation	1.51	38.29	252.03	6.38
OpEx - Hygiene	0.44	11.25	74.05	1.87
OpEx - Solid Waste	0.22	5.50	36.24	0.92
Total OpEx	2.77	70.21	426.79	10.81

7.3.1.1.4 Direct support costs (ExpDS)

The required direct support costs related to WASH in health facility are estimated by calculating the required personnel and non-personnel costs (per diems, transport costs, office costs and admin, costs of meetings and workshops (meals, room, per diems, transport), and other costs) related to the following direct support:

- Planning and reporting
- Monitoring WASH in health care facilities
- Technical support to health care facilities



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- WASH promotion
- Review meeting
- Woreda WASH steering committee meeting
- Environmental cleaning and control

Table 38 gives an overview of the current and required personnel.

Table 38: Actual and required personnel for ExpDS (WASH in health care facilities)

Positions	Actual (current) number of staff	Required number of staff
Health Office Head	1	1
WASH in Health facility focal person	1	1
WASH in Health facility operator	1	1
Cleaning Staff for Health care facilities	11	19
Total	14	22

Table 39 presents an overview of the estimated actual as well as the required 2020 direct support costs. It shows that non-staff (non-salary) costs are 27% of the direct support costs in actual costs and 4% of the direct support costs in required costs. It also shows that the actual current expenditure on direct support is 1% of the required expenditure.

Table 39: Annual direct support costs (yearly staff costs)

Posts/positions	Actual 2020 costs (ETB / year)	Required 2020 costs (ETB / year)
Staff costs		
Health Office Head	22,625	36,200
WASH in Health facility focal person	24,536	26,766
WASH in Health facility operator	72,432	72,632
Cleaning Staff for Health care facilities		12,996,000
Total staff costs	119,593	13,131,598
Non-staff costs		
Per diems	14,800	90,402
Transport costs (fuel, depreciation, maintenance)	8,300	77,364
Office costs and admin	15,660	29,500
Costs of meetings and workshops (meals, room, per diems, transport)	4,500	372,500
Other costs		18,500
Total non-staff costs	43,260	588,266
Total direct support costs	162,853	13,719,864
Total direct support costs per health care facility	13,571	1,143,322

Considering the expected increase in the number of health care facilities and inflation, the total required direct support costs for the period 2020-2030 is ETB 3.06 million (77.6 thousand USD) with an average per year of ETB 484.1 thousand (12.26 thousand USD).



7.3.1.2.1 Capital Expenditure (CapEx)

Table 40 presents the unit costs for the construction of new WASH facilities in schools.

Table 40: CapEx unit costs for WASH in schools

Type of facility	Unit costs (ETB)	Unit cost (USD)	Number of units required
Water supply			
Piped water to school yard	165,000	4,178	24
Protected dug well	165,000	4,178	1
Protected spring	132,000	3,342	2
Sanitation and Hygiene			
Improved pit latrine	280,000	7,089	27
Handwashing facility	12,530	317	29

The required CapEx is estimated based on the planned implementation of new WASH facilities and their unit costs, taking inflation into account. Table 41 gives an overview of the estimated required CapEx for school WASH.

Table 41: CapEx overview school WASH

	Total (million ETB)	Total (thousand USD)	Average (million ETB / year)	Average (thousand USD / year)
CapEx - Water	7.07	179.06	0.64	16.28
CapEx - Sanitation	12.23	309.70	1.11	28.15
CapEx - Hygiene	0.46	11.77	0.04	1.07
Total CapEx	19.77	500.53	1.80	45.50

7.3.1.2.2 Capital maintenance expenditure (CapManEx)

The expected expenditure on major repairs and rehabilitation of WASH facilities in schools are estimated based on lifespan and CapEx, as shown in Table 42.

Table 42: CapManEx unit costs school WASH

Type of facility	Expected lifespan	Unit costs (ETB)	Unit cost (USD)
Water supply			
Piped water to school yard	15	11,000	279
Protected dug well	7	23,571	597
Protected spring	10	13,200	334
Sanitation and Hygiene			
Improved pit latrine	7	40,000	1,013
Handwashing facility	10	1,253	32

The annual required CapManEx are estimated based on the number of WASH facilities in each year and their CapManEx unit costs, taking inflation into account. Table 43 gives an overview of the estimated required CapManEx for health facility WASH.



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Table 43: CapManEx overview school WASH

	Total (million ETB)	Total (thousand USD)	Average (million ETB / year)	Average (thousand USD / year)
CapManEx - Water	4.11	104.08	0.37	9.46
CapManEx - Sanitation	12.08	305.77	1.10	27.80
CapManEx - Hygiene	0.93	23.45	0.08	2.13
Total CapManEx	17.11	433.29	1.56	39.39

7.3.1.2.3 Operational Expenditure (OpEx)

Table 44 presents the unit costs for operation and minor maintenance of WASH facilities in schools.

Table 44: OpEx unit costs for WASH in schools

Type of facility	Unit costs (ETB)	Unit cost (USD)
Water supply		
Piped water to school yard	3000	76
Protected dug well	3600	91
Protected spring	2000	51
Sanitation		
Improved pit latrine	5600	142
Handwashing facility	1250	32

The required OpEx is estimated based on the number of WASH facilities and their unit costs, taking inflation into account. Table 45 gives an overview of the estimated required OpEx for school WASH.

Table 45: OpEx overview WASH in schools

	Total (million ETB)	Total (thousand USD)	Average (thousand ETB / year)	Average (thousand USD / year)
OpEx - Water	0.94	23.68	85.02	2.15
OpEx - Sanitation	1.56	39.60	142.19	3.60
OpEx - Hygiene	0.85	21.64	77.69	1.97
Total OpEx	3.35	84.92	304.90	7.72

7.3.1.2.4 Direct support cost (ExpDS)

The required direct support costs are estimated by calculating the required personnel and non-personnel costs (per diems, transport costs, office costs and admin, costs of meetings and workshops (meals, room, per diems, transport), and other costs) related to the following direct support:

- Planning and reporting
- WASH promotion
- Monitoring WASH in schools
- WASH steering committee meeting

Table 46 gives an overview of the actual and desired personnel. Currently, only three of the six required positions have been filled.



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Table 46: Actual and Required personnel for Direct support

Positions	Actual (current) number of staff	Required number of staff
Office Head	1	1
WASH Planning	1	2
Wash Focal person	1	3
Total	3	6

Table 47 presents an overview of the estimated actual and desired 2020 direct support costs. It shows that non-staff (non-salary) costs are 82% of the direct support costs in actual costs and 62% of the required direct support costs. It also shows that the actual current expenditure on direct support is 40% of the required expenditure.

Table 47: Annual direct support costs School WASH

	Actual 2020 costs (ETB / year)	Desired 2020 costs (ETB / year)
Staff costs		
Office Head	16,301	22,640
WASH Planning	4,009	40,085
Wash Focal person	12,835	115,514
Total staff costs	33,144	178,239
Non-staff costs		
Per diems	850	77,805
Transport costs (fuel, depreciation, maintenance)	78,400	121,800
Office costs and admin	28,000	43,500
Costs of meetings and workshops (meals, room, per diems, transport)	49,000	50,200
Other costs		
Total non-staff costs	156,250	293,305
Total direct support costs	189,394	471,544
Total direct support costs per school	8,235	20,502

Considering the expected increase in number of schools and inflation, the total required direct support costs for the period 2020-2030 is ETB 3.55 million (89.94 thousand USD) with an average per year of ETB 322.95 thousand (8.18 thousand USD).

7.3.2 Projected changes in service levels and costs

7.3.2.1 Health care facility WASH

Table 48 gives an overview of the total required lifecycle costs, while Figure 10 presents an overview of the required lifecycle costs per year and the expected resulting changes in service levels. It shows in the period 2020-2030, CapEx constitutes the largest proportion (47%) of the required costs.

Table 48: Total required lifecycle costs health care facility WASH

	Total (million ETB)	Total (thousand USD)	Average (million ETB / year)	Average (thousand USD / year)
CapEx	12.93	327.41	2.16	54.57
CapManEx	8.56	216.73	1.32	33.43



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OpEx	2.77	70.21	0.43	10.81
ExpDS	3.07	77.60	0.48	12.26
Total	27.54	697	4.24	107.28

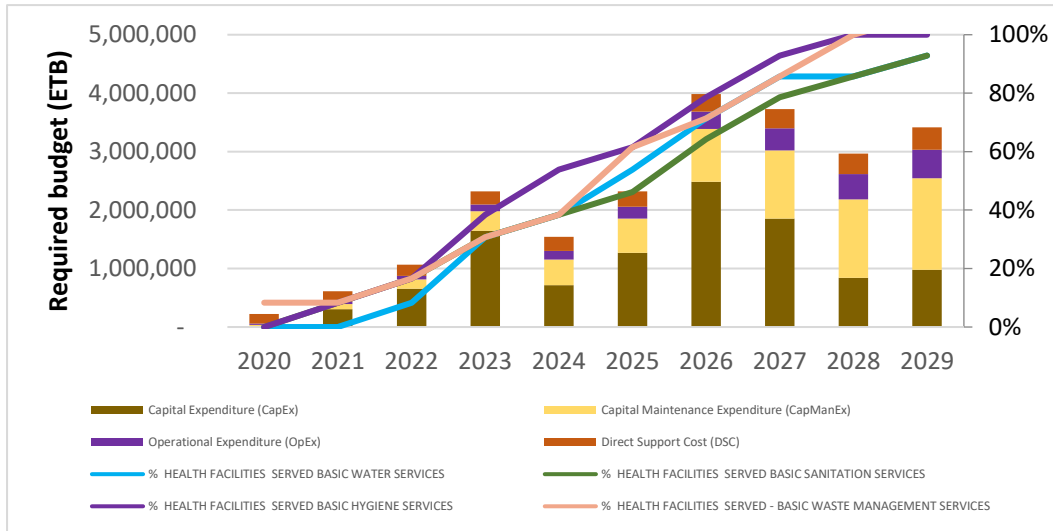


Figure 10: Lifecycle costs per year and changes in service level, health care facility WASH

7.3.2.2 School WASH

Table 49 gives an overview of the total required lifecycle costs, while Figure 11 presents an overview of the required lifecycle costs per year and the expected resulting changes in service levels. It shows in the period 2020-2030, CapEx and CapManEx constitute the largest proportion 45% and 39% respectively of the required costs.

Table 49: Total required lifecycle costs school WASH

	Total (million ETB)	Total (thousand USD)	Average (million ETB / year)	Average (thousand USD / year)
CapEx	19.77	500.53	1.80	45.50
CapManEx	17.11	433.29	1.56	39.39
OpEx	3.35	84.92	0.30	7.72
ExpDS	3.55	89.94	0.32	8.18
Total	43.79	1,108.68	3.98	100.79



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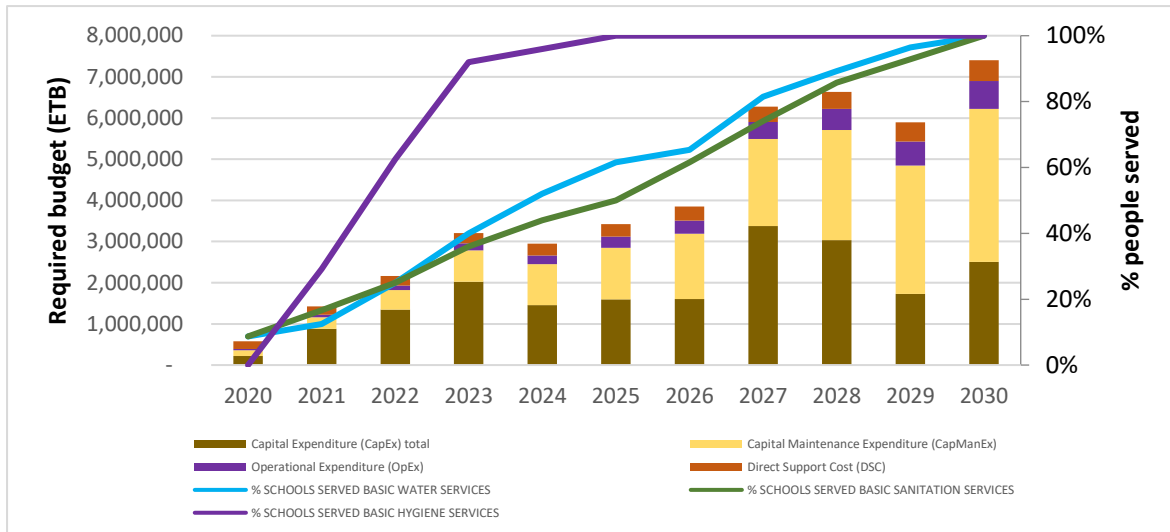


Figure 11: Lifecycle costs per year and changes in service level, School WASH

The source of funding for the projected expenditure required for reaching institutional WASH vision for the woreda is the government. In addition, schools are expected to plan for WASH from internal income. Schools have farm plots from where they can collect incomes.



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8 Monitoring and Evaluation

Monitoring and evaluation of the master plan implementation will be conducted internally by implementing WASH sector offices and externally by an independent entity. This helps to track progress, identify gaps, and design solutions based on the identified gaps and bottlenecks. The master plan can also be adjusted when there is change in unit cost estimates, population estimate if census is conducted, the inflation rate when new data is available, and other input parameters whenever necessary.

The proposed monitoring programs are:

Ongoing progress assessments: WASH sector offices will track and report on implementation status by different actors on a quarterly basis to the WWMEO. The sector office reports will be supported with evidence from field supervision.

The WWMEO will consolidate the reports from sector offices on a quarterly basis and report to a steering committee to be established to oversee the implementation of the plan. The steering committee will conduct quarterly project visits and consultative meetings with different WASH actors to have firsthand information before sitting for a progress evaluation meeting. The learning from the reports, quarterly project visits, and consultation meetings will be used as input for the subsequent planning. After reviewing reports, the consultative meeting, and field visits, the steering committee will sit and evaluate the progress and challenges on a quarterly basis and provide feedback to sector offices. The steering committee will also share the approved quarterly reports with zone sector offices for additional support. This will be aligned with existing quarterly sector reporting from woreda to zone.

Annual progress review: WASH sector offices will track budget allocation, physical implementation status, and gap analysis annually. Based on the identified gaps, activities and strategies will be reviewed annually based on learnings. The review includes replanning activities not accomplished in the previous year. The revised plan will be presented to the steering committee for approval.

Midterm evaluation: A midterm impact evaluation will be conducted by an external entity to be deployed by the WWMEO. The evaluation will be conducted at the beginning of year 2026. The intended target of the evaluation is to know if the implementation is on track, challenges encountered thus far, and the sustainability of the results.

End line evaluation. The end line evaluation will be conducted by the team drawn from the woreda WASH sector offices led by the WWMEO. The end line evaluation will be conducted in the third quarter of 2030. The target of the end line evaluation is to measure the impact brought through the implementation of the master plan.

Annex 1: Overview of the Planning tools

The woreda WASH SDG master planning **tool for water** has the following sheets:

User Guide: The user guide describes each section of the tool including definitions and data requirements.

Woreda Information: General information about the woreda such as the total population per kebele, population served by different systems, type of existing and planned water supply technology in the woreda, the number of beneficiaries each scheme can serve, the potential for household connections, and the functionality status of each scheme are defined. This was defined for urban and rural areas separately. Information related to the population was taken from the Woreda Finance Office. This part also includes population growth rate, inflation rate, exchange rate, and average household size.

Planning Assumptions: This is a critical part of the overall planning as it affects the projections to the future and cost estimations related to expected unit costs. These assumptions are unit costs for CapEx, rehabilitation of currently broken-down schemes, CapManEx, OpEx, and ExpDS. These costs occur before and after the schemes have been constructed. Planning and budgeting for operation, maintenance, support, and other recurring activities is essential for the schemes to provide sustainable service. This part also includes minimum design lifespan per scheme type. To facilitate calculations, there are separate sheets for OpEx estimation and DSC estimation. The OpEx estimation section is used to calculate required expenditures for operation and maintenance, including electricity or diesel to run pumps, pump operator or caretaker salaries, chlorine to disinfect, as well as servicing and other preventative maintenance or minor corrective repairs. The ExpDS estimation section calculates current and required ExpDS, including costs of setting up and carrying out monitoring of services, routine technical assistance, and training (and re-training) of service providers such as WASHCOs and utilities.

Option Selection: This is the main sheet where the planning happens. The option selection part has 3 main parts: setting and achieving the vision, planning of rehabilitation for non-functional schemes, and planning of new construction for rural and urban kebeles separately. This section is kebele-level choice of technological options for water supply delivery over time. This was done per kebele, noting that there are kebeles with 0% coverage and other kebeles with 100% coverage.

Since the same population can be served by a range of different water systems, each with a different set of costs, the choice of systems is critical. SDG 6.1 targets aim to reach safely managed services for all by 2030. The JMP ladder has safely managed (on premises, with sufficient quality and quantity and readily available), basic (within an acceptable distance, with sufficient quality and quantity), limited, unimproved, and surface. Options to achieve safely managed are piped on premises or self-supply. Therefore, choosing the right type of service delivery mechanism is critical for the specific vision of the woreda.

Coverage changes: This sheet presents the annual level of service for the woreda, rural areas, urban areas, and per kebele, based on the planning. This part has graphs showing service level changes over the planning period for the total woreda, the rural areas, the urban areas, and the kebeles.

Cost Estimation: This sheet presents an overview of the expected changes in service levels and required costs in line with planning for rehabilitation of existing non-functional schemes and construction of new water schemes. This part shows the cost implications of the kebele-level choices of technical options including the costs of rehabilitating and sustaining all systems over time.

Financing: This part is for defining options available to finance the SDG plan. It estimates the amount of money to be spent from main sources of finance (taxes, transfers, and tariffs). It also provides insight into the finance gaps. Sources of finance could be government budget, community contributions, development partners and others. The percentage of contribution varies based on existing conditions and upcoming projects.



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The woreda WASH SDG master planning **tool for sanitation and hygiene** has the following sheets:

Woreda Information: General information about the woreda such as total population per kebele, availability and functionality of faecal sludge management facilities, types of sanitation facilities, and their potential for safely managed service are described. It also includes the number of villages in each kebele, the total number of households, the number of CLTSH triggered villages, the number of open defecation free (ODF) villages, and the number of villages requiring CLTSH triggering. Information related to the population and households is taken from the Woreda Health Office. This part also includes population growth rate, inflation rate, exchange rate, and average household size. In addition to sanitation facilities, this part also indicates the total number of households with handwashing facilities with or without soap and water.

Planning Assumptions: This part includes sanitation and hygiene approaches and their costs. The most common sanitation and hygiene approaches are CLTSH, SLTSH, sanitation marketing, and the distribution of IEC and BCC materials. These costs are defined per village, per kebele, or per woreda. If there are additional approaches for improving sanitation and hygiene services in the woreda, they can be indicated as well.

This part also includes the cost of infrastructure including unit costs for new sanitation and hygiene facilities, costs of rehabilitation/upgrade, emptying, and operation and minor maintenance. The lifespan of facilities and emptying frequency is also included.

Planning: This is the main sheet where the planning happens. This part has three main sections: setting and achieving vision, CLTSH planning, and planning for upgrades and new facilities. The vision indicates the woreda's sanitation and hygiene vision for 2030. CLTSH planning is planning for triggering and post-triggering activities per village, annually. Infrastructure planning includes plans for upgrading unimproved latrines and improved latrines with basic service to improved latrines with safely managed service and construction of new sanitation facilities. For hygiene facilities, the assumption is all households will have a handwashing facility by 2030. This part also includes plans for improving sludge management if relevant.

Cost overview and coverage change: This sheet presents service level changes over the planning period. This part also shows the cost implications of the plan including the costs of new facilities, upgrading, CLTSH, SLTSH, sanitation marketing, IEC/BCC materials, and hygiene facilities.

Financing: This part is for defining options available to finance the SDG plan. It estimates the amount of money to be spent from main sources of finance (taxes, transfers, and tariffs). It also provides insight into finance gaps. Sources of finance could be government budget, community contributions, and others. The percentage of contribution varies based on existing conditions and upcoming projects.

The woreda WASH SDG master planning **tool for school WASH** has the following sheets:

Woreda Information: General information about schools in the woreda is described. It includes the availability, type, reliability, and functionality of WASH facilities in each school. For sanitation, information of separate facilities for boys, girls, and teachers, the number of compartments, privacy, accessibility to disabled students, and waste disposal mechanisms are included. For hygiene, accessibility to younger or disabled students, availability of detergent, and menstrual hygiene facilities is included. In addition, information on school WASH sustainability like proper maintenance of WASH facilities and availability of funds, rules, regulation, and training on WASH are also included.

Planning Assumptions: There are two sections in planning assumption. The first section looks at the expected number of schools. This is to plan for WASH facilities for new schools. The second section is for CapEx, CapManEx, and OpEx for each type of WASH facility. This includes the unit cost for the construction of new facilities, rehabilitation costs for non-functional facilities as a percentage of the CapEx, CapManEx based on experience, the expected life span of the facility, and unit costs of OpEx.



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To facilitate calculations, there is a separate sheet for DSC estimation. The DSC estimation section calculates current required and desired DSC including planning and reporting, WASH promotion, monitoring at schools, and technical support to schools.

Option selection: This is the main sheet where the planning happens. This part has four main sections: setting and achieving, planning for existing and new sanitation facilities, planning for existing and new water facilities, and planning for existing hygiene facilities.

Cost overview and coverage change: This sheet presents service level changes over the planning period. This part also shows the cost implications of the plan.

Financing: It is assumed that all costs will be covered by the government.

The woreda WASH SDG master planning **tool for WASH in health care facilities** has the following sheets:

Woreda Information: General information about health care facilities (health centres and health posts) in the woreda is included. It includes information on water service level (availability, type, reliability, and functionality). Sanitation service level (availability, type, separate facilities for boys, and girls, and functionality), hygiene service level (availability, type, availability of detergent, menstrual hygiene facilities), waste management (incinerator for hazardous medical waste, placenta pit, separate bins for sharps, infectious materials, and non-infectious materials, and ash pit), and environmental cleaning (cleaning protocol and staff training on cleaning).

Planning Assumptions: The first section looks at the expected number of health facilities. This is to plan for WASH facilities for new health facilities. The second section is for CapEx, CapManEx, and OpEx of each type of WASH facility and for waste management and environmental cleaning. This includes the unit cost for construction of new facilities, rehabilitation costs for non-functional facilities as a percentage of the CapEx, CapManEx based on experience, the expected lifespan of the facility, and unit costs of OpEx.

To facilitate calculations, there is a separate sheet for DSC estimation. The DSC estimation section calculates the current required and desired DSC including planning and reporting, capacity building training, WASH monitoring, WASH promotion, review meetings, and technical support to health facilities.

Option selection: This is the main sheet where the planning happens. This part has five main sections: setting and achieving, planning for existing and new sanitation facilities, planning for existing and new water facilities, and planning for existing hygiene facilities, and planning for existing and new waste management facilities.

Cost overview and coverage change: This sheet presents service level changes over the planning period. This part also shows the cost implications of the plan.

Financing: It is assumed that the government will cover all costs.



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Annex 2: Annual plans for rehabilitation of broken-down water schemes

Scheme type	Number of non-functional schemes	2020
Spring on Spot	3	3
Medium gravity spring with distribution	2	2

Annex 3: Annual plans for construction of new water schemes

	Total planned new schemes	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Spring on spot	11	3	1	0	1	0	2	1	0	1	1	1
Medium Spring with Distribution	11	0	1	0	1	2	2	1	2	1	1	0
Motorized Spring with distribution	2	0	0	1	0	0	0	0	0	1	0	0
Large Spring with distribution	10	0	2	1	2	3	1	0	1	0	0	0
Deep well	1	0	0	0	0	0	0	0	1	0	0	0
Expansion work for distribution system	23	0	1	1	1	1	3	2	3	5	3	3
Rope Pump (Self supply)	74	0	0	0	0	74	0	0	0	0	0	0
Hand dug well	1	0	1	0	0	0	0	0	0	0	0	0



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Annex 4: Annual plans for construction and upgrade of sanitation and hygiene facilities

	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total
Improved household latrines, basic, private	100	450	600	600	935	800	600	600	400	300	186	5,571
Upgrade Unimproved latrine, private -> improved latrine, private (only to basic service)	24	200	250	350	650	800	800	800	800	800	0	5,474
Upgrade Improved latrine, basic -> improved latrine, safely managed	20	200	250	300	350	250	250	250	100	35	20	2,025
Hand washing facilities		1,100	1,200	1,300	1,300	1,400	1,400	1,400	1,400	1,377	1,200	16,877



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Annex 5: Annual plans for CLTSH triggering

Kebele	Number of villages requiring CLTSH triggering	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Yedamer	5			1	1	1	1				1	
Deramer	6		1	1	1		1			1		1
Faie	17			1	3	3	3	3	3	1		
Lofet	10			2	2	2	2	2	0			
Oldamer	38		5	5	5	5	5	5	4	2	2	
Shamamer	14	2	2	2	2	2	2	2				
Wulisher	5			1	1		1			1		1
Total	95	2	8	13	15	13	15	12	7	5	3	2



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Annex 6: Annual plans for institutional WASH

School WASH										
	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Piped water to school yard	1	3	3	3	3	1	5	3	1	1
Protected dug well	0	0	1	0	0	0	0	0	0	0
Protected spring	0	0	0	0	0	0	0	0	1	1
Improved pit latrine	2	2	3	2	2	3	4	4	2	3
Handwashing facility	7	8	8	1	2	0	1	1	0	1

Health Care facility WASH											
	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	
Piped water into health facility building	0	1	2	0	0	1	0	0	0	1	
Piped water to health facility yard	0	0	1	0	2	2	2	0	0	1	
Protected spring	0	0	0	1	0	0	0	0	1	0	
Improved pit latrine	1	1	2	1	1	3	2	1	1	2	
Handwashing facility at latrine	1	0	0	0	0	0	0	0	0	0	
Handwashing facility at both latrine and point of care	0	1	3	2	1	3	2	1	0	1	
Incinerator	0	0	0	0	1	0	0	0	0	0	
Both incinerator and non-hazardous waste solid waste pit	0	1	2	1	2	2	2	2	1	1	

