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# Rapid assessment of financing and monitoring of rural water services in Arsi Negele and Shashemene, Oromia, Ethiopia

IRC with support of WASHNote



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## Abbreviations

CRS	Catholic Relief Services
CWA	Consolidated WASH Account
EFY	Ethiopian Financial Year
ETB	Ethiopian Birr
GTP	Growth and Transformational Plan
lps	Litres per second
M&E	Monitoring & Evaluation
MWA	Millennium Water Alliance
NWI	National WASH Inventory
O&M	Operation and Maintenance
OWNP	One WASH National Programme
PME	Planning, Monitoring, and Evaluation
PSNP	Productive Safety Net Programme
SDG	Sustainable Development Goals
SNNPR	Southern Nations, Nationalities, and Peoples' Region
ToC	Theory of Change
WASH	Water, Sanitation, and Hygiene
WB	World Bank
WFB	Woreda Finance Bureau
WI	Wetlands International
WMEB	(Regional) Water, Mines and Energy Bureau
WMED	(Zonal) Water, Mines and Energy Department
WMEO	(Woreda) Water, Mines and Energy Office
WPDx	Water Point Data Exchange
WRM	Water Resources Management

## 1.0 Introduction

The WASH SDG programme 2017-2022 - an ambitious initiative funded by the Government of the Netherlands - aims to achieve sustainable, improved and equitable WASH for all in focus areas of seven countries in Africa and Asia. In Ethiopia, WASH SDG programme activities are being implemented by the WASH Alliance International (WAI) and Plan. WAI Ethiopia is led by Amref Flying Doctors and involving Wetlands International (WI), Bole Bible Baptist Church (WASTE), Akvo and IRC WASH. Under the programme, almost 0.5 million USD will be invested in infrastructure and improving systems by partnering with the government to improve water services in the consortium's targeted woredas Arsi Negele and Shashemene, Oromia region.

The programme also seeks to strengthen the enabling environment, or systems, for sustainable services delivery. Two focus areas of the WASH SDG programme's Theory of Change (ToC) in Ethiopia are to 'enhance effective public planning and monitoring systems', and 'more finance' (see Box 1). To support potential activities in these areas, IRC conducted two rapid assessments, covering both financing and monitoring.

### Objectives

The objective of the financing assessment was to provide recommendations for follow-up advocacy activities related to financing by the WAI Ethiopia consortium. The government-led monitoring assessment was expected to provide suggestions on how the monitoring in rural water can be strengthened. Combined, these assessments seek to support the systems strengthening efforts of the WASH SDG programme. Systems strengthening means improving the enabling environment and related capacities to deliver better WASH services.

#### Box 1 Relevant aspects of the WAI Ethiopia consortium Theory of Change (Amref, 2018)<sup>1</sup>

Pathway 1: enhance effective planning and monitoring system (enabling the public sector).

- Capacity building on budget tracking so that the local government will be enabled to analyse the budget allocation with respect to policy and strategy.
- Capacity building in the public sector through training on Operation and Maintenance (O&M), financial management, and Planning, Monitoring and Evaluation (PME) skills (among others).
- Assisting the government in setting up an M&E system (focusing on the water sector).
- Supporting local government in revising WASH sector policy, strategy and programmes

Pathway 2: more finance to WASH sector.

- Developing rural water supply infrastructure (implement programme activities in creating access to and use of improved drinking water supply at community level and willingness at community level to pay for it).
- Increasing WASH sector office budgets through advocacy at the woreda and regional level.

### Scope and approach

The main unit of analysis for the assessments was the woreda. Higher levels i.e. the zone and regional levels, are included in the assessments but to a more limited extent. The assessments were rapid and are based on four days of data collection in December 2018. The scope was limited to rural water services in two largely rural woredas, and sanitation and hygiene was not included because the financing and monitoring for rural water and sanitation differ significantly and it makes sense to focus on rural water only.

### Study locations

The target woredas for the WAI Ethiopia consortium are Arsi Negele and Shashemene, both located in West Arsi zone in Oromia region in Ethiopia. Both these woredas are included under the Consolidated WASH Account

<sup>1</sup> Note that these are ToC pathways and not yet planned activities.

(CWA), a pooled financing instrument linked to the One WASH National Programme (OWNP), meaning they are relatively well resourced compared to some other woredas. West Arsi zone has 30 woredas, seven of which currently are included in the CWA. The inclusion of the woredas in to CWA allow to align financing in the areas where the woredas have identified gaps. Further, CWA woredas have prepared strategic plan and have some experience in project management which is a plus to an additional financier.

Arsi Negele has a population of 230,000 across its 41 kebeles. Shashemene's population is 360,000 across 57 kebeles. Agriculture is the main source of household income in both woredas, followed by trading and small business. Both woredas are mostly rural, but there are important urban centres that are growing rapidly. Both woredas have a major urban centre by the same name.

Arsi Negele and Shashemene are in the rift valley and rural water supplies rely on springs and both shallow and deep water abstraction. Water supply technologies include multi-village schemes, motorised deep wells, on-spot springs, and shallow and hand-drilled wells. In rural areas, service providers are WASH committees (WASHCOs) staffed by voluntary or elected community members. These are responsible for a single facility and are expected to do tariff collection and every-day facility maintenance. Urban schemes are managed by utilities. Service authorities that support the service providers (rural and urban) are the Water, Mines, and Energy Offices (WMEO) at the woreda, WME Department (WMED) at the zonal, and WME Bureaus (WMEB) at the regional level.

The practices and challenges in providing support from different levels of government are similar to the rest of Ethiopia. WASHCOs are formally responsible for facility management, woreda WMEOs support them through training and monitoring but much else is directed at the zone and region. The latter two support primarily in the construction and occasional maintenance of larger schemes but face their own challenges with insufficient budgets, logistics, lack of skilled maintenance staff, and access to maintenance materiel.

### **Facilities, schemes and systems**

The term facility is used in this report to refer to the infrastructure or technology at a site of water supply such as a well with a handpump. Rural water schemes are a combination of facilities and the management of those facilities.

The term system is used in this report as "all the social, technical, institutional, environmental and financial factors, actors, motivations and interactions that influence WASH service delivery in a given context" (Huston and Moriarty, 2018, p.6). A simplification of the WASH system is shown in Figure 1 where each of the nine building blocks is an important sub-system. Among the building blocks are finance and monitoring.





Figure 1 The nine building blocks of WASH systems (Huston and Moriarty, 2018).

## 2.0 Financing of rural water services

### 2.1 Background

Current levels of investment in water, sanitation and hygiene (WASH) services in Ethiopia are insufficient and dominated by external assistance. The Water Sector Working Group together with UNICEF estimated the size of the WASH sector to be 475 million USD in 2016. Of this about a quarter (123 million USD) comes from the treasury (taxes), another quarter (126 million USD) from external loans, and about half (236 million USD) from external grants. An estimated total of 352 million USD (74%) from development partners indicates their large role in financing water services in Ethiopia.<sup>2</sup>

To achieve the SDGs much higher levels of investment are needed. A preliminary analysis using the UNICEF SDG costing tool<sup>3</sup> suggests that 3.2 billion USD per year is needed for WASH.<sup>4</sup> The number of woredas in Ethiopia is increasing (they are frequently split) but assuming there are 800<sup>5</sup>, this means 4 million USD per woreda per year is needed on average for WASH. Over the whole of the population (assuming it is 100 million) this is 32 USD per capita per year. Although this assessment focuses on (rural) water, and costs are higher in urban WASH which are also reflected in these estimates, this illustrates the scale of investment needed.

<sup>2</sup> Data presented by UNICEF at the 9<sup>th</sup> Multi-Stakeholder Forum June 12-13 2018, Addis Ababa. See the presentation here: [https://www.cmpethiopia.org/media/resourcing\\_wash](https://www.cmpethiopia.org/media/resourcing_wash)

<sup>3</sup> The tool was developed by UNICEF in 2017 and can be found here <http://sanitationandwaterforall.org/tool/sdg-costing-tool/>

<sup>4</sup> Data presented by UNICEF at the 9<sup>th</sup> Multi-Stakeholder Forum. See earlier footnote.

<sup>5</sup> <http://www.ethiopia.gov.et/regional-states1>

This assessment first summarises the status of existing water infrastructure and the services that are provided, and then assesses the costs and financing of water service delivery. To understand the status of existing water infrastructure and the services that are provided we:

- Estimate the value of existing water supply infrastructure based on expert estimations.
- Identify the existing water supply technology mix, levels of functionality and the resulting waste of capital in non-functional infrastructure.

To understand the costs and financing of water service delivery we:

- Identify current sources and levels of water financing by all relevant levels of government, donors and other sources. This includes water budgets and actual expenditure by the woreda, zonal and regional levels of government, as well as expenditures by NGOs
- Determine the size of the woreda water budget compared to other sectors (e.g. health, education, agriculture, etc.).
- Analyse the distribution of budgets and expenditure and its bearing on effective water service delivery to understand what are the main (financial) constraints for sustainably managing rural water infrastructure and service provision.
- Provide recommendations for financing advocacy with an eye on improving WASH finance.

This assessment does not investigate the costs of reaching universal access and service levels at Growth and Transformation Plan (GTP) II or SDG standards.

## 2.2 Methodology

The assessment is based on the Life-Cycle Cost Analysis (LCCA) methodology developed by IRC. LCCA is a methodology used to identify and analyse the costs involved in water service delivery, including infrastructure and support costs, both directly and indirectly. It can help decision-makers involved in planning, budgeting and service delivery to understand the cost consequences of different delivery models for water (and sanitation) services and make informed decisions on investments. It consists of two major components. One is to understand the status of existing water infrastructure and the services that result from it. The second part is to understand the costs and financing of water service delivery. This assessment is a short version of that.

Data collection is based on (Fonseca and Veenkant, 2018).<sup>6</sup> Data was collected through semi-structured interviews and from official documentation of the respective government offices on 4-5 December 2018. In Arsi Negele, the woreda WMEO Head and the Woreda Finance Bureau (WFB) Budget and Finance Officer were interviewed. In Shashemene, the interviewees include a WMEO Technical Expert and the WFB Head. At the zonal level the WMED Deputy Director and WASH focal person were interviewed. The conclusions and recommendations of this assessment were discussed with the Oromia Region WMEB director of water supply (facility management).

The WMEO's in both woredas were asked to list their water supply infrastructure and its status. This verbal reporting is trusted by the authors to be more accurate and up-to-date than their formal documentation. Official documentation was reviewed also, but in Arsi Negele proved to be inaccurate because it captured the situation before the woreda was split into two, and in neither woreda were multi-village schemes (springs with distribution network) included in woreda documentation. This is because these fall under the management of the zone or region as is discussed later.

Cost estimations were made as part of a two-day workshop with woreda and zone staff. On the first day, woreda and zonal teams were asked to individually estimate the current replacement costs i.e. what it would cost 'now' to replace all constituent components, of the average shallow well, deep well, on-spot spring etc. Each scheme type was broken down into a list of draft components (source development, lifting device, distribution network

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<sup>6</sup> A yet unpublished guide to Asset Inventory and LCCA data collection by IRC.

etc.) that could be amended by the participants if necessary. The current replacement cost of each component was then estimated. On the second day, the results were presented to participants and verified. The resulting average cost estimations are rough estimates at current prices and are intended to give an indication of the total value of existing infrastructure.

Service levels resulting from existing water supply infrastructure are estimated from baseline information and verbally reported coverage rates by the woreda WMEO. The former is taken from the baseline assessment conducted by Amref under the WASH SDG Programme as a member of WAI. The baseline gathered data through household, school, and health centre surveys and interviews with key stakeholders (Amref, 2018).

The USD to ETB exchange rate used is 27.7801, which is the average for June-December 2018. The Ethiopian Financial Year (EFY) is used which runs from 8-7 July in the Gregorian calendar.

**Key concepts**

The aggregate costs of ensuring delivery of adequate, equitable and sustainable WASH services to a population in a specified area are called Life-Cycle Costs (Fonseca et al., 2011). This includes "... not only the costs of constructing systems but also what it costs to maintain them in the short and long term, to replace, extend and enhance them as well as the indirect support costs of the enabling environment; that is capacity-building, planning and monitoring" (Fonseca et al., 2011). The different cost components are summarised in Figure 2.

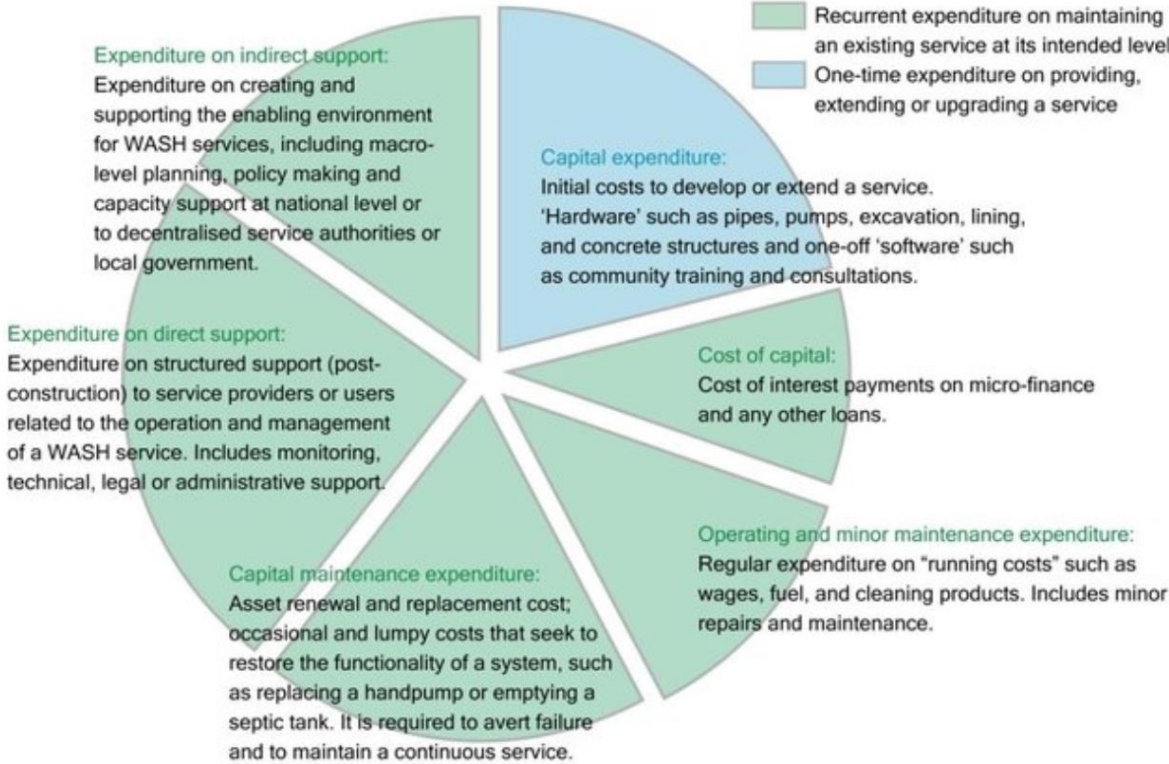


Figure 2 Pie chart explaining the key components of the Life-Cycle Costs approach. Source: <https://www.ircwash.org/news/life-cycle-cost-approach-lcca-global-level>

Capital Expenditure (CapEx) is the capital invested in fixed assets. It includes the cost of initial construction, plus any extension, enhancement and augmentation of water supply schemes. It may also include 'software,' such as one-time capacity building before construction and meetings with users.

Operating and minor maintenance expenditure (OpEx) covers what is required to keep the schemes running (e.g., recurrent expenditures for labour, fuel, chemicals, materials and purchases of bulk water).

Capital maintenance expenditure (CapManEx) covers asset renewal, replacement and rehabilitation — costs that go beyond regular maintenance. Cost of capital (CoC) is the cost of accessing funds to construct a scheme (e.g., interest on loans).

Expenditure on direct support (ExpDS) includes pre- and post-construction support activities by public or private service providers (e.g., monitoring performance, handling complaints and building local government’s capacity). In urban utilities these costs are often included in OpEx.

Expenditure on indirect support (ExpIDS) is macro-level support not tied to a specific programme or project. Local categories and terminology may differ, but indirect support might encompass general capacity building, policy making, planning, regulation and contributing to sector working capacity. Ideally, this indirect support is counted in all water budget and expenditure.<sup>7</sup>

Combined water finance refers to all sources of financing combined i.e. woreda, zonal and regional water offices, federal transfers, NGOs, international donors and any other locally relevant source.

The ultimate financial sources of water investment are Taxes, Tariffs, and Transfers (primarily official development assistance). Taxes are a government’s domestic revenue, tariffs are paid by users and collected by service providers, and transfers are transactions by development partners that do not need to be repaid. These are known as the three Ts, developed by the OECD Horizontal water programme and serve here as a tool to assess the balance between sources of water financing in the two woredas. This assessment gathered limited data on tariffs<sup>8</sup> and focuses water financing through taxes and transfers.

## 2.3 Results

### 2.3.1 Value of existing water supply infrastructure

The list of water supply infrastructure and its status in Tables 1 and 2 was verbally reported by woreda WMEO staff. Average scheme value was estimated per scheme type in a workshop exercise with woreda WMEO and zone WMED staff. Note that the tables do not include the infrastructure that Amref and WI intend to build (see Box 1 in the introduction).

Table 1 Arsi Negele water infrastructure and estimated value.

Facility	Count	Of which functional	Description	Estimated scheme value <sup>9</sup> (ETB / USD)	Total estimated value of schemes (ETB / USD)

<sup>7</sup> This description is from a yet to be published working paper Veenkant, M., Fonseca, C., 2018. *Life-Cycle Cost Analysis at district level: data collection guide*. Working paper. The Hague: IRC International Water and Sanitation Centre.

<sup>8</sup> Tariff setting rural areas is highly decentralized to community level and collecting the data would be challenging. But the framework tariff is recovering O%&M cost.

<sup>9</sup> Estimated current replacement cost i.e. what it would cost ‘now’ to replace all constituent components.

Multi-village spring with distribution network	5	5	Distribution average length: 60 km. <sup>10</sup> Average capacity: 3 lps.	19.150 million ETB (690,000 USD)	95.730 million ETB (3.450 million USD)
On-spot spring	30	30	-	80,000 ETB (2,900 USD)	2.400 million ETB (86,000 USD)
Motorised deep well	14	9	Average depth: 180 m. Distribution average length: 23 km. Average reservoir: 100 m <sup>3</sup> .	21.540 million ETB (775,000 USD)	301.560 million ETB (10.860 million USD)
Shallow well	2	2	Average depth: > 40 m. Lifting device: India Mark II hand pump.	150,000 ETB (5,400 USD)	300,000 ETB (10,800 USD)
Hand-drilled well <sup>11</sup>	41	41	Average depth: 26 m. Lifting device: Afridev hand pump.	100,000 ETB (3,600 USD)	4.100 million ETB (150,000 USD)

Table 2 Shashemene water infrastructure and estimated value.

Facility	Count	Of which functional	Description	Estimated value (ETB / USD)	Total estimated value of schemes (ETB / USD)
Multi-village spring with distribution network	1	1	Distribution average length: 6 km. Average reservoir: 50 m <sup>3</sup> . Average capacity: 6 lps.	3.510 million ETB (126,000 USD)	3.510 million ETB (126,000 USD)
On-spot spring	24	16	-	90,000 ETB (3,200 USD)	2.160 million ETB (77,800 USD)

<sup>10</sup> Real lengths are approximately 14, 12, 75, 80 and 120 km as reported by WMEB staff.

<sup>11</sup> Locally these are referred to as hand dug wells. They are however manually *drilled* wells and should not be confused with traditional hand dug wells.

Motorised deep well	11	4	Average depth: 270 m. Distribution average length: 10 km. Average reservoir: 100 m <sup>3</sup> .	10.710 million ETB (386,000 USD)	117.810 million ETB (4.240 million USD)
Shallow well	10	7	Average depth: 40-60 m. Lifting device: India Mark II hand pump.	450,000 ETB (16,500 USD)	4.570 million ETB (165,000 USD)
Hand-drilled well	45	31	Lifting device: Afridev hand pump.	52,000 ETB (1,900 USD)	2.340 million ETB (84,000 USD)

Of the five multi-village springs in Arsi Negele, three have their sources within the woreda and two cross woreda boundaries. The one multi-village spring with distribution network in Shashemene is shared between Shashemene, Arsi Negele, and Shalla woredas. Therefore, note that it is counted in both Table 1 and 2.

The technology mix is varied in both woredas but with some more multi-village schemes in Arsi Negele and a few more shallow wells in Shashemene. According to the information provided by the woreda, there is both deep and shallow groundwater abstraction. Some 5% of schemes are reportedly non-functional in Arsi Negele and 35% in Shashemene. The reported difference between functionality rates in the two woredas is also striking.

The total value of existing water supply infrastructure, based on the information in Tables 1 and 2, is about 392.500 million ETB (14.13 million USD) in Arsi Negele and 134.400 million ETB (4.8 million USD) in Shashemene. In Arsi Negele this is roughly 1700 ETB (61 USD) per capita and in Shashemene 370 ETB (13 USD) per capita. Note that one multi-village scheme covers three woredas including Arsi Negele and Shashemene and is therefore included in the sum of each woreda at one-thirds the unit cost. The estimated unit cost is the average between the two scheme cost estimates in Table 1 and 2.<sup>12</sup> In terms of monetary value, most is in the motorised deep wells.

### 2.3.2 Service levels

According to the baseline report (WAI/Amref, 2018) based on 1123 household surveys,<sup>13</sup> 52% of households have access to basic water service levels across Arsi Negele, Shashemene and Ziway woredas, defined as water supply from an improved source less than 30 minutes away. The primary reported reason for lack of access to water is lack of availability at the source (52%) followed by source contamination (10%) and too high costs (9%) (Amref, 2018). The difference in service levels between rural and urban households is small as can be seen in Figure 3.

<sup>12</sup> Note however that estimated spring with distribution scheme value is 3.50 and 19.150 million ETB in Arsi Negele and Shashemene. The difference is due to longer average distribution network length in the former. The scheme that is shared between them is therefore assumed to cost 11.3 million ETB (408,000 USD).

<sup>13</sup> 368 households in Arsi Negele (296 rural and 72 urban), 396 in Shashemene (244 rural and 152 urban), and 359 in Ziway (287 rural and 72 urban).

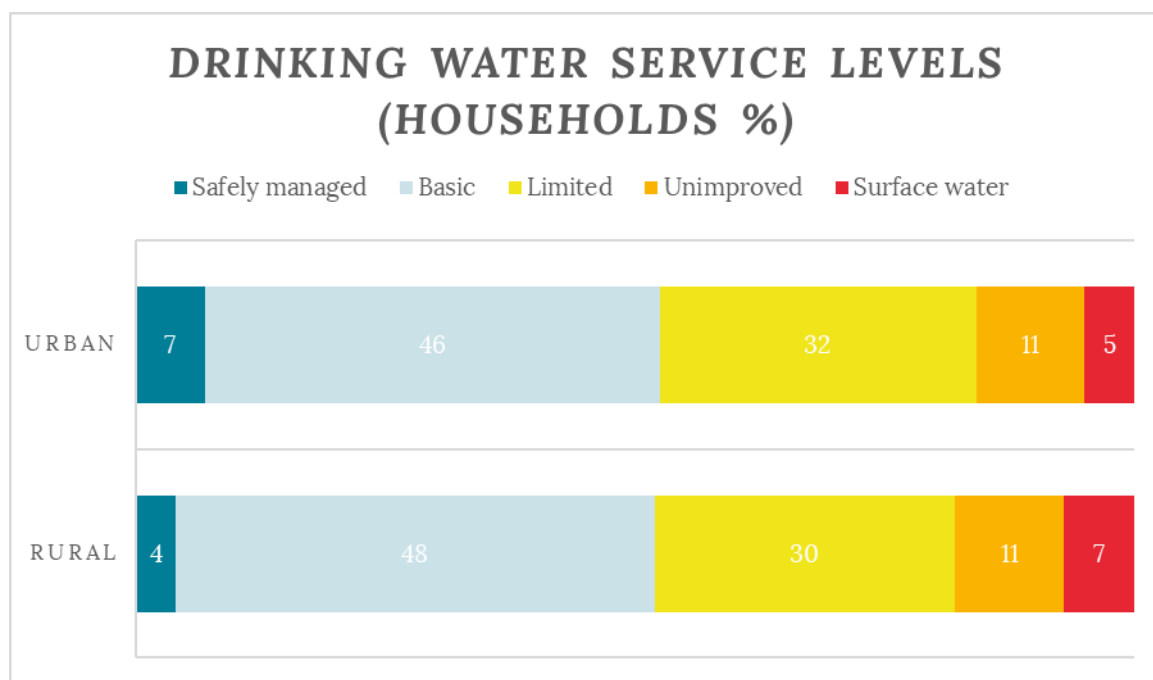


Figure 3 Drinking water service levels. Adapted from WAI/Amref (2018).

A 2016 national survey found that 14% of the population gets water from low-risk sources (no detectable E. coli in a 100 mL sample). An using Joint Monitoring Programme methodology it is estimated that 13% used safely managed services in 2016. High levels of fluoride were also mentioned by staff in the area during data collection. Nationally, 3.8% of the population is affected by fluoride levels over the national standard (1.5 mg/L) (CSA, 2017). There is a comprehensive water quality study conducted through this project for further reference and additional information.

Arsi Negele’s WMEO reports that 55% of its population of roughly 230,000 is covered by its water schemes. In Shashemene this is 53% of 360,000. This is based on 2011 National WASH Inventory (NWI) data and estimates made by government of the average number of users of schemes. It also includes abandoned schemes and is based on standard assumptions of people served per scheme type.

### 2.3.3 Water finance

Water financing in the two study areas comes from the following sources: government; water budgets (woreda, zone and region), federal project funding. the CWA, and a multi-lateral donor; the World Bank (WB) through its Productive Safety Net Programme (PSNP). Although most water financing comes from higher levels as will become apparent, the unit of analysis is the woreda and this section will start with woreda-level budgets. The financing of utilities, which are the service providers to urban areas (and parts or connected rural areas) and operate the multi-village schemes, is not included in this assessment<sup>14</sup>. They collect their own tariffs, are expected to fully recover OpEx, and report to the zonal WMED.

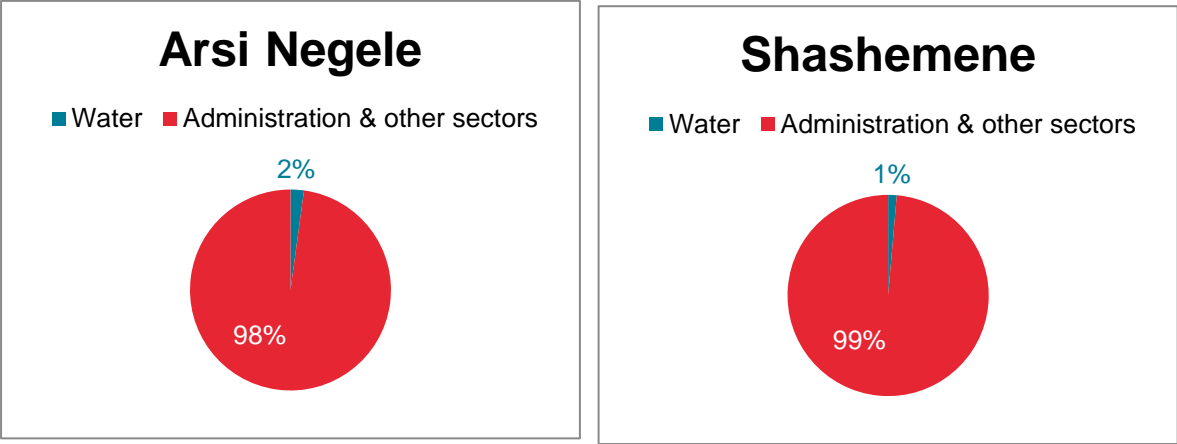


Figure 4 Woreda WMEB water budgets compared to total water budget (2011 EFY).

Budgets for woreda water offices come from the regional level through block grants. Woreda administrations are given a block grant that is then distributed over all sectors by the woreda council. Beside the block grant, woredas may have some own revenue from local taxation. The total woreda budget in Arsi Negele in 2011 is 123 million ETB (4.430 million USD). The budget and finance officer estimated that about 90-95% of this is usually put towards salaries. The remainder is distributed over 36 sector offices. The total woreda budget in Shashemene in 2011 is 150 million ETB (5.400 million USD). Like Arsi Negele, 92% of this goes to salaries and the remainder is distributed over sector offices.

Arsi Negele’s 2011 EFY water sector budget is 2,708,410 ETB (97,495 USD). This includes an exceptional (according to the WFB interviewee) capital budget of 923,000 ETB (33,225 USD) that is matching funding for CWA financed activities. Indeed in 2010 there was no capital budget. Still even with an exceptional capital budget, the water sector budget represents only about 2.2% of total woreda budget. Shashemene’s 2011 EFY water sector budget is 2,089,029 ETB (75,200 USD) (also including 150,000 capital budget where there was none in the previous year) which is about 1.4% of the 150 million ETB total woreda budget. See Figure 6 and 7 below.

Because the remaining budget after salaries is so limited, the interviewee of Arsi Negele’s WFB explained that there is no flexibility to increase budgets for other budget lines (e.g. monitoring or maintenance support). The same goes for an overall increase in water sector budget. An added difficulty is that the salary expenditure may unexpectedly increase mid-year because new staff are hired or salaries are raised. The Shashemene WFB faces the same issues and reportedly has had to put operational budgets from some sectors towards salaries because of this. The Arsi Negele WFB explained that water, health, and education are formal poverty reduction sectors and therefore are assigned more budget than others. Still only two sectors were given capital budgets in 2011

<sup>14</sup> Because the water distribution of the utilities cover more woredas than the two woredas covered in the scope of the study



EFY: roads and water. Capital budget for roads in 2011 is 200,000 ETB the water office's is 923,000 ETB. Therefore, he explained that "(...) we already favoured the water office".

It is important to look beyond woreda budgets and include all other sources of water financing. Water financing from all sources combined is called 'combined water finance'. Combined water finance in Arsi Negele and Shashemene in 2010 and 2011 EFY (2017-18 and 2018-19 G.C) can be seen in Tables 3 and 4. The data was collected through interviews at woreda WMEOs and WFBs. Expenditure is reported to be full at the woreda WMEOs. Expenditure at other levels is unknown. The zonal and regional budgets could not be obtained except for new infrastructure investment (CapEx).

Table 3 Combined water finance for Arsi Negele woreda. Woreda WMEO figures excluding Energy and Mines. Expenditure is full at woreda WMEO in all years.

	Woreda WMEBO(ETB / USD)		WB's PSNP (managed by the regional WMEB and executed by CRS) (ETB / USD)		CWA
Budget item	2010	2011	2010	2011	2011
Operating budget	40,000 ETB (1,440 USD)	85,000 ETB (3,060 USD)	-	-	-
Capital budget	0	923,000 ETB (33,225 USD)	900,000 ETB (32,397 USD)		13,110,000 ETB (471,920 USD)
Salaries <sup>15</sup>	1,927,495 ETB (69,384 USD)	1,700,410 ETB (61,210 USD)	-		-
<b>Total</b>	1,967,495 ETB (70,824 USD)	2,708,410 ETB (97,495 USD)	900,000 ETB (32,397 USD)		13,110,000 ETB (471,920 USD)
<b>Combined water finance<sup>16</sup></b>	16,718,400 ETB (601,800 USD)				

Table 4 Combined water finance for Shashemene woreda. Woreda WMEO figures excluding Energy and Mines. Full expenditure at woreda WMEO in all years.

	Woreda WMEO (ETB / USD)		CWA (ETB / USD)	

<sup>15</sup> Includes all staffing costs including pensions.

<sup>16</sup> Excluding 2010 EFY WMEB budget

Budget item	2010	2011	2010	2011
Operating budget	60,000 ETB (2,160 USD)	75,000 ETB (2,700 USD)		
Capital budget	0	150,000 ETB (5,400 USD)	20,652,000 ETB (743,410 USD)	
Salaries <sup>17</sup>	1,752,187 ETB (63,074 USD)	1,864,029 ETB (67,100 USD)	s	
<b>Total</b>	<b>1,812,187 ETB</b> <b>(65,233 USD)</b>	<b>2,089,029 ETB</b> <b>(75,200 USD)</b>	<b>20,652,000 ETB</b> <b>(743,410 USD)</b>	
<b>Combined water finance<sup>18</sup></b>	<b>22,741,000 ETB (818,600 USD)</b>			

In Arsi Negele, combined water finance in 2010 and 2011 EFY is sourced from:

- Woreda WMEO budget (block grant from the region), including 923,000 ETB matching funding by the woreda related to a CWA-funded project.
- The WB's Productive Safety Net Programme (PSNP).
- CWA.

There are two CWA-funded projects active in Arsi Negele as of 2011 EFY to install protection and distribution networks on two springs (multi-village schemes) worth 4 million ETB and 9,110,000 ETB (total 13,110,000 ETB). Both are implemented by the region and cover an area wider than Arsi Negele woreda so note that the full project value cannot be attributed to Arsi Negele alone. The WMEO's 2011 capital budget of 923,000 ETB is matching funding for the one or both CWA projects.

Through the PSNP the WB is financing the expansion of an existing spring with distribution network with 14 km. It is executed by CRS, started in 2010, and the value (according to the Arsi Negele woreda's WMEO) is 900,000 ETB. It is financially managed by the regional WMEB. CRS operate in Arsi Negele but do not report to the woreda financially. They only report their activities.

In Shashemene, combined water finance in 2010 and 2011 EFY is sourced from:

- Woreda WMEO budget (block grant from the region).
- CWA.

There are no contributions from other parties like NGOs and Shashemene is not a PSNP woreda. There are two CWA-funded projects in Shashemene. One is implemented by the region (20 million ETB) and one by the woreda (652,000 ETB). The regionally managed 20 million ETB project is to construct two deep wells with distribution networks. The study was done in 2009 (EFY), drilling in 2010, and 2011 EFY is expected to see the finalisation.

<sup>17</sup> Includes all staffing costs including pensions.

<sup>18</sup> Excluding 2010 EFY WMEB budget

The woreda contribution was expected to be 2 million ETB (10%) compared to 1 million (5%) by communities and 17 million (85%) by donors. The woreda WMEO mentioned however, that financing is still being discussed. The current status of this project is therefore unknown.

The woreda-managed 652,000 ETB project is to construct four new protected springs and 16 hand-drilled wells. There are however some issues with spending this, which also affect expenditure of the woreda WMEO's capital budget. How to spend the 150,000 ETB capital budget is at the woreda WMEO's discretion but it is not yet unclear what it will be. This is because it was supposed to align with 652,000 CWA funding. The woreda is expected to provide 10% matching funding (so about 65,000 of the 150,000). The CWA funding was intended for four new springs and 16 hand-drilled wells at an expected cost of 35,000 and 32,000 per unit respectively (a total of precisely 652,000). However, after tendering it emerged that the costs would be about 60,000 for both types, bringing the total to 1.2 million so the original plan turned out to be unaffordable. The 652,000 ETB will still be disbursed but another plan must be made. Originally, part of the 150,000 was supposed to go to 'CWA' infrastructure as matching funding. However, since there is no definitive plan for the CWA funding yet, neither is there for the 150,000 woreda capital budget. It is still unclear whether the woreda will use it to build some small schemes themselves or put it towards whatever the CWA-funding will be used for.

There is almost always full expenditure of budgets in these woredas. In 2008 EFY in Shashemene however, the entire capital budget of 350,000 ETB was not used. The intended project for a new deep borehole and distribution network was projected to cost close to 3.5 million ETB based on a woreda study that was conducted after the 350,000 ETB was assigned. Drilling would have been the largest part of this. The entire project was called off.

The Sankey diagrams in Figures 6 and 7 present the channels of water finance captured in this assessment from different sources to the cost components on which it is spent. It shows the relative sizes of sources and what it is spent on. As can be seen from the Sankey diagrams most water financing in Arsi Negele comes from CWA, followed by the WB's PSNP and then the woreda budget. In Shashemene it is the same except that there is nothing from the WB. It is clear that combined water finance is dominated by CapEx. No formal budget lines for CapManEx could be identified in 2010 and 2011 EFY. OpEx (at the woreda-level) is dominated by salaries. Minor maintenance (under woreda WMEO operating budget) is a negligible part of OpEx.

The ultimate sources of financing reflected in Tables 3 and 4 and the Sankey diagrams are taxes and transfers. These are two of the three Ts (Taxes, Tariffs, Transfers). No data was collected on tariffs. The woreda, zonal, and regional budgets are primarily sourced through taxes or government revenue.<sup>19</sup> Transfers come through CWA funding and the WB's PSNP. CWA funding is provided by donors (African Development Bank, Department for International Development, WB-International Development Association, and UNICEF) (although matching funding is always required at woreda level). The balance between taxes and transfers in combined water financing in 2011 EFY can be seen in Figure 8. It shows that in both woredas water financing is primarily dependent on transfers i.e. donor funding. Not that this excludes tariff collection by WASHCos and utilities.

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<sup>19</sup> This is a slight simplification. Domestic resources made up 86.6 per cent of national budget in 2015/16. The rest was provided by external assistance (UNICEF, 2017).

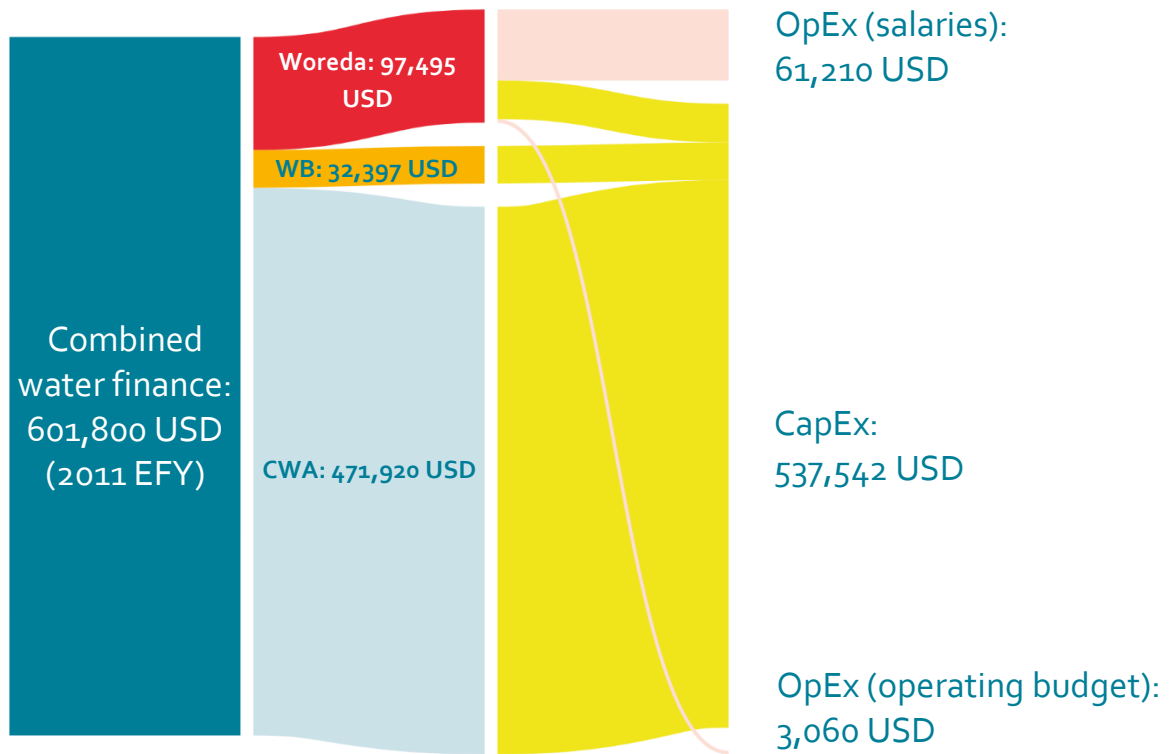


Figure 3 Arsi Negele Sankey diagram of combined water finance (2011 EFY).

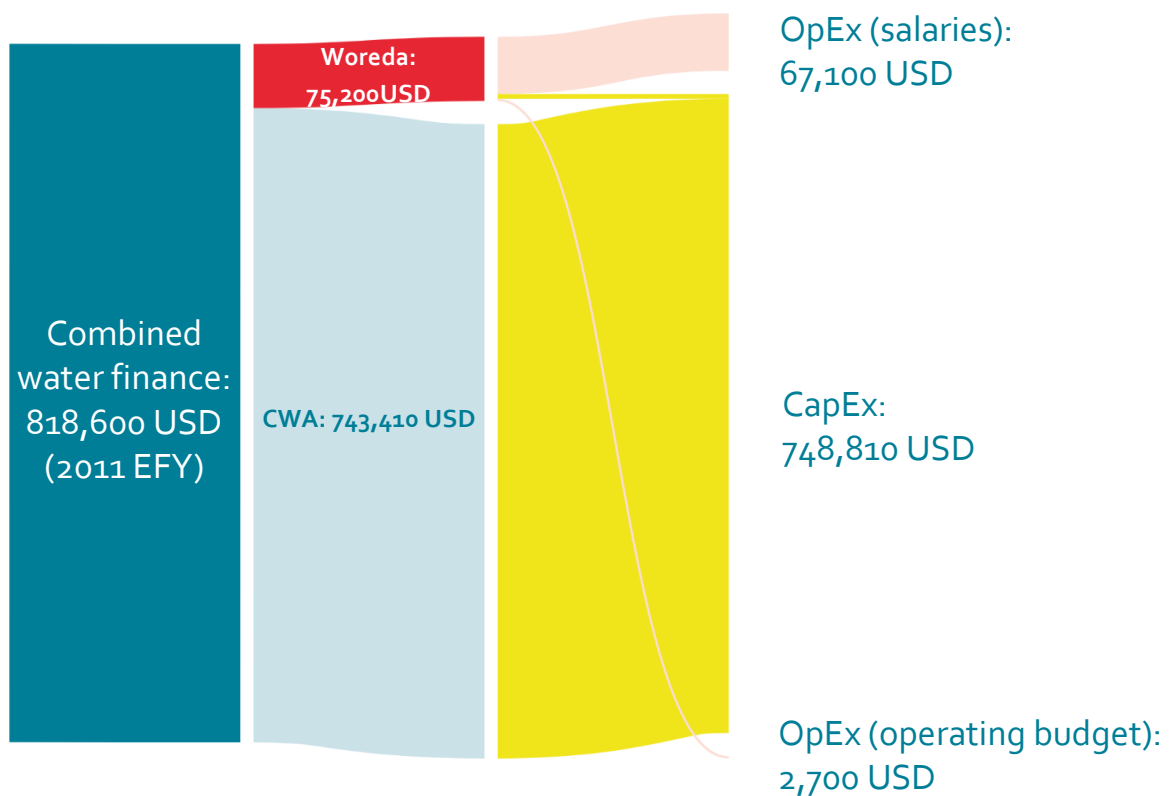


Figure 4 Shashemene Sankey diagram of combined water finance (2011 EFY).

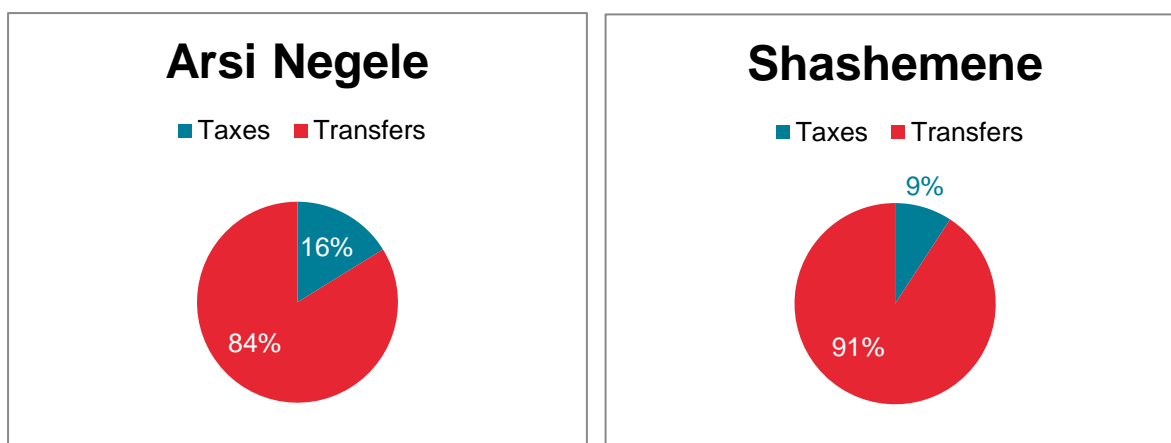


Figure 8 The balance between ultimate sources of water finance (taxes and transfers), excluding tariffs.

Combined water financing in 2011 EFY in both woredas amount to 73 ETB (2.60 USD) per capita in Arsi Negele and 63 ETB (2.30 USD) per capita in Shashemene. This is far below 32 USD per capita per year estimated to be needed to achieve SDG-level WASH services (although including sanitation), and that is even including some large capital projects that span more than one year.

The zonal WMED indeed reports that woreda-level water sector budgets are insufficient. There is too little budget for Operation and Maintenance (O&M) according to the interviewees. The region provided 40,000 ETB in 2011 EFY for supervision and maintenance in the entire zone. The zone has also had to transfer 90,000 ETB from their capital budget (taken from the supervision of new schemes) to run the facility management department's ongoing operations. The zone reports having pleaded with woreda cabinets that water sector budgets are too low. The zone has also pleaded for more budget with the region, but this was not granted. Also, a request for additional emergency (drought) budget, which is usually granted, was denied.

#### Box 2 Sanitation costs

This assessment focuses on rural water, but a recent exercise by the Ministry of Health (MoH) and UNICEF is worthwhile mentioning to understand the financing needs for sanitation. They estimated the costs of safely managed basic community sanitation and institutional WASH (schools and health facilities) up to GTP II/HSTP (2020) and SDG (2030) standards by region. It is reportedly the first costing analysis of its kind up to the kebele level. Based on validated estimates by government staff and other partners, region-specific estimations were made. According to the (preliminary) estimates 711,920,000 USD is needed in Oromia region and 1,825,436,000 USD nationally to achieve SDG levels, and 487,911,000 USD in Oromia and 2,189,717,000 USD nationally for GTP II. This is 17 and 11.60 USD per capita in Oromia,<sup>20</sup> and 3,955,000 USD and 2,711,000 USD per woreda for SDG and GTP II/HSTP coverage respectively. Note that this excludes rural and urban water supply and that the data are not final.<sup>21</sup>

### 2.3.4 Direct and indirect support analysis

With the levels of financing presented in the previous section the local government as service authority provides direct and indirect support to the WASHCos as service providers in rural areas and utilities in urban areas (see Chapter 2.1 for definitions). The service authorities are the WMEO, WMED, and the WMEB.

<sup>20</sup> With a projected population of 42 million. Source: *Population Projection of Ethiopia for All Regions At Wereda Level from 2014 – 2018*. Federal Democratic Republic of Ethiopia Central Statistical Agency.

<sup>21</sup> This data was taken from yet unpublished documents. A presentation on the initiative can be found here: <https://www.cmpethiopia.org/content/download/3081/12629/file/Micro%20planning.pdf>

In both woredas the WMEO consists of the departments Energy, Mining, (water) Facilities, Community Management, Sanitation, and Projects. The latter four are involved in water. In Arsi Negele, the WMEO has 28 staff, 21 of which are with the water-related departments. Shashemene's WMEO has 30 staff with 21 working on water. The zonal WMED (West Arsi zone) has eight staff on studies and design, five on facility management (O&M), five on drilling supervision and construction, two in the planning unit, four in community management, four in the scheme financial management audit unit (WASHCo monitoring).

The woreda has five-year strategic plans (as at the national level) and they report to the zonal WMED and the woreda administration. To the zone they report on technical matters (maintenance work, WASHCo support, new construction, supervision works, training etc.) and to the woreda on administrative matters. The woreda administration is provided with progress reports monthly (project progress but also the same technical matters as to the zone). Five-year plans are broken down into annual plans. The woreda council approves their budgets. The zonal WMED compiles woreda reports (in hard and soft copy) on a monthly basis and sends it to the region. This reporting covers project-wise and ongoing operational (maintenance) activities. For more information on planning see section two of this report.

The woreda WMEO and zonal WMEDs provide some levels of post construction support. Arsi Negele woreda is divided in three areas to each of which one staff member (supervisor) is assigned for monitoring and weekly reporting. The staff member may first seek to resolve issues brought to his/her attention by him/herself or call in support from the woreda team. Planned visits are done based on the requests compiled by these supervisors. In Shashemene they do not have the same area division but send staff on missions (to support and monitor WASHCos) and besides that respond to incoming requests.

According to Arsi Negele's WMEO, facility maintenance (read OpEx) is primarily covered by WASHCos. This includes minor maintenance, fuel, electric bills as well as spare parts purchase.<sup>22</sup> There is a regional directive stipulating that WASHCos should pay for spare parts and the Arsi Negele WMEO reports to not have received requests for spare parts recently. WASHCos' ability and willingness to pay for and execute facility maintenance is not part of this assessment. Both WMEOs store spare parts only when building new facilities. For existing schemes WASHCos are expected to purchase them from the market. In the provision of spare parts there is an exception for electromechanical components i.e. pumps, generators, and switchboards. These are provided by consecutive levels of government depending on the size of the problem and according to budget.

WASHCos can come to the woreda to ask where to buy certain components. All schemes in Arsi Negele reportedly have trained WASHCos and all are monitored by the WMEO. New batches are trained when the old rotate out. In Shashemene WASHCos are also in place at all schemes but it is unknown whether all have been trained. The zonal WMED reported poor scheme management by insufficiently capacitated WASHCos across the zone. WASHCos lack sufficient support, training, and supervision. There is no budget for WASHCo training according to the zone WMED. Note however, that at least Arsi Negele's WMEO reports that all WASHCos in its woreda have been trained and are monitored.

The woreda WMEOs' role in facility management is limited to supporting WASHCos. Both woredas face some logistical issues in this. Arsi Negele's WMEO has one functional motorbike and three dysfunctional ones (that reportedly could still be repaired). Shashemene's WMEO has two motorbikes, one of which is functional. Both cover their own fuel and transport costs.

Community members or WASHCos generally come to Arsi Negele's WMEO when 1) there is no water, 2) there is a conflict between villages, 3) they need support on spare parts (where to get it), or 4) to apply for a

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<sup>22</sup> It could not be verified during this assessment to whether this is really the case. It was found in other IRC assessments that WASHCos may neglect OpEx and wait for larger system failure so that a government entity may step in.

household connection to the distribution network. If the woreda is unable to provide, the zone steps in. It is the same with the zone and region.

There are several multi-village schemes in West Arsi zone that run across woreda boundaries. These primarily serve urban centres but cover an unknown rural area too. They are managed by utilities led by community-elected boards. Board members are selected from all kebeles in an annual assembly. The service authority for utilities is the zonal WMED. The chairman of the scheme reports to the zone and is assigned by it. The WMED is also their first line of support for O&M. The region decided on their management framework but is not involved beyond that. The also woreda has no role in supporting utilities.

The zone conducts studies, documents, and designs larger schemes. Such work is based on woreda demand which the zone compiles. The zonal WMEO visits all woredas at least quarterly on scheduled visits. Based on this, when unable to provide it themselves, they apply for support to the region or other parties like NGOs. As mentioned before, the zone supports there where things are beyond woreda capacity. What is generally beyond the woreda's capacity is anything to do with major maintenance of any scheme and all issues with motorised (deep well) boreholes and springs with distribution. The zone occasionally supports WASHCos by developing new sources and helps NGOs in implementation. As mentioned earlier, multi-village schemes are supported by the zone depending on the former's (financial) capacity.

The zone faces several challenges. It has sufficient capacity to meet demands in study and design but not in facility management i.e. maintenance. There is insufficient budget and a lack of technically skilled maintenance staff especially regarding motorised schemes and electro-mechanics. Even staff with a diploma reportedly lack the necessary practical skills. This goes for both the zonal and woreda level. The zone explained that woreda staff would need technical training to service the larger schemes but there is no budget for this. The zone interviewees stated that they have often requested the region for support on this but claim that the latter prioritises new infrastructure (CapEx).<sup>23</sup> The budget granted for new infrastructure however, is also insufficient. The zone WMEO requested the study and design of 12 new motorised springs with distribution in 2011 but were awarded only three. Furthermore, the zone also does not have sufficient maintenance equipment for electro-mechanics and piping.

In terms of logistics the zone has four cars (two functional), no motorbikes, and no maintenance rig. A water truck is rented for emergencies. When needed, a maintenance rig is requested from the region. There is however only one rig for five zones, meaning that the response time is often in excess of three months. Once the zone gets the rig they hold on to it for as long as possible, trying to cover as many schemes as possible. The last time they got it they kept the rig for three months but still could not maintain all schemes in need. When asked about hiring a private rig they explained that this is too expensive. However, there is a private provider and they are considering using it. The zone interviewees also explained that many woredas face logistical (budget) issues. There is one woreda that does not have a single motorbike.

## 2.4 Conclusions

The estimated value of existing water supply infrastructure is about 404.090 million ETB (14.545 million USD) in Arsi Negele and 130.400 million ETB (4.690 million USD) in Shashemene. Based on the available information from the baseline household surveys, service levels are low across both urban and rural areas. Access to safely managed drinking water in rural households is 4% and 7% in urban households (Amref, 2018).

Based on the level of functionality reported by the WMEO and the estimated value of existing infrastructure, the capital loss due to non-functionality can be estimated. Some 5% of schemes are reportedly non-functional in Arsi Negele and 35% in Shashemene. The value of infrastructure is estimated at 392.500 million ETB (14.13

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<sup>23</sup> It must be noted however, that even if woreda staff would have the technical skills there would still not be enough budget to carry out any major maintenance.

million USD) in Arsi Negele and 134.400 million ETB (4.8 million USD) in Shashemene. This means that the capital investment going to waste in Arsi Negele is 19.625 million ETB (706,500 USD) and in Shashemene 6.720 million ETB (240,000 USD). This indicates that probably a relatively small amount of maintenance expenditure (OpEx and CapManEx) could 'unlock' a larger amount of capital that is now not producing services as it could.

Much of the water financing comes from the regional level and above, particularly in the form of CapEx in new multi-village schemes and their extension. Sources of water financing include government water budgets, CWA-funding, and (in Arsi Negele) the WB's PSNP. This financing is mostly focused on large schemes i.e. multi-village springs with distribution and deep wells with distribution.

Water financing from the woreda-level is limited in comparison to the WB's PSNP and CWA contributions i.e. development partner transfers, as well as to total woreda budget. In 2011 EFY the woreda water sector budget is about 2.2% of total woreda budget in Arsi Negele and 1.4% in Shashemene. Formal efforts have been by woreda WMEO and zone WMEDs to increase water sector budgets but to date they have been of limited success. The Oromia Region WMEB director of water supply (facility management) said that he did not expect sector budget distributions to change in the coming years.

Fixed budget lines for salaries which make up between 90-95% of total woreda budget in both woredas, strongly hinder the space redistribution of sector budgets at woreda-level. The same is true for the WMEO. There is generally limited or no capital budget at the discretion of the woreda WMEOs. What limited budget there is at the woreda-level is mostly spent on salaries, leaving only a small amount for minor maintenance. The WMEB interviewee again did not see a ready solution to this.

Combined water financing including government and donor contributions in both woredas is far below what is estimated to be necessary to achieve SDG 6 'clean water and sanitation'. Combined water finance in 2011 EFY is 73 ETB (2.60 USD) per capita in Arsi Negele and 63 ETB (2.30 USD) per capita in Shashemene. This is far below the 32 USD per capita per year estimated to be needed to achieve SDG-level WASH services (which would however also include sanitation). To achieve SDG-level water services, water financing will have to multiply several times in both woredas.

Not only is the total amount of water finance too low, the current way of financing will not likely lead to sustainable water service delivery. Combined water financing is dominated by CapEx. No formal budget lines for CapManEx (major maintenance or rehabilitation) could be identified in 2010 and 2011 EFY. This is a signal that major maintenance and rehabilitation are not planned for but dealt with ad-hoc. The interview with the WMEB confirmed the ad-hoc nature of regional support in this. He stated that tariffs should cover all maintenance and when it cannot, and the woreda cannot fix a broken scheme either, the region may occasionally step in. This is will probably not result in sustainable water service delivery in the long term because water supply schemes will start failing and service levels with it, even as CapEx goes up. An increase in woreda WMEO and zone WMED budget for non-salary components of OpEx could help but is unlikely to lead to higher water service levels if all facility management is left solely to WASHCos and most matters are passed on to the zone or region. Along with more balanced combined water financing, roles and responsibilities would have to be reviewed. This does not take away the fact that service levels could improve through better infrastructure functionality if water financing is more balanced towards maintenance and rehabilitation (OpEx and CapManEx).



## 3.0 Monitoring of rural water services

### 3.1 Introduction

Monitoring is the routine tracking and reporting of priority information about sector functions and actors: inputs, activities, outputs, outcomes and impacts<sup>24</sup>. One off and periodic evaluations may be used to answer specific questions from routine monitoring reports and other information sources. Monitoring and evaluation systems (also referred to as information systems) are used to guide planning, coordination and implementation, assess the effectiveness of activities and to ensure accountability by tracking changes in indicators and conducting research. Ultimately, water M&E and public information systems are about answering key questions. These questions are about understanding:

1. What is the problem?
2. Are we doing the right things? (inputs)
3. Are we doing them the right way? (activities, outputs, intermediate outcomes)
4. Are we doing them on a large enough scale? (outcomes and impacts)

Overall water goals and the key questions to be answered guide the definition of indicators and choice of methods used.

The purpose of government-led<sup>25</sup> M&E within sectors such as water is to enable effective decision-making – at all levels within a country – through the use of continuous, reliable and relevant data and indicators which can be processed, analysed and used to inform decisions. M&E has the potential to inform intervention tracking, inform corrective actions, inform planning and resource allocation, increase accountability of service providers and authorities towards citizens, and inform regulation of services and service providers. Ultimately M&E can and should result in improvements to, and the sustainability of water service delivery.

Within the framework of the inception phase of the Netherlands SDG program it was decided to undertake a sustainability compact analysis in all its countries, including Ethiopia. A series of assessments has been undertaken as part of the inception phase, including a rapid assessment of Water, Sanitation and Hygiene (WASH) M&E systems in Ethiopia (Adank et al., 2017). Though the focus of the rapid assessment was on WASH more broadly, most conclusions are relevant this water-focused assessment. In particular, the WASH M&E system was found to be one of the weakest elements in the enabling environment for water services.

The Sustainability Compact refers to the sustainability clause in the contract between The Netherlands WASH SDG Consortium and DGIS, committing the partners to 15 years of sustainability of the WASH services constructed within the program. A yearly progress update is performed in the sustainability checks, as part of which IRC has developed *building blocks* to monitor the Sustainability Compact. The building blocks are monitored every year and include the following blocks:

Table 5 Building blocks (Adapted from Adank et al. 2018)

	WASH system building block
I	Institutional

<sup>24</sup> IRC, UNICEF, and Akvo, Mapping Country-Led WASH Monitoring Information Systems. Accelerating National and Subnational WASH Monitoring for Improved Asset Management and Service Delivery (The Hague, The Netherlands: IRC, 2018)

<sup>25</sup> This methodology has been used in assessments of 'country-led monitoring' in West Africa. There it is used to reflect the shared civil society, private sector, development partner and government leadership roles in the process. Country-led monitoring encompasses an entire country or state and includes rural, small-town and urban areas and both quantitative and qualitative data about services.

I	Legislation
F/S	Finance
I/S	Planning
T	Infrastructure development and management
I	Monitoring
I	Regulation
I	Learning and Adaptation
E	Water Resource Management

In the latest sustainability check the national level building block for monitoring is scored poorly, achieving only 1.2 (scale: 1 lowest, 5 highest), the second lowest score (Adank et al., 2018). At district level, the monitoring building block scored the lowest among all building blocks.<sup>26</sup> Ongoing strengthening of monitoring systems has not yet resulted in a robust government-led monitoring system. Therefore there are limited possibilities to rely on water supply data from these monitoring systems for sector and project progress. A “belt and braces” approach is recommended, consisting of both efforts to strengthen (local) government M&E systems and processes related to monitoring, as well as collection and analysis of monitoring data through project initiatives.

The goals of this M&E assessment are to:

- Assess the status of the current M&E-system in Arsi Negele and Shashemene across 12 components.
- Understand how the government-led M&E system in Arsi Negele and Shashemene can be strengthened as part of the WAI project activities.

### 3.2 Methodology

To assess the monitoring and evaluation system in the woredas, a generic organising framework<sup>27,28</sup> for a functional national WASH monitoring and evaluation (M&E) system was adapted to focus on rural water monitoring and evaluation and used. The framework provides (1) a description of the main components of a functional national water M&E system, and (2) some benchmarks against which to assess progress in establishing such a system. This document covers system components that need to be present and work to an acceptable standard for the water M&E system to function effectively. However, not all of the 12 components need to be implemented at all levels of the system. The framework provides extensive insights into the core components of an M&E system and is suitable to be used in a participatory setting. The framework is well tested and has been applied in three woredas<sup>29</sup> in the Amhara Region as well as in 10 countries in West and Central Africa (IRC, 2018).

The 12 components can be usefully grouped into three categories:

<sup>26</sup> The woredas in this assessment include Arsi Negele and Adami Tulu.

<sup>27</sup> IRC, UNICEF, Akvo, and UNAIDS, Organizing Framework for Functional National WASH Monitoring and Evaluation Systems, May 2016 <<https://www.ircwash.org/resources/organizing-framework-functional-national-wash-monitoring-and-evaluation-systems>>

<sup>28</sup> The content of this document is a WASH adaptation of the UNAIDS Monitoring and Evaluation Reference Group guidance document called “Organizing Framework for a Functional National HIV Monitoring and Evaluation System” developed in 2008. A useful reference for readers interested in a non-sector specific toolkit adapted from the same UNAIDS MERG framework may refer to the World Bank publication by Görgens and Kusek (2012) “Making Monitoring and Evaluation Systems Work: A Capacity Development Tool Kit”.

<sup>29</sup> Dera, Farta and North Mecha

- Facilitating M&E: People, partnerships and planning (components 1 – 6)
- Doing M&E: Collecting, verifying, and analyzing data (7 – 11)
- Using M&E results: Using data for decision-making (12)



Figure 9 The M&E assessment organising framework.

The components of water M&E in the organising framework were evaluated in a participatory workshop by participants from the following local institutions:

- Arsi Negele Woreda Water Office (Office Head, Expert)
- Shashemene Woreda Water Office (Office Head, Process Owner (x2), Expert)
- Shashemene Woreda Finance Office (Office Head, Expert)
- West Arsi Zone Water Department (Vice Head, WASH Focal person)

Complementary interviews were performed with the Arsi Negele Woreda Office for Finance and Economic Development with the WoFED Office Head and an WoFED Expert. The workshop and interviews were facilitated by local and international IRC experts. The conclusions and recommendations of this assessment were discussed with the Oromia Region WMEB director of water supply (facility management).

### 3.3 Results

#### Component 1: Organizational structures with water M&E functions

Performance Goal: Establish and maintain a network of organizations responsible for water M&E at the national, sub-national, and service-delivery levels, with an overall harmonization, consolidation and leadership role for the (national) government.

##### *National guidelines for organizational structures*

There is a formalised hierarchical structure across the country where the woreda level reports to the zonal level (where zones are present) and the zonal level reports to the regional level through their respective Planning, Monitoring, and Evaluation (PME) units.

The responsibilities for M&E are grounded in the mandate of each level of government. The woreda water office is responsible for monitoring all rural water supply schemes within the woreda boundaries. Water utilities and WASHCOs are responsible for maintenance of water supply schemes. In this role, they could be reporting changes and as such are a potential source of data, which in practice is not systematically captured in the woreda water office. Water utilities and WASHCOs often rely on support from higher institutional levels to perform maintenance activities.

Job descriptions at woreda and zonal levels are developed by the civil service bureau at regional level. The descriptions for M&E personnel include clear responsibilities for M&E both in the water and finance offices at woreda level.

#### *M&E units, staffing and perceived difficulties*

The Woreda Finance office organises all budget allocation and expenditures at woreda level. The woredas consist of the following units: Energy, Mining, (water) Facilities, Community Management, Sanitation and Projects. The finance office decides over budget allocation to the different departments. In the woredas, the PME Unit is located at the Finance Office. Hence, this unit is not specific for water and has responsibility for all woreda departments. These responsibilities include M&E activities, budgeting and updating expenditures. There are five staff positions in the PME unit and one has a coordinating function.

The total filled staff positions in the Arsi Negele Water Office is 28, of which 21 work in water. The total filled staff positions in the Shashemene Water Office is 30, of which 21 work in water. In the woreda water offices, there are two staff positions with M&E responsibilities in the national structure. One position is focused on planning and budgeting for M&E and one position is focused on the monitoring activities. In both Arsi Negele and Shashemene only one of these positions is executed and can be filled. In Arsi Negele the request for budget to fill this one position has not yet been approved and in Shashemene the position is filled, though the person is currently involved in other non-M&E activities.

As per the national structure, there are no positions for IT or databases management in the woreda water offices and there is one position for an IT specialist in the finance office. In Shashemene, however, this position is currently not filled due to insufficient budget for the salaries. In both woredas there are no staff positions for IT or database management. In practice, the IT specialist from the West Arsi Zone provides support when requested. In the woreda water offices, database management, i.e. the structure in which the monthly and quarterly reports are stored, is performed by the person responsible for M&E.

In the West Arsi Zonal Water Department the PME unit consists of two positions. One staff member has a permanent position and one staff member also has other functions. The PME unit is, like the woreda finance PME unit, not specific for water.

The woreda water offices have sufficient data collectors for adequate routine M&E practices, however, there is insufficient budget for routine monitoring practices. At the woredas, between 90% and 95% of the total budget is reserved for salaries. The budget reserved for operational expenditure (OpEx ExpDs) is insufficient for a variety of cost categories, including fuel, vehicle maintenance and daily allowances, making it difficult to perform the activities described in the annual plans.

#### *External Support*

support in the form of training for databases, IT and data collection. However, the support is project based and not on a routine basis.

There are structures for supportive supervision, where the zone and region provide technical support to the woredas. Practices for supportive supervision are described under Component 10.

Strengths	Weaknesses
<ul style="list-style-type: none"> <li>- In the nation-wide structure, there are PME teams at regional, zonal and woreda level.</li> <li>- There are mandates with clear responsibilities for M&amp;E activities.</li> <li>- M&amp;E personnel and activities are part of the PME teams.</li> </ul>	<ul style="list-style-type: none"> <li>- The woreda budgets are insufficient to meet and unaligned with the standard positions in the nationally-defined hierarchical structure.</li> <li>- There is limited IT and database support across levels.</li> </ul>

### Recommendations

From workshop participants:

1. The Shashemene Water Office participants propose regular problem-focused coordination meetings with the Woreda Finance Office to create more support for their activities.

For WASH SDG programming:

- a. Advocate for and develop a reorganisation of the standard woreda staff positions to include dedicated data management personnel that is needed to enable incremental improvements for data management at woreda level. These discussions need to be at regional and national level.
- b. Discuss the revision of M&E posts/positions to be more attractive and increase the attention given by management to applicants/staff at regional and national level.

## Component 2: Human capacity for water M&E

Performance Goal: Ensure adequately skilled human resources at all levels of the M&E system, are available, to complete all tasks defined in the annual national water monitoring work plan.

This component is about ensuring skilled human resources e.g. through a human resources capacity building plan, training opportunities, while the previous component is focused on how staffing positions for M&E are defined and filled in the organisational structures. Planning for human capacity and skills is centrally organised at regional level. The Civil Service Department at regional level makes an assessment of staffing requirements and the zones and woredas are meant to hire the personnel and budget based on the procedure decided at regional level. The structure for personnel and support is the same for all woredas in the region. The region prepares the budget based on this structure. Every two years the structure is evaluated and institutions are expected to staff accordingly.

There is no systematic documentation of skills and competencies across institutions. Routine training for current and new (M&E) staff is not planned or budgeted. The government organises training across disciplines for lower level institutions. In the experience of the workshop participants these trainings are often not in a thematic area of interest, are not within woreda budget and when given per diem rates these are often considered too low for the actual expenses. Sometimes, ad-hoc training opportunities for staff occur, however, these are often organised by development partners on a project basis. There is no routine on the job training, however in practice at times a more senior staff member is paired with and will train/tutor a new staff member. The turnover of M&E staff is generally high and there is a reported lack of motivation across levels.

### M&E Education

The workshop participants reported that there are no M&E education programs. However, a previous assessment in Ethiopia found that some universities have started teaching M&E MSc programs. Before, M&E did not have a stand-alone curriculum at higher education institutions. However, there is no training curriculum endorsed by national level for M&E education. Rather, a bachelor degree in economics or computer science is considered sufficient for a job as M&E expert. For database managers and IT personnel, there are no tailored education programs, these staff typically have a background in statistics or computer science. During the workshop, it proved to be difficult to discuss routine monitoring, due to a strong fixation by participants on infrastructure development activities. Participants did not show a strong affinity for monitoring and data collection during routine activities.

Strengths	Weaknesses
<ul style="list-style-type: none"> <li>- The Civil Service Bureau at regional level makes an assessment of the staffing requirements of woreda and zonal offices every two years and adjusts the standard structure accordingly.</li> </ul>	<ul style="list-style-type: none"> <li>- Turnover of M&amp;E staff is generally high.</li> <li>- There is no systemic documentation of skills and competencies across institutions.</li> <li>- Poor affinity with M&amp;E overall.</li> </ul>

### Recommendations

From workshop participants:

1. The Arsi Negele Water Office participants propose to build capacity through government (higher level) and NGO supported training programs. This will require a needs assessment of the required skills and a funded capacity building training program.
2. The Shashemene Water Office participants recommend to build capacity at WASHCO level.

For WASH SDG programming:

- a. Document M&E staff competencies and develop a training plan based on a needs assessment.
- b. Provide training (short-term and long-term) to water M&E focal persons on basic data collection, management, and tools.

### Component 3: Coordination of the national water M&E system

Performance Goal: Establish and maintain partnerships among in-country and international stakeholders who are involved in planning and managing national water M&E system(s).

#### National and sub-national coordination

The National Coordination Office for WASH M&E was launched in 2015 and provides strategic support to the National WASH Technical Team and coordinates planning, monitoring and reporting for the rural water program at national level.

The Consolidated WASH Account (CWA) is a multilateral project under the One WASH National Programme (OWNP). CWA serves as a financing mechanism to get different sectors (water, health, education, and finance) implemented through an integrated approach and comes with stronger monitoring and reporting mechanisms than the government-led structures. Both Shashemene and Arsi Negele are CWA selected woredas.

There is no formal overview of water sector stakeholders at woreda or zonal level. There is no coordinating meeting at zonal level. The zonal offices are not present in coordinating meetings at regional or woreda levels.

#### *Woreda*

The woredas convene in a Steering Committee and a WASH Technical Committee, like the regional level. The functioning of the WASH Technical Committee in both woredas is limited, due to a high staff turnover. The woreda WASH coordination meetings, the Woreda Cabinet, attended by the office heads of the woreda water, health, and education offices, prepare an annual WASH plan that is shared with the OWNPN under the CWA. In reflection, the Shashemene and Arsi Negele Water Offices haven't seen significant changes originate in these meetings. Formally no other parties than woreda government entities are involved in coordination, but input by NGOs and others may be taken into account.

Strengths	Weaknesses
<ul style="list-style-type: none"> <li>- There are functional coordination committees at woreda level.</li> </ul>	<ul style="list-style-type: none"> <li>- Woreda level coordination is limited to government partners in the woredas studied.</li> <li>- There is no routine coordinating mechanism at zonal level.</li> <li>- Workshop participant struggle to see the fruits of woreda level coordination platforms.</li> </ul>

#### *Recommendations*

From workshop participants:

1. The Shashemene Water Office participants propose to use WASHCO training to improve community participation.

### **Component 4: National WASH M&E framework**

Performance Goal: Develop and regularly update national M&E framework including identified data needs, nationally standardised indicators, data collection procedures and tools, and roles and responsibilities for implementation of a functional national WASH M&E system. Separate frameworks for different sub-sectors may be appropriate but they should be cross-referenced in order to prevent duplication in data collection and other activities.

National M&E practices in the rural water sector may be better understood by national rural water targets and the subsequent reporting practices of woreda, zone and regional bureaus than from a reading of the technical national M&E framework documents that have been published. Practically, at national level, there are three ministries that monitor different water services: the Ministry of Water, Irrigation, and Energy (MoWIE), the Ministry of Health, and the Ministry of Education. In the case of health and education, there are separate and relatively well-established M&E systems: the Health MIS and the Education MIS respectively.

#### *Drafting a National WASH M&E Framework and WASH MIS*

Recent years have seen efforts to operationalize a national WASH M&E framework including rural water. A National WASH M&E Framework, including rural water, had been drafted by MoWIE in 2008 (MoWIE, 2008) but was never fully operationalized. With World Bank support, a related MIS system was rolled out but never

actively used. More recently, in 2015 an updated framework has been developed and activities to develop a new WASH MIS system are ongoing (Coffey and IRC, 2015). The organizations at zonal and woreda level do not have access to a hard copy of any of the documents related to any version of the National WASH M&E Framework and have little knowledge of the National WASH MIS that is under development. The two woredas and zone under this study have not been involved in the development of these framework documents or MIS tools.

On the other hand, there are routine reporting practices at each level as described in the following section on the GTP2. Additionally at national level, a broader set of indicators (which form the basis for NWI2 survey) exist and have been recently revised in 2018.

### *Growth and Transformation Plans*

National targets for water supply are described in the Growth and Transformation Plan II (GTP2). The GTP2 is a national cross-sectoral plan that is centred around the goal of becoming a middle-income country by 2025. The plan is built on the sectoral policies, strategies and programs, lessons drawn from the GTP1 and the Sustainable Development Goals (SDGs). The GTP2 is a 5-year plan for the period 2015/2016 to 2019/2020 and follows years after the initiation of the GTP1.

The major objectives for water and sanitation in the GTP2 are summarised as follows:

*"With regard to water and sanitation, according to the GTP I standard, it is planned to increase access to clean water from 84% in 2014/15 to 100% at national level during GTP II period. On the other hand, rural water supply coverage (GTP II standard of 25 l/c/d within 1km radius) will increase from 59% in 2014/15 to 85% by 2019/20. Similarly, urban water supply (based on the rankings of the demand: 100,80,60,50 and 40 litres/person /day from first to fifth level towns, respectively) access to clean water is planned to increase from 51% to 75%. (Based on the size of population the ranking of the towns are; Level-I, greater than 1,000,000; Level-II, 100,000-1,000,000; Level-III, 50,000-100,000; Level-IV, 20,000-50,000 and Level-V, less than 20,000 populations.) Accordingly, national water supply coverage is planned to increase from 58% to 83% in the same period. In addition, dis-functional rural water supply systems will be reduced from 11.2% to 7%" (National Planning Commission, p. 183).*

The targets of woreda water offices are aligned with the GTP2. The planning for the GTP2 targets information is gathered bottom up from the woreda 5-year plans. The targets are based on this round of data collection and targets are consequently communicated back to the woredas through the regional and zonal offices. The woredas have adjusted their 5-year plans according to the collated targets in the GTP2. The woredas water offices make an annual plan with activities that should contribute to the targets in the 5-year plan.

Strengths	Weaknesses
<ul style="list-style-type: none"> <li>- The Growth and Transformation Plan II is based on data from the woreda. The annual woreda plans are aligned with the GTP2.</li> <li>- The GTP2 is aligned with national and international goals such as the SDGs and the national plan to be a middle-income country by 2025.</li> </ul>	<ul style="list-style-type: none"> <li>- There is no knowledge or use of a formal National WASH M&amp;E Framework at woreda and zonal level, and it has not been fully completed or operationalised.</li> </ul>

This assessment has not collected copies of and compared the actual plans, targets and reporting formats. As



such, there still needs to be a follow-up evaluation of the woreda, zone and regional frameworks in place to assess their alignment with the national plan and identify specific strengths and weaknesses.

### *Recommendations*

From workshop participants:

1. Both the Arsi Negele and Shashemene water office participants would like all woreda staff to be made aware of the upcoming national framework and standards and ask for support in this process, such as guidelines, procedures and trainings.

For WASH SDG programming:

1. Conduct a follow up comparison of the actual plans, targets and reporting formats and their alignment with the national plans and routine data collection during routine Woreda activities. Support routine data collection and sharing with government according to standard and shared approaches.
2. To address the participants' recommendation, coordinate with the NWI2 activity to identify opportunities to raise awareness of the national water M&E framework and build capacity at regional, zonal and woreda level for routine monitoring after NWI2 tools are introduced

## **Component 5: Annual costed national WASH M&E work plan**

Performance Goal: Develop an annual costed WASH monitoring work plan, including the specific and costed (time and money) national WASH M&E activities of all relevant stakeholders and identified sources of funding. Use this plan for coordination and assessing progress of M&E implementation throughout the year.

The zone and woredas use standardized formats for annual water plans and budgets. However, the plans are not specific for M&E. Formats for the plans are constructed and updated at regional level. It is updated every two years according to new insights. For example, irrigation has been recently separated from the annual plan for water and energy. The work plans are aligned with GTP2 targets. Additionally, woredas, zone and regional level collect, report and use more detailed data and indicators in their annual performance evaluation and planning than those required at national level.

### *Annual workplan*

The Shashemene and Arsi Negele water offices prepare an annual plan. The plan is based on the performance evaluation of the previous annual plan. The annual plans are aligned with the 5-year plans as is described under Component 4. The plans include activities that are planned and have a responsible person or department attached.

There is no separate plan for M&E for both woreda water offices and the zone, however, there is a section in the annual plan for M&E. The section is not specific for water supply M&E activities but includes activities for the energy department.

### *Annual budget*

The woreda water offices prepare a yearly budget proposal based on the annual plan. The budget includes a proposal for capital budget, operational budget and budget for salaries. The budget is not activity based, as the chances for budget approval were perceived lower when specifying activities. Hence, there are no specific budget lines for M&E activities. The budget from the woreda water offices is sent to the woreda finance office for approval. Both woreda water offices report that it is common that only a part of the budget is approved.

The budget for the woreda water offices is managed by the woreda finance office. The annual budgets have three sources of finance:

1. National budget: the budget for each woreda and zone is determined through a formula from the Regional Bureau. Population size is one of the main determinants of the formula. Loans are included in the national budget.
2. Multi-lateral and bilateral funding.
3. Community contributions for infrastructure development. This mainly occurs at the WASHCo level, where community funding pays for minor maintenance of individual (or multiple) water points.

Strengths	Weaknesses
<ul style="list-style-type: none"> <li>- Activities in the annual plan have been assigned a timeframe and lead implementer</li> <li>- The standardised formats are updated every two years at regional level</li> </ul>	<ul style="list-style-type: none"> <li>- Annual budget requests are not activity based, hence there are no specific budget lines for water M&amp;E activities</li> <li>- The annual budgets are often partly approved</li> <li>- There are no water M&amp;E activities specified in annual woreda plans.</li> </ul>

### Recommendations

From workshop participants:

1. The woreda and zonal participants proposed to explore a different method for budget allocation to meet their needs.

For WASH SDG programming:

- a. Gather examples of annual plans and budgets from woreda, zonal and regional offices.
- b. Advocate and support the incorporation of specific M&E activities in annual plan and budget formats developed by the Regional Bureau.
- c. Advocate and support the incorporation of training activities in annual plans and budget formats developed by the Regional Bureau.

## Component 6: Communication, advocacy and culture for water M&E

Performance Goal: Ensure knowledge of and commitment to national water monitoring and the national water monitoring system among policymakers, decision makers, national and sub-national water practitioners, service providers, data collectors and other stakeholders.

### *Culture*

PME staff in the woreda and zone reported little vertical and lateral career moves within the entity. The rare possibility of an opening at zonal level, for example, will be paired with many applicants competing for the same position. The M&E staff reported feeling less valued than staff in other positions within the water office, such as the engineers.

The results of the team, however, are valued by managers and there is a positive attitude towards the PME division at the finance office. In the water office, the focal M&E person is part of the management team. The management communicates about the limited capacity for M&E to higher institutional levels when provided the opportunity. There is no M&E representative in the Woreda Cabinet as only the office heads are included.

### *Communication*

There is little communication of results and findings back to the zone and woreda's from higher levels. There is ad-hoc communication to the woreda's and the zone from regional level based on the reporting lines, but there is no routine communication about water monitoring results gathered at the regional level. The regional bureau shares summaries of their reports on their website to brief other sectors. These are also shared with the media. There is very little knowledge or use of national water or WASH information products or research.

Strengths	Weaknesses
<ul style="list-style-type: none"> <li>- The M&amp;E focal person in the woreda water office is part of the management team</li> <li>- Management is reported to advocate for M&amp;E at every opportunity</li> </ul>	<ul style="list-style-type: none"> <li>- M&amp;E is structurally undervalued by government in terms of both the hiring practices and employment conditions</li> <li>- There are little vertical and lateral career moves within the water offices</li> </ul>

### Recommendations

From workshop participants:

1. The Shashemene water office participants recommend training woreda staff to establish strong advocacy for M&E within woreda level administration and awareness creation for civil society and communities about their role and participation in M&E. At community level, they recommend creating awareness through religious organisations and local elders.
2. The Shashemene water office participants recommend improving the assignment of staff members to M&E positions to ensure personnel trained and skilled for M&E are placed in these roles.

For WASH SDG programming:

- a. Focus support on strengthening the culture of M&E in the Woreda administration by supporting data dissemination and analysis and knowledge management. Support M&E staff to share findings with decision makers.
- b. Advocate for routine dissemination of water information products to all levels of government, including the woreda level.

## Component 7: Routine monitoring

Performance Goal: to produce timely and high-quality routine administrative water monitoring data. To guide decision-making at all levels, the data needs of different stakeholders should be determined, and routine data made available in a timely fashion. Standardised data include inputs (resources, such as staff, funds, materials, water facilities, supplies), activities (implementation of interventions and services, such as hygiene promotion, drilling, training, etc.) and outputs (facilities installed/rehabilitated, pits emptied, waste treated etc.). Standardised data from all providers, including private and community-based service providers, should be collected on a routine basis.

Routine monitoring is about implementing monitoring into everyday activities. Routine monitoring ensures organized gathering, storing and use of information that is required during routine activities to meet existing roles and responsibilities.

### Monitoring and reporting

Data collected by the woreda water office is focused on monitoring new water infrastructure. The water office is responsible for data collection and for reporting to the woreda finance office and to the zone water office. The data reporting format includes the following sections: introduction, goal and vision, major activities, activities and performance on indicators. The water indicator groups include:

- Finance
- Water quality
- Functionality
- Coverage

The workshop participants could not provide an example reporting format.

The zonal level is responsible for reporting to the Regional Bureau who in turn report key indicators to the national level. Guidelines, checklists and formats are constructed at higher governance level. The data collection is performed in reports and sometimes in a spreadsheet, but official reporting is through an officiated hard copy report. The data formats are typically shared for convenience. The spreadsheet is used to collate data from different woredas before it is shared with the Regional Bureau.

At woreda level there is a shortage of equipment and supplies to act on all responsibilities. Quality and regularity of data collection and reporting suffer. In practice, the woreda water office staff visits monitoring sites by foot or pay for the fuel expenses themselves. In some cases the WASHCo's report failure of water infrastructure to the woreda water offices, for instance by phone, but there is no routine process designed. Staff often shares incomplete reports accompanied by a reason for missing data. There can be ad-hoc requests for monitoring, but the woredas find themselves unable to act on those.

At zonal level the reports from the woreda offices are collated and shared with the regional level. The zones provide technical support to the woreda's, e.g. by developing tools, checklists for data collection, and providing trainings. All monitoring activities at zonal level can be seen as a form of supportive supervision to the woreda level. The zonal level receives monthly reports from the woreda and perform some basic data quality control exercises, such as verifying whether GIS data is within the woreda boundaries. When insufficient data is reported the zonal level has capacity to perform field visits.

Strengths	Weaknesses
<ul style="list-style-type: none"> <li>- The national guidelines require monthly and quarterly reporting at all governance levels</li> <li>- There are standard reporting formats</li> <li>- There are regular monitoring activities</li> </ul>	<ul style="list-style-type: none"> <li>- There is no practice of incorporating information from daily activities into standardised formats</li> <li>- There are insufficient equipment and supplies for routine monitoring</li> <li>- The operational budget is generally too low for gathering high quality routine data</li> <li>- There are no data guidelines for data quality control</li> </ul>

### Recommendations

From workshop participants:

1. The woreda water office participants and the West Arsi zonal participants recommended planning and addition of logistic resources and equipment such as motor bikes, fuel, laptops, GPS tool kits, and testing equipment to perform routine M&E activities.

For WASH SDG programming:

- a. Support target woredas and zone to better analyse and make use of the NWI2 data for monitoring and also document lessons that they learn from the process. Provide support to develop and use standardised formats for routine monitoring that are signed off by local government.

- b. Provide support for building the capacity of Woreda staff to collect data during routine activities and advocate for this with decision makers.
- c. Collect examples of reporting formats and spreadsheets used at woreda, zonal and regional level and advocate for and use these to develop standardized spreadsheet models for routine data collection.
- d. Ask the Civil Service Bureau to assess the related M&E administrative cost, e.g. internet access, to support routine monitoring.
- e. Research and advocate for a realistic plan and guidelines for routine monitoring.
- f. Develop and train the woreda water office teams on monitoring formats and guidelines

## Component 8: Surveys

Performance Goal: Produce timely and high quality data from surveys. The need for surveys, as well as, the specific focus and content of each survey should be considered within the context of each country. Protocols and data collection tools should be based on international standards for survey and standard tools, such as the Demographic and Health Survey, and the Multiple Cluster Indicator Survey. Adherence to standards is important to obtain high-quality data and to ensure that results from repeated surveys can be compared over time within a given country, as well as across countries. Where appropriate, survey protocols should include data collection to support the construction of the standardised national indicators defined in the national WASH M&E framework. This can help prevent the need for additional data collection efforts and additional costs.

The woreda water offices have both been involved in one local survey in the past few years. Arsi Negele performed a water quality survey including schemes, sources and households in 5 out of 36 Kebeles. The management team planned to use the data for prioritization of scheme development, however, there was little confidence in the quality of the data. This survey came from the government budget of the woreda office. Shashemene Water Office performed a functionality survey in a few of their Kebeles with WASH office professionals. The survey was as part of the baseline survey that included water quality testing for this programme and led by WAI/Amref.

The National WASH Inventory 2 (NWI2) is scheduled to be in early 2019 and will provide a regular inventory of WASH infrastructure assets and will capture data on functionality and coverage. The NWI2 is part of the M&E system of the OWNP and led by MoWIE. The inventory follows the NWI1 conducted in 2011 (with exception of the Somali region where the inventory was conducted in 2014). Until now, these woredas and zone have not been involved in any national surveys since 2011.

Strengths	Weaknesses
<ul style="list-style-type: none"> <li>- There have been surveys at woreda level in the past few years.</li> <li>- There is an opportunity to use momentum from the NWI2 for structural routine monitoring improvements and trainings.</li> </ul>	<ul style="list-style-type: none"> <li>- Outcomes of the surveys are not trusted or used.</li> <li>- Surveys typically cover a small part of the Kebeles.</li> <li>- Project-based surveys are not integrated into structural monitoring reports.</li> </ul>

### Recommendations

From workshop participants:

1. The Shashemene Water Office recommend acquiring surveying equipment including bacteriological water quality testing tools and ask for support to acquire these supplies.

2. The Shashemene Water Office and the West Arsi zonal office recommend support to empower woreda and zonal level to survey and produce timely data with skilled personnel, training materials and appropriate tools.

For WASH SDG programming:

- a. Ensure that all M&E and data can be shared in a minimal format with the government ideally aligned with a local data storage format, e.g. Excel.
- b. Share water point inventories using the WPDx standard to ensure access and compatibility across partners.
- c. Support the development of standard and appropriate approach to storing M&E data in the Woreda offices, most likely in Excel and Word.

### Component 9: National and sub-national water databases

Performance Goal: Develop and maintain national and sub-national water databases that enable stakeholders to access relevant data for policy formulation and programme management and improvement.

As reported under component 4, There is currently no operational water MIS system in the country. A new system is under development and is expected to be launched in 2019. On the other hand, there are MIS system in the health and education sectors, the HMIS and EMIS respectively, where water data from health care facilities and schools is stored.

#### *Database management*

There is little capacity for database management in the woreda water offices. There is ample opportunity for data management to be improved without an MIS system, for example by the way in which the current reporting formats are gathered and stored. According to the workshop participants, in practice, there are no guidelines for data management or data security and there are no naming conventions or data standards and codes in use.

At all levels, however, there are routine practices of storing data specific to each woreda. These are not written down in official documents or guidelines. M&E staff generally know how to find officiated data and reporting. Naming conventions are not centrally organised but depend on local M&E staff and data accessibility to the monthly reports is differently organised per woreda and often limited to the M&E staff.

At the woreda and zonal offices the monthly and quarterly reports are stored softcopy in a folder structure on either a computer or a laptop. Access to the data is limited to the M&E staff. There are not naming conventions or standards for this process. The “database” essentially consist of a series of monthly reports that have been sent to either the woreda finance office, the zone office or the regional office. As these are currently separate files there are no opportunities to construct time series of data points.

There has been no opportunity to assess data management practices at regional level. However, in an assessment in July 2018 in Amhara region the following was found:

*“Data at regional level 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. The bureau has limited access to them. There is a server containing the National WASH Inventory (NWI) data from 2010/2011 available at the Water Bureau. There is a claim the NWI is being update with data that is reported from zonal level, however, there is no proof of these updates” (MWA and IRC, 2018, p. 29).*

### Data quality control and security

Prior to reporting data quality is always verified by the responsible M&E person. There are no guidelines or formal procedures for data quality control.

A back-up of the data at the Shashemene finance office is performed weekly on a cd drive. It is unclear whether there is a similar procedure in both woreda water offices. The zone has similar access to back-ups. When a report cannot be retrieved, and it is needed, they claim they will redo the report.

There are no guidelines or standard procedures for data sharing and data security. In practice some routines have developed though. A legitimate request for data is needed in order to retrieve access. Furthermore, responsibilities for data security are captured in the Terms of References of certain staff positions.

### Water Sector databases

There is no water or WASH sector wide database where relevant data sources are updated and combined. Examples for such a database system can be found in the Education and Health sector amongst others. For example, the sector wide database in the health sector: there is a functional central health management information system unit in the Ministry of Health and regional health bureaus that plays an important role in coordinating, strengthening and maintaining the national health information in collaboration with Central Statistics Agency and Ethiopian Health and Nutrition Research Institute.

The woreda and zonal water offices have no access to the Health and Education MIS systems and have never used them directly. A WASH MIS system, which provides national monitoring of water related indicators and inclusion of data drawn from the HMIS and EMIS is currently under procurement. It is unclear if it will influence practice at woreda level.

Strengths	Weaknesses
<ul style="list-style-type: none"><li>- Standard data collection and reporting formats for woreda and zonal level.</li><li>- Data / reports are regularly stored and backed-up.</li></ul>	<ul style="list-style-type: none"><li>- Lack of national guidelines for database management.</li><li>- Insufficient personnel skills and capacity for database management across levels.</li><li>- Absence of accessible national water sector wide database.</li><li>- No strong routine data quality control practice.</li><li>- No clear practices on data security and management.</li><li>- There is a lack of equipment for adequate database management.</li></ul>

### Recommendations

From workshop participants:

1. The Arsi Negele water office participants recommends support for when a water related MIS system is introduced. They ask for technical support, hardware, training on software and database management practices.
2. The Shashemene water office participants ask for support with reorganizing their current data management structures.
3. Create and implement standard guidelines and procedures to collect and manage data.

4. Create and implement a standard data management practices to improve quality of services.
5. Create sufficient HR capacity to have skilled personnel in each woreda and zone to manage data and databases.
6. Create routine training on standard database management system for specified M&E staff.
7. Construct and use coherent data management practices and tools from federal to woreda level including an integrated database.
8. Provide relevant stakeholders access to the national database.
9. Create an inventory of needs for database hardware and software at relevant levels to perform the mandated activities.

For WASH SDG programming:

- a. Focus on supporting the development and implementation of standard guidelines and practices for data management as the foundation of being able to work with data is to store and retrieve it easily.
- b. Focus on solutions that are locally applicable, e.g. Excel sheets in a structured and standard format, to ensure that they can be implemented immediately, relatively easily and are sustainable to local level. The national level MIS will not necessarily address the need for routine data management associated with routine activities at woreda level.

### **Component 10: Supportive supervision and data auditing**

Performance Goal: Monitor data quality periodically and address any obstacles to producing high-quality data (i.e., data that are valid, reliable, comprehensive, and timely). Identify at the same time any capacity gaps in the staff implementing the system at all levels, and provide immediate support as well as design simple remedial mechanisms as necessary.

Supportive supervision provides facilitation for necessary leadership and support for quality improvement processes. It includes regular targeted support for M&E tasks and analysis. It focuses on participatory problem solving by emphasizing mentorship, joint problem-solving, and two-way communication (Marquez & Kean, 2002 from Marshal & Fehringer, 2014). Supportive supervision is not only quality control but also includes regular support and verification of the collation and use of data at local level.

#### *Supportive supervision*

The main form of technical support that is provided in the woredas is support to construct new schemes or repair broken schemes. In this process valuable information is gathered, but these data are not systematically stored in a water database.

In practice, the woredas often receive support for large multi-village schemes. Currently in Arsi Negele, there is one deep well that falls under the responsibility of the region and one spring that is managed by the zonal water office. Both schemes supply multiple villages and supersede the woredas responsibilities.

Technical support is provided by the regional bureau to the zonal office and the woreda water offices and by the zonal office to both the woreda water offices. Responsibilities for construction, operation and maintenance for the woreda, zone and region are based on the technology type of the scheme and the severity of the problem. The scheme types and thresholds are captured in the mandates of the institutions. Based on the boundaries zone and region provide support to schemes in the woreda. The zonal office verifies the reported information from the woreda water offices every three months. In this round, the three-monthly reports are verified by follow-up visits where possible. The supervision is performed in preparation of the quarterly report.

The woreda water offices have a mixed attitude towards the supportive supervision. The woredas feel supported when the zone is aware of problems and helps to address challenges. However, the support can



often feel more like an inspection. This is also applicable to horizontal supervision processes. The woreda finance office and woreda civil service office review the performance of the woreda water offices and provide feedback before the quarterly zonal feedback is received.

### *Data auditing*

There is no formal routine of data auditing. In practice, closest to data audits are the routine data validity checks that are performed by the zonal office. The three-monthly reports received by the zone from the woreda water office are validated in the field to prepare feedback on the quarterly report. The water office also receives validity checks from the woreda finance office on the reports they provide.

The Regional bureau visits the woreda finance office twice a year, however, it is unclear whether these involve formal data audits.

<b>Strengths</b>	<b>Weaknesses</b>
<ul style="list-style-type: none"> <li>- Established structure for providing supportive supervision to lower governance levels.</li> </ul>	<ul style="list-style-type: none"> <li>- There are no national or sub-national guidelines for routine supportive supervision.</li> <li>- There is no earmarked budget for routine supportive supervision at regional and zonal level.</li> <li>- There are no national or sub-national guidelines or practice for data audits.</li> </ul>

### *Recommendations*

From workshop participants:

1. Evaluate and ensure there are enough personnel per the structure
2. Establish guidelines and procedures on data auditing for Zones and Regional Bureaus
3. Collect data and audit every quarter
4. The region and the zone should provide continuous support and monitoring to zones and woredas respectively.
5. Train staff to conduct data auditing on the basis of prepared data auditing guidelines.
6. Evaluate the need for a potential joint supportive supervision activity from zone and region to the woredas.

For WASH SDG programming:

- a. Strengthen communication between levels (including WASHCOs) and supportive supervision for a culture of joint problem solving.

## **Component 11: Evaluation and research**

Performance Goal: Identify and prioritise key evaluation and research questions, coordinate evidence generation to meet the identified needs, and enhance the quality and use of evaluation and research findings and recommendations.

### *Evaluation and research*

The workshop participants are not involved in any water related research. The woreda water offices are sometimes involved in the design phase of a project or research into the conditions of the area when planning for infrastructure development. The offices have not made and do not know of a possibility to request for

specific research. Generally, the participants feel they lack research skills and do not have the capacity engaging in defining research directions.

### Joint Sector Review

At national level there is a Joint Technical Review (JTR). This feeds into an (approximately annual) WASH meeting (Multi-Stakeholder Forum) with other sectors (health and education amongst others).

Strengths	Weaknesses
<ul style="list-style-type: none"> <li>- There is a national Joint Technical Review according to the national guidelines.</li> </ul>	<ul style="list-style-type: none"> <li>- Absence of a WASH or Water research agenda.</li> <li>- No priority for Water research and evaluation in annual work plan.</li> <li>- Staff feel they do not have the capacity to engage with research.</li> </ul>

### Recommendations

From workshop participants:

1. Build knowledge and skills within the woreda and zonal offices to conduct research, learn from research and define research questions.

For WASH SDG programming:

- a. Incorporate Woreda staff and decision makers (e.g. Woreda Cabinet) with the definition of key questions and study goals of partners to create opportunities for joint research between government, implementers and experts.
- b. Reinforce knowledge management and the sharing of research findings locally and share with the JTR.

## Component 12: Access and use of data

Performance Goal: Disseminate and use data from the water M&E system to stakeholders for sector learning and to track progress against national and sub-national targets, to support policy formulation, and to guide annual planning, improvement of water services, and corrective actions at all levels.

The most important reason for conducting M&E is to provide the data needed for guiding policy formulation and programme operations to improve water services. A detailed data use plan should be included in the national WASH monitoring framework; this plan should link data needs and data collection efforts with specific information products for different audiences, as well as a timetable for dissemination. It should also include activities to encourage data use, such as workshops to discuss the implications of M&E data for decision-making for sustaining and extending services. A functional M&E system collates and presents the data in a way that facilitates data use at all levels, including the citizens and beneficiaries of services. Evidence of data use includes:

- The National Strategic Plan explicitly references the most up-to-date service levels for WASH;
- WASH reports include accurate references to available national M&E data; and,
- Implementers refer to national M&E data in their WASH interventions.

There are a range of strategies to promote data dissemination and use, including: ensuring ownership of data; ensuring dissemination of good quality data in a timely manner; determining appropriate information

products for different users; allocating sufficient resources for data dissemination; and, providing assistance for data use.

### *Guidelines*

There are no formal guidelines developed at national or sub-national level for the use of data in decision-making processes in the different water offices. The sub-national offices are not following a formal structure for the use of data, but in practice informal routines have developed in Arsi Negele, Shashemene and West Arsi.

### *Decision-making in practice*

In general, there is too little budget to follow-up on all infrastructure reports and maintenance or repair requests, the Shashemene Water Office could for instance follow up on 5 out of 20 requests the past year. Decisions are in the first place made based on the type of scheme and the size of the repair. Responsibilities for repair are described in the mandate and are at woreda, zonal or regional level. Further decision-making is based on an assessment from the management team about the severity of a situation, e.g. a breakdown of a water point in an area suffering an unusual drought will get priority over routine maintenance or other repair request. The management teams base this decision on their knowledge of the area and their own recollection of requests and situation. No standard data products are used in this process, though it is unclear whether the management team use the monthly reports in this process.

### *Data accessibility and information products*

The woreda and zonal offices have access to their own monthly reports. Access to these data are usually a hardcopy in the office or a softcopy on the laptop/computer of the person responsible for M&E in the woreda water offices or the PME team in the woreda finance offices and the zonal office. There is no national water database where data and time-series are available and can be used in decision-making processes. As is described in Component 2, local capacity in Shashemene, Arsi Negele and West Arsi for data management and data use is limited, meaning that implementation of a water MIS system would have to come with sufficient capacity building.

The woreda water offices receive a quarterly feedback report from the zone about their performance. This report is focused on the performance on indicators such as coverage and the relative performance of the woredas that are part of the zone. Furthermore, targets and indicators are received from the national level.

<b>Strengths</b>	<b>Weaknesses</b>
<ul style="list-style-type: none"><li>- Decision-making is based on contextual factors and some evidence from staff knowledge of the state of the infrastructure.</li><li>- There are performance reviews albeit on the basis of incomplete data.</li></ul>	<ul style="list-style-type: none"><li>- There are no formal national or sub-national guidelines for the use of data.</li><li>- There is no accessible national or sub-national database with WASH data.</li><li>- At woreda level there is little capacity and skill to act on the collected data.</li><li>- The data shared with woredas is ad-hoc in nature.</li></ul>

### *Recommendations*

From Workshop participants:

1. Improve access to national data sources (including surveys and research) at local levels and build capacity to use data
2. Develop a competent data management system including the required equipment and human capacity to ensure an efficient data flow and use
3. Develop a training on how to use existing (historical) data in planning and reporting for decision-making
4. Ensure there is a well-structured inventory

For WASH SDG programming:

- a. Advocate for the development of formal national and sub-national guidelines for the use of data in decision-making processes.
- b. Ensure water data and information flows down to lower institutional levels on routine basis.
- c. To effectively utilise the collected data, build local capacity and skills to manage and analyse data.
- d. Eventually, consider supporting use of tools for data entry and report generation if available, similar to the Health Management Information System, after basic procedures are in place and there is a demonstrated use of data.

### 3.4 Conclusions

The 12 components of a functional government-led monitoring system for water were assessed in Shashemene and Negele Woredas in Oromia providing a snapshot of the entire M&E system. The findings are summarized in the three parts:

- Facilitating M&E: People, partnerships and planning (components 1 – 6)
- Doing M&E: Collecting, verifying, and analysing data (7 – 11)
- Using M&E results: Using data for decision-making (12)

#### Facilitating M&E: People, partnerships and planning (components 1 – 6)

At the core of people, partnerships and planning and facilitating M&E is the national M&E framework based on existing roles and responsibilities. There should be a network of organizations with shared responsibilities for water M&E at the national, sub-national, and service-delivery levels, with an overall harmonization, consolidation and leadership role for the (national) government. In Ethiopia, central and regional government provide the strongest leadership roles. While there is no formally operationalized M&E framework, reporting and monitoring practices align well with the Growth and Transformation Plan II targets and indicators and there are well defined NWI(2) indicators.

Although reporting is regular, M&E practices, including data management, are not formally included in woreda and zonal plans. Annual costed rural water M&E plans, including the specific and costed activities of all relevant stakeholders and identified sources of funding, help to ensure that the collection and use of evidence becomes a core practice. Defining M&E activities and targets can support coordination and assessing progress of M&E implementation throughout the year. Similarly, once these are defined, it is important to ensure adequately skilled human resources at all levels of the M&E system are available to complete all monitoring tasks. There is not (yet) strong culture of valuing the use of evidence in decision-making and as a result, M&E positions are not valued.

The woreda cannot do everything alone and must establish and maintain partnerships among in-country and international stakeholders who are involved in planning and managing rural water activities, including the monitoring and evaluation of activities and outcomes. Currently, at woreda level coordination appears to be focused on government and there may be opportunities to improve local level participation with WASHCos and coordination with partners.

A regularly updated national M&E framework should be based on identified data needs, nationally standardised indicators, data collection procedures and tools, and roles and responsibilities for

implementation of a functional national Water M&E system. Separate frameworks for different sub-sectors (health and education) may be appropriate but they should be cross-referenced in order to prevent duplication in data collection and other activities. While the national system and MIS remains to be implemented and rolled out, there is an opportunity to better define data needs and use results at woreda, zonal and regional level.

Finally, there is an opportunity to better communicate findings and ensure knowledge of and commitment to national water monitoring and the national water monitoring system among policymakers, decision makers, national and sub-national water practitioners, service providers, data collectors and other stakeholders. Raising management and administrative level commitment to M&E is crucial for all other components.

### Strengths

- There are clear government roles and responsibilities for reporting and M&E.
- Regular reporting practices are in line with national plans
  - o The national GTP2 5-year plan is based on reports from the woreda and subsequent annual woreda plans are aligned with the GTP2.
  - o The GTP2 is aligned with national and international goals such as the SDGs and the national plan to become a middle-income country by 2025.
- The standardised planning formats are updated every two years at regional level and activity definitions include timeframes and lead implementers
- Planning, Monitoring and Evaluation teams and positions have been defined at regional, zonal and woreda level.
- The Civil Service Bureau at regional level assesses staffing requirements at lower levels on a regular basis (every two years) and adjusts the standard structure accordingly.
- There are functional government coordination committees at woreda level.
- The M&E focal person in the woreda water office is part of the water office management team

### Challenges

- Finance and capacity to meet existing roles and responsibilities is limited.
  - o Woreda water office budgets do not include sufficient funds for salaries to align with and fill the standard M&E positions as defined in the nationally- and regionally- defined hierarchical structure.
  - o There is limited capacity and competencies for information technology and data management at all levels.
  - o The annual budgets are often partly approved
- Human resources are undervalued
  - o M&E is structurally undervalued by government in terms of both the hiring practices and employment conditions
  - o There are little vertical and lateral career moves within the water offices
  - o Turnover in M&E positions or roles is generally high.
  - o There is no systemic documentation of skills and competencies across institutions.
- Annual planning and budgeting largely ignores M&E activities and human resource needs
  - o There are no water M&E activities specified in woreda plans.
  - o As annual budget requests are not activity based, there is currently no possibility to ensure budget lines for water M&E activities
- There is no knowledge of the development or use of a formal National WASH M&E Framework at woreda and zonal level: current practices are not formally documented in practical guidelines.

- Woreda level coordination committees are limited to government partners in the woredas studied and there is no regular coordination mechanism at zonal level. Workshop participants struggled to see the fruits of woreda level coordination platforms.
- While reporting is valued by management, monitoring data does not appear to substantially support decision-making.

### Doing M&E: Collecting, verifying, and analysing data (7 – 11)

A functional water M&E systems produces timely and high quality routine administrative water monitoring data. To guide decision-making at all levels, the data needs of different stakeholders should be determined and routine data made available in a timely fashion. In the woredas and zone in this assessment, water offices report monthly and quarterly to higher level institutions following standardized reporting formats but with data, which is almost always incomplete and of variable quality. Furthermore, there are no national guidelines for how to capture and store information from everyday activities.

Administrative and infrastructural water data should be systematically captured and stored at national and sub-national levels. This may be simple hard and soft copy file systems or databases that are being maintained and enable stakeholders to access relevant data for policy formulation and programme management and improvement. At the moment, there are no clear guidelines for data management, data quality control and data security at woreda and zonal level. Data storage practices in the woreda and zonal offices are currently dependent on the specific people responsible for routine reporting. Resources, logistics, equipment and human capacity for effective data management are insufficient at woreda and zonal level. A water MIS is expected in early 2019, but it is unclear if and how this will impact routine monitoring activities at woreda level.

Timely and high quality data from surveys should also be accessible at the different water offices. Surveys performed by government institutions and project-based surveys are not integrated into structural monitoring reports disseminated to woredas. The woreda and zonal offices report to have insufficient knowledge and equipment for high quality surveys and the outcomes of surveys that are performed are generally not trusted by the woreda and zonal staff. Additionally, it is important to be able to identify and prioritise key evaluation and research questions, coordinate evidence generation to meet the identified needs, and enhance the quality and use of evaluation and research findings and recommendations. This speaks to establishing a woreda level research agenda and improving knowledge management at all levels.

Supportive supervision provides facilitation for necessary leadership and support for quality improvement processes. It includes regular targeted support for M&E tasks and analysis. There are no guidelines available for supportive supervision for water M&E in Ethiopia and there is no earmarked budget for supervision activities at all levels. Data quality should be monitored periodically and any obstacles to producing high-quality data (i.e., data that are valid, reliable, comprehensive, and timely) should be addressed. At the moment, there are no clear data quality guidelines and even the lack of a consistent definition of functionality counts in tables and other key concepts and parameters are limiting the possibility to quality control and improve M&E performance. Addressing data quality should support building trust from decision makers in M&E results.

#### Strengths

- Monthly and quarterly routine reporting take place at all governance levels using standard formats.
- Collected data and filled-in reports are stored on a regular basis and are backed-up, albeit using varying methods, formats and conventions per office and woreda.
- The NWI2 will depend on woredas for data collection and a national MIS is planned for 2019.
- National guidelines prescribe a National Joint Technical Review.

#### Challenges

- There is no routine practice of incorporating information from daily activities into standardised routine monitoring formats.
  - o Operational budgets, equipment and supplies are limited and limit the opportunities for gathering high quality routine data separately from other existing activities, even when there is demand for information.
  - o There is a lack of national or subnational guidelines for data management, data quality control and data security. Additionally, there are no clear established/shared practices for data quality control, data management and data security.
- There is insufficient personnel, skills and capacity for data(base) management across levels and no accessible national MIS.
- Routine supervision and data auditing is not regular
  - o There are no national or sub-national guidelines for routine supportive supervision.
  - o There is no earmarked budget for routine supportive supervision at regional and zonal level.
  - o There are no national or sub-national guidelines or practice for data audits.
- Research and surveys are underutilised
  - o Outcomes of the existing surveys are not trusted or used and typically only cover a small part of the Kebeles.
  - o Project-based surveys do not contribute to the preparation of the regular woreda reports.
  - o There is no national or subnational WASH or Water research agenda.
  - o Woreda and zonal offices do not include water research and evaluation in annual work plans.
  - o Staff feel they do not have the capacity to engage with research.

### Using M&E results: Using data for decision-making (12)

The goal of M&E is to provide the data needed for guiding policy formulation and program operations to improve rural water services. Now, M&E data is not significantly used outside of the national GTP2 programme and does not support daily practice at woreda level. It is important to disseminate and use data from the water M&E system to stakeholders for sector learning and to track progress against national and sub-national targets, to support policy formulation, and to guide annual planning, improvement of water services, and corrective actions at all levels. At each level of government, it will be important to demonstrate how high quality data can and should be used to improve decision-making, ideally with guidelines and templates to simplify the use of evidence.

#### Strengths

- There is a planning and reporting calendar which is adhered to.
- Decision-making is supported by some evidence but primarily based on staff knowledge of the state of the infrastructure, rather than formal reports.
- There are performance reviews between levels albeit on the basis of incomplete data.

#### Challenges

- There are no formal national or sub-national guidelines for the use of data.
- There is no accessible national or sub-national database or standard and accessible file storage with water data.
- At woreda level there is little capacity and skill to act on the collected data.
- The data and research shared in return with woredas is ad-hoc in nature.
- There are no data use guidelines nor specific templates aimed at support decision makers with evidence from monitoring and evaluation or which can be used for dissemination.

## 4.0 Synthesis and recommendations

Water finance in Arsi Negele and Shasheme is mainly from the regional and national level. The woreda contribution to combined water finance (including government and other contributions) is limited. Transfers dominate taxes and traiffs i.e. official development assistance from the CWA and WB (84% in Arsi Negele and 91% in Shashemene). This is mainly invested in new schemes (CapEx).

Water financing is also inadequate. To achieve SDG-level water services by 2030 water financing will have to increase several-fold in both woredas. The water sector receives 2.2% of total woreda budget in Arsi Negele and 1.4% in Shashemene. Combined annual water finance in 2011 EFY is 73 ETB (2.60 USD) per capita in Arsi Negele and 63 ETB (2.30 USD) per capita in Shashemene, far below the estimated 32 USD per capita per year needed for SDG-level WASH services (which would however also include sanitation). The increase will not come from the woreda-level so the region and federal level (together with donors) will have to find means of financing SDG-level water services elsewhere.

Water finance is unbalanced. Salaries absorb between 90-95% of overall woreda budget. This leaves little room for effective investment in water and thus directly impacts water service levels. Most of the combined water finance goes to CapEx, and very little goes to maintenance (OpEx and CapManEx). As CapEx goes up, the gap in unfunded maintenance requirements increases. Already, the estimated capital investment going to waste due to non-functionality in Arsi Negele is 19.625 million ETB (706,500 USD) and in Shashemene 6.720 million ETB (240,000 USD).

M&E processes and capabilities are limited. Financing and capacity to meet existing M&E responsibilities is limited, human resources for M&E appear to be undervalued, and M&E is not well reflected in annual plans and budgets. At the woreda level, coordination is mostly limited to other woreda government entities. There is also no mechanism for regular coordination at the zonal level. Monitoring data do not currently play any substantial role in decision-making.

The following sections make recommendations based on the assessments including potential activities that can be supported through WASH SDG programming (linked to the WASH SDG programme ToC).

### Recommendations for strengthening monitoring

To modify text below and include here....

### Recommendations for financing

To modify text below and include here...

### Facilitating M&E

According to their ToC the WASH SDG programme aims to assist the government in setting up an M&E system. It could consider the following recommendations.

1. Establish regular coordination meetings with the woreda water and finance offices or using the existing woreda WASH team to find solutions within existing constraints and developing a supportive relationship.
2. Conduct a needs assessment of required M&E skills and develop a capacity building training program with national and regional government and NGOs. It is also vital to integrate basic M&E skills in the curriculum of Technical and Vocational Education Programmes for sustainability.
  - a. Addressing woreda and zone capacity for routine data collection, surveys, database management
  - b. Address capacity at WASHCO level and using training to improve community participation in kebeles.



3. Improve the hiring and assignment of staff members to water M&E positions and roles to ensure personnel trained and skilled for M&E fill these.
4. Raise woreda staff awareness of the upcoming national framework and standards and request support from higher levels in the form of guidelines, procedures and trainings.
5. Advocate and create a culture and demand for water M&E
  - a. Establish strong advocacy within the woreda administration for water M&E.
  - b. Create awareness among civil society and communities about their roles in water M&E and requesting support.
  - c. Improve community participation in M&E activities, potentially through religious organisations and local elders.

### Doing M&E

1. Improve supportive logistics to perform M&E and resource and equipment such as motor bikes, fuel, laptops, GPS tool kits, and water quality testing equipment.
2. Assess and create an inventory of needs for database hardware and software at relevant levels to perform the mandated activities.
  - a. Ensure relevant stakeholders can access the MIS.
3. Build capacity at woreda level and access to technical support, hardware, training on software and data management practices.
4. Evaluate and ensure there are enough personnel per the structure
  - a. Create and implement standard guidelines and procedures to collect and manage data.
  - b. Create and implement a standard data management practices to improve quality of services.
  - c. Establish guidelines and procedures on data auditing for Zones and Regional Bureaus (audit quarterly)
  - d. Build woreda and zonal capacity to conduct surveys and to produce timely data from the survey. There may be an opportunity with the NWI2.
  - e. Create routine training on a standard data management system for staff in information management and monitoring roles, potentially with an integrated national database (e.g. MIS).
5. The region and the zone should provide continuous support and monitoring to zones and woredas respectively.
6. Evaluate the need for a potential joint supportive supervision activity from zone and region to the woredas.
7. Build knowledge and skills within the woreda and zonal offices to conduct research, learn from research and define research questions.

### Using M&E Results

1. Improve access to national data sources (including surveys and research) at local levels and build capacity to use data
2. Develop a competent data management system including the required equipment and human capacity to ensure an efficient data flow and use
3. Develop a training on how to use existing (historical) data in planning and reporting for decision making
4. Ensure there is a well-structured inventory

## Recommendations for WASH SDG programming

The findings below reflect the recommendations of government participants from woreda and zones and the findings of the consultants when reviewing findings against the performance objectives of each of the 12 components of a functional M&E system.

## Increasing water financing

1. Increasing water financing through advocacy.
  - a. Since water finance mainly comes through the regional and national level, and the main ultimate source is transfers from development partners (CWA-donors and the WB), that is where advocacy and efforts on financial leverage should focus. Nonetheless, some incremental improvement may come from local-level advocacy.
  - b. The WASH SDG programme aims to effect financial leverage. However, limited woreda budgets mean that only limited financial leverage can be expected from there. Even leverage from re-balancing in budget components to reflect all necessary cost components is unlikely. The WASH SDG programme could consider focusing its efforts at the regional and federal level e.g. in connection to CWA-funding, or at donors like the WB with its PSNP.
2. Convincing local government of the importance of financing WASH.
  - a. The zone WMED and woreda WMEO's requests to increase their budgets indicate that within water offices awareness is there. Advocacy should target the wider woreda council and WFB as it is unclear whether the same is true there.<sup>30</sup>

## Re-balancing water financing

1. Supporting local government in revising sector policy, strategy, and programmes.
  - a. To achieve sustainable water service delivery the providers of combined water financing (which will include the WASH SDG programme) should pay close attention to the balance between spending on new infrastructure (CapEx) and maintaining them (OpEx and CapManEx), looking both at their own financing and that of others. If recurrent expenditure is neglected service levels may drop even as new infrastructure spending increases.
2. Both Amref and WI intend to develop some rural water supply infrastructure (see Box 1). This presents several opportunities to put the recommendations of the assessment into practice:
  1. Both Amref and WI should consider more advocacy and support towards balanced combined water financing i.e. ensuring sufficient budgeting for recurrent expenditure (OpEx and CapManEx).
  2. The development of an M&E system should align with construction. M&E development should be included in the construction budget.

## Facilitating M&E

1. Strengthen the culture for WASH M&E.
  - a. Discuss the assessment findings with the woreda administration and discuss and validate the recommendations to strengthen government leadership.
  - b. Advocate for routine dissemination of water information products to all levels of government, including the woreda level.
  - c. Support M&E staff to share findings with decision makers.
  - d. Support knowledge management and sharing of research and M&E findings in the woreda, ideally through coordination platforms.
2. Advocate and support the incorporation of specific M&E activities in annual plan and budget formats developed by the Regional Bureau.
3. Strengthen human resources.
  - a. Support the documentation M&E staff competencies and develop a local government training plan based on a specific needs assessment addressing data management, analysis, supervision and monitoring and evaluation competencies.

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<sup>30</sup> Note that Arsi Negele's WFB did state that they think they already favoured the water sector in 2011 EFY by allotting it capital budget as only one of two sectors.

- b. Support woredas and zone in preparing training plan around WASH data collection, analysis and visualization including simple skills and tools to update the WASH asset infrastructure within their capacity.
  - c. As part of the two year reviews, discuss the revision of M&E posts/positions based on needs, e.g. for data management, and to be more attractive and increase the attention given by management to applicants/staff.
- 4. Advocate and support the incorporation of training activities in annual plans and budget formats developed by the Regional Bureau.
- 5. Conduct a closer comparison of the actual plans, targets and reporting formats and their alignment with the national plans and routine data collection during routine woreda activities.
- 6. Support routine data collection and sharing with government according to shared standard between government and partners.
- 7. Identify those participated on NWI2 activity as they have been trained on mobile based data collection and capitalize on that in improving the regional, zonal and woreda level monitoring processes and data management.

## Doing M&E

1. Support and build incrementally on current M&E and reporting practices
  - a. Collect examples of data collection forms, reporting formats and spreadsheets used at woreda, zonal and regional level and advocate for standardized tools for routine data collection.
  - b. Support the development of standard and appropriate approach to storing M&E data in the Woreda offices, most likely in Excel and Word.
  - c. Focus on solutions that are locally applicable, e.g. Excel sheets in a structured and standard format, to ensure that they can be implemented immediately, relatively easily and are sustainable to local level. The national level MIS will not necessarily address the need for routine data management associated with routine activities at woreda level.
2. Improve learning and impact at scale
  - a. Ensure standardised formats for routine monitoring are developed with approval and will be signed off by local government and aligned with national frameworks (GTP2/NWI2). These should be shared in learning platforms at higher levels.
  - b. Use the programme to encourage communication between levels (including WASHCOs) and supportive supervision for a culture of joint problem solving.
  - c. Assess and share findings on M&E-related expenditure required to support routine monitoring, fuel, per diems, tools, etc. to enable the inclusion of M&E activities into budget requests and plans
  - d. Use shared parameters and indicators for the SDG programme monitoring programme, e.g. WPDx, and ensure M&E and data can be shared in a minimal format with the government ideally aligned with a local data storage format, e.g. Excel. Use the WPDx standard for water point data to ensure access and compatibility across partners.
3. Support research and knowledge management
  - a. Research options for community (WASHCO) and kebele level monitoring following the example of the health and education MIS systems and aligned with the woreda recommendation to improve participation.
  - b. Incorporate Woreda staff and decision makers (e.g. Woreda Cabinet) with the definition of key questions and study goals of partners to create opportunities for joint research between government, implementers and experts.
  - c. Reinforce knowledge management and the sharing of research findings locally and share with the JTR.

## Using M&E Results

1. Advocate for the development of formal national and sub-national guidelines for the use of data in planning, budgeting and other decision-making processes.
2. Advocate to have water data and information flows down to lower institutional levels on a routine basis and improve the appreciation for the importance of high quality information (where there are discrepancies).
3. To effectively utilise the collected data, build local capacity and skills to manage and analyse data.
4. Eventually, consider supporting use of templates and tools for report generation at woreda level to support performance reviews and decision making. This should only take place after basic data management is in place and there is capacity to use these tools.

## Addressing systemic constraints

The government is facing significant constraints across all the components reflecting systemic barriers to the effective use of evidence within woreda water and finance offices to improve water supply services. This study reconfirms and details for Arsi Negele and Shashamene the findings of Adank et al. (2017) that the WASH M&E system, including water M&E, is one of the weakest elements of WASH service provision in Ethiopia. The assessment participants have formed recommendations to address some of these shortcomings. While higher total investment in the region is needed to better water service levels, this must be paired with an allocation strategy based on high quality evidence that is more efficient than ad hoc planning.

Explicit inclusion of M&E activities in the woreda plans and dissemination of M&E results could help to ensure routine monitoring takes place, even as a component of other water activities (infrastructure design and development, supervision and training of WASHCOs, etc.). Significant improvements could be made by building on the culture of planning and supervision by adding some guidelines and providing training to ensure data is collected during routine activities and that it is subsequently quality controlled and accessible in the woreda water office.

The staffing structures also warrant a look. To improve PME the WASH SDG programme is advised to discuss re-organisation of staff positions with the region to increase the number of qualified M&E staff at all levels, to make M&E positions more attractive and receive more attention by management. The budgetary pressure of salaries at the woreda-level should also be discussed. Although it is a structural matter that goes beyond the water sector, it does call for a solution is sustainable water services are to be achieved.

There is a good local understanding of many of these weaknesses but there is still a need to create a shared understanding of the solutions that are within reach of the woreda offices and the zonal and regional administrations. It would be worthwhile to present and discuss the findings of the assessment with local stakeholders again as a final validation of the conclusions and to stimulate discussions about solutions. Short term incremental improvements to clarify roles and responsibilities, develop guidelines and data management to store data in a compatible and structured format, such as an Excel sheet, are likely to lead to larger improvements in the short and long-term use of data. Even under the current constraints, it is possible by taking an incremental approach to addressing each component and improve government-led water M&E and ultimately creating a culture and environment for better quality data. This can subsequently improve trust from decision makers such as those in the Woreda Cabinet.

In 2019 the roll-out of a WASH MIS system is expected, together with a country-wide inventory of water supply infrastructure: the NWI2. Clear roles and responsibilities, accessible M&E guidelines and local capacity for data management will provide benefits in the short term – even prior to the launch of the NWI2 or the WASH MIS – and in the long term by strengthening a culture for M&E in the woredas.

Routine monitoring processes should be incorporated into everyday activities from infrastructure development to site visits, maintenance and capacity building. Just as a business uses operational data to follow activities and targets, routine monitoring is about the routine practice of reporting data related to the activities and targets of the water offices. As such, the daily routines of M&E staff will not change significantly immediately after the introduction of the national MIS. Incremental improvements now should make the transition to the national MIS and data collection tools easier to implement and ensure data availability.

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