

Water, Sanitation and Hygiene (WASH) Strategic Plan Dera Woreda, Amhara National Regional State Ethiopia 2018



DECEMBER 2018 Anbesame, Dera

List of Abbreviations

BoWIE Bureau of Water, Irrigation and Energy

BCC Behavior Change Communication

CMP Community Managed Program

CLTSH Community Led Total Sanitation and Hygiene

CaPEX Capital Expenditure

CaPManEx Capital Maintenance Expenditure

EMIS Education Management Information System

ExDSC Expenditure on Direct Support

GTP Growth and Transformation Plan

HDW Hand Dug Well

HWTSS Household Water Treatment System

ISC Indirect Support Cost

LCCA Life Cycle Cost Analysis

MDG Millennium Development Goal

MWA Millennium Water Alliance

MoWIE Ministry of Water, Irrigation and Electricity

MVS Multi Village Scheme

O & M Operation and Maintenance

OWNP One WASH National Program

OpEX Operational Expenditure

SDG Sustainable Development Goal

SPD Spring Development

SLTSH School Led Total Sanitation and Hygiene

TVET Technical, Vocational Education and Training

TWU Town Water Users

UAP Universal Access Plan

WSP Water Safety Plan

WUA Water Users Association

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WOREDA CONTEXT

Dera woreda is located in South Gondar zone of Amhara National Regional State, in Ethiopia. It has a border with Fogera woreda in the north, Estie Woreda in the East, West Gojjam Zone in the South and Lake Tana in the West. Lake Tana is the source of the Blue Nile and is the largest lake in Ethiopia. Located in the Amhara Region in the north-western Ethiopian Highlands, the lake is approximately 84 kilometers long and 66 kilometers wide, with a maximum depth of 15 meters, and an elevation of 1,788 meters.

Administratively, the woreda is divided in to thirty-six (36) rural kebeles and three (3) town kebeles. According to the national census data (2010) and annual population growth rate of the woreda (2.5%), a total of 310,438 people reside in Dera woreda out of which 269,688 are in rural kebeles and the remaining 40,750 live in the three town administrations. Out of the total of 69,961 households, 58,767 (84%) have a male head of household while the remaining 11,194 (16%) are female-headed households.

The capital of Dera Woreda, Anbesame town, is 79 Kilometers away from the zonal town, Debre Tabor and 42 Kilometers away from the regional capital, Bahir Dar. It is estimated that the woreda is total of 151,000 square kilometers, of which 95% is land and the remaining 5% is covered by surface water.

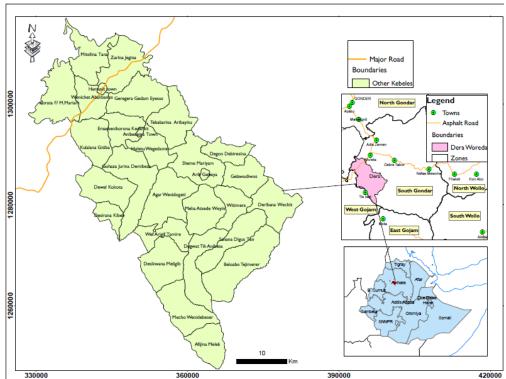


Figure 1: Map of Dera woreda

In terms of topography, 35% of the landmass is a flat, 27% rugged terrain and 20% is mountainous. The annual rainfall ranges between 1,000-1,500 millimeters and the average temperature ranges

between 30-13 degrees Celsius, according to the regional meteorology. Overall, the woreda is characterized by diverse land topography which falls between 560-3200 meters above sea level. The soil type varies from brown type (16%), red soil (35%) and the remaining 45% is comprised of different varieties.

The means of livelihood for 91% of the total population is agriculture while the remaining 9% is a mix of trading and different forms of home-based manufacturing. Wet climatic conditions largely characterize the woreda and this has enabled it to be termed as one of the surplus producing woredas in the region. A total of 65,308 hectares of land produces several types of crops in the rainy season (May – September). Moreover, 1,500 hectares of land have potential for small scale irrigation from the adjacent lake Tana and 37 rivers that cross several kebeles of Dera woreda.

Over the last couple of decades the regional and federal government invested considerable resources for the design and construction of road infrastructure. Currently, there is a 27 km asphalt road that crosses over the administrative boundary along with 55 km of standard rural gravel roads and 144 km of rural roads that connect 30 kebeles. This has created a suitable condition for expanding other infrastructure in the kebeles. In addition, 9 kebeles have access to an electric power grid. All kebeles have access to mobile network coverage.

Similar investments in water supply infrastructure were made over the years by governmental, non-governmental and community contributions. The recent Water Inventory in 2018 indicated that there are 1,349 water supply schemes (community managed and utility) in the woreda, but most are is poorly developed and managed. For supply all the existing schemes are considered nonfunctional because they are mostly poorly constructed and cannot be considered in the coverage with their current condition. Once they are rehabilitated they will considered under safely managed.

Table 1: Number and functionality Status of Water Supply Infrastructure

SN	Scheme Type	Functional	Non functional	Total
1	Hand Dug Well	731	263	994
2	Spring Development	102	31	133
3	Manual Drilled Well	19	12	31
4	Shallow Well	49	12	61
5	Rural Piped Scheme	2	-	2
6	Deep Well	3	-	3
_ 7	Rural Piped System	32	-	32
8	Self supply	-	284	284
9	School and Health	77	16	93
	Total	1015	618	1633

Out of the total of 1633 water supply points, 1540 (94%) are community water supply water points and the remaining 93 (6%) are institutional (schools or health care facilities) water points located in their premises. These schemes are currently serving a total of 122,956 people out of which 102,220 people live in town areas and 20,736 people in rural kebeles. This has brought the

water coverage to 38% in rural and 51% in town kebeles. Overall, Dera woreda has 40% water supply coverage, implying a huge effort required to sustain the currently functional schemes and to build more infrastructure in order to provide sustainable services to meet the Sustainable Development Goal (SDG) 6.1 target. The unserved population is currently 20,014 in the town areas and is projected to be approximately 167,468 in rural areas. In order to meet the large demand needed to have a productive and health society, Dera woreda has prepared an ambitious plan to meet the water supply need as per the SDGs and government standards.

Water supply and sanitation coverage in Ethiopia is among the lowest in the world. Hence, the Ethiopian Government endorsed the Growth and Transformation Plan (GTP-I) which included guidance and targets for the water supply sub-sector and served as the main strategic plan for the years 2011-2015. Federal Regional States, donors, NGOs, and communities made strong efforts to improve access to water supply in previous years. Due to these efforts, water supply coverage, based on the standard of 15 liters per capita per day within a 1.5 kilometer distance (rural) and 20 liters per capita per day with in 0.5 kilometer distance (urban), increased to a national average of 76.7% (75.5% rural and 84.1% urban) at the end of 2015.

More recently, the Ethiopian Government has endorsed the Growth and Transformation Plan (GTP-II) which includes updated targets for the water supply sub-sector and serves as the main strategic plan for the years 2014 to 2020. This plan set targets to achieve 75% urban and 85% rural water supply coverage based on the country's goal to reach middle income country status in 2025 and the Universal Access Plan (UAP) of minimum standard requirement. The UAP standards for drinking water coverage for urban areas are set based on population size. There are five categories of town size and the targets range from 30 l/p/day to 100 l/p/day within 0.25 kilometers distance. Whereas, for rural areas the target is to reach coverage of 25 liters per capita per day within 0.5 kilometer distance. In line with the national GTP-II target of the water supply and sanitation sub-sector, the Amhara region has also prepared a five-year (2015 - 2020) strategic plan for the water supply sub-sector to improve urban coverage from 54% to 85% and rural coverage from 59 to 87% by 2020 (MoWIE and BoWRD, 2014/2015).

With the 2030 Global Agenda for Sustainable Development, Ethiopia looks to make considerable development progress with WASH as a key aspect. SDG targets 6.1 and 6.2 set the vision to achieve universal, sustainable, and equitable access to safe drinking water, sanitation and hygiene, and the elimination of open defecation by 2030. Due to the emphasis on universal access and equitable access, these targets go well beyond the Millennium Development Goal (MDG) agenda and require new partnerships, strategies and stakeholders. SDG 6 also showcases the importance of intentionally protecting and managing water resources. These WASH targets are of key importance because of their strong links to achieving other SDGs targets in areas such as nutrition, health, education, poverty reduction, economic growth, and gender equality.

UNICEF/W	HO JMP ladder (SDGs)	Growth and Transformation Plan (GTP2)			
•	, ,	Growth and T	ransformation Plan 1 (GTP1)		. ,
Safely managed	Drinking water from an improved water source that is located on premises, available when needed and free from faecal and priority chemical contamination			Access meeting GTP2 urban standard	Access to an improved water source within 250m providing at least 40 lpcd (category 5 town with population <20,000)
Basic	Drinking water from an improved source, provided collection time is not more than 30 minutes for a round trip, including queuing	Access meeting GTP1 urban standard	Access to an improved water source within 500m providing at least 25 lpcd	Access meeting GTP2 rural standards	Access to an improved water source within 1.0 km providing a least 25 lpcd
Limited	Drinking water from an improved source for which collection time exceeds 30 minutes for a round trip, including queuing	Access meeting GTP1 rural standards	Access to an improved water source within 1.5km providing a least 15 lpcd		access to an improved water source within 1.5km providing a least 15 lpcd
Unimproved	Drinking water from an unprotected dug well or unprotected spring	No access		No access	
Surface water	Drinking water directly from a river, dam, lake, pond, stream, canal or irrigation canal				

The responsibility for the provision of safe drinking water supply mainly rests with Bureau of Water, Irrigation and Energy (BoWIE) in the region. Accordingly, BoWIE is responsible for the study, design and construction and maintenance of water supply facilities in the region as well as at the Dera Woreda level. Most of the water used by urban and rural users is obtained from groundwater sources. In addition to the drinking water coverage goals listed above, the region also has targets for sanitation and hygiene. The current water supply and sanitation situation in Dera is characterized by low service levels, limited financing for expansion and improvement of service, poor operation and maintenance practice, low institutional capacity and weak stakeholder participation in decision making. This was assessed through the building block analysis which gives a score of 0 to 5.

Woreda WASH Planning Processes

The process of WASH planning in Dera was different than the traditional annual planning process and has taken place over time through a series of steps. First, the present situation was assessed so that service levels and challenges to improved service-delivery were identified. Some of the assessments conducted by MWA program funded by CNHF and government to serve as baseline inputs to the Woreda Strategic Planning included: Asset inventory, WASH in Health care Facilities, Service delivery and equity analysis, Sustainability check, Political economy analysis, Life Cycle Cost Analysis (LCCA), Private sector assessment, Stakeholder/ Organizational Network analysis, Water resources risk assessment, and Monitoring assessment. The findings and recommendations that came out from the different assessments were supplemented with national data from Education Management System and Health Management Information System. Additionally, a WASH building block analysis and a systems assessment baseline were developed to identify issues in the broader WASH system to compliment the other assessments in order to develop a comprehensive picture of the current situation in Dera.

Building on this information, targets were set to address the problems or increase service levels to reach the intended targets. By analyzing the past and present WASH situation and possible targets, critical bottle necks to establishing and sustaining WASH systems were discussed and identified. Sector offices from woreda, zone and regional offices debated and discussed in order to develop potential solutions and come up with strategies to tackle the existing problems. These possible solutions were quantified, using a SDG planning tool designed to align with local and global WASH indicators and in collaboration with a planning team comprised of Woreda WASH Team (WWT) and key staff from NGO partners in the woreda and with support from Millennium Water Alliance (MWA) and IRC WASH. From the planning tool comes a 12-year costed plan that will serve to guide the woreda's multisectoral WASH activities. Additional outputs of the model are "consequences" of the plan, such as financial needs and sectoral and institutional requirements. Based on results of monitoring and periodic review meetings, updates and adjustments will be made regularly to the plan.

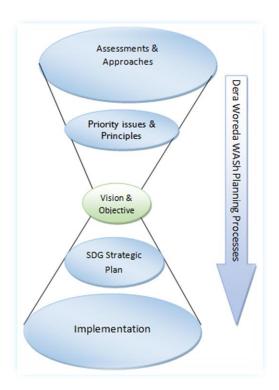


Figure 2: Woreda WASH Planning Process

Consultation with stakeholders was a key element of the Dera strategic plan development. Frequent discussions were conducted with the planning team and stakeholders. Beyond the formal meetings, among representatives of key sectors and university academicians, several small level technical meetings were conducted to produce some initial documents before main

consultative meetings. The target stakeholders involved were: NGO partners, media, and government organizations (national, regional, zonal and local) and communities.



Dera Woreda WASH Planning Meeting

Government, NGO, Private Sector, Community representatives

ANALYSIS OF STRENGTHS AND GAPS IN THE EXISTING SYSTEM

The Sustainable Development Goals (SDGs) call for universal, safe, affordable and equitable water supply. This requires some form of change in thinking as well as practice in the WASH sub-sector. Understanding WASH as a set of different but highly interrelated sub-components serving to build the whole is seen at the woreda level as a game changer. Building blocks are the fundamental components that make up something larger and more complex, in this case the WASH system (IRC, 2018). The figure below shows the summary score of the building block analysis (The ones in red need more attention to strengthen the system. For additional information the building block analysis for Dera woreda can be referred.

Country: Ethiopia					Woreda: Dera					
	Institutional	Legislation	Finance	Planning		Infrastructure Management	Monitoring	Regulation	Leaning and Adaptation	Water Res Management
Water District	2.5	1.3	2.6	2.3	3.0	3.0	2.8	1.5	1.4	1.6

Institutional

The institutional arrangement of the water sector was established from community to federal level in line with the One WASH National Program (OWNP). However, the current water sector structure does not accommodate water technicians at kebele level. The number of government experts responsible for supportive supervision to identify bottlenecks at the community level is very small compared to the number of kebeles. A major strategy will be to bring change in this structure in Dera, however, despite frequent requests and suggestions, it has required a political decision to improve these administrative challenges. The WASHCOs, who are usually trained at

the beginning of a project implementation, are elected for 3 years but typically never get replaced at the end of their three-year term. The structure at Region and zone levels is inadequate to support the village level schemes operation through decentralized system like the Health and Agriculture sectors to ensure sustainable service delivery at the base of the pyramid.

Policy and Legislation

The Ethiopian Water Resources Management Policy (1999) prepared by the Ministry of Water Resources highlights the goal of promoting national efforts for efficient, equitable and optimum utilization of water resources in Ethiopia. To transform policy into action, the National Water Sector Strategy was introduced and then followed by the Water Sector Development Program. The Water Resource Management Proclamation No.197/2000 states that water resources are the property of the Ethiopian people and the State. The Proclamation also states that domestic use of water shall have priority over other uses.

At woreda level there are two coordination platforms. The WASH Technical Committee meets quarterly with other departments including health, education, water and finance to discuss, update and review the woreda plans. A separate WASH Steering Committee meets with WASH stakeholders every quarter. Monitoring and evaluation coordination at woreda level is minimal but could play a significant role in strengthening monitoring and evaluation sector coordination.

The recently started impressive practice of organizing several WASHCOs together to Water Users Association (WUA) governed by agreed upon bylaws is a big step towards transforming water wector governance. WWTs and Kebele WASH Teams are established as per the national WASH Implementation Framework (WIF). However, knowledge on National legislations is limited and so far in Dera, no WASH Committee (WASHCO) has applied for a Water Safety Plan (WSP). There is a regional guideline on tariffs, service levels and other rules for utilities, however not for WASHCOs. Currently, there are almost no mechanisms or platforms for the public to make complaints or hold service providers accountable. To start to address some of these challenges, a community audit approach has been started in 3 WASHCOs in Meha Kebele, but many more efforts are required, and some new legislation or guidelines may be helpful.

Accountability

With regards to accountability systems currently in place. In Dera the local level has inadequate capacity. Oversight of regional councilors is limited to visiting the woreda officials and talking to selected communities. But their last action is talking about the issues raised with the woreda and this feedback does not usually result in bringing about the desired systemic change by influencing the Region and the Zone where most WASH staffing and budgeting decisions are made. There is also a limitation with written documents for formal communication between the woreda water office and WASHCOs except the legalized Water Users Associations (WUA).

At the woreda level, staffing technical roles is particularly challenging, especially attracting and retaining highly skilled professionals. High staff turnover is a serious constraint to improved service delivery. High turnover reduces the woreda's ability to support WASHCOs, as institutional memory about community-level capacity building needs is lost when staff move on and time is lost in the transition.

Planning

Dera has a GTP II plan (2016-2020) with clear WASH targets and indicating all expected sources of funding to achieve the targets. Annual work plans with costs of each activities are developed and updated each year. The work plans are expected to align with indicators at national level, though the woreda, zone and region all claim to collect, report and use more detailed indicators than are required at national level. There is a gap in addressing equity (inclusivity) when planning water development in the Woreda. During the planning process, the amount of budget allocated by woreda government for the water office from the total annual woreda administration budget is reported to be below 2%. This is an indication of the level of priority and attention given for the sector. There has been some effort to communicate with NGOs during annual planning. However, an increased effort by the woreda water office to create the need for improved resource allocation from diverse sources needs substantial work from all sector offices and WASH stakeholders.

Monitoring

The woreda water office receives monthly performance report from utilities, but not from WASHCOs. The WASH database is filled in annually and submitted to the Zone and the Region. However, the woreda has no access to the regional and national databases. The regional and national databases include all water points in the woreda. It is common to notice more than half of woreda water office staff time is spent directly on data collection related to monitoring and supervision. Additionally, planning and technical support may also include using monitoring data, thus, accounting for yet more staff time. As staff time, travel expenses and per diems are currently being spent on monitoring activities, albeit not covering all kebeles, it is important to ensure that these activities are in practice leading to woreda-level integrated WASH monitoring that can identify and respond to needs, along with documenting and sharing best practices. Without this budget, the impact of routine monitoring may remain inconsequential even though significant time is being spent. There should be significant incentives to ensure that there is a clear national and woreda framework for tracking services and planning corrective actions so that monitoring and evaluation (M&E) activities are leading to evidence that is used in real decision making.

Data management happens at a rudimentary level with reportedly systematic paper files, including approved reports, and some less formal storage of digital files (typically excel inventories and word documents). Data is used to meet reporting requirement and for planning purposes, especially for construction. There is minimal capacity at Dera woreda level to act (plan, implement and monitor) based on the collected data.

Water Resource Management

As a key member of the WWT and Steering Committee, the woreda water office engages in decisions related to Natural Resource Management (NRM) including soil and water conservation, catchment treatment, water source development, etc. The office prepares annual costed plans for water source development based on identified needs considering hydro-geological issues from experience and practices and specifications. There is also a mechanism (Water/Irrigation Users Associations Guideline) in place to manage any conflicts or competition between abstraction for water supply (by WASHCOs/ utilities) and downstream users. However, there are not any water resource management instruments at the woreda level both for utilities and WASHCOs that focus on the quality of water resources, production and water level.

Infrastructure Development and Management

Regional procurement, construction and supervision guidelines are implemented at Woreda level. However, there is no procurement implementation manual and procedure for capital investments at Woreda water office except for the Community Managed Program (CMP) through CoWASH.

The Woreda has been providing planning support to WASHCOs to do operations and maintenance (O&M) within their capabilities (providing training and O&M tools to WASHCO members and artisans) and has been providing the necessary support for O&M to WASHCOs upon request to ensure functionality. An asset inventory has been practiced in Dera since 2015 to provide updated water infrastructure data. While there has been handing over practice for new water points, there is no proper documentation and formal asset ownership procedure.

Finance

The amount of budget allocated to water offices from the total woreda administration offices is very small, and gets fully utilized. The bulk of this budget gets spent on administrative aspects including salary and office expenses. Even though a proportion of the budget gets allocated for water infrastructure development, the management aspect is not covered from the woreda government budget. Added to inadequately skilled WASH financing capacity at the community level, this has created a big vacuum in the operations and maintenance of water supply schemes across the country and Dera is not an exception to this.

There is no practice currently in Dera of budgeting using a Life Cycle Cost Estimation for water infrastructure. However, the concept and practice of One Plan, One Budget and One Report is widely promoted and increasingly has tried to help all resources be accounted for in one system for the whole woreda. This will also enhance the reliability of the budget tracking system and hence value for money. Though budget is allocated annually for new water infrastructure, the Woreda Water office and WASHCOs currently have no implementing guidelines on tariff collection.

Learning and Adaptation

The goal of M&E is to provide the data needed for guiding policy formulation and program operations to improve WASH services. But, when it comes to Dera, data is used to meet reporting requirements and for planning purposes, especially for construction. There is no system in place to link woreda-based learnings to the regional and national level. A small effort to exchange learnings in some Kebeles has taken place, but there is no formal institutional learning platform at woreda level. Meetings are properly documented, including identifying lessons learned, and minutes/ reports are available. But the practice of documenting lessons/best practices is minimal. Government-NGO forums are the one learning meeting the woreda conducts regularly and which includes all stakeholders.

VISION AND OBJECTIVES

Woreda sector offices, community representatives, NGOs, academic institutions and other key stakeholders of WASH set their collaborative vision for WASH in Dera.

Vision

Universal, safe and sustainable water supply coverage with reliable sanitation and hygiene for people living in Dera woreda by 2030.

General Objective

The ultimate objective is to contribute for improvement of livelihood status by enabling safe water and sanitation for Dera woreda communities

Specific Objectives

- 1. To achieve universal and equitable access to safe and affordable drinking water supply
- 2. To ensure adequate and equitable access to sanitation and hygiene
- 3. To address capacity building and systems strengthening in the woreda WASH Sector
- 4. To establish a robust monitoring and learning system and support for the woreda WASH implementation

STRATEGIES TO ACHIEVE FULL WASH COVERAGE

After a detailed analysis of strategies previously used, future aspirations and a range of factors from global and local context, the following key strategies are identified and explained to serve as main pathways to achieve the long-term Dera Vision of 30% safely managed and 70% basic service level.

 Strengthening community ownership and management of rural point sources (simple technologies), to introduce association or utility management for piped rural water schemes (shallow and deep wells with distribution systems) and to support alternatives such as roof water harvesting where households cannot be effectively served through groundwater supply, and Self-supply where appropriate.

- Coordinate, build partnerships and lobby for increased financing and aligned activities
 from government (lobbying on woreda budget and critical role of WASH), communities
 (ensuring higher contributions during construction are allocated to a future maintenance
 fund, and regular payment of water tariff) and development partners. Specific
 allocations will be made for rehabilitation and capital maintenance.
- Strengthen local capacities across the public and private sectors for rural water asset management including 1) Woreda administration and woreda water office and 2) Deploying kebele water technicians to the 36 rural kebeles (government staff employed by the woreda; TVET training and water background) with responsibilities related to monitoring, water quality monitoring, water safety and other oversight functions; 3) Grouping WASHCOs into Water Users Associations (e.g. 2 or 3 per kebele) with own personnel hired and supporting WASHCOs in management, maintenance and other tasks (financed largely by fees paid by WASHCOs); and 4) Promoting private sector development with enterprises (employing youth) and providing spare parts (and Chlorine) for rural water facilities (e.g. one business in each town).
- Extend water supplies to all schools and health facilities through connection to rural
 piped schemes or standalone water supplies; and to integrate improvements in water,
 sanitation and hygiene through application of community-led total sanitation and
 hygiene (CLTSH), school-led total sanitation & hygiene (SLTSH) and sanitation marketing.
- To introduce new technologies including replacing hand pumps (where yield allows) and
 diesel-powered pumps with solar-powered pumping; and to pilot rainwater harvesting
 and water treatment in kebeles with low groundwater potential; and to promote
 improved water quality linked to service delivery models and including upgrading
 protection and use of HWTSS at household-level, and the deployment of water point
 chlorine dispensers to augment regular water supply source chlorination.

PLANNED ACTIVITIES AND RESULTS

The Dera Woreda SDG WASH plan targets are based on the expected population growth over the next 12 years. Currently the Woreda population is about 310,438 and by 2030 is projected to be 417,505. The rural and urban populations account for about 86.87% and 13.13% of the total population, respectively. The rapid rate of urbanization, the accompanying migration of rural populations to urban towns and the increase in industrialization is expected to change the current demographics over the coming few years. This begs for proper planning that can accommodate the demand to come alongside the economic transformation. Figure 3 presents projected population from 2018 to 2030 using the prevailing regional population growth rate of 2.5% based on data from Central Statistics Agency (CSA).

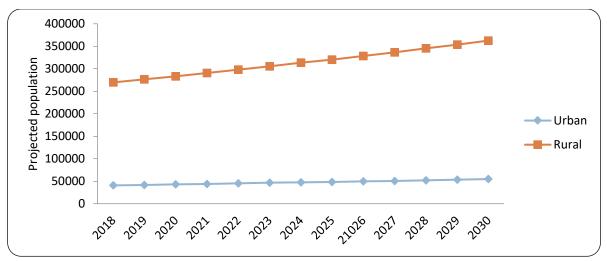


Figure 3: Population Projection

A) PLANNING ASSUMPTIONS

1. Number of beneficiaries

The number of beneficiaries per water scheme was defined from practical use the asset inventory done by MWA and the government. In addition, for shallow wells with distribution deep well with distribution and capping with distribution 3l/sec, 6l/sec and 3.5l/s yield was used respectively for calculating number of beneficiaries.

Water scheme	Number of beneficiaries
Rope Pump	10
Spring	100
Hand Dug well	100
SSA	5
Bore Hole with Hand Pump	200
Shallow well with distribution	3450
Deep well	6912
Manual Drilling	100
Roof water Harvesting	30

2. Unit rate for new construction and rehabilitation

Unit cost was calculated from practical use and the current condition in Dera. 5 to 10 percent of the CapEx was used in most schemes.

Type of water scheme	Unit rate (new construction)	Unit rate (Rehabilitation)
Hand dug well, Afridev hand pump	82,500	8250 (10% of new construction)
Shallow well, Afridev hand pump	450,000	22500(5% of new construction)
On spot spring	85,320	8532(10% of new construction)
Roof harvesting system	150,000	15000(10% of new construction)

Self-supply acceleration at HH (Hand dug well, Afridev hand pump)	14500	1450 (10% of new construction)	
Manual drilling	50000	8250	
Rope pump	15,000	1500 (10% of new construction)	
Deep well (large)	20,000,000	1 million (5% of new construction)	
Shallow well with distribution	5,131,906	1,440,934.10 (5% of new construction)	
Structural spring (Large)	14,409,341	8250	

3. CapManEx

Expenditure on asset renewal, replacement and rehabilitation (CapManEx) covers the work that goes beyond routine maintenance to repair and replace equipment, in order to keep systems running. For Dera Woreda CapManEx is taken as 15% of Capital Expenditure every 5 years which is equal to 3% of the CapEx annually. For the first year CapManEx is taken as 10% of CapEx since a lot of rehabilitation work is expected.

4. OpEx

There is a requirement for recurrent (regular, ongoing) expenditure on labour, fuel, chemicals, materials, and purchases. For Dera woreda OpEx is taken as 5% of CapEx annually. This includes water quality work planned in the woreda.

OpEx

- 1 vehicle each cost 3000000
- 3 motor bikeeach cost 200000
- Staff salary in 36 kebele 1,296,000
- Fuel each year 216,000
- 70 Chlorine dispenser per year each cost 378,000 birr
- 4 deram chlorine per year each cost 20000

5. Direct Support cost

DSC includes expenditure on both pre- and post-construction support activities directed to local-level stakeholders, users or user groups. This is calculated as:

- Staff salary in 36 kebele 1,296,000
- WWT :8x4 roundx800= 25600
- Woreda expert: 30 expert x4 round x800=96000
- DAs: 40x3 roundx600=72000
- Kebele manager:39x3 roundx600= 70200
- Health extension: 95 x 3 round x 600=171000
- WASHCO: 788 x 7x 2round x 300= 3309600
- Kebele admin: 6x2 roundx39 kebelex300=140400
- Woreda cabiniet:50x2 round x400=40000
- School supervisor and director :130x2 roundx600=156000
- Kebele land admin: 36x3 roundx600= 64800

• Private sector: 20x 4 roundx8oo= 64000

• Artesian: 100x4x300=120000

Total= 15549600/ for 12 years/ (for one year this is 2,591,600 Birr). Since DSC is calculated per beneficiary this number is divided by the total population to get the DSC which becomes **8.34 Birr per beneficiary** annually.

6. Indirect Support cost

ISC includes macro-level support, capacity-building, policy, planning, and monitoring that contribute to the sector working capacity and regulation but are not particular to any programme or project. Since there is no evidence for calculating this, there is an agreement to take **50** % of the DSC as ISC (this is considering the practical application in the woreda).

7. Percentage of people covered persons with 'Safely Managed' and 'Basic' service level

The vision is to provide 30% safely managed and 70% basic service by 2030. Some of the technologies only provide basic service and others provide a percentage of both basic and safely managed. The following assumptions were taken for defining these service levels. The reason for taking Shallow well with distribution and Deep well as 50-50% and 20%-80% respectively is because some of the schemes will not have on premises distribution system.

Water scheme	% of Basic	% of Safely managed
Rope Pump	100	0
Spring	100	0
Hand Dug well	100	0
SSA	0	100
Bore Hole with Hand Pump	100	0
Shallow well with distribution	50	50
Deep well	20	80
Manual Drilling	100	0
Roof water Harvesting	100	0

8. Other assumptions

Other assumptions include population growth rate of 2.5 % and inflation rate of 8.1% according to current CSA data.

In light of the existing water service delivery levels and projected population size, as well as other demographic factors, the following set of key activities are planned to improve service-delivery in Dera woreda:

B) NEW INFRASTRUCTURE CONSTRUCTION

By the end of 2030, the Woreda intends to increase the proportion of urban households who have access to safely managed water (on premises, available when needed and free from contamination) from the current 0% to 100%. It is estimated that a population of 54,804 will

need to have access to these safely managed water services. For rural areas, the target is to achieve 30% (almost 108,810 people) safely managed service and the remaining 70% of the population to have basic service level by 2030.

Hand dug wells are predominantly planned based on cost, ground structure and rural needs, followed by shallow wells and self-supply. Deep wells and shallow wells with distributions are likely, but only in a few areas because their construction and maintenance costs are high.

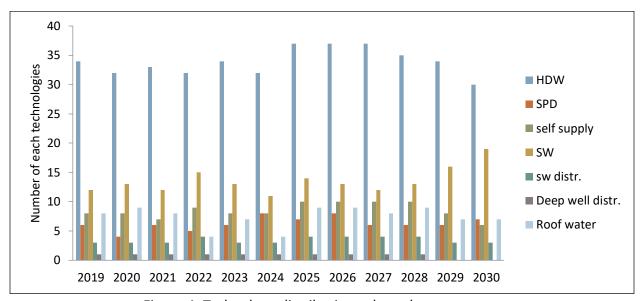


Figure 4: Technology distributions along the target year

In the Dera SDG plan, a total of 887 technologies/infrastructure are proposed for the entire 12-years. For hand dug wells (HDW)-407, spot spring development (SSD)-75, Self-supply-102, shallow wells (SW)-163, SW with distribution-41, deep well with distribution-10 and, for those kebeles without ground water potential, rain water harvesting-89.

Table 2: Physical new construction plan per technology

Year	HDW	SPD	Self supply	SW	SW distr.	Deep well distr.	Roof water	total
2019	34	6	8	12	3	1	8	72
2020	32	4	8	13	3	1	9	70
2021	33	6	7	12	3	1	8	70
2022	32	5	9	15	4	1	4	70
2023	34	6	8	13	3	1	7	72
2024	32	8	8	11	3	1	4	67
2025	37	7	10	14	4	1	9	82
2026	37	8	10	13	4	1	9	82

2027	37	6	10	12	4	1	8	78
2028	35	6	10	13	4	1	9	78
2029	34	6	8	16	3	0	7	74
2030	30	7	6	19	3	0	7	72
Total	407	75	102	163	41	10	89	887

C) OPERATIONS AND MAINTENANCE

The total of 348 structures are proposed to be maintained phase by phase with their respected design period and the availability of human and capital resources. Along with the physical year HDW, SPD, MD, SW, and RPs with 299, 26, 10, 12 and 1, respectively, will be maintained and the needed budget for this is allocated in the strategic plan (see Table 3 for maintenance plan).

The strategic directions and actions related to water supply intend to:

- Contribute for the provision of water facilities for the 60% of the currently unserved population (see Table 4 for improved coverage plans)
- Provide borehole with hand pump, HDW, SPD and roof water harvesting facilities for basic access coverage for unserved communities and the other technological options are proposed to be for safely managed
- Improve services in communities by:
 - Mobilizing different sources of funding
 - Improving water quality management
 - o Improving reliability of hygiene and sanitation

Table 3: Physical new maintenance plan with the respected technologies

				Self			
Year	HDW	SPD	MD	supply	SW	RPS	Total
2019	23	2	1	23	1		27
2020	25	2	1	23	1	1	29
2021	25	2	1	23	1		29
2022	23	2	1	23	1		27
2023	25	2	1	23	1		29
2024	23	2	1	23	1		27
2025	26	2	1	23	1		30
2026	25	2	1	23	1		29
2027	26	2	1	23	1		30
2028	26	2	1	23	1		30
2029	26	3		23	1		30
2030	26	3		23	1		30
Total	299	26	10	284	12	1	348

Table 4: Served and unserved populations by service levels

Year	TOTAL POPULATION	POPULATION UNSERVED	POPULATION SERVED (BASIC)	POPULATION SERVED (SAFELY MANAGED)	POPLATION SERVED (TOTAL)	% Served (Basic) to Total Population	% Served (Safely Managed) to Total Population	% Served (Total) to Total Population	% Unserved to Total Population
2018	310,438	187,482	122,956	0	122,956	40%	0%	40%	60%
2019	318,199	171,301	136603	10,295	146,898	43%	3%	46%	54%
2020	326,154	155,484	150153	20517	170,670	46%	6%	52%	48%
2021	334,308	139,801	163740	30767	194,507	49%	9%	58%	42%
2022	342,665	120,581	179459	42625	222,084	52%	12%	65%	35%
2023	351,232	105,036	193203	52993	246,196	55%	15%	70%	30%
2024	360,013	90,195	206668	63150	269,818	57%	18%	75%	25%
2025	369,013	70,963	222760	75290	298,050	60%	20%	81%	19%
2026	378,239	52,057	238795	87387	326,182	63%	23%	86%	14%
2027	387,695	33,811	254585	99299	353,884	65%	25%	91%	9%
2028	397,387	15,771	270392	111224	381,616	68%	27%	96%	4%
2029	407,322	7,906	280539	118878	399,416	69%	29%	98%	1.94%
2030	417,505	-1	290849	126657	417,506	70%	30%	100%	0.00%

C) SANITATION AND HYGIENE

This strategic plan suggests facilitating a shift from open defecation to a focus on to the provision of communal and shared (public) toilets and facilitating implementation of household toilets. The target is to increase the proportion of population with toilet facilities in urban and rural areas from 56 to 100% (see Table 5 for more details about latrines and water provision).

For WASH in institutions the goal is to ensure that by 2030 all institutions have safely managed WASH services.

For Health care facilities:

- Water supply on premise
- Improved sanitation facilities
- Hand hygiene materials
- Provision of bins for disposal

For Schools:

- Supply from an improved water source on school's premise
- Improved facilities, which are single-sex and usable at the school
- Hand washing facilities, which have water and soap available.

Table 5: WASH in institutions and communal for sanitation and hygiene

Year	Safe Water		Latrines			
	School	Health	Health	School	Common	
2019	2	1	3	6	2	
2020	3	1	3	6	2	
2021	2	2	4	6	1	
2022	2	2	4	6	1	
2023	2	2	3	6	1	
2024	4		3	6	1	
2025	2	1	4	6	1	
2026	2	1	3	6	1	
2027	1	2	3	6	1	
2028	3		3	6	1	
2029	1	2	3	6	1	
2030	2	1	3	6	1	
Total	26	15	39	72	14	

D) CAPACITY BUILDING AND SYSTEMS STRENGTHENING

Capacity building and systems strengthening is crucial for the WASH sector to critically evaluate, and meet development targets and outcomes. This includes technical skill training, continuous professional development (knowledge) and institutional capacity building strategies on the problem set and the WASH contexts operated. Capacity building and systems development for relevant existing institutions and line bureaus can take place through assessing the current capacities in order to identify areas and types of capacity building needed by the different stakeholders in relation to their participation in strategic plan and implementation. Below is a list of planned capacity development activities

Woreda System level:

- Institutional capacity development
 - ✓ Train on WASH planning, monitoring, and evaluation
 - ✓ Support logistic matters (motor bike, maintenance kits...)
 - ✓ Provide necessary support for WASHCO
 - ✓ Build maintenance capacity at the community level
 - ✓ Strengthen building quality checks
- Multi-stakeholder approach
 - ✓ Form/propose multi-stakeholder coordination system
 - ✓ Involve all actors early in planning
 - ✓ Strengthen monitoring and ensure quality

- ✓ Support annual WASH inventory
- ✓ Argue for use of monitoring data for targeted support and strategic planning-beyond routines
- Financial
 - ✓ Costing should go beyond CAPEX
 - ✓ Advocate for (harmonized) wash tariff setting (WASHCO)

Rural local water system level:

- Strengthen WASHCos
 - ✓ Stimulate monthly meetings
 - ✓ Support the legalizing process
 - ✓ Ensure gender balance
 - ✓ Stimulate and support WASHCos to undertake preventive maintenance
- Strengthen financial management of WASHCos
 - ✓ Stimulate tariff setting and revenue collection
 - ✓ Stimulate good financial management, including record keeping and storing money at a financial institution
- Facilitate development of Water Safety Plans at WASHCo level

Urban water System level:

- ✓ Support utilities (technical, financial management...)
- ✓ Sufficient capacity at woreda/zonal/ regional level to provide support to Town Water Utilities
- ✓ Effective provision of technical support to the TWU
- ✓ Improve coordination to consider all stakeholders in town water supply
- ✓ Strengthen WASH management structure through trainings
- ✓ Train on WASH planning, monitoring, evaluation and learning

E) MONITORING AND EVALUATION

In the National WASH M&E Framework and Manual there are guidelines for water supply MIS. At the woreda level there are no guidelines for database management or data security and there are no naming conventions or data standards and codes in use. At all levels, there are routine practices of storing the data. However, these are not written down in official documents or guidelines. M&E staff generally know how to find official data and reports. The staff has more difficulty finding data in the desktop and laptop folders. Parallel there is a physical archive for all officiated hard copy reports. These archives are well structured and staff are able to find what they are looking for easily.

There is no WASH sector wide database where relevant data sources are updated and combined. Each of the woreda's and zones has a similar approach to database use and management. Dera has no structural support or sufficient human resources for database management and related IT issues. If something breaks (database, IT equipment) the woreda will look for local experts when budget is still available. There are no data security guidelines available and there is no daily practice of securing data. Knowledge of this area and priority for this subject are very low (Monitoring Assessment, 2018).

Regional level

Data in Amhara is stored at different departments. There is no central regional database or linkages between databases used by different departments. At other departments there is some capacity for database management and related IT skills, but the bureau has limited access to them.

There is a server containing the National WASH Inventory (NWI) data from 2010-2011 which is available at the Water Bureau. The NWI data is being updated in 2018-2019, but this process is not yet complete. Access to the NWI is restricted with data users having to request access to the Inventory. This process is not captured in official documents or guidelines. Data security is absent and is not a topic of discussion. (Monitoring Assessment, 2018).

The following activities are included to improve monitoring as part of this SDG plan:

- Create and implement standard guidelines and procedures to collect and manage data
- Create and implement a standard database to improve quality of services
- Create sufficient human capacity to have skilled personnel in Dera to manage data and databases
- Create routine training on standard database management system for specified M&E staff
- Construct and use an integrated database from federal to woreda level

Table 6: Detailed Activities, Outputs and Anticipated Results for 2018-2030

Objectives	Activities	Outputs	Cost	Anticipated Result
1. Construct new infrastructure	 Construct 407 HDW Construct 75 SPD Construct 102 SS Construct 204 S.W Construct 41 S.W with distribution line Construct 10 Deep well with distribution line Construct 89 roof harvesting Construct 125 Latrine 	 407Hdw was constructed for community 75 SPD was constructed for community. 102 SS was constructed for community. 204 SW was constructed for community., schools, health centers 41 SW with distribution lines was constructed for community. 10 Deep well was constructed 89 roof harvesting was constructed for community 125 latrine was constructed for health center, school and common use. 	To achieve all planed new infrastructure construction the total cost is 827.13 million birr.	Safe water supply for 294,550 population and the total beneficiaries expected to increase by 2030 to 417,506. Also the % of Safe water supply and WASH coverage in 2030 to 100%.

Operation and maintenance	 Maintain and rehabilitate 299 HDWs Maintain and rehabilitate 26 SPDs Maintain and rehabilitate 10 MDs Maintain and rehabilitate 12 S.Ws Maintain and rehabilitate 1 RPS 	 299 HDWs were maintained and rehabilitated 26 SPDs were maintained and rehabilitated 10 MDs were maintained and rehabilitated 12 SWs were maintained and rehabilitated 1 RPS. was maintained and rehabilitated 	To achieve maintain and rehabilitate all planed old water points the required cost is 51655968 birr	 Reduce non-functional rate to 0%. Reduce new infrastructure cost budget Improve sustainable functionality of all infrastructures
3. Capacity building	 Give water quality test and treatment training, water point operation and maintenance training for woreda experts Give CLTSH facilitator training. Give SLTSH training for school community. Strengthen and establish school WASH clubs. Give caretakers training Give training on purchasing, supply of local materials and water point management for WASHCOs and kebele WASH teams Give different awareness training about WASH for communities. 	All woreda experts, kebele WASH members communities and WASHCOs have taken different training for sustainable WASH services in all we\oreda communities.	Total cost is 72555836 birr	 All woreda communities, different experts and different level WASHCO members have good awareness about sustainable WASH services. Improve sustainable water supply, and sanitation and hygiene for all communities.
4. Monitoring and Evaluation	 Woreda WASH members evaluate all woreda water points and hygiene facilities situation Water, health and education office experts will support 	All WASHCOs in kebele level are supported evaluated and monitored by woreda WASH members and different experts frequently to improve sustainable	• 2.88 million birr.	 All woreda communities have developed & increased sustainable WASH behavioral changes Increased the close relationship

and s	upervise the	functioning of all	between the service
sustai	nability of	infrastructure.	authorities and
water	and sanitation		communities by
facilit	ies		having a reporting
• Kebel	e WASH		system
mem	bers will		
evalu	ate and support		
each	water point and		
sanita	ntion hygiene		
facilit	ies in the		
comn	nunity level		
• Devel	op experience		
sharir	ng between		
each	WASH		
comn	nittee.		

CROSS-CUTTING THEMES

Women and men usually have very different roles in water and sanitation activities; these differences are particularly pronounced in rural areas. Women are most often the users, providers, and managers of water in rural households and are the guardians of household hygiene. If a water system breaks down, women, not men, will most likely be the ones most affected, for they may have to travel further for water or use other means to meet the household's water and sanitation needs (World Bank, 2002).

Women have a strong incentive to acquire and maintain improved, conveniently located water facilities, since they often spend more time collecting water. Hence, women and girls tend to benefit most when water quality and quantity improves. They tend to take shorter trips carrying heavy containers, they may have more time for income-generating activities and they are able to spend more time in school

To address the gaps in the cross-cutting issues identified including district capacity, district systems for WASH, equity and inclusion, and behaviors and attitudes, efforts will be made to increase the leadership and involvement of women in decision-making process reviews and WASHCOs.

COSTING

The cost estimates for covering the investments in infrastructure for providing full WASH coverage under safely managed and basic modalities. The costing approach considers the existing and projected population, technologies needed for WASH service delivery and the costs for providing sustainable WASH services related to the technologies. The life-cycle cost approach provides the cost components for delivering sustainable WASH services, which are CapEx, OpEx, CapManEx, and ExpDS. The cost components are:

- Capital Expenditure (CapEx) the cost for providing the WASH infrastructure.
- Capital maintenance expenditure (CapManEx) the cost of replacing assets or asset renewal. This covers major maintenance activities.
- Operational and maintenance expenditure (OpEx) the cost of routine operations and minor maintenance.
- Expenditure on direct support (ExpDS) the cost for supporting service delivery, which includes monitoring and evaluation, technical support, backstopping, capacity building etc. provided and/ or requested by the Woreda Water and Sanitation Teams.

The unit costs for calculating the cost of service delivery (as "per person/capita" or "per household").

Table 7: Average Unit Cost Per Person for Technological Options

Wash component	Technology /level of	Unit cost per person				
	service	Cap Ex	Cap Man Ex	OP Ex	DSC	ISC
Water Supply	HDW	2945	1542	155	218	219
service	SPD					
	SW					
	MOTERIZED SW					
	DW					
	MD					
	SS					
	ROOF HARVEST					
Hygiene and	Latrine	101	2.5	2.5	1	1
sanitation	Incinerator					
service	Placenta pit					
	Hazard disposal pit					
	Dry pit					

COSTING OF WATER SUPPLY SERVICES

The cost projection is done over a 12-year period on an annual basis. The unit costs presented above are provided per type of access point, household connections, standpipes either connected to a limited mechanized borehole or a small town piped scheme, hand pumps and service delivery material of increasing safely managed water supply through self-supply.

The costs for achieving the target of providing water services to all by 2030 are estimated, taking into account the current service coverage, the targeted coverage (at least basic services for 70% and safely-managed services for 30% of the population), and the unit cost of the technologies to be employed to achieve the target along with their perspective inflation rate 8.1% (Central Statistics Agency, 2018). The total cost required for the entire planning period is estimated to be Birr 998.8 million of which the cost components can share CapEx is about birr 867.7million, CapManEx is birr 58.6 million and for Direct support birr 72.5mill.

Table 8: Summary of CaPEX, CapManEX and ExDS

Year	Cost in Birr for Water supply service				
	CapEx	CapMANExex	Direct		
2019	7,405,3451	818,907	2,445,643		
2020	7,524,8621	818,907	3,569,639		
2021	5,903,7489	1,571,393	4,220,389		
2022	71,481,787	2,161,768	4,973,241		
2023	69,574,936	2,852,006	5,631,499		
2024	73,065,296	3,522,041	6,276,379		
2025	91,068,989	5,344,266	7,047,113		
2026	97,765,563	2,168,544	7,815,116		
2027	105,008,016	7,737,372	8,571,381		
2028	61,083,692	7,531,823	9,328,462		
2029	68,566,740	9,406,883	9,625,707		
2030	1,145,832	11,534,489	10,119,564		
Total	867,739,400	58,468,405	72,555,836		

From the analytical planning tool CapEx covers about 83% of the total cost of the strategic plan and 8% is for CapManEx and OpEx with the remaining 9% of the cost will for Direct support costs.

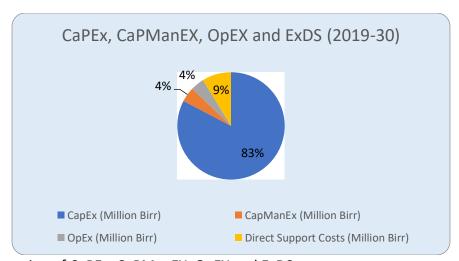


Figure 5: Proportion of CaPEx, CaPManEX, OpEX and ExDS

The CapEx around the beginning of the planning period shows a significant increase, but is positive as it helps to provide water supply services for chronically unserved communities. The other costs grow over time due to the operation of the water supply schemes along with their respected growth rate of served population.

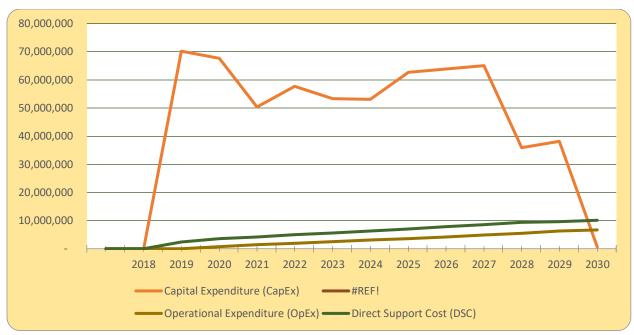


Figure 6: Birr needed for each type of expenses for the water plan covering through 2030.

COSTING OF SANITATION SERVICES

The cost estimation of sanitation and hygiene facilities has been based an extensive microplanning exercise conducted by UNICEF Ethiopia. Moreover, national sanitation standards guidelines is referred to. The micro plan identified community and institutional level needs for all regions and woredas in Ethiopia. For sanitation, the technologies adopted are predominantly latrines (schools, health institutions and common usage for communities). The targeted population served by these different technologies in the urban and rural areas and the current coverage levels are estimated. The 2030 target is that 70% of people have access to at least basic sanitation and that 30% of the population will have access to safely managed sanitation. Like in the water cost analysis, direct support costs related to ongoing sanitation and hygiene promotion, and support to service providers are considered. The total amount of cost estimated for sanitation and hygiene is birr 34 million.

Financing

The overall financial requirement for achieving the strategic WASH targets for Dera is Birr 998,763,641. The breakdown of the financial requirement by sector is important for requirements for technical assistance communication, monitoring and evaluation aspects.

Comprehensive analysis of the required costs has been made (including all cost components, like CapEx, CapManEx, OpEx and direct support costs) for developing and sustaining WASH services in the woreda. The following activities will be utilized to manage the financing aspects:

Analyze current levels of WASH expenditure and identify gaps

- Carry out annual financial tracking of the woreda and other partner's contribution to the WASH plan implementation
- Review the management and financial schemes of water facilities
- Introduce new methods and approaches for operational and financial management
- Conduct periodic training on financial and facility management
- The woreda will progressively increase funding of WASH activities
- Undertake external marketing of the WASH plan to attract additional funding
- Increasing Community contribution from 30 to 40 %

It is expected that NGOs and other stakeholders in the Dera will likely support about ETB 506.27 million, the government is estimated to be ETB 329.7million and the communities who are direct and indirect beneficiaries will participate with ETB 214.33 million.

STAKEHOLDERS

Implementation of this plan will depend on activities of key woreda WASH Stakeholders in the district:

Woreda Council – this is the highest executive structure in the woreda with representatives of all sector offices and chaired by the woreda administrator. The council was involved in the SDG planning process and is expected to play a vital role in seeking financing for WASH during the SDG period. Other responsibilities of the woreda council include 1) oversight of the Woreda WASH Team 2) approval of strategic and annual plans that implement this SDG plan 3) and monitoring and evaluation of woreda wide WASH activities

Woreda Water Office –responsible for coordinating all water related works including prioritization of needs, coordinate the technical study of water resources, facilitating the capacity building efforts, provide technical advise and resolutions to the woreda council on water sector matters, assess and introduce appropriate technological innovations, establish a robust system and capacity to manage WASH contract management in close collaboration with sector offices in the woreda

Woreda Health Office – leadership in commissioning sanitation and hygiene assessment, coordinating the promotion and community education on sanitation and hygiene (SH), provide technical advise for WWT on health aspect, strengthen capacity on SH, identify and disseminate best practices for replication within the woreda and beyond, work towards increasing access to health facilities at the community and institutional levels.

Woreda WASH Team – review and approval of strategic and operational plans by governmental and non-governmental organizations, establishing a strong system on WASH monitoring, documentation and sharing, strengthen the technical and managerial capacity of actors to design and implement quality WASH services, monitoring and evaluation.

Moreover, WWT Prepares consolidated Woreda WaSH plans (strategic and annual), Review and monitor WaSH program implementation at woreda level, manages annual WaSH Inventory and M&E system and maintains, woreda database/information system and ensures its annual update.

WASHCO – these committees are responsible for operations and maintenance of water supply schemes including collecting tariffs, managing funds, promoting WASH, prepare and submit periodic WASH report to the woreda and monitoring of overall WASH activities.

Microfinance Institutions – provide loan services for individuals and small businesses, potentially increasing awareness about WASH sector demand for loan services, increased allocation of loan for WASH works, promotion of available products through community channels, mass media and Information Education and Communication (IEC) and Behavior Change Communication/BCC materials.

Non-Governmental Organizations—deliver WASH programs for rural and urban communities, NGOs also seek to strengthen human and institutional capacity of WASH actors in the woreda. In line with the approved woreda SDG plans, NGOs strive to support the woreda increase the funding base for WASH implementation. NGOs as well as other influential stakeholders will provide a networking platform to facilitate learning on WASH activities and also assist the woreda government in lobbying for increased funding for WASH.

Private Sector –private businesses, associations and artisans engaged in the provision of spare parts, construction materials, equipment and services related to water supply, sanitation and hygiene.

RISKS AND ASSUMPTIONS

Thematic	Risks	Rank	Mitigations
Drinking Water	 Rapid rate of urbanization resulting in changing demographics and affecting WASH service delivery Binding government regulations that may not be flexible to accommodate new approaches 	High	 Periodic review of woreda WASH strategic plan Close partnership and engagement with the government to increase exposure to new ways of working in WASH governance
Sanitation and hygiene	 Occurrence of natural disaster and disease epidemics Low levels of sanitation services and environmental conditions at household and institutional level 	Medium	 Improve liquid and solid waste collection and management practices in households, educational, health and public facilities Encourage private sector participation in the provision of services in urban areas
Local government capacity	 High staff attrition among woreda staff Inadequate capacity and systems for WASH implementation, management and coordination 	Medium	 Strengthen the local government capacity and systems to manage the delivery of WASH services (resource mobilization and prioritization and optimization, coordination and alignment of interventions, monitoring and evaluation) Work to incentivize staff to remain with the woreda water office through improved trainings and improved work environment
Integrated Water Resource Management	Industrial chemical pollution of water sources and environmental degradation	Medium	 Collaborate with relevant government agencies to enforce existing laws or attempt to developed added water resources regulations and guidelines
Equity and inclusion	Minimal coverage of WASH services in remote underserved, disperse populations, number of female-headed households and vulnerable populations	Medium	 Employ innovative mix of technologies to reach un served communities Improve tariff collection in communities so that in some cases services for vulnerable populations can be subsidized.

MONITORING, EVALUATION AND LEARNING

The ultimate purpose of this SDG plan is to enable coherent and strategic management of the WASH system and associated infrastructure. Therefore, M&E is critical aspect of the implementation of the strategic plan; a well-designed M&E system is a strategic aspect of this plan.

In the WASH sector, the proposed indicators such as access to safe water, water use efficiency, groundwater potential, water quality and sanitation coverage, handwashing, etc. are needed and a Management Information System (MIS) and data base management will be applied to modernize the M&E system of the plan. There should be developed an information management system to facilitate woreda-wide data exchange between service-providers, service-authorities and the users. During monitoring and evaluation important data will be collected, analyzed and interpreted to make decision on implemented plan. To collect this data, monitoring and evaluation tools such as periodic meetings, reports, field visits, focus group discussions and interviews are needed (See Table 9 for more details).

Table 9: Institutional Role, Responsibility and Time frame for Monitoring and Evaluation

Institution	Responsibility	Tools for	Time
		M &E	frame
Regional Wash committee	Evaluate the performance report which is done by regional technical committee and Provide decision	Meeting, Report, field visit	Bi-Annually
	based on the report		
	Evaluate the achievements towards national and	Meeting, field	Annually
	regional policy and provide policy directions	visit	
	Evaluate Regional Technical committee and Woreda Steering Committee	Meeting	Bi-Annually
	Field monitoring	Field visit	Bi-Annually
Woreda WASH Team	Evaluate the performance report which is done by woreda technical committee	Report, field visit	Quarterly
	Harmonize the Wash plan with other woreda plans		Annually
	Evaluate woreda achievements	Report, field	Quarterly
		visit, meeting	
	Field monitoring	FGD, interview	Quarterly
Regional Technical	Evaluate and Writing performance report		Bi-annually
committee	Field monitoring		Semi-
			annually
	Study and research		
Woreda technical	Collect, compile and disseminate information	Report, field visit	Quarterly
committee	Evaluate the performance	Meeting, field	Quarterly
		visit	
	Field monitoring	interview	Quarterly
Water office/Utility	Coordination of planning	Workshop	Annually

	Regulation and enforcement	tariff, charge, policy measures and necessary regulations	Based on demand
	Field monitoring	Field visit	Based on demand
	Revise the plan	Report, field visit	Within 5 years interval
Regional Bureaus and Agencies	The regional level key stakeholders play a leading role in the approval of the plan and M&E frameworks specific to sectorial activities based on this main document together with the line-departments at all levels	Report, field visit	Annually
Community/WASHCOs	The community will intensively participate in all development interventions in place and practice as well in all level monitoring and evaluation processes	Field visit, report	Recurrently

REFERENCES

MWA (2018). Long-term strategic planning for universal, safe and sustainable water services at the woreda level in Ethiopia; MWA Position Paper

MWA (2018). Position Paper: Service delivery models for universal, safe and sustainable water services in Ethiopia

OCA and MWA. (2018). Assessing Private Sector Capacity in WASH Site visit findings & recommendations

Sanchez D. (2018). Rapid Risk Assessment of Water Resources in Farta, Dera and North Mecha Woredas, Amhara Region

MoWIE, Ethiopia. (2018). A Multi-Sectoral SWAp PHASE 2 Program Document (Second Draft).

Moriarty, P. and Huston, A. (2018). Building Strong WASH systems for the SDGs Understanding the WASH system and its Building Blocks; Working Paper from IRC.

World Bank, (2002). Water, Sanitation & Gender Equity

ANNEX

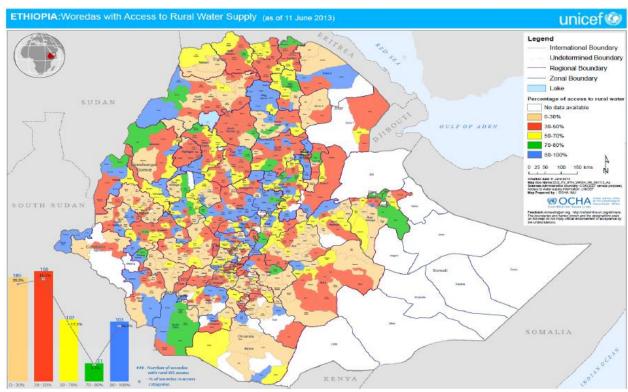


Figure 7: Map of rural water coverage in Ethiopia (UNICEF, 2013)

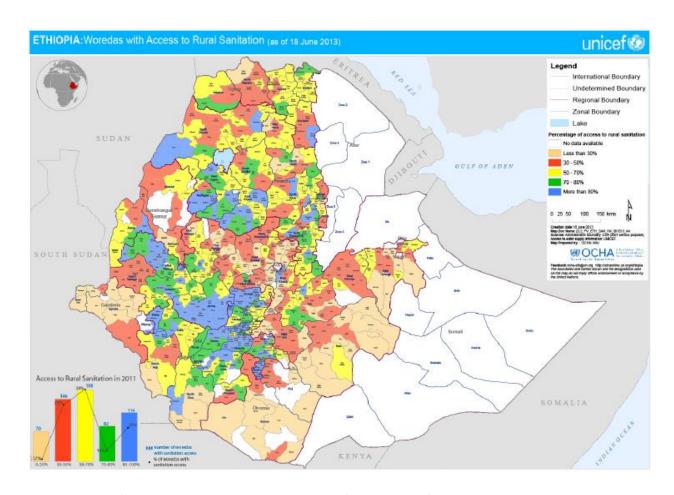


Figure 8: Map of rural Sanitation coverage in Ethiopia (UNICEF, 2013)