Strategic development plan of Farta woreda and Debre Tabor town (2019-2030)

FARTA WOREDA AND DEBRE TABOR TOWN, SOUTH GONDAR ZONE OF AMHARA NATIONAL REGIONAL STATE, ETHIOPIA

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#### 1. INTRODUCTION

Efforts have been made to create access to safe drinking water and sanitation facility in rural and urban area of Ethiopia through the support of government, foreign private and government donors for the last two to three decades. However, limited access to spare parts, limited budget allocation for operation and maintenance, poor planning and targeting of community more than 42 million of people and 71 million of people lacking access to improved water and sanitation in 2015 (JMP, 2017). To improve the coverage the government designed different strategies for their success like GTP I and GTP II and currently act on the success of GTP II in 2020. However, the member state of the united nation adopted the 2030 agenda for sustainable development. The 2030 Agenda comprises 17 Sustainable Development Goals and 169 targets addressing social, economic and environmental aspects of development, and seeks to end poverty, protect the planet and ensure prosperity for all. The SDGs are aspirational global targets that are intended to be universally relevant and applicable to all countries with each government setting its own national targets by the global level of ambition. However, to date the Ethiopian government did not develop their SDG by taking into account national circumstances. Therefore, to align our programs with the 2030 agenda, CARE Ethiopia through the collaboration of the government and Millennium Water Alliance designed a strategic development plan to meet the 2030 agenda for Farta woreda. Therefore, this document clearly indicates the strategic plan of Farta woreda and Debre Tabor town up to 2030 to achieve 100% universal access to water supply and sanitation services, 30% of the community will have safely managed and 70% of them will have basic services for both water supply and sanitation facilities. This strategic plan helps the woreda give direction and outlines measurable goals and measures their day-to-day progress towards the achievements.

#### 2. WOREDA CONTEXT

This strategic plan was developed for Farta woreda and Debere Tabor town. Farta woreda and Deber Tabor town are found in north western parts of Ethiopia in Amhara regional state of South Gondar zone administration. It is located at 96 km from the regional capital, Bahir Dar. It is comprised of 32 kebeles and 2 town administrations. The major livelihood of the community depends on agriculture. The total population of the woreda and city administrations are 317,423 in 2018 (ZoFED, 2018). The social infrastructure such as schools, health post, health centers, farmer training centers, hospitals, university, public offices veterinary centers, telecommunication center and road infrastructures are existed in the areas. Based on the woreda and town finance and economic development offices report in 2018, in Farta woreda there are 8 health centers, 37 health posts, 81 primary schools and 3 secondary schools. In Debre Tabor there is one university, 1 hospital, 3 health centers, 6 elementary schools and 2 secondary schools. Additionally, there are also market center, governmental office both at the zone and woreda level since Debre Tabor is the capital city of south Gondar administration town and a number of hotels, restaurants, churches and pensions. Specially in the Debre Tabor town there is an industrial village that produce small scale industrial production like integrated animal fodder production, flour and matters production.

All the institutes used the town water distribution. However, institutes located in the rural areas used their own wells as sources of water supply service.

The agroclimatic condition of the area ranges from Dega to kola based on their elevation and annual rainfall amount. The annual rainfall amount of the areas ranges from 1300-1850mm with long term mean annual rainfall of 1500. The rainfall pattern is mono modal type which means 85% of the rainfall amount fall from May – September. The surface geology of Farta woreda and Debre Tabor town is dominated by volcanic rocks. In terms of soil parent material, the soils of the study area are derived from basalt, pyroclastics (tuff) and pumice. Localized recent alluvial deposits and colluviums also exist as parent material. The aquafer system of basalt rocks has lower discharge ranges from 0-6 liters/second of discharge. Their Topography ranges from mountainous to foot plains with an altitude range of 3718 to 1856 meters above sea level. Groundwater flow faster from North to East direction but South to West the groundwater movement is slower than that. As a result, the better shallow groundwater potential existed south waster parts of the area. Land use of the area is one of the major factors for the infiltration of the groundwater during rainy seasons. Combined, Farta and Debre Tabor Town cover a total area of 81,960 ha with different land uses condition. The dominant land uses are agricultural (52%) and grass land (40%). The rest of the areas are covered with forest, bush and shrubs and as residentials. In the area there are five soil types existed. Dominantly the area characterized by Luvisoil which covers 56% of the total area this indicated that the area well drained but shallow groundwater will be existed at the reasonable depth.

The major livelihood of the community highly depends on agriculture. Based on the woreda land use and administration office report the average agricultural land owner of the woreda is 0.67 ha per household. In Farta woreda, 99% of the community livelihood depends on agriculture and the rest 1% of the community livelihood depends on trading, private and government employee. However, people living in Debre Tabor town the major lFrom the Tana belese socio economic report, majority 52% of the community wealth status were classified under poor, 33% were medium and 15% of them were better off based on their criteria. Wealth status were ownership of productive assets, size of cultivated land, capacity of sending children to school, food security status of household, capacity of visiting health institution, capacity to purchase agricultural inputs, ownership of flourmills, saving capacity, housing condition.

Based on the findings of a water Asset Inventory conducted in 2018 in Farta, a total of 1431 water schemes exist in the woreda. Out of the 1431 schemes, 37% of the schemes were not functioning at the time of the inventory.

Water coverage for the rural community ranges from 21% - 93% with an average of 52%; water coverage for the urban community ranges from 22% - 67% with an average of 27%. From the rural area, out of 32 kebeles, 13 of them have access below the rural average water coverage. On average, 43% of the community living in Farta woreda and Debre Tabor town have access to safe drinking water in 2018. From the community access to safe drinking water 37% of the community have access to basic water supply and 6% of them have access to safely managed water supply. Among the institutes that existed 50% schools and 47% of the health facility have water supply

schemes. With regard to the sanitation coverage, 38% of the community have access to basic sanitation.

From the sustainability check assessment results, In Farta, about two-third the existing water schemes (67%) had a WAHSCO in place. The majority of the WASHCOS had a chair person, treasurer and secretary in place, but only few WAHSCOs were reported to meet on regular (monthly) basis, 83% of the water schemes have access to spare parts within three days from the local market. However, less than the quarter of the WASH co conducted a regular preventive maintenance at scheme level. Regarding to the service authority performance of Farta woreda, from 75% of the required staffs in the woreda water office 92% of them were fully existed. However, the existed staffs have not enough skill on WASH planning, management, monitoring and evaluation. Additionally, only 61% of the WASH co received enough technical support from the woreda water office and there is not a multi stake holder meeting at the woreda level. The woreda has a strategic plan of five year but regarding to the cost most of the costs cover the capital investment for new water schemes (CAPEX). Regarding to the semi-skilled manpower at the woreda level, from the previously implemented water projects there are two artisans per kebel in 32 kebele of Farta woreda.

From the asset inventory results of the woreda, construction quality and poor water scheme management are the two major factors for the nonfunctional water schemes. This asset inventory was done by the woreda experts. Therefore, for the monitoring and evaluation the woreda experts are skill on doing the works.

#### 3. VISION AND OBJECTIVES

This strategic plan has a vision of access to safe and sustainable drinking water and sanitation facilities for all people living in Farta woreda with basic access to 70 % of the community and safely managed access to 30% of the community.

The strategic objectives

- 1. By 2030, achieve universal and equitable access to safe and sustainable drinking water for all with 70% of them basic access and 30% of the community will have safely managed access to water supply
- 2. By 2030, achieve access to adequate and affordable sanitation and hygiene for all and end open defecation, paying special attention to the needs of women, disability, girls and those in vulnerable situations.

This objective aligns with the government growth and transformation II, one wash national plan and sustainable development goal 6 targets for drinking water, sanitation and hygiene to be achieved by 2030.

#### 4. ANALYSIS OF STRENGTHS AND GAPS IN THE EXISTING SYSTEM

To ensure the sustainability of service and improve WASH delivery models, evaluating the strength and gaps of the existing systems is very critical. A major gap in understanding water point functionality is pinpointing the extent to which service failures can be attributed to local institutional arrangements (e.g. water point committees), as opposed to the broader societal structures and dynamics which shape an environment in which failure is likely to occur. In 2005, the Ethiopia Universal Access Plan (UAP) set out explicit national targets for water supply and sanitation across Ethiopia, in rural and urban areas. The plan was revised in 2011 to reflect the targets in the Ethiopia Growth and Transformation Plan (GTP), which aims to provide 98% of the rural population with access to 15 liters per capita per day of potable water within 1.5km by 2015. More recently, the introduction of the One WASH National Plan (OWNP) has folded UAP targets into its framework for promoting a well-coordinated approach to WASH in rural, urban, and pastoral contexts. The OWNP pulls together the strategies of previous government water policies into a comprehensive framework to align planning, funding, and monitoring for Ethiopia's WASH sector. The programme is designed to promote strategic harmonization between the finance, water, health, and education sectors to meet WASH targets, and establishes a coordination structure at national, regional, and woreda levels.

Capacity is another area important to be considered when looking at the existing WASH system. The OWNP identifies capacity gaps at all levels as, "one of the most pervasive threats to the successful implementation of the program" (OWNP, 2013). GTP II reiterates the focus on capacity constraints in the sector, and implementation strategy for water supply including capacity development and rehabilitation of water supply schemes.

Farta woreda and Debr Tabor Town have moderate groundwater potential, with discharge ranges from 0.1 - 6l/sec, due to its ragged topography and geological aquifer formation to manage the storage of the groundwater. However, due to limited technology options, poor or inadequate infrastructure facilities, limited skilled manpower and limited financial resources, most of the community does not have consistent access to safe drinking water, hygiene and sanitation facilities.

From the sustainability check assessment results gender balance in the WASH co representation, development of bylaws and legal status of WASH co, preventive maintenance skill of the WASH co, tariff setting and revenue collection, development of water safety plan to insure water quality, woreda expert's skill on planning management and monitoring of the WASH activities, technical support of the woreda experts to WASH co should be improved because they mentioned as a gap for the sector. To detail information on the current strength and gaps of the woreda, both SWOT analysis and building blocks of analysis were used.

### 4.1 SWOT analysis

### Strengths

- Increasing demand from the community for access to safe drinking water and sanitation facilities
- Increasing community ownership to ensure the sustainability of water schemes and sanitation facility
- Availability of semi-skilled manpower during new scheme construction and rehabilitation of nonfunctional water and sanitation facility
- Improved effort from the government on water resources administration through capacity building and WASHCo legalization at scheme level
- Improved community contribution at different project cycle both in cash and kind which includes operation and maintenance contribution.
- Increased interest in new technologies, including high rate of adoption for utilization of chlorine dispensers and household self-supply.

#### Weaknesses

- Lack of Capacity building and awareness creation activities for the wider community.
- Limited financial allocation and implementation capacity of the government and community.
- Lack of integration and harmonization among the stakeholders in the development (joint monitoring, planning, implementation and evaluation).
- Low capacity in documentation, learning and sharing to the wider community.

#### **Opportunities**

To realize the achievement of access to safe drinking water to the community, currently in the sector there are a number of opportunities. Among the existed opportunities

- Existence of the OWNP which is one of the only country-level comprehensive WASH plans by a government which includes government NGO and other stakeholders and discusses funding, responsibilities and goals, in Africa.
- Existence of enabling goals and policies designed by the government; includes Wash Implementation Framework, GTP II, UAP and OWNP, Clean and Safe Health Care Facility (CASH) initiation.
- WASH is one of the top five key agendas of the government and community demand
- There is some availability of international funds for access to safe drinking water and sanitation facilities
- Good groundwater potential in the area

### **Threats**

- Climate change and existing of erratic and uneven rainfall distribution may decrease the groundwater potential
- Limited access to infrastructures like roads and electricity
- Limited capacity of staffs on designing and implementation of new technology
- Limited number of private sector engagement on operation and maintenance systems through available of spare parts, major maintenance, chlorine production
- Limited internet access on availability of real time data monitoring.

## 4.2 Building block analysis

The building blocks can be used as diagnostic tools to identify areas in need of further support, or as a holistic framework for structuring a series of interventions. The building blocks help to analyses the core elements of a WASH system and identify which components are most in need of support. They provide a conceptual framework to consider what is happening at different levels, what might be changing and what might be new or noteworthy in the system (Huston and Moriarty, 2017). Below, you will find brief discussion of building blocks and scoring results based on inputs from government stakeholders and assessment results.

#### Institution:

The institution building block helps to assess presence of the required institutional setup for the different water service delivery models (in particular for the service authority and service provider roles), their staffing pattern to deliver services, availability of performance data and the coordination mechanisms amongst the organizations (Huston and Moriarty, 2017). For institutional building block analysis, we considered the presence of institutional set-up, staffing, supervisory support service, formal communication and service delivery performance data. In view of these factors, the aggregate result of the institutional building block scoring shows moderate score, which confirms progress in some aspects, but more needs to be done to create an enabling institutional arrangement with a well-coordinated business relationship between Water Office, Utility and WASHCOs/WUAs. There are standard Water service administrative structures with clear reporting and planning responsibilities

Farta Woreda Water and Energy Office is a government institution mandated to manage rural water supply across the woreda. It is a service authority that receives support from South Gondar Zone Water and Energy Department and Amhara Region Water, Irrigation and Energy Bureau to lead and coordinate the water sector. When it comes to service providers, there are WASHCOs/Associations and Debre Tabor Utility that are responsible for the management and governance of water sources.

As to the staffing pattern at service authority level, it is only 80 % of the required positions at Farta Woreda filled with trained personnel. Similarly, the asset inventory report confirms that only 55% of community water sources have WASHCOs/WUAs. In rural community setting, supply of safe and adequate drinking water and sanitation service to the consumers is the responsibility of the local government and elected water supply and sanitation committees (WASHCOs). And WASHCos/WUAs should be established and trained as water service providers at community level

(MoWIE, 2018). But, considerable amount of water schemes (45%) in Farta don't have formal entities for proper management. This indicates how capacity building and governance is a priority to ensure sustainability of water sources across the woreda.

A close look at the explanation given to the rating for the presence of regular and adequate support provided by zone and region to the woreda water office (as main service authority for rural water supply), we found confirmation from government partners that there is formal practice in field visits, monthly reporting, annual and quarterly review meetings, zonal and regional level action plan familiarization workshops and proper feedback mechanisms. Whe it comes to formal relationship and accountability system among service authorities and service providers, it was reported that except for own utilities and WUAs (legalized WASHCos), there is no official communication between WASHCos and Woreda Water Office. Water officials and experts collect water point status information whenever they pay visits to communities.

### Legislation:

The legislation building block comprises the mechanisms by which the government sets out its policy to the water sector and determines the legal framework for achieving its vision. Legislation needs to be linked to and supportive of policy and provide a clear framework for the interaction of actors in the WASH institutional setting (Huston and Moriarty, 2017). For the sake of specificity, legislation at woreda level is viewed in terms of how the requirements of the regional proclamation on WASHCos legislation is clearly understood at woreda and WASHCO levels. Here, since there is no sufficient level of understanding among WASHCos and some stakeholders about the regional guideline for legalizing WASHCos, the legalization process usually takes long process.

The other indicator for legalization requests confirmation on 'By-laws and ordinances for service delivery arrangements are in place'. Results from sustainability check indicates that only 55% of WASHCos have written by-laws for scheme management. Every protected community water source is expected to have trained WASCos, by-laws for tariff setting and regular fee collection since there is no safe water supply for free. But this is not the case at 45% of the water sources in Farta Woreda. A rural water point without designated structure for proper management and governance is likely not to sustain long as it is vulnerable for any sort of damage.

WASHCos/WUAs need clear by-laws for hygiene and environmental protection on top scheme governance to protect the catchment and water points. The indicator intends to assess the application of water safety plan It is a comprehensive risk assessment and risk management approach to ensure safety of drinking water from catchment to point of consumption that proactively identifies sources of hazards and level of risks that affect adequacy and quality of the water supply systems (MoWIE 2018). When we look at the case in Farta, there is not WASHCo/s that implement water safety plan. But there has been water quality testing at source, sanitary inspection and natural resource management (sical and biological measures to improve oil and water conservation activities) to protect well-fields and improve recharge.

The average score of the legislation building block analysis is low. This affirms the partial fulfillment of conditions, but indicative of the need for more work and evidences to get there at the building block.

#### Finance:

The finance building block deals with identifying the costs of service delivery, the sources of funding, the roles of different actors in providing finance, effective mechanisms for long-term financial procurement and channels for getting the money where it is needed (Huston and Moriarty, 2017). For finance building block analysis, we considered the existing water service expenditure related to investments (CapEx), running costs OpEx, major rehabilitation (CapManEx, direct support (DSExp) and indirect support services (IDSExp) in a manner which indicate how much is required and the volume charged for each year to ensure sustainability of the service. Additionally, the presence of participatory approach for planning, costing and tariff setting as well as mechanisms for ensuring equity in water service delivery was assessed to enrich the analysis.

In Farta woreda, there is annual budget allocation for new infrastructure (CapEx) even if the volume vary time depending upon the priority set for development sectors. For the last five consecutive years, there has been sufficient absorption capacity for and a manageable gap between budget allocation and utilization (90%), which may be attributed to the low volume of grant. But, the woreda hasn't allocated budget for major capital-intensive repairs and rehabilitation (CapManEx) and to support other maintenance beyond the capacity of the WASHCos. However, there is a mechanism of allocating budget for ExpDS and for strengthening WASHCos/WUAs. Since there is no nationally defined mechanism for subsidy at community level be it in (block tariffs, cross subsidies between providers or other ways), WASHCos/WUAs are usually expected to rais fund that cover the operation and maintenance cost. The asset inventory result confirms that 50% of the constructed water schemes have allocated budget for minor maintenance from funds raised through water fees.

Looking at the annual budget share of the water sector in Farta (2%), it is fair to say that water is not prioritized in the woreda and there is no standard parameter for annual budget allocation or any measure to priorities WASH in local level planning. The average value for finance building block analysis shows low /weak practice for resource allocation for the water sector. There is a need to consider it as an influencing agenda if we intend to improve the water service.

### Planning:

The planning building block is considered as foundation for implementation of policies and strategies to achieve universal access to safe and sustainable water service. Plans in the water sector usually include priorities in the service delivery models, targets, reasonable costs, population to be served, details on financing, sources of funding.

The planning building block deals with the presence of a consultative planning process involving key stakeholders for making decisions, the link between woreda level WASH targets and the national/regional targets (multi-annual), the availability of costed plans with reasonable indication of source of financing, and to what extent the plans take into account both capital investment needs, direct support and the demand for capital maintenance put in place. In view of these indicators, the strength of the planning building block in Farta was found moderate as many of these elements are present while some others are missing.

For instance, the woreda has a strategic plan derived from the GTPII, but equity is not addressed when viewed from perspective of accessibility, inclusiveness and user's economic status. In addition, less attention is given to LCCA in the previous strategic plans where main cost categories except cost of investment (CapEx) is considered. Before the MWA bridge program, a fully costed woreda WASH strategic plan with the reasonable indication of sources of funding was not the case. Of course, there is a practice of introducing plans to the bigger stakeholders. The other critical gap in the woreda planning to mention here is that NGOs plans are not considered during local government strategic and operational plan preparation.

### Infrastructure development:

Infrastructure is the core component in a water system that delivers the service, but the processes and mechanisms of developing new facilities and maintaining existing ones are also key elements to be considered. The infrastructure development building block is assessed in terms of the presence of service delivery models and procurement manuals, procedures for capital investment, human capacity to ensure due diligence and regulation over procurement and adherence to construction and service quality standards.

There is a procurement and implementation guidline at woreda level for infrastructure development. However, access to the required information and limited level of understanding among staff was reported as shortfall. As customary practice, government people oversee the service procurement and facility development process using checklists. Government people positively responded the presence of mechanisms and capacities in place at region/zone/woreda levels to manage the construction water infrastructure. But, quite often quality is compromised due to skill gaps in contract administration and periodic supervision to ensure quality and timeliness of project activities. The overall analysis result of this building block is moderate.

### Infrastructure management:

The IRC the water resource management building block considers the coordination and control of how water supply systems are managed and methods or protocols for addressing conflicts and encouraging cooperation among users. The indicators used to assess the strength of the existing system include clarity of roles between service authority and providers; asset ownership, applicability of national legal framework related to asset ownership, presence of periodic asset inventory and fulfilment of roles and responsibilities related to asset management.

In response to these points of analysis, it was reported that there is proper asset handover mechanism, ownership and management system in place as per the national WIF. But the actual practice may vary fro0m place to place depending on the availability of active WASHCos, consistency of technical backstopping by woreda experts and accessibility of communities at which a water source is built. As to having time sensitive WASH status data, there has been NGO supported (CARE) asset inventory to capture and document updated WASH data for informed decision. Nevertheless, there hasn't been proper planning and allocation of resource prioritizing asset inventory at woreda Water Office level. Here, the skill gap for electronic data collection and analysis, logistics constraint and less attention for monitoring data collection were mentioned as bottlenecks.

There are trained water caretakers and local artisans to fix minor breakages and damages, water attendants manage the daily water collection and WASHCos are responsible the overall governance as per developed by-laws. But, the water office reaction to requests from WASHCOs/WUAs to repair major damages is found sluggish due to resource limitation. The weighted scoring result of this building block is labelled as progressive since there have been much progress in local capacity building and legalization of WASHCos in Farta to improve infrastructure management.

### Monitoring:

The monitoring building block covers the collection, analysis, management and dissemination of the information required to effectively manage WASH services at all levels. Monitoring is the basis for the information feedback loops that ensure effectiveness and allow adaptive changes over time. Monitoring data supports other components such as planning, finance, regulation, infrastructure development and management availing timely data. For baseline analysis, the monitoring building block was assessed in terms of the presence of national/regional monitoring system(s) for the specific SDMs in use in the woreda capacity to cover the entire woreda in periodic monitoring, availability of service provider performance data and the extent of data use at woreda level and the existing practice to have updated information.

In monitoring, there should be a systematic way of analyzing data and actually using it to inform action and decision at multiple levels. Besides, monitoring requires multi-actor and multi-level coordination as the information needs vary for each actor and each level. The actual practice in Farta indicates there Woreda usually reports to Zone and go upward to region and the federal MoWIE following the formal channel of communication. But, Farta woreda a does not have access to the national data base systems and the reporting system doesn't entertain performance on self-supply even if there are much progress in this service delivery model. Due to partial fulfillment of the requirement and presence of limitations on some aspects, the assessment result for the monitoring building block has become average.

### Regulation:

The regulation building block focuses on the extent of which service authorities are equipped with regulatory functions (tariff regulations, tariff calculation guidelines, service level requirements, rules that protect consumers accountability mechanism); the capacity of using monitoring data to guide performance management and effective enforcement rules (incentives, penalties); the existing regulatory framework and capacity of the regulator to perform their role; and the presence of downward accountability mechanisms to enable users/citizens to hold service providers accountable for poor management.

Since there is no independent regulator in the water service, water offices at different levels are traditionally regarded as regulators. Debre Tabor Town Utility was reported as an entity equipped with regulatory functions. But a service provider (Utility) may not properly regulate its own service provided to the users. As to the use of monitoring data to improve performance, even if there is a pratice data collection and producing synthesis information, the woreda government doesn't adequately track service levels/ functionality status on regular basis. The information from

government source affirms that there is no established platform that helps to disseminate WASH service performance data, review service levels and citizens hold service providers (utility, WASHCOs/WUAs) accountable for their weaknesses. But, the woreda water office conducts periodic meetings with users whenever there is election of WASHCos/WUAs members which may not give sufficient room to evaluate the overall performance of the service delivery that would enable to take some measures to improve performance. This implies that absence of mechanisms for water users to hold service providers accountable except conveying complaint messages verbally.

Sine notable strength is not investigated from the regulation building block analysis, the average rating is so weak as compared to other components of the WASH system in Farta.

### Learning and adaptation

Sector learning and adaptation process can benefit from monitoring data and qualitative information coming from joint sector reviews and multi-stakeholder dialogues on pressing issues of the WASH sector. These processes help a lot when new initiatives/models/innovations came into picture in the water and sanitation sector. A close look at the responses given to the points of analysis (indicators) of the learning and adaptation building block, no strength identified that could be mentioned as examples. In a nut shell, there is no any platform established at woreda level to share learning, review innovations and conduct dialogues on tested models. But there are entities like WWT and Steering Committees established as per WIF to manage the WASH sector activities, even if they do conduct meetings, they lack proper note taking, documentation and dissemination of the information to key actors.

### Water resources management:

The water resource building block is analyzed in terms of the presence of plans and practices on water source protection, facility protection, catchment treatment, run-off control/preservation, the involvement of service authorities and service providers in decision related to water resource/watershed management, the extent to which water source development considers water resources potentials/reserves, and the presence of mechanisms for managing water-resource related conflicts (upper-lower stream) and synergies between users. As nothing mentioned as strength except some government people participation in water safety plan training, the average score for water resource management building block is assessed as very weak.

#### 5. STRATEGIES

After a detailed analysis of existing practices, strength, weakness and strategies, 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 Vision

• To coordinate, build partnerships and lobby for increased financing and improved inclusive governance and accountability (lobbying on woreda budget and critical role of WASH),

- communities (ensuring higher contributions at all phases of project management and allocations to a future maintenance fund, and regular payment of water tariff) and development partners. Specific allocations will be made for rehabilitation and capital maintenance.
- Use at the three water delivery models by considering the local context (community water management, self-supply acceleration and utility managed). community managed schemes implemented in the areas where the settlement of the community ranges from 5-200 households with the technology options of rope washer pump, hand dug well, spring development and shallow drilled wells fitted with afredive hand pumps. self-supply acceleration programs address for the areas having a potential of shallow ground water and for households having capacity of connecting household connection from the distribution. Utility managed for those community living in semi urban, urban areas and in the rural areas with high concentrated settlement.
- To 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 32 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).
- To extend water supplies to all schools and health facilities (institutional WASH) 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 or solar-powered pumping; to pilot rainwater harvesting and treatment in kebeles with low groundwater potential (3 kebeles); to conduct surface water treatment for piped water quality; and to promote improved water quality linked to service delivery models and including upgrading protection and use of household water treatment and safe storage (HWTSS) at household-level, and the deployment of chlorine dispensers at water points to augment regular water supply source chlorination.
- To promote integrated water resources management through watershed management to protect upper catchments and promote groundwater recharge, regulating water use through community by-laws, water point protection and buffering linked to regular sanitary surveillance and water safety planning by communities.
- Improve the System Strengthening of WASH that affect the sustainability of services. Based on the building block analysis, legislation, institutional performance, information systems and environmental conditions needs improvement to insure the sustainability of WASH services. The interactions and collective performance of all these aspects lead us to the

understanding that WASH provision takes place in an undeniably complex system. For services to be provided and maintained, every actor and every aspect of the system need to function, be effective and be adaptable.

#### 6. PLANNED ACTIVITIES AND RESULTS

# 6.1 Assumptions for planning purpose

# Population growth

In the development of the 12 years strategic plan, the current population from the zone finace and economics are projected to the next 12 years by considering 2.5% of population growth rate of Amhara regional state since the Farta woreda and Deber Tabor Town are located in Amhara region (CSA, 2018). Based on the central statistic population projection methods the current 317,723 people will reach to 427, 302. Therefore, our SDG plan will server a 100% coverage for this community.

# Technology vs number of users per technology

To address the universal access to safe drinking water, six technology options and three service delivery model were selected. The selected technology will have different number of people to be addressed by the specific technology. For example deep wells with distribution will serve 7200 people whereas self-supply will serve 5 people per schemes. The number of population per scheme were estimated based on the existing practices at district level and the average discharge found in deep wells and shallow wells in the woreda context. Table 1 explains the number of people to be served per type of technology option.

Table 1 Type of technology option and the number of users per technology option

	Number of
	population to be
Technology options	served
Rope Washer pump	25
Hand dug wells	75
Spring capping	75
shallow drilled wells	150
Rainwater harvesting	30
shallow drilled wells with pump	2304
spring capping with distribution	2304
Deep well with distribution	7200
self-supply	5

Technology options vs capital investment per technology

Based on the life cycle costing analysis and current market after the life cycle costing analysis the unit rate for the construction of the technology options were estimated and for the next 12 years the estimated cost will inflate by 8.1% annually. The cost for the annual inflation was taken from the current Ethiopia inflation rate for non-food items. Table 2 explains the detail capital investment cost for the construction of different technology options in 2018.

Table 2 Technology options vs the cost of construction in 2018

	Unit cost for new	Unit cost for new
Technology options	construction (ETB)	construction (USD)
Rope Washer pump	15,000	543
Hand dug wells	82,000	2,971
Spring capping	85,000	3,080
shallow drilled wells	285,000	10,326
Rainwater harvesting	150,000	5,435
shallow drilled wells with pump	3,500,000	126,812
spring capping with distribution	5,000,000	181,159
Deep well with distribution	10,000,000	362,319
self-supply	22,000	797

### Technology options vs capital maintenance cost

Capital maintenance is directly related to corrective maintenance of scheme after certain period of service. Capital maintenance expenditure cover the cost related to the major maintenance of the schemes. In most of the time this maintenance will be conducted at five year interval. Therefore, for the next 12 years our schemes will be rehabilitated at least 2 times in the strategic development plan. Estimation of the capital maintenance expenditure usually based on the past experience on costs for major maintenance. However, in this case 15% of the investment costs were need at five interval for each technology based on the life cycle costing assessment results. Therefore, in estimation of the CapMan Exp 15% of the investment cost will be allocated at five year interval for each schemes.

### Technology options vs operation cost per schemes

Operation expenditure cover the cost of regular expense for fuel, lubricant, guard and preventive maintenance. Based on the life cycle costing this cost will cover at least 5% of the investment cost annually.

### Direct support cost

Direct support cost is a cost related to the functioning of the service for long life by supporting the service providers like capacity building, overhead cost, supervision cost, water quality cost vehicle and motor bicycles for operation, maintenance and supervision activities, direct staffs salaries for the government staffs or users and users groups. Additionally, it covers the review meeting and woreda level stakeholder meetings, local level assessments like rapid assessment, natural resources campions for water resources management, wash co legalization, WASH co establishment,

strengthen the local There is not a clear estimation for this cost. However, based on past experience the cost for direct support estimated about \$2.00 per person.

# Indirect support cost

The indirect cost covers the expense allocated at national and regional level for the monitoring and evaluation, different assessments like water resources assessment, water quality assessment, social and political economic assessment, water inventory etc. It also covers cost like stakeholder forums at the national and regional level. There is not a clear cost analysis for this cost but strategic development plan assumed \$1.00 per users will be allocated. This figure will be changed as we found valid information for change.

#### 6.2 Planned activities

To address a universal access to safe drinking at 2030 in Farta Woreda and Debre Tabor town with 30% of the community addressed through safely managed schemes and the rest (70%) community addressed through basic need. A total of 1209 new water schemes and 842 rehabilitated and upgraded water schemes were planned from 2019-2024 that will address 95% of universal access to safe drinking water (72% of them addressed through basic need and 23% of the community addressed through safely managed). Rehabilitation will be continued after 2020 for all the rest of the schemes. The planned rehabilitated schemes are schemes currently nonfictional during water inventory as a result either they demand major maintenance or minor maintenance. However, all the required budgets were allocated based on the asset inventory results. After 2025 most of the works will focus on service level improvement to meet 30% of safely managed and remaining 5% of the community to have access to water service either safely manged or basic need. Detail number of schemes that planned for new construction and schemes to be rehabilitated were listed below under Table 3 and Table 4.

Table 3 Planned new infrastructures for Farta woreda and Debre Tabor Town for the period of 2019-2030

T. 1 1 4	Number of schemes	Number of schemes
Technology options	(2019-2024)	(2025-2030)
Rope Washer pump	322	80
Hand dug wells	473	108
Spring capping	139	51
shallow drilled wells	36	8
Rainwater harvesting	9	2
Shallow drilled wells with pump	23	17
Spring capping with distribution	-	-
Deep well with distribution	7	2
Self-supply	1,202	1,696
Total	1,209	1,698

Table 4 Planned to be rehabilitated schemes of Farta woreda and Debre Tabor Town for the period of 2019-2020

	Number of schemes	Number of schemes
Technology options	2019	2020
Rope Washer pump	24	51
Hand dug wells	142	171
Spring capping	62	65
shallow drilled wells	2	3
Rainwater harvesting	0	1
shallow drilled wells with pump	0	0
spring capping with distribution	1	2
Deep well with distribution	0	0
self-supply	318	0
Total	549	293

In the implementation of planned activities both new and rehabilitation of infrastructures, the progress to achieve universal access to safe drinking water 2030 will looks like the following tables. More access to basic need will be addressed at 2024 based on the plan (70% of basic). However, the remaining 30% of the safely managed schemes will be achieved after 6 years in 2030. This indicated that there will be the community that will improve their service level through time after they received their basic need. Figure 1 indicates the progress to achieve the universal access to safe drinking water of Farta woreda and Debre Tabor Town with the improved service levels.

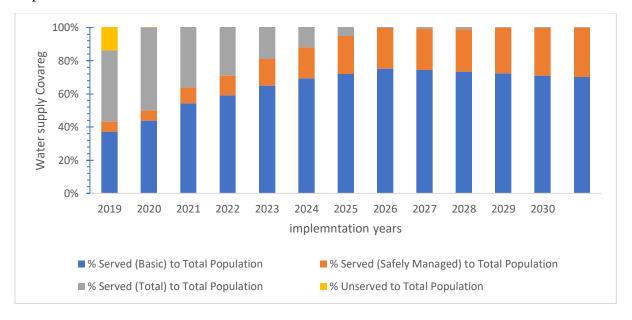


Figure 1 Water coverage progress of Farta woreda and Debre Tabor Town

#### 7. Institutional WASH service

Access to clean water, sanitation and hygiene is essential for children in school, particularly for girls as well as children with disabilities. Contaminated water, poor sanitation or unhealthy hygiene behaviours increases the risk of contracting diarrhoeal and other WASH related diseases, making it more difficult for children to stay in school and become empowered through education. This is a great challenge for girls especially girls who are menstruating as they often face more barriers to enrol, stay in schools, learn and perform. When proper sanitation is available, 11% more girls attended school (WHO, 2002). As a result schools should have drinking water from the improved sources, improved sanitation facilities with single- sex and usable for all and handwashing facilitates having water and soap.

Access to water, improved sanitation and hygiene infrastructure in the health facilities helping to change the community health and sanitation issues and provision of quality healthcare that improve their health status. It also provides education and consultation on hygiene practices and support on the methods of improving the sanitation condition of the community. This brings the community to realize the importance of health through the uses of sanitation facilities and appropriate hygiene practices. However, access to safe water, improved sanitation, and hygiene infrastructure in health care facilities (HCFs) very limited. Globally, 38% of health care facilities do not have access to improved water, 19% do not have improved sanitation, and 35% do not have water and soap for handwashing, with the burden falling disproportionately on HCFs in the developing world (www.washinhcf.org). Consequently, health workers are unable to wash their hands before contact with patients, provide safe drinking water for administration of oral medications, or engage in basic infection prevention and control activities. The problem is very severe in Amhara regional state, from the existed health facility in Amhara region only 23.5% of them have access to water and 69% of them have latrine ( Health Facility WASH manual). As a result health facilities should have water supply systems within the premises, improved sanitation facility, hand washing facilities, solid and liquid waste disposal. Details for proposed number of water supply and latrine with hand washing facility for schools and health posts are shown in table 5.

Table 5. Proposed water supply facilities and latrine with hand wash facilities at schools and health centers in Farta woreda and Debre Tabor Town

incarin centers in	Health center		Schools	
	Water supply	Latrine with hand wash	Water supply	Latrine with hand
Year	schemes	facilities	schemes	wash facilities
2019	6	6	5	5
2020	8	8	8	8
2021	10	10	12	12
2022	9	9	10	10
2023	8	8	8	8
2024	8	8	9	9
2025			12	12
2026			8	8
2027			9	9
2028			6	6
2029			7	7

### 8. Cross-cutting themes

This strategic development plan places communities at the center of the programming. Empowered communities claim their rights, have capacity to actively engage with service provides and policy makers, and create and maintain social norms.

### Disability inclusiveness

To sustained wellbeing of boys, girls, women and men within the families and communities, especially the most vulnerable. People with disability represents some of the most vulnerable in communities due to inaccessible to service and appropriate infrastructures, marginalization, and discrimination. In the strategy development plan WASH disability inclusiveness was incorporated to achieve the basic human right to water and sanitation, reach the most vulnerable, set the tone for inclusion in other community programs and achieve access to water and sanitation for all. Therefore, all WASH facilities should be affordable, dignified and accessible to all persons with disabilities.

# Gender equity

Access to safe drinking water, improved sanitation and hygiene facility should be addressed to all community living in Farta woreda and Debre Tabor. However, needs and priorities of men and women are often not the same. Male and female motivation and resources to sustain improved water supply and sanitation facilities may also differ. In addition, such needs and priorities may vary with the economic status of the families' concerned, family composition. The demand for an improved drinking water supply and better environmental sanitation is usually higher among women than among men. Whether they are also able to meet these demands depends very much on the resources and decision making patterns within the households and the kind of options offered. A gender-sensitive approach thus takes into account the existing roles and relationships between the sexes, but also builds up new capacities in both men and women, which contribute to more effective projects as well as more equitable distribution of work, power and benefits. Therefore, women and girls need special consideration in the uses of this facility like safe and privacy, cater for menstrual and other hygiene requirement, accessibility to all users and affordability and availability when needed. In this proposed strategic plan development, Gender equality is the equal visibility, opportunities and participation of women and men in all spheres of public and private life often guided by a vision of human rights, which incorporates acceptance of equal and inalienable rights of women and men. (UN 2005; 2007), Gender mainstreaming in respect to this study refers to making gender an integral part of development programs by addressing gender equality in all stages of development. Specifically, it addresses the women's strategic and practical needs as they are more than often neglected in communities and households. Social inclusion is based on the principles of equal rights, meaning their ability to voice, receive equitable treatment and benefits, access to resources and jobs, and to be involved in decisionmaking, regardless of age, sex, ethnicity, social class, religion, marital status, 8 and abilities. It does not mean the exclusion of the majority of people and/or the elites and economically well-off.

Vulnerable members of the community include female household - /heads, people living with HIV/AIDS, disabled persons, the elderliness (aged over 60 years) and landless young couples

#### Environment

Environment is the physical, chemical and biological surroundings in which local communities live and develop their livelihoods. It provides the natural resources that sustain individuals and determines the quality of the surroundings in which they live. The environment needs to be well protected in order to maintain the sustainability of these essential resources such as water which is crucial for life. Hence, serious consideration is given to the strong link existing between environment and water. Environment in the context of water as an issue is mainly to include the source of protection in to the WaSH project. When establishing the water scheme, the community is responsible in ensuring that source is well protected from pollution and that reasonable environmental protection measures are taken to ensure provision of adequate water supply. This takes into account the environmental degradation affecting the water resource as well as to make the people aware of possible future changes caused by climate change. A pro-active environmental protection measures has to be put in place to ensure the sustainability of water supply in the areas. Community members in and around water points have to be well aware on the impacts of climate change on the environment. Environmental degradation highly affects weather conditions thereby impacting the rainfall. Water-users need to be fully aware of impacts caused by climate change. Adapting the people to the future change in their environment and making them prepared to respond to the changes appropriately is an important task while planning WaSH projects.

### 9. Costing

Lack of accurate information makes it is impossible to estimate the truth cost of extending sustainable and good quality water and sanitation service to the poorest. To address this challenges the strategic plan development team assess life cycle costing for the each technology options that existed in the woreda level. The life cycle costing analysis can be used to analyses the real costs of water, sanitation and hygiene in the rural and per-urban areas in the developing countries. The life cycle cost data are addressed against service levels, which makes it possible to compare the costs within and across countries. Making these financial data available helps professionals to budget and make informed decisions on polices and implementation practices. However, due to limited data available for analysis life cycle costing some of the cost components will be improved after valid information like direct and indirect support cots. However, costs like capital investment, capital maintenance expenditure and operational expenditure costs were estimated based the life cycle cost analysis results. To achieve the universal access to water supply to the community and water supply, improve sanitation and hygiene for institution a total of 854 million ETB will be needed up to 2030. Major cost for insuring universal access up to 2030 is capital investment (72.6%) this indicated that currently most of the proposed technologies are new.

Year	Capital Expenditure (CapEx)	Capital Maintenance Expenditure (CapManEx)	Operational Expenditure (OpEx)	Direct Support Cost (DSC)	Indirect Support Cost (ISC)	TOTAL COSTS (Million Birr)
2019	8,684,754	3,337,912	-	115,920	62,017	12
2020	51,591,968	1,001,374	1,685,279	263,414	146,146	55
2021	48,803,027	3,471,723	3,712,104	357,753	202,867	56
2022	85,788,359	4,904,739	4,189,238	453,176	263,195	95
2023	69,704,955	7,478,390	5,986,057	563,558	336,781	84
2024	81,764,217	9,569,538	7,351,233	670,628	411,095	99
2025	73,157,418	14,070,767	8,773,558	786,572	495,271	97
2026	27,392,227	19,004,320	10,469,293	883,032	565,507	58
2027	36,750,695	17,493,969	10,443,129	944,844	643,148	66
2028	57,416,612	17,816,971	11,154,105	1,010,983	688,169	87
2029	38,846,864	19,413,924	12,229,077	1,081,752	736,340	72
2030	39,742,537	19,095,806	12,994,544	1,157,474	787,884	73
Total	619,643,632	136,659,432	88,987,616	8,289,105	5,338,420	854
Share (%)	72.6%	16.0%	10.4%	0.97%	0.63%	

### 10. Financing

The overall financial requirement for achieving the strategic WASH targets is Birr 854 million. 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

Based on one WASH program document of financial allocation the table estimated cost share. Actually the share subject to change if valid information is available.

Table 7 Budget share for universal access to safe drinking water

	Budget sources		Budget sources
Source	%	(Million Birr)	(Million USD)
Grant	13.1%	111.87	4.05
Loan	21.4%	182.76	6.62
Government	52.5%	448.35	16.24
NGOs	4.9%	41.85	1.52
Communities	8.0%	68.32	2.48

#### 11. 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 advice 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 (SH) assessment, coordinating the promotion and community education on SH, provide technical advice for woreda water team (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), reviews and monitors WaSH program implementation at woreda level, manages annual WASH Inventory and monitoring and evluation systems, 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 business, 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 IEC/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 Sectors** –private businesses, associations and artisans engaged in the provision of spare parts, construction materials, equipment and services related to water supply,

**University** – deliver a WASH programs for rural and urban water supply through monitoring of water quality assessment, evaluating the effectiveness of chlorine manufacturing, different assessments and capacity building training.

**TVETCS and HSCs:** institutionalize and professionalize the training of much-needed skilled technicians for the WASH sector. The Program will seek to replicate and scale up the support to TVETCs and HSCs. This assistance will include support to curriculum development and lesson planning, teacher training and basic training equipment and tools for workshops and laboratories.

### 12. Risk and assumptions

Thematic Risks	Rank	Mitigations
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Drinking Water Sanitation and hygiene	<ul> <li>Rapid rate of urbanization resulting in changing demographics and affecting WASH service delivery</li> <li>Binding government regulations that may not be flexible to accommodate new approaches</li> <li>Occurrence of natural disaster and disease epidemics</li> </ul>	High Medium	<ul> <li>Periodic review of woreda WASH strategic plan</li> <li>Close partnership and engagement with the government to increase exposure to new ways of working in WASH governance</li> <li>Improve liquid and solid waste collection and management</li> </ul>
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Low levels of sanitation services and environmental conditions at household and institutional level		practices in households, educational, health and public facilities  • Encourage private sector participation in the provision of services in urban areas
Local government capacity	<ul> <li>High staff attrition among woreda staff</li> <li>Inadequate capacity and systems for WASH implementation, management and coordination</li> </ul>	Medium	<ul> <li>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)</li> <li>Work to incentivize staff to remain with the woreda water office through improved trainings and improved work environment</li> </ul>
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	<ul> <li>Employ innovative mix of technologies to reach un served communities</li> <li>Improve tariff collection in communities so that in some cases services for vulnerable populations can be subsidized.</li> </ul>