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## Improving rural water supply financing in Ethiopia

Policy Brief

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## Acknowledgements

The Policy brief is prepared based on Rapid WASH financing and monitoring study. The aim of the Policy Brief is to bring the issue to the attention of the sector decision makers so that necessary policy actions can be taken.

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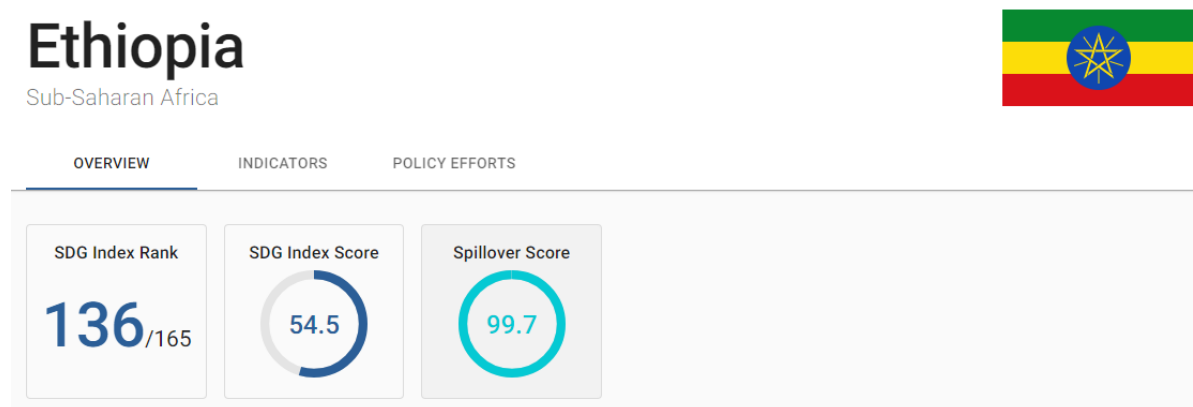
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## Abbreviations

CapEx	Capital Expenditure
CapManEx	Capital Maintenance Expenditure
CWA	Consolidated WASH Account
CSO	Civil Society Organization
EFY	Ethiopian Financial Year
ETB	Ethiopian Birr
ExDS	Expenditure on Direct Support
JMP	Joint Monitoring Programme
LCC	Life Cycle Cost
NGO	Non-Governmental Organization
O&M	Operation and Maintenance
OpEx	Operational and minor Expenditure
SDG	Sustainable Development Goal
UNICEF	United Nations International Children's Emergency Fund
WASHCOs	Water Sanitation and Hygiene Companies
WASH	Water, Sanitation and Hygiene

## Executive summary

In monitoring the Sustainable Development Goals (SDGs), all countries are ranked by their overall score. This overall score measures a country's total progress towards achieving the SDGs. Ethiopia's SDG Index scores a meagre 54.5 and therefore has a very low Index Ranking 136/165 (Figure 1). Access to at least basic drinking water improved only by 7.5% over 6 years, from 42.1% in 2015 to 49.6% in 2020 ([JMP report 2021](#)). Ethiopia is one of the countries that may be considered 'off track' on the pathway to meeting the 2030 drinking water SDG. The urgency to explore more innovative approaches to addressing the water access challenge is affirmed with the SDG Index score and ranking.



**Figure 1: From [Sustainable Development Report 2021 SDG Index](#)**

In 2020, [23.6% of Ethiopia's](#) population drinks water from unimproved and surface water sources (JMP, 2021). The water access problem is accentuated by the shortage of finance and the lack of sustainability mechanisms for water supply services. A draft [National WASH Inventory II](#) (2021) report indicates that the non-functionality of rural water supply in Ethiopia is between 17 and 47% (average of 19%). Key challenges in the WASH sector attributed to the high rate of non-functionality include - low level of WASH financing, lack of a spare part supply chain, lack of financing Life Cycle Cost (LCC), absence of a functional monitoring system, lack of timely preventive maintenance the issue of competency of caretakers, and lack of timely back up support from service authority (Woreda Government).

In addition to scaling up and increasing water access to unserved communities, it is equally important to design an approach that ensures sustainability of the services for the served segment of the communities.

To achieve Ethiopia's ambitious goal of reaching 100% coverage with at least basic drinking water service by 2030, the following policy improvements/implementation in relation to ensuring sustainability are recommended:

1. Increase WASH sector finance
2. Life Cycle Cost financing

3. Rural tariff setting/revision
4. Functional monitoring system
5. National standard of service authority
6. Spare part supply chain

## Introduction

Ethiopia issued the [Water Management Policy in 1999](#), and this was followed by a [Water Sector Strategy](#) in 2001. The Policy is under revision to address emerging problems and developments in the national and international landscapes. The policy reforms are intended to address the identified challenges such as water supply financing, service delivery, governance, and capacity building.

The Ethiopia government aims to achieve 100% coverage for at least basic drinking water supply by 2030. Access to at least basic drinking water in Ethiopia improved from 42.1% in 2015 to 49.6% in 2020 [JMP report \(2021\)](#). The JMP report also revealed that a significant proportion of the Ethiopian population (23.6%) still drinks water from unimproved and surface water sources which increases vulnerability to water-borne and water-related diseases. While progress in improving access to at least basic drinking water has grown only by 7.5% in 6 years, the country still has the ambition of reaching 100% coverage by 2030. The huge gap between the current status (49.6%) and the ambition (100%) is confronted with limitations such as a shortage of financing for rural water systems. Non-functionality is a key limitation and ranges between 17 and 47% across the regions, with an average of 19%. This is associated with problems in spare part supply chain, poor performance of service providers and under-capacity of service authorities ([Draft National WASH Inventory II](#), 2021). Rural drinking water service providers are voluntary [Water Sanitation and Hygiene Companies \(WASHCOs\)](#) who work on the principle of operation and maintenance (O&M) cost recovery. However, most WASHCOs do not have regularised tariffs based on full O&M cost recovery, and the tariff is not fully collected, or where it is collected, it is not well managed. As a result, WASHCOs encounter a shortage of O&M finance to provide preventive maintenance. In addition, there is a shortage of spare parts and a skills gap of caretakers for preventive maintenance. Service authorities at woreda, zone, and regional levels are required to provide direct support such as tariff setting/revision, monitoring of services and service providers, capacity building, and maintenance on major breakdowns. But the service authorities do not provide sufficient support because of limitations in logistics, finance, equipment, skills, and manpower. The policy reform is intended to address the challenges in the WASH sector and provide an enabling environment for the WASHCOs, service authorities, and other key actors to improve rural water access to both new consumers, as well as the existing consumer segment. Ministry of Water and Energy in collaboration with regional water bureaus need to speed up the endorsement and enforce the implementation of the revised policy by issuing necessary legislation.

## Challenges of rural drinking water service delivery

Funding of water sector investment in Ethiopia is resourced from 3 key sources: Tax, Tariff, and Transfer (Table 1).

Source	Description
Tax	government's domestic revenue
Tariff	paid by users and collected by service providers including contribution for new construction & major maintenance. It also includes household connection fee
Transfer	transactions by development partners in the form of loan and grant

**Table 1: Definition of tax, tariff, and transfer in WASH**

The water, sanitation, and hygiene (WASH) services investments in Ethiopia mainly come from external assistance. In 2016, the [Water Sector Working Group](#) together with UNICEF (United Nations International Children's Emergency Fund) estimated the water sector investment to be 475 million USD of which 74% comes from development partners in the form of grants and loans. According to the same estimate, to meet the SDG targets, a minimum of 3.2 billion USD per year must be invested which would imply 32 USD per capita per year assuming a population of 100 million<sup>1</sup>.

In 2018 through [WASH SDG Programme](#), IRCWASH conducted rapid financing and monitoring assessment in Negelle Arsi and Shashamane Districts in West Arsi Zone of Oromia ([Report](#)). 84% of the combined water finance<sup>2</sup> in Negelle Arsi and 91% in Shashamane, while 16% in Negelle Arsi and 9% in Shashamane comes from Taxes (Figure 2). The amount from tariffs is unknown as data is not captured at all levels. is unknown as data is not captured at all levels. is unknown as data is not captured at all levels.



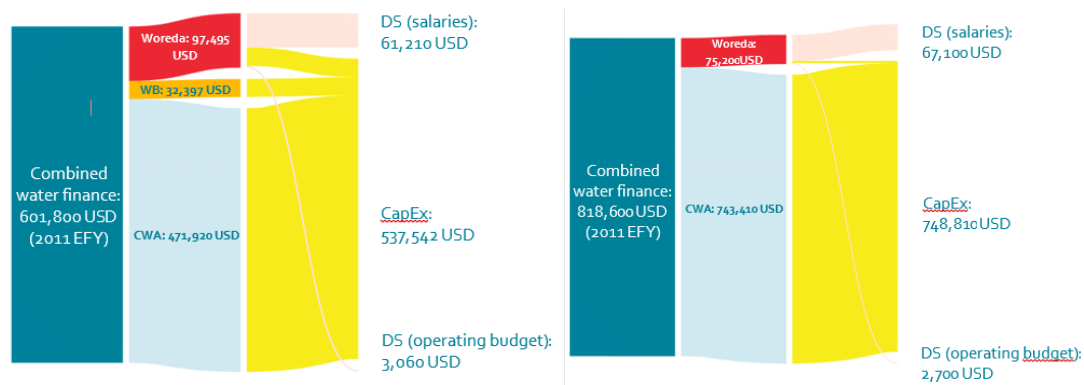
**Figure 2: The balance between sources of water finance (taxes and transfers)**

In Negelle Arsi Woreda, the 2018/19 (2011 EFY) End of Financial Year water sector budget was 2.2% of the total woreda budget while in Shashamane it was 1.4%. This is a year when both woredas allocated an exceptionally high amount of matching fund for new projects implemented under the [5-year Consolidated WASH Account \(CWA\)](#). Combined water finance in the same year including government and donor contributions was 73 ETB (2.60 USD) per capita in Negelle Arsi and 63 ETB (2.30 USD) per capita in Shashamane Woreda. This is much lower than the 32 USD per capita per year estimated to achieve SDG-level WASH services (which would however also include sanitation).

Water financing in Ethiopia is exceptionally low and undermines ensuring sustainable water service delivery. Assessments in the two districts revealed 89% and 91% of the combined water financing was allocated for capital expenditure (CapEx) in Negelle Arsi and Shashamane respectively (Figure 3).

<sup>1</sup>[Rapid assessment of financing and monitoring of rural water services in Arsi Negele and Shashamane, Oromia, Ethiopia: IRC \(ircwash.org\)](#)





**Figure 3: Sanky diagram for 2011 EFY combined water finance (Left: Negelle Arsi; Right: Shashamane)**

No formal allocation for major maintenance/rehabilitation (CapManEx) and operation and maintenance during the same budgetary period was made. For the same period, 11% in Negelle Arsi and 9% in Shashamane was allocated for Direct Support (ExDS). The woreda ExDS budget was dominated by salaries (95% in Negelle Arsi and 96% in Shashamane). Studies show 1 to 3 USD per capita must be allocated annually to provide the required direct support but the two woredas' Direct Support budget for the year was 0.28 and 0.19 USD per capita for Negelle Arsi and Shashamane respectively. Direct support is given at three levels i.e., woreda, zone and regional, but the major support for water service delivery is at woreda level, while at the zone and regional levels, the focus is primarily on study, design, construction, and occasional maintenance of larger water schemes. Hence, the contribution of the zone and regional level to ExDS is negligible. The low level of financing of CapManEx, OpEx and ExDS and the high non-functionality rate of rural water supply (17 to 47% with an average of 19%) make it impossible for service providers and service authorities to perform their roles and responsibilities properly.

According to the national policy and strategy, CapManEx is to be covered from public finance, but Oromia Water and Energy Resources Development Bureau has a regulation to cover major maintenance costs by tariffs. Water tariff setting/revision is the role of the Regional Water Bureau. However, the Regional Water Bureau did not revise the tariffs to implement the regulation. The woreda water offices do not envisage communities paying the tariff as they cannot afford to pay. Because of lack of clarity on who should cover the cost of major maintenance facilities, these facilities have remained non-functional for a long time.

Service authorities are responsible for providing direct support which includes tariff setting/revision, monitoring of services and service authority and capacity building of caretakers. But service authorities have limitations in providing the required direct support because of budget shortages, lack of skilled manpower, shortage of equipment (rigs and cranes) and logistics (cars, motorbikes, etc).

Woreda	Region	No. of Staff	Population served	Ratio (staff to beneficiary)
Negelle Arsi	Oromia	21	177,936	1:8473
Shashamane	Oromia	21	55,230	1:2630
South Ari	SNNPR	9	39,365	1:4373
Mille	Afar	18	34,996	1:1944

**Table 2: Staffing at the woreda water offices and populations served**

Table 2 shows there is a significant variation in staff to beneficiary ratio across the country. Having national standards which take into consideration factors like dominant water supply technology across districts can resolve the problem and improve the support that service authorities give to the service providers.

WASHCOs are responsible for rural drinking water service provision. They support this activity on a voluntary basis using their free/spare time. Because of this, tariffs are not fully collected and WASHCOs encounter shortages of finance for OpEx and conducting preventive maintenances. In addition, caretakers who operate the system do not have sufficient knowledge on preventive maintenance.

Lack of a spare part supply chain is another bottleneck in maintenance service provision. Service providers have to travel long distances and incur additional costs to procure fast moving items. As a result, they wait until there is a major breakdown of the water facility before requesting support from the service authority.

The water supply sector in Ethiopia does not have a well-established information management system whereby service providers can report on functionality of services and service providers. As a result, there is no formal reporting relationship between service provider and service authority. Hence service authorities do not have up-to-date scheme level information. Service providers only generate reports when they encounter major breakdowns such as a complete failure of facilities, conflicts, or other issues they are required to report on.

Lack of sustainability of services coupled with huge gaps in access limit achieving the policy goal of reaching 100% of the Ethiopian population with at least basic service level drinking water by 2030.

## **Policy recommendations**

Based on the evidence from the study in Negelle Arsi and Shashamane, to overcome the existing challenges and ensure Ethiopia's vision of achieving 100% at least basic drinking water coverage by 2030 the following policy improvement/implementation is suggested.

### **WASH finance**

The draft policy and strategy mention the need to earmark adequate finance by the government but did not specify the target considering the ambition to achieve SDG 6 and the remaining time. Low level of sector finance is one of the key challenges and hence setting target of the amount of budget that need to be earmarked for the sector is recommended.

### **Life cycle cost financing**

The revised water and sanitation policy and strategy emphasise the need to establish life-cycle costing criteria to determine the financing needs for both capital and operating costs. The draft policy

document, however, does not define capital and operating costs. The literal meaning of capital cost is the cost of new construction while the literal meaning of operating cost is the cost of direct support. With regards to who pays for what, the revised policy clearly indicates the operation and management cost which is understood to be part of OpEx is to be covered by the user communities with the possibility of targeted subsidy. The policy and strategy emphasise the need to establish cost-sharing arrangements between government, local communities, development partners, NGOs and CSOs but do not clearly indicate which costs of the LCC are to be shared.

Defining the LCC components and indicating the sources of finance to cover each cost category is key to expediting coverage and ensuring sustainability and is therefore recommended.

### **Rural water tariff setting/revision**

The revised policy and strategy address the need to develop rural water supply tariffs based on the objective of covering total operation and maintenance costs and partial capital cost and the need to regulate tariff setting. But it does not indicate if capital cost, which needs to be partially covered by user communities, includes major maintenance or if it includes the cost of new construction.

The draft policy and strategy do not indicate who should cover only OpEx and who should cover OpEx fully and capital costs partially. There are no directives and guidelines issued to implement the policy. The policy also does not mention any indicative criteria for setting rural drinking water tariffs though this is one of the key challenges of the sector that needs to be addressed.

Clarity on responsibility for tariff setting, as well as guidelines are required

### **Functional monitoring system**

The revised policy and strategy address the need to ensure effective and efficient water supply and sanitation service delivery and the need to develop minimum water supply and sanitation service delivery standards and guidelines but do not indicate the need to monitor the service quality<sup>2</sup>. The policy stresses the need to establish a reporting relationship between the service provider and user community. However, the service authority is the accountable institution for service quality. Without the presence of a functional monitoring and reporting system between service providers and service authority it is difficult to ensure service quality. The existence of a functional monitoring and reporting system will help to improve control over tariff collection and expenditure which contributes to the overall improvement of the financing of the sector. The policy and strategy should accommodate this and incorporate accountability of the service authority for the service quality.

### **National standard of service authority**

The revised policy and strategy do not cover the backup- support provided by the service authority. This is key for the quality-of-service provision. The policy needs to indicate the type of direct support activities and suggest minimum manpower and logistic requirements of the service authority to ensure quality of service delivery. Without a proper direct support service, the sector cannot generate the finance required to ensure sustainability.

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<sup>2</sup> Some of the parameters for service quality measurement include water quality, availability, accessibility, time required to maintenance non-functional system.

### **Spare part supply chain**

Lack of a spare part supply chain is one of the key bottlenecks for the sustainability of water supply facilities. The revised policy and strategy do not put in place a mechanism to ensure a spare part supply chain is established near services to ensure timely preventive maintenance and increased sustainability. Fast moving spare parts should be available at kebele level close to the service to encourage preventive maintenance.

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